

North American Association of Central
Cancer Registries, Inc.

Standards for Cancer Registries
Volume V

Pathology Laboratory Electronic Reporting

Version 2.2
(Effective January 1, 2008)

Edited by
Lori A. Havener

September 2007
Revised January 2008
Revised May 2008
Revised February 2009

SPONSORING ORGANIZATIONS

Canadian Association of Provincial Cancer Agencies
Centers for Disease Control and Prevention
College of American Pathologists
National Cancer Institute
National Cancer Registrars Association
Public Health Agency of Canada

SPONSORS WITH DISTINCTION

American Cancer Society
American College of Surgeons
American Joint Committee on Cancer

Edited by:

Lori A. Havener, CTR
Program Manager of Standards
NAACCR, Inc.

Comments and suggestions on this and other NAACCR standards documents are welcome and can be forwarded to the editor or to any member of the NAACCR Board of Directors.

The other volumes in the series, Standards for Cancer Registries, are:

- *Volume I: Data Exchange Standards and Record Description.* Intended for programmers, this provides the record layout and specifications for the standard for data exchange, including correction and analysis formats.
- *Volume II: Data Standards and Data Dictionary.* Intended for central registries, this provides detailed specifications and codes for each data item in the data exchange record layout.
- *Volume III: Standards for Completeness, Quality, Analysis, and Management of Data.* Intended for central registries, this provides detailed standards for many aspects of the operation of a population-based cancer registry.
- *Volume IV: Standard Data Edits.* This standard document currently is only made available electronically as program code and a database. It documents standard computerized edits for data corresponding to the data standards Volume II.

Copies of all standards documents can be viewed or downloaded from NAACCR's website at www.naacccr.org.

Suggested Citation:

Havener L (Ed). Standards for Cancer Registries Volume V: Pathology Laboratory Electronic Reporting, Version 2.1. Springfield (IL): North American Association of Central Cancer Registries, Inc., September 2007.

This project has been funded with Federal funds from the National Cancer Institute, National Institutes of Health, Department of Health and Human Services, under Contract No. HHSN261200444001C and ADB No. N02-PC-44401.

Table of Contents

NAACCR BOARD OF DIRECTORS 2007-2008.....	IV
INTEROPERABILITY AD HOC COMMITTEE 2007-2008.....	V
PATHOLOGY DATA WORK GROUP 2007-2008	VI
PREFACE.....	VII
1 CHAPTER 1: INTRODUCTION.....	1
1.1 PROBLEM STATEMENT, GOALS, AND SCOPE OF THIS DOCUMENT.....	1
1.2 STANDARDS AND GUIDELINES FOR ELECTRONIC TRANSMISSION OF REPORTS FROM PATHOLOGY LABORATORIES TO CENTRAL CANCER REGISTRIES	2
1.3 HIPAA.....	2
2 CHAPTER 2: IMPLEMENTATION GUIDE FOR TRANSMISSION OF LABORATORY-BASED REPORTS TO CANCER REGISTRIES USING VERSION 2.3.1 OF THE HL7 STANDARD PROTOCOL	4
2.1 INTRODUCTION	4
2.1.1 <i>Background</i>	4
2.1.2 <i>Scope</i>	4
2.1.3 <i>Works in Progress</i>	5
2.1.4 <i>Contacts</i>	6
2.2 HL7 CONCEPTS.....	6
2.2.1 <i>HL7 Definitions</i>	6
2.2.2 <i>Basic Message Construction Rules</i>	7
2.3 UNSOLICITED OBSERVATION MESSAGE (ORU)/EVENT R01	8
2.4 HL7 STANDARD SEGMENT USAGE	12
2.5 SEGMENT ATTRIBUTE TABLE ABBREVIATIONS	12
2.6 SEGMENT DEFINITIONS	13
2.6.1 <i>Message Control Segments</i>	13
2.6.2 <i>Patient Administration Message Segments</i>	19
2.6.3 <i>Segments Common to All Orders</i>	48
2.6.4 <i>Observation Reporting Segments</i>	68
2.7 HL7 BATCH PROTOCOL.....	79
2.7.1 <i>HL7 Batch File Structure</i>	79
2.7.2 <i>Acknowledging Batches</i>	80
2.7.3 <i>Batch Segments</i>	80
2.8 DATA TYPES USED IN THIS IMPLEMENTATION	86
2.9 HL7 EXAMPLE OF A PATHOLOGY REPORT HL7 MESSAGE TO A CANCER REGISTRY	93
2.10 CODE TABLES	93
2.11 SUMMARY TABLE.....	118
2.12 CAP CANCER CHECKLIST – IMPLEMENTATION GUIDE QUESTIONS AND ANSWERS.....	138
3 CHAPTER 3: PIPE-DELIMITED FORMAT.....	146
3.1 INTRODUCTION	146
3.2 DATA DICTIONARY	146
3.3 LABORATORY CODES VERSION CONTROL TABLE	193
3.4 PIPE-DELIMITED/HL7 COMPARISON TABLE	194
4 INDEX	200

NAACCR Board of Directors 2007-2008

President:

Susan T. Gershman, MS, MPH, PhD, CTR 2007-09
Massachusetts Cancer Registry
Dept of Public Health
Phone: (617) 624-5646
E-mail: susan.gershman@state.ma.us

Maureen MacIntyre, BSN, MHSA 2006-08
Cancer Care Nova Scotia
Surveillance and Epidemiology Unit
Phone: (902) 473-6084
E-mail: Maureen.macintyre@ccns.nshealth.ca

Past President:

Betsy A. Kohler, MPH, CTR 2007-08
New Jersey State Cancer Registry
Cancer Epidemiology Services
New Jersey Dept of Health & Senior Services
Phone: (609) 588-3500
E-mail: betsy.kohler@doh.state.nj.us

Howard J. Martin, PhD 2007-09
Virginia Cancer Registry
Virginia Department of Health
Phone: (804) 864-7865
E-mail: jim.martin@vdh.virginia.gov

Treasurer:

Maria J. Schymura, PhD
2007-09
New York State Cancer Registry
Phone: (518) 474-2255
E-mail: mjs08@health.state.ny.us

Lilia O'Connor, MBA, RHIT, CTR 2007-08
California Cancer Registry
Cancer Surveillance Section
California Dept of Health Services
Phone: (916) 779-0355
E-mail: lilia@ccr.ca.gov

Ex Officio, Executive Director:

Holly L. Howe, PhD
NAACCR, Inc.
Phone: (217) 698-0800
E-mail: hhowe@naaccr.org

Francis E. Ross, CTR 2005-2009
Kentucky Cancer Registry
Phone: (859) 219-0773
E-mail: fer@kcr.uky.edu

Sponsoring Member Organization

Representative:

Elizabeth Ward, PhD 2006-08
American Cancer Society
Phone: (404) 327-6552
E-mail: eward@cancer.org

Representatives-at-Large:

Susan Bolick-Aldrich, MSPH, CTR 2005-09
South Carolina Central Cancer Registry
Public Health Statistics & Information Services
South Carolina Dept of Health & Environmental
Control
Phone: (803) 898-3626
E-mail: bolicks@dhec.sc.gov

Mignon Dryden, CTR 2006-08
Cancer Registry of Northern California
California Health Collaborative
Phone: (530) 345-2483
E-mail: mdryden@healthcollaborative.org

Interoperability Ad Hoc Committee 2007-2008

Ken Gerlach, MPH, CTR (Chair)

CDC/NPCR

Phone: (770) 488-3008

E-mail: kbg4@cdc.gov

Betsy Kohler, MPH, CTR

New Jersey State Cancer Registry

Phone: (609) 588-3510

E-mail: betsy.kohler@doh.state.nj.us

Sally A. Bushhouse, DVM, PhD

Minnesota Cancer Surveillance System

Minnesota Department of Health

Phone: (612) 676-5216

E-mail: sally.bushhouse@health.state.mn.us

Gary Levin

Florida Cancer Data System

University of Miami

Phone: (305) 243-4073

E-mail: glevin@med.miami.edu

Eric B. Durbin, MS

Kentucky Cancer Registry

Phone: (859) 219-0773

E-mail: ericd@kcr.uky.edu

Maureen MacIntyre, MHSA

Cancer Care Nova Scotia

Phone: (902) 473-6084

E-mail: Maureen.macintyre@ccns.nshealth.ca

Donna Getreuer, RN, MSN, CTR

IMPAC

Phone: (203) 363-0038

E-mail: dgetreuer@impac.com

Jim Martin, PhD

Virginia Cancer Registry

Phone: (804) 864-7866

E-mail: jim.martin@vdh.virginia.gov

Barry Gordon, PhD

C/Net Solutions

Phone: (510) 540-0778

E-mail: barryg@askcnet.org

Richard Moldwin, MD, PhD

SNOMED International

Phone: (847) 832-7259

E-mail: rmoldwi@cap.org

Michael Halpern

American Cancer Society

Phone: (404) 417-5937

E-mail: michael.halpern@cancer.org

Marsha Reichman, PhD

NCI SEER

Phone: (301) 594-7032

E-mail: reichmam@mail.nih.gov

Lori A. Havener, CTR

NAACCR, Inc.

Phone: (217) 698-0800

E-mail: lhavener@naaccr.org

Beth Schmidt, MSPH

Louisiana Tumor Registry

Phone: (504) 280-1557

E-mail: bschmi@lsuhsc.edu

Mary Kennedy, CT, MPH

SNOMED International

Phone: (847) 832-7302

Email: mkenned@cap.org

Andrew Stewart, MA

CoC ACoS

Phone: (312) 202-5285

E-mail: astewart@facs.org

Pathology Data Work Group 2007-2008

Eric B. Durbin, MS (Chair)

Kentucky Cancer Registry
Phone: (859) 219-0773
E-mail: ericd@kcr.uky.edu

Mayra Alvarez, RHIT, CTR

Florida Cancer Data System
Phone: (305) 243-4603
E-mail:
Malvare1@med.miami.edu

Victor Brunka

Artificial Intelligence in
Medicine
Phone: (416) 594-9393
E-mail: vbrunka@aim.on.ca

**Kathleen Davidson-Allen,
CTR**

Northern California Cancer
Center
Phone: (510) 608-5120
E-mail: kallen@nccc.org

Ken Gerlach, MPH, CTR

CDC/NPCR
Phone: (770) 488-3008
E-mail: kbg4@cdc.gov

**Heidi Gianella, MS, RHIA,
CTR**

IMPAC Medical Systems, Inc.
Phone: (650) 623-8973
E-mail: hgianella@impac.com

Barry Gordon, PhD

C/Net Solutions
Phone: (510) 540-0778
E-mail: barryg@asknet.org

Jovanka Harrison, PhD

New York State Cancer Registry
Phone: (518) 474-2255
E-mail:
jnh01@health.state.ny.us

Lori A. Havener, CTR

NAACCR, Inc.
Phone: (217) 698-0800
E-mail: lhavener@naaccr.org

Missy Jamison, MPH

CDC
Phone: (770) 488-3154
E-mail: pmj2@cdc.gov

Mary Kennedy, CT, MPH

SNOMED International
Phone: (847) 832-7302
Email: mkenned@cap.org

Carol Kosary, MA

NCI SEER
Phone: (301) 402-5212
E-mail: kosaryc@mail.nih.gov

Keith Laubham, MS

Arizona Cancer Registry
Phone: (602) 542-7314
E-mail: klaubha@hs.state.az.us

Andrea MacLean

Cancer Care Ontario
Phone: (416) 217-1391
E-mail:
andrea.maclean@cancercare.on.ca

John Madden, MD, PhD

Duke University School of
Medicine
Phone: (919) 681-6671
E-mail: john.madden@duke.edu

Richard Moldwin, MD, PhD

SNOMED International
Phone: (847) 832-7259
E-mail: rmoldwi@cap.org

Lori Masucci

Sunquest Information Systems
Phone: (520) 570-2691
Email: lori.masucci@sunquest
info.com

Suhi Paul

California Cancer Registry
Phone: (916) 779-0300
E-mail: spaul@ccr.ca.gov

Mark Rudolph

Florida Cancer Data Systems
Phone: (305) 243-4600
E-mail: mr@miami.edu

Wendy Scharber, RHIT, CTR

Registry Widgets
Phone: (763) 439-9408
E-mail:
wendy@registrywidgets.com

Beth Schmidt, MSPH

Louisiana Tumor Registry
Phone: (504) 280-1557
E-mail: bschmi@lsuhsc.edu

Advisors to the WG:

Austin Kreisler

SAIC
Phone: (770) 452-3985
E-mail:
Austin.j.Kreisler@saic.com

Ted Klein

Klein Consulting
Phone: (631) 924-6922
E-mail: ted@tklein.com

Preface

The first version of pathology laboratory electronic reporting was documented in Standards Volume II, Version 10, Chapter VI, *Pathology Laboratory Electronic Reporting*. Standards for Cancer Registries, Volume V, *Pathology Laboratory Electronic Reporting*, Version 2.0 documents recommended message or format standards for electronic transmission of reports (pathology, cytology, and hematology) from pathology laboratories to central cancer registries. This document, Standards Volume V Version 2.1, evolved from modifications made to Version 2.0 as pathology laboratories and central cancer registries developed tools to transmit electronic laboratory reports to cancer registries. **Please note the black vertical lines in the margins highlight revisions from the previous version.**

Included in this Volume are standard specifications for electronic pathology (E-Path) reporting using Health Level 7 (HL7) Version 2.3.1 and an alternative ASCII delimited layout. Although HL7 Versions 2.4 and 2.5 were approved ANSI standards prior to the date of this publication, it was recognized that HL7 Version 2.3.1 remained the most widely supported version among pathology laboratory information systems. It was also recognized that pathology laboratory information systems supporting HL7 Version 2.4 or 2.5 could probably also generate HL7 Version 2.3.1 messages. For this reason, the North American Association of Central Cancer Registries, Inc. (NAACCR) Pathology Data Work Group decided to define this standard using HL7 Version 2.3.1.

It is the hope of the NAACCR Pathology Data Work Group that making these consensus standards available to the community will make it easier and less costly for pathology laboratories, central cancer registries, and software vendors to implement uniform, standard methods for the transmission and receipt of electronic pathology reports. Ultimately, our goal is to develop resources that will support current and future initiatives toward standardization through the recommended communication protocols that will assure the collection of reliable, accurate, and timely pathology reports of cancer specimens examined by pathology laboratories. The content of this Volume will help pathology laboratories develop tools needed to transmit electronic reports to cancer registries by establishing a national message or format standard. It is not intended to be the final revision, and it will evolve over time as more is learned about laboratory technology, electronic reporting, new information technologies, vocabulary and codes, reporting regulations, and confidentiality.

The NAACCR Interoperability Ad Hoc Committee Chair and the Pathology Data Work Group Chair would like to acknowledge the previous Pathology Committee Chairs (Susan Gershman and Warren Williams) for their initiative, coordination, and efforts in the production of the previous NAACCR E-Path guidance. We also wish to acknowledge previous Pathology Subcommittee Chair (Herman Menck) and IT Chair (Toshi Abe) who formed the E-Path Transmission Work Group (currently the Pathology Data Work Group) as well as the dedicated members of the Pathology Data Work Group who contributed countless hours over the past 4 years. A special thanks is warranted to Lori Havener of NAACCR, who edited and maintained the Standards document and prepared all materials for the many conference calls. In addition we also wish to thank the Centers for Disease Control and Prevention for contributing the *HL7 Implementation Guide for Laboratory-Based Reporting of Public Health Information Using Version 2.3.1 of the Health Level 7 (HL7) Standard Protocol*, upon which the E-Path HL7 Implementation Guide is based and for providing HL7 technical consultants, Ted Klein and Austin Kreisler, who provided critical guidance towards developing an HL7-compliant implementation guide.

Ken Gerlach, Chair
NAACCR Interoperability Ad Hoc Committee

Eric Durbin, Chair
Pathology Data Work Group

1 Chapter 1: Introduction

Monitoring the occurrence of cancer, referred to as cancer surveillance, is a cornerstone of cancer control decision-making and can be used to trigger case investigations, follow trends, evaluate the effect of prevention measures, and suggest public health priorities. Because most cancers are definitively diagnosed by histology, cancer surveillance programs may utilize pathology reports to identify new cases and collect information on previously reported cases.

1.1 PROBLEM STATEMENT, GOALS, AND SCOPE OF THIS DOCUMENT

The Problem

The diagnosis and treatment of cancer patients is increasingly occurring in non-hospital settings. This shift from the traditional domain of hospitals presents a problem for central cancer registries in their need for complete and accurate case ascertainment because non-hospital cancer cases are often under-reported. It is essential that central cancer registries develop standards for electronic case ascertainment of cases from these non-hospital sources. One non-hospital source necessary for complete cancer data collection is the pathology laboratory. The lack of a standardized system for reporting by pathology laboratories results in under-reporting of such cases as well as each central registry developing its own procedures for capturing these cases. In turn, pathology laboratories must comply with the different specifications from each state or province/territory cancer registry to which they are required to report.

The Proposed Solution

The Pathology Data Work Group of the NAACCR Interoperability Ad Hoc Committee was formed to develop a recommended approach for pathology laboratories to report electronically to central cancer registries. The result of this Work Group's efforts is in this document. HL7 is the recommended data format for transmitting electronic pathology laboratory reports; the pipe-delimited format is included as an alternative transmission method. A standard pathology laboratory dataset, data dictionary, and HL7 transmission format and flat file were developed to enhance the completeness, timeliness, consistency, and efficiency with which cancer data are transmitted by pathology laboratories and received and processed by central cancer registries. Implementation guidelines were developed to provide assistance in implementing the recommended standards.

Goals of the Pathology Laboratory Reporting

The goals of this document are to define the data standards for cancer registration as used by cancer registries, pathology laboratories, vendors, and other groups, and to provide guidelines for the implementation of these standards.

Scope of This Document

The scope of this document is limited to standards and guidelines to transmit cancer information from pathology laboratories to cancer registries. The standard format documents address data items, data item definitions, and transmission specifications. Implementation guidelines and business rules are incorporated to help cancer registries, pathology laboratories, and vendors within North America respond to the call for cancer cases in a uniform method. In addition, the use of HL7 as the primary recommended clinical data interchange standard will provide a cost-effective solution to addressing data exchange in the 21st century.

1.2 STANDARDS AND GUIDELINES FOR ELECTRONIC TRANSMISSION OF REPORTS FROM PATHOLOGY LABORATORIES TO CENTRAL CANCER REGISTRIES

This document provides two formats for transmitting electronic pathology laboratory reports to central cancer registries. NAACCR recommends using the Implementation Guide for Transmission of Laboratory-Based Reports to Cancer Registries Using Version 2.3.1 of the Health Level Seven (HL7) Standards Protocol (see Chapter 2). Use of these standards will greatly increase the efficiency and consistency with which laboratories and central registries meet reporting and data collection requirements. The Pipe-Delimited Data Dictionary (see Section 3.2) is provided for registries that already have the pipe-delimited format in place and have not implemented HL7 messaging.

The E-Path Documentation Workgroup of the NAACCR Information Technology (IT) Committee was formed to develop a recommended approach for implementing electronic pathology reporting, the NAACCR Electronic Pathology Reporting Guidelines. These guidelines provide assistance in implementing the recommended standards described in NAACCR Standards for Cancer Registries, Volume V, Pathology Laboratory Electronic Reporting, Version 2.1. The Electronic Pathology Reporting Guidelines accompany the Standards Volume V document on the NAACCR website (www.naacr.org).

Implementation Guide for Transmission of Laboratory-Based Reports to Cancer Registries using Version 2.3.1 of the Health Level Seven (HL7) Standards Protocol

This chapter is a guide for electronic communication of reportable cancers and benign/borderline intracranial and CNS tumors, consistent with recommended reporting of reportable conditions from laboratories to cancer registries using HL7 Version 2.3.1. It follows the specifications described in the HL7 Standard Version 2.3.1 and focuses on one type of HL7 message, the Observational Report - Unsolicited (ORU).

Pipe-Delimited Data Dictionary

This section is an update to the previous Standards Volume II, Version 10, Chapter VI, *Pathology Laboratory Electronic Reporting*. Cancer registries that have the pipe-delimited format in place should update their system using the data dictionary in this section. The required data items comprise the minimum dataset needed to process a report by the central registry.

1.3 HIPAA

The Health Insurance Portability and Accountability Act (HIPAA, or the Act), P.L. 104-191, enacted on August 21, 1996, includes provisions related to insurance coverage and a section that is relevant to electronic reporting of health care information. HIPAA requires that standards be adopted for certain uniform financial and administrative transactions, data elements, and security of electronic health information systems. It also includes provisions for adopting standards for the privacy of health information. The Act pre-empts state laws and imposes civil monetary penalties and prison terms for certain violations.

HIPAA also imposes changes in the membership and duties of the National Committee on Vital and Health Statistics (NCVHS). There is a provision that the NCVHS will make recommendations and legislative proposals to the Secretary, Department of Health and Human Services, on the adoption of uniform data standards for patient medical record information and the electronic exchange of such information. HIPAA addresses state regulatory reporting by stating, “[N]othing in this part shall limit the ability of a State to require a health plan to report, or to provide access to, information for management audits, financial audits, program monitoring and evaluation, facility licensure or certification, or individual licensure or certification.”

For public health authorities, HIPAA states, “Nothing in this part shall be construed to invalidate or limit the authority, power, or procedures established under any law providing for the reporting of disease or injury, child abuse, birth, or death, public health surveillance, or public health investigation or intervention.” Covered entities that are named in the HIPAA legislation are “health plans, health care clearinghouses, and health care providers who transmit any health information in electronic form in connection with a transaction referred to in Section 1173(a) of the Act.” The regulation implementing the HIPAA privacy provisions allows public health exemptions for disclosure without patient consent of individually identifiable health information for the purposes quoted above.

Under HIPAA, state cancer registries qualify as public health authorities operating as agencies authorized by law to “collect or receive such information for the purposes of preventing or controlling disease... and for the conduct of public health surveillance, public health investigations, and public health interventions” (45 CFR 164.512). As such, public health reporting to state agencies from pathology laboratories is exempt from HIPAA privacy rules. Pathology laboratories, as covered entities, may report this public health information to state cancer registries using the HL7 Standard as described here; HIPAA provisions will not alter these reports.

2 Chapter 2: Implementation Guide for Transmission of Laboratory-Based Reports to Cancer Registries Using Version 2.3.1 of the HL7 Standard Protocol

2.1 INTRODUCTION

2.1.1 Background

Each state and territory has requirements for cancer registries to conduct population-based cancer surveillance. Cancer registries often rely on pathology laboratories to report certain findings to registry officials. In the past, these reports were handwritten or printed in a format unique to each registry or laboratory. Today, laboratories send reportable data to cancer registries electronically. To facilitate a standard HL7 message format for the transmission of electronic pathology reports, this Guide was developed by NAACCR's Pathology Data Work Group, with extensive technical assistance from the Centers for Disease Control and Prevention.

This Guide contains the specifications for sending reportable cancers and benign/borderline intracranial and CNS tumors to appropriate hospital, state, and territorial cancer registries using HL7 messages. The message is specific to any potentially reportable cancer or benign/borderline intracranial and CNS tumor diagnosis and is applicable for most laboratory-reportable findings as defined by NAACCR.

This document is a guide for electronic communication of reportable cancers and benign/borderline intracranial and CNS tumors, consistent with recommended reporting of reportable conditions from laboratories to cancer registries using HL7 Version 2.3.1. The Implementation Guide follows the specifications described in the HL7 Standard Version 2.3.1 and focuses on one type of HL7 message, the ORU. HL7 describes the order and structure of data fields for sharing test results, but does not stipulate which coding system or dictionary of descriptive terms should be used to identify specific tests and findings unambiguously; this is determined by agreement of the parties sharing the information. The Guide provides: (1) a description of the utility and requirement of each data field in the ORU message, (2) examples of complete messages, and (3) tables of recommended codes.

2.1.2 Scope

This Guide describes a data exchange protocol for submitting anatomical pathology reports (traditional text-based) for reportable tumors (cancers and selected benign/borderline intracranial and CNS tumors) to hospital and central cancer registries. This guide is not an HL7 or an interfacing tutorial. The reader is expected to have a basic understanding of interface concepts, HL7 messaging standards, and electronic laboratory-based reporting of public health information.

The document is based on the "Implementation Guide for Transmission of Laboratory-Based Reporting of Public Health Information Using Version 2.3.1 of the Health Level Seven (HL7) Standard Protocol, Implementation Guide Update April 21, 2003, Centers for Disease Control and Prevention" and is consistent with the HL7 messaging standard, Version 2.3.1. Any user-defined variations from the standard are described, and electronic copies of this document are available on the NAACCR web site (www.naacccr.org).

Reporting requirements for reportable tumors may vary by hospital, state, district, territory, or province. The NAACCR Standards for Cancer Registries, Volume II, *Data Standards and Data Dictionary*, describes the standards of tumor reportability for national standard-setting organizations in North America.

2.1.3 Works in Progress

To accommodate the need to transmit staging, tissue inventory, and synoptic reporting data, NAACCR's Pathology Data Work Group is considering the following proposed additions to the HL7 message specifications:

Staging Parameters: Several different staging systems are in use. The proposed format pertains to the American Joint Committee on Cancer (AJCC) system, but may be readily extended to other systems such as Collaborative Staging and Surveillance Epidemiology and End Results (SEER) Summary Staging. Each staging element is incorporated into a separate OBX to accommodate submission individually.

Tissue Inventory: As a result of the increasing interest in banking tissue specimens for research, initial guidelines are proposed for the inclusion of tissue inventory into HL7 pathology messages. Derived specimens are associated with their parent in the string of values—for example, a block derived from a specimen is identified with its own identifier as well as that of the specimen. At this time, the schema is intended to accommodate only tissue specimens and their derivatives. An OBX is created for each inventory item.

Synoptic Reporting: Although synoptic reports have been in use for some time, it is since 2005 that the required data elements in the College of American Pathologists (CAP) cancer protocols and checklists have become a requirement for accreditation by the American College of Surgeons. “The CoC requires that 90 percent of pathology reports that include a cancer diagnosis will contain the scientifically validated data elements outlined on the surgical case summary checklist of the College of American Pathologists (CAP) publication, *Reporting on Cancer Specimens*.” CAP has developed “Checklists” as part of the protocols for numerous cancer types that are a part of the cancer protocols. Although the major sections of the reports are similar, there is a considerable amount of variation in detail amongst the various Cancer Checklists. Checklists are reviewed on a continuous basis as needed. In light of this, in 2007, the CAP has undertaken efforts to address known issues and to facilitate vendor implementations of the SNOMED CT encoded checklists. Implementation of the CAP Checklists is being tested with synoptic reporting pilot projects sponsored by the CDC-NPCR and are referred to as the Reporting Pathology Protocols (RPP) Projects. As a result of these pilot projects, a “CAP Cancer Checklist – Implementation Guide Questions and Answers” document (see section 2.12) is being maintained by the NAACCR Pathology Data Work Group. This document provides some practical guidelines for implementing Synoptic Reporting transmissions using the HL7 2.3.1 standard as defined in the Implementation Guide specified in this publication.

Supporting HL7 Versions beyond 2.3.1: In May 2007 the NAACCR Pathology Data Work Group determined that the HL7 Version 2.3.1 Implementation Guide should be updated with support for HL7 Version 2.5.1. HL7 Version 2.5.1 offers many advantages for electronic pathology reporting. In particular, a Specimen Management Segment (SPM) can better accommodate a number of pathology data elements that are not well accommodated by HL7 Version 2.3.1. The Pathology Data Work Group hopes to complete an HL7 Version 2.5.1 Implementation Guide by June 2008.

2.1.4 Contacts

For information about HL7, contact:

Health Level Seven

Phone: (734) 677-7777

Fax: (734) 677-6622

E-mail: hq@hl7.org

Website: www.hl7.org

For information about this *Guide*, contact:

Lori Havener, CTR

NAACCR, Inc.

Phone: (217) 698-0800, ext. 3

Fax: (217) 698-0188

E-mail: lhavener@naaccr.org

2.2 HL7 CONCEPTS

This project remains true to the HL7 Version 2.3.1 Final Standard, dated May 1999. The entries below are derived from that Standard for use with electronic laboratory reporting.

2.2.1 HL7 Definitions

Message: A message is the entire unit of data transferred between systems in a single transmission. It is a series of segments in a defined sequence, with a message type and a trigger event.

Segment: A segment is a logical grouping of data fields. Segments within a defined message may be required or optional, occur only once, or be allowed to repeat. Each segment is named and is identified by a segment ID, a unique 3-character code.

Field: A field is a string of characters. The segment it is in and the position within the segment identify each field (e.g., PID-5 is the fifth field of the PID segment). Optional data fields need not be valued. Whether a field is required, optional, or conditional in a segment is specified in the segment attribute tables. The designations are: R = Required, RE = Required or empty, O = Optional, C = Conditional on the trigger event or on some other field(s). The field definition should define any conditionality for the field: X = Not supported; B = Left in for backward compatibility with previous versions of HL7. For those fields marked X=Not supported, any data that is sent in these fields may be ignored by the receiver, and conformance and validation checking tools may flag a warning message when they are populated. A maximum length of the field is stated as normative information. Exceeding the listed length should not be considered an error.

Component: A component is one of a logical grouping of items that comprise the contents of a coded or composite field. Within a field having several components, not all components are required to be valued. Examples in this Guide demonstrate both fully valued and partially valued coded and composite fields.

Item number: Each field is assigned a unique item number. Fields that are used in more than one segment will retain their unique item number across segments.

Null and empty fields: The null value is transmitted as two double quote marks (“”). A null-valued field differs from an empty field. An empty field should not overwrite previously entered data in the field. The null value means that any previous value in this field should be overwritten.

Data type: A data type restricts the contents and format of the data field. Data types are given a 2- or 3-letter code. Some data types are coded or composite types with several components. The applicable data type is listed and defined in each field definition. Section 2.8 provides a complete listing of data types used in this document and their definitions.

Delimiters: The delimiter values are given in MSH-2 and used throughout the message. Applications must use agreed-upon delimiters to parse the message. The recommended delimiters for laboratory messages are <CR> = Segment Terminator; | = Field Separator; ^ = Component Separator; & = Sub-Component Separator; ~ = Repetition Separator; and \ = Escape Character.

Note: Examples in this guide may include the notation <CR> at the end of segments. This is a convention to aid the human reader and should be interpreted as a single ASCII carriage return character (13, 0x0D).

Message syntax: Each message is defined in special notation that lists the segment 3-letter identifiers in the order they will appear in the message. Braces, { }, indicate that one or more of the enclosed group of segments may repeat, and brackets, [], indicate that the enclosed group of segments is optional.

Trigger events: The HL7 Standard is written from the assumption that an event in the real world of healthcare creates the need for data to flow among systems. The real-world event is called the trigger event. For example, the trigger event, a patient is admitted may cause the need for data about that patient to be sent to a number of other systems. The trigger event, an observation (e.g., a CBC result) for a patient is available, may cause the need for that observation to be sent to a number of other systems. When the transfer of information is initiated by the application system that deals with the triggering event, the transaction is termed an unsolicited update.

Z segments: All message types, trigger event codes, and segment ID codes beginning with Z are reserved for locally defined messages. No such codes will be defined within the HL7 Standard.

Conformance: This guide constrains the HL7 Optionality and Repeat assignments of the fields specifically for use in messages to Cancer Registries. The conformance criteria of the standard HL7 definitions are preserved in this guide for reference; the constrained Optionality and Repeat characteristics for NAACCR messaging are shown as well. The application of these definitions makes the definitions in this guide a 'Constrained' conformance profile. Note that further constraint is generally necessary to make a message definition fully implementable.

2.2.2 Basic Message Construction Rules

Encoding Rules for Sending:

- Encode each segment in the order specified in the abstract message format.
- Place the Segment ID first in the segment.
- Precede each data field with the field separator.
- Encode the data fields in the order and data type specified in the segment definition table.
- Components, subcomponents, or repetitions that are not valued at the end of a field need not be represented by component separators. The data fields below, for example, are equivalent:
|[^]XXX&YYY&&[^]| is equal to |[^]XXX&YYY[^]|
|ABC[^]DEF^{^^}| is equal to |ABC[^]DEF|
- Segments that are not valued to the end do not need to contain empty field separators.
- End each segment with the segment terminator (hex CR).

Encoding Rules for Receiving:

- If a data segment that is expected is not included, treat it as if all data fields within were not present. That is, if the missing segment contained required fields, error the message; if the missing segment did not contain any required fields, the message should not error.
- If a data segment is included that is not expected, ignore it; this is not an error.
- If a data field is included that is not expected, ignore it; this is not an error.

2.3 UNSOLICITED OBSERVATION MESSAGE (ORU)/EVENT R01

Laboratory result information is reported through the Unsolicited Observation ORU^R01 message to cancer registries. The supported segments in ORU message structure are described below.

ORU - Unsolicited Observation Message (event R01)

<u>ORU^R01</u>	<u>Observational Results (Unsolicited)</u>	<u>Section</u>
MSH	Message Header segment	2.6.1
PID	Patient Identification segment	2.6.2
[[NK1]]	Next Of Kin segment	2.6.2
[PV1]	Patient Visit segment	2.6.2
{		
ORC	Common Order segment	2.6.3
OBR	Observations Report ID segment	2.6.3
{[NTE] }	Notes and Comments segment	2.6.4
{		
OBX	Observation/Result segment	2.6.4
{ [NTE] }	Notes and Comments segment	2.6.4
}		
}		

Using the basic “building blocks” of MSH, PID, OBR, and OBX segments (in table above), a clinical report can be constructed as a three-level hierarchy with the patient information (PID) segment at the upper level, an order record (OBR) at the next level, and one or more observation records (OBX) at the bottom. The Message Header (MSH) segment is required for all HL7 messages. Next-of-Kin (NK1) segments can provide information about parties associated with the patient. The PV1 segment is used by registration/patient administration applications to communicate information on an account or visit-specific basis. The common order (ORC) segment transmits fields common to all types of requested services, and the Notes and Comments (NTE) segment is a note common format, but only supported at the Result level.

Typically, an anatomical pathology report is associated with a surgical specimen and results in a single message or transmission. In a single transmission, one MSH segment, one ORC segment, and one OBR segment will be required. For cancer registry reporting there could be multiple OBR segments for a single MSH segment if the text-based pathology report describes each of the multiple primaries in separate sections. Another example of using a single MSH segment and multiple OBR segments would be transmitting an encoded checklist and raw text.

Although certain elements of the message are required for laboratory-based reporting, data in non-required fields will not be rejected. The standard ORU message allows for the optional use of PD1, PV2, CTI, and DSC segments, but these segments are not defined or used in the laboratory-based reporting message. For this reason, there is no discussion of these segments in this implementation guide. Messages containing these

segments, however, will not be rejected. For electronic laboratory purposes, we do not anticipate the use of acknowledgment messages; therefore, we have not defined these in this Guide.

There are some fields that are required in segments that are optional in the message (such as the PV1) but have some required segments within them. The interpretation should be that the segment is not required for a message, but if it is present, then the fields that are required within it must be populated.

The FHS, FTS, BHS, and BTS segments are required for batch submissions only (see Section 2.7 HL7 Batch Protocol).

The anatomic pathology example report below is followed by an ORU message that supports the sending of the same data in the implemented HL7 2.3.1 format (see Section 2.9 for an example of a pathology report HL7 message to a cancer registry).

PATHOLOGY REPORT

Report Identification		Patient Information			
Institution:	3932	Chart/MRN:	00466144	Address	112 Broad Street
Pathology ID:	97 810430	SSN/SIN:			Apartment 10
Report Date:	2003-11-24	Surname:	SAMPLE30	City/Town:	ATLANTA
Report Type:	Correction	Given Name:	ALLAN	State/Prov:	GA
Requester ID:		Sex:	M	Zip/Post Code:	30301
Requester:		Date of Birth:	1953-06-21	Country:	
Procedure Date:	2003-09-22	Age:	50 (at procedure date)		
Surgeon ID:	163741	Insurer:	USHC		
Surgeon:	SURGEON, HANNAH	Insurance No:	3270686987		
Pathologist ID:	109771	Race:			
Pathologist:	PATHOLOGIST, QUINCY	Ethnicity:			
DIAGNOSIS	LEFT INGUINAL LYMPH NODE - GRANULOMATOUS LYMPHADENITIS				
	Jlm				
Clinical History	? lymphoma Quick Section				
Tissue Submitted	Left inguinal node				
Gross Pathology:	The specimen is received fresh labeled lymph node. The specimen consists of two nodes 2.3 and 2.2. cm each. The cut surface is bulky tan to pink in color and fleshy.				
	QP/jlm				
Microscopic	Sections of left inguinal lymph node demonstrated an encapsulated node which is largely replaced by epithelioid granulomate without necrosis. Special stains do not reveal the presence of organisms. The background lymphocytes are both B and T lymphocytes and include macrophages and occasional neutrophils and plasma cells. Reed-Sternberg cells are not demonstrated.				
Supplements/Addenda	Material was requested by Dr. D. Consult, Saint Joseph's Hospital for review.				
	A report from Dr. C. Darwin was received.				
	DIAGNOSIS: Consistent with peripheral T-cell lymphoma with epithelioid histocytes (Lennert's lymphoma), see description and comment - lymph node, left inguinal (biopsy from November 24, 2003).				
	(See attached report).				
	/hmb				
	Tissue was submitted for lymph node protocol. A report from Dr. H. Study, Chandler Health Science Center was received.				
	DIAGNOSIS: (See attached report).				
	LYMPH NODE; INGUINAL REGION, BIOPSY:				
	NON-NECROTIZING GRANULOMATOUS LYMPHADENITIS.				
	/hmb				
HITECK PATHOLOGY LABORATORY					
ATLANTA, GA 30303					
HITECK LABORATORY SYSTEMS, INC.					

```

MSH|^~\&|HLS|HITECK PATH LAB-
ATLANTA^3D9328409^CLIA||STJ|20031124122230||ORU^R01|200311241222300023|P|
2.3.1|||||||2.0
PID|1||97 810430^^^^PI^HITECK PATH LAB-ATLANTA&3D9328409&CLIA~123-45-
6789^^^^SS~3270686987^^^^PN^US
HEALTHCARE||SAMPLE30^ALLAN||19530621|M||112 BROAD STREET^APT
10^ATLANTA^GA^30301^
PV1|1|N||||ATTENDINGID^ATTENDINGDR^MANAGING|REFERRINGID^REFERRER^FOLLOWU
P^^^DR|
ORC|RE|||||||||||||ATLANTA CANCER SPECIALISTS|STREET ADDRESS
1^SUITE #^ATLANTA^GA^30303
OBR|1||97810430|11529-5^SURGICAL PATH REPORT^LN^^PATHOLOGY
REPORT^L||20030922||EMLOYEEID^PHLEBOTOMIST^PAMELA|||||164341^SURGEON^H
ANNAH^^^DR|||||||F|||||109772&PATHOLOGIST&QUINCY^^^^^^^CITY
PATHOLOGY GROUP
OBX|1|TX|22637-3^FINAL DIAGNOSIS^LN^^DIAGNOSIS^L|1|LEFT INGUINAL LYMPH
NODE - GRANULOMATOUS LYMPHADENITIS|||||F
OBX|2|TX|22637-3^FINAL DIAGNOSIS^LN^^DIAGNOSIS^L|1|/ljm|||||F
OBX|3|TX|OR_CH^^L^^Clinical History^L|2|? lymphoma Quick Section|||||F
OBX|4|TX|22633-2^Nature of Specimen^LN^^Tissue Submitted^L|3|Left
inguinal node|||||F
OBX|5|TX|22634-0^Gross Pathology^LN^^Gross Pathology^L|4|The specimen is
received fresh labelled lymph node. The specimen consists of two nodes
2.3 and 2.2. cm each. The cut surface is bulky tan to pink in colour and
fleshy.|||||F
OBX|6|TX|22634-0^Gross Pathology^LN^^Gross Pathology^L|4|QP/jlm|||||F
OBX|7|TX|11529-5^SURGICAL PATH^LN^^Microscopic^L|5|Sections of left
inguinal lymph node demonstrated an encapsulated node which is largely
replaced by epithelioid granulomata without necrosis. Special stains do
not reveal the presence of organisms. The background lymphocytes are both
B and T lymphocytes and include macrophages and occasional neutrophils
and plasma cells. Reed-Sternberg cells are not demonstrated.|||||F
OBX|8|TX|22639-9^Supplemental
Reports/Addendum^LN^^Supplements/Addenda^L|6| Material was requested by
Dr. D. Consult, Saint Joseph's Hospital for review. |||||C
OBX|9|TX|22639-9^Supplemental
Reports/Addendum^LN^^Supplements/Addenda^L|6|A report from Dr. C. Darwin
was received. |||||C
OBX|10|TX|22639-9^Supplemental
Reports/Addendum^LN^^Supplements/Addenda^L|6|DIAGNOSIS: Consistent with
peripheral T-cell lymphoma with epithelioid histocytes (Lennert's
lymphoma), see description and comment - lymph node, left inguinal
(biopsy from November 24, 1997). (See attached report). /HMB|||||C
OBX|11|TX|22639-9^Supplemental
Reports/Addendum^LN^^Supplements/Addenda^L|6|Tissue was submitted for
lymph node protocol. A report from Dr. B. Study, Sunnybrook Health
Science Center was received. |||||C
OBX|12|TX|OR_DX^^L^^Supplements/Addenda^L|7|DIAGNOSIS: (See attached
report). LYMPH NODE; INGUINAL REGION, BIOPSY. NON-NECROTIZING
GRANULOMATOUS LYMPHADENITIS. /hmb|||||C
OBX|13|SN|21612-7^Reported PatientAge^LN^^Pat_age^L|1|^050|Y|||||F

```

2.4 HL7 STANDARD SEGMENT USAGE

Each message is composed of a series of segments. Each segment is identified by its unique three-letter code. The segments used in electronic laboratory-based reporting (ELR) are defined below. The segment definitions are given in the most logical order for ELR messages and do not strictly adhere to the order in which they are presented in the HL7 Standard.

The following format is used in this document for listing and defining message segments and fields. First, the message segment's use is defined, and a segment attribute table listing all fields defined in the segment is shown. In the segment attribute table, the following attributes are given for each field: sequence number within the segment, length of field, data type, whether required (R), required or empty (RE), optional (O), conditional (C), or for backwards compatibility (B), whether repeating (Y), the applicable table number for values, the field item number, and the field name.

Following the table, each field is listed and defined. For each field, the HL7 segment code and reference number are listed, followed by the field name. Items in parentheses after the field name show, respectively, data type and length of field, whether the field is required or optional, and lists "repeating" if the field is allowed to repeat. The HL7 item number follows the parenthesis and is given for reference convenience. As part of the definitions, usage notes for NAACCR reporting are provided, a description of the data type is given in small font, and a statement about how the fields are valued in the example is given. Fields that we do not anticipate cancer registries using are not defined. Users interested in learning more about fields not discussed here should refer to the full text of Version 2.3.1 of the HL7 Standard.

2.5 SEGMENT ATTRIBUTE TABLE ABBREVIATIONS

The abbreviated terms and their definitions used in the segment table headings are as follows:

ABBREVIATION	DEFINITION
SEQ	The sequence of the elements as they are numbered in the segment.
LEN	The standard HL7 length of the element.
DT	The standard HL7 data type of the element. See Section 2.8.
	Whether the field is required, optional, or conditional in a segment. Required fields are defined by HL7 2.3.1 and do not refer to requirements for reporting laboratory findings to cancer registries. The table includes the Optionality and Repeat for both HL7 conformance, and Constrained conformance. The designations are:
	(R) Required.
	(O) Optional.
	(C) Conditional on the trigger event or on some other field(s). The field definitions following the segment attribute table should specify the algorithm that defines the conditionality for the field.
	(B) Left in for backward compatibility with previous versions of HL7. The field definitions following the segment attribute table should denote the optionality of the field for prior versions. Note that this code is used only for HL7 conformance, and is not valid for a constrained conformance statement.
RP/#	Indicates if element may repeat per HL7 Standard. If the number of repetitions is limited, the number of allowed repetitions is given.
TBL#	HL7 specific table reference. Tables used in public health messages are listed in Section 2.10.
ITEM#	HL7 unique item number for each element.
Element Name	HL7 descriptive name of element in the segment.
NAACCR Item#	NAACCR data item number for each element that corresponds to a NAACCR data item.
NAACCR Opt	Used to define the constrained conformance, and indicates if element is required or optional per NAACCR implementation. Uses the same codes as the HL7 optionality codes described

ABBREVIATION	DEFINITION
NAACCR RP#	above with the addition of RE and X (below). Note also that the code B (Backwards compatibility) is not used in this field, as it is not permitted in a constrained conformance statement. (RE) Required or empty. The element may be missing from the message, but must be sent by the sending application if there is relevant data. A conforming sending application must be capable of providing all “RE” elements. If the conforming sending application knows the required values for the element, then it must send that element. If the conforming sending application does not know the required values, then that element will be omitted. Receiving applications will be expected to process (save/print/archive/etc.) or ignore data contained in the element, but must be able to successfully process the message if the element is omitted (no error message should be generated because the element is missing). (X) Not supported. Indicates if element may repeat per NAACCR implementation. If the number of repetitions is limited, the number of allowed repetitions is given.

2.6 SEGMENT DEFINITIONS

2.6.1 Message Control Segments

These segments are necessary to support the functionality described in the Control/Query chapter of the HL7 Standard.

2.6.1.1 Message Header (MSH) Segment

Used to define the intent, source, destination, and some specifics of the syntax of a message.

MSH Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	1	ST	R			00001	Field separator		R	
2	4	ST	R			00002	Encoding characters		R	
3	180	HD	O			00003	Sending application		O	
4	180	HD	O			00004	Sending facility	7010, 7020	R	
5	180	HD	O			00005	Receiving application		O	
6	180	HD	O			00006	Receiving facility		O	
7	26	TS	O			00007	Date/time of message	7490	R	
8	40	ST	O			00008	Security		O	
9	7	CM	R		0076 0003	00009	Message type		R	
10	20	ST	R			00010	Message control ID	7500	R	
11	3	PT	R			00011	Processing ID	7510	R	
12	60	VID	R		0104	00012	Version ID		R	
13	15	NM	O			00013	Sequence number		O	
14	180	ST	O			00014	Continuation pointer		O	
15	2	ID	O		0155	00015	Accept acknowledgment type		O	
16	2	ID	O		0155	00016	Application acknowledgment type		O	
17	3	ID	O			00017	Country code		O	
18	10	ID	O	Y	0211	00692	Character set		O	Y/3
19	60	CE	O			00693	Principal language of message		O	

20	20	ID	O		0356	01317	Alternate character set handling scheme		X	
21	10	ID	O	Y	0449	01598	Conformance statement ID		RE	Y/3

Example:

```
MSH|^~\&|HLS|HITECK PATH LAB-
ATLANTA^3D9328409^CLIA||STJ|20031124122230||ORU^R01|200311241222300023|P|
2.3.1|||||||2.0 <CR>
```

This example segment shows a Version 2.3.1 ORU (result) message being sent from a pathology laboratory in Atlanta to Saint Joseph’s Hospital on November 24, 2003, at 12:22 pm. The message control ID indicates that this is the 23rd message of the day from this laboratory.

MSH Field Definitions

Usage notes: It is not anticipated that several MSH fields (MSH-17 through MSH-20) will be used for electronic laboratory reporting purposes.

MSH-1 Field separator (ST-1, Required) 00001

Definition: The character to be used as the field separator for the rest of the message. The field separator always appears in the fourth character position of MSH segment and is used to separate adjacent data fields within a segment. The recommended value is |, ASCII (124), as shown in our examples.

MSH-2 Encoding characters (ST-4, Required) 00002

Definition: Four characters in the following order:

Component separator	“^”	ASCII (94)
Repetition Separator	“~”	ASCII (126)
Escape character	“\”	ASCII (92)
Subcomponent separator	“&”	ASCII (38)

Note that the characters in MSH-2 appear as:

|^~\&|

The component separator (^) separates adjacent components of a data field and the subcomponent separator (&) separates the adjacent subcomponents of a data field. An example of a compound element using components and subcomponents from PID-2, described below in another section of this document, would appear as:

|10543^^^^^Columbia Valley Memorial Hospital&01D0355944&CLIA|

and not as:

|10543^^^^^Columbia Valley Memorial Hospital~01D0355944~CLIA|

The tilde (~) should not be used as a separator but rather should be used to identify when a repeating field or component occurs.

MSH-3 Sending application (HD-180, Optional) 00003

Definition: This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. The field is entirely site-defined. By site agreement, implementers may use *User-defined Table 0361 - Sending/receiving application* for first component.

HD data type components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

In the example above, the sending application field is valued as |HLS| for Hiteck Lab Systems.

MSH-4 Sending facility (HD-180, Required) 00004

Definition: This is the facility that is transmitting the HL7 message. The originator of HL7 message will place the text name of the sending laboratory or reporting site, followed by the unique Clinical Laboratory Improvement Act (CLIA) identifier of the originating institution. Information about CLIA can be found at <http://www.Phppo.cdc.gov/dls/default.asp> on the World Wide Web.

For example:

|HITECK PATH LAB-ATLANTA^3D9328409^CLIA|

HD data type components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

namespace ID	Text name of the sending laboratory
universal ID	CLIA number for the sending laboratory
universal ID type	“CLIA,” indicating that the universal ID is a nationally assigned unique identifier

Note for cancer registries: Corresponds to NAACCR data items Reporting Facility ID No [7010] and Path Lab Name [7020].

MSH-5 Receiving application (HD-180, Optional) 00005

Definition: Uniquely identifies the receiving application among all other applications within the network enterprise. The network enterprise consists of all the applications that participate in the exchange of HL7 messages within the enterprise. Entirely site-defined. By site agreement, implementers may use *User - defined Table 0361 Sending/receiving application* for first component.

Note: This field may be blank.

HD data type components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

MSH-6 Receiving facility (HD-180, Optional) 00006

Definition: This field identifies the receiving application among multiple identical applications running on behalf of different organizations. This may be used to identify the receiving state health department or cancer registry systems. Certain state health departments may request that a unique identifier for the cancer registry or other specific program appear here.

Note: This field may be blank but for the example is valued as |STJ| indicating that the receiver of the result message is Saint Joseph’s Hospital.

HD data type components: <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

MSH-7 Date/time of message (TS-26, Required) 00007

Definition: Date/time the sending system created the message.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[S[S[S]]]]]]]] []

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

For example: 6:30 pm, February 17, 2001, would appear as:

[200102171830]

Note for cancer registries: Corresponds to NAACCR data item E-Path Date/Time Stamp [7490].

MSH-8 Security (ST-40, Optional) 00008

Definition: This field may be used to implement application level security. Within HL7, a work group is studying further specification of this field.

Note: This field may be blank.

MSH-9 Message type (CM-7, Required) 00009

Definition: The receiving system uses this field to know the data segments to recognize and, possibly, the application to which to route this message.

The specific components of fields using the CM data type are defined within the field descriptions.
The components for this field are: <message type (ID)>^<trigger event (ID)>^<message structure (ID)>
Refer to *HL7 Table 0076 - Message type*, *HL7 Table 0003 - Event type*, and *HL7 Table 0354 - Message structure* for values.

The unsolicited transmission of an observation message would appear as:

[ORU^R01]

MSH-10 Message control ID (ST-20, Required) 00010

Definition: Number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the message acknowledgment. For electronic laboratory reporting, we recommend using the date/time stamp followed by the sequence number as:
YYYYLLDDHHMMSS#### (# = counter number).

The example below shows that the date of this message is February 17, 2001, and the sequence number is 0042.

[200102170042]

Note: This field must be unique within transmission.

Note for cancer registries: Corresponds to NAACCR data item Message Control ID [7500].

MSH-11 Processing ID (PT-3, Required) 00011

Definition: Used to decide how to process the message as defined in HL7 processing rules. Field appears as P for production, T for training, or D for debugging.

PT data type components: <processing ID (ID)>^<processing mode (ID)>

(1) Processing ID (ID). A value that defines whether the message is part of a production, training, or debugging system. Refer to *HL7 Table 0103 - Processing ID* for valid values.

(2) Processing mode (ID). A value that defines whether the message is part of an archival process or an initial load. Refer to *HL7 Table 0207 -Processing mode* for valid values. The default (blank) means current processing.

For example:

|P|

In the example, the use is production. The second component is not specified, indicating current processing as the default.

Note for cancer registries: Corresponds to NAACCR data item Processing ID [7510].

MSH-12 Version ID (VID-60, Required) 00012

Definition: Matched by the receiving system to its own HL7 version to be sure the message will be interpreted correctly.

VID data type components: <version ID (ID)>^<internationalization code (CE)>^<international version ID (CE)>

(1) Version ID (ID). Used to identify the HL7 version. Refer to *HL7 Table 0104 - Version ID* for valid values.

(2) Internationalization code (CE). Used to identify the international affiliate country code. ISO 3166 provides a list of country codes that may be used (see *User-defined Table 0212 - Nationality*).

(3) International version ID (CE). Used when the international affiliate has more than a single local version associated with a single U.S. version.

In the example, the version is 2.3.1.

MSH-13 Sequence number (NM-15, Optional) 00013

Definition: Non-null value in this field implies that the sequence number protocol is in use. This numeric field is incremented by one for each subsequent value.

In the example, the field is not valued or expected to be used.

MSH-14 Continuation pointer (ST-180, Optional) 00014

Definition: Used to define continuations in application-specific ways.

In the example, the field is not valued or expected to be used.

MSH-15 Accept acknowledgment type (ID-2, Optional) 00015

Definition: Identifies the conditions under which accept acknowledgments are required to be returned in response to this message. *HL7 Table 0155 - Accept/Application acknowledgment conditions* gives valid values. For electronic laboratory reporting, the default value is NE.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

In the example, this field is not valued.

MSH-16 Application acknowledgment type (ID-2, Optional) 00016

Definition: Identifies the conditions under which application acknowledgments are required to be returned in response to this message. See *HL7 Table 0155 - Accept/Application acknowledgment conditions* for values.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

In the example, this field is not valued.

MSH-17 Country code (ID-3, Optional) 00017

Definition: This field contains the country of origin for the message. It will be used primarily to specify default elements, such as currency denominations. The values to be used are the 2-character ISO 3166¹ codes.

In the example, this field is not valued.

MSH-18 Character set (ID-10, Optional, Repeating maximum 3) 00692

Definition: This field contains the character set for the entire message. Refer to *HL7 Table 0211 - Alternate character sets* for valid values.

In the example, this field is not valued.

MSH-19 Principal language of message (CE-60, Optional) 00693

Definition: This field contains the principal language of the message. Codes come from ISO 639.

In the example, this field is not valued.

MSH-20 Alternate character set handling scheme (ID-20, Not supported) 01317

Definition: When any alternative character sets are used (as specified in the second or later iterations of *MSH-18 character sets*), and if any special handling scheme is needed, this component is to specify the scheme used, according to *HL7 Table 0356 - Alternate character set handling scheme*.

In the example, this field is not valued.

MSH-21 Conformance statement ID (ID-10, Required or empty, Repeating maximum 3) 01598

Definition: Sites may use this field to assert adherence to a Conformance Statement published by HL7 or by a site. Conformance Statements contain detailed explanations of grammar, syntax, and usage for a particular message or set of messages. Examples of the use of Conformance Statements appear in Version 2.4, Chapter 5, "Query." Repetition of this field allows more flexibility in creating and naming conformance statements. For example, the first repetition could reference a standard conformance statement, and the second, just some changes to it. Values for HL7 Standard conformance statements appear in HL7 Version 2.4 Table 0449.

Note: As HL7 technical committees ballot conformance statements, Table 0449 will be populated with their identifiers. No identifiers have been issued as of Version 2.4. As with any HL7 table, this table may be extended with site-defined identifiers.

Cancer Reporting Note: Although this field is an HL7 Version 2.4 standard, it is used in Version 2.3.1 for the placement of the NAACCR Standards for Cancer Registries, Volume V, *Pathology Laboratory Electronic Reporting* version number.

¹ Available from ISO 1 Rue de Varembe, Case Postale 56, CH 1211, Geneve, Switzerland

The NAACCR Standards Volume V version number would appear as:

[2.1]

2.6.2 Patient Administration Message Segments

2.6.2.1 Patient Identification (PID) Segment

Used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently.

PID Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	4	SI	O			00104	Set ID - PID		O	
2	20	CX	B			00105	Patient ID (External)		O	
3	20	CX	R	Y		00106	Patient identifier list	2300, 2320	R	Y/8
4	20	CX	B	Y		00107	Alternate patient ID - PID		O	Y/8
5	158	XPN	R	Y		00108	Patient name	2230, 2240, 2250	R	Y/8
6	48	XPN	O			00109	Mother's maiden name		O	
7	26	TS	O			00110	Date/time of birth	240	RE	
8	1	IS	O		0001	00111	Sex	220	RE	
9	48	XPN	O	Y		00112	Patient alias	2280	O	Y/8
10	80	CE	O	Y	0005	00113	Race	160	RE	Y/6
11	106	XAD	O	Y		00114	Patient address	70, 80, 100, 2330, 7520	RE	Y/4
12	4	IS	B		0289	00115	County code		X	
13	40	XTN	O	Y		00116	Phone number - home	2360	O	Y/8
14	40	XTN	O	Y		00117	Phone number - business		O	Y/4
15	60	CE	O		0296	00118	Primary language		O	
16	80	CE	O		0002	00119	Marital status	150	RE	
17	80	CE	O		0006	00120	Religion	260	O	
18	20	CX	O			00121	Patient account number		O	
19	16	ST	B			00122	SSN number - patient		B	
20	25	DLN	O			00123	Driver's license number - patient		O	
21	20	CX	O	Y		00124	Mother's identifier		O	Y/2
22	80	CE	O	Y	0189	00125	Ethnic group	190	RE	Y/4
23	60	ST	O			00126	Birth place		O	
24	1	ID	O		0136	00127	Multiple birth indicator		X	
25	2	NM	O			00128	Birth order		X	
26	80	CE	O	Y	0171	00129	Citizenship		X	
27	60	CE	O		0172	00130	Veterans military status		X	

28	80	CE	O		0212	00739	Nationality		O
29	26	TS	O			00740	Patient death date and time		RE
30	1	ID	O		0136	00741	Patient death indicator	1760	RE

Example:

```
PID|1||97 810430^^^PI^HITECK PATH LAB-ATLANTA
&3D9328409&CLIA~00466144^^^PT^ST
JOSEPH'S&3932&CMA~3270686987^^^PN^US
HEALTHCARE||SAMPLE30^ALLAN||19530621|M||112 BROAD STREET^APT
10^ATLANTA^GA^30301<CR>
```

This example segment shows that the patient named Allan Sample30 is a male born on June 21st, 1953. A laboratory and a hospital patient identifier are included, along with the patient's address.

PID Field Definitions

Usage Notes: It is not anticipated that several PID fields (PID-23 through PID-28) will be used for electronic laboratory reporting purposes.

PID-1 Set ID - PID (SI-4, Optional) 00104

Definition: The Set ID field numbers the repetitions of the PID segment (i.e., multiple patient reports). For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.

SI data type is a non-negative integer in the form of an NM field. The uses of this data type are defined in the chapters defining the segments and messages in which it is used.

For laboratory-based reporting, it is strongly recommended that information for only one patient be sent per message, in other words one PID per MSH. Thus PID-1 may be left blank or appear as:

```
|1|
```

PID-2 Patient ID (CX-20, Optional) 00105

Definition: This field has been retained for backward compatibility only. With HL7 Version 2.3.1, the arbitrary term of "external ID" has been removed from the name of this field. The repetition, assigning authority, facility, and identifier type code attributes of the PID-3-patient identifier list allow for distinctive identifier representation.

CX data type components: <ID (ST)>^<check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

Components are defined as follows:

- (1) ID number (ST).
- (2) Check digit (ST). The check digit used in this data type is not an add-on produced by the message processor. It is the check digit that is part of the identifying number used in the sending application. If the sending application does not include a self-generated check digit in the identifying number, this component should be valued null.
- (3) Code identifying check digit scheme employed (ID). Refer to *HL7 Table 0061 - Check digit scheme* for valid values.
- (4) Assigning authority (HD). Subcomponents of (4): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>
- (5) Identifier type code (IS). A code corresponding to the type of identifier. This code may be used as a qualifier to the "Assigning authority" component. Refer to *User-defined Table 0203 - Identifier type* for suggested values.
- (6) Assigning facility (HD). The place or location identifier where the identifier was first assigned to the patient-part of the history of the identifier. Subcomponents of (6): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Note: NAACCR recommends use of PID-3 Patient Identifier List instead of PID-2 Patient ID.

In the example, this field is not valued but the “external ID” from the hospital is passed as a component in PID-3, the patient identifier list.

PID-3 Patient identifier list (CX-20, Required, Repeating maximum 8) 00106

Definition: This field contains the list of identifiers (one or more) used by the facility to uniquely identify a patient (e.g., medical record number, billing number, birth registry, etc.). For cancer reporting, the patient identifiers must be in the specified order (Medical Record Number [MR], Social Security Number [SS], then any other patient identification number) and for at least one of the patient identifiers there must be information other than unknown.

CX data type components: <ID (ST)>^<check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

Components are defined as follows:

- (1) ID number (ST).
- (2) Check digit (ST). The check digit used in this data type is not an add-on produced by the message processor. It is the check digit that is part of the identifying number used in the sending application. If the sending application does not include a self-generated check digit in the identifying number, this component should be valued null.
- (3) Code identifying check digit scheme employed (ID). Refer to *HL7 Table 0061 - Check digit scheme* for valid values.
- (4) Assigning authority (HD). Subcomponents of (4): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>
- (5) Identifier type code (IS). A code corresponding to the type of identifier. This code may be used as a qualifier to the “Assigning authority” component. Refer to *User-defined Table 0203 - Identifier type* for suggested values.
- (6) Assigning facility (HD). The place or location identifier where the identifier was first assigned to the patient-part of the history of the identifier. Subcomponents of (6): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Note for cancer registries: Corresponds to NAACCR items Medical Record Number [2300] and Social Security Number [2320].

HL7 Version 2.3 provided a field to record the patient’s Social Security number in *PID-19 - SSN - patient*. With Version 2.3.1, HL7 recommends using *PID-3-patient identifier list* for all patient identifiers along with the appropriate identifier type code (*User-defined Table 0203 - Identifier type*).

Cancer reporting will use PID-3 for multiple patient identifiers. For example, the first instance below is the Medical Record Number (MR) from St. Joseph’s Hospital (STJ) as assigning authority, with the AHA for St. Joseph’s; the second is the patient’s social security number (SS); and the third is the Laboratory’s unique Patient Internal Identifier (PI), with the laboratory’s CLIA number.

```
|010203040^^^^MR^STJ&03D1234567&AHA~
111223333^^^^SS^~
97 810430^^^^PI^HITECK PATH LAB-ATLANTA&3D9328409&CLIA|
```

Sometimes, however, there are laboratories that use other labs as reference labs. For example, an anatomic pathology specimen from the Columbia Valley Memorial Hospital laboratory is sent to a reference laboratory named MediLab Co., and the result is reported to a cancer registry by MediLab Co. In the scenario described, the unique patient identifier from MediLab Co. would always appear first with the type code PI, along with name and CLIA number for MediLab Co. as the assigning authority. Repetitions of the field allow a reporting laboratory (MediLab Co.) also to provide the medical record number and/or other patient identifiers assigned at the original institution that submitted a specimen for testing (i.e., Columbia Valley Memorial Hospital). The type code for the Columbia Valley Hospital identifier will be PT for Patient external identifier. In the example below, only the PT is included, while the MR from Columbia Valley Hospital is omitted.

For example:

```
|111223333^^^SS^~
95101100001^^^PI^MediLabCo-Seattle&45D0470381&CLIA ~
10543^^^PT^Columbia Valley Memorial Hospital&01D0355944&CLIA|
```

Because HL7 allows users to define the subcomponents of the HD data type, the <assigning facility> has the following definition for the laboratory-based reporting message:

namespace ID	Name of originating laboratory
universal ID	Unique CLIA number of originating laboratory
universal ID type	“CLIA”

If a hospital laboratory will be reporting the result (and thus there will be only one hospital involved in collection and processing of the specimen), then the hospital laboratory’s patient identifier and the hospital CLIA ID will appear with typecode PI; no information will appear as an external ID. Likewise, if a reference laboratory receives a specimen from a doctor’s office and no preceding originating laboratory is used, then the reference laboratory’s patient identifier and reference laboratory CLIA ID will appear with the typecode PI; no information will appear as an external ID.

```
|010678509^^^MR^Columbia Valley Memorial Hospital&01D0355944&AHA ~
10543^^^PI^Columbia Valley Memorial Hospital&01D0355944&CLIA ~|
```

PID-4 Alternate patient ID (CX-20, Optional, Repeating maximum 8) 00107

Definition: This field has been retained for backward compatibility only. The *PID-3-patient identifier* list should be used for all patient identifiers.

CX data type components: <ID (ST)>^<check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

Components are defined as follows:

- (1) ID number (ST).
- (2) Check digit (ST). The check digit used in this data type is not an add-on produced by the message processor. It is the check digit that is part of the identifying number used in the sending application. If the sending application does not include a self-generated check digit in the identifying number, this component should be valued null.
- (3) Code identifying check digit scheme employed (ID). Refer to *HL7 Table 0061 - Check digit scheme* for valid values.
- (4) Assigning authority (HD). Subcomponents of (4): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>
- (5) Identifier type code (IS). A code corresponding to the type of identifier. This code may be used as a qualifier to the “Assigning authority” component. Refer to *User-defined Table 0203 - Identifier type* for suggested values.
- (6) Assigning facility (HD). The place or location identifier where the identifier was first assigned to the patient-part of the history of the identifier. Subcomponents of (6): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

In the example, this field is not valued.

Note: NAACCR recommends use of PID-3 Patient Identifier List instead of PID-4 Alternate Patient ID.

PID-5 Patient name (XPN-158, Required, Repeating maximum 8) 00108

Definition: The current assumed legal name of the patient should be sent in this field. The name type code in this field should always be “L - Legal.” All other names for the patient should be sent in *PID-9-patient alias*. Repetition of this field is allowed only for representing the same name in different character sets, a situation that will rarely arise. Therefore, for practical purposes this field should be considered not repeating.

XPN data type components: <family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., JR or III) (ST)>^<prefix (e.g., DR) (ST)>^<degree (e.g., MD) (IS)>^<name type code (ID)>^<name representation code (ID)>

For valid values, refer to *User-defined Table 0360 - Degree* for the degree component, to *HL7 Table 0200 - Name type* for the name type code, and to *HL7 Table 4000 - Name/address representation* for the name representation code.

For example:

[SAMPLE30^ALLAN]

This field is listed as a required field by HL7 2.3.1. Although uncommon, some laboratories may not currently collect information that may be used for either PID-3 or PID-5. It is strongly recommended that either a personal identifier unique to the testing laboratory (PID-3) or the patient name (PID-5) be provided. When the patient name is not available UNKNOWN should be transmitted in this field.

[UNKNOWN]

Note for cancer registries: Corresponds to NAACCR items Name--Last [2230], Name--First [2240], and Name--Middle [2250].

PID-6 Mother's maiden name (XPN-48, Optional) 00109

Definition: This field contains the family name under which the mother was born (i.e., before marriage). It is used to distinguish between patients with the same last name. The name type code should be valued "M" for "Maiden Name." If a system needs additional information about the mother, the NK1 segment should be used.

XPN data type components: <family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., JR or III) (ST)>^<prefix (e.g., DR) (ST)>^<degree (e.g., MD) (IS)>^<name type code (ID)>^<name representation code (ID)>

For valid values, refer to *User-defined Table 0360 - Degree* for the degree component, to *HL7 Table 0200 - Name type* for the name type code, and to *HL7 Table 4000 - Name/address representation* for the name representation code.

This field is not valued in the example.

PID-7 Date/time of birth (TS-26, Required or empty) 00110

Definition: This field contains the patient's date and time of birth.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]] []

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

For example, June 21, 1953 would appear as:

[19530621]

Note for cancer registries: Corresponds to NAACCR item Birth Date [240].

PID-8 Sex (IS-1, Required or empty) 00111

Definition: This field contains the patient's sex. Refer to *User-defined Table 0001 - Sex* for valid values.

For example, Female would appear as:

|F|

Map defined value from Table 0001 “Other” to NAACCR value “Other (hermaphrodite).”

Note for cancer registries: Corresponds to NAACCR item Sex [220]. Requires conversion to NAACCR codes (see NAACCR Standards Volume II).

PID-9 Patient alias (XPN-48, Optional, Repeating maximum 8) 00112

Definition: This field contains names by which the patient has been known at some time. It is recommended that data be sent if available.

XPN data type components: <family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., JR or III) (ST)>^<prefix (e.g., DR) (ST)>^<degree (e.g., MD) (IS)>^<name type code (ID)>^<name representation code (ID)>
For valid values, refer to *User-defined Table 0360 - Degree* for the degree component, to *HL7 Table 0200 - Name type* for the name type code, and to *HL7 Table 4000 - Name/address representation* for the name representation code.

In the example, this field is not valued.

Note for cancer registries: Corresponds to NAACCR item Name--Alias [2280].

PID-10 Race (CE-80, Required or empty, Repeating maximum 6) 00113

Definition: This field identifies the patient’s race and coding system used to code race. Refer to *User-defined Table 0005 - Race* for required values. For a more detailed table of race values see CDC’s Race/Ethnicity Code Set 1.0 at: <http://www.cdc.gov/PhinVSBrowser/StrutsController.do>.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:
<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

For example:

|2054-5^Black or African American^CDC^^^|

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

Note for cancer registries: Corresponds to NAACCR item Race 1 [160]. Requires conversion to NAACCR codes (see NAACCR Standards Volume II).

PID-11 Patient address (XAD-106, Required or empty, Repeating maximum 4) 00114

Definition: This field lists the mailing address of the patient (residence at diagnosis). Multiple addresses for the same person may be sent in the following sequence: the primary mailing address must be sent first in the sequence; if the mailing address is not sent, then a repeat delimiter must be sent in the first sequence.

XAD data type components: <street address (ST)>^<other designation (ST)>^<city (ST)>^<state or province (ST)> ^<ZIP or postal code (ST)>^<country (ID)>^<address type (ID)>^<other geographic designation (ST)>^<county/parish code (IS)>^<census tract (IS)>^<address representation code (ID)>

For valid values in these components, refer to *User-defined Table 0212 - Nationality* for country codes, *HL7 Table 0190 - Address type* for address type codes, *User-defined Table 0289 - County/parish* for county/parish codes, *User-defined Table 0288 - Census Tract* for census tract codes, and *HL7 Table 4000 - Name/address representation* for address representation codes.

For example:

|2166Wells Dr^Apt B^Seattle^WA^98109^USA^M^King^A|

Note for cancer registries: Corresponds to NAACCR items Addr at DX--City [70], Addr at DX--State [80], Addr at DX--Postal Code [100] , Addr at DX--No & Street [2330] and Address Type Code [7520].

PID-12 County code (IS-4, Not Supported) 00115

Definition: This field has been retained for backward compatibility. This field contains the patient's county code. The county can now be supported in the county/parish code component of the XAD data type (*PID-11-patient address*). *User-defined Table 0289 - County/parish* is used as the HL7 identifier for the user-defined table of values for this field.

This field is not supported.

Note: NAACCR recommends use of the County component of PID-11 Patient Address instead of PID-12 County Code to carry the County when transmitted.

PID-13 Phone number - home (XTN-40, Optional, Repeating maximum 8) 00116

Definition: The patient's personal phone numbers. All personal phone numbers for the patient are sent in this sequence. The first sequence is considered the primary number. If the primary number is not sent, then a repeat delimiter is sent in the first sequence. For laboratory-based reporting, phone numbers provided in the first component of PID-13 will be accepted as well.

XTN data type format and components: [NNN] [(999)]999-9999[X99999][B99999][C any text]^<telecommunication use code (ID)>^<telecommunication equipment type (ID)>^<email address (ST)>^<country code (NM)>^<area/city code (NM)>^<phone number (NM)>^<extension (NM)>^<any text (ST)>

Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

For example:

|^PRN^PH^^^206^6793240^^after 5:00 pm~^VHN^PH^^^206^6795772|

or

|^^^206^6793240|

Note for cancer registries: Corresponds to NAACCR item Telephone [2360].

Note: It is preferable not to use the legacy method of sending a formatted phone number in the first component of the telephone number. It is preferable to send the area code as component 6 and the phone number as component 7 to prevent problems with parsing and displaying of phone numbers received.

In the example, this field is not valued.

PID-14 Phone number - business (XTN-40, Optional, Repeating maximum 4) 00117

Definition: Patient's business phone number. Repetitions are permitted, with the first one the primary number. If the primary number is not sent, then a repeat delimiter is sent in the first sequence.

XTN data type format and components: [NNN] [(999)]999-9999[X99999][B99999][C any text]^<telecommunication use code (ID)>^<telecommunication equipment type (ID)>^<email address (ST)>^<country code (NM)>^<area/city code (NM)>^<phone number (NM)>^<extension (NM)>^<any text (ST)>

Refer to HL7 Table 0201 - Telecommunication use code and HL7 Table 0202 - Telecommunication equipment type for valid values.

PID-15 Primary language (CE-60, Optional) 00118

Definition: Patient's primary language. Refer to *User-defined Table 0296 - Language* (ISO 639) for suggested values.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

This field is not applicable for this interface.

PID-16 Marital status (CE-80, Required or empty) 00119

Definition: This field contains the patient's marital status. Refer to *User-defined Table 0002 - Marital status* for suggested values.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

For example:

|S^single^HL70002|

Note for cancer registries: Corresponds to NAACCR item Marital Status at DX [150]. Requires conversion to NAACCR codes (see NAACCR Standards Volume II).

PID-17 Religion (CE-80, Optional) 00120

Definition: This field contains the patient's religion, for example, Baptist, Catholic, Methodist, etc. *User-defined Table 0006 - Religion* from HL7 Standard Version 2.5 is used as the HL7 identifier for the user-defined table of values for this field.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

In the example, this field is not valued.

Note for cancer registries: Corresponds to NAACCR item Religion [260].

PID-18 Patient account number (CX-20, Optional) 00121

Definition: This field contains the patient account number assigned by accounting to which all charges, payments, etc., are recorded. It is used to identify the patient's account. Refer to *HL7 Table 0061 - Check digit scheme* in Chapter 2.

CX data type components: <ID (ST)>^<check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

Components are defined as follows:

- (1) ID number (ST).
- (2) Check digit (ST). The check digit used in this data type is not an add-on produced by the message processor. It is the check digit that is part of the identifying number used in the sending application. If the sending application does not include a self-generated check digit in the identifying number, this component should be valued null.
- (3) Code identifying check digit scheme employed (ID). Refer to *HL7 Table 0061 - Check digit scheme* for valid values.
- (4) Assigning authority (HD). Subcomponents of (4): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>
- (5) Identifier type code (IS). A code corresponding to the type of identifier. This code may be used as a qualifier to the "Assigning authority" component. Refer to *User-defined Table 0203 - Identifier type* for suggested values.
- (6) Assigning facility (HD). The place or location identifier where the identifier was first assigned to the patient-part of the history of the identifier. Subcomponents of (6): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

In the example, this field is not valued.

PID-19 SSN number - patient (ST-16, Conditional or empty) 00122

Definition: This field has been retained for backward compatibility only. It is recommended to use *PID-3-patient identifier* list for all patient identifiers. However, in order to maintain backward compatibility, this field should also be populated. When used for backward compatibility, this field contains the patient's Social Security number. This number may also be an RR retirement number. If the SSN is available, and it is not populated in PID-3, it must be populated here in PID-19.

For example:

|423523049|

Note: Some older systems populate the Social Security Number in this field. If the SSN is available at a sender, it must be transmitted; NAACCR Recommends use of PID-3 Patient Identifier List instead of PID-19 SSN number for this. However, systems may choose to send the SSN here in PID-19 instead; it should not be populated in both places.

PID-20 Driver's license number - patient (DLN-25, Optional) 00123

Definition: This field contains the patient's driver's license number. The default of the second component is the state in which the patient's license is registered.

DLN data type components: <license number (ST)> ^ <issuing state, province, country (IS)> ^ <expiration date (DT)>

For example:

|DOEJ34556057^WA^20011101|

PID-21 Mother's identifier (CX-20, Optional, Repeating maximum 2) 00124

Definition: This field is used as a link field for newborns, for example. Typically a patient ID or account number may be used. This field can contain multiple identifiers for the same mother.

CX data type components: <ID (ST)>^<check digit (ST)>^<code identifying the check digit scheme employed (ID)>^ <assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

Components are defined as follows:

- (1) ID number (ST).
- (2) Check digit (ST). The check digit used in this data type is not an add-on produced by the message processor. It is the check digit that is part of the identifying number used in the sending application. If the sending application does not include a self-generated check digit in the identifying number, this component should be valued null.
- (3) Code identifying check digit scheme employed (ID) Refer to *HL7 Table 0061 - Check digit scheme* for valid values.
- (4) Assigning authority (HD). Subcomponents of (4): <application identifier 1 (ID)> & <application identifier 2 (ID)> & <application identifier 3 (ID)> & <application identifier 4 (ID)> & <application identifier 5 (ID)> & <application identifier 6 (ID)>
- (5) Identifier type code (IS). A code corresponding to the type of identifier. This code may be used as a qualifier to the "Assigning authority" component. Refer to *User-defined Table 0203 - Identifier type* for suggested values.
- (6) Assigning facility (HD). Definition: The place or location identifier where the identifier was first assigned to the patient-part of the history of the identifier. Subcomponents of (6): <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

This field is not applicable for this interface.

PID-22 Ethnic group (CE-80, Required or empty, Repeating maximum 4) 00125

Definition: This field further defines patient ancestry. Suggested values are listed in *User-defined Table 0189 - Ethnic group*. State- or locally-defined codes may be listed in the first triplet. For a more detailed table see CDC's Race/Ethnicity Code Set 1.0 at: <http://www.cdc.gov/PhinVSBrowser/StrutsController.do>. According to HL7, the second triplet of the CE data type for Ethnic group (alternate identifier, alternate text, and name of alternate coding system) is reserved for codes consistent with the categories established by the U.S. Office of Management and Budget (OMB). When both triplets are used, the second triplet codes must map to the OMB-compliant codes.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:
<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)>^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

Note for cancer registries: Corresponds to NAACCR data item Spanish/Hispanic Origin [190].

PID-23 Birth place (ST-60,Optional) 00126

Definition: This field indicates the location of the patient's birth, for example "St. Francis Community Hospital of Lower South Side." The actual address is reported in PID-11 with an identifier of "N."

This field does not use NAACCR birthplace codes.

PID-24 Multiple birth indicator (ID-1, Not supported) 00127

Definition: This field indicates whether the patient was part of a multiple birth. Refer to *HL7 Table 0136 - Yes/No Indicator* for valid values.

This field is not supported.

PID-25 Birth order (NM-2, Not supported) 00128

Definition: When a patient was part of a multiple birth, a value (number) indicating the patient's birth order is entered in this field.

This field is not supported.

PID-26 Citizenship (CE-80, Not supported) 00129

Definition: This field contains the patient's country of citizenship. HL7 recommends using ISO Table 3166 as the suggested values in *User-defined Table 0171 - Citizenship*.

This field is not supported.

PID-27 Veterans military status (CE-60, Not supported) 00130

Definition: This field contains the military status assigned to a veteran. Refer to *User-defined Table 0172 - Veterans military status* for suggested values.

This field is not supported.

PID-28 Nationality (CE-80, Optional) 00739

Definition: It is recommended to refer to PID-10 - Race, PID-22 - Ethnic group and PID-26 - Citizenship. This field contains a code that identifies the nation or national grouping to which the person belongs. This information may be different from a person's citizenship in countries in which multiple nationalities are recognized (for example, Spain: Basque, Catalan, etc.).

PID-29 Patient death date and time (TS-26, Required or empty) 00740

Definition: This field contains the date and time at which the patient death occurred. This field should only be valued if PID-30 is valued "yes."

Time stamp (TS) data type must be in the format:
YYYY[MM][DD][HHMM[SS].[S[S[S]]]]]

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

In the example, this field is not valued.

Note for cancer registries: Corresponds to NAACCR data item Path-Date of Death [7550].

PID-30 Patient death indicator (ID-1, Required or empty) 00741

Definition: This field indicates whether or not the patient is deceased. Refer to *HL7 Table 0136 - Yes/No indicator* for valid values.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

In the example, this field is not valued.

Note for cancer registries: Corresponds to NAACCR data item Vital Status [1760]. Requires conversion to NAACCR codes (see NAACCR Standards Volume II).

2.6.2.2 Next of Kin/Associated Parties (NKI) Segment

Contains information about the patient’s next of kin and other associated or related parties. This is a repeating segment, allowing for multiple related parties. This segment is optional for cancer reporting.

NKI Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	4	SI	R			00190	Set ID - NKI		R	
2	48	XPN	O	Y		00191	Name		O	Y/4
3	60	CE	O		0063	00192	Relationship		O	
4	106	XAD	O	Y		00193	Address		O	Y/4
5	40	XTN	O	Y		00194	Phone number		O	Y/4
6	40	XTN	O	Y		00195	Business phone number		X	
7	60	CE	O		0131	00196	Contact role		X	
8	8	DT	O			00197	Start date		X	
9	8	DT	O			00198	End date		X	
10	60	ST	O			00199	Next of kin/AP job title		X	
11	20	JCC	O		0327/ 0328	00200	Next of kin/AP job code/class		X	
12	20	CX	O			00201	Next of kin/AP employee number		X	
13	90	XON	O	Y		00202	Organization name - NKI		X	
14	80	CE	O		0002	00119	Marital status		X	
15	1	IS	O		0001	00111	Sex		X	
16	26	TS	O			00110	Date/time of birth		X	
17	2	IS	O	Y	0223	00755	Living dependency		X	
18	2	IS	O	Y	0009	00145	Ambulatory status		X	
19	80	CE	O	Y	0171	00129	Citizenship		X	
20	60	CE	O		0296	00118	Primary language		X	
21	2	IS	O		0220	00742	Living arrangement		X	
22	80	CE	O		0215	00743	Publicity code		X	
23	1	ID	O		0136	00744	Protection indicator		X	
24	2	IS	O		0231	00745	Student indicator		X	
25	80	CE	O		0006	00120	Religion		X	
26	48	XPN	O	Y		00746	Mother’s maiden name		X	
27	80	CE	O		0212	00739	Nationality		X	
28	80	CE	O	Y	0189	00125	Ethnic group		X	
29	80	CE	O	Y	0222	00747	Contact reason		X	
30	48	XPN	O	Y		00748	Contact person’s name		X	
31	40	XTN	O	Y		00749	Contact person’s telephone number		X	
32	106	XAD	O	Y		00750	Contact person’s address		X	
33	32	CX	O	Y		00751	Next of kin/AP’s identifiers		X	
34	2	IS	O		0311	00752	Job status		X	
35	80	CE	O	Y	0005	00113	Race		X	
36	2	IS	O		0295	00753	Handicap		X	
37	16	ST	O			00754	Contact person social security #		X	

Example:

The sample report does not contain next of kin or emergency contact information, so an example is added here.

```
NK1|1|SAMPLE30^JANET^ALICE^^^L|MTH^MOTHER^HL70063||2166 Wells Dr^Apt
B^Seattle^WA^98109|^^^^^679^3211320|<CR>
```

This example segment shows information data for the patient's mother, Janet Alice Sample30, as the next of kin. The mother's contact information such as home address and phone number is shown here.

NK1 Field Definitions

Usage notes: It is not anticipated that several NK1 fields (NK1-7 through NK1-37) will be used for electronic laboratory reporting purposes.

NK1-1 Set ID - NK1 (SI-4, Required) 00190

Definition: The Set ID field numbers the repetitions of the segment within its association with the PID. For the first occurrence of the segment, the sequence number shall be 1, for the second occurrence, the sequence number shall be 2, etc.

SI data type is a non-negative integer in the form of an NM field. The uses of this data type are defined in the chapters defining the segments and messages in which it is used.

A Set ID of 1 indicates that this segment is the first set of next of kin data, and Set ID of 2 indicates that this is the second set of next of kin data.

NK1-2 Name (XPN-48, Optional, Repeating maximum 4) 00191

Definition: This field gives the name of the next of kin or associated party. Multiple names for the same person are allowed, but the legal name must be sent in the first sequence. If the legal name is not sent, then the repeat delimiter must be sent in the first sequence.

XPN data type components: <family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., JR or III) (ST)>^<prefix (e.g., DR) (ST)>^<degree (e.g., MD) (IS)>^<name type code(ID)>^<name representation code (ID)>

For valid values, refer to *User-defined Table 0360 - Degree* for the degree component, to *HL7 Table 0200 name type* for the name type code, and to *HL7 Table 4000 - Name/address representation* for the name representation code.

For example:

```
|Sample30^Janet^Alice^^^L| where L indicates that the name type is a legal name.
```

NK1-3 Relationship (CE-60, Optional) 00192

Definition: This field defines the personal relationship of the next of kin. *User-defined Table 0063 - Relationship* gives suggested values from HL7 Standard, Version 2.3.1.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

```
<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>
```

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.

(3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.

(4-6) Three components analogous to 1-3 for the alternate or local coding system.

For example:

|MTH^mother^HL70063|

NK1-4 Address (XAD-106, Optional, Repeating maximum 4) 00193

Definition: This field lists the mailing address of the next of kin/associated party identified above.

Multiple addresses for the same person may be sent in the following sequence: the primary mailing address must be sent first in the sequence; if the mailing address is not sent, then a repeat delimiter must be sent in the first sequence. If there is only one repetition of this field and an address type is not given, it is assumed to be the primary mailing address.

XAD data type components: <street address (ST)>^<other designation (ST)>^<city (ST)>^<state or province (ST)>^<ZIP or postal code (ST)>^<country (ID)>^<address type (ID)>^<other geographic designation (ST)>^<county/parish code (IS)>^<census tract (IS)>^<address representation code (ID)>

For valid values in these components, refer to *User-defined Table 0212 - Nationality* for country codes, *HL7 Table 0190 - Address type* for address type codes, *User-defined Table 0289 - County/parish* for county/parish codes, *User-defined Table 0288 - Census Tract* for census tract codes, and *HL7 Table 4000 - Name/address representation* for address representation codes.

For example:

|2166 Wells Dr^Apt B^Seattle^WA^98109^USA^M^^King^^A|

When sending multiple addresses, the appropriate type code must be indicated.

NK1-5 Phone number (XTN-40, Optional, Repeating maximum 4) 00194

Definition: The next of kin/associated party's personal phone numbers. All personal phone numbers for the next of kin/associated party are sent in this sequence. The first sequence is considered the primary number. If the primary number is not sent, then a repeat delimiter is sent in the first sequence.

XTN data type format and components: [NNN] [(999)]999-9999[X99999][B99999][C any text]^<telecommunication use code (ID)>^<telecommunication equipment type (ID)>^<email address (ST)>^<country code (NM)>^<area/city code (NM)>^<phone number (NM)>^<extension (NM)>^<any text (ST)>

Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

For example:

|^^^^206^6793240|

NK1-6 Business phone number (XTN-40, Not supported, Repeating) 00195

Definition: Next of kin/associated party's business phone numbers. The first sequence is the primary number. If the primary number is not sent, then a repeat delimiter is sent in the first sequence.

XTN data type format and components: [NNN] [(999)]999-9999[X99999][B99999][C any text]^<telecommunication use code (ID)>^<telecommunication equipment type (ID)>^<email address (ST)>^<country code (NM)>^<area/city code (NM)>^<phone number (NM)>^<extension (NM)>^<any text (ST)>

Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

In the example, this field is not valued.

This field is not supported.

NK1-7 Contact role (CE-60, Not supported) 00196

Definition: This field indicates the specific relationship role (next of kin, employer, emergency contact, etc.). Refer to *User-defined Table 0131 - Contact role* for suggested values. This field specifies the role that the next of kin/associated parties plays with regard to the patient. Examples might include an employer, emergency contact, next of kin, insurance company, state agency, federal agency, etc.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0131.
This field is not supported.

NK1-8 Start date (DT-8, Not supported) 00197

Definition: This field contains the start date of the contact role.

This field is not supported.

NK1-9 End date (DT-8, Not supported) 00198

Definition: This field contains the end date of the contact role.

This field is not supported.

NK1-10 Next of kin / associated parties job title (ST-60, Not supported) 00199

Definition: This field contains the title of the next of kin/associated parties at their place of employment. However, if the contact role is the patient's employer, this field contains the title of the patient at their place of employment.

This field is not supported.

NK1-11 Next of kin / associated parties job code/class (JCC-20, Not supported) 00200

Definition: This field contains the employer's job code and the employee classification used for the next of kin/associated parties at their place of employment. However, if the contact role is the patient's employer, this field contains the job code/class of the patient at their place of employment.

Components: <job code (IS)> ^ <employee classification (IS)>

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Tables 0327-Job Code and 0328-Employee Classification for suggested values.

NK1-12 Next of kin / associated parties employee number (CX-20, Not supported) 00201

Definition: For backward compatibility, the ST data type can be sent; however, HL7 recommends that the CX data type be used for new implementations. This field contains the number that the employer assigns to the employee that is acting as next of kin/associated parties. However, if the contact role is the patient's employer, this field contains the employee number of the patient at their place of employment. The assigning authority and identifier type code are strongly recommended for all CX data types.

Components: <ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed

This field is not supported.

NK1-13 Organization name - NK1 (XON-90, Not supported) 00202

Definition: This field contains the name of the organization that serves as a next of kin/associated party or as the next of kin of the patient. This field may also be used to communicate the name of the organization at which the associated party works. Multiple names for the same organization may be sent. If multiple names are sent, the legal name must be sent in the first sequence. If the legal name is not sent, then a repeat delimiter must be sent in the first sequence.

This field is not supported.

NK1-14 Marital status (CE-80, Not supported) 00119

Definition: This field contains the next of kin/associated party's marital status. Refer to *User-defined Table 0002 - Marital status* for suggested values.

This field is not supported.

NK1-15 Administrative sex (IS-1, Not supported) 00111

Definition: This field contains the next of kin/associated party's sex. Refer to *User-defined Table 0001 - Administrative sex* for suggested values.

This field is not supported.

NK1-16 Date/time of birth (TS-26, Not supported) 00110

Definition: This field contains the next of kin/associated party's birth date and time.

This field is not supported.

NK1-17 Living dependency (IS-2, Not supported) 00755

Definition: This field identifies specific living conditions (e.g., spouse dependent on patient, walk-up) that are relevant to an evaluation of the patient's healthcare needs. This information can be used for discharge planning. Examples might include Spouse Dependent, Medical Supervision Required, and Small Children Dependent. This field repeats because, for example, "spouse dependent" and "medical supervision required" can apply at the same time.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0223-Living Dependency for suggested values.

NK1-18 Ambulatory status (IS-2, Not supported) 00145

Definition: This field identifies the transient rate of mobility for the next of kin/associated party.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0009-Ambulatory Status for suggested values.

NK1-19 Citizenship (CE-80, Not supported) 00129

Definition: This field contains the code to identify the next of kin/associated party's citizenship. HL7 recommends using ISO 3166 as the suggested values in *User-defined Table 0171 - Citizenship*.

This field is not supported.

NK1-20 Primary language (CE-60, Not supported) 00118

Definition: This field identifies the next of kin/associated party's primary speaking language. HL7 recommends using ISO 639 as the suggested values in *User-defined Table 0296 - Language*.

This field is not supported.

NK1-21 Living arrangement (IS-2, Not supported) 00742

Definition: This field identifies the situation that the associated party lives in at his/her residential address. Refer to *User-defined Table 0220 - Living arrangement* for suggested values. Examples of living arrangements might include Alone, Family, Institution, etc.

This field is not supported.

NK1-22 Publicity code (CE-80, Not supported) 00743

Definition: This field indicates what level of publicity is allowed (e.g., No Publicity, Family Only) for the next of kin/associated party. Refer to *User-defined Table 0215 - Publicity code* for suggested values.

This field is not supported.

NK1-23 Protection indicator (ID-1, Not supported) 00744

Definition: This field identifies that next of kin/associated party's protection that determines, in turn, whether access to information about this person should be kept from users who do not have adequate authority. Refer to *HL7 Table 0136 - Yes/no indicator* for valid values.

This field is not supported.

NK1-24 Student indicator (IS-2, Not supported) 00745

Definition: This field identifies whether the next of kin/associated party is currently a student or not, and whether the next of kin/associated party is a full- or a part-time student. This field does not indicate the degree (high school, college) of the student or the field of study.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0231-Student Status for suggested values.

NK1-25 Religion (CE-80, Not supported) 00120

Definition: This field indicates the type of religion practiced by the next of kin/associated party. Refer to *User-defined Table 0006 - Religion* for suggested values.

This field is not supported.

NK1-26 Mother's maiden name (XPN-48, Not supported) 00109

Definition: This field indicates the maiden name of the next of kin/associated party's mother.

This field is not supported.

NK1-27 Nationality (CE-80, Not supported) 00739

Definition: This field identifies the nation or national group to which the next of kin/associated party belongs. This information may be different than the person's citizenship in countries in which multiple

nationalities are recognized (e.g., Spain: Basque, Catalan, etc.). Refer to *User-defined Table 0212 - Nationality* for suggested values.

This field is not supported.

NK1-28 Ethnic group (CE-80, Not supported) 00125

Definition: This field contains the next of kin/associated party's ethnic group. Refer to *User-defined Table 0189 - Ethnic group* for suggested values. The second triplet of the CE data type for ethnic group (alternate identifier, alternate text, and name of alternate coding system) is reserved for governmentally assigned codes. In the United States, a current use is to report ethnicity in line with U.S. federal standards for Hispanic origin.

This field is not supported.

NK1-29 Contact reason (CE-80, Not supported) 00747

Definition: This field identifies how the contact should be used (e.g., contact employer if patient is unable to work). Refer to *User-defined Table 0222 - Contact reason* for suggested values.

This field is not supported.

NK1-30 Contact person's name (XPN-48, Not supported) 00748

Definition: This field contains the names of the people to contact, depending on the value of the relationship defined in *NK1-3 - relationship*. This field is typically needed when the NK1 is an organization. The legal name should be sent first in the sequence. Refer to *HL7 Table 0200 - Name type* for valid values.

This field is not supported.

NK1-31 Contact person's telephone number (XTN-40, Not supported) 00749

Definition: This field contains the telephone numbers of the contact person depending on the value of the relationship defined in *NK1-3 - relationship*. This field is typically needed when the NK1 is an organization. The primary telephone number must be sent in the first sequence. If the primary telephone number is not sent, then a repeat delimiter must be sent in the first sequence. Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

This field is not supported.

NK1-32 Contact person's address (XAD-106, Not supported) 00750

Definition: This field contains the addresses of the contact person depending on the value of the relationship defined in *NK1-3 - relationship*. This field is typically used when the NK1 is an organization. When multiple addresses are sent, the mailing address must be sent first in the sequence.

This field is not supported.

NK1-33 Next of kin/associated party's identifiers (CX-32, Not supported) 00751

Definition: This field contains the identifiers for the next of kin/associated party, for example, Social Security Number, driver's license, etc. The assigning authority and identifier type code are strongly recommended for all CX data types.

This field is not supported.

NK1-34 Job status (IS-2, Not supported) 00752

Definition: This field identifies the next of kin/associated party's job status.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0311-Job Status for suggested values.

NK1-35 Race (CE-80, Not supported) 00113

Definition: This field identifies the race of the next of kin/associated party. Refer to *User-defined Table 0005 - Race* for suggested values. The second triplet of the CE data type for race (alternate identifier, alternate text, and name of alternate coding system) is reserved for governmentally assigned codes.

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (IS)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (IS)>

This field is not supported.

NK1-36 Handicap (IS-2, Not supported) 00753

Definition: This field contains the code that describes an associated party's disability.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0295-Handicap for suggested values.

NK1-37 Contact person's social security number (ST-16, Not supported) 00754

Definition: In the United States, this field contains the contact person's social security number. This number may also be a RR retirement number. For the Social Security number of the associated party, see *NK1-33 - next of kin/associated party's* identifiers.

This field is not supported.

2.6.2.3 Patient Visit (PV1) Segment

The PV1 segment is used by cancer reporting applications to communicate associated provider information. Not all vendor software may be able to support this segment; if not, this segment is not required.

PV1 Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	4	SI	O			00131	Set ID - PV1		O	
2	1	IS	R		0004	00132	Patient Class		R	
3	80	PL	O			00133	Assigned Patient Location		X	
4	2	IS	O		0007	00134	Admission Type		O	
5	250	CX	O			00135	Preadmit Number		X	
6	80	PL	O			00136	Prior Patient Location		X	
7	250	XCN	O	Y	0010	00137	Attending Doctor	2460	RE	Y/2
8	250	XCN	O	Y	0010	00138	Referring Doctor	2470	RE	Y/2
9	250	XCN	O	Y	0010	00139	Consulting Doctor		RE	Y/2
10	3	IS	O		0069	00140	Hospital Service		X	
11	80	PL	O			00141	Temporary Location		X	
12	2	IS	O		0087	00142	Preadmit Test Indicator		X	
13	2	IS	O		0092	00143	Re-admission Indicator		X	
14	6	IS	O		0023	00144	Admit Source		X	
15	2	IS	O	Y	0009	00145	Ambulatory Status		X	
16	2	IS	O		0099	00146	VIP Indicator		X	
17	250	XCN	O	Y	0010	00147	Admitting Doctor		RE	Y/2
18	2	IS	O		0018	00148	Patient Type		X	
19	250	CX	O			00149	Visit Number		X	
20	50	FC	O	Y	0064	00150	Financial Class		X	
21	2	IS	O		0032	00151	Charge Price Indicator		X	
22	2	IS	O		0045	00152	Courtesy Code		X	
23	2	IS	O		0046	00153	Credit Rating		X	
24	2	IS	O	Y	0044	00154	Contract Code		X	
25	8	DT	O	Y		00155	Contract Effective Date		X	
26	12	NM	O	Y		00156	Contract Amount		X	
27	3	NM	O	Y		00157	Contract Period		X	
28	2	IS	O		0073	00158	Interest Code		X	
29	1	IS	O		0110	00159	Transfer to Bad Debt Code		X	
30	8	DT	O			00160	Transfer to Bad Debt Date		X	
31	10	IS	O		0111	00161	Bad Debt Agency Code		X	
32	12	NM	O			00162	Bad Debt Transfer Amount		X	
33	12	NM	O			00163	Bad Debt Recovery Amount		X	

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
34	1	IS	O		0111	00164	Delete Account Indicator		X	
35	8	DT	O			00165	Delete Account Date		X	
36	3	IS	O		0112	00166	Discharge Disposition		X	
37	25	CM	O		0113	00167	Discharged to Location		X	
38	250	CE	O		0114	00168	Diet Type		X	
39	2	IS	O		0115	00169	Servicing Facility		X	
40	1	IS	B		0116	00170	Bed Status		X	
41	2	IS	O		0117	00171	Account Status		X	
42	80	PL	O			00172	Pending Location		X	
43	80	PL	O			00173	Prior Temporary Location		X	
44	26	TS	O			00174	Admit Date/Time		X	
45	26	TS	O	Y		00175	Discharge Date/Time		X	
46	12	NM	O			00176	Current Patient Balance		X	
47	12	NM	O			00177	Total Charges		X	
48	12	NM	O			00178	Total Adjustments		X	
49	12	NM	O			00179	Total Payments		X	
50	250	CX	O		0203	00180	Alternate Visit ID		X	
51	1	IS	O		0326	01226	Visit Indicator		X	
52	250	XCN	O	Y	0010	01274	Other Healthcare Provider		X	

Example:

```
PV1 | 1 | | | | ATTENDINGID^ATTENDINGDR^MANAGING | REFERRINGID^REFERRER^FOLLOWUP^^^DR | <CR>
```

This example segment portrays the sending of a managing and a referring provider for the example report.

PV1 Field Definitions**PV1-1 Set ID - PV1 (SI-4, Optional) 00131**

Definition: This field contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.

Note: Set ID should be |1| as the PV1 is not expected to repeat,

PV1-2 Patient class (IS-1, Required) 00132

Definition: This field is used by systems to categorize patients by site. It does not have a consistent industry-wide definition. It is subject to site-specific variations. Refer to *User-defined Table 0004 - Patient class* for suggested values.

Note: PV1-2 is an HL7 required field—because there is no practical usage for this field in the cancer reporting message, the value “N” for Not Applicable will be sent.

PV1-3 Assigned patient location (PL-80, Not supported) 00133

Definition: This field contains the patient's initial assigned location or the location to which the patient is being moved. The first component may be the nursing station for inpatient locations, or clinic or department, for locations other than inpatient. For canceling a transaction or discharging a patient, the current location (after the cancellation event or before the discharge event) should be in this field.

This field is not supported.

PV1-4 Admission type (IS-2, Optional) 00134

Definition: This field indicates the circumstances under which the patient was or will be admitted.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0007-Admission Type for suggested values.

PV1-5 Preadmit number (CX-250, Not supported) 00135

Definition: This field uniquely identifies the patient's pre-admit account. Some systems will continue to use the pre-admit number as the billing number after the patient has been admitted. For backward compatibility, an ST data type can be sent; however HL7 recommends use of the CX data type, like the account number, for new implementations. The assigning authority and identifier type code are strongly recommended for all CX data types.

This field is not supported.

PV1-6 Prior patient location (PL-80, Not supported) 00136

Definition: This field contains the prior patient location if the patient is being transferred. The old location is null if the patient is new.

This field is not supported.

PV1-7 Attending doctor (XCN-250, Required or empty, Repeating maximum 2) 00137

Definition: This field contains the attending physician information. Multiple names and identifiers for the same physician may be sent. The field sequences are not used to indicate multiple attending doctors. The legal name must be sent in the first sequence. If the legal name is not sent, then a repeat delimiter must be sent in the first sequence. Depending on local agreements, either ID or the name may be absent in this field.

Note for cancer registries: Corresponds to NAACCR item Physician Managing [2460].

PV1-8 Referring doctor (XCN-250, Required or empty, Repeating maximum 2) 00138

Definition: This field contains the referring physician information. Multiple names and identifiers for the same physician may be sent. The field sequences are not used to indicate multiple referring doctors. The legal name must be sent in the first sequence. If the legal name is not sent, then a repeat delimiter must be sent in the first sequence. Depending on local agreements, either the ID or the name may be absent from this field. Refer to *User-defined Table 0010 - Physician ID* for suggested values.

Note for cancer registries: Corresponds to NAACCR item Physician Follow-up [2470].

PV1-9 Consulting doctor (XCN-250, Required or empty, Repeating maximum 2) 00139

Definition: This field has been retained for backward compatibility only. It is recommended to use the ROL - Role segment for consulting physicians instead. This field contains the consulting physician

information. The field sequences are used to indicate multiple consulting doctors. Depending on local agreements, either the ID or the name may be absent from this field. Refer to *User-defined Table 0010 - Physician ID* for suggested values.

PV1-10 Hospital service (IS-3, Not supported) 00140

Definition: This field contains the treatment or type of surgery that the patient is scheduled to receive. It is a required field with trigger events A01 (admit/visit notification), A02 (transfer a patient), A14 (pending admit), and A15 (pending transfer).

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0069-Hospital Service for suggested values.

PV1-11 Temporary location (PL-80, Not supported) 00141

Definition: This field contains a location other than the assigned location required for a temporary period of time (e.g., OR, operating theatre, etc.). If a value exists in the fifth component (location status), it supersedes the value in *PV1-40 - bed status*.

This field is not supported.

PV1-12 Preadmit test indicator (IS-2, Not supported) 00142

Definition: This field indicates whether the patient must have pre-admission testing done in order to be admitted.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0087-Pre-admit Test Indicator for suggested values.

PV1-13 Re-admission indicator (IS-2, Not supported) 00143

Definition: This field indicates that a patient is being re-admitted to the healthcare facility and gives the circumstances.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0092-Re-admission Indicator for suggested values.

PV1-14 Admit source (IS-6, Not supported) 00144

Definition: This field indicates where the patient was admitted. In the United States, this field is used on UB92 FL20 "Source of Admission." The UB codes listed as examples are not an exhaustive or current list; refer to a UB specification for additional information.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0023-Admit Source for suggested values.

PV1-15 Ambulatory status (IS-2, Not supported) 00145

Definition: This field indicates any permanent or transient handicapped conditions. Refer to *User-defined Table 0009 - Ambulatory status* for suggested entries.

This field is not supported.

PV1-16 VIP indicator (IS-2, Not supported) 00146

Definition: This field identifies the type of VIP.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0099-VIP Indicator for suggested values.

PV1-17 Admitting doctor (XCN-250, Required or empty, Repeating maximum 2) 00147

Definition: This field contains the admitting physician information. Multiple names and identifiers for the same physician may be sent. The field sequences are not used to indicate multiple admitting doctors. The legal name must be sent in the first sequence. If the legal name is not sent, then a repeat delimiter must be sent in the first sequence. By local agreement, the name or ID may be absent in this field. Refer to *User-defined Table 0010 - Physician ID* for suggested values.

PV1-18 Patient type (IS-2, Not supported) 00148

Definition: This field contains site-specific values that identify the patient type.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0018-Patient Type for suggested values.

PV1-19 Visit number (CX-250, Not supported) 00149

Definition: For backward compatibility, an NM data type may be sent, but HL7 recommends that new implementations use the CX data type. This field contains the unique number assigned to each patient visit. The assigning authority and identifier type code are strongly recommended for all CX data types.

This field is not supported.

PV1-20 Financial class (FC-50, Not supported) 00150

Definition: This field contains the financial class(es) assigned to the patient for the purpose of identifying sources of reimbursement

This field is not supported.

PV1-21 Charge price indicator (IS-2, Not supported) 00151

Definition: This field contains the code used to determine which price schedule is to be used for room and bed charges.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0032-Charge/Price Indicator for suggested values.

PV1-22 Courtesy code (IS-2, Not supported) 00152

Definition: This field indicates whether the patient will be extended certain special courtesies.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0045-Courtesy Code for suggested values.

This field is not supported.

PV1-23 Credit rating (IS-2, Not supported) 00153

Definition: This field contains the user-defined code to determine past credit experience.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0046-Credit Rating for suggested values.

PV1-24 Contract code (IS-2, Not supported) 00154

Definition: This field identifies the type of contract entered into by the health care facility and the guarantor for the purpose of settling outstanding account balances.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0044-Contract Code for suggested values.

PV1-25 Contract effective date (DT-8, Not supported) 00155

Definition: This field contains the date that the contract is to start or started.

This field is not supported.

PV1-26 Contract amount (NM-12, Not supported) 00156

Definition: This field contains the amount to be paid by the guarantor each period according to the contract.

This field is not supported.

PV1-27 Contract period (NM-3, Not supported) 00157

Definition: This field specifies the duration of the contract for user-defined periods.

This field is not supported.

PV1-28 Interest code (IS-2, Not supported) 00158

Definition: This field indicates the amount of interest that will be charged the guarantor on any outstanding amounts.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0073-Interest Rate Code for suggested values.

PV1-29 Transfer to bad debt code (IS-1, Not supported) 00159

Definition: This field indicates that the account was transferred to bad debts and gives the reason.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0110-Transfer to Bad Debt Code for suggested values.

PV1-30 Transfer to bad debt date (DT-8, Not supported) 00160

Definition: This field contains the date that the account was transferred to a bad debt status.

This field is not supported.

PV1-31 Bad debt agency code (IS-10, Not supported) 00161

Definition: This field can be used as a ST type for backward compatibility. This field uniquely identifies the bad debt agency to which the account was transferred. This code is site defined. One possible implementation would be to edit against a table such as *User-defined Table 0021 - Bad debt agency code*; however, this is not required.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0021-Bad Debt Agency Code.

PV1-32 Bad debt transfer amount (NM-12, Not supported) 00162

Definition: This field contains the amount that was transferred to a bad debt status.

This field is not supported.

PV1-33 Bad debt recovery amount (NM-12 Not supported) 00163

Definition: This field contains the amount recovered from the guarantor on the account.

This field is not supported

PV1-34 Delete account indicator (IS-1, Not supported) 00164

Definition: This field indicates that the account was deleted from the file and gives the reason.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0111-Delete Account Code for suggested values.

PV1-35 Delete account date (DT-8, Not supported) 00165

Definition: This field contains the date that the account was deleted from the file.

This field is not supported.

PV1-36 Discharge disposition (IS-3, Not supported) 00166

Definition: This field contains the disposition of the patient at time of discharge (i.e., discharged to home, expired, etc.). In the United States, this field is used on UB92 FL22. The UB codes listed as examples are not an exhaustive or current list; refer to a UB specification for additional information.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0112-Discharge Disposition for suggested values.

PV1-37 Discharged to location (CM-25, Not supported) 00167

Definition: This field indicates the health care facility to which the patient was discharged.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0113-Discharged to Location for suggested values.

PV1-38 Diet type (CE-250, Not supported) 00168

Definition: This field indicates a special diet type for a patient.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0114-Diet Type for suggested values.

PV1-39 Servicing facility (IS-2, Not supported) 00169

Definition: This field is used in a multiple facility environment to indicate the health care facility with which this visit is associated.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0115-Servicing Facility for suggested values.

PV1-40 Bed status (IS-1, Not supported) 00170

Definition: This field has been retained for backward compatibility only. The information is now held in the fifth component of the PL data type in PV1-3. This field contains the status of the bed.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0116-Bed Status for suggested values.

PV1-41 Account status (IS-2, Not supported) 00171

Definition: This field contains the account status.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0117-Account Status for suggested values.

PV1-42 Pending location (PL-80, Not supported) 00172

Definition: This field indicates the point of care, room, bed, health care facility ID, and bed status to which the patient may be moved. The first component may be the nursing station for inpatient locations, or the clinic, department, or home for locations other than inpatient. If a value exists in the fifth component (location status), it supersedes the value in *PV1-40 - bed status*.

This field is not supported.

PV1-43 Prior temporary location (PL-80, Not supported) 00173

Definition: This field is used to reflect the patient's temporary location (such as the operating room/theatre or X-ray) prior to a transfer from a temporary location to an actual location, or from a temporary location to another temporary location. The first component may be the nursing station for inpatient locations, or the clinic, department, or home for locations other than inpatient.

This field is not supported.

PV1-44 Admit date/time (TS-26, Not supported) 00174

Definition: This field contains the admit date/time. It is to be used if the event date/time is different than the admit date and time (i.e., a retroactive update). This field is also used to reflect the date/time of an outpatient/emergency patient registration.

This field is not supported.

PV1-45 Discharge date/time (TS-26, Not supported) 00175

Definition: This field contains the discharge date/time. It is to be used if the event date/time is different than the discharge date and time (i.e., a retroactive update). This field is also used to reflect the date/time of an outpatient/emergency patient discharge.

This field is not supported.

PV1-46 Current patient balance (NM-12, Not supported) 00176

Definition: This field contains the visit balance due.

This field is not supported.

PV1-47 Total charges (NM-12, Not supported) 00177

Definition: This field contains the total visit charges.

This field is not supported.

PV1-48 Total adjustments (NM-12, Not supported) 00178

Definition: This field contains the total adjustments for visit.

This field is not supported.

PV1-49 Total payments (NM-12, Not supported) 00179

Definition: This field contains the total payments for visit.

This field is not supported.

PV1-50 Alternate visit ID (CX-250, Not supported) 00180

Definition: This field contains the alternative, temporary, or pending optional visit ID number to be used if needed. Refer to *HL7 Table 0061 - Check digit scheme* for valid values. Refer to *HL7 Table 0203 - Identifier type* for valid values. The assigning authority and identifier type code are strongly recommended for all CX data types.

This field is not supported.

PV1-51 Visit indicator (IS-1, Not supported) 01226

Definition: This field specifies the level on which data are being sent. It is the indicator used to send data at two levels, visit and account. HL7 recommends sending an “A” or no value when the data in the message are at the account level, or “V” to indicate that the data sent in the message are at the visit level.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0326-Visit Indicator for suggested values.

PV1-52 Other healthcare provider (XCN-250, Not supported) 01274

Definition: This field has been retained for backward compatibility only. Use the ROL-Role Segment to communicate providers not specified elsewhere. This field contains the other health care providers (e.g., nurse care practitioner, midwife, physician assistant). Multiple health care providers can be sent. Depending on local agreements, either the ID or the name may be absent from this field. Use values in *User-defined Table 0010 - Physician ID* for first component.

This field is not supported.

2.6.3 Segments Common to All Orders

2.6.3.1. Common Order (ORC) Segment

Used to transmit fields that are common to all orders (all types of services that are requested).

ORC Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	2	ID	R		0119	00215	Order Control		R	
2	22	EI	C			00216	Placer Order Number		X	
3	22	EI	C			00217	Filler Order Number		X	
4	22	EI	O			00218	Placer Group Number		X	
5	2	ID	O		0038	00219	Order Status		X	
6	1	ID	O		0121	00220	Response Flag		X	
7	200	TQ	O			00221	Quantity/Timing		X	
8	200	CM	O			00222	Parent		X	
9	26	TS	O			00223	Date/Time of Transaction		X	
10	120	XCN	O	Y		00224	Entered By		X	
11	120	XCN	O	Y		00225	Verified By		X	
12	80	XCN	O	Y		00226	Ordering Provider		X	
13	80	PL	O			00227	Enterer's Location		X	
14	40	XTN	O	Y		00228	Call Back Phone Number		X	
15	26	TS	O			00229	Order Effective Date/Time		X	
16	200	CE	O			00230	Order Control Code Reason		X	
17	60	CE	O			00231	Entering Organization		X	
18	60	CE	O			00232	Entering Device		X	
19	120	XCN	O	Y		00233	Action By		X	
20	40	CE	O		0339	01310	Advanced Beneficiary Notice Code		X	
21	60	XON	O	Y		01311	Ordering Facility Name	7190, 7200	C	Y/4
22	106	XAD	O	Y		01312	Ordering Facility Address	7210, 7220, 7230, 7240, 7235	RE	Y/4
23	48	XTN	O	Y		01313	Ordering Facility Phone Number	7250	RE	Y/4
24	106	XAD	O	Y		01314	Ordering Provider Address	7140, 7150, 7160, 7170, 7165	RE	Y/4

Example:

```
ORC|RE|||||ATLANTA CANCER SPECIALISTS|STREET  
ADDRESS 1^SUITE #^ATLANTA^GA^30303|^404^321^3000 <CR>
```

This example segment shows the name, address, and phone number for Atlanta Cancer Specialists, the ordering facility.

ORC Field Definitions

ORC-1 Order control (ID-2, Required) 00215

Definition: Determines the function of the order segment.

Note: As ORC-1 is an HL7 required field, the value “RE” (Observations to Follow) will be used for this interface.

ORC-2 Placer order number (EI-22, Not supported) 00216

Definition: This field is the placer application’s order number.

Use OBR-2 to transmit placer order number.

This field is not supported.

ORC-3 Filler order number (EI-22, Not supported) 00217

Definition: This field is the order number associated with the filling application. It is a case of the Entity Identifier data type (Section 2.8.13). Its first component is a string that identifies an order detail segment (e.g., OBR). A limit of fifteen (15) characters is suggested but not required. An implementation is HL7 compliant when the number of characters for this field is increased to accommodate applications that require a greater number of characters for the Filler order number. It is assigned by the order filler (receiving) application. This string must uniquely identify the order (as specified in the order detail segment) from other orders in a particular filling application (e.g., clinical laboratory). This uniqueness must persist over time.

This field is not supported.

ORC-4 Placer group number (EI-22, Not supported) 00218

Definition: This field allows an order placing application to group sets of orders together and subsequently identify them. It is a case of an Entity Identifier data type (2.8.13).

This field is not supported.

ORC-5 Order status (ID-2, Not supported) 00219

Definition: This field specifies the status of an order. The purpose of this field is to report the status of an order either upon request (solicited), or when the status changes (unsolicited). It does not initiate action. It is assumed that the order status always reflects the status as it is known to the sending application at the time that the message is sent. Only the filler can originate the value of this field.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0038-Order Status for suggested values.

ORC-6 Response flag (ID-1, Not supported) 00220

Definition: This field allows the placer (sending) application to determine the amount of information to be returned from the filler. Sometimes the requested level of response may not be possible immediately, but when it is possible, the filler (receiving) application must send the information. When the field is null, D is the default value of the field.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0121-Response Flag for suggested values.

ORC-7 Quantity/timing (TQ-200, Not supported) 00221

Definition: This field determines the priority, quantity, frequency, and timing of an atomic service. Order segments should be thought of as describing an atomic service. It is a composite field.

This field is not supported.

ORC-8 Parent (CM-200, Not supported) 00222

Definition: This field relates a child to its parents when a parent-child relationship exists. The parent-child mechanism is described under ORC-1 Order control notes.

This field is not supported.

ORC-9 Date/time of transaction (TS-26, Not supported) 00223

Definition: This field contains the date and time of the event that initiated the current transaction as reflected in *ORC-1 Order Control Code*. This field is not equivalent to *MSH-7 Date and Time of Message*, which reflects the date/time of the physical message.

This field is not supported.

ORC-10 Entered by (XCN-120, Not supported) 00224

Definition: This field contains the identity of the person who actually keyed the request into the application. Note that this refers to the current transaction as reflected in *ORC-1 Order Control Code*. It provides an audit trail in case the request is entered incorrectly and the ancillary department needs to clarify the request. By local agreement, either the ID number or name component may be omitted.

This field is not supported.

ORC-11 Verified by (XCN-120, Not supported) 00225

Definition: This field contains the identity of the person who verified the accuracy of the entered request. Note that this refers to the current transaction as reflected in *ORC-1 Order Control Code*. It is used in cases where the request is entered by a technician and needs to be verified by a higher authority (e.g., a nurse). By local agreement, either the ID number or name component may be omitted.

This field is not supported.

ORC-12 Ordering provider (XCN-80, Not supported) 00226

Definition: This field identifies the provider who ordered the pathology report (e.g., surgeon/physician who ordered the pathology report). The ID code and the name must be present. The Ordering facility name (ORC-21) or the Ordering provider (OBR-16) must be provided, both fields cannot be blank.

For cancer reporting ORC-12 is not applicable, use OBR-16 instead.

This field is not supported.

ORC-13 Enterer's location (PL-80, Not supported) 00227

Definition: This field specifies the location (e.g., nurse station, ancillary service location, clinic, and floor) where the person who entered the request was physically located when the order was entered. Note that this refers to the current transaction as reflected in *ORC-1 Order Control Code*. Only those subcomponents relevant to enterer's location should be valued (commonly nursing unit, facility, building, floor). The person who entered the request is defined in *ORC-10-entered by*.

This field is not supported.

ORC-14 Call back phone number (XTN-40, Not supported) 00228

Definition: This field contains the telephone number to call for clarification of a request or other information regarding the order. *ORC-14-call back phone number* is the same as *OBR-17-order callback phone number*.

This field is not supported.

ORC-15 Order effective date/time (TS-26, Not supported) 00229

Definition: This field contains the date/time that the changes to the request took effect or are supposed to take effect.

This field is not supported.

ORC-16 Order control code reason (CE-200, Not supported) 00230

Definition: This field contains the explanation (either in coded or text form) of the reason for the order event described by the order control code. Whereas an NTE after the order-specific segment (e.g., RXO, ORO, and OBR) would provide a comment for that specific segment, the purpose of the order control code reason is only to expand on the reason for the order event.

This field is not supported.

ORC-17 Entering organization (CE-60, Not supported) 00231

Definition: This field identifies the organization that the enterer belonged to at the time he/she enters/maintains the order, such as medical group or department. The person who entered the request is defined in *ORC-10 -entered by*.

This field is not supported.

ORC-18 Entering device (CE-60, Not supported) 00232

Definition: This field identifies the physical device (terminal, personal computer) used to enter the order.

This field is not supported.

ORC-19 Action by (XCN-120, Not supported) 00233

Definition: This field contains the identity of the person who initiated the event represented by the corresponding order control code. For example, if the order control code is CA (cancel order request), this

field represents the person who requested the order cancellation. This person is typically a care provider but may not always be the same as *ORC-12 ordering provider*.

This field is not supported.

ORC-20 Advanced beneficiary notice code (CE-40, Not supported) 01310

Definition: This field indicates the status of the patient's or the patient's representative's consent for responsibility to pay for potentially uninsured services. This element is introduced to satisfy CMS Medical Necessity requirements for outpatient services. This element indicates: (1) whether the associated diagnosis codes for the service are subject to medical necessity procedures; (2) whether, for this type of service, the patient has been informed that they may be responsible for payment for the service; and (3) whether the patient agrees to be billed for this service.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0339-Advanced Beneficiary Notice Code for suggested values.

ORC-21 Ordering facility name (XON-60, Conditional, Repeating maximum 4) 01311

Definition: This field indicates the medical facility where the specimen was obtained. Examples include inpatient facilities, outpatient surgical facilities, and medical clinics. Knowledge of the ordering facility allows public health officials to follow-up on positive tests to obtain further clinical and epidemiologic information. Information on the ordering facility is most relevant to cancer registries. The Ordering facility name (ORC-21) or the Ordering provider (OBR-16) must be provided, both fields cannot be blank.

XON data type components: <organization name (ST)> ^ <organization name type code (IS)> ^ <ID Number (NM)> ^ <check digit (NM)> ^ <code identifying the check digit scheme employed (ID)> ^ <assigning authority (HD)> ^ <identifier type code (IS)> ^ <assigning facility ID (HD)> ^ <name representation code (ID)>Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>Subcomponents of assigning facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

The facility's local number or AHA identifier, or other national identifier, should be placed in the third component <ID number (NM)> if there is one available, and "AHA" should appear in <assigning authority (HD)> indicating that the ID number used here to identify the laboratory has been assigned by AHA. For hospitals, the AHA typically is used; however, for other health care facilities other national identifiers could be used. It is anticipated that by mid-2007, the National Providers Identifiers (NPI) for all health care facilities and providers should be available. The ID number cannot contain alpha characters; therefore, prohibiting the use of a CLIA number.

For example:

[University Hospital^^470381^^^AHA]

Note for cancer registries: Corresponds to NAACCR items Path Ordering Facility Number (AHA Number) [7190] and Path Ordering Facility Name [7200].

ORC-22 Ordering facility address (XAD-106, Required or empty, Repeating maximum 4) 01312

Definition: This field contains the address of the facility placing the order.

XAD data type components: <street address (ST)> ^ <other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <ZIP or postal code(ST)> ^ <country (ID)> ^ < address type (ID)> ^ <other geographic designation (ST)> ^ <county/parish code (IS)> ^ <census tract (IS)> ^ <address representation code (ID)>

For valid values in these components, refer to *User-defined Table 0212 - Nationality* for country codes, *HL7 Table 0190 - Address type* for address type codes, *User-defined Table 0289 - County/parish* for county/parish codes, *User-defined Table 0288 - Census Tract* for census tract codes, and *HL7 Table 4000 - Name/address representation* for address representation codes.

For example:

|2217 Rainier Way^^Renton^WA^98002^USA^M^^Black Hawk^^A|

Note for cancer registries: Corresponds to NAACCR items Path Ordering Fac Addr--No & St [7210], Path Ordering Fac Addr--City [7220], Path Ordering Fac Addr--State [7230], Path Ordering Fac--Postal Code [7240] and Path Ordering Fac-Country [7235].

ORC-23 Ordering facility phone number (XTN-48, Required or empty, Repeating maximum 4) 01313

Definition: This field contains the telephone number of the facility placing the order. This field further identifies the laboratory identified in ORC-21.

XTN data type format and components: [NNN] [(999)]999-9999[X99999][B99999][C any text]^<telecommunication use code (ID)>^<telecommunication equipment type (ID)>^<email address (ST)>^<country code (NM)>^<area/city code (NM)>^<phone number (NM)>^<extension (NM)>^<any text (ST)>

Refer to *HL7 Table 0201 - Telecommunication use code* and *HL7 Table 0202 - Telecommunication equipment type* for valid values.

For example:

|^ASN^PH^^^206^5549097~^NET^Internet^helpline@medilab.com|

Note for cancer registries: Corresponds to NAACCR item Path Ordering Fac--Telephone [7250].

ORC-24 Ordering provider address (XAD-106, Required or empty, Repeating maximum 4) 01314

Definition: This field contains the address of the care provider requesting the order. This field contains relevant address information for the ordering provider described in OBR-16.

XAD data type components: <street address (ST)> ^ <other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <ZIP or postal code(ST)> ^ <country (ID)> ^ < address type (ID)> ^ <other geographic designation (ST)> ^ <county/parish code (IS)> ^ <census tract (IS)> ^ <address representation code (ID)>

For valid values in these components, refer to *User-defined Table 0212 - Nationality* for country codes, *HL7 Table 0190 - Address type* for address type codes, *User-defined Table 0289 - County/parish* for county/parish codes, *User-defined Table 0288 - Census Tract* for census tract codes, and *HL7 Table 4000 - Name/address representation* for address representation codes.

For example:

|115 Pike Plaza^Suite 2100^Seattle^WA^98122^USA^^^A|

Note for cancer registries: Corresponds to NAACCR items Path Ordering Client/Phys Addr--Street [7140], Path Ordering Client/Phys Addr--City [7150], Path Ordering Client/Phys Addr--State [7160], Path Ordering Client/Phys Addr--Postal Code [7170] and Path Order Client/Phys Addr—Country [7165]..

2.6.3.1 Observation Request Segment (OBR)

The Observation Request (OBR) segment is used to transmit information specific to an order for a diagnostic study or observation, physical exam, or assessment. The OBR defines the attributes of a particular request for diagnostic services or clinical observations. For laboratory-based reporting, the OBR defines the attributes of the original request for laboratory testing. Essentially, the OBR describes a battery or panel of tests that is being requested or reported. The OBR is somewhat analogous to a generic laboratory slip that is filled out when a physician requests a laboratory test. The individual test names and results for the panel of tests performed are reported in OBX segments, which are described below. As defined by the ORU syntax, there can be many OBXs per OBR, and there can be many OBRs per PID.

OBR Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	4	SI	O			00237	Set ID - OBR		R	
2	22	EI	C			00216	Placer Order Number		O	
3	22	EI	C			00217	Filler Order Number ¹	7090	R	
4	200	CE	R			00238	Universal Service ID	7480	R	
5	2	ID	B			00239	Priority		X	
6	26	TS	B			00240	Requested Date/Time		X	
7	26	TS	C			00241	Observation Date/Time ²	7320	R	
8	26	TS	O			00242	Observation End Date/Time ²		X	
9	20	CQ	O			00243	Collection Volume ³		X	
10	60	XCN	O	Y		00244	Collector Identifier ³	2480	RE	Y/4
11	1	ID	O		0065	00245	Specimen Action Code ⁸		X	
12	60	CE	O			00246	Danger Code		X	
13	300	ST	O			00247	Relevant Clinical Info.		X	
14	26	TS	C			00248	Specimen Received Date/Time ³		RE	
15	300	CM	O		0070	00249	Specimen Source ³		RE	
16	80	XCN	O	Y		00226	Ordering Provider	7100, 7110, 7120, and 7130	C	Y/4
17	40	XTN	O	Y		00250	Order Callback Phone Number	7180	O	Y/4
18	60	ST	O			00251	Placer Field 1		X	
19	60	ST	O			00252	Placer Field 2		X	
20	60	ST	O			00253	Filler Field 1 ¹		X	
21	60	ST	O			00254	Filler Field 2 ¹	7070	RE	
22	26	TS	C			00255	Results Rpt/Status Chng-Date/Time ¹	7530	RE	
23	40	CM	O			00256	Charge to Practice ¹		X	
24	10	ID	O		0074	00257	Diagnostic Serv Sect ID		X	
25	1	ID	C		0123	00258	Result Status ¹	7330	R	
26	400	CM	O			00259	Parent Result ¹		O	
27	200	TQ	O	Y		00221	Quantity/Timing		X	
28	150	XCN	O	Y		00260	Result Copies To		O	Y/5

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
29	200	CM	O			00261	Parent ³		O	
30	20	ID	O		0124	00262	Transportation Mode		X	
31	300	CE	O	Y		00263	Reason for Study		O	Y/20
32	200	CM	O			00264	Principal Result Interpreter ¹	7260, 7270, 7280, 7290, 7300, 7310	R	
33	200	CM	O	Y		00265	Assistant Result Interpreter ¹		O	Y/6
34	200	CM	O	Y		00266	Technician ¹		O	Y/6
35	200	CM	O	Y		00267	Transcriptionist ¹		X	
36	26	TS	O			00268	Scheduled Date/ Time ¹		X	
37	4	NM	O			01028	Number of Sample Containers ³		X	
38	60	CE	O	Y		01029	Transport Logistics of Collected Sample ³		X	
39	200	CE	O	Y		01030	Collector's Comment ³		X	
40	60	CE	O			01031	Transport Arrangement Responsibility		X	
41	30	ID	O		0224	01032	Transport Arranged		X	
42	1	ID	O		0225	01033	Escort Required		X	
43	200	CE	O	Y		01034	Planned Patient Transport Comment		X	
44	80	CWE	O		0088	00393	Procedure Code		O	
45	80	CE	O	Y	0340	01316	Procedure Code Modifier		X	

¹ These items are known to the filler, not the placer. They are valued by the filler as needed when the OBR segment is returned as part of a report.

² OBR-7-observation date/time and OBR-8-observation end date/time are the physiologically relevant times. In the case of an observation on a specimen, they represent the start and end of the specimen collection. In the case of an observation obtained directly from a subject (e.g., BP, Chest X-ray), they represent the start and end time of the observation.

³ These fields are only relevant when an observation is associated with a specimen. These are completed by the placer when the placer obtains the specimen. They are completed by the filler when the filler obtains the specimen.

⁴ Note that CWE does not exist as a data type in HL7 v2.3.1, but is so important in synoptic reporting that it has been pre-adopted here from HL7 version 2.5.

Example:

```
OBR|1||97810430|11529-5^SURGICAL PATH REPORT^LN^^PATHOLOGY
REPORT^L|||20030922|||||||164341^SURGEON^HANNAH^^^DR|||||||F|||
||||109772^PATHOLOGIST^QUINCY <CR>
```

This segment shows that a Surgical Pathology report identified by 97810430 was conducted on September 22, 2003. Dr. Hannah Surgeon ordered the report and the pathologist who read the report was Quincy Pathologist. The “F” in OBR-25 indicates that this is a final result.

OBR Field Definitions

For electronic laboratory purposes, the placer and filler are defined as follows:

The placer is the person or service that requests (places order for) an observation battery (e.g., the physician, the practice, clinic, or ward service, that orders a laboratory test, X-ray, vital signs, etc.). The meaning is synonymous with, and used interchangeably with, “requestor.” See *ORC-2-placer order number*, “Placer order number.”

The filler is the person or service that produces the observations (fills the order) requested by the requestor. The word is synonymous with “producer” and includes diagnostic and clinical services and care providers who report observations about their patients. The clinical laboratory is a producer of laboratory test results (filler of a laboratory order), the nursing service is the producer of vital signs observations (the filler of orders to measure vital signs), and so on.

OBR-1 Set ID - OBR (SI-4, Required) 00237

Definition: This field identifies the sequence number of one of multiple OBRs under one PID. For the first order transmitted, the sequence number shall be 1; for the second order, it shall be 2; and so on. For example, the second OBR under a single PID would appear as:

|2|

OBR-2 Placer order number (EI-22, Optional) 00216

Definition: This field identifies an order number uniquely among all orders from a particular ordering application. This field should not contain the accession number for a specimen. The first component is a string that identifies an individual order. A limit of fifteen (15) characters is suggested but not required. It is assigned by the placer (ordering application). The second through fourth components contain the application ID of the placing application in the same form as the HD data type.

EI data type components: <entity identifier (ST)> ^ <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

In the example, this field is not valued. The placer order number is not generally sent with the result.

OBR-3 Filler order number (EI-22, Required) 00217

Definition: This field is the order number associated with the filling application. It is assigned by the order filler (receiving) application. This string must uniquely identify the order (as specified in the order detail segment) from other orders in a particular filling application (e.g., clinical laboratory). This uniqueness must persist over time. For laboratory-based reporting, this field will be used to report the pathology report number sometimes referred to as the laboratory specimen accession number. This is the unique identifier that the laboratory uses to track specimens.

EI data type components: <entity identifier (ST)> ^ <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>

Example:

|97 810430| is the number assigned by the pathology laboratory for the surgical specimen.

The second through fourth components are optional. Components 2 and 3 may be used to record multiple laboratories in situations when the testing laboratory is different than the sending laboratory.

Note for cancer registries: Corresponds to NAACCR item Path Report Number [7090]. The combination of

laboratory ID and filler order number will uniquely identify a case. If a filler order number may recycle with a single year period, a month identifier (01 through 12) should be prepended to it.

OBR-4 Universal service ID (CE-200, Required) 00238

Definition: This field is the identifier code for the ordered observation/test/battery (not the test performed).

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

An example valuing all of the CE data type components for a surgical pathology report would appear as:

|11529-5^SURGICAL PATH REPORT^LN^1000^PATHOLOGY REPORT^L|

An example valuing all of the CE data type components for a cytology report would appear as:

|26438-2^CYTOLOGY REPORT^LN^1100^CYTOLOGY REPORT^L|

An example valuing all of the CE data type components for a hematology report would appear as:

|18723-7^HEMATOLOGY REPORT^LN^1200^HEMATOLOGY REPORT^L|

No coding recommendation for laboratory-based reporting has been made for OBR-4 because the field describes the originally requested order (e.g., a hepatitis panel or antimicrobial susceptibility testing battery). The value of OBR-4 will be continued from the original order, because this is a required field, but the information in OBR-4 will not be used routinely. The “informative field” for laboratory-based reporting is OBX-3, described below. OBX-3 should be used to provide an unambiguous, specific test name and OBX-5 should provide the result to the test.

An example of the universal service identifier for a report of a hematology panel would appear as:

|^^^10002^Complete Blood Count^L|

Here, the code is a user-defined “local” code, as indicated by the <L> in the sixth subcomponent. Note that the “Universal Service ID” is a code that often represents the battery or collection of tests that make up a routine laboratory panel. The individual results of the different components of the CBC are reported in the OBX segments described below. For most laboratory tests that are reportable to public health officials, the description of the test and result is sufficiently given in OBX and does not need repetition here. Information in OBR-4 will not be used routinely in public health reporting.

Note for cancer registries: Corresponds to NAACCR data item Path--Report Type [7480].

OBR-5 Priority - OBR (ID-2, Not supported) 00239

Definition: This field has been retained for backward compatibility only. It is Not Supported. Previously priority (e.g., STAT, ASAP), but that information is carried as the sixth component of OBR-27-

quantity/timing.

This field is not supported.

OBR-6 Requested date/time (TS-26, Not supported) 00240

Definition: This field has been retained for backward compatibility only. This is Not Supported. Previously requested date/time. That information is now carried in the fourth component of the *OBR-27-quantity/timing*.

This field is not supported.

OBR-7 Observation date/time (TS-26, Required) 00241

Definition: This field is the clinically relevant date/time of the observation. In the case of observations taken directly from a subject, it is the actual date and time the observation was obtained. In the case of a specimen-associated study, this field shall represent the date and time the specimen was collected or obtained. (This is a results-only field except when the placer or a third party has already drawn the specimen.) This field is conditionally required. When the OBR is transmitted as part of a report message, the field must be filled in. If it is transmitted as part of a request and a sample has been sent along as part of the request, this field must be filled in because this specimen time is the physiologically relevant date-time of the observation.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[S[S[S[S]]]]]]]]]

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

For example:

|200011270930|

Note for cancer registries: Corresponds to NAACCR item Path--Date Spec Collection [7320].

OBR-8 Observation end date/time (TS-26, Not supported) 00242

Definition: This field is the end date and time of a study or timed specimen collection. If an observation takes place over a substantial period of time, it will indicate when the observation period ended. For observations made at a point in time, it will be null. This is a results field except when the placer or a party other than the filler has already drawn the specimen.

This field is not supported.

OBR-9 Collection volume (CQ-20, Not supported) 00243

Definition: For laboratory tests, the collection volume is the volume of a specimen. The default unit is ML. Specifically, units should be expressed in the ISO Standard unit abbreviations (ISO-2955, 1977). This is a results-only field except when the placer or a party has already drawn the specimen. (See HL7 Version 2.3.1 Chapter 7 for full details about units.)

OBR-10 Collector identifier (XCN-60, Required or empty, Repeating maximum 4) 00244

Definition: When a specimen is required for the study, this field will identify the person that collected the specimen. Either name or ID code, or both, may be present. This field may be blank.

For example:

|EMLOYEEID^PHLEBOTOMIST^PAMELA|

(Pamela Phlebotomist is included as having drawn a blood sample.)

Note for cancer registries: When the specimen is collected by the surgeon this field corresponds to NAACCR item Physician—Primary Surgeon [2480].

OBR-11 Specimen action code (ID-1, Not supported) 00245

Definition: This field is the action to be taken with respect to the specimens that accompany or precede this order. The purpose of this field is to further qualify (when appropriate) the general action indicated by the order control code contained in the accompanying ORC segment. For example, when a new order (ORC - “NW”) is sent to the laboratory, this field would be used to tell the laboratory whether or not to collect the specimen (“L” or “O”). Refer to *HL7 Table 0065 - Specimen action code* for valid values.

This field is not supported.

OBR-12 Danger code (CE-60, Not supported) 00246

Definition: This field is the code and/or text indicating any known or suspected patient or specimen hazards (e.g., patient with active tuberculosis or blood from a hepatitis patient). Either code and/or text may be absent. However, the code is always placed in the first component position and any free text in the second component. Thus, free text without a code must be preceded by a component delimiter.

This field is not supported..

OBR-13 Relevant clinical information (ST-300, Not supported) 00247

Definition: This field contains any additional clinical information about the patient or specimen. This field is used to report the suspected diagnosis and clinical findings on requests for interpreted diagnostic studies. Examples include reporting the amount of inspired carbon dioxide for blood gasses, the point in the menstrual cycle for cervical pap tests, and other conditions that influence test interpretations. Relevant epidemiologically important information (e.g., day care center attendee, food handler, or nursing home patient) can be placed here; however, there are no recommendations for specific use of this field for laboratory-based reporting. ICD codes used to support testing and reimbursement should be provided in OBR-31 (Reason for Study).

This field is not supported..

OBR-14 Specimen received date/time (TS-26, Required or empty) 00248

Definition: For observations requiring a specimen, the specimen received date/time is the actual login time at the diagnostic service. This field must contain a value when the order is accompanied by a specimen, or when the observation required a specimen and the message is a report.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[S[S[S]]]]]]]] []

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

For example:

|200011270930|

OBR-15 Specimen source (CM-300, Required or empty) 00249

Definition: This field identifies the site where the specimen should be obtained or where the service should be performed.

CM data type components:

<specimen source name or code (CE)> ^ <additives (TX)> ^ <fretext (TX)> ^ <body site (CE)> ^ <site modifier (CE)> ^ <collection method modifier code (CE)>

Subcomponents of specimen source name or code: <identifier (ST)> & <text (ST)> & <name of coding system (ST)> & <alternate identifier (ST)> & <alternate text (ST)> & <name of alternate coding system (ST)>

Subcomponents of body site: <identifier (ST)> & <text (ST)> & <name of coding system (ST)> & <alternate identifier (ST)> & <alternate text (ST)> & <name of alternate coding system (ST)>

Subcomponents of site modifier: <identifier (ST)> & <text (ST)> & <name of coding system (ST)> & <alternate identifier (ST)> & <alternate text (ST)> & <name of alternate coding system (ST)>

Subcomponents of collection method modifier code: <identifier (ST)> & <text (ST)> & <name of coding system (ST)> & <alternate identifier (ST)> & <alternate text (ST)> & <name of alternate coding system (ST)>

An example using SNOMED CT:

[G-8018& Mixed venous blood specimen (specimen)&SNM^^^T-D8400&Antecubital Region&SNM^LACF&Left Antecubital Fossa&HL70163]

where < G-8018> is the code, < Mixed venous blood specimen (specimen)> is the text of the code, and SNM is the table from which the code and text were drawn.

When the coding system used is drawn from an HL7 table, the third subcomponent, name of coding system, is valued as HL7####. *HL7 Table 0070, Specimen source code* is referenced in this example. Additional description can be given in the “body site” and “site modifier” fields using SNOMED CT or HL7 codes. Here, <24418004Antecubital fossa vein (body structure)> is the SNOMED CT code for the body site, and <77710008 Left> is the site modifier. The coding system used here is drawn from an HL7 table, so the name of coding system subcomponent is valued as HL7####. *HL7 Table 0163, Administrative Site*, is referenced in this example.

An example of a prostate specimen (right lobe), where the specimen source code is from ICD-O-3 (name of coding system):

[C619&Prostate, NOS (C619) Right&ICDO3]

An example for lymph nodes using the same coding system:

[C773&Lymphoma, axilla or arm-(C773) Right&ICDO3]

It is strongly recommended that actual specimen sources be provided in OBR-15 and not surrogate descriptions such as “lavender-top” or “serum-separator tube.”

Non-Coded Specimen Sources: If coded text is not available, then the information is provided in the free text field. The first two components would be blank, followed by the free-text specimen source.

OBR-16 Ordering provider (XCN-80, Conditional, Repeating maximum 4) 00226

Definition: This field identifies the provider who ordered the pathology report (e.g., surgeon/physician who ordered the pathology report). The ID code and the name must be present. The

Ordering facility name (ORC-21) or the Ordering provider (OBR-16) must be provided, both fields cannot be blank.

XCN data type components: <ID number (ST)> ^ <family name (ST)> & <last name prefix (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (IS)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code (ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)> ^ <name representation code (ID)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility ID: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

For example:

|1234567^Welby^M^J^Jr^Dr^MD|

Note for cancer registries: Corresponds to NAACCR data items Path Ordering Client/Phys--Lic No [7100], Path Ordering Client/Phys--LName [7110], Path Ordering Client/Phys--FName [7120], and Path Ordering Client/Phys--MName [7130].

OBR-17 Order callback phone number (XTN-40, Optional, Repeating maximum 4) 00250

Definition: This field is the telephone number for reporting a status or a result using the standard format with extension and/or beeper number when applicable.

XTN data type components: [NNN] [(999)999-9999 [X99999] [B99999] [C any text] ^ <telecommunication use code (ID)> ^ <telecommunication equipment type (ID)> ^ <email address (ST)> ^ <country code (NM)> ^ <area/city code (NM)> ^ <phone number (NM)> ^ <extension (NM)> ^ <any text (ST)>

For example:

|^WPN^PH^^^206^2770908^^before 5:00 pm~^ASN^PH^^^206^5620767|

or

|(206) 277-0908|

Note for cancer registries: Corresponds to NAACCR data item Path Ordering Client/Phys--Phone [7180].

OBR-18 Placer field 1 (ST-60, Not supported) 00251

Definition: This field is user field #1. Text sent by the placer will be returned with the results.

This field is not supported.

OBR-19 Placer field 2 (ST-60, Not supported) 00252

Definition: This field is similar to placer field #1.

This field is not supported.

OBR-20 Filler field 1 (ST-60, Not supported) 00253

Definition: This field is definable for any use by the filler (diagnostic service).

This field is not supported.

OBR-21 Filler field 2 (ST-60, Required or empty) 00254

Definition: This field is similar to filler field #1. This field is used for collection of the reporting facility phone number (i.e., the laboratory phone number).

Note for cancer registries: Corresponds to NAACCR data item Path Lab Phone Number [7070].

OBR-22 Results rpt/status change - date/time (TS-26, Required or empty) 00255

Definition: This field specifies the date/time results reported or status changed. This field is used to indicate the date and time that the results are composed into a report and released, or that a status, as defined in *ORC-5-order status*, is entered or changed.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]] []

The user values the field only as far as needed. The time zone is assumed to be that of the sender.

In the example, this field is not valued.

Note for cancer registries: Corresponds to NAACCR data item Date/Time Results Written as a Report or Report Changed [7530].

OBR-23 Charge to practice (CM-40, Not supported) 00256

Definition: This field is the charge to the ordering entity for the studies performed when applicable. The first component is a dollar amount when known by the filler. The second is a charge code when known by the filler (results only).

This field is not supported.

OBR-24 Diagnostic service sect ID (ID-10, Not supported) 00257

Definition: This field is the section of the diagnostic service where the observation was performed. If the study was performed by an outside service, the identification of that service should be recorded here. Refer to *HL7 Table 0074 - Diagnostic service section ID* for valid entries.

This field is not supported.

OBR-25 Result status (ID-1, Required) 00258

Definition: This field is the status of results for this order. Refer to *HL7 Table 0123 - Result status* for valid entries.

The value of such a field follows the formatting rules for an ST field except that it is drawn from a table of legal values. Examples of ID fields include *MSH-12-Version ID* and *PDI-12-Protection indicator*.

Codes C (corrected) and F (final) are used for reporting to cancer registries.

Note for cancer registries: Corresponds to NAACCR item Path--Result Status [7330].

OBR-26 Parent result (CM-400, Optional) 00259

Definition: This field provides linkages to messages describing previously performed tests. This important information, together with the information in *OBR-29-parent* (the identifiers associated with the parent placer and filler), uniquely identifies the OBX segment from the previously performed test that is related to this order (description of OBX segment provided below). The value reported in this OBX segment in the parent result is the organism or chemical species about which this battery reports. For example, if the current battery (as designated in OBR-4) is an antimicrobial susceptibility test, the parent result in OBR-26 contains a result from a previously performed antimicrobial susceptibility test, which identified the organism on which the current susceptibility was run. HL7 specifies here the OBX-5 data will only show the text, or

second component of the CE data type used in the previous message. However, for electronic laboratory reporting, all of the CE data type components of field OBX-5 from the previous parent message appear in this field of the present OBR, using subcomponent delimiters. This indirect linkage is preferred because the name of the organism in the parent result may undergo several preliminary values prior to finalization. This is an exception to the HL7 description for this component.

For cancer reporting, this field is not expected to be valued.

OBR-27 Quantity/timing (TQ-200, Not supported, Repeating) 00221

Definition: This field contains information about how many services to perform at one service time and how often the service times are repeated, and to establish the duration of the request. See Section 4.4 of the HL7 Standard, Version 2.3.1, “Quantity/Timing (TQ) Definition.”

TQ data type components: <quantity (CQ)> ^ <interval (CM)> ^ <duration> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <priority (ID)> ^ <condition (ST)> ^ <text (TX)> ^ <conjunction (ID)> ^ <order sequencing> ^ <occurrence duration (CE)> ^ <total occurrences (NM)>

This field is not supported.

OBR-28 Result copies to (XCN-150, Optional, Repeating maximum 5) 00260

Definition: This field is the people who are to receive copies of the results. By local convention, either the ID number or the name may be absent.

XCN data type components: <ID number (ST)> ^ <family name (ST)> & <last name prefix (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree(e.g., MD) (IS)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code(ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)> ^ <name representation code (ID)>

Subcomponents of assigning authority: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility ID: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

For example:

|1234567^Welby^M^J^Jr^Dr^MD ~ 4567891^Parsons^Melvin^C^^Dr^MD|

Note: “Result copies to” may be useful when more than ordering or attending physicians are recorded.

OBR-29 Parent (CM-200, Optional) 00261

Definition: This field relates a child to its parent when a parent/child relationship exists. The field is optional; however, it is recommended that the field be sent if available for laboratory-based reporting. This field may be sent when a parent result is provided. Reporting of antimicrobial susceptibility data requires that the parent result be populated with the name of the organism for which testing was performed (OBR-26). See OBR-26 for further description.

CM data type components: <parent’s placer order number (EI)> ^ <parent’s filler order number (EI)>

Subcomponents of parent’s placer order number: <entity identifier (ST)> & <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (IS)>

Subcomponents of parent’s filler order number: <entity identifier (ST)> & <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (IS)>

For cancer reporting, this field is not expected to be valued.

OBR-30 Transportation mode (ID-20, Not supported) 00262

Definition: This field identifies how (or whether) to transport a patient, when applicable.

This field is not supported.

Note: Refer to Version 2.3.1 of the HL7 Standard Protocol for Table 0124-Transportation Mode for suggested values.

OBR-31 Reason for study (CE-300, Optional, Repeating maximum 20) 00263

Definition: For public health reporting, ICD-9-CM codes used to support testing and reimbursement should be used here. This field can repeat to accommodate multiple diagnoses. Refer to the website <http://www.cdc.gov/nchs/icd9.htm> for information on ICD-9-CM codes.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

The field would appear as:

OBR|.....||099.41^Other Venereal Diseases^I9C~483.1^Pneumonia due to other specified organism^I9C~V02.61^Carrier or Suspected carrier of infectious diseases ^I9C~070.41^VIRAL HEPATITIS^I9C~070.42^Viral Hepatitis^I9C|<CR>

OBR-32 Principal result interpreter (CM-200, Required) 00264

Definition: This field identifies the physician or other clinician who interpreted the observation and is responsible for the report content.

CM data type components: <name (CN)> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <point of care (IS)> ^ <room (IS)> ^ <bed (IS)> ^ <facility (HD)> ^ <location status (IS)> ^ <patient location type (IS)> ^ <building (IS)> ^ <floor (IS)>

Subcomponents of name: <ID number (ST)> & <family name (ST)> & <given name (ST)> & <middle initial or name (ST)> & <suffix (e.g., JR, III) (ST)> & <prefix (e.g., DR)> & <degree (e.g., MD) (ST)> & <source table (IS)> & <assigning authority (HD)>

Subcomponents of facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

Comment: Use the first and last name of the physician/pathologist who interpreted the observation/result or the UPIN (universal physician identification number.)

In the event the state license number is used record the state abbreviation, if the national provider identifier (NPI) is used record NPI, if the local physician number is used record DN, and if the universal physician identification number (UPIN) is used record UPIN.

Note for cancer registries: Corresponds to NAACCR items: Pathologist Last Name [7260], Pathologist First Name [7270], Pathologist Middle Name [7280], Pathologist Name Suffix [7290], Pathologist Lic Number [7300], Pathologist Lic--State [7310].

OBR-33 Assistant result interpreter (CM-200, Optional, Repeating maximum 6) 00265

Definition: This field identifies the clinical observer who assisted with the interpretation of this study (e.g., assistant pathologist).

CM data type components: <name (CN)> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <point of care (IS)> ^ <room (IS)> ^ <bed (IS)> ^ <facility (HD)> ^ <location status (IS)> ^ <patient location type (IS)> ^ <building (IS)> ^ <floor (IS)>

Subcomponents of name: <ID number (ST)> & <family name (ST)> & <given name (ST)> & <middle initial or name (ST)> & <suffix (e.g., JR. III) (ST)> & <prefix (e.g., DR)> & <degree (e.g., MD) (ST)> & <source table (IS)> & <assigning authority (HD)>

Subcomponents of facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

OBR-34 Technician (CM-200, Optional, Repeating maximum 6) 00266

Definition: This field identifies the performing technician.

CM data type components: <name (CN)> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <point of care (IS)> ^ <room (IS)> ^ <bed (IS)> ^ <facility (HD)> ^ <location status (IS)> ^ <patient location type (IS)> ^ <building (IS)> ^ <floor (IS)>

Subcomponents of name: <ID number (ST)> & <family name (ST)> & <given name (ST)> & <middle initial or name (ST)> & <suffix (e.g., JR. III) (ST)> & <prefix (e.g., DR)> & <degree (e.g., MD) (ST)> & <source table (IS)> & <assigning authority (HD)>

Subcomponents of facility: <namespace ID (IS)> & <universal ID (ST)> & <universal ID type (ID)>

This field is rarely sent but will be supported.

OBR-35 Transcriptionist (CM-200, Not supported) 00267

Definition: This field identifies the report transcriber.

This field is not supported.

OBR-36 Scheduled - date/time (TS-26, Not supported) 00268

Definition: This field is the date/time the filler scheduled an observation, when applicable (e.g., action code in *OBR-11-specimen action code* = "S"). This is a result of a request to schedule a particular test and provides a way to inform the Placer of the date/time a study is scheduled (result only).

This field is not supported.

OBR-37 Number of sample containers (NM-4, Not supported) 01028

Definition: This field identifies the number of containers for a given sample. For sample receipt verification purposes, may be different from the total number of samples that accompany the order.

This field is not supported.

OBR-38 Transport logistics of collected sample (CE-60, Not supported) 01029

Definition: This field is the means by which a sample reaches the diagnostic service provider. This information is to aid the laboratory in scheduling or interpretation of results. Possible answers: routine transport van, public postal service, etc. If coded, requires a user-defined table.

This field is not supported.

OBR-39 Collector's comment (CE-200, Not supported) 01030

Definition: This field is for reporting additional comments related to the sample. If coded, requires a user-defined table. If only free text is reported, it is placed in the second component with a null in the first component (e.g., ^difficult clotting after venipuncture and ecchymosis).

This field is not supported.

OBR-40 Transport arrangement responsibility (CE-60, Not supported) 01031

Definition: This field is an indicator of who is responsible for arranging transport to the planned diagnostic service. Examples: Requester, Provider, Patient. If coded, requires a user-defined table.

This field is not supported.

OBR-41 Transport arranged (ID-30, Not supported) 01032

Definition: This field is an indicator of whether transport arrangements are known to have been made. Refer to HL7 Table 0224 - *Transport arranged* for valid codes.

This field is not supported.

OBR-42 Escort required (ID-1, Not supported) 01033

Definition: This field is an indicator that the patient needs to be escorted to the diagnostic service department.

Note: The nature of the escort requirements should be stated in the *OBR-43-planned patient transport comment* field. See HL7 Table 0225 - *Escort required* for valid values.

This field is not supported.

OBR-43 Planned patient transport comment (CE-200, Not supported) 01034

Definition: This field is the code or free text comments on special requirements for the transport of the patient to the diagnostic service department. If coded, requires a user-defined table.

This field is not supported.

OBR-44 Procedure code (CWE-80, Optional) 00393

Definition: This field contains a unique identifier assigned to the procedure, if any, associated with the Universal Service ID reported in field 4. This field is a CWE data type for compatibility with clinical and ancillary systems. This field will usually contain the CPT codes or SNOMED CT codes associated with the procedure. The CPT codes for the procedure may be available in other HL7 messages and are a licensed product of the American Medical Association. The SNOMED CT codes are available for use in the United States from the National Library of Medicine's Unified Medical Language System (UMLS). See User-defined Table 0088 for procedure code examples.

Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)> ^ <coding system version ID (ST)> ^ alternate coding system version ID (ST)> ^ <original text (ST)>

Note: CWE does not exist as a data type in HL7 v2.3.1, but since it is so important in carrying the coded information for synoptic reporting, it has been pre-adopted here from version 2.5 of HL7.

OBR-45 Procedure code modifier (CE-80, Not supported) 01316

Definition: This field contains the procedure code modifier to the procedure code reported in field 44, when applicable. Procedure code modifiers are defined by regulatory agencies such as CMS and the AMA. Multiple modifiers may be reported. The HCPCS codes and modifiers of level II can be found at <http://www.cms.hhs.gov/HCPCSReleaseCodeSets/>.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:
<identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^
<alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

In the example, this field is not valued.

2.6.4 Observation Reporting Segments

2.6.4.1 Observation/Result (OBX) Segment

The OBX segment is used to transmit a single observation or observation fragment. It represents the smallest indivisible unit of a report. Its principal mission is to carry information about observations in report messages. While OBR gives general information about the order for the test and ORC gives information on all services that are requested, the OBX segment gives the specific, individual tests performed (OBX-3) and the specific results for each test (OBX-5). Laboratory-based reporting to cancer registries focuses on OBX-3 and OBX-5 as the most informative elements of the message; thus, every effort should be made to make OBX-3 and OBX-5 as complete and unambiguous as possible.

OBX Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	4	SI	O			00569	Set ID - OBX		R	
2	3	ID	C		0125	00570	Value type		R	
3	80	CE	R			00571	Observation identifier ¹		R	
4	20	ST	C			00572	Observation sub-ID		O	
5	65536 ₃	² CE	C	Y ⁴		00573	Observation value ¹	7400, 7410, 7420, 7430, 7440, 7450, 7460, 7470, 2600, 7080, 7340, 7350, 7360, 7370, 7380, 7390	R	Y/12
6	60	CE	O			00574	Units	7540	RE	
7	60	ST	O			00575	Reference ranges		O	
8	5	ID	O	Y	0078	00576	Abnormal flags		O	Y/5
9	5	NM	O			00577	Probability		O	
10	2	ID	O	Y	0080	00578	Nature of abnormal test		O	Y/5
11	1	ID	R		0085	00579	Observation result status	7330	R	
12	26	TS	O			00580	Date last Obs normal values		O	
13	20	ST	O			00581	User defined access checks		O	
14	26	TS	O			00582	Date/time of the observation		O	
15	140	CE	O			00583	Producer's ID		R	
16	80	XCN	O	Y		00584	Responsible observer		O	Y/5
17	60	CE	O	Y		00936	Observation method		O	Y/6

¹ For laboratory-based reporting, LOINC is strongly recommended for OBX-3, and SNOMED CT is strongly recommended for OBX-5 when results are coded and CE data types are used.

² The data type for OBX-5 can vary and is determined by OBX-2.

³ The length of the observation value field is variable, depending upon value type. See *OBX-2-value type*.

⁴ May repeat for multipart, single answer results with appropriate data types (e.g., CE, TX, and FT data types).

Examples:

For cancer reporting using text value type results:

```
OBX|1|TX|22627-3^FINAL DIAGNOSIS^LN^^DIAGNOSIS^L|1|LEFT INGUINAL LYMPH  
NODE - GRANULOMATOUS LYMPHADENITIS <CR>
```

For patient age and employment:

```
OBR|2||^ Additional Patient Demographics| <CR>  
OBX|1|NM|21612-7^reported patient age^LN||47|yr^year^ANSI+||<CR>  
OBX|2|TX|11294-6^Current employment^LN||laboratory technician||<CR>
```

OBX Field Definitions

OBX-1 Set ID - observation simple (SI-4, Required) 00569

Definition: This field contains the sequence number. There can be many OBXs per OBR. The set ID allows the receiver to maintain the relational aspects of the message.

SI data type is a non-negative integer in the form of an NM field. The uses of this data type are defined in the chapters defining the segments and messages in which it is used.

For example:

```
|1|
```

This field can be used to track a number of results within one test panel.

OBX-2 Value type (ID-3, Required) 00570

Definition: This field contains the data type that defines the format of the observation value in OBX-5. An explanation of possible data types is given in Section 2.8 of the HL7 standard.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

This field contains the data type of the observation value reported in OBX-5. For instance, if the value in OBX-2 is “CE,” then the result reported in OBX-5 must be a coded element. When the value type is TX or FT, then the results in OBX-5 are bulk text. The choices allowed for the value type of an observation are listed in *HL7 Table 0125 - Value type*. All HL7 data types are valid in this field except CM, CQ, SI, and ID. TX should not be used except to send large amounts of text. ST should be used to send short, and possibly encodable, text strings. For laboratory-based reporting, the CE and SN data types should be used whenever possible so that results can be interpreted easily.

When no standard format for the reported result is available, it is recommended to use (see OBX-5 for additional explanation):

- 1) CE with subsequent NTE for non-standard coded results where the result is a predefined text block.
- 2) TX for results that are truly free text.

Observations that are usually reported as numbers will sometimes have the string (ST) data type because non-numeric characters are often reported as part of the result (e.g., “<0.06”) to indicate the result was lower than detected by the present mechanism. In the example, “<0.06,” “<” is a text symbol and the digit, “0.06” is considered a numeric value. However, this usage of the ST type should be discouraged because the SN

(structured numeric) data type now accommodates such reporting. The SN data type is described under OBX-5 below.

Note: NAACCR has constrained the possible value types for cancer registry messaging to the values listed in Table 0125 – Value type in this Guide.

OBX-3 Observation identifier (CE-590, Required) 00571

Definition: This field contains a unique identifier for the observation and is often referred to as the question code. It identifies what is being reported in OBX-5 which is often referred to as the answer code. Examples of OBX-3 include the name of the specific test or observation method, or the name of the component part of the pathology report. For pathology reporting, OBX-3 uses a CE data type construct.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

```
<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>
```

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

As noted in the below table: typically, anatomical pathology reports, cytology reports and hematology are in a narrative style format and the information is contained within different sections or heading. This field contains the LOINC codes, which must be used when transmitting text-based information, for the text-based NAACCR data items. In addition to the below text-based LOINC codes a pathology report may contain additional coded data elements and text-based information. Possible coded data elements include ICD-9-CM, CPT, ICD-O-3 and SNOMED CT information (see OBX-5).

<u>NAACCR Item Name</u>	<u>LOINC Code</u>	<u>LOINC Code Name</u>
Path--Final Diagnosis	22637-3	Path report final diagnosis
Path--Text Diagnosis	33746-9	Pathologic findings
Path--Clinical History	22636-5	Path report relevant Hx
Path--Nature of Specimen	22633-2	Path report site of origin
Path--Gross Pathology	22634-0	Path report gross description
Path--Micro Pathology	22635-7	Path report microscopic observation
Path--Comment Section	22638-1	Path report comments
Path--Suppl Reports	22639-9	Path report supplemental reports

The first component of OBX-3 is the LOINC code for a data element (text-based or coded) which will be transmitted. The second component is the name of the data element (text-based or coded) as it appears in the LOINC coding system. The third component is a code representing the name of the coding system that has the table where the codes and names of the data elements (text-based or coded) can be found (e.g., LN is the code for LOINC). Coding systems other than LOINC, such as SNOMED CT or CPT can be used for OBR-4. The codes for identifying coding systems are found in the HL7 standard documentation (<http://www.hl7.org>). Codes that we anticipate for use in public health and cancer registration reporting are shown in *User Table 0396*.

LOINC is a collection of tables that provide sets of universal names and ID codes for identifying laboratory and clinical test results. The LOINC codes are not intended to transmit all possible information about a test. They are only intended to *identify* the test result. The level of detail in the LOINC definitions was intended to distinguish tests that are usually distinguished as separate test results within the master file of existing laboratory systems. For laboratory-based reporting of public health information, a subset of LOINC codes has been selected and will be made available at the CDC website. General information about LOINC codes can be found at: <http://www.regenstrief.org>.

Below are examples of LOINC codes used to identify sections of a pathology report, such as nature of specimen and final diagnosis.

```
OBX|2|ST|22633-2^nature of specimen^LN^^^|1|left breast biopsy...<CR>
```

```
OBX|1|TX|22637-3^Path report final diagnosis^LN^^^||Malignant lymphoma, small B-cell type with plasmacytic differentiation and crystal-storing histiocytosis|...<CR>
```

Where <22633-2> is the identifier from the LOINC table for nature of specimen, <nature of specimen> is the text name as it appears in the table, <LN> is the name of the coding system, <1> specifies that it is the first specimen, and <left breast biopsy> identifies the specimen.

```
OBX|9|TX|22637-3^final diagnosis^LN^^^|1. Infiltrating duct carcinoma, left breast...<CR>
```

Where <22637-3> is the identifier from the LOINC table for the final diagnosis, <final diagnosis> is the text name as it appears in the table, <LN> is the name of the coding system, and <1. Infiltrating duct carcinoma, left breast> is the final diagnosis for the first specimen.

For cancer reporting, patient age is sometimes needed when the birth date may not be available. The PID segment in HL7 Version 2.3.1 has only a field for date of birth, not for patient age. Many applications compute patient age based on birth date. In the absence of birth date, patient age may be recorded within an ORU message in an additional OBR/OBX combination of segments. The suggested data type for patient age is NM, which is recorded in OBX-2. The LOINC code for age is represented in OBX-3 and actual age is represented in OBX-5. Patient age can be 'reported age' at the time of diagnosis (LOINC code 21612-7) or 'estimated age' (LOINC code 21611-9). For situations where birth date is unknown, age may be estimated by a third party on the basis of physical evidence.

A similar method may be used to record employment information that is not otherwise available in an ORU message. Several different LOINC codes identifying History of Occupation, Usual Occupation, Current Employment, Age at Diagnosis, Industry etc., are available. The appropriate LOINC code should be represented when sending patient employment information.

OBX-4 Observation sub-ID (ST-20, Optional) 00572

Definition: This field is used to distinguish between multiple OBX segments with the same observation ID organized under one OBR. For example, a blood culture may have three different organisms growing or a chest X-ray report might include three separate diagnostic impressions. The standard requires three OBX segments, one for each impression. By recording 1 in the Sub-ID of the first of these OBX segments, 2 in the second, and 3 in the third, each OBX segment can be uniquely identified for editing or replacement. The sub-identifier can be further extended by adding decimals (e.g., 2.1, 2.2). It is strongly recommended that numeric values be used for laboratory-based reporting so that receiving applications can maintain easily the relational quality of the data.

The sub-identifier is also used to group related components in reports such as surgical pathology. It is traditional for surgical pathology reports to include all the tissues taken from one surgical procedure in one report. Consider, for example, a single surgical pathology report that describes the examination of gallbladder and appendix tissue. This report would be transmitted roughly as shown below.

Example of sub-identifier usage:

```

OBR|1|||88304&Surg Path Report...<CR>
OBX|1|CE|88304&ANT|1|T57000^GallBladder^SNM...<CR>
OBX|2|TX|88304&GDT|1|This is a normal gallbladder...<CR>
OBX|3|TX|88304&MDT|1|Microscopic exam shows histologically normal gallbladder...<CR>
OBX|4|CE|88304&IMP|1|M-00100^NML^SNM...<CR>
OBX|5|CE|88304&ANT|2|T66000^Appendix^SNM...<CR>
OBX|6|TX|88304&GDT|2|This is a red, inflamed, swollen, boggy appendix ...<CR>
OBX|7|TX|88304&MDT|2|Infiltration with many PMN's – Indicating inflammatory change...<CR>
OBX|8|CE|88304&IMP|2|M-40000^InflammationNOS^SNM...<CR>

```

The example above has two segments for each component of the report, one for each of the two tissues, the gall bladder, and the appendix. Thus, there are two |88304&ANT| segments, there are two |88304&GDT| segments, and there are two |88304&MDT| segments. Segments that apply to the gallbladder all have the sub-identifier 1. Segments that apply to the appendix all have sub-identifier 2. The use of the sub ID to distinguish repeating OBXs for the same observation ID is really a special case of using the sub ID to group related subdivisions of information within the overall observation category. Its use must be carefully structured to avoid introducing ambiguities.

OBX-5 Observation value ([11]*Data type varies, User-assigned, Required, Repeating maximum 12) 00573

Definition: The results of the test appear here. For cancer registry reporting, the text of the pathology report (e.g., nature of specimen, gross pathology, final diagnosis, etc.) will be recorded in this segment. OBX-3 is typically referred to as the question code while OBX-5 is referred to as the answer code. If multiple results or different sections of the pathology report are being reported for a case, it is recommended that they be entered in separate OBX segments. (See Section 2.9 for an example of a pathology report with multiple OBX segments.)

The below table is a list of the NAACCR data item names and numbers of information that could be included in OBX-5.

<u>NAACCR Item Name</u>	<u>NAACCR Item Number</u>
Path--Final Diagnosis	7450
Path--Text Diagnosis	7400
Path--Clinical History	7410
Path--Nature of Specimen	7420
Path--Gross Pathology	7430
Path--Micro Pathology	7440
Path--Comment Section	7460
Path--Suppl Reports	7470
Path--SNOMED CT Code(s)	7340
Path--SNOMED CT Version ¹	7350
Path--ICD-CM codes	7360
Path--ICD Version Number ¹	7370
Path--CPT codes	7380
Path--CPT Code Version ¹	7390
Text--Staging	2600
Patient Age at Specimen	7080

¹These items are defined in HL7 versions 2.4 and 2.5, however, they are not defined in HL7 version 2.3.1 (these items can be transmitted in OBX-5 for version 2.3.1.).

Below are some examples of segments for the transmission of text pathology report data.

OBX|1|TX|22637-3^Path report.final diagnosis^LN^^^||Malignant lymphoma, small B-cell type with plasmacytic differentiation and crystal-storing histiocytosis|...<CR>

OBX|1|TX|22636-5^Path report.relevant Hx^LN^^^|| The patient was a 58 year-old woman who had inflammatory ductal carcinoma of the left breast diagnosed on a core biopsy in January 2007. An axillary lymph node was positive for metastatic disease on a concurrent FNA. The tumor was found to be ER-positive, PR-negative, and Her2-Neu weakly positive. Workup for further metastatic disease found multiple lesions in the liver and spine as well as a 5 cm mass in the upper pole of the left kidney. She received neoadjuvant chemotherapy and then underwent a modified radical mastectomy in September 2005 that found extensive primary tumor as well as metastases in 14 of 14 axillary lymph nodes.| ...<CR>

For laboratory-based reporting, SNOMED CT is strongly recommended for OBX-5 whenever the CE (coded element) data type is indicated in OBX-2. If CE appears in OBX-2, it is assumed that OBX-3 uses a LOINC code and the result in OBX-5 is coded using SNOMED CT. OBX-5.3 and OBX-5.6 indicates the appropriate SNOMED CT coding system: concept or legacy. In addition to SNOMED CT codes, a CE data element could also contain ICD-9-CM or CPT codes. A table of the coding systems are noted in Table 0396. When numeric results are sent in OBX-5, the SN or NM data type is preferred for OBX-2, and thus, SNOMED CT is not required. OBX-5 may have either the SNOMED CT code for “positive” or the SNOMED CT-specific names of organisms identified in the tests described in OBX-3. It is strongly recommended that the SNOMED CT code be used for the modifiers “positive,” “negative,” and “indeterminate.” Other modifiers should be avoided such as “limited findings,” “insufficient specimen,” “patient not at bedside,” or “see technician.” Further information on SNOMED CT can be found at the SNOMED CT website at <http://www.snomed.org>.

An example for a SNOMED CT coded final diagnosis:

OBX|1|CE|34574-4^path report final diagnosis^LN^^^||82711006^Infiltrating duct carcinoma^SCT^M-85003^infiltrating duct carcinoma^SCT2|...<CR>

An example for malignant melanoma as final diagnosis, and has an ICD-9-CM Disease Code in OBX-5:

OBX|1|CE|49561-4^Payment diagnosis ^LN^^^||172.3^Malignant melanoma Other and unspecified parts of face^I9CDX|<CR>

An example for the transmission of CPT-4 coded elements:

OBX|1|CE|49560-6^Payment procedure ^LN^^^||85097^Bone marrow biopsy^C4|<CR>

An example with the transmission of an ICD-9-CM Procedure Code:

OBX|1|CE|49560-6^Payment procedure^LN^^^||32.5^Complete pneumonectomy^I9CP|<CR>

An example for the transmission of an ICD-O-3 coded element

OBX|2|CE|31205-8^Histology ICD-O-3^LN^^^||M-98613^Acute myeloid leukemia NOS ^ICDO|<CR>

An example of a CWE data type for primary site with the version of the SNOMED CT coded noted in OBX-5.7.

OBX|1|CWE|21855-2^Primary Site^LN^^^|76752008^breast^SCT^T-04000
^breast^SCT2^January 2007^^|...<CR>

OBX|14|CWE|405979002^Breast-Pathologic Staging (pTNM)^SCT
||373204007^pT1b: Tumor more than 0.5 cm but not more than 1.0 cm in greatest
dimension^SCT^^^July 2007^^|F<CR>

In addition to the above noted CE data items OBX could contain information typically transmitted in the cancer abstract report (see NAACCR Standards Volume II) e.g., ICD-O topography or histology, laterality. In some situations, electronic cancer pathology reports are transmitted from the hospital pathology laboratory to the hospital cancer registry where additional cancer registry data items are coded. The enhanced electronic pathology report is then sent to the central cancer registry. In these situations, the corresponding LOINC code for the respective NAACCR data item should be sent in OBX-3 and the coded element or text should be transmitted in OBX-5. For the CE data types, the coding system should be a combination of the following: CR (to indicate cancer registry) and the corresponding NAACCR data item number (using 4 digits). Below is an example of the transmission of NAACCR data item “Laterality” which is NAACCR data item number 410.

OBX|1|CE|20228-3^Laterality^LN^^^|2^Left:origin of primary^CR0410^^^|...<CR>

An example of a complete OBX segment coded for reported age of the patient at the time of diagnosis would appear as:

OBX|1|NM|21612-7^Age Patient Qn Reported^LN^^^|47|yr^year^ANSI+||<CR>

Similarly, a complete OBX segment for patient employment would appear as:

OBX|2|TX|11294-6^Current employment^LN^^^|coal miner||||F<CR>

An example for malignant melanoma as final diagnosis, and has an ICD9-CM in OBX-5:

OBX|1|CE|46511-2^path report.final diagnosis^LN^^^|172.3^Malignant melanoma Other
and unspecified parts of face^I9C|<CR>

An example with two separate OBX rows; the first pertains to nature of specimen, and has CPT-4 code in the OBX-5 field while the second one has final diagnosis (morphology) sent using ICD-O3:

OBX|1|CE|22633-2^path report.nature of specimen^LN^^^|85097^Bone marrow
biopsy^IC4|<CR>

OBX|2|CE|31205-8^path report.final diagnosis^LN^^^|M-98613^Acute myeloid leukemia
NOS^ICDO3|<CR>

OBX|1|TX|22637-3^Path report.final diagnosis^LN^^^|Malignant lymphoma, small B-cell type with
plasmacytic differentiation and crystal-storing histiocytosis|...<CR>

OBX|1|TX|22636-5^Path report.relevant Hx^LN^^^| The patient was a 58 year-old woman who had
inflammatory ductal carcinoma of the left breast diagnosed on a core biopsy in January 2007. An
axillary lymph node was positive for metastatic disease on a concurrent FNA. The tumor was found
to be ER-positive, PR-negative, and Her2-Neu weakly positive. Workup for further metastatic disease
found multiple lesions in the liver and spine as well as a 5 cm mass in the upper pole of the left

kidney. She received neoadjuvant chemotherapy and then underwent a modified radical mastectomy in September 2005 that found extensive primary tumor as well as metastases in 14 of 14 axillary lymph nodes. <CR>

OBX-6 Units (CE-60, Required or empty) 00574

Definition: This field contains the units for the observation value in OBX-5 (ISO, ANSI, or UCUM). The default value is ISO + abbreviation. The ISO+ and ANSI+ customary units are shown in Section 7.3.2.6.2 of the HL7 Version 2.3.1 standard. For the cancer registry, commonly used ISO units include grams (gm or g), kilograms (kg), millimeter (mm), centimeter (cm), milligram per milliliter (mg/ml), gram per liter (gm/L), or moles per milligram (moles/mg).

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

For example:

|Ug/mL^microgram/milliliter^ISO+|

The units for age would be yr, wk, mo, d (in ANSI+ standards representation) in OBX-6.

For example:

|mo^month^ANSI+|

This field is left empty if the OBX-5 Observation value holds data that is not a measurement, such as a coded value. Note that not all numeric values are measurements, some are counts. For example, an integer indicated the number of metastases observed would not required any units in OBX-6, whereas an integer indicating the size of a lesion would require units.

Note for cancer registries: Corresponds to NAACCR data item Units for Age at Specimen [7540].

OBX-7 References range (ST-60, Optional) 00575

Definition: When the observation quantifies the amount of a toxic substance, then the upper limit of the range identifies the toxic limit. If the observation quantifies a drug, the lower limits identify the lower therapeutic bounds and the upper limits represent the upper therapeutic bounds above which toxic side effects are common.

If numeric, the values of this field may report several values in one of the following three formats:

lower limit-upper limit	when both lower and upper limits are defined (e.g., for potassium "3.5 - 4.5")
> lower limit	if no upper limit (e.g., ">10")
< upper limit	if no lower limit (e.g., "<15")

If alphabetical, the normal value may be reported in OBX-7. For instance, the normal result on an assay may be “pink.”

In the example, this field is not valued.

OBX-8 Abnormal flags (ID-5, Optional, Repeating maximum 5) 00576

Definition: This field contains the microbiology sensitivity interpretations. Refer to *HL7 Table 0078 - Abnormal flags* for valid entries.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

Abnormal flags should be used for reporting microbiology sensitivity data. Abnormal flags for antimicrobial sensitivity reporting should conform to the recommendations of National Committee of Clinical Laboratory Standards (NCCLS, <http://www.nccls.org>). For most reported findings, the allowable values are S, I, or R, and should be provided in addition to the numeric value in OBX-5. For ELR, when findings other than susceptibility results are sent, the abnormal flag should be valued (e.g., “H,” “N,” or “A”) to distinguish between tests that are interpreted as normal and those that are interpreted as abnormal.

In the example, this field is not valued.

OBX-9 Probability (NM-5, Optional) 00577

Definition: This field contains the probability of a result being true for results with categorical values. It mainly applies to discrete coded results. It is a decimal number represented as an ASCII string that must be between 0 and 1, inclusive.

In the example, this field is not valued.

OBX-10 Nature of abnormal test (ID-2, Optional, Repeating maximum 5) 00578

Definition: This field contains the nature of the abnormal test.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

In the example, this field is not valued.

OBX-11 Observation result status (ID-1, Required) 00579

Definition: This field contains the observation result status. Refer to *HL7 Table 0085 - Observation result status codes interpretation* for valid values. This field reflects the current completion status of the results for data contained in the *OBX-5-observation value* field. It is a required field. Previous versions of HL7 stated this implicitly by defining a default value of “F” indicating that the result has been verified to be correct and final.

The value of an ID data type follows the formatting rules for an ST data type except that it is drawn from a table of HL7 legal values.

Note for cancer registries: Corresponds to NAACCR item Path--Result Status [7330].

OBX-12 Date last observation normal values (TS-26, Optional) 00580

Definition: This field contains the changes in the observation methods that would make values obtained from the old method not comparable with those obtained from the new method. Null if there are no normals or units. If present, a change in this date compared to date-time recorded, the receiving system’s test dictionary should trigger a manual review of the results to determine whether the new observation ID should be assigned a new ID in the local system to distinguish the new results from the old.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[S[S[S[S]]]]]]]]]

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

In the example, this field is not valued.

OBX-13 User defined access checks (ST-20, Optional) 00581

Definition: This field permits the producer to record results-dependent codes for classifying the observation at the receiving system. This field should be populated with the reportable condition if available.

For reporting to cancer registries, two examples of reportable neoplasms follow:

|M-85003^infiltrating duct carcinoma^SNM|...

or

|D0-F1113^malignant melanoma of skin of cheek^SNM|...

Examples of other reportable conditions, as specified by the receiving system.

|DE-35100^Viral hepatitis, type A (disorder) ^SNM|...

or

|DE-01600^Sexually transmitted infectious disease^SNM|...

OBX-14 Date-time of the observation (TS-26, Optional) 00582

Definition: Records the time of the observation. It is the physiologically relevant date-time or the closest approximation to that date-time of the observation. This field is required in two circumstances. The first is when the observations (OBXs) reported beneath one report header (OBR) have different dates, for instance when one measurement within a battery may have a different time/date than another measurement.

Time stamp (TS) data type must be in the format:
YYYY[MM[DD[HHMM[SS[S[S[S[S]]]]]]]]]

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

For example:

|200012161330|

OBX-15 Producer's ID (CE-140, Required) 00583

Definition: Contains a unique identifier of the responsible producing service. It must be included for all ELR messages that are reported to cancer registries. For most reports the CLIA identifier here will be identical to the CLIA identifier listed as the assigning facility in PID-3 (Patient ID, Internal). When the test results are produced at outside laboratories, the CLIA identifier for the laboratory that performed the test must appear here and will be different from the CLIA identifier listed as the assigning facility in PID-3.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:
<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

(1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.

- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

For example:

|01D0301145^HITECK PATH LAB^CLIA|

or

Womack Med Ctr^^^^^L-CP^^DOD1234567

OBX-16 Responsible observer (XCN-80, Optional, Repeating maximum 5) 00584

Definition: This field contains the identifier of the individual directly responsible for the observation (the person who either performed or verified it).

Components of the XCN data type: <ID number (ST)>^<family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., Jr. or III) (ST)>^<prefix (e.g., Dr.) (ST)>^<degree (e.g., MD) (IS)>^<source table (IS)>^<assigning authority (HD)>^<name type code (ID)>^<identifier check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<identifier type code (IS)>^<assigning facility ID (HD)>^<name representation code (ID)>

Subcomponents of assigning authority: <namespace ID (IS)>&<universal ID (ST)> & <universal ID type (ID)>

Subcomponents of assigning facility: <namespace ID (IS)>&<universal ID (ST)> & <universal ID type (ID)>

OBX-17 Observation method (CE-60, Optional, Repeating maximum 6) 00936

Definition: This field is used to transmit the method or procedure by which an observation was obtained when the sending system wishes to distinguish among one measurement obtained by different methods and the distinction is not implicit in the test ID.

The CE data type transmits codes and the text associated with the code. This type has six components arranged in two groups as follows:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^
<alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)>

CE data type components are defined as follows:

- (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.
- (2) Text (ST). Name or description of the item in question.
- (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item.
- (4-6) Three components analogous to 1-3 for the alternate or local coding system.

2.6.4.2 Notes and Comments (NTE) Segment

The NTE segment is a common format for sending notes and comments. This optional, repeating segment may be inserted after any of the OBX segments, or the OBR segment, in the ORU message. The NTE segment applies to the information in the segment that immediately precedes it (i.e., the observation reported in the preceding OBX segment, or the type of observation identified in the OBR segment). The NTE segment is not further defined by HL7.

Note: This segment is not routinely completed, however, if this section is used it should only include general comments, instructions, or results and not specific results.

NTE Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	4	SI	O			00096	Set ID - NTE		O	
2	8	ID	O		0105	00097	Source of Comment		O	
3	64k	FT	O	Y		00098	Comment		O	Y/4
4	60	CE	O			01318	Comment Type		O	

Example:

NTE | 1 | L | THIS WOULD BE A COMMENT THAT COMES FROM THE LABORATORY. <CR>

NTE Field Definitions**NTE-1 Set ID (SI-4, Optional) 00096**

Definition: This field may be used where multiple NTE segments are included in a message. Their numbering must be described in the application message definition.

NTE-2 Source of comment (ID-8, Optional) 00097

Definition: This field is used when source of comment must be identified. HL7-defined *Table 0105 Source of Comment* may be extended locally during implementation.

NTE-3 Comment (FT-64k, Optional, Repeating maximum 4) 00098

Definition: This field contains the comment contained in the segment.

NTE-4 Comment type (CE-60, Optional) 01318

Definition: This field contains a value to identify the type of comment text being sent in the specific comment record. Allowable values are given in *User-defined Table 0364 - Comment Type*.

Note: NTE-2 already identifies one source of comment (e.g., ancillary, placer, other). However, some applications need to support other types of comment text (e.g., instructions, reason, remarks, etc.). A separate NTE segment can be used for each type of comment (e.g., instructions are on one NTE and remarks on another NTE). If the amount of text for a specific type of comment exceeds the NTE segment maximum, the NTE-1 Set ID field can be valued to group related NTE's together when applicable. For example, all NTEs with a Set ID valued to 1 are grouped as a logical grouping of text.

2.7 HL7 BATCH PROTOCOL

There are instances when it is convenient to transfer a batch of HL7 messages for reporting to cancer registries. Such a batch could be sent online using SFTP or HTTPS, or offline via tape or diskette.

2.7.1 HL7 Batch File Structure

A batch of HL7 messages may be sent online using a common file transfer protocol or offline via tape or diskette. If needed, a group of batches may be sent using the file header and trailer segments. The FHS and FTS are optional and need not be sent if the transaction is one batch of records. The file/batch syntax follows:

```
[FHS]           (file header segment)
{ [BHS]         (batch header segment)
```

```
{ [MSH          (zero or more HL7 messages)
  PID
  OBR
  ...
] }
[BTS]          (batch trailer segment)
}
[FTS]          (file trailer segment)
```

The sequence numbering protocol has a natural application in batch transfers. See the discussion of batch acknowledgments that follows. A batch for reporting to cancer registries will consist of a single type of message (i.e., ORU). Batches should usually contain at least one HL7 message. There are only two cases in which an HL7 batch file may contain zero HL7 messages: (1) a batch containing zero HL7 messages may be sent to meet a requirement for periodic submission of batches when there are no messages to send; and (2) a batch containing zero negative acknowledgment messages may be sent to indicate that all the HL7 messages contained in the batch being acknowledged are implicitly acknowledged. The attribute tables and field definitions for batch-related segments are given below.

Related Segments and Data Usage: The following segments relate to the HL7 Batch Protocol: (1) BHS - Batch Header, (2) BTS - Batch Trailer, (3) FHS - File Header, and (4) FTS - File Trailer. The BTS segment contains a field, *BTS-3-batch totals*, which may have one or more totals drawn from fields within the individual messages. The method for computing such totals resides with the sending facility.

2.7.2 Acknowledging Batches

In general, the utility of sending batches of data is that the data is accepted all at once, with errors processed on an exception basis. However, it is a permissible application of HL7 to acknowledge all messages. Several options for acknowledgment are given in the HL7 2.3.1 standard document and are not addressed further here.

2.7.3 Batch Segments

2.7.3.1 File Header (FHS) Segment

The FHS segment is used to head a file (group of batches). Ideally, a single sending facility, for instance a regional laboratory for a hospital consortium, could send a group of batches of reportable findings from separate laboratories within the consortium. In this setting, each separate BHS would have a different CLIA identifier. The FHS would have a different CLIA number as well, or would have the same CLIA number as the one batch that was performed at the sending facility. This complexity of message processing is not common yet, either at laboratories or cancer registries. The description of batch reporting in this guide demonstrates reporting from a single facility and thus the CLIA number is the same for MSH, BHS, and FHS. This segment is required for batch submissions only.

FHS Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	1	ST	R			00067	File field separator		R	
2	4	ST	R			00068	File encoding characters		R	
3	15	ST	O			00069	File sending application		O	
4	20	ST	O			00070	File sending facility		R	
5	15	ST	O			00071	File receiving application		O	
6	20	ST	O			00072	File receiving facility		O	
7	26	TS	O			00073	File creation date/time		R	
8	40	ST	O			00074	File security		O	
9	20	ST	O			00075	File name/ID/type		RE	
10	80	ST	O			00076	File comment		O	
11	20	ST	O			00077	File control ID		O	
12	20	ST	O			00078	Reference file control ID		O	

FHS Field Definitions

Usage notes: FHS fields 1-8 have the same definitions as the corresponding fields in the MSH segment. FHS segment was not shown in the examples, but the field definitions are provided below for reference.

FHS-1 File field separator (ST-1, Required) 00067

Definition: This field has the same definition as the corresponding field in the MSH segment.

FHS-2 File encoding characters (ST-4, Required) 00068

Definition: This field has the same definition as the corresponding field in the MSH segment.

FHS-3 File sending application (ST-15, Optional) 00069

Definition: This field has the same definition as the corresponding field in the MSH segment.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

FHS-4 File sending facility (ST-20, Required) 00070

Definition: This field has the same definition as the corresponding field in the MSH segment.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

FHS-5 File receiving application (ST-15, Optional) 00071

Definition: This field has the same definition as the corresponding field in the MSH segment.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

FHS-6 File receiving facility (ST-20, Optional) 00072

Definition: This field has the same definition as the corresponding field in the MSH segment.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

FHS-7 File creation date/time (TS-26, Required) 00073

Definition: This field has the same definition as the corresponding field in the MSH segment.

Components: <Time (DTM)> ^ <DEPRECATED-Degree of Precision (ID)>

FHS-8 File security (ST-40, Optional) 00074

Definition: This field has the same definition as the corresponding field in the MSH segment.

FHS-9 File name/ID (ST-20, Required or empty) 00075

Definition: This field can be used by the application processing file. Its use is not further specified.

FHS-10 File header comment (ST-80, Optional) 00076

Definition: This field contains the free text field, the use of which is not further specified.

FHS-11 File control ID (ST-20, Optional) 00077

Definition: This field is used to identify a particular file uniquely. Use Timestamp plus a counter similar to MSH-10 to uniquely identify the file here. It can be echoed back in *FHS-12-reference file control ID*.

FHS-12 Reference file control ID (ST-20, Optional) 00078

Definition: This field contains the value of *FHS-11-file control ID* when this file was originally transmitted. Not present if this file is being transmitted for the first time.

2.7.3.2 File Trailer (FTS) Segment

Used to define the end of a file. This segment is required for batch submissions only.

FTS Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	10	NM	O			00079	File batch count		R	
2	80	ST	O			00080	File trailer comment		O	

FTS Field Definitions

Usage notes: FTS segment was not used in the given examples, but the field definitions are provided below for reference.

FTS-1 File batch count (NM-10, Required) 00079

Definition: This field contains the number of batches contained in the file.

FTS-2 File trailer comment (ST-80, Optional) 00080

Definition: The use of this free text field is not further defined in the HL7 protocol.

2.7.3.3 Batch Header (BHS) Segment

Used to define the start of a batch. This segment is required for batch submissions only.

BHS Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	1	ST	R			00081	Batch field separator		R	
2	3	ST	R			00082	Batch encoding characters		R	
3	15	ST	O			00083	Batch sending application		O	
4	20	ST	O			00084	Batch sending facility		R	
5	15	ST	O			00085	Batch receiving application		O	
6	20	ST	O			00086	Batch receiving facility		O	
7	26	TS	O			00087	Batch creation date/time		R	
8	40	ST	O			00088	Batch security		O	
9	20	ST	O			00089	Batch name/ID/type		O	
10	80	ST	O			00090	Batch comment		O	
11	20	ST	O			00091	Batch control ID		O	
12	20	ST	O			00092	Reference batch control ID		O	

BHS Field Definitions

Usage notes: BHS fields 1-8 have the same definitions as the corresponding fields in the MSH segment. BHS segment was not shown in the examples, but the field definitions are provided below for reference.

BHS-1 Batch field separator (ST-1, Required) 00081

Definition: This field contains the separator between the segment ID and the first real field, BHS-2-batch encoding characters. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. Recommended value is |,(ASCII 124).

BHS-2 Batch encoding characters (ST-3, Required) 00082

Definition: This field contains the four characters in the following order: the component separator, repetition separator, escape characters, and subcomponent separator. Recommended values are ^~\& (ASCII 94, 126, 92, and 38, respectively).

BHS-3 Batch sending application (ST-15, Optional) 00083

Definition: This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise. Entirely site-defined.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

BHS-4 Batch sending facility (ST-20, Required) 00084

Definition: This field contains the address of one of several occurrences of the same application within the sending system. Absent other considerations, the Medicare Provider ID might be used with an appropriate sub-identifier in the second component. Entirely site-defined.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

BHS-5 Batch receiving application (ST-15, Optional) 00085

Definition: This field uniquely identifies the receiving applications among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the

exchange of HL7 messages within the enterprise. Entirely site-defined.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

BHS-6 Batch receiving facility (ST-20, Optional) 00086

Definition: This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations. See comments for BHS-4-batch sending facility. Entirely site-defined.

Components: <Namespace ID (IS)> ^ <Universal ID (ST)> ^ <Universal ID Type (ID)>

BHS-7 Batch creation date/time (TS-26, Required) 00087

Definition: This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone.

Components: <Time (DTM)> ^ <DEPRECATED-Degree of Precision (ID)>

BHS-8 Batch security (ST-40, Optional) 00088

Definition: In some applications of HL7, this field is used to implement security features. Its use is not yet further specified.

BHS-9 Batch name/ID/type (ST-20, Optional) 00089

Definition: This field can be used by the application processing the batch. It can have extra components if needed.

BHS-10 Batch comment (ST-80, Optional) 00090

Definition: This field is a comment field that is not further defined in the HL7 protocol.

BHS-11 Batch control ID (ST-20, Optional) 00091

Definition: This field is used to uniquely identify a particular batch. Use Timestamp and a counter similar to MSH-10 to uniquely identify the batch. It can be echoed back in BHS-12-reference batch control ID if an answering batch is needed.

BHS-12 Batch reference batch control ID (ST-20, Optional) 00092

Definition: This field contains the value of BHS-11-batch control ID when this batch was originally transmitted. This field is not valued if this batch is being sent for the first time.

2.7.3.4 *Batch Trailer (BTS) Segment*

Used to define the end of a batch. This segment is required for batch submissions only.

BTS Attributes

Seq	Len	DT	Opt	RP#	Tbl#	Item#	Element Name	NAACCR Item #	NAACCR Opt	NAACCR RP#
1	10	ST	O			00093	Batch message count		R	
2	80	ST	O			00094	Batch comment		O	
3	100	NM	O	Y		00095	Batch totals		O	Y/4

BTS Field Definitions

Usage notes: BTS segment was not shown in the examples, but the field definitions are provided below for reference.

BTS-1 Batch message count (ST-10, Required) 00093

Definition: This field contains the count of the individual messages contained within the batch.

BTS-2 Batch comment (ST-80, Optional) 00094

Definition: This field is a comment field that is not further defined in the HL7 protocol.

BTS-3 Batch totals (NM-100, Optional, Repeating maximum 4) 00095

Definition: This field contains the batch total. The numbers of messages should be counted and represented here to allow recipients to have simple batch level auditing.

2.8 DATA TYPES USED IN THIS IMPLEMENTATION

HL7 Ref#	Data Type	Description	Notes
2.8.1	AD-address	Components: <street address (ST)> ^ < other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <zip or postal code (ST)> ^ <country (ID)> ^ <address type (ID)> ^ <other geographic designation (ST)>	For details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.3	CE - coded element with formatted values	This data type transmits codes and the text associated with the code. To allow all six components of a CE data type to be valued, the suggested length of a field of this data type is at least 60. Components: <identifier (ST)>^<text (ST)>^<name of coding system (ST)>^ <alternate identifier (ST)>^<alternate text (ST)> ^<name of alternate coding system (ST)> Components are defined as follows: (1) Identifier (ST). The code that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here. (2) Text (ST). Name or description of the item in question. (3) Name of coding system (ST). Identifies the coding system used. The combination of the identifier and the name of the coding system components will be a unique code for a data item. (4-6) Three components analogous to 1-3 for the alternate or local coding system.	For HL7-defined tables, the third component, name of coding system, is constructed by appending the table number to the string "HL7." For example, the HL7 table number 0163 would be designated in the "name of coding system" component as "HL70163." The second set of codes must carry the same meaning as the first set. For example, for immunization data, a first set using CVX codes followed by a second set using CPT codes may be used to record the administration of a single vaccine. The presence of two sets of equivalent codes in this data type is semantically different from a repetition of a CE-type field. With repetition, several distinct codes (with distinct meanings) may be transmitted.
2.8.4	CF – coded element with formatted values	This data type transmits codes and the formatted text associated with the code. Components: <identifier (ID)> ^ <formatted text (FT)> ^ <name of coding system (ST)> ^ <alternate identifier (ID)> ^ <alternate formatted text (FT)> ^ <name of alternate coding system (ST)>	For details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.6	CM - composite	A field that is a combination of other meaningful data fields. Each portion is called a component. The specific components of CM fields are defined within the field descriptions.	The CM data type is maintained strictly for backward compatibility and may not be used for the definition of new fields.
2.8.7	CN - composite ID number and name	This data type is used when identifying a person both as a coded value and with a text name. Components: <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <source table (IS)> ^ <assigning authority (HD)>	For details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.9	CP - composite price	Components: <price (MO)>^<price type (ID)>^<from value (NM)>^<to value (NM)>^<range units (CE)>^<range type (ID)>	For details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.

HL7 Ref#	Data Type	Description	Notes
2.8.10	CQ - composite quantity with units	Components: <quantity (NM)>^<units (CE)>	Future use of this data type will be avoided because the same information can be sent as a CE data type.
2.8.11	CWE	<p>Components: <identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)> ^ <coding system version ID (ST)> ^ alternate coding system version ID (ST)> ^ <original text (ST)></p> <p>(1) Identifier (ST): Sequence of characters (the code) that uniquely identifies the item being referenced by the <text>. Different coding schemes will have different elements here.</p> <p>(2) Text (ST): Name or description of the item in question. E.g., myocardial infarction or X-ray impression. Its data type is string (ST).</p> <p>(3) Name of coding system (ST): Each coding system is assigned a unique name (coding system identifier). This component will serve to identify the coding scheme being used in the identifier component. The combination of the <identifier> , <name of coding system> , and <coding system version ID> components will be a unique code for a data item. ASTM E1238-94, Diagnostic, procedure, observation, drug ID, and health outcomes coding systems are identified in the tables in Section 7.1.4, "Coding schemes." Others may be added as needed. When an HL7 table is used for a CE data type, the <name of coding system> component is defined as <i>HL7nnnn</i> where <i>nnnn</i> is the HL7 table number.</p> <p>(4) Alternate identifier (ST): For explanation, see text after "Name of alternate coding system".</p> <p>(5) Alternate text (ST): For explanation, see text after "Name of alternate coding system".</p> <p>(6) Name of alternate coding system (ST): Alternate components (4, 5, 6) (for components 1, 2, 3).</p> <p>These three components are defined analogously to the above for the alternate or local coding system. If the <alternate text> component is absent, and the <alternate identifier> is present, the <alternate text> will be taken to be the same as the <text> component. If the <alternate coding system> component is absent, it will be taken to mean the locally-defined system.</p> <p>(7) Coding system version ID (ST): This is the version ID for the coding system identified by components 1-3. It belongs conceptually to the group of component 1-3 and appears here only for reasons of backward compatibility.</p> <p>(8) Alternate coding system version ID (ST): This is the version ID for the coding system identified by components 4-6. It belongs conceptually to the group of alternate components and appears here only for reasons of backward compatibility.</p> <p>(9) Original text (ST): The original text that was available to an automated process or a human before a specific code was assigned.</p>	<p>Note: CWE does not exist as a data type in HL7 v2.3.1, but since it is so important in carrying the coded information for synoptic reporting, it has been pre-adopted here from version 2.5 of HL7.</p> <p>The CWE data type is similar to the CE data type with the addition of being able to communicate the coding system versions for each coded triplet. It also allows communication of the original text which was the basis for the coding.</p>
2.8.12	CX - extended composite ID with check digit	<p>Components: <ID (ST)>^<check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)></p> <p>Components are defined as follows:</p> <p>(1) ID (ST).</p> <p>(2) Check digit (ST). Not supported.</p> <p>(3) Code identifying the check digit scheme employed (ID). Not supported.</p> <p>(4) Assigning authority (HD).</p> <p>Subcomponents of (3):</p> <p><namespace ID (IS)>^<universal ID (ST)>^<universal ID type (ID)></p> <p>Assigning facility (HD). The place or location identifier where the identifier was first assigned to the patient part of the history of the identifier.</p>	<p>Refer to <i>User-defined Table 0203 - Identifier type</i> for suggested values for component 5.</p> <p>Note that for the namespace ID component of the first HD contained in the EI, CX, XON, and XCN datatypes, <i>User-defined table 0300 – Namespace ID</i> was redefined in the HL7 standard to be drawn from <i>User-defined table 0363 – Assigning Authority</i>.</p>

HL7 Ref#	Data Type	Description	Notes
2.8.13	DLN – driver’s license number	Components: <license number (ST)>^<issuing state, province, country (IS)>^<expiration date (DT)>	This data type gives the driver’s license information. See HL7 Standard for component definitions and tables to use.
2.8.15	DT - date	Format: YYYY[MM[DD]]	The precision of a date may be expressed by limiting the number of digits used with the format specification YYYY[MM[DD]].
2.8.17	EI - entity identifier	Components: <entity identifier (ST)>^<namespace ID (IS)>^<universal ID (ST)>^<universal ID type (ID)> Components are defined as follows: (1) Entity identifier (ST). This component is usually defined to be unique within the series of identifiers created by the assigning authority, defined by a hierarchic designator, represented by components (2) through (4). (These are as defined here at 2.8.20, “HD - hierarchic designator.”)	The entity identifier defines a given entity within a specified series of identifiers. Note that for the namespace ID component of the first HD contained in the EI, CX, XON, and XCN datatypes, <i>User-defined table 0300 – Namespace ID</i> was redefined in the HL7 standard to be drawn from <i>User-defined table 0363 – Assigning Authority</i> .
2.8.18	FC - financial class	Components: <financial class (IS)>^<effective date (TS)> Components are defined as follows: (1) Financial class (IS). The financial class assigned to a person. Refer to <i>User-defined Table 0064 - Financial class</i> for suggested values. (2) Effective date (TS). The effective date/time of the person’s assignment to the financial class specified in the first component.	Used in immunization registries to classify VFC eligibility. For more details, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.19	FT - formatted text data	This data type is derived from the string data type by allowing the addition of embedded formatting instructions. These instructions are limited to those that are intrinsic and independent of the circumstances under which the field is being used. The FT field is of arbitrary length (up to 64K) and may contain formatting commands enclosed in escape characters.	For details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.20	HD - hierarchic designator	A unique name that identifies the system, which was the source of the data. The HD is designed to be used either as a local version of a site-defined application identifier or a publicly assigned UID. Syntactically, the HD is a group of two application identifiers: one defined by the first component, and one defined by the second and third components. Components: <namespace ID (IS)>^<universal ID (ST)>^<universal ID type (ID)> Components are defined as follows: (1) Namespace ID (IS). Refer to <i>User-defined Table 0363 - Assigning Authority</i> for suggested values when this is used for an Assigning Authority, otherwise draw values from <i>User-defined Table 0300 Namespace ID</i> . By site agreement, implementors may continue to use <i>User-defined table 0300 – Namespace ID</i> for the first sub-component. (2) Universal ID (ST). The UID is a string formatted according to the scheme defined by the third component, UID type. The UID is intended to be unique over time within the UID type. It is rigorously defined by the scheme constructing it. The UID must follow the syntactic rules of the particular scheme defined in the third component. (3) Universal ID type (ID). Governs the interpretation of the second component of the HD. If it is a known UID, refer to <i>HL7 Table 0301 - Universal ID type</i> for valid values.	Used in fields that formerly used the IS data type. When only the first HD component is valued, it looks like a simple IS data type. Designed to be an application identifier, either as a local version of a site-defined application identifier or a publicly assigned universal ID (UID). The HD is a group of two application identifiers: one defined by the first component, and one defined by the second and third components. If the first component is present, the second and third components are optional. The second and third components must either both be valued (both non-null), or both be not valued (both null).

HL7 Ref#	Data Type	Description	Notes
2.8.21	ID - coded value for HL7-defined tables	The value of such a field follows the formatting rules for an ST field except that it is drawn from a table of legal values. Examples of ID fields include <i>MSH-12-Version ID</i> and <i>PD1-12-Protection indicator</i> .	This data type should be used only for HL7 tables. The reverse is not true, because in some circumstances, it is more appropriate to use the CE data type for HL7 tables.
2.8.22	IS - coded value for user-defined tables	The value of such a field follows the formatting rules for an ST field except that it is drawn from a site-defined (or user-defined) table of legal values. An example of an IS field is <i>PID-8-Sex</i> .	This data type should be used only for user-defined tables. The reverse is not true, because in some circumstances, it is more appropriate to use the CE data type for user-defined tables.
2.8.23	JCC - job code/class	Format: <job code (IS)>^<job class (IS)>	See HL7 Standard for component definitions and tables to use.
2.8.25	MO - money	Components: <quantity (NM)>^<denomination (ID)>	See HL7 Standard for component definitions and tables to use.
2.8.27	NM - numeric	A number represented as a series of ASCII numeric characters consisting of an optional leading sign (+ or -), the digits and an optional decimal point. In the absence of a sign, the number is assumed to be positive. If there is no decimal point, the number is assumed to be an integer. Leading zeros, or trailing zeros after a decimal point, are not significant.	
2.8.28	PL - person location	Components: <point of care (IS)>^<room (IS)>^<bed (IS)>^<facility (HD)>^<location status (IS)>^<person location type (IS)>^<building (IS)>^<floor (IS)>^<location description (ST)>	Used to specify a patient location within a healthcare institution. See HL7 Standard for component definitions and tables to use.
2.8.29	PN - person name	Components: <family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., Jr. or III) (ST)>^<prefix (e.g., Dr.) (ST)>^<degree (e.g., MD) (IS)> Components are defined as follows: (1) Family name (ST) & Last name prefix (ST). Surname/last name. Last name prefix is for use with Germanic languages (e.g., “van” in “Ludwig van Beethoven”). (2) Given name (ST). (3) Middle initial or name (ST). (4) Suffix (ST). Used to specify a name suffix (e.g., Jr. or III). (5) Prefix (ST). Used to specify a name prefix (e.g., Dr.). (6) Degree (IS). Used to specify an educational degree (e.g., MD). See <i>User-defined Table 0360 - Degree</i> for values.	Note: To “translate” the last name prefix and the family name, prepend the last name prefix to the family name component. If the last name prefix is not null, the last name prefix should not also be present as part of the family name component. For more details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.31	PT - processing type	Components: <processing ID (ID)>^<processing mode (ID)> Components are defined as follows: (1) Processing ID (ID). A value that defines whether the message is part of a production, training, or debugging system. Refer to <i>HL7 Table 0103 - Processing ID</i> for valid values. (2) Processing mode (ID). A value that defines whether the message is part of an archival process or an initial load. Refer to <i>HL7 Table 0207 - Processing mode</i> for valid values. The default (blank) means current processing.	
2.8.38	SI - sequence ID	A non-negative integer in the form of an NM field.	The uses of this data type are defined in the chapters defining the segments and messages in which it is used.

HL7 Ref#	Data Type	Description	Notes
2.8.39	SN - structured numeric	<comparator (ST)> ^ <num1 (NM)> ^ <separator/suffix (ST)> ^ <num2 (NM)>	For details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.40	ST - string data	Any printable ASCII characters except the defined delimiter characters. To include any HL7 delimiter character (except the segment terminator) within a string data field, use the appropriate HL7 escape sequence. String data is left justified with trailing blanks optional.	The ST data type is intended for short strings (less than 200 characters). For longer strings, the TX or FT data types should be used.
2.8.41	TM - time	Format: HH[MM[SS[.S[S[S[S]]]]]][/-ZZZZ] Precision of a time is expressed by limiting the number of digits used within the format, using a 24-hour clock notation. Thus, HH is used to specify precision only to hour.	The time is understood to refer to the local time of the sender. For more details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.42	TN - telephone number	Format: [NN] [(999)]999-9999[X99999][B99999][C any text]	The optional first two digits are the country code. The optional X portion gives an extension. The optional B portion gives a beeper code. The optional C portion may be used for comments such as, "After 6:00 pm." For more details on this data type, see Chapter 2 of the HL7 Standard version 2.3.1.
2.8.43	TQ - timing quantity	Components: <quantity (CQ)> ^ <interval (CM)> ^ <duration (ST)> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <priority (ST)> ^ <condition (ST)> ^ <text (TX)> ^ <conjunction (ST)> ^ <order sequencing (CM)> ^ <performance duration (CE)> ^ <total occurrences (NM)>	Describes when a service should be performed and how frequently. Complete description is in HL7 Standard Section 4.4.
2.8.44	TS - time stamp	Contains the exact time of an event, including the date and time. Format: YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][/-ZZZZ] ^ <degree of precision> The date portion of a time stamp follows the rules of a date field (DT) and the time portion follows the rules of a time field (TM). HL7 recommends, but does not require, that all systems routinely send the time zone offset.	The optional degree of precision component is retained only for backwards compatibility.
2.8.45	TX - text data	String data meant for user display (on a terminal or printer). Not necessarily left justified. Leading spaces may contribute to clarity of the presentation to the user.	
2.8.47	VID - version identifier	Components: <version ID (ID)> ^ <internationalization code (CE)> ^ <international version ID (CE)> Components are defined as follows: (1) Version ID (ID). Used to identify the HL7 version. Refer to <i>HL7 Table 0104 - Version ID</i> for valid values. (2) Internationalization code (CE). Used to identify the international affiliate country code. ISO 3166 provides a list of country codes that may be used (see <i>User-defined Table 0212 - Nationality</i>). (3) International version ID (CE). Used when the international affiliate has more than a single local version associated with a single U.S. version.	

HL7 Ref#	Data Type	Description	Notes
2.8.48	XAD - extended address	<p>Components: <street address (ST)>^<other designation (ST)>^<city (ST)>^<state or province (ST)>^<ZIP or postal code (ST)>^<country (ID)>^<address type (ID)>^<other geographic designation (ST)>^<county/parish code (IS)>^<census tract (IS)>^<address representation code (ID)></p> <p>Components are defined as follows:</p> <p>(1) Street address (ST). The street or mailing address of a person or institution.</p> <p>(2) Other designation (ST). Second line of address (e.g., Suite 555, or Fourth Floor).</p> <p>(3) City (ST).</p> <p>(4) State or province (ST). State or province should be represented by the official postal service codes for that country.</p> <p>(5) ZIP or postal code (ST). ZIP or postal codes should be represented by the official codes for that country. In the United States, the ZIP code takes the form 99999[-9999], while the Canadian postal codes take the form A9A-9A9.</p> <p>(6) Country (ID). Defines the country of the address. ISO 3166 provides a list of country codes that may be used (see <i>User-defined Table 0212 - Nationality</i>).</p> <p>(7) Address type (ID). Type is optional and defined by <i>HL7 Table 0190 - Address type</i>.</p> <p>(8) Other geographic designation (ST). Other geographic designation includes county, bioregion, SMSA, etc.</p> <p>(9) County/Parish Code (IS). This component should not duplicate component Refer to <i>User-defined Table 0289 - County/Parish</i> for values.</p> <p>(10) Census Tract (IS). Refer to <i>User-defined Table 0288 - Census tract</i> for values.</p> <p>(11) Address representation code (ID). See <i>HL7 Table 4000 - Name/address representation</i>.</p>	<p><i>HL7 Table 0190 - Address type</i> allows user to designate the type of address (e.g., mailing, residence at birth, birth delivery location). When this field is allowed to repeat, several addresses can be recorded in the field, with each type noted.</p>
2.8.49	XCN - extended composite ID number and name for persons	<p>Components: <ID number (ST)>^<family name (ST)>^<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., Jr. or III) (ST)>^<prefix (e.g., Dr.) (ST)>^<degree (e.g., MD) (IS)>^<source table (IS)>^<assigning authority (HD)>^<name type code (ID)>^<identifier check digit (ST)>^<code identifying the check digit scheme employed (ID)>^<identifier type code (IS)>^<assigning facility ID (HD)>^<name representation code (ID)></p> <p>Components are defined as follows:</p> <p>(1) ID number. This string refers to the coded ID according to a user-defined table. If the first component is present, either the source table or the assigning authority must be valued.</p> <p>(2-7) These components are defined as in the PN data type (1-6).</p> <p>(8) Source table (IS). Refer to <i>User-defined Table 0297 - CN ID source</i> for suggested values. Used to delineate the first component.</p> <p>(9) Assigning authority (HD). Not supported.</p> <p>(10) Name type code (ID). Refer to <i>User-defined Table 0200 - Name type</i> for valid values.</p> <p>(11) Identifier check digit (ST). Not supported.</p> <p>(12) Code identifying the check digit scheme employed (ID). Not supported.</p> <p>(13) Identifier type code (IS). Not supported.</p> <p>(14) Assigning facility (HD). Not supported.</p> <p>(15) Name representation code (ID). See <i>HL7 Table 4000 - Name/address representation</i> for valid values.</p>	<p>See PN (1-6) for component definitions (2-7).</p> <p>Note that for the namespace ID component of the first HD for assigning authority and assigning facility contained in the EI, CX, XON, and XCN datatypes, <i>User-defined table 0300 - Namespace ID</i> was redefined in the HL7 standard to be drawn from <i>User-defined table 0363 - Assigning Authority</i>.</p>

HL7 Ref#	Data Type	Description	Notes
2.8.50	XON - extended composite name and identification number for organizations	<p>Components: <organization name (ST)>^<organization name type code (IS)>^<ID number (NM)>^<check digit (NM)>^<code identifying the check digit scheme employed (ID)>^<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility ID (HD)>^<name representation code (ID)></p> <p>Components are defined as follows: (1) Organization name (ST). The name of the specified organization. (2) Organization name type code (IS). Refer to <i>User-defined Table 0204 - Organizational name type</i>. (3) ID number (NM) (4) Check digit (NM) Not supported. (5) Code identifying the check digit scheme employed (ID) Not supported. (6) Assigning authority (HD). Subcomponents of (9): <namespace ID (IS)>&<universal ID (ST)> &<universal ID type (ID)> (7) Identifier type code (IS). Not supported. (8) Assigning facility (HD). Subcomponents of (8): <namespace ID (IS)>&<universal ID (ST)> &<universal ID type (ID)> (9) Name representation code (ID). See <i>HL7 Table 4000 - Name/address representation</i> for valid values.</p>	<p>Note that for the namespace ID component of the first HD for assigning authority and assigning facility contained in the EI, CX, XON, and XCN datatypes, <i>User-defined table 0300 – Namespace ID</i> was redefined in the HL7 standard to be drawn from <i>User-defined table 0363 – Assigning Authority</i>.</p>
2.8.51	XPN - extended person name	<p>Components: <family name (ST)>&<last name prefix (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (e.g., Jr. or III) (ST)>^<prefix (e.g., Dr.) (ST)>^<degree (e.g., MD) (IS)>^<name type code (ID)>^<name representation code (ID)></p> <p>Components are defined as follows: (1-6) These components are defined as in the PN data type. (7) Name type code (ID). Refer to <i>HL7 Table 0200 - Name type</i> for valid values. (8) Name representation code (ID). Refer to <i>HL7 Table 4000 - Name/address representation</i> for valid values.</p>	
2.8.52	XTN - extended telecommunication number	<p>Format and Components: [NNN] [(999)]999-9999[X99999][B99999][C any text]^<telecommunication use code (ID)>^<telecommunication equipment type (ID)>^<email address (ST)>^<country code (NM)>^<area/city code (NM)>^<phone number (NM)>^<extension (NM)>^<any text (ST)></p> <p>For codes, refer to <i>HL7 Table 0201 - Telecommunication use code</i> and <i>HL7 Table 0202 - Telecommunication equipment type</i>.</p>	<p>Note: To interoperate with CEN's Telecommunication data attribute group, HL7 allows use of the second component for email addresses. When used for an Internet address, the first component will be null; the second component will have the code NET, and the type of Internet address is specified with Internet or X.400 in the third component. When used for an Internet address, the first component of the XTN data type will be null. If the @-sign is being used as a subcomponent delimiter, the HL7 subcomponent escape sequence may be used (See Section 2.9 of the HL7 Standard).</p>

2.9 HL7 EXAMPLE OF A PATHOLOGY REPORT HL7 MESSAGE TO A CANCER REGISTRY

Example message for laboratory-based reporting of findings of public health importance.

```
MSH|^~\&|TESTLAB1|INDEPENDENT LAB
SERVICES^LABCLIANUM^CLIA|||200404281339||ORU^R01|2004042813390045|P|2.3.1|||2.0
PID|1||123456789^^^SS|000039^^^LR|McMuffin^Candy^^^Ms.||19570706|F||2106-3|495 East
Overshoot Drive^^Delmar^NY^12054||^518^5559999||M||4442331235
ORC|RE|||General Hospital^^123456^^AHA|857 Facility
Lane^^Albany^NY^12205|^518^3334444|100 Provider St^^Albany^NY^12205
OBR|1||S91-1700|22049-1^cancer identification battery^LN|||20040720|||^left breast
mass|1234567^Myeolmus^John^^MD|(518)424-4243|||F|||99999&Glance&Justin&A&MD
OBX|1|TX|22636-5^clinical history^LN||47-year old white female with (L) UOQ breast
mass|||F|||20040720
OBX|2|ST|22633-2^nature of specimen^LN|1|left breast biopsy|||F|||20040720
OBX|3|ST|22633-2^nature of specimen^LN|2|apical axillary tissue|||F|||20040720
OBX|4|ST|22633-2^nature of specimen^LN|3|contents of left radical
mastectomy|||F|||20040720
OBX|5|TX|22634-0^gross pathology^LN|1|Part #1 is labeled "left breast biopsy" and is
received fresh after frozen section preparation. It consists of a single firm nodule
measuring 3cm in circular diameter and 1.5cm in thickness surrounded by adherent fibrofatty
tissue. On section a pale gray, slightly mottled appearance is revealed. Numerous sections
are submitted for permanent processing.||||F|||20040720
OBX|6|TX|22634-0^gross pathology^LN|2|Part #2 is labeled "apical left axillary tissue" and
is received fresh. It consists of two amorphous fibrofatty tissue masses without grossly
discernible lymph nodes therein. Both pieces are rendered into numerous sections and
submitted in their entirety for history.||||F|||20040720
OBX|7|TX|22634-0^gross pathology^LN|3|Part #3 is labeled "contents of left radical
mastectomy" and is received fresh. It consists of a large ellipse of skin overlying breast
tissue, the ellipse measuring 20cm in length and 14 cm in height. A freshly sutured incision
extends 3cm directly lateral from the areola, corresponding to the closure for removal of
part #1. Abundant amounts of fibrofatty connective tissue surround the entire breast and the
deep aspect includes and 8cm length of pectoralis minor and a generous mass of overlying
pectoralis major muscle. Incision from the deepest aspect of the specimen beneath the tumor
mass reveals tumor extension gross to within 0.5cm of muscle. Sections are submitted
according to the following code: DE- deep surgical resection margins; SU, LA, INF, ME --
full thickness radial samplings from the center of the tumor superiorly, laterally,
inferiorly and medially, respectively: NI- nipple and subjacent tissue. Lymph nodes
dissected free from axillary fibrofatty tissue from levels I, II, and III will be labeled
accordingly.||||F|||20040720
OBX|8|TX|22635-7^microscopic pathology^LN|1|Sections of part #1 confirm frozen section
diagnosis of infiltrating duct carcinoma. It is to be noted that the tumor cells show
considerable pleomorphism, and mitotic figures are frequent (as many as 4 per high power
field). Many foci of calcification are present within the tumor. ||||F|||20040720
OBX|9|TX|22635-7^microscopic pathology^LN|2|Part #2 consists of fibrofatty tissue and single
tiny lymph node free of disease. ||||F|||20040720
OBX|10|TX|22635-7^microscopic pathology^LN|3|Part #3 includes 18 lymph nodes, three from
Level III, two from Level II and thirteen from Level I. All lymph nodes are free of disease
with the exception of one Level I lymph node, which contains several masses of metastatic
carcinoma. All sections taken radially from the superficial center of the resection site
fail to include tumor, indicating the tumor to have originated deep within the breast
parenchyma. Similarly, there is no malignancy in the nipple region, or in the lactiferous
sinuses. Sections of deep surgical margin demonstrate diffuse tumor infiltration of deep
fatty tissues, however, there is no invasion of muscle. Total size of primary tumor is
estimated to be 4cm in greatest dimension. ||||F|||20040720
OBX|11|TX|22637-3^final diagnosis^LN|1|1. Infiltrating duct carcinoma, left breast.
||||F|||20040720
OBX|12|TX|22637-3^final diagnosis^LN|2|2. Lymph node, no pathologic diagnosis, left
axilla. ||||F|||20040720
OBX|13|TX|22637-3^final diagnosis^LN|3|3. Ext. of tumor into deep fatty tissue. Metastatic
carcinoma, left axillary lymph node (1) Level I. Free of disease 17 of 18 lymph nodes -
Level I (12), Level II (2) and Level III (3). ||||F|||20040720
OBX|14|TX|22638-1^comments^LN||Clinical diagnosis: carcinoma of breast. Post-
operative diagnosis: same. ||||F|||20040720
```

2.10 CODE TABLES

Note: Where only selected values are listed for HL7 tables, please refer to the HL7 Standard for complete listings. In this section, values are selected from standard codes where available. Values that are assigned by NIP are italicized.

User-defined Table 0001 - Sex [values suggested by HL7] (use in PID-8, NK1-15)

Value	Description
F	Female
M	Male
H	Hermaphrodite, Undetermined
T	Transsexual
O	Other
U	Unknown

User-defined Table 0002 - Marital status (use in PID-16)

Value	Description
A	Separated
D	Divorced
M	Married
S	Single
W	Widowed

HL7-defined Table 0003 - Event type [only the value used in Cancer Registry Reporting is listed] (use in MSH-9, second component)

Value	Description
R01	ORU - Unsolicited observation results

User-defined Table 0004 - Patient class [values suggested by HL7] (use in PV1-2)

Value	Description
E	Emergency
I	Inpatient
N	Not Applicable
O	Outpatient
P	Pre-admit
R	Recurring Patient
B	Obstetrics

User-defined Table 0005 - Race [These values are compliant with OMB directive for combined format] (use in PID-10, NK1-35)

Value	Description
1002-5	American Indian or Alaska Native
2029-7	Asian Indian
2033-9	Cambodian
2036-2	Filipino
2037-0	Hmong
2039-6	Japanese
2040-4	Korean
2041-2	Laotian
2044-6	Pakistani
2046-1	Thai
2047-9	Vietnamese
2054-5	Black or African-American
2078-4	Polynesian
2079-2	Native Hawaiian
2080-0	Samoan
2081-8	Tahitian
2082-6	Tongan
2085-9	Micronesian
2087-5	Guamanian
2088-3	Chamorro
2100-6	Melanesian
2101-4	Fijian
2102-2	Papua New Guinean
2106-3	White
2131-1	Other Race
2500-7	Other Pacific Islander
U	Unknown race

User-defined Table 0006 - Religion [From HL7 Version 2.5] (use in PID-17)

Value	Description
EVC	Christian: Evangelical Church
COI	Christian: Church of God in Christ
COL	Christian: Congregational
COM	Christian: Community
COP	Christian: Other Pentecostal
COT	Christian: Other
CRR	Christian: Christian Reformed
EOT	Christian: Eastern Orthodox
ABC	Christian: American Baptist Church
ERL	Ethnic Religionist
CNF	Confucian
FRQ	Christian: Friends
FWB	Christian: Free Will Baptist
GRE	Christian: Greek Orthodox
HIN	Hindu
HOT	Hindu: Other
HSH	Hindu: Shaivites
HVA	Hindu: Vaishnavites
JAI	Jain

EPI	Christian: Episcopalian
BTA	Buddhist: Tantrayana
AGN	Agnostic
AME	Christian: African Methodist Episcopal Zion
AMT	Christian: African Methodist Episcopal
ANG	Christian: Anglican
AOG	Christian: Assembly of God
ATH	Atheist
BAH	Baha'i
BAP	Christian: Baptist
COG	Christian: Church of God
BOT	Buddhist: Other
COC	Christian: Church of Christ
BTH	Buddhist: Theravada
BUD	Buddhist
CAT	Christian: Roman Catholic
CFR	Chinese Folk Religionist
CHR	Christian
CHS	Christian: Christian Science
CMA	Christian: Christian Missionary Alliance
JOR	Jewish: Orthodox
BMA	Buddhist: Mahayana
SIK	Sikh
JCO	Jewish: Conservative
PRC	Christian: Other Protestant
PRE	Christian: Presbyterian
PRO	Christian: Protestant
REC	Christian: Reformed Church
REO	Christian: Reorganized Church of Jesus Christ-LDS
SAA	Christian: Salvation Army
OTH	Other
SHN	Shintoist
ORT	Christian: Orthodox
SOU	Christian: Southern Baptist
SPI	Spiritist
UCC	Christian: United Church of Christ
UMD	Christian: United Methodist
UNI	Christian: Unitarian
UNU	Christian: Unitarian Universalist
VAR	Unknown
WES	Christian: Wesleyan
SEV	Christian: Seventh Day Adventist
MOM	Christian: Latter-day Saints
WMC	Christian: Wesleyan Methodist
JOT	Jewish: Other
JRC	Jewish: Reconstructionist
JRF	Jewish: Reform
JRN	Jewish: Renewal
JWN	Christian: Jehovah's Witness
LMS	Christian: Lutheran Missouri Synod
LUT	Christian: Lutheran
PEN	Christian: Pentecostal
MET	Christian: Methodist

JEW	Jewish
MOS	Muslim
MOT	Muslim: Other
MSH	Muslim: Shiite
MSU	Muslim: Sunni
NAM	Native American
NAZ	Christian: Church of the Nazarene
NOE	Nonreligious
NRL	New Religionist
MEN	Christian: Mennonite

User-defined Table 0007 – Admission type (use in PV1-4) [with suggested values from HL7]

Value	Description
A	Accident
E	Emergency
L	Labor and Delivery
R	Routine

User-defined Table 0010 - Physician ID (use in all XCN data types; including PV1-7, 8,9,17, RXA-10) [locally-defined] To perform conformance on this table, populate this table with local values. Each facility should establish a system of coding its reporting physicians. The National Provider Identifier (NPI) may be used for this purpose when it becomes available.

HL7-defined Table 0061 - Check digit scheme (use in all CX data types; including PID-2,3,4,18,21)

Value	Description
M10	Mod 10 algorithm
M11	Mod 11 algorithm
ISO	ISO 7064: 1983
NPI	Check digit algorithm in the U.S. National Provider Identifier

User-defined Table 0063 - Relationship (From HL7 Standard, Version 2.3.1) (use in NK1-3, NK1-31, IN1-17, IN2-62)

Value	Description
ASC	Associate
BRO	Brother
CGV	Care giver
CHD	Child
DEP	Handicapped dependent
DOM	Life partner
EMC	Emergency contact
EME	Employee
EMR	Employer
EXF	Extended family
FCH	Foster child
FND	Friend
FTH	Father
GCH	Grandchild
GRD	Guardian
GRP	Grandparent

Value	Description
MGR	Manager
MTH	Mother
NCH	Natural child
NON	None
OAD	Other adult
OTH	Other
OWN	Owner
PAR	Parent
SCH	Stepchild
SEL	Self
SIB	Sibling
SIS	Sister
SPO	Spouse
TRA	Trainer
UNK	Unknown
WRD	Ward of court

HL7- Defined Table 0065 - Specimen action code (Use in OBR-11)

Value	Description
A	Add ordered tests to the existing specimen
G	Generated order; reflex order
L	Lab to obtain specimen from patient
O	Specimen obtained by service other than Lab
P	Pending specimen; Order sent prior to delivery
R	Revised order
S	Schedule the tests specified below

HL7-defined Table 0070 - Specimen source codes (use in OBR-15)

Value	Description
ABS	Abscess
AMN	Amniotic fluid
ASP	Aspirate
BPH	Basophils
BIFL	Bile fluid
BLDA	Blood arterial
BBL	Blood bag
BLDC	Blood capillary
BPU	Blood product unit
BLDV	Blood venous
BON	Bone
BRTH	Breath (use EXHLD)
BRO	Bronchial
BRN	Burn
CALC	Calculus (= Stone)
CDM	Cardiac muscle
CNL	Cannula
CTP	Catheter tip
CSF	Cerebral spinal fluid

Value	Description
CVM	Cervical mucus
CVX	Cervix
COL	Colostrum
CBLD	Cord blood
CNJT	Conjunctiva
CUR	Curettage
CYST	Cyst
DIAF	Dialysis fluid
DOSE	Dose med or substance
DRN	Drain
DUFL	Duodenal fluid
EAR	Ear
EARW	Ear wax (cerumen)
ELT	Electrode
ENDC	Endocardium
ENDM	Endometrium
EOS	Eosinophils
RBC	Erythrocytes
EYE	Eye
EXHLD	Exhaled gas (= breath)
FIB	Fibroblasts
FLT	Filter
FIST	Fistula
FLU	Body fluid, unsp
GAS	Gas
GAST	Gastric fluid/contents
GEN	Genital
GENC	Genital cervix
GENL	Genital lochia
GENV	Genital vaginal
HAR	Hair
IHG	Inhaled Gas
IT	Intubation tube
ISLT	Isolate
LAM	Lamella
WBC	Leukocytes
LN	Line
LNA	Line arterial
LNV	Line venous
LIQ	Liquid NOS
LYM	Lymphocytes
MAC	Macrophages
MAR	Marrow
MEC	Meconium
MBLD	Menstrual blood
MLK	Milk
MILK	Breast milk
NAIL	Nail
NOS	Nose (nasal passage)
ORH	Other

Value	Description
PAFL	Pancreatic fluid
PAT	Patient
PRT	Peritoneal fluid /ascites
PLC	Placenta
PLAS	Plasma
PLB	Plasma bag
PLR	Pleural fluid (thoracentesis fld)
PMN	Polymorphonuclear neutrophils
PPP	Platelet poor plasma
PRP	Platelet rich plasma
PUS	Pus
RT	Route of medicine
SAL	Saliva
SEM	Seminal fluid
SER	Serum
SKN	Skin
SKM	Skeletal muscle
SPRM	Spermatozoa
SPT	Sputum
SPTC	Sputum - coughed
SPTT	Sputum - tracheal aspirate
STON	Stone (use CALC)
STL	Stool = Fecal
SWT	Sweat
SNV	Synovial fluid (Joint fluid)
TEAR	Tears
THRT	Throat
THRB	Thrombocyte (platelet)
TISS	Tissue
TISG	Tissue gall bladder
TLGI	Tissue large intestine
TLNG	Tissue lung
TISPL	Tissue placenta
TSMI	Tissue small intestine
TISU	Tissue ulcer
TUB	Tube NOS
ULC	Ulcer
UMB	Umbilical blood
UMED	Unknown medicine
URTH	Urethra
UR	Urine
URC	Urine clean catch
URT	Urine catheter
URNS	Urine sediment
USUB	Unknown substance
VOM	Vomitus
BLD	Whole blood
BDY	Whole body
WAT	Water
WICK	Wick

Value	Description
WND	Wound
WNDA	Wound abscess
WNDE	Wound exudate
WNDD	Wound drainage
XXX	To be specified

HL7-defined Table 0074 - Diagnostic service section ID (Use in OBR-24) [Refer to HL7 Standard Version 2.3.1, Appendix A]

Value	Description	Value	Description
AU	Audiology	OUS	OB Ultrasound
BG	Blood gases	OT	Occupational Therapy
BLB	Blood bank	OTH	Other
CUS	Cardiac Ultrasound	OSL	Outside Lab
CTH	Cardiac catheterization	PHR	Pharmacy
CT	CAT scan	PT	Physical Therapy
CH	Chemistry	PHY	Physician (Hx. Dx, admission note, etc.)
CP	Cytopathology	PF	Pulmonary function
EC	Electrocardiac (e.g., EKG, EEC, Holter)	RAD	Radiology
EN	Electroneuro (EEG, EMG,EP,PSG)	RX	Radiograph
HM	Hematology	RUS	Radiology ultrasound
ICU	Bedside ICU Monitoring	RC	Respiratory Care (therapy)
IMM	Immunology	RT	Radiation therapy
LAB	Laboratory	SR	Serology
MB	Microbiology	SP	Surgical Pathology
MCB	Mycobacteriology	TX	Toxicology
MYC	Mycology	VUS	Vascular Ultrasound
NMS	Nuclear medicine scan	VR	Virology
NMR	Nuclear magnetic resonance	XRC	Cineradiograph
NRS	Nursing service measures		

HL7-defined Table 0076 - Message type [only selected values listed] (use in MSH-9, first component)

Value	Description
ACK	General Acknowledgment
ADR	ADT response
ADT	ADT message
QCK	Query General Acknowledgment
VXQ	Query for vaccination record
VXX	Vaccination query response with multiple PID matches
VXR	Vaccination query record response
VXU	Unsolicited vaccination record update
ORU	Unsolicited observation results

HL7-defined Table 0078 - Abnormal flags (use in OBX-8)

Value	Description
L	Below low normal
H	Above high normal
LL	Below lower panic limits
HH	Above upper panic limits
<	Below absolute low-off instrument scale
>	Above absolute high-off instrument scale
N	Normal (applies to non-numeric results)
A	Abnormal (applies to non-numeric results)
AA	Very abnormal (applies to non-numeric units, analogous to panic limits for numeric units)
null	No range defined, or normal ranges don't apply
U	Significant change up
D	Significant change down
B	Better--use when direction not relevant
W	Worse--use when direction not relevant
For microbiology susceptibilities only:	
S	Susceptible*
R	Resistant*
I	Intermediate*
MS	Moderately susceptible*
VS	Very susceptible*

HL7-defined Table 0080 – Nature of abnormal test (use in OBX-10) [with suggested values from HL7]

Value	Description
A	An age-based population
N	None - generic normal range
R	A race-based population
S	A sex-based population

HL7-defined Table 0085 - Observation result status codes interpretation (use in OBX-11)

Value	Description
C	Record coming over is a correction and thus replaces a final result
D	Deletes the OBX record
F	Final results; Can only be changed with a corrected result
I	Specimen in lab; results pending
N	Not asked; used to affirmatively document that the observation identified in the OBX was not sought when the universal service ID in OBR-4 implies that it would be sought
O	Order detail description only (no result)
P	Preliminary results
R	Results entered - not verified
S	Partial results
X	Results cannot be obtained for this observation
U	Results status change to Final without re-transmitting results already sent as "preliminary." (e.g., radiology changes status from preliminary to final.)
W	Post original as wrong (e.g., transmitted for wrong patient)

User-defined Table 0088 Procedure Codes (use in OBR-44) – The examples below are one to one maps. The map direction is from SNOMED CT to CPT.

SNOMED CT	CPT
27083005 Immunoglobulin G subclass measurement (procedure)	82787 Gammaglobulin; immunoglobulin subclasses, (IgG1, 2, 3, or 4), each
252299004 pyruvate kinase deficiency spot test (procedure)	84220 Pyruvate kinase
252298007 glucose-6-phosphate dehydrogenase deficiency spot test (procedure)	82960 Glucose-6-phosphate dehydrogenase (G6PD); screen
25459007 coated particle agglutination inhibition assay (procedure)	86403 Particle agglutination; screen, each antibody
56241004 bone marrow biopsy, needle or trocar (procedure)	38221 Bone marrow biopsy, needle or trocar
81070005 bronchoscopy through tracheostomy with biopsy of lung (procedure)	31615 Tracheobronchoscopy through established tracheostomy incision

HL7-defined Table 0103 - Processing ID (use in MSH-11)

Value	Description
D	Debugging
P	Production
T	Training

HL7-defined Table 0104 - Version ID (use in MSH-12)

Value	Description
2.0	Release 2.0 September 1988
2.0D	Demo 2.0 October 1988
2.1	Release 2.1 March 1990
2.2	Release 2.2 December 1994
2.3	Release 2.3 March 1997
2.3.1	Release 2.3.1 May 1999
2.3.1	Release 2.3.1 October 2000

HL7-defined Table 0105 - Source of comment (use in NTE-2)

Value	Description
L	Ancillary (filler) department is source of comment
P	Orderer (placer) is source of comment
O	Other system is source of comment

HL7- Defined Table 0123 - Result status (use in OBR-25)

Value	Description
O	Order received; specimen not yet received
I	No results available; specimen received, procedure incomplete
S	No results available; procedure scheduled, but not done
A	Some, but not all, results available
P	Preliminary: A verified early result is available, final results not yet obtained
C	Correction to results
R	Results stored; not yet verified
F	Final results; results stored and verified. Can only be changed with a corrected result.
X	No results available; Order canceled.
Y	No order on record for this test. (Used only on queries)
Z	No record of this patient. (Used only on queries)

HL7-defined Table 0125 - Value type (use in OBX-2)

Other HL7 values are not expected to be used in Cancer Registry messaging; for a complete list of values, refer to the HL7 Standard.

Value type	Description
AD	Address
CE	Coded Entry
CF	Coded Element With Formatted Values
CK	Composite ID With Check Digit
CN	Composite ID And Name
CP	Composite Price
CWE	Coded With Exceptions*
CX	Extended Composite ID With Check Digit
DT	Date
ED	Encapsulated Data
FT	Formatted Text (Display)
MO	Money
NM	Numeric
PN	Person Name
RP	Reference Pointer
SN	Structured Numeric
ST	String Data
TM	Time
TN	Telephone Number
TS	Time Stamp (Date & Time)
TX	Text Data (Display)
XAD	Extended Address
XCN	Extended Composite Name And Number For Persons
XON	Extended Composite Name And Number For Organizations
XPN	Extended Person Name
XTN	Extended Telecommunications Number

* CWE does not exist as a data type in HL7 v2.3.1, but since it is so important in carrying the coded information for synoptic reporting, it has been pre-adopted here from version 2.5 of HL7.

HL7-defined Table 0136 - Yes/no indicator (use in PID-24,30)

Value	Description
Y	Yes
N	No
""<null>	<i>Not obtained (when used by immunization registries as defined in PD1-12)</i>

HL7-defined Table 0155 - Accept/application acknowledgment conditions (use in MSH-15 and 16)

Value	Description
AL	Always
NE	Never
ER	Error/Reject conditions only
SU	Successful completion only

HL7-defined Table 0163 - Administrative site [only selected values listed] (use in OBR-15)

Value	Description
LT	Left Thigh
LA	Left Arm
LD	Left Deltoid
LG	Left Gluteous Medius
LVL	Left Vastus Lateralis
LLFA	Left Lower Forearm
RA	Right Arm
RT	Right Thigh
RVL	Right Vastus Lateralis
RG	Right Gluteous Medius
RD	Right Deltoid
RLFA	Right Lower Forearm

User-defined Table 0171 - Citizenship (Use in PID-26) [Locally defined]**User-defined Table 0172 - Veterans military status** (Use in PID-27) [Locally defined]**User-defined Table 0189 - Ethnic group** [These values are compliant with the OMB directive] (use in PID-22)

Value	Description
2135-2	Hispanic or Latino
2137-8	Spaniard
2148-5	Mexican
2155-0	Central American
2165-9	South American
2178-2	Latin American
2180-8	Puerto Rican
2182-4	Cuban
2184-0	Dominican
2186-5	not Hispanic or Latino

HL7-defined Table 0190 - Address type (use in all XAD data types; including PID-11)

Value	Description
C	Current or Temporary
P	Permanent
M	Mailing
B	Firm/Business
O	Office
H	Home
N	Birth (nee)
F	Country of Origin
L	Legal Address
BLD	Birth delivery location [<i>use for birth facility</i>]
BR	Residence at birth [<i>use for residence at birth</i>]
RH	Registry home
BA	Bad address

HL7-defined Table 0200 - Name type (use in all XCN, XPN data types; including PID-5,6,9)

Value	Description
A	Alias Name
L	Legal Name
D	Display Name
M	Maiden Name
C	Adopted Name
B	Name at Birth
P	Name of Partner/Spouse
S	Coded Name (used to ensure anonymity)
T	Tribal Name
U	Unspecified

HL7-defined Table 0201 - Telecommunication use code (use in all XTN data types; including PID-13,14)

Value	Description
PRN	Primary Residence Number
ORN	Other Residence Number
WPN	Work Number
VHN	Vacation Home Number
ASN	Answering Service Number
EMR	Emergency Number
NET	Network (email) Address
BPN	Beeper Number

HL7-defined Table 0202 - Telecommunication equipment type (use in all XTN data types; including PID-13, 14)

Value	Description
PH	Telephone
FX	Fax
MD	Modem
CP	Cellular Phone
BP	Beeper
Internet	Internet Address: Use Only if Telecommunication Use Code is NET
X.400	X.400 email address: Use Only if Telecommunication Use Code is NET

User-defined Table 0203 - Identifier type [values suggested by HL7; with NIP-suggested additions] (use in all CX, XCN type codes; including PID-2,3,4,18,21)

Value	Description
AM	American Express
AN	Account Number
ANON	Anonymous Identifier
BR	Birth Registry Number
DI	Diner's Club Card
DL	Driver's License Number
DN	Doctor Number
DS	Discover Card
EI	Employee Number
EN	Employer Number
FI	Facility Identifier
GI	Guarantor Internal Identifier
GN	Guarantor External Identifier
LN	License Number
LR	Local Registry ID
MS	MasterCard
MA	Medicaid Number
MC	Medicare Number
MR	Medical Record Number
NE	National Employer Identifier
NH	National Health Plan Identifier
NI	National Unique Individual Identifier
NPI	National Provider Identifier
PI	Patient Internal Identifier
PN	Person Number
PRN	Provider Number
PT	Patient External Identifier
RRI	Regional Registry ID
RR	Railroad Retirement Number
SL	State License
SR	State Registry ID
SS	Social Security Number
U	Unspecified
UPIN	Medicare/HCFR's Universal Physician ID Numbers
VS	VISA
VN	Visit Number
WC	WIC Identifier
XX	Organization Identifier
VEI	<i>Vaccinator Employee Number</i>
OEI	<i>Orderer Employee Number</i>
REI	<i>Recorder Employee Number</i>

User-defined Table 0204 – Organization name type (use in ORC-21)**HL7-defined Table 0207 - Processing mode** (use in MSH-11)

Value	Description
A	Archive
R	Restore from archive
I	Initial load
<blank>	Not present (the default, meaning <i>current</i> processing)

HL7-defined Table 0211 - Alternate character sets [only selected values listed] (use in MSH-18)

Value	Description
ASCII	The printable 7-bit ASCII character set (This is the default if this field is omitted)

User-defined Table 0212 - Nationality [ISO 3166 suggested by HL7; this table shows selected values only. Note that the table reflects only 3-letter codes. Two-letter and numeric codes are also available.]

Partial list of ISO 3166 country codes set is available at: <ftp://ftp.ripe.net/iso3166-countrycodes.txt> (use in PID-28; also use for country code in all XAD data types)

Value	Description
CAN	Canada
MEX	Mexico
USA	United States
UMI	United States Minor Outlying Islands

User-defined Table 0215 - Publicity code [*values suggested by NIP*] (use in PD1-11)

Value	Description
01	<i>No reminder/recall</i>
02	<i>Reminder/recall - any method</i>
03	<i>Reminder/recall - no calls</i>
04	<i>Reminder only - any method</i>
05	<i>Reminder only - no calls</i>
06	<i>Recall only - any method</i>
07	<i>Recall only - no calls</i>
08	<i>Reminder/recall - to provider</i>
09	<i>Reminder to provider</i>
10	<i>Only reminder to provider, no recall</i>
11	<i>Recall to provider</i>
12	<i>Only recall to provider, no reminder</i>

User-defined Table 0220 - Living arrangement [*values suggested by HL7; with NIP-suggested additions*] (use in NK1-21)

Value	Description
A	Alone
F	Family
I	Institution
R	Relative
U	Unknown
S	Spouse only
W	<i>With patient</i>
N	<i>Not with patient</i>

HL7-defined Table 0224 - Transport arranged (Use in OBR-41)

[Refer to HL7 Standard Version 2.3.1, Appendix A]

HL7-defined Table 0225 - Escort required (Use in OBR-42) [Refer to HL7 Standard Version 2.3.1, Appendix A]

User-defined Table 0288 - Census tract (use in all XAD; including PID-11)

For information about identifying census tracts, see www.census.gov/geo/www/tractez.html.

User-defined Table 0289 - County/parish (use in all XAD; including PID-11)

A complete list of FIPS 6-4 county codes is available at www.itl.nist.gov/div897/pubs/fip6-4.htm. According to the FIPS guidance, the 2-letter state code (available at www.itl.nist.gov/div897/pubs/fip5-2.htm) plus the numeric county code should be used (e.g., AZ001 represents Apache County, Arizona and AL001 represents Autauga County, Alabama).

User-defined Table 0296 - Language [ISO 639 suggested by HL7; selected 2-letter values listed from ISO 639:1988. The full set of ISO 639 Language Codes is available for purchase from www.ansi.org. Where ISO 2-letter codes are not available, 3-letter codes are given from the *Ethnologue*, available at www.sil.org/ethnologue/.] (use in MSH-19, PID-15.)

Value	Description
ASE	American Sign Language
ar	Arabic
hy	Armenian
bn	Bengali
km	Cambodian (Khmer)
CJD	Chamorro
YUH	Chinese, Cantonese
zh	Chinese, Mandarin
hr	Croatian
cs	Czech
nl	Dutch
en	English
fa	Farsi (Persian)
fr	French
de	German
el	Greek
hi	Hindi
BLU	Hmong
hu	Hungarian
ILO	Ilocano
id	Indonesian
it	Italian
ja	Japanese
ko	Korean
lo	Laotian
pl	Polish
pt	Portuguese
ro	Romanian
ru	Russian
sm	Samoan
sr	Serbian
sk	Slovak

Value	Description
so	Somali
es	Spanish
tl	Tagalog
th	Thai
to	Tongan
uk	Ukranian
ur	Urdu
vi	Vietnamese
yi	Yiddish
OTH	Other (must add text component of the CE field with description)

User-defined Table 0297 – CN ID Source – To perform conformance on this table, populate this table with local values.

User-defined Table 0300 – Namespace ID – (use in all HD) To perform conformance on this table, populate this table with local values.

User-defined Table 0300 – Namespace ID – (use in all HD) To perform conformance on this table, populate this table with local values. Note that as of HL7 version 2.3.1, all complex datatypes that embed an HD datatype within them (CX, EI, XON, XCN) are noted to use User-defined Table 0363 – Namespace ID, but Table 0300 may continue to be used by site agreement.

HL7-defined Table 0301 – Universal ID type (use in all fields containing an HD datatype)

Value	Description
DNS	An Internet dotted name. Either in ASCII or as integers
GUID	Same as UUID.
HCD	The CEN Healthcare Coding Scheme Designator. (Identifiers used in DICOM follow this assignment scheme.)
HL7	Reserved for future HL7 registration schemes
ISO	An International Standards Organization Object Identifier
L,M,N	These are reserved for locally defined coding schemes.
Random	Usually a base64 encoded string of random bits. The uniqueness depends on the length of the bits. Mail systems often generate ASCII string "unique names," from a combination of random bits and system names. Obviously, such identifiers will not be constrained to the base64 character set.
UUID	The DCE Universal Unique Identifier
x400	An X.400 MHS format identifier
x500	An X.500 directory name

Note: X400, X500, and DNS are not technically universally valid for all time. Names can be de-registered from an existing user and registered to a new user.

User-defined Table 0360 Degree (use in all fields of type XPN and XCN, including Patient Name and Ordering Provider)

Value	Description	Value	Description
AAS	Associate of Applied Science	MD	Doctor of Medicine
AA	Associate of Arts	DO	Doctor of Osteopathy
ABA	Associate of Business Administration	HS	High School Graduate
AE	Associate of Engineering	JD	Juris Doctor
AS	Associate of Science	MA	Master of Arts
BA	Bachelor of Arts	MBA	Master of Business Administration

Value	Description	Value	Description
BBA	Bachelor of Business Administration	MCE	Master of Civil Engineering
BE	Bachelor of Engineering	MDI	Master of Divinity
BFA	Bachelor of Fine Arts	MED	Master of Education
BN	Bachelor of Nursing	MEE	Master of Electrical Engineering
BS	Bachelor of Science	ME	Master of Engineering
BSL	Bachelor of Science – Law	MFA	Master of Fine Arts
BT	Bachelor of Theology	MME	Master of Mechanical Engineering
CER	Certificate	MS	Master of Science
DIP	Diploma	MSL	Master of Science – Law
DBA	Doctor of Business Administration	MT	Master of Theology
DED	Doctor of Education	NG	Non-Graduate
PHE	Doctor of Engineering	SEC	Secretarial Certificate
PHD	Doctor of Philosophy	TS	Trade School Graduate
PHS	Doctor of Science		

User-defined Table 0361 - Sending/receiving application (use in MSH-3, MSH-5, FHS-3, FHS-5, BHS-3, BHS-5) [locally-defined]

User-defined Table 0363 – Namespace ID – (use in CX, EI, XCN, and XON) To perform conformance on this table, populate this table with local values. Note that User-defined Table 0300 – Namespace ID may continue to be used by site agreement.

User-defined Table 0364 - Comment type (use in NTE-4)

Value	Description
PI	Patient Instructions
AI	Ancillary Instructions
GI	General Instructions
1R	Primary Reason
2R	Secondary Reason
GR	General Reason
RE	Remark
DR	Duplicate/Interaction Reason

User-defined Table 0396 - Coding system [Only selected values listed] [From HL7 Standard, Version 2.3.1] (Use in OBR-4, 26, OBX-3, 5,17)

Value	Description	Comment / Source	Category
99zzz or L	Local general code (where z is an alphanumeric character)	Locally defined codes for purpose of sender or receiver. Local codes can be identified by L (for backward compatibility) or 99zzz (where z is an alphanumeric character).	General code
ACR	American College of Radiology finding codes	Index for Radiological Diagnosis Revised, 3 rd Edition 1986, American College of Radiology, Reston, VA.	Specific Non-Drug Code
ART	WHO Adverse Reaction Terms	WHO Collaborating Centre for International Drug Monitoring, Box 26, S-751 03, Uppsala, Sweden.	Drug code
ANS+	HL7 set of units of measure	HL7 set of units of measure based upon ANSI X3.50 - 1986, ISO 2988-83, and US customary units / see chapter 7, section 7.4.2.6.	
AS4	ASTM E1238/ E1467 Universal	American Society for Testing & Materials and CPT4 (see Appendix X1 of Specification E1238 and Appendix X2 of Specification E1467).	Specific Non-Drug Code
AS4E	AS4 Neurophysiology Codes	ASTM's diagnostic codes and test result coding/grading systems for clinical neurophysiology. See ASTM Specification E1467, Appendix 2.	Specific Non-Drug Code
ATC	American Type Culture Collection	Reference cultures (microorganisms, tissue cultures, etc.), related biological materials and associated data. American Type Culture Collection, 12301 Parklawn Dr, Rockville MD, 20852. (301) 881-2600. http://www.atcc.org	Specific Non-Drug Code

Value	Description	Comment / Source	Category
C4	CPT-4	American Medical Association, P.O. Box 10946, Chicago IL 60610.	Specific Non-Drug Code
C5	CPT-5	(under development – same contact as above)	Specific Non-Drug Code
CAS	Chemical abstract codes	These include unique codes for each unique chemical, including all generic drugs. The codes do not distinguish among different dosing forms. When multiple equivalent CAS numbers exist, use the first one listed in USAN. USAN 1990 and the USP dictionary of drug names, William M. Heller, Ph.D., Executive Editor, United States Pharmacopeial Convention, Inc., 12601 Twinbrook Parkway, Rockville, MD 20852.	Drug code
CCC	Clinical Care Classification system	Clinical Care Classification System (formerly Home Health Care Classification system) codes. The Clinical Care Classification (CCC) consists of two terminologies: CCC of Nursing Diagnose and CCC of Nursing Interventions both of which are classified by 21 Care Components. Virginia Saba, EdD, RN; Georgetown University School of Nursing; Washington, DC.	
CD2	CDT-2 Codes	American Dental Association's Current Dental Terminology (CDT-2) code. American Dental Association, 211 E. Chicago Avenue., Chicago, Illinois 60611.	Specific Non-Drug Code
CDCA	CDC Analyte Codes	As above, for CDCM	
CDCM	CDC Methods/Instruments Codes	Public Health Practice Program Office, Centers for Disease Control and Prevention, 4770 Buford Highway, Atlanta, GA, 30421. Also available via FTP: ftp.cdc.gov/pub/laboratory_info/CLIA and Gopher: gopher.cdc.gov:70/11/laboratory_info/CLIA	Drug code
CDS	CDC Surveillance	CDC Surveillance Codes. For data unique to specific public health surveillance requirements. Epidemiology Program Office, Centers for Disease Control and Prevention, 1600 Clifton Rd, Atlanta, GA, 30333. (404) 639-3661.	Specific Non-Drug Code
CE (obsolete)	CEN ECG diagnostic codes	CEN ECG diagnostic codes – (Obsolete, retained for backwards compatibility only. See the entry for the MDC coding system.)	Specific Non-Drug Code
CLP	CLIP	Simon Leeming, Beth Israel Hospital, Boston MA. Codes for radiology reports.	Specific Non-Drug Code
CPTM	CPT Modifier Code	Available for the AMA at the address listed for CPT above. These codes are found in Appendix A of CPT 2000 Standard Edition. (CPT 2000 Standard Edition, American Medical Association, Chicago, IL).	Specific Non-Drug Code
CST	COSTART	International coding system for adverse drug reactions. In the USA, maintained by the FDA, Rockville, MD.	Drug code
CVX	CDC Vaccine Codes	National Immunization Program, Centers for Disease Control and Prevention, 1660 Clifton Road, Atlanta, GA, 30333	Drug code
DCM	DICOM Controlled Terminology	Codes defined in DICOM Content Mapping Resource. Digital Imaging and Communications in Medicine (DICOM), NEMA Publication PS-3.16 National Electrical Manufacturers Association (NEMA), Rosslyn, VA, 22209. Available at: http://medical.nema.org	Specific Non-Drug Code
E	EUCLIDES	Available from Euclides Foundation International nv, Excelsiorlaan 4A, B-1930 Zaventem, Belgium; Phone: 32 2 720 90 60.	Specific Non-Drug Code
E5	Euclides quantity codes	Available from Euclides Foundation International nv (see above)	Specific Non-Drug Code
E6	Euclides Lab method codes	Available from Euclides Foundation International nv, Excelsiorlaan 4A, B-1930 Zaventem, Belgium; Phone: 32 2 720 90 60.	Specific Non-Drug Code
E7	Euclides Lab equipment codes	Available from Euclides Foundation International nv (see above)	Specific Non-Drug Code
ENZC	Enzyme Codes	Enzyme Committee of the International Union of Biochemistry and Molecular Biology. Enzyme Nomenclature: Recommendations on the Nomenclature and Classification of Enzyme-Catalysed Reactions. London: Academic Press, 1992.	Specific Non-Drug Code
FDDC	First DataBank Drug Codes	National Drug Data File. Proprietary product of First DataBank, Inc. (800) 633-3453, or http://www.firstdatabank.com.	Drug code
FDDX	First DataBank Diagnostic Codes	Used for drug-diagnosis interaction checking. Proprietary product of First DataBank, Inc. As above for FDDC.	Drug code
FDK	FDA K10	Dept. of Health & Human Services, Food & Drug Administration, Rockville, MD 20857. (device & analyte process codes).	Specific Non-Drug Code
GDRG2004	G-DRG German DRG Codes v 2004	German Handbook for DRGs. The THREE versions, "2004" , "2005" and "2006" are active	

Value	Description	Comment / Source	Category
GDRG2005	G-DRG German DRG Codes v 2005	German Handbook for DRGs. The THREE versions, "2004" , "2005" and "2006" are active	
GDRG2006	G-DRG German DRG Codes v 2006	German Handbook for DRGs. The THREE versions, "2004" , "2005" and "2006" are active	
GMDC2004	German Major Diagnostic Codes v 1004	German Major Diagnostic Codes version "2004"	
GMDC2005	German Major Diagnostic Codes v2005		
GMDC2006	German Major v2006 Diagnostic Codes		
HB	HIBCC	Health Industry Business Communications Council, 5110 N. 40 th St., Ste 120, Phoenix, AZ 85018.	Specific Non-Drug Code
HCPCS	CMS (formerly HCFA) Common Procedure Coding System	HCPCS: contains codes for medical equipment, injectable drugs, transportation services, and other services not found in CPT4. http://www.cms.hhs.gov/MedHCPCSGenInfo/	Specific Non-Drug Code
HCPT	Health Care Provider Taxonomy	The Blue Cross and Blue Shield Association will act as the administrator of the Provider Taxonomy so that the code structure is classified as external to X12. Ongoing maintenance is solely the responsibility of Workgroup 15 (Provider Information) within ANSI ASC X12N, or the work group's successor. Blue Cross and Blue Shield Association, 225 North Michigan Avenue, Chicago, IL 60601, Attention: ITS Department, ECNS Unit. http://www.wpc-edi.com/taxonomy/ Primary distribution is the responsibility of Washington Publishing Company, through its World Wide Web Site, at the same web site.	Specific Non-Drug Code
HHC	Home Health Care	Home Health Care Classification System; Virginia Saba, EdD, RN; Georgetown University School of Nursing; Washington, DC. Superseded by 'CCC' (see above); this entry is retained for backward-compatibility.	Specific Non-Drug Code
HI	Health Outcomes	Health Outcomes Institute codes for outcome variables available (with responses) from Stratis Health (formerly Foundation for Health Care Evaluation and Health Outcomes Institute), 2901 Metro Drive, Suite 400, Bloomington, MN, 55425-1525; (612) 854-3306 (voice); (612) 853-8503 (fax); dziegen@winternet.com. See examples in the Implementation Guide.	Specific Non-Drug Code
HL7nnnn	HL7 Defined Codes where nnnn is the HL7 table number	Health Level Seven where nnnn is the HL7 table number	General code
HOT	Japanese Nationwide Medicine Code		
HPC	CMS (formerly HCFA) Procedure Codes (HCPCS)	Health Care Financing Administration (HCFA) Common Procedure Coding System (HCPCS) including modifiers.[1]	Specific Non-Drug Code
I10	ICD-10	World Health Publications, Albany, NY.	Specific Non-Drug Code
I10P	ICD-10 Procedure Codes	Procedure Coding System (ICD-10-PCS.) See http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/08_ICD10.asp for more information.	Specific Non-Drug Code
I9	ICD9	World Health Publications, Albany, NY.	Specific Non-Drug Code
I9C	ICD-9CM	International Classification Of Diseases-9-CM, (1979) Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, MI 48105 (includes all procedures and diagnostic tests).	Specific Non-Drug Code
I9CDX	ICD-9CM Diagnosis codes	Indicates codes from ICD-9-CM drawn from Volumes 1 and 2, which cover diagnosis codes only.	
I9CP	ICD-9CM Procedure codes	Indicates codes from ICD-9-CM drawn from Volume 3, which covers procedure codes only.	
IBT	ISBT	Retained for backward compatibility only as of v 2.5. This code value has been superseded by IBTnnnn. International Society of Blood Transfusion. Blood Group Terminology 1990. VOX Sanquines 1990 58(2):152-169.	Specific Non-Drug Code
IBTnnnn	ISBT 128 codes where nnnn specifies a specific table within	International Society of Blood Transfusion. (specific contact information will be supplied to editor.) The variable suffix (nnnn) identifies a specific table within ISBT 128.	Specific Non-Drug Code

Value	Description	Comment / Source	Category
	ISBT 128.		
I10G2004	ICD 10 Germany 2004	Three code sets exist I10G2004, I10G2005, I10G2006	
I10G2005	ICD 10 Germany 2005	Three code sets exist I10G2004	
I10G2006	ICD 10 Germany 2006	Three code sets exist I10G2004	
IC2	ICHPPC-2	International Classification of Health Problems in Primary Care, Classification Committee of World Organization of National Colleges, Academies and Academic Associations of General Practitioners (WONCA), 3 rd edition. An adaptation of ICD9 intended for use in General Medicine, Oxford University Press.	Specific Non-Drug Code
ICD10AM	ICD-10 Australian modification		
ICD10CA	ICD-10 Canada		
ICDO	International Classification of Diseases for Oncology	International Classification of Diseases for Oncology, 2nd Edition. World Health Organization: Geneva, Switzerland, 1990. Order from: College of American Pathologists, 325 Waukegan Road, Northfield, IL, 60093-2750. (847) 446-8800.	Specific Non-Drug Code
ICS	ICCS	Commission on Professional and Hospital Activities, 1968 Green Road, Ann Arbor, MI 48105.	Specific Non-Drug Code
ICSD	International Classification of Sleep Disorders	International Classification of Sleep Disorders Diagnostic and Coding Manual, 1990, available from American Sleep Disorders Association, 604 Second Street SW, Rochester, MN 55902	Specific Non-Drug Code
ISONnnn	ISO Defined Codes where nnnn is the ISO table number	International Standards Organization where nnnn is the ISO table number	General code
ISO+	ISO 2955.83 (units of measure) with HL7 extensions	See chapter 7, section 7.4.2.6	
ITIS	Integrated Taxonomic Information System	Source= www.itis.usda.gov. This is a taxonomic hierarchy for living organisms.	
IUPP	IUPAC/IFCC Property Codes	International Union of Pure and Applied Chemistry/International Federation of Clinical Chemistry. The Silver Book: Compendium of terminology and nomenclature of properties in clinical laboratory sciences. Oxford: Blackwell Scientific Publishers, 1995. Henrik Olesen, M.D., D.M.Sc., Chairperson, Department of Clinical Chemistry, KK76.4.2, Rigshospitalet, University Hospital of Copenhagen, DK-2200, Copenhagen. http://inet.uni-c.dk/~qukb7642/	Specific Non-Drug Code
IUPC	IUPAC/IFCC Component Codes	Codes used by IUPAC/IFF to identify the component (analyte) measured. Contact Henrik Olesen, as above for IUPP.	Specific Non-Drug Code
JC8	Japanese Chemistry	Clinical examination classification code. Japan Association of Clinical Pathology. Version 8, 1990. A multiaxial code including a subject code (e.g., Rubella = 5f395, identification code (e.g., virus ab IGG), a specimen code (e.g., serum =023) and a method code (e.g., ELISA = 022)	withdrawn
JC10	JLAC/JSLM, nationwide laboratory code	Source: Classification & Coding for Clinical Laboratory. Japanese Society of Laboratory Medicine (JSLM, Old: Japan Society of Clinical Pathology). Version 10, 1997. A multiaxial code including a analyte code (e.g., Rubella = 5f395), identification code (e.g., virus ab IGG=1431), a specimen code (e.g., serum =023) and a method code (e.g., ELISA = 022)	
JJ1017	Japanese Image Examination Cache		
LB	Local billing code	Local billing codes/names (with extensions if needed).	General code
LN	Logical Observation Identifier Names and Codes (LOINC®)	Regenstrief Institute, c/o LOINC, 1050 Wishard Blvd., 5 th floor, Indianapolis, IN 46202. 317/630-7433. Available from the Regenstrief Institute server at http://www.Regenstrief.org/loinc/loinc.htm . Also available via HL7 file server: FTP/Gopher (www.mcis.duke.edu/standards/termcode/loinclab and www.mcis.duke.edu/standards/termcode/loinclin) and World Wide Web (http://www.mcis.duke.edu/standards/termcode/loincl.htm). January 2000 version has identifiers, synonyms and cross-reference codes for reporting over 26,000 laboratory and related observations and 1,500 clinical measures.	Specific Non-Drug Code
MCD	Medicaid	Medicaid billing codes/names.	Specific Non-Drug Code

Value	Description	Comment / Source	Category
MCR	Medicare	Medicare billing codes/names.	Specific Non-Drug Code
MDC	Medical Device Communication	EN ISO/IEEE 11073-10101 Health informatics – Point-of-care medical device communication - Nomenclature	Specific Non-Drug Code
MDDX	Medispan Diagnostic Codes	Codes Used for drug-diagnosis interaction checking. Proprietary product. Hierarchical drug codes for identifying drugs down to manufacturer and pill size. MediSpan, Inc., 8425 Woodfield Crossing Boulevard, Indianapolis, IN 46240. Tel: (800) 428-4495. URL: http://www.medispan.com/Products/index.aspx?cat=1. As above for MGPI.	Drug code
MEDC	Medical Economics Drug Codes	Proprietary Codes for identifying drugs. Proprietary product of Medical Economics Data, Inc. (800) 223-0581.	Drug code
MEDR	Medical Dictionary for Drug Regulatory Affairs (MEDDRA)	Patrick Revelle, Director MSSO 12011 Sunset Hills Road, VAR1/7B52 Reston, VA 20190 Patrick.Revelle@ngc.com http://www.meddramsso.com/MSSOWeb/index.htm	Drug code
MEDX	Medical Economics Diagnostic Codes	Used for drug-diagnosis interaction checking. Proprietary product of Medical Economics Data, Inc. (800) 223-0581.	Drug code
MGPI	Medispan GPI	Medispan hierarchical drug codes for identifying drugs down to manufacturer and pill size. Proprietary product of MediSpan, Inc., 8425 Woodfield Crossing Boulevard, Indianapolis, IN 46240. Tel: (800) 428-4495.	Drug code
MVX	CDC Vaccine Manufacturer Codes	As above, for CVX	Drug code
NCPDPnnn nsss	NCPDP code list for data element nnnn [as used in segment sss]	NCPDP maintain code list associated with the specified Data Element (nnnn) and Segment (sss). The Segment portion is optional if there is no specialization of the Data Element codes between segments. Examples: NCPDP1131RES = code set defined for NCPDP data element 1131 as used in the RES segment (Code List Qualifier – Response Code) NCPDP1131STS = code set defined for NCPDP data element 1131 as used in the STS segment (Code List Qualifier – Reject Code) NCPDP9701 = code set defined for NCPDP data element 9701 (Individual Relationship, Coded). No specialization to a segment exists for this data element. National Council for Prescription Drug Programs, 9240 East Raintree Drive, Scottsdale, AZ 85260. Phone: (480) 477-1000 Fax: (480) 767-1042 e-mail: ncdp@ncdp.org www.ncdp.org	
NDA	NANDA	North American Nursing Diagnosis Association, Philadelphia, PA.	Specific Non-Drug Code
NDC	National drug codes	These provide unique codes for each distinct drug, dosing form, manufacturer, and packaging. (Available from the National Drug Code Directory, FDA, Rockville, MD, and other sources.)	Drug code
NIC	Nursing Interventions Classification	Iowa Intervention Project, College of Nursing, University of Iowa, Iowa City, Iowa	Specific Non-Drug Code
NPI	National Provider Identifier	Health Care Finance Administration, US Dept. of Health and Human Services, 7500 Security Blvd., Baltimore, MD 21244.	Specific Non-Drug Code
NUBC	National Uniform Billing Committee Code		
OHA	Omaha System	Omaha Visiting Nurse Association, Omaha, NB.	Specific Non-Drug Code
OHA	Omaha	Omaha Visiting Nurse Association, Omaha, NB.	Specific Non-Drug Code
O301	German Procedure Codes	Source: OPS Operationen- und Prozedurenschlüssel. Three versions are active.	
O3012004	OPS Germany 2004	Source: OPS Operationen- und Prozedurenschlüssel. Three versions are active	
O3012005	OPS Germany 2005	Source: OPS Operationen- und Prozedurenschlüssel. Three versions are active	
O3012006	Ops Germany 2006	Source: OPS Operationen- und Prozedurenschlüssel. Three versions are active	
POS	POS Codes	HCFA Place of Service Codes for Professional Claims (see http://www.cms.hhs.gov/PlaceofServiceCodes/).	Specific Non-Drug Code
RC	Read Classification	The Read Clinical Classification of Medicine, Park View Surgery, 26 Leicester Rd., Loughborough LE11 2AG (includes drug procedure and other codes, as well as	Specific Non-Drug Code

Value	Description	Comment / Source	Category
		diagnostic codes).	
SCT	SNOMED Clinical Terms	SNOMED-CT concept identifier codes. SNOMED International, 1325 Waukegan Rd, Northfield, IL, 60093, +1 800-323-4040, mailto:snomed@cap.org http://www.snomed.org	Specific Non-Drug Code
SCT2	SNOMED Clinical Terms alphanumeric codes	Used to indicate that the code value is the legacy-style SNOMED alphanumeric codes, rather than the concept identifier codes. SNOMED International, 1325 Waukegan Rd, Northfield, IL, 60093, +1 800-323-4040, mailto:snomed@cap.org http://www.snomed.org	
SDM	SNOMED- DICOM Microglossary	College of American Pathologists, Skokie, IL, 60077-1034. (formerly designated as 99SDM).	Specific Non-Drug Code
SNM	Systemized Nomenclature of Medicine (SNOMED)	Systemized Nomenclature of Medicine, 2 nd Edition 1984 Vols 1, 2, College of American Pathologists, Skokie, IL.	Specific Non-Drug Code
SNM3	SNOMED International	SNOMED International, 1993 Vols 1-4, College of American Pathologists, Skokie, IL, 60077-1034.	Specific Non-Drug Code
SNT	SNOMED topology codes (anatomic sites)	College of American Pathologists, 5202 Old Orchard Road, Skokie, IL 60077-1034.	Specific Non-Drug Code
UC	UCDS	Uniform Clinical Data Systems. Ms. Michael McMullan, Office of Peer Review Health Care Finance Administration, The Meadows East Bldg., 6325 Security Blvd., Baltimore, MD 21207; (301) 966 6851.	Specific Non-Drug Code
UCUM	UCUM code set for units of measure(from Regenstrief)	Added by motion of VOCABULARY T.C. 20060308 14-0-3	
UMD	MDNS	Universal Medical Device Nomenclature System. ECRI, 5200 Butler Pike, Plymouth Meeting, PA 19462 USA. Phone: 215-825-6000, Fax: 215-834-1275.	Device code
UML	Unified Medical Language	National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894.	Specific Non-Drug Code
UPC	Universal Product Code	The Uniform Code Council. 8163 Old Yankee Road, Suite J, Dayton, OH 45458; (513) 435 3070	Specific Non-Drug Code
UPIN	UPIN	Medicare/CMS 's (formerly HCFA) universal physician identification numbers, available from Health Care Financing Administration, U.S. Dept. of Health and Human Services, Bureau of Program Operations, 6325 Security Blvd., Meadows East Bldg., Room 300, Baltimore, MD 21207	Specific Non-Drug Code
USPS	United States Postal Service	Two Letter State and Possession Abbreviations are listed in Publication 28, Postal Addressing Standards which can be obtained from Address Information Products, National Address Information Center, 6060 Primacy Parkway, Suite 101, Memphis, Tennessee 38188-0001 Questions of comments regarding the publication should be addressed to the Office of Address and Customer Information Systems, Customer and Automation Service Department, US Postal Service, 475 Lenfant Plaza SW Rm 7801, Washington, DC 20260-5902	Specific Non-Drug Code
W1	WHO record # drug codes (6 digit)	World Health organization record number code. A unique sequential number is assigned to each unique single component drug and to each multi-component drug. Eight digits are allotted to each such code, six to identify the active agent, and 2 to identify the salt, of single content drugs. Six digits are assigned to each unique combination of drugs in a dispensing unit. The six digit code is identified by W1, the 8 digit code by W2.	Drug code
W2	WHO record # drug codes (8 digit)	World Health organization record number code. A unique sequential number is assigned to each unique single component drug and to each multi-component drug. Eight digits are allotted to each such code, six to identify the active agent, and 2 to identify the salt, of single content drugs. Six digits are assigned to each unique combination of drugs in a dispensing unit. The six digit code is identified by W1, the 8 digit code by W2.	Drug code
W4	WHO record # code with ASTM extension	With ASTM extensions (see Implementation Guide), the WHO codes can be used to report serum (and other) levels, patient compliance with drug usage instructions, average daily doses and more (see Appendix X1 the Implementation Guide).	Drug code
WC	WHO ATC	WHO's ATC codes provide a hierarchical classification of drugs by therapeutic class. They are linked to the record number codes listed above.	Drug code
X12DEnnnn	ASC X12 Code List nnnn	Code list associated with X12 Data Element nnnn. Example: X12DE738 – code set defined for X12 data element 738 (Measurement Qualifier) The Accredited Standards Committee (ASC) X12 www.x12.org	General Codes

Value	Description	Comment / Source	Category	
[1]	<p>The HCPCS code is divided into three "levels." Level I includes the entire CPT-4 code by reference. Level II includes the American Dental Association's Current Dental Terminology (CDT-2) code by reference. Level II also includes the genuine HCPCS codes, approved and maintained jointly by the Alpha-Numeric Editorial Panel, consisting of CMS, the Health Insurance Association of America, and the Blue Cross and Blue Shield Association. Level III are codes developed locally by Medicare carriers. The HCPCS modifiers are divided into the same three levels, I being CPT-4 modifiers, II CDT-2 and genuine HCPCS modifiers, and III being locally agreed modifiers.</p> <p>The genuine HCPCS codes and modifiers of level II can be found at http://www.hcfa.gov/stats/anhcpcdl.htm. CMS distributes the HCPCS codes via the National Technical Information Service (NTIS, www.ntis.gov) and NTIS distribution includes the CDT-2 part of HCPCS Level II, but does not include the CPT-4 part (Level I). CMS may distribute the CPT-4 part to its contractors.</p>			

HL7-defined Table 0449 – Conformance statements (used in MSH-21, preadopted from HL7 version 2.4. Note that no values were defined for this table by HL7 as of the v2.4 release, and the standard recommended that stie specific values be defined for this table.

Value	Description
2.0	Volume V, version 2.0

HL7-defined Table 4000 - Name/address representation (use in all XPN, XAD data types) (PID-5,6,9,11)

Value	Description
I	Ideographic (e.g., Kanji)
A	Alphabetic (e.g., Default or some single-byte)
P	Phonetic (e.g., ASCII, Katakana, Hirigana, etc.)

2.11 SUMMARY TABLE

NAACCR OPT: R - required; RE - required or empty; O - optional; C - Conditional on the trigger event or on some other field(s); X - not used with this trigger event, may be skipped; B - left in for backward compatibility with previous version of HL7.

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
MSH	1	00001	Field separator	ST	R						
MSH	2	00002	Encoding characters	ST	R						
MSH	3	00003	Sending application	HD	O						
MSH	4	00004	Sending facility	HD	R	7010, 7020	Path Lab Name	4			Revised
MSH	4.1		Namespace ID	IS	R	7020	Path Lab Name	4			
MSH	4.2		Universal ID (CLIA number)	ST	R	7010	Reporting Facility ID	3			Revised
MSH	4.3		Universal ID Type	ID	R						
MSH	5	00005	Receiving application	HD	O						
MSH	6	00006	Receiving facility	HD	O						
MSH	7	00007	Date/Time of message	TS	R	7490	E-Path Date/Time Stamp	63			
MSH	8	00008	Security	ST	O						
MSH	9	00009	Message type	CM	R						
MSH	10	00010	Message control ID	ST	R	7500	Message Control ID	65			Revised
MSH	11	00011	Processing ID	PT	R	7510	Processing ID	66			Revised
MSH	12	00012	Version ID	VID	R						
MSH	13	00013	Sequence number	NM	O						
MSH	14	00014	Continuation pointer	ST	O						
MSH	15	00015	Accept acknowledgment type	ID	O						
MSH	16	00016	Application acknowledgment type	ID	O						
MSH	17	00017	Country code	ID	O						Revised
MSH	18	00692	Character set	ID	O					3	Revised
MSH	19	00693	Principal language of message	CE	O						
MSH	20	01317	Alternate character set handling scheme	ID	X						Revised
MSH	21	01598	Conformance Statement ID	ID	RE				2.0	3	Revised
PID	1	00104	Set ID - PID	SI	O						
PID	2	00105	Patient ID (External)	CX	O						
PID	3	00106	Patient identifier list	CX	R	2300, 2320	Social Security Number, Medical Record Number	20, 22		8	Revised
PID	3.1		ID number	ST	RE	2300	Medical Record Number	22			Revised

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PID	3.2		Check digit	ST	X						Revised
PID	3.3		Code identifying check digit schema	ID	X						Revised
PID	3.4		Assigning Authority	HD	O						
PID	3.4.1		Assigning Authority.Namespace ID	IS	O						
PID	3.4.2		Assigning Authority.Universal ID	ST	O						
PID	3.4.3		Assigning Authority.Universal ID type	ID	O						
PID	3.5		Identifier type code	IS	C				MR		
PID	3.6		Assigning facility	HD	O						
PID	3.6.1		Assigning facility.Namespace ID	IS	O						
PID	3.6.2		Assigning facility.Universal ID	ST	O						
PID	3.6.3		Assigning facility.Universal ID type	ID	O						
PID	Repeat										
PID	3.1		ID number	ST	RE	2320	Social Security Number	20			Revised
PID	3.2		Check digit	ST	X						Revised
PID	3.3		Code identifying check digit schema	ID	X						Revised
PID	3.4		Assigning Authority	HD	O						
PID	3.4.1		Assigning Authority.Namespace ID	IS	O						
PID	3.4.2		Assigning Authority.Universal ID	ST	O						
PID	3.4.3		Assigning Authority.Universal ID type	ID	O						
PID	3.5		Identifier type code	IS	C				SS		
PID	3.6		Assigning facility	HD	O						
PID	3.6.1		Assigning facility.Namespace ID	IS	O						
PID	3.6.2		Assigning facility.Universal ID	ST	O						
PID	3.6.3		Assigning facility.Universal ID type	ID	O						
PID	Repeat										
PID	3.1		ID number	ST	O						
PID	3.2		Check digit	ST	X						Revised
PID	3.3		Code identifying check digit schema	ID	X						Revised
PID	3.4		Assigning Authority	HD	O						
PID	3.4.1		Assigning Authority.Namespace ID	IS	O						
PID	3.4.2		Assigning Authority.Universal ID	ST	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PID	3.4.3		Assigning Authority.Universal ID type	ID	O						
PID	3.5		Identifier type code	IS	C				PI		
PID	3.6		Assigning facility	HD	O						
PID	3.6.1		Assigning facility.Namespace ID	IS	O						
PID	3.6.2		Assigning facility.Universal ID	ST	O						
PID	3.6.3		Assigning facility.Universal ID type	ID	O						
PID	4	00107	Alternate patient ID - PID	CX	O					8	Revised
PID	5	00108	Patient name	XPN	R	2230, 2240, 2250	Name--Last, Name--First, and Name--Middle	10-12		8	Revised
PID	5.1		Family Name	ST	R	2230	Name--Last	10			
PID	5.2		Given Name	ST	R	2240	Name--First	11			
PID	5.3		Middle initial or name	ST	RE	2250	Name--Middle	12			Revised
PID	5.4		Suffix	ST	O						
PID	5.5		Prefix	ST	O						
PID	5.6		Degree	ST	O						
PID	5.7		Name type code	ID	O						
PID	5.8		Name representation code	ID	O						
PID	6	00109	Mother's maiden name	XPN	O						
PID	7	00110	Date/time of birth	TS	RE	240	Birth Date	18			Revised
PID	8	00111	Sex	IS	RE	220	Sex	21			Revised
PID	9	00112	Patient alias	XPN	O	2280	Name-Alias			8	Revised
PID	10	00113	Race	CE	RE	160	Race 1	67		6	Revised
PID	10.1		Identifier	ST	RE	160	Race 1	67			Revised
PID	10.2		Text	ST	O						
PID	10.3		Name of coding system	ST	C				HL7 Table 005		
PID	10.4		Alternate identifier	ST	O						
PID	10.4		Alternate text	ST	O						
PID	10.6		Alternate name of coding system	ST	O						
PID	11	00114	Patient Address	XAD	RE	70, 80, 100, 2330, 7520	Addr at DX--City, Addr at DX--State, Addr at DX--Postal Code, and Addr at DX--No & Street, Address Type Code	14-16, 13, 68		4	Revised

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PID	11.1		Street Address	ST	RE	2330	Addr at DX--No & Street	13			Revised
PID	11.2		Other designation	ST	O						
PID	11.3		City	ST	RE	70	Addr at DX--City	14			Revised
PID	11.4		State or province	ST	RE	80	Addr at DX--State	15			Revised
PID	11.5		ZIP or postal code	ST	RE	100	Addr at DX--Postal Code	16			Revised
PID	11.6		Country	ID	O						
PID	11.7		Address type	ID	O	7520	Address Type Code	68			Revised
PID	11.8		Other geographic designation	ST	O						
PID	11.9		County/parish code	IS	O						
PID	11.10		Census tract	IS	O						
PID	11.11		Address representation code	ID	O						
PID	12	00115	County Code	IS	X						
PID	13	00116	Phone Number - Home	XTN	O	2360	Telephone	17		8	Revised
PID	13.1		[(999)] 999-9999 [X99999] [C any text]	TN	O	2360	Telephone	17			
PID	13.2		Telecommunication use code	ID	O						
PID	13.3		Telecommunication equipment type	ID	O						
PID	13.4		Email address	ST	O						
PID	13.5		Country code	NM	O						
PID	13.6		Area/city code	NM	O						
PID	13.7		Phone number	NM	O						
PID	13.8		Extension	NM	O						
PID	13.9		Any text	ST	O						
PID	14	00117	Phone Number - Business	XTN	O					4	Revised
PID	15	00118	Primary Language	CE	O						
PID	15.1		Identifier	ST	O						
PID	15.2		Text	ST	O						
PID	15.3		Name of coding system	ST	O						
PID	15.4		Alternate identifier	ST	O						
PID	15.4		Alternate text	ST	O						
PID	15.6		Alternate name of coding system	ST	O						
PID	16	00119	Marital Status	CE	RE	150	Marital Status				Revised
PID	16.1		Identifier	ST	RE	150	Marital Status				Revised
PID	16.2		Text	ST	O						
PID	16.3		Name of coding system	ST	O						
PID	16.4		Alternate identifier	ST	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PID	16.4		Alternate text	ST	O						
PID	16.6		Alternate name of coding system	ST	O						
PID	17	00120	Religion	CE	O	260	Religion				
PID	17.1		Identifier	ST	O	260	Religion				
PID	17.2		Text	ST	O						
PID	17.3		Name of coding system	ST	O						
PID	17.4		Alternate identifier	ST	O						
PID	17.4		Alternate text	ST	O						
PID	17.6		Alternate name of coding system	ST	O						
PID	18	00121	Patient Account Number	CX	O						
PID	19	00122	SSN Number - Patient	ST	B						Revised
PID	20	00123	Driver's License Number - Patient	DLN	O						
PID	21	00124	Mother's Identifier	CX	O					2	Revised
PID	22	00125	Ethnic Group	CE	RE	190	Spanish/Hispanic Origin	78		4	Revised
PID	23	00126	Birth Place	ST	O						
PID	24	00127	Multiple Birth Indicator	ID	X						Revised
PID	25	00128	Birth Order	NM	X						Revised
PID	26	00129	Citizenship	CE	X						Revised
PID	27	00130	Veterans Military Status	CE	X						Revised
PID	28	00739	Nationality	CE	O						
PID	29	00740	Patient Death Date and Time	TS	RE						Revised
PID	30	00741	Patient Death Indicator	ID	RE	1760	Vital Status				Revised
NK1	1	00190	Set ID - NK1+	SI	R						
NK1	2	00191	Name	XPN	O					4	Revised
NK1	3	00192	Relationship	CE	O						
NK1	4	00193	Address	XAD	O					4	Revised
NK1	5	00194	Phone number	XTN	O					4	Revised
NK1	6	00195	Business phone number	XTN	X						
NK1	7	00196	Contact role	CE	X						
NK1	8	00197	Start date	DT	X						
NK1	9	00198	End date	DT	X						
NK1	10	00199	Next of kin/AP job title	ST	X						
NK1	11	00200	Next of kin/AP job code/class	JCC	X						
NK1	12	00201	Next of kin/AP employee number	CX	X						
NK1	13	00202	Organization name - NK1	XON	X						
NK1	14	00119	Marital status	CE	X						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
NK1	15	00111	Sex	IS	X						
NK1	16	00110	Date/time of birth	TS	X						
NK1	17	00755	Living dependency	IS	X						
NK1	18	00145	Ambulatory status	IS	X						
NK1	19	00129	Citizenship	CE	X						
NK1	20	00118	Primary language	CE	X						
NK1	21	00742	Living arrangement	IS	X						
NK1	22	00743	Publicity code	CE	X						
NK1	23	00744	Protection indicator	ID	X						
NK1	24	00745	Student indicator	IS	X						
NK1	25	00120	Religion	CE	X						
NK1	26	00746	Mother's maiden name	XPN	X						
NK1	27	00739	Nationality	CE	X						
NK1	28	00125	Ethnic group	CE	X						
NK1	29	00747	Contact reason	CE	X						
NK1	30	00748	Contact person's name	XPN	X						
NK1	31	00749	Contact person's telephone number	XTN	X						
NK1	32	00750	Contact person's address	XAD	X						
NK1	33	00751	Next of kin/AP's identifiers	CX	X						
NK1	34	00752	Job status	IS	X						
NK1	35	00113	Race	CE	X						
NK1	36	00753	Handicap	IS	X						
NK1	37	00754	Contact person social security	ST	X						
PV1	1	00131	Set ID – PV1	SI	O						
PV1	2	00132	Patient Class	IS	R						
PV1	3	00133	Assigned Patient Location	PL	X						
PV1	4	00134	Admission Type	IS	O						
PV1	5	00135	Preadmit Number	CX	X						
PV1	6	00136	Prior Patient Location	PL	X						
PV1	7	00137	Attending Doctor	XCN	RE					2	Revised
PV1	7.1		ID Number	ST	RE	2460	Physician Managing	69			Revised
PV1	7.2		Provider last name	ST	RE						Revised
PV1	7.2.1		Family name	ST	RE						Revised
PV1	7.2.2		Last name prefix	ST	RE						Revised
PV1	7.3		Given name	ST	RE						Revised
PV1	7.4		Middle initial or name	ST	RE						Revised
PV1	7.5		Suffix	ST	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PV1	7.6		Prefix	ST	O						
PV1	7.7		Degree	IS	O						
PV1	7.8		Source table	IS	O						
PV1	7.9		Assigning authority	HD	C						
PV1	7.9.1		Namespace ID	IS							Revised
PV1	7.9.2		Universal ID	ST							Revised
PV1	7.9.3		Universal ID type	ID							Revised
PV1	7.10		Name type code	ID	O						
PV1	7.11		Identifier check digit	ST	X						Revised
PV1	7.12		Code identifying check digit scheme	ID	X						Revised
PV1	7.13		Identifier type code	IS	C						
PV1	7.14		Assigning facility	HD	O						
PV1	7.14.1		Namespace ID	IS							
PV1	7.14.2		Universal ID	ST							
PV1	7.14.3		Universal ID type	ID							
PV1	7.15		Name representation code	ID	O						
PV1	8	00138	Referring Doctor	XCN	RE					2	Revised
PV1	8.1		ID Number	ST	RE	2470	Physician Follow-up	70			Revised
PV1	8.2		Provider last name	ST	RE						Revised
PV1	8.2.1		Family name	ST	RE						Revised
PV1	8.2.2		Last name prefix	ST	RE						Revised
PV1	8.3		Given name	ST	RE						Revised
PV1	8.4		Middle initial or name	ST	RE						Revised
PV1	8.5		Suffix	ST	O						
PV1	8.6		Prefix	ST	O						
PV1	8.7		Degree	IS	O						
PV1	8.8		Source table	IS	O						
PV1	8.9		Assigning authority	HD	C						
PV1	8.9.1		Namespace ID	IS							
PV1	8.9.2		Universal ID	ST							
PV1	8.9.3		Universal ID type	ID							
PV1	8.10		Name type code	ID	O						
PV1	8.11		Identifier check digit	ST	X						Revised
PV1	8.12		Code identifying check digit scheme	ID	X						Revised

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PV1	8.13		Identifier type code	IS	C						
PV1	8.14		Assigning facility	HD	O						
PV1	8.14.1		Namespace ID	IS							
PV1	8.14.2		Universal ID	ST							
PV1	8.14.3		Universal ID type	ID							
PV1	8.15		Name representation code	ID	O						
PV1	9	00139	Consulting Doctor	XCN	RE					2	Revised
PV1	10	00140	Hospital Service	IS	X						
PV1	11	00141	Temporary Location	PL	X						
PV1	12	00142	Preadmit Test Indicator	IS	X						
PV1	13	00143	Re-admission Indicator	IS	X						
PV1	14	00144	Admit Source	IS	X						
PV1	15	00145	Ambulatory Status	IS	X						
PV1	16	00146	VIP Indicator	IS	X						
PV1	17	00147	Admitting Doctor	XCN	RE					2	Revised
PV1	17.1		ID Number	ST	RE						Revised
PV1	17.2		Provider last name	ST	RE						Revised
PV1	17.2.1		Family name	ST	RE						Revised
PV1	17.2.2		Last name prefix	ST	RE						Revised
PV1	17.3		Given name	ST	RE						Revised
PV1	17.4		Middle initial or name	ST	RE						Revised
PV1	17.5		Suffix	ST	O						Revised
PV1	17.6		Prefix	ST	O						Revised
PV1	17.7		Degree	IS	O						Revised
PV1	17.8		Source table	IS	O						Revised
PV1	17.9		Assigning authority	HD	C						Revised
PV1	17.9.1		Namespace ID	IS							Revised
PV1	17.9.2		Universal ID	ST							Revised
PV1	17.9.3		Universal ID type	ID							Revised
PV1	17.10		Name type code	ID	O						Revised
PV1	17.11		Identifier check digit	ST	X						Revised
PV1	17.12		Code identifying check digit scheme	ID	X						Revised
PV1	17.13		Identifier type code	IS	C						Revised
PV1	17.14		Assigning facility	HD	O						Revised
PV1	17.14.1		Namespace ID	IS							Revised
PV1	17.14.2		Universal ID	ST							Revised
PV1	17.14.3		Universal ID type	ID							Revised

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
PV1	18	00148	Patient Type	IS	X						
PV1	19	00149	Visit Number	CX	X						
PV1	20	00150	Financial Class	FC	X						
PV1	21	00151	Charge Price Indicator	IS	X						
PV1	22	00152	Courtesy Code	IS	X						
PV1	23	00153	Credit Rating	IS	X						
PV1	24	00154	Contract Code	IS	X						
PV1	25	00155	Contract Effective Date	DT	X						
PV1	26	00156	Contract Amount	NM	X						
PV1	27	00157	Contract Period	NM	X						
PV1	28	00158	Interest Code	IS	X						
PV1	29	00159	Transfer to Bad Debt Code	IS	X						
PV1	30	00160	Transfer to Bad Debt Date	DT	X						
PV1	31	00161	Bad Debt Agency Code	IS	X						
PV1	32	00162	Bad Debt Transfer Amount	NM	X						
PV1	33	00163	Bad Debt Recovery Amount	NM	X						
PV1	34	00164	Delete Account Indicator	IS	X						
PV1	35	00165	Delete Account Date	DT	X						
PV1	36	00166	Discharge Disposition	IS	X						
PV1	37	00167	Discharged to Location	CM	X						
PV1	38	00168	Diet Type	CE	X						
PV1	39	00169	Servicing Facility	IS	X						
PV1	40	00170	Bed Status	IS	X						
PV1	41	00171	Account Status	IS	X						
PV1	42	00172	Pending Location	PL	X						
PV1	43	00173	Prior Temporary Location	PL	X						
PV1	44	00174	Admit Date/Time	TS	X						
PV1	45	00175	Discharge Date/Time	TS	X						
PV1	46	00176	Current Patient Balance	NM	X						
PV1	47	00177	Total Charges	NM	X						
PV1	48	00178	Total Adjustments	NM	X						
PV1	49	00179	Total Payments	NM	X						
PV1	50	00180	Alternate Visit ID	CX	X						
PV1	51	01226	Visit Indicator	IS	X						
PV1	52	01274	Other Healthcare Provider	XCN	X						
ORC	1	00215	Order Control	ID	R						
ORC	2	00216	Placer Order Number	EI	X						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
ORC	3	00217	Filler Order Number	EI	X						
ORC	4	00218	Placer Group Number	EI	X						
ORC	5	00219	Order Status	ID	X						
ORC	6	00220	Response Flag	ID	X						
ORC	7	00221	Quantity/Timing	TQ	X						
ORC	8	00222	Parent	CM	X						
ORC	9	00223	Date/Time of Transaction	TS	X						
ORC	10	00224	Entered By	XCN	X						
ORC	11	00225	Verified By	XCN	X						
ORC	12	00226	Ordering Provider	XCN	X						
ORC	13	00227	Enterer's Location	PL	X						
ORC	14	00228	Call Back Phone Number	XTN	X						
ORC	15	00229	Order Effective Date/Time	TS	X						
ORC	16	00230	Order Control Code Reason	CE	X						
ORC	17	00231	Entering Organization	CE	X						
ORC	18	00232	Entering Device	CE	X						
ORC	19	00233	Action By	XCN	X						
ORC	20	01310	Advanced Beneficiary Notice Code	CE	X						
ORC	21	01311	Ordering Facility Name	XON	C	7190, 7200	Path Ordering Facility Number (AHA Number), Path Ordering Facility Name	33, 34		4	Revised
ORC	21.1		Organization name	ST	R	7200	Path Ordering Facility Name	34			
ORC	21.2		Organization name type code	IS	O						
ORC	21.3		ID number	NM	RE	7190	Path Ordering Facility Number (AHA Number)	33			Revised
ORC	21.4		Check digit	NM	X						Revised
ORC	21.5		Code identifying the check digit scheme	ID	X						Revised
ORC	21.6		Assigning authority	HD	C						Revised
ORC	21.7		Identifier type code	IS	X						Revised
ORC	21.8		Assigning facility	HD	O						
ORC	21.9		Name representation code	ID	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
ORC	22	01312	Ordering Facility Address	XAD	RE	7210, 7220, 7230, 7240, 7235	Path Ordering Fac Addr--No & St, Path Ordering Fac Addr--City, Path Ordering Fac Addr--State, and Path Ordering Fac--Postal Code, Path Order Fac Addr--Country	35-38, 76		4	Revised
ORC	22.1		Street Address	ST	RE	7210	Path Ordering Fac Addr--No & St	35			Revised
ORC	22.2		Other designation	ST	O						
ORC	22.3		City	ST	RE	7220	Path Ordering Fac Addr--City	36			Revised
ORC	22.4		State or province	ST	RE	7230	Path Ordering Fac Addr--State	37			Revised
ORC	22.5		ZIP or postal code	ST	RE	7240	Path Ordering Fac--Postal Code	38			Revised
ORC	22.6		Country	ID	O	7235	Path Ordering Fac--Country	76			
ORC	22.7		Address type	ID	O						
ORC	22.8		Other geographic designation	ST	O						
ORC	22.9		County/parish code	IS	O						
ORC	22.10		Census tract	IS	O						
ORC	22.11		Address representation code	ID	O						
ORC	23	01313	Ordering Facility Phone Number	XTN	RE	7250	Path Ordering Facility--Telephone	39		4	Revised
ORC	23.1		[(999)] 999-9999 [X99999] [C any text]	TN	RE	7250	Path Ordering Facility--Telephone	39			Revised
ORC	23.2		Telecommunication use code	ID	O						
ORC	23.3		Telecommunication equipment type	ID	O						
ORC	23.4		Email address	ST	O						
ORC	23.5		Country code	NM	O						
ORC	23.6		Area/city code	NM	O						
ORC	23.7		Phone number	NM	O						
ORC	23.8		Extension	NM	O						
ORC	23.9		Any text	ST	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
ORC	24	01314	Ordering Provider Address	XAD	RE	7140, 7150, 7160, 7170, 7165	Path Ordering Client/Phys Addr--Street, Path Ordering Client/Phys Addr--City, Path Ordering Client/Phys Addr--State, Path Ordering Client/Phys Addr--Postal Code, Path Ordering Client/Phys Addr--Country	28-31, 73		4	Revised
ORC	24.1		Street Address	ST	RE	7140	Path Ordering Client/Phys Addr--Street	28			Revised
ORC	24.2		Other designation	ST	O						
ORC	24.3		City	ST	RE	7150	Path Ordering Client/Phys Addr--City	29			Revised
ORC	24.4		State or province	ST	RE	7160	Path Ordering Client/Phys Addr--State	30			Revised
ORC	24.5		ZIP or postal code	ST	RE	7170	Path Ordering Client/Phys Addr--Postal Code	31			Revised
ORC	24.6		Country	ID	O	7165	Path Ordering Client/Phys Addr--Country	73			
ORC	24.7		Address type	ID	O						
ORC	24.8		Other geographic designation	ST	O						
ORC	24.9		County/parish code	IS	O						
ORC	24.10		Census tract	IS	O						
ORC	24.11		Address representation code	ID	O						
OBR	1	00237	Set ID – OBR	SI	R						
OBR	2	00216	Placer Order Number	EI	O						
OBR	3	00217	Filler Order Number	EI	R	7090	Path Report Number	23			
OBR	3.1		Entity identifier	ST	R	7090	Path Report Number	23			
OBR	3.2		Namespace ID	IS	O						
OBR	3.3		Universal ID	ST	O						
OBR	3.4		Universal ID type	ID	O						
OBR	4	00238	Universal Service ID	CE	R	7480	Path--Report Type	64			Revised
OBR	4.1		Identifier	ST	R	7480	Path--Report Type	64			
OBR	4.2		Text	ST	R						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBR	4.3		Name of coding system	ST	R						
OBR	4.4		Alternate identifier	ST	O						
OBR	4.5		Alternate text	ST	O						
OBR	4.6		Alternate name of coding system	ST	O						
OBR	5	00239	Priority	ID	X						
OBR	6	00240	Requested Date/Time	TS	X						
OBR	7	00241	Observation Date/Time	TS	R	7320	Path-Date Spec Collection	46			
OBR	8	00242	Observation End Date/Time	TS	X						
OBR	9	00243	Collection Volume	CQ	X						
OBR	10	00244	Collector Identifier	XCN	RE					4	Revised
OBR	10.1		ID Number	ST	RE	2480	Physician--Primary Surgeon	82			Revised
OBR	10.2		Provider last name	ST							Revised
OBR	10.2.1		Family name	ST	RE						Revised
OBR	10.2.2		Last name prefix	ST	RE						Revised
OBR	10.3		Given name	ST	RE						Revised
OBR	10.4		Middle initial or name	ST	RE						Revised
OBR	10.5		Suffix	ST	O						Revised
OBR	10.6		Prefix	ST	O						Revised
OBR	10.7		Degree	IS	O						Revised
OBR	10.8		Source table	IS	O						Revised
OBR	10.9		Assigning authority	HD	C						Revised
OBR	10.9.1		Namespace ID	IS							Revised
OBR	10.9.2		Universal ID	ST							Revised
OBR	10.9.3		Universal ID type	ID							Revised
OBR	10.10		Name type code	ID	O						Revised
OBR	10.11		Identifier check digit	ST	X						Revised
OBR	10.12		Code identifying check digit scheme	ID	X						Revised
OBR	10.13		Identifier type code	IS	C						Revised
OBR	10.14		Assigning facility	HD	O						Revised
OBR	10.14.1		Namespace ID	IS							Revised
OBR	10.14.2		Universal ID	ST							Revised
OBR	10.14.3		Universal ID type	ID							Revised
OBR	11	00245	Specimen Action Code	ID	X						
OBR	12	00246	Danger Code	CE	X						
OBR	13	00247	Relevant Clinical Info	ST	X						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBR	14	00248	Specimen Received Date/Time	TS	RE						Revised
OBR	15	00249	Specimen Source	CM	RE						Revised
OBR	16	00226	Ordering Provider	XCN	C	7100, 7110, 7120, 7130	Path Ordering Client/Phys--Lic No, Path Ordering Client/Phys--LName, Path Ordering Client/Phys--FName, Path Ordering Client/Phys--MName	24, 25, 26, 27		4	Revised
OBR	16.1		ID Number	ST	RE	7100	Path Ordering Client/Phys--Lic No	24			Revised
OBR	16.2		Provider last name	ST							
OBR	16.2.1		Family name	ST	R	7110	Path Ordering Client/Phys--LName	25			
OBR	16.2.2		Last name prefix	ST	O						
OBR	16.3		Given name	ST	R	7120	Path Ordering Client/Phys--FName	26			
OBR	16.4		Middle initial or name	ST	R	7130	Path Ordering Client/Phys--MName	27			
OBR	16.5		Suffix	ST	O						
OBR	16.6		Prefix	ST	O						
OBR	16.7		Degree	IS	O						
OBR	16.8		Source table	IS	O						
OBR	16.9		Assigning authority	HD	C						
OBR	16.9.1		Namespace ID	IS							
OBR	16.9.2		Universal ID	ST							
OBR	16.9.3		Universal ID type	ID							
OBR	16.10		Name type code	ID	O						
OBR	16.11		Identifier check digit	ST	X						
OBR	16.12		Code identifying check digit scheme	ID	X						
OBR	16.13		Identifier type code	IS	C						
OBR	16.14		Assigning facility	HD	O						
OBR	16.14.1		Namespace ID	IS							
OBR	16.14.2		Universal ID	ST							
OBR	16.14.3		Universal ID type	ID							
OBR	16.15		Name representation code	ID	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBR	17	00250	Order Callback Phone Number	XTN	O	7180	Path Ordering Client/Phys Phone	32		4	Revised
OBR	17.1		[(999)] 999-9999 [X99999] [C any text]	TN	O	7180	Path Ordering Client/Phys Phone	32			
OBR	17.2		Telecommunication use code	ID	O						
OBR	17.3		Telecommunication equipment type	ID	O						
OBR	17.4		Email address	ST	O						
OBR	17.5		Country code	NM	O						
OBR	17.6		Area/city code	NM	O						
OBR	17.7		Phone number	NM	O						
OBR	17.8		Extension	NM	O						
OBR	17.9		Any text	ST	O						
OBR	18	00251	Placer Field 1	ST	X						
OBR	19	00252	Placer Field 2	ST	X						
OBR	20	00253	Filler Field 1	ST	X						
OBR	21	00254	Filler Field 2	ST	RE	7070	Path Lab phone number	9			Revised
OBR	22	00255	Results Rpt/Status Chng-Date/Time	TS	RE	7530	Date/Time Results Written	71			Revised
OBR	23	00256	Charge to Practice	CM	X						
OBR	24	00257	Diagnostic Serv Sect ID	ID	X						
OBR	25	00258	Result Status	ID	R	7330	Path--Result Status	47			Revised
OBR	26	00259	Parent Result	CM	O						
OBR	27	00221	Quantity/Timing	TQ	X						
OBR	28	00260	Result Copies To	XCN	O					5	Revised
OBR	29	00261	Parent	CM	O						
OBR	30	00262	Transportation Mode	ID	X						Revised
OBR	31	00263	Reason for Study	CE	O					20	Revised
OBR	32	00264	Principal Result Interpreter	CM	R	7260, 7270, 7280, 7290, 7300, 7310	Pathologist Last Name, Pathologist First Name, Pathologist Middle Name, Pathologist Name Suffix, Pathologist Lic Number, Pathologist Lic State	40-45			
OBR	32.1.1		ID Number	ST	R	7300	Pathologist Lic Number	44			
OBR	32.1.2		Family name	ST	R	7260	Pathologist Last Name	40			
OBR	32.1.3		Given name	ST	R	7270	Pathologist First Name	41			

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBR	32.1.4		Middle initial or name	ST	R	7280	Pathologist Middle Name	42			
OBR	32.1.5		Suffix	ST	R	7290	Pathologist Name Suffix	43			
OBR	32.1.6		Prefix	ST	O						
OBR	32.1.7		Degree	IS	O						
OBR	32.1.8		Source table	IS	O						
OBR	32.1.9.1		Namespace ID	IS	R	7310	Pathologist Lic State	45			
OBR	32.1.9.2		Universal ID	ST	O						
OBR	32.1.9.3		Universal ID Type	ID	O						
OBR	32.2.4		start date/time	TS	O						
OBR	32.3		end date/time	TS	O						
OBR	32.4		point of care	IS	X						
OBR	32.5		Room	IS	X						
OBR	32.6		Bed	IS	X						
OBR	32.7		Facility	HD	X						
OBR	32.8		Location status	IS	X						
OBR	32.9		Patient location type	IS	X						
OBR	32.10		Building	IS	X						
OBR	32.11		Floor	IS	X						
OBR	33	00265	Assistant Result Interpreter	CM	O					6	Revised
OBR	33.1.1		ID Number	ST	R	7300	Pathologist Lic Number	44			
OBR	33.1.2		Family name	ST	R	7260	Pathologist Last Name	40			
OBR	33.1.3		Given name	ST	R	7270	Pathologist First Name	41			
OBR	33.1.4		Middle initial or name	ST	R	7280	Pathologist Middle Name	42			
OBR	33.1.5		Suffix	ST	R	7290	Pathologist Name Suffix	43			
OBR	33.1.6		Prefix	ST	O						
OBR	33.1.7		Degree	IS	O						
OBR	33.1.8		Source table	IS	O						
OBR	33.1.9.1		Namespace ID	IS	R	7310	Pathologist Lic State	45			
OBR	33.1.9.2		Universal ID	ST	O						
OBR	33.1.9.3		Universal ID Type	ID	O						
OBR	33.2.4		start date/time	TS	O						
OBR	33.3		end date/time	TS	O						
OBR	33.4		point of care	IS	X						
OBR	33.5		Room	IS	X						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBR	33.6		Bed	IS	X						
OBR	33.7		Facility	HD	X						
OBR	33.8		Location status	IS	X						
OBR	33.9		Patient location type	IS	X						
OBR	33.10		Building	IS	X						
OBR	33.11		Floor	IS	X						
OBR	34	00266	Technician	CM	O					6	Revised
OBR	34.1.1		ID Number	ST	R	7300	Pathologist Lic Number	44			
OBR	34.1.2		Family name	ST	R	7260	Pathologist Last Name	40			
OBR	34.1.3		Given name	ST	R	7270	Pathologist First Name	41			
OBR	34.1.4		Middle initial or name	ST	R	7280	Pathologist Middle Name	42			
OBR	34.1.5		Suffix	ST	R	7290	Pathologist Name Suffix	43			
OBR	34.1.6		Prefix	ST	O						
OBR	34.1.7		Degree	IS	O						
OBR	34.1.8		Source table	IS	O						
OBR	34.1.9.1		Namespace ID	IS	R	7310	Pathologist Lic State	45			
OBR	34.1.9.2		Universal ID	ST	O						
OBR	34.1.9.3		Universal ID Type	ID	O						
OBR	34.2.4		start date/time	TS	O						
OBR	34.3		end date/time	TS	O						
OBR	34.4		point of care	IS	X						
OBR	34.5		Room	IS	X						
OBR	34.6		Bed	IS	X						
OBR	34.7		Facility	HD	X						
OBR	34.8		Location status	IS	X						
OBR	34.9		Patient location type	IS	X						
OBR	34.10		Building	IS	X						
OBR	34.11		Floor	IS	X						
OBR	35	00267	Transcriptionist	CM	X						
OBR	36	00268	Scheduled Date/ Time	TS	X						
OBR	37	01028	Number of Sample Containers	NM	X						
OBR	38	01029	Transport Logistics of Collected Sample	CE	X						
OBR	39	01030	Collector's Comment	CE	X						
OBR	40	01031	Transport Arrangement Responsibility	CE	X						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBR	41	01032	Transport Arranged	ID	X						
OBR	42	01033	Escort Required	ID	X						
OBR	43	01034	Planned Patient Transport Comment	CE	X						
OBR	44	00393	Procedure Code	CWE	O						Revised
OBR	44.1		Identifier	ST	O						
OBR	44.2		Text	ST	O						
OBR	44.3		Name of coding system	ST	O						
OBR	44.4		Alternate identifier	ST	O						
OBR	44.5		Alternate text	ST	O						
OBR	44.6		Alternate name of coding system	ST	O						
OBR	45	01316	Procedure Code Modifier	CE	X						Revised
OBX	1	00569	Set ID-OBX	SI	R						
OBX	2	00570	Value type	ID	R						
OBX	3	00571	Observation identifier	CE	R						Revised
OBX	3.1		Identifier	ST	R						
OBX	3.2		Text	ST	R						
OBX	3.3		Name of coding system	ST	R						
OBX	3.4		Alternate identifier	ST	O						
OBX	3.5		Alternate text	ST	O						
OBX	3.6		Alternate name of coding system	ST	O						
OBX	4	00572	Observation sub-ID	ST	O						

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
OBX	5	00573	Observation value	**	R	7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 2600 7080	Path-SNOMED CT Code(s), Path--SNOMED CT Version, Path--ICD-CM codes Path--ICD Version Number, Path--CPT codes, Path--CPT Code Version, Path--Text Diagnosis, Path--Clinical History, Path--Nature of Specimen, Path--Gross Pathology, Path--Micro Pathology, Path--Final Diagnosis, Path--Comment Section, Path--Suppl Reports, Text--Staging, Patient Age at Specimen	19, 48-62	** The data type associated with OBX 5 varies based upon usage. See field note for details.	12	Revised
OBX	6	00574	Units	CE	RE	7540	Units for Age at Specimen	72			Revised
OBX	6.1		Identifier	ST	RE	7540	Units for Age at Specimen	72			Revised
OBX	6.2		Text	ST	RE						Revised
OBX	6.3		Name of coding system	ST	RE						Revised
OBX	6.4		Alternate identifier	ST	O						
OBX	6.5		Alternate text	ST	O						
OBX	6.6		Alternate name of coding system	ST	O						
OBX	7	00575	Reference ranges	ST	O						Revised
OBX	8	00576	Abnormal flags	ID	O					5	Revised
OBX	9	00577	Probability	NM	O						
OBX	10	00578	Nature of abnormal test	ID	O					5	Revised
OBX	11	00579	Observation result status	ID	R	7330	Path--Result Status	47			Revised
OBX	12	00580	Date last Obs normal values	TS	O						
OBX	13	00581	User defined access checks	ST	O						
OBX	14	00582	Date/time of the observation	TS	O						
OBX	15	00583	Producer's ID	CE	R						Revised
	15.1		ID								
	15.2		Code System								

HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME	HL7 Data Type	NAACCR OPT	NAACCR Item #	NAACCR Item Name	E-Path Flat File Field	NAACCR Default Value for RE or C Data Items/Comments	Maximum Number of Repeats	Note
	15.3		Text								
OBX	16	00584	Responsible observer	XCN	O					5	Revised
OBX	17	00936	Observation method	CE	O					6	Revised
NTE	1	00096	Set ID – NTE	SI	O						
NTE	2	00097	Source of Comment	ID	O						
NTE	3	00098	Comment	FT	O					4	Revised
NTE	4	01318	Comment Type	CE	O						
FHS	1	00067	File field separator+	ST	R						
FHS	2	00068	File encoding characters+	ST	R						
FHS	3	00069	File sending application	ST	O						
FHS	4	00070	File sending facility+	ST	R						
FHS	5	00071	File receiving application	ST	O						
FHS	6	00072	File receiving facility	ST	O						
FHS	7	00073	File creation date/time+	TS	R						
FHS	8	00074	File security	ST	O						
FHS	9	00075	File name/ID/type+	ST	RE						Revised
FHS	10	00076	File comment	ST	O						
FHS	11	00077	File control ID	ST	O						
FHS	12	00078	Reference file control ID	ST	O						
FTS	1	00079	File batch count+	NM	R						
FTS	2	00080	File trailer comment	ST	O						
BHS	1	00081	Batch field separator+	ST	R						
BHS	2	00082	Batch encoding characters+	ST	R						
BHS	3	00083	Batch sending application	ST	O						
BHS	4	00084	Batch sending facility+	ST	R						
BHS	5	00085	Batch receiving application	ST	O						
BHS	6	00086	Batch receiving facility	ST	O						
BHS	7	00087	Batch creation date/time+	TS	R						
BHS	8	00088	Batch security	ST	O						
BHS	9	00089	Batch name/ID/type	ST	O						
BHS	10	00090	Batch comment	ST	O						
BHS	11	00091	Batch control ID	ST	O						
BHS	12	00092	Reference batch control ID	ST	O						
BTS	1	00093	Batch message count+	ST	R						
BTS	2	00094	Batch comment	ST	O						
BTS	3	00095	Batch totals+	NM	O					4	Revised

2.12 CAP CANCER CHECKLIST – IMPLEMENTATION GUIDE QUESTIONS AND ANSWERS

1 – Question: What is the location for the checklist identifier and the version data of the CAP Checklists?

Answer: The Checklist Identifier should be located in the first OBX segment of the message with a CWE data type. The version data should be located in the OBX-5 subcomponents 7, 8, and 9.

Components: <Identifier (ST)> ^ <Text (ST)> ^ <Name of Coding System (ID)> ^ <Alternate Identifier (ST)> ^ <Alternate Text (ST)> ^ <Name of Alternate Coding System (ID)> ^ <Coding System Version ID (ST)> ^ <Alternate Coding System Version ID (ST)> ^ <Original Text (ST)>

OBX|1|CWE|437728003^Template Version Identifier^SCT||1.1000043^Breast: Excision Less Than Total Mastectomy (Includes Wire-Guided Localization Excisions); Total Mastectomy, Modified Radical Mastectomy, Radical Mastectomy, 1/1/2005, 1.1000043^CAPECC|||||F<CR>

Note: Code 1.1000043 represents the "Coding System Version ID." This Version ID contains the unique identifier for a particular version of a "checklist." This identifier is the ChecklistTemplateVersionCkey, which is the primary key of the ChecklistTemplateVersions table of the CAP Electronic Cancer Checklists (CAP eCC, formally called "SECCC") database. Each version of a checklist has a unique and permanent ChecklistTemplateVersionCkey. When a new version of a checklist is released, the new version will receive a new ChecklistTemplateVersionCkey.

The ChecklistTemplateVersionCkey is a "composite key" (Ckey.) A Ckey uses a decimal format with up to 9 digits permitted before the decimal point (the integer part), and 9 digits permitted after the decimal point (the decimal part). The integer part is a sequential number added by the database each time a new row (record) is added to the table. The decimal part is a number (called a "namespace") assigned by CAP staff to identify each organization that is authorized to edit the CAP eCC templates. The CAP internal namespace for the CAP eCC is "1000043". A table of the ChecklistTemplateVersionCkey is located in the current version at the following NAACCR web-site: http://www.naacr.org/index.asp?Col_SectionKey=7&Col_ContentID=122.

The abbreviation for the CAP Electronic Cancer Checklists is CAP eCC, while the associated HL7 Table 0396 value is CAPECC.

2 – Question: When transmitting information from the SNOMED CT Encoded CAP Cancer Checklists, should SNOMED CT codes be used to transmit the question code as well as the answer code?

Answer: Yes.

3 – Question: Should both discrete CAP Cancer Checklist data and the entire text pathology report or portions of the pathology report be incorporated into a single message?

Answer: Yes, the discrete CAP Cancer Checklists data items and any associated text should be contained within the message, when available. For the transmission of text data, rely upon the NAACCR E-Path transmission standards as noted in NAACCR Volume V. See Question 4.

4 – Question: How should multiple specimen/multiple cancer/multiple checklists scenarios be handled in the message?

Answer: Following are a discussion and recommended message structure for several scenarios for multiple checklists for one patient. Each OBR corresponds to a CAP Checklist and the ORC corresponds to the specimen. One of the OBR segments could be accompanied by OBX segments which contain the entire text-based pathology report or portions of the pathology report.

Scenarios:

- One specimen (separately submitted tissue) to two or more cancers with the same primary site
- One specimen (separately submitted tissue) to two or more cancers with different primary sites
- Many specimens (separately submitted tissues) to two or more cancers with the same primary site
- Many specimens (separately submitted tissues) to two or more cancers with different primary sites

MSH/PID/PV1

ORC - Specimen

OBR – Part 1 (for a primary cancer)

OBX – CAP Checklist Identifier #1
 OBX – Heading/Question and Value
 OBX – " " " "
 OBX – " " " "
 OBX – " " " "

OBR – Part 2 (for a secondary cancer)

OBX – CAP Checklist Identifier #2
 OBX – Heading/Question and Value
 OBX – " " " "
 OBX – " " " "
 OBX – " " " "

OBR – Part 3 (for a third cancer)

OBX – CAP Checklist Identifier #3
 OBX – Heading/Question and Value
 OBX – " " " "
 OBX – " " " "
 OBX – " " " "

OBR – Part 4 (for text-based information)

OBX – Heading/Question and Value
 OBX – " " " "
 OBX – " " " "
 OBX – " " " "

5 – Question: How should each OBR be uniquely identified, in addition to the CAP Checklist identifier in the first OBX segment for each OBR? When a patient is diagnosed with more than one cancer in the same primary site (e.g. 2 breast cancers) so that the same cancer checklist is completed twice, a single HL7 message should contain two OBR segments each containing the same information. Each OBR will be accompanied by an OBX segment, each containing identical checklist identifiers.

Answer: Use the OBR-Set ID (OBR-1) as a unique and sequential identifier. There will be one of these for each checklist instance. The existence of additional OBRs (each with a different sequential identifier) will indicate more than one checklist in the message or associated text pathology data.

6 – Question: Pathology data on a single specimen, reported in a single ORC segment, may contain multiple primaries. Checklist data on each of the multiple primaries is contained under a unique OBR segment. Some of the fields in the OBR segment are of particular interest to cancer registration e.g. OBR-7 (Path-Date Spec Collection), OBR-16 (Path Ordering Client/Phys), OBR-17 (Path Ordering Client/Phys Phone), and OBR-21 (Path Lab phone number). Should the information in these fields be repeated in each of the OBR segments or only in the first OBR segment?

Answer: Yes, the information in those fields should be identical and repeated in each of the OBR segments.

7 – Question: In those situations with a single cancer pathology report that contains multiple cancers, should each cancer be linked to the respective specimens or parts, and if so, how?

Answer: In the cancer registry domain, there is no use-case need to be able to link a specimen part, block, or slide with the corresponding diagnoses. In the cancer registry community, operative reports are used in conjunction with pathology reports to reach the final coding decision. [Note: HL7 Version 2.5 contains a segment category titled, “Specimen” which would allow the differentiation of different specimen parts.]

8 – Question: Should both the SNOMED CT concept code and alphanumeric code be sent in the message?

Answer: The SNOMED CT concept code must be sent in the first component triplet of the CE or CWE. The alphanumeric code is optional, but if present, should be sent in the second component triplet of the CE or CWE. The code for the SNOMED CT concept code is SCT while the code for the alphanumeric code is SCT2.

Note: In the following example, “___ Lobular carcinoma in situ [M-85202, 77284006] Lobular carcinoma in situ (morphologic abnormality)”, the concept code is 77284006 while M-85202 is the alphanumeric code.

9 – Question: The CAP checklists contain headers which help to organize the paper document (e.g., macroscopic, microscopic). Will there be any ambiguity in the data if the headers are excluded from the HL7 message?

Answer: There would be no ambiguity if the headers are excluded. The header in the checklist only serves to group the values and there would be no ambiguity if the header is excluded. Note that the SNOMED codes are different for the similar data items under different header sections. LOINC Panels and Document sections support reporting the headers, but it is felt that this level of complexity is unnecessary.

10 – Question: How should nested concepts typically associated with the “other specify” and “check all that apply” questions be handled in the HL7 message? How should text data be included in the HL7 message and specifically where should Clinical History information be located?

Answer: These 5 examples describe different scenarios. An “other specify” question can usually be handled by a repeating OBX-5 field. The “check all that apply” usually requires repeating OBX’s. Each checked concept get a different OBX.

Nesting Concepts Encoding Example #1: Specimen Type from the Melanoma Checklist using “other specify”:

SPECIMEN TYPE [R-00254, 371439000] Specimen type (observable entity)

- Excision, ellipse [G-81FD, 396353007] Specimen from skin obtained by elliptical excision (specimen)
- Excision, wide [G-81FE, 396354001] Specimen from skin obtained by wide excision (specimen)
- Excision, other (specify): [G-81FF, 396355000] Specimen from skin obtained by excision (specimen) (specify): not coded
- Re-excision, ellipse [G-8202, 396357008] Specimen from skin obtained by elliptical re-excision (specimen)
- Re-excision, wide [G-8203, 396358003] Specimen from skin obtained by wide re-excision (specimen)
- Re-excision, other (specify): [G-8201, 396356004] Specimen from skin obtained by re-excision (specimen) (specify): not coded
- Lymphadenectomy, sentinel node(s) [R-003AF, 373193000] Lymph node from sentinel lymph node dissection (specimen)
- Lymphadenectomy, regional nodes (specify): axillary [G-8204, 396359006] Lymph node from regional lymph node dissection (specimen) (specify): not coded
- Other (specify): not coded
- Not specified [G-8110, 119325001] Skin (tissue) specimen (specimen)

This section of the checklist would be held in a single OBX (since it is a single line entry answer) as:

```
OBX|1|CWE|371439000^Specimen type (observable entity)^SCT^^^^^SPECIMEN
TYPE||396359006^Lymph node from regional lymph node dissection
(specimen)^SCT^^^^^^Lymphadenectomy, regional nodes (specify)~^^^^^^^axillary||||F<CR>
```

Note: There is a two-part answer here that is implemented as a single OBX with a repeating OBX-5 field.

Nesting Concepts Encoding Example #2: Additional Pathologic Findings from the Prostate Checklist using a “check all that apply” structure:

- *ADDITIONAL PATHOLOGIC FINDINGS (check all that apply) [R-0025E, 371498006] Additional pathologic finding in tumor specimen (observable entity)
- * None identified [F-02BB1, 395555008] No additional pathologic finding in tumor specimen (finding)
- * High-grade prostatic intraepithelial neoplasia (PIN) [M-81482, 128640002] Glandular intraepithelial neoplasia, grade III (morphologic abnormality)
- * Inflammation (specify type): eosinophilic [D7-51010, 9713002] Prostatitis (disorder) (specify type): not coded
- * Atypical adenomatous hyperplasia [M-72425, 17474009] Atypical glandular hyperplasia (morphologic abnormality)
- * Benign prostatic hyperplasia [D7-F0479, 266569009] Benign prostatic hyperplasia (disorder)
- * Other (specify): residual tumor with capsular penetration not coded

This is a slightly more complex example illustrating a ‘check all that apply’ list (the meaning of the asterisks) with three answers, one of which is single-part coded, one is single-part uncoded, and one is multipart. This would be encoded as three OBX segments, one for each answer, in the following manner (in this example, there are 33 answers implied prior to this part of the checklist, since the SetID begins at 34):

```
OBX|34|CWE|371498006^Additional pathologic finding in tumor specimen (observable
entity)^SCT^^^^^^*ADDITIONAL PATHOLOGIC FINDINGS (check all that
apply)||128640002^Glandular intraepithelial neoplasia, grade III (morphologic
abnormality)^SCT^^^^^^High-grade prostatic intraepithelial neoplasia (PIN)|||F<CR>
```

```
OBX|35|CWE|371498006^Additional pathologic finding in tumor specimen (observable
entity)^SCT^^^^^^*ADDITIONAL PATHOLOGIC FINDINGS (check all that
```

apply)||9713002^Prostatitis (disorder)^SCT^^^^^Inflammation (specify type):~^^^^^^^eosinophilic|||||F<CR>

OBX|36|CWE|371498006^Additional pathologic finding in tumor specimen (observable entity)^SCT^^^^^^*ADDITIONAL PATHOLOGIC FINDINGS (check all that apply)||^^^^^^^residual tumor with capsular penetration|||||F<CR>

Nesting Concepts Encoding Example #3: Tumor Quantitation from the Prostate Checklist:

TUMOR QUANTITATION: TUR Specimens [R-004A0, 385011007] Transurethral prostatic resection specimen tumor quantitation (observable entity)

Proportion (percent) of prostatic tissue involved by tumor: 5 % [R-003EC, 385397000] Percentage of prostatic tissue, obtained by transurethral prostatic resection, involved by carcinoma (observable entity)

X Tumor incidental histologic finding in no more than 5% of tissue resected [F-004DF, 399510009] Prostate tumor incidental histologic finding in 5% or less of tissue resected (finding)

___ Tumor incidental histologic finding in more than 5% of tissue resected [F-005CD, 399495003] Prostate tumor incidental histologic finding in more than 5% of tissue resected (finding)

*Number of positive chips/total chips: 2 / 10 [F-04971, 399589001] Number of tissue chips positive for carcinoma (observable entity) and [F-0493D, 399441008] Total number of tissue chips (observable entity) Two codes. The first code [F-04971, 399589001] Number of tissue chips positive for carcinoma (observable entity) is for Number of positive chips ___. The second code [F-0493D, 399441008] Total number of tissue chips (observable entity) is for total chips: ___.

This example shows a TUR Prostate procedure where there have been four entries made by the Pathologist: 'X', '5', '2', and '10' as answers. The interesting illustration of this example is that there are four OBX segments even though there have been only three line items in the checklist identified. The reason for this is the SNOMED commentary for the chips ratio answer: “Two codes. The first code [F-04971, 399589001] Number of tissue chips positive for carcinoma (observable entity) is for Number of positive chips ___. The second code [F-0493D, 399441008] Total number of tissue chips (observable entity) is for total chips: ___.” This comment indicates that there are actually TWO line item answers that are dependent, meaning that if one of them is answered they both must be, and they have separate code labels for the answers.

OBX|17|CWE|385011007^Transurethral prostatic resection specimen tumor quantitation (observable entity)^SCT^^^^^^TUMOR QUANTITATION: TUR Specimens||399510009^Prostate tumor incidental histologic finding in 5% or less of tissue resected (finding)^SCT^^^^^^Tumor incidental histologic finding in no more than 5% of tissue resected|||||F

OBX|18|NM|385397000^Percentage of prostatic tissue, obtained by transurethral prostatic resection, involved by carcinoma (observable entity)^SCT^^^^^^ Proportion (percent) of prostatic tissue involved by tumor:||5|^Percent^UCUM|||||F

OBX|19|NM|399589001^Number of tissue chips positive for carcinoma (observable entity)^SCT^^^^^^Number of positive chips^||2|||||F

OBX|20|NM|399441008^Total number of tissue chips (observable entity)^SCT^^^^^^total chips:||10|||||F

Note: The Set ID starts at '17'; normally, this would sequence from 1 for the first answer of the checklist, through the total number of responses in this worksheet. The number '17' was picked as a starting sequence, implying that there are 16 other OBX's ahead of these four in the message.

Nesting Concepts Encoding Example #4: Extraprostatic extension from the Prostate Checklist:

EXTRAPROSTATIC EXTENSION (check all that apply) [R-0049E, 385009003] Status of extraprostatic extension of tumor (observable entity)

Absent [R-0027E, 372305000] Extraprostatic extension of tumor absent (finding)

Present [R-0027F, 372306004] Extraprostatic extension of tumor present (finding)

* Unifocal [R-004A3, 385015003] Extraprostatic extension of tumor present, unifocal (finding)

* Multifocal [R-004A4, 385016002] Extraprostatic extension of tumor present, multifocal (finding)

Indeterminate [F-02BE1, 385017006] Extraprostatic extension of tumor indeterminate (finding)

OBX|...|CWE|385009003^Status of extraprostatic extension of tumor (observable entity)^SCT^R-0049E^^SCT2||372306004^Extraprostatic extension of tumor present (finding)^SCT^R-0027F^^SCT2|...<CR>

OBX|...|CWE|385009003^Status of extraprostatic extension of tumor (observable entity)^SCT^R-0049E^^SCT2||385016002^Extraprostatic extension of tumor present, multifocal (finding)^SCT^R-004A4^^SCT2|...<CR>

Nesting Concepts Encoding Example #5: Deep Margin from the Melanoma Checklist:

Deep Margin [R-00479, 395543002] Status of surgical deep margin involvement by tumor (observable entity)

Cannot be assessed [R-004C2, 399717009] Surgical deep margin involvement by melanoma cannot be assessed (finding)

Uninvolved by invasive melanoma [R-00591, 396516002] Surgical deep margin uninvolved by malignant melanoma (finding)

Distance of invasive melanoma from margin: 35 mm [R-00593, 396518001] Distance of malignant melanoma from deep margin (observable entity)

Specify location(s), if possible: deep margin location specified here – free text not coded

Involved by invasive melanoma [R-00592, 396517006] Surgical deep margin involved by malignant melanoma (finding)

Specify location(s), if possible: not coded

OBX|17|CE|395543002^Status of surgical deep margin involvement by tumor (observable entity)^SCT^R-00479^^SCT2|1|396516002^Surgical deep margin uninvolved by malignant melanoma (finding)^SCT^R-00591^^SCT2~^^^^^^^deep margin location specified - free text|||||F<CR>

OBX|18|NM|396518001^Distance of malignant melanoma from deep margin (observable entity)^SCT^R-00593^^SCT2|1|35.0000|mm^millimeter^ISO+|||||F<CR>

11 – Question: In the melanoma of the skin checklist, there is the following section for LESION SIZE related to dimension size:

LESION SIZE [F-02A22, 246116008] Lesion size (observable entity)

Greatest dimension: 6 cm [F-02C74, 396361002] Lesion size, largest dimension (observable entity)

*Additional dimensions: 2 x 5 cm [F-02C75, 396362009] Lesion size, additional dimension (observable entity)

Cannot be determined (see Comment) [F-00586, 396364005] Lesion size cannot be determined (finding)

Assuming the greatest dimension was filled in with 6 and the additional dimensions were filled in with 2 and 5 respectively, will there be 3 OBX segments to hold this data?

Answer: The “*Additional dimensions: ___ x ___ cm” is optional. See below example.

OBX|17|NM|396361002^Lesion size, largest dimension (observable entity)^SCT^F-02C74^^SCT2||6|CM||||F
<CR>

OBX|18|NM|396362009 ^Lesion size, additional dimension (observable entity)^SCT^ F-02C75
^^SCT2||2|CM||||F<CR>

OBX|19|NM|396362009 ^Lesion size, additional dimension (observable entity)^SCT^ F-02C75
^^SCT2||5|CM||||F<CR>

12 - Question: How will local/state-specific data items be handled?

Answer: The sending anatomical pathology laboratory and the receiving cancer registry need to agree upon the data item, associated codes, data type, and code system identifiers. Wherever possible, LOINC and/or SNOMED CT codes should be used for the question and answer components: OBX-3 and OBX-5.

13 – Question: What coding system should be used for Units of Measure in OBX-6?

Answer: See OBX-6 section in NAACCR Volume V.

14 – Question: Which location should be used for the Surgical Pathology Number, i.e. (PID-3, PV1-19, or an observation in OBX)?

Answer: See the OBR-3 section in NAACCR Volume V.

15 – Question: Some checklists, such as prostate, do not contain tumor site topography information. The SNOMED CT encoded Checklists have identified this issue and have added supplemental information (see below example) to include tumor site topography question and answer codes. Should this information be captured and transmitted to the cancer registry?

[R-0025A, 371480007] Tumor site (observable entity) and [T-92000, 41216001] Prostatic structure (body structure) These paired codes were added to capture the tumor site implicit in the checklist title.

Answer: In these types of situations, the tumor site topography information should be transmitted to the cancer registry. Cancer registry software should expect to receive topography information.

16 – Question: For any of the primary tumor sections (pT), do we want to permit the grouping of the answers to be transmitted in the message, or only the coded values of the items that can have an 'X' next to them? For example in below melanoma checklist, do we want to permit the transmission of the grouping of the answers (pT3) or the coded values of the answers that can have an 'X' next to them (pT3a or pT3b)?

pT3: Melanoma 2.01 to 4.0 mm in thickness, with or without ulceration [G-F28C, 396376005] pT3:

Melanoma 2.01 to 4.0 mm in thickness, with or without ulceration (melanoma of the skin) (finding)

___ pT3a: Melanoma 2.01 to 4.0 mm in thickness, no ulceration [G-F28D, 396377001] pT3a:

Melanoma 2.01 to 4.0 mm in thickness, no ulceration (melanoma of the skin) (finding)

___ pT3b: Melanoma 2.01 to 4.0 mm in thickness, with ulceration [G-F28E, 396378006] pT3b:

Melanoma 2.01 to 4.0 mm in thickness, with ulceration (melanoma of the skin) (finding)

Answer: The ‘pT3’ heading is implied as checked if any of the items below it are checked; it cannot be checked by itself. The coded answers for pT3a or pT3b should be transmitted.

17 – Question: Some answers on the checklists do not have SNOMED CT codes. See “Specify location(s), if possible: _____” in the below example from the Melanoma Checklist. How should these situations be handled in the message?

Lateral Margins [R-0058A, 396509003] *Status of surgical lateral margin involvement by tumor (observable entity)*

___ Cannot be assessed [R-004BB, 399385006] *Surgical lateral margin involvement by melanoma cannot be assessed (finding)*

___ Uninvolved by invasive melanoma [R-0058D, 396512000] *Surgical lateral margin uninvolved by malignant melanoma (finding)*

Distance of invasive melanoma from closest lateral margin: ___ mm [R-00590, 396515003] *Distance of malignant melanoma from closest lateral margin (observable entity)*

Specify location(s), if possible: ___ *not coded*

___ Involved by invasive melanoma [R-0058E, 396513005] *Surgical lateral margin involved by malignant melanoma (finding)*

Specify location(s), if possible: ___ *not coded*

___ Uninvolved by melanoma in situ [R-00556, 396399009] *Surgical lateral margin uninvolved by in situ melanoma (finding)*

Distance of melanoma in situ from closest margin: ___ mm [R-0058C, 396511007] *Distance of in situ melanoma from closest lateral margin (observable entity)*

Specify location(s), if possible: ___ *not coded*

X Involved by melanoma in situ [R-00557, 396400002] *Surgical lateral margin involved by in situ melanoma (finding)*

Specify location(s), if possible: _ right lower leg _ *not coded*

Answer: Use the CWE date type with the repeating function capability. See below example.

```
OBX|22|CWE|396509003^Lateral margin^SCT^ R-0058A^^SCT2
|1|396400002^Involved by melanoma in situ^SCT^R-00557^^SCT2~^^^^^^^right lower leg|||||F<CR>
```

3 Chapter 3: Pipe-Delimited Format

3.1 INTRODUCTION

Each state and territory has requirements for cancer registries to conduct population-based cancer surveillance. Cancer registries often rely on pathology laboratories to report certain findings to registry officials. In the past, these reports were written by hand or printed in a format unique to each registry or laboratory. With computerization of laboratories, it has become possible for laboratories to send reportable data to cancer registries electronically.

This guide contains the specifications for sending reportable cancers and benign/borderline intracranial and CNS tumors to appropriate hospital, state, and territorial cancer registries using the updated ASCII pipe-delimited format. The message is specific to any potentially reportable cancer or benign/borderline intracranial and CNS tumor diagnosis and is applicable for most laboratory-reportable findings as defined by NAACCR.

The pipe-delimited format is a legacy format from 1996, and has been updated to be consistent with the recommended HL7 message format. Pathology laboratories and cancer registries are encouraged to use the HL7 format as the method of transmission.

Fields in the pipe-delimited format have been specified with a maximum field length that should accommodate any anticipated transmit values. It should be noted, however, that the pipe-delimited fields should never be padded to fill the maximum field length.

3.2 DATA DICTIONARY

RECORD TYPE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 segment	10	1	NAACCR	1

Description:

Generated field length that identifies which of the NAACCR data exchange record types are being used in a file of data exchange records. A batch should have records of only one type. Central registries use this item (required field—part of the minimum dataset).

Codes:

L Pathology laboratory. Includes narrative diagnosis.

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
L	N	L	

PATH--VERSION NUMBER

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 segment	7000	1	NAACCR	2

Description:

Designation of the layout of the message structure (required field—part of the minimum dataset).

Codes:

- 1 1999 flat file layout
- 2 2005 pipe-delimited layout (Standards Volume V, Version 2.0)
- 3 2007 pipe-delimited layout (Standards Volume V, Versions 2.1 and 2.2)

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
2	N		

REPORTING FACILITY ID NO

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
MSH-4 Sending Facility (CLIA number) #00004 BHS-4 Batch Sending Facility #0084	7010	25	HL7	3

Description:

Code for the pathology facility reporting the case (required field—part of the minimum dataset).

Codes:

Clinical Laboratory Improvement Act Identification Numbers (CLIAs) are used for laboratory reporting.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
39D0903558	N	Left justify	Alphanumeric

PATH LAB NAME

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
MSH-4 Sending Facility (Name) #00004	7020	50	Reporting Facility	4

Description:

Name of the reporting pathology facility (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Test Laboratory</i>	N	Left justify	Alphanumeric, mixed case

PATH LAB ADDR--NO & STREET

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 element	7030	40	NAACCR	5

Description:

The number and street address or rural address of the reporting pathology facility (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>2 Pine Street</i>	N	Left justify	Alphanumeric, mixed case, left justified

PATH LAB ADDR--CITY

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 element	7040	20	NAACCR	6

Description:

Name of the city of the reporting pathology facility (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Anytown</i>	N	Left justify	Alphanumeric, mixed case, left justified

PATH LAB ADDR--STATE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 segment	7050	2	NAACCR	7

Description:

U.S. Postal Service (USPS) abbreviation for the state, territory, commonwealth, U.S. possession, or CanadaPost abbreviation for the Canadian province/territory of the reporting pathology facility (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>PA</i>	N		Alpha only, upper case, no blanks allowed

PATH LAB ADDR--POSTAL CODE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 element	7060	9	NAACCR	8

Description:

Postal code for the address of the pathology facility. For U.S. ZIP codes, use either the 5-digit or the extended 9-digit ZIP code. Blanks follow the 5-digit code. For Canadian residents, use the 6-character code. (Required field—part of the minimum dataset).

Sample Values and Format:

Do not use dashes or blank spaces.

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
123452222	N	Left justify	Alphanumeric, upper case
M5A2W3	N	Left justify	Alphanumeric, upper case

PATH LAB--PHONE NUMBER**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-21 Filler Field 2 #00254	7070	20	HL7	9

Description:

Telephone number (including extension number) of the reporting pathology facility.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
2125551234 ext 123	N	Left justify	Alphanumeric, no embedded blanks
No data	N	Blank	

NAME--LAST

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-5 Patient Name (Last) #00108	2230	25	HL7	10

Description:

Last name of the patient (required field—part of the minimum dataset).

Sample Values:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Smith</i>	N	Left justify	Alpha only, no embedded spaces, no special characters, hyphens may be used

NAME--FIRST

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-5 Patient Name (First) #00108	2240	14	HL7	11

Description:

First name of the patient (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>John</i>	N	Left justify	Alpha only, no embedded spaces, no special characters

NAME--MIDDLE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-5 Patient Name (Middle) #00108	2250	14	HL7	12

Description:

Middle name or initial of the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Robert</i>	N	Left justify	Alpha
<i>R</i>	N	Left justify	Alpha
No data	N	Blank	

ADDR at DX--NO & STREET

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-11 Patient Address (Street) #00114	2330	40	HL7	13

Description:

The number and street address or the rural mailing address of the patient's residence at the time the specimen was removed/collected.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>1 Main Street</i>	N	Left justify	Alphanumeric, mixed cases plus spaces, no punctuation
No data	N	Blank	

ADDR at DX--CITY**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-11 Patient Address (City) #00114	70	20	HL7	14

Description:

Name of city in which the patient resides at the time the specimen was removed/collected. If the patient resides in a rural area, record the name of the city used in their mailing address. If the patient has multiple tumors, the city of residence may be different.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Somewhere</i>	N	Left justify	Alpha only, no special characters, mixed case
No data	N	Blank	

ADDR at DX--STATE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-11 Patient Address (State) #00114	80	2	HL7	15

Description:

USPS abbreviation for the state, territory, commonwealth, U.S. possession, or CanadaPost abbreviation for the Canadian province/territory in which the patient resides at the time the specimen was removed/collected. If the patient has multiple tumors, the state of residence may be different.

Special codes:

XX Resident of country other than U.S. or Canada and country known
 YY Resident of country other than U.S. or Canada and country unknown
 ZZ Resident of U.S. NOS or Canada NOS, residence unknown

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>PA</i>	N		Alpha only, upper case
No data	N	Blank	

ADDR at DX--POSTAL CODE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-11 Patient Address (ZIP) #00114	100	9	HL7	16

Description:

Postal code for the address of the patient's residence at the time the specimen was removed/collected. If the patient has multiple tumors, the postal code may be different. For U.S. ZIP codes, use either the 5-digit or the extended 9-digit ZIP code. Blanks follow the 5-digit code. For Canadian residents, use the 6-character alphanumeric postal code. Blanks follow the 6-character code. When available, enter the postal code for other countries.

Special Codes:

999999999 Residence unknown

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
123455555	N	Left justify	Alphanumeric, no special characters, embedded spaces allowed
M5A2W3	N	Left justify	Alphanumeric, upper case
No data	N	Blank	

TELEPHONE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-13 Phone Number (Home) #00116	2360	20	HL7	17

Description:

Current telephone number for the patient (including area code and extension number). Number is entered without dashes.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
2223245555 ext 123	N		Alphanumeric, no embedded blanks
No data	N	Blank	

BIRTH DATE

Revised

HL7 Element Name and Number	NAACCR Item #	Required Length	Source of Standard	Field Position #
PID-7 Date of Birth #00110	240	8	HL7	18

Description:

Date of birth of the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
CCYYMMDD	Y	MMDDCCYY	
Partial data	Y	MM99CCYY	If day or month is unknown use 99. If year is unknown use 9999.
No data	N	Blank	

PATIENT AGE AT SPECIMEN

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Patient Age) #00573	7080	3	HL7	19

Description:

The patient’s age at the time of the specimen sample. Age is assumed to be in years unless otherwise specified in field position #77 Units.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
75	Y	075	Numeric, right justify zero fill
24 months	Y	024	“Months” specified in field position #77 Units

SOCIAL SECURITY NUMBER

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-3 Patient Identifier List #00106 PID-19 Patient SSN #00122	2320	9	HL7	20

Description:

Records patient's social security number. The number is entered without dashes and without any letter suffix. This is not always identical to the Medicare claim number (required field—part of the minimum dataset, must not be unknown if Medical Record Number is unknown).

Social security number with medical record number is used to provide patient identification number.

Special codes:

999999999 Unknown

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
123456789	N		Alphanumeric

SEX

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-8 Sex #00111	220	1	HL7	21

Description:

Code for the sex of the patient.

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
M	Y	1	Male
F	Y	2	Female
O	Y	3	Other
H	Y	3	Hermaphrodite
T	Y	4	Transsexual
U	Y	9	Unknown
No Data	N	Blank	

MEDICAL RECORD NUMBER

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-3 Patient Identifier list (Medical Record Number) #00106	2300	20	NAACCR	22

Description:

Records the medical record number used by the facility to identify the patient.

Social security number with medical record number is used to provide patient identification number (required field—part of the minimum dataset, must not be unknown if Social Security Number is unknown).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>KP123456789</i>	N**	Right justify	Alphanumeric

**If submitted value is longer than 11 characters, it will be truncated if copied directly into the NAACCR medical record number field.

PATH REPORT NUMBER

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-3 Filler Order Number #00217	7090	20	HL7	23

Description:

Unique sequential number assigned to a report by a laboratory (required field—part of minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>S98012345</i>	N	Left justify	Alphanumeric

PATH ORDERING CLIENT/PHYS--LIC NO.**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-16 Ordering Provider (License Number) #00226	7100	20	HL7	24

Description:

License number of physician ordering analysis of the specimen. Provide information on only one physician when information is available for more than one physician.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>D1234567</i>	N	Left justify	Alphanumeric, no embedded blanks
No data	N	Blank	

PATH ORDERING CLIENT/PHYS--LNAME**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-16 Ordering Provider (Last Name) #00226	7110	25	HL7	25

Description:

Last name of physician ordering analysis of the specimen (required field—part of the minimum dataset, cannot be unknown if Path Ordering Facility is unknown). Provide information on only one physician when information is available for more than one physician.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Jones</i>	N	Left justify	Alpha only, no special characters, may be initial only, space between names

PATH ORDERING CLIENT/PHYS--FNAME

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-16 Ordering Provider (First Name) #00226	7120	14	HL7	26

Description:

First name of physician ordering analysis of the specimen (required field—part of the minimum dataset). Provide information on only one physician when information is available for more than one physician.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>John</i>	N	Left justify	Alpha only, no special characters, may be initial only, space between names

PATH ORDERING CLIENT/PHYS--MNAME

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-16 Ordering Provider (Middle Name) #00226	7130	14	HL7	27

Description:

Middle name or middle initial of physician ordering analysis of the specimen (required field—part of the minimum dataset). Provide information on only one physician when information is available for more than one physician.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>J</i>	N	Left justify	Alpha only, no special characters, may be initial only, space between names

PATH ORDERING CLIENT/PHYS ADDR--STREET

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-24 Ordering Provider Address (Street) #01314	7140	40	HL7	28

Description:

The number and street address or the rural or post office box address of the ordering physician's practice at the time the specimen was removed/collected. Also may include street direction.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>214 Center Street</i>	N	Left justify	Alphanumeric, mixed case
No data	N	Blank	

PATH ORDERING CLIENT/PHYS ADDR--CITY

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-24 Ordering Provider Address (City) #01314	7150	20	HL7	29

Description:

Name of the city of the physician's practice at the time the specimen was removed/collected. If the physician's practice is in a rural area, record the name of the city used in their mailing address.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Hometown</i>	N	Left justify	Alphanumeric, mixed case
No data	N	Blank	

PATH ORDERING CLIENT/PHYS ADDR—STATE **Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-24 Ordering Provider Address (State) #01314	7160	2	HL7	30

Description:

USPS abbreviation for the state, territory, commonwealth, U.S. possession, or CanadaPost abbreviation for the Canadian province/territory where the physician’s practice was at the time the specimen was removed/collected.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>PA</i>	N		Alpha only, no blanks allowed; use only officially designated abbreviations
No data	N	Blank	

PATH ORDERING CLIENT/PHYS ADDR--POSTAL CODE **Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-24 Ordering Provider Address (ZIP) #01314	7170	9	HL7	31

Description:

Postal code for the address of the physician’s practice at the time the specimen was removed/collected. For U.S. residents, use either the 5-digit or the extended 9-digit ZIP code. Blanks follow the 5-digit code. For Canadian residents, use the 6-character code.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>543219999</i>	N	Left justify	Alphanumeric, no embedded blanks
<i>M5A2W3</i>	N	Left justify	Alphanumeric, upper case
No data	N	Blank	

PATH ORDERING CLIENT/PHYS--PHONE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-17 Order Callback Phone Number #00250	7180	20	HL7	32

Description:

Telephone number (including area code and extension numbers) of the ordering physician's practice.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
2334444567 ext123	N	Left justify	Alphanumeric, no embedded blanks
No data	Y	Blank	

PATH ORDERING FACILITY NUMBER (AHA Number)

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-21 Ordering Facility Name #01311	7190	25	HL7	33

Description:

Facility ID number of the facility where the specimen was removed/collected, as defined by the American Hospital Association (AHA), or some other standard-setting organization (for example, American College of Surgeons). Typically, if the specimen was collected in a hospital, the AHA identifier is used; however, for other health care facilities (outpatient surgical facilities, medical clinics) other national identifiers could be used. It is anticipated that by mid-2007 the National Providers Identifiers (NPI) for all health care facilities and providers should be available.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
230012	N	Left justify	Alphanumeric
No Data	N	Blank	

PATH ORDERING FACILITY NAME

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-21 Ordering Facility Name #01311	7200	50	HL7	34

Description:

Name of the facility where specimen was removed/collected (required field—part of the minimum dataset, cannot be unknown if Path Ordering Client/Physician unknown)..

Rationale:

The facility where the specimen was obtained is most likely the location of the medical record for the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Elm Cancer Center</i>	N	Left justify	Alpha only, no special characters

PATH ORDERING FAC ADDR--NO & ST

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-22 Ordering Facility Address (Street) #01312	7210	40	HL7	35

Description:

The number and street address or the rural or post office box address of the facility where the specimen was removed/collected.

Rationale:

The facility where the specimen was obtained is most likely the location of the medical record for the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>2 Pine Street</i>	N	Left justify	Alphanumeric, mixed case
No data	Y	Blank	

PATH ORDERING FAC ADDR--CITY

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-22 Ordering Facility Address (City) #01312	7220	20	HL7	36

Description:

Name of the city of the facility where the specimen was removed/collected.

Rationale:

The facility where the specimen was obtained is most likely the location of the medical record for the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Happy Valley</i>	N	Left justify	Alpha only, mixed case
No data	Y	Blank	

PATH ORDERING FAC ADDR--STATE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-22 Ordering Facility Address (State) #01312	7230	2	HL7	37

Description:

USPS abbreviation for the state, territory, commonwealth, U.S. possession, or CanadaPost abbreviation for the Canadian province/territory of the facility where the specimen was removed/collected.

Rationale:

The facility where the specimen was obtained is most likely the location of the medical record for the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>PA</i>	N		Alpha only, no embedded blanks, used only officially designated abbreviations
No data	Y	Blank	

PATH ORDERING FAC ADDR--POSTAL CODE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-22 Ordering Facility Address (ZIP) #01312	7240	9	HL7	38

Description:

Postal code for the address of the physician's practice at the time the specimen was removed/ collected. For U.S. ZIP codes, use either the 5-digit or the extended 9-digit ZIP code. Blanks follow the 5-digit code. For Canadian residents, use the 6-character alphanumeric postal code. Blanks follow the 6-character code. When available, enter the postal code for other countries.

Rationale:

The facility where the specimen was obtained is most likely the location of the medical record for the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
987654444	N	Left justify	Alphanumeric, no embedded blanks
M5A2W3	N	Left justify	Alphanumeric, upper case
No Data	N	Blank	

PATH ORDERING FAC--TELEPHONE

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-23 Ordering Facility Phone Number #01313	7250	20	HL7	39

Description:

Telephone number of the facility where the specimen was removed/collected (including area code and extension numbers).

Rationale:

The facility where the specimen was obtained is most likely the location of the medical record for the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
2223334444 ext 123	N	Left justify	Alphanumeric, no embedded blanks
No Data	N	Blank	

PATHOLOGIST LAST NAME**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (Last Name) #00264	7260	25	HL7	40

Description:

The reporting pathologist's last name (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Smith</i>	N	Left justify	Alpha only, no special characters

PATHOLOGIST FIRST NAME**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (First Name) #00264	7270	14	HL7	41

Description:

The reporting pathologist's first name (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>David</i>	N	Left justify	Alpha only, no special characters

PATHOLOGIST MIDDLE NAME

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (Middle Name) #00264	7280	14	HL7	42

Description:

Middle name or initial of the reporting pathologist (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>F</i>	N	Left justify	Alpha only, no special characters

PATHOLOGIST NAME SUFFIX

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (Suffix) #00264	7290	3	HL7	43

Description:

The reporting pathologist's name suffixes (if any) (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Jr</i>	N	Left justify	Alpha only, no special characters

PATHOLOGIST LIC NUMBER**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (License Number) #00264	7300	15	HL7	44

Description:

The reporting pathologist's license number for the state, commonwealth, or country for which the pathologist is licensed to practice in the laboratory reporting this cancer case (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
88888888	N	Left justify	Alphanumeric

PATHOLOGIST LIC STATE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (License State) #00264	7310	2	HL7	45

Description:

USPS abbreviation for the state, territory, commonwealth, U.S. possession, or CanadaPost abbreviation for the Canadian province/territory associated with the pathologist license number in which the reporting pathologist is licensed (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
PA	N		Alpha only, upper case or all blank

PATH--DATE SPEC COLLECTION

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-7 Observation Date/Time #00241	7320	14	HL7	46

Description:

Records the date and time, using military time, of the specimen collection for the cancer being reported, not the date read or date the report was typed (required field—part of the minimum dataset).

Allowable Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
CCYYMMDDHHMMSS	Y	MMDDCCYY	

PATH--RESULT STATUS

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-25 Result status #00258	7330	1	HL7	47

Description:

Code reflecting verification to a specific individual reported result (required field—part of the minimum dataset).

Codes:

- C Corrected results
- F Final results

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
F	N		Alpha

PATH--SNOMED CT CODE(S)**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path SNOMED CT Code) #00573	7340	164	HL7	48

Description:

The Systematized Nomenclature of Medicine (SNOMED) CT code(s) for the encounter being reported may include morphology, topography, and procedure codes (required field—part of the minimum dataset).

Sample Values and Format:

Maximum length for each code is 10, comma delimited, up to 15 repeats.

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>M-81403</i>	N	Left justify	Alphanumeric
<i>M-80003, M-81403, M-85003</i>	N	Left justify	Alphanumeric

PATH--SNOMED CT VERSION**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path SNOMED CT Version) #00573	7350	9	HL7	49

Description:

Indicator for the SNOMED CT coding scheme used to code the diagnosis being reported (required field—part of the minimum dataset).

Codes: See Laboratory Codes Version Control Table in Section 3.3. The values in that table indicate which SNOMED CT, ICD, CPT or other code version is being used.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>SCT</i>	Y	Left justify	Alphanumeric

PATH--ICD-CM CODE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path ICD Code) #00573	7360	65	HL7	50

Description:

ICD-CM code for the diagnosis being reported (required field—part of the minimum dataset).

Sample Values and Format:

Maximum length for each code is 10, comma delimited, with up to 6 repeats.

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
146.0	N	Left justify	Alphanumeric, including decimal, ICDA-8, ICD-9, or ICD-10 codes
146.0,298,392.0,496.0	N	Left justify	Alphanumeric, including decimal, ICDA-8, ICD-9, or ICD-10 codes

PATH--ICD VERSION NUMBER**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path ICD Version Number) #00573	7370	5	HL7	51

Description:

Indicator for the coding scheme used to ICD-CM code the diagnosis being reported (required field—part of the minimum dataset).

Codes: See Laboratory Codes Version Control Table in Section 3.3. The values in that table indicate which SNOMED CT, ICD, CPT or other code version is being used.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
I9C	Y	Left justify	Alphanumeric

PATH--CPT CODES**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path CPT Code) #00573	7380	39	AMA	52

Description:

Current Procedural Terminology (CPT) codes (required field—part of the minimum dataset).

Sample Values and Format:

The maximum length for each code is 7, comma delimited, with up to 5 repeats.

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
88309	N	Left justify	Alphanumeric
1234567,5678910,9 012345,3456789,78 90123	N	Left justify	Alphanumeric

PATH--CPT CODE VERSION**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path CPT Code Version) #00573	7390	5	HL7	53

Description:

Indicator for the CPT coding scheme used in the pathology laboratory report (required field—part of the minimum dataset).

Codes: See Laboratory Codes Version Control Table in Section 3.3. The values in that table indicate which SNOMED CT, ICD, CPT or other code version is being used.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
C5	Y	Left justify	Alphanumeric

PATH--TEXT DIAGNOSIS

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Text Diagnosis) #00573	7400	45k	HL7	54

Description:

If text cannot be separated into the categories below, use this field for free text including, at a minimum, text to support site, laterality, histology (pathology diagnosis, notes, comments, and differential diagnosis), and stage (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

PATH--CLINICAL HISTORY

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path-Clin History) #00573	7410	16k	HL7	55

Description:

Relevant clinical information, generally stating the patient’s past history of cancer, preoperative diagnosis, and/or the reason the specimen was collected (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

PATH--NATURE OF SPECIMEN

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Nature of Specimen) #00573	7420	16k	HL7	56

Description:

Describes the site(s) and laterality of the specimen(s). If there is more than one specimen included on the pathology report, each is generally assigned an identifying letter or numeral, beginning with “A,” “1,” or “T” (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

PATH--GROSS PATHOLOGY

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Gross Pathology) #00573	7430	16k	HL7	57

Description:

A physical description of the gross appearance of the specimen, including source, size, color, unusual features, location of any lesions visible within the specimen, margins, markings placed by the surgeon, and labeling scheme used by the pathologist for assigning portions of the specimen to blocks or cassettes (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

PATH--MICRO PATHOLOGY

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Micro Pathology) #00573	7440	16k	HL7	58

Description:

Findings and description of the presence or absence of disease in each section of the specimen(s). Generally include the types of tissues, cells, or mitotic activity observed (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

PATH--FINAL DIAGNOSIS

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Final Diagnosis) #00573	7450	16k	HL7	59

Description:

Summarizes the microscopic findings for each specimen examined. Confirms or denies gross findings of malignancy, given the histologic type of the cancer and, in some instances, the grade (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

PATH--COMMENT SECTION

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Comment Section) #00573	7460	16k	HL7	60

Description:

Additional comments from the pathologist regarding situations such as the possible source of the metastases, comparison to previous specimens, the need for additional surgery or specimens, and the usefulness of additional stains/examinations, if applicable (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\”).

PATH--SUPPL REPORTS

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Path Suppl Reports) #00573	7470	16k	HL7	61

Description:

Additional information attached to the pathology report, generally after the original report has been issued. May address subsequent testing or stains, comparison with previous specimens, second opinions from other pathologists or laboratories, or a change in diagnosis resulting from reexamining the specimen(s) or sampling new areas within the specimen (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\”).

TEXT--STAGING

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-5 Observation Value (Text Staging) #00573	2600	16k	HL7	62

Description:

Information to aid in assigning a stage to each cancer. Commonly includes a discussion of tumor size and spread, lymph node involvement, metastasis, and pathologic AJCC stage (required field—part of the minimum dataset).

Allowable Format:

Alphanumeric plus spaces, or all blank. No returns or line feeds are allowed within the text. Do not pad with blank spaces to maximum length. Embedded delimiters “|” should be escaped with a backslash “\” (e.g., “one|two|three” → “one\|two\|three\|”).

E-PATH DATE/TIME STAMP

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
MSH-7 Date/Time of Message (Date Transmitted) #00007	7490	14	HL7	63

Description:

The date/time stamp records the date and the time, using military time, when a pathology laboratory message has been generated by the laboratory information system. The time zone is assumed to be that of the sender of the message (required field—part of the minimum dataset).

Allowable Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
CCYYMMDDHHMMSS	Y	MMDDCCYY	

PATH--REPORT TYPE

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-4 Universal Service ID #00238	7480	2	HL7	64

Description:

This variable is a derived (and somewhat arbitrary) classification to be calculated at the cancer registry. It can be derived from several information sources (required field—part of the minimum dataset).

Rationale:

This variable is primarily used for administrative and tracking purposes at the cancer registry. Often, laboratories will classify the specimen in the slide or path number; for example, the first digit of the slide number will indicate pathology (P) or cytology (C). Laboratories also may categorize or recycle these slides or path numbers according to a specific year. It also may be derived from a specimen source type code, the institutional number, tag, or laboratory title from which the laboratory results came.

Codes:

- 01 Pathology
- 02 Cytology
- 03 Gyn Cytology
- 04 Bone Marrow
- 05 Autopsy
- 06 Clinical Laboratory Blood Work
- 98 Other
- 99 Unknown

MESSAGE CONTROL ID

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
MSH-10 Message Control ID #00010	7500	20	HL7	65

Description:

Number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the message acknowledgment. For electronic laboratory reporting, we recommend using the date/time stamp followed by the sequence number as: YYYYLLDDHHMMSS#### (# = counter number).

The example below shows that the date of this message is February 17, 2001, and the sequence number is 0042.

[200102170042]

Note: This field must be unique within transmission (required field—part of the minimum dataset)..

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
200102170042	N	Left justify	

PROCESSING ID

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
MSH-11 Processing ID #00011	7510	3	HL7	66

Description:

Used to decide how to process the message as defined in HL7 processing rules. Field appears as P for production, T for training, or D for debugging.

Processing Type (PT) data type components: <processing ID (ID)>^<processing mode (ID)>

Processing ID (ID). A value that defines whether the message is part of a production, training, or debugging system (required field—part of the minimum dataset).

Codes:

- D Debugging
- P Production
- T Training

Processing mode (ID). A value that defines whether the message is part of an archival process or an initial load.

Codes:

- A Archive
- R Restore from archive
- I Initial Load
- <blank> Not Present (the default, meaning current processing)

For Example:

|P|

In the example, the use is production. The second component is not specified, indicating current processing as the default.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
P	N	Left justify	
P^A	N		

RACE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-10 Race #00113	160	1	HL7	67

Description:

Code for race of the patient.

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
1002-5	Y	03	American Indian or Alaska Native
2029-7	Y	09	Asian Indian
2033-9	Y	13	Cambodian
2036-2	Y	06	Filipino
2037-0	Y	12	Hmong
2039-6	Y	05	Japanese
2040-4	Y	08	Korean
2041-2	Y	11	Laotian
2044-6	Y	09	Pakistani
2046-1	Y	14	Thai
2047-9	Y	10	Vietnamese
2054-5	Y	02	Black or African-American
2078-4	Y	25	Polynesian
2079-2	Y	07	Native Hawaiian
2080-0	Y	27	Samoan
2081-8	Y	26	Tahitian
2082-6	Y	28	Tongan
2085-9	Y	20	Micronesian
2087-5	Y	22	Guamanian
2088-3	Y	21	Chamorro
2100-6	Y	30	Melanesian
2101-4	Y	31	Fijian
2102-2	Y	32	Papua New Guinean
2106-3	Y	01	White
2131-1	Y	98	Other Race
2500-7	Y	97	Other Pacific Islander
U	Y	99	Unknown race
No data	N	Blank	

ADDRESS TYPE CODE**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-11 Patient Address #00114	7520	3	HL7	68

Description:

This data item indicates the type of patient address included in the message. The coding system used is the HL7 table 0190.

Note: HL7 messages permit multiple Patient Address and Type Codes in the repeating PID-11 field. Pathology laboratory reporting of multiple patient addresses is unlikely, however, if translating from HL7 into this delimited layout, only a single Patient Address and Address Type Code may be accommodated. In such a situation, it is recommended that the recipient determine a hierarchy for the preferred address type to retain.

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>C</i>			Current or Temporary
<i>P</i>			Permanent
<i>M</i>			Mailing
<i>B</i>			Firm/Business
<i>O</i>			Office
<i>H</i>			Home
<i>N</i>			Birth (nee)
<i>F</i>			Country of Origin
<i>L</i>			Legal Address
<i>BLD</i>			Birth delivery location [<i>use for birth facility</i>]
<i>BR</i>			Residence at birth [<i>use for residence at birth</i>]
<i>RH</i>			Registry home
<i>BA</i>			Bad address
No data	N	Blank	

PHYSICIAN MANAGING

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PV1-7 Attending Doctor #00137	2460	8	HL7	69

Description:

Code for the physician who is responsible for the overall management of the patient during diagnosis and/or treatment for this cancer, may use physicians' medical license numbers or may create individual numbering systems.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>D1234567</i>	N	Left justify	Alphanumeric, no embedded blanks
No data	N	Blank	

PHYSICIAN--FOLLOWUP

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PV1-8 Referring Doctor	2470	8	HL7	70

Description:

Code for the physician currently responsible for the patient's medical care. Registry may use physicians' medical license numbers or may create individual numbering systems.

Codes:

99999999 Physician unknown or ID number not assigned

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>D1234567</i>	N	Left justify	Alphanumeric, no embedded blanks
No data	N	Blank	

DATE/TIME RESULTS WRITTEN AS A REPORT OR REPORT CHANGED Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-22 Results Rpt/Status Change-Date/Time #00255	7530	14	HL7	71

Description:

This field specifies the date/time results reported or status changed. This field is used to indicate the date and time that the results are composed into a report and released, or that a status, as defined in Order Status data item, is entered or changed.

The user values the field only as far as needed. When a system has only a partial date (e.g., month and year, but not day), the missing values may be interpreted as zeros. The time zone is assumed to be that of the sender.

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
CCYYMMDDHHMMSS	Y	MMDDCCYY	
No data	N	Blank	

UNITS FOR AGE AT SPECIMEN**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-6 Units #00574	7540	2	HL7	72

Description:

This field contains the units for the observation value in Path--Age at Specimen [NAACCR Data Item 7080] data item. The units for age would be yr, wk, mo, d (in ANSI+ standards representation). If this data item is blank, the assumption is that the units in Path--Age at Specimen is in years.

For example:

mo^month^ANSI+

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>Yr</i>			Year
<i>Wk</i>			Week
<i>Mo</i>			Month
<i>D</i>			Day
No data	N	Blank	

PATH ORDER CLIENT/PHYS ADDR--COUNTRY

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-24 Ordering Provider Address (Country) #01314	7165	50	HL7	73

Description:

USPS name or CanadaPost abbreviation for the country of the physician’s practice at the time the specimen was removed/collected. The USPS country address standard in the United States is to use the full country name. The CanadaPost country standard in Canada is to use the ISO (International Standards Organization) 3-character abbreviation. (For CanadaPost 3-character ISO country codes refer to <http://stds.statcan.ca/english/sgc/sgc-search-ctry.asp>).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>UNITED STATES OF AMERICA</i>	N		Required; do not fill with blanks. Alpha only, use only officially designated abbreviations.
<i>CANADA</i>	N		
<i>MEXICO</i>	N		
<i>USA</i>	N		The 3-character ISO code for the United State of America
<i>CAN</i>	N		The 3-character ISO code for Canada
<i>MEX</i>	N		The 3-character ISO code for Mexico
<i>CHN</i>	N		The 3-character ISO code for China
No data	N	Blank	

PATH LAB ADDR--COUNTRY**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
MSH-4 Sending Facility (Country) #0004	7055	50	HL7	74

Description:

USPS name or CanadaPost abbreviation for the country of the reporting pathology facility. The USPS country address standard in the United States is to use the full country name. The CanadaPost country standard in Canada is to use the ISO (International Standards Organization) 3-character abbreviation. (For CanadaPost 3-character ISO country codes refer to <http://stds.statcan.ca/english/sgc/sgc-search-ctry.asp>).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>UNITED STATES OF AMERICA</i>	N		Required; do not fill with blanks. Alpha only, use only officially designated abbreviations.
<i>CANADA</i>	N		
<i>MEXICO</i>	N		
<i>USA</i>	N		The 3-character ISO code for the United State of America
<i>CAN</i>	N		The 3-character ISO code for Canada
<i>MEX</i>	N		The 3-character ISO code for Mexico
<i>CHN</i>	N		The 3-character ISO code for China
No data	N	Blank	

PATHOLOGIST LIC--COUNTRY**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-32 Principal Result Interpreter (Country) #00264	7315	50	HL7	75

Description:

USPS name or CanadaPost abbreviation for the country associated with the pathologist license number in which the reporting pathologist is licensed. The USPS country address standard in the United States is to use the full country name. The CanadaPost country standard in Canada is to use the ISO (International Standards Organization) 3-character abbreviation. (For CanadaPost 3-character ISO country codes refer to <http://stds.statcan.ca/english/sgc/sgc-search-ctry.asp>).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>UNITED STATES OF AMERICA</i>	N		Required; do not fill with blanks. Alpha only, use only officially designated abbreviations.
<i>CANADA</i>	N		
<i>MEXICO</i>	N		
<i>USA</i>	N		The 3-character ISO code for the United State of America
<i>CAN</i>	N		The 3-character ISO code for Canada
<i>MEX</i>	N		The 3-character ISO code for Mexico
<i>CHN</i>	N		The 3-character ISO code for China
No data	N	Blank	

PATH ORDER FAC ADDR--COUNTRY**Revised**

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
ORC-22 Ordering Facility Address (Country) #01312	7235	50	HL7	76

Description:

USPS name or CanadaPost abbreviation for the country of the facility where the specimen was removed/collected. The USPS country address standard in the United States is to use the full country name. The CanadaPost country standard in Canada is to use the ISO (International Standards Organization) 3-character abbreviation. (For CanadaPost 3-character ISO country codes refer to <http://stds.statcan.ca/english/sgc/sgc-search-ctry.asp>).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>UNITED STATES OF AMERICA</i>	N		Required; do not fill with blanks. Alpha only, use only officially designated abbreviations.
<i>CANADA</i>	N		
<i>MEXICO</i>	N		
<i>USA</i>	N		The 3-character ISO code for the United State of America
<i>CAN</i>	N		The 3-character ISO code for Canada
<i>MEX</i>	N		The 3-character ISO code for Mexico
<i>CHN</i>	N		The 3-character ISO code for China
No data	N	Blank	

NAME--ALIAS

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-9 Patient Alias #00112	2280	15	HL7	77

Description:

Alternate name used by the patient if known.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>John Doe</i>	N	Left justify	Alpha only, no special characters
No data	N	Blank	

SPANISH/HISPANIC ORIGIN

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-22 Ethnic Group #00125	190	1	SEER/COC	78

Description:

Code identifying persons of Spanish or Hispanic origin.

Allowable Values and Format:

Transmit Value	Registry Conversion Required	Registry Values	Description/Comments
2135-2	Y	6	Hispanic or Latino
2137-8	Y	6	Spaniard
2148-5	Y	1	Mexican
2155-0	Y	4	Central American
2165-9	Y	4	South American
2178-2	Y	6	Latin American
2180-8	Y	2	Puerto Rican
2182-4	Y	3	Cuban
2184-0	Y	8	Dominican
2186-5	Y	0	not Hispanic or Latino

MARITAL STATUS

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-16 Marital Status #00119	150	1	HL7	79

Description:

Code for marital status of the patient.

Allowable Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>A</i>	Y	3	Separated
<i>D</i>	Y	4	Divorced
<i>M</i>	Y	2	Married
<i>S</i>	Y	1	Single
<i>W</i>	Y	5	Widowed
No data	N	Blank	

RELIGION

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-17 Religion #00120	260	3	HL7	80

Description:

Code for religion of the patient. NAACCR has not adopted standards for this item. Coding standard used is HL7 User-defined Table 0006.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
<i>EVC</i>	N		Christian: Evangelical Church
<i>CNF</i>	N		Confucian
No data	N	Blank	

PATH-DATE OF DEATH

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
PID-29 Patient Death Date and Time #00740	7550	8	HL7	81

Description:

Code for date of death of the patient.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
CCYYMMDD	Y	MMDDCCYY	
Partial data	Y	MM99CCY	If day or month is unknown use 99. If year is unknown use 9999.
No data	N	Blank	

PHYSICIAN—PRIMARY SURGEON

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-10 Collector Identifier	2480	8	HL7	82

Description:

Code for physician who performed the surgical procedure. Registry may use physicians' medical license numbers or may create individual numbering systems.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
D1234567	N	Left justify	Alphanumeric, no embedded blanks
No data	N	Blank	

SPECIMEN RECEIVED DATE

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBR-14 Specimen Received Date/Time #00248	7560	8	HL7	83

Description:

Records the date and time, using military time, of the specimen login date at the diagnostic service for observations requiring a specimen.

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
CCYYMMDDHH MMSS	Y	MMDDCCYY	
No data	N	Blank	

PRODUCER ID

New

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
OBX-15 Producer ID #00583	7515	25	HL7	84

Description:

CLIA identifier for the facility producing the results being reported. In most cases this will be identical to the CLIA identifier reported in MSH-4. When the results are produced at an outside laboratory from the reporting laboratory, the CLIA identifier for the laboratory performing the test should be reported here (required field—part of the minimum dataset).

Sample Values and Format:

Transmit Values	Registry Conversion Required	Registry Values	Description/Comments
39D0903558	N	Left justify	Alphanumeric

STATE/REQUESTOR ITEMS

Revised

HL7 Element Name and Number	NAACCR Item #	Maximum Length	Source of Standard	Field Position #
No equivalent HL7 segment	2220	500	NAACCR	85

Description:

Reserved for use for items defined in individual states/provinces or central registries. Multiple items can be transmitted in this field using delimiter as specified by requestor.

3.3 LABORATORY CODES VERSION CONTROL TABLE

The Laboratory Codes Version Control table indicates the type/version of the code being submitted. The values indicate which SNOMED CT, ICD, CPT or other code version is being used.

Rationale:

It is anticipated that this list of standard codes may need local modification and additions to adequately capture the version of the codes transmitted from laboratories. Registries and laboratories are encouraged to use this list and make local modification as needed. A value from this table should be transmitted with every code to indicate its version.

Note: The Laboratory Codes Version Control Table is not a data item. The table is a reference for all coded data within the pathology laboratory standard.

Codes:

I9	ICD9
I9C	ICD9-CM
I9CDX	ICD-9CM Diagnosis codes
I9CP	ICD-9CM Procedure codes
ICDO2	ICDO Second Edition
ICDO3	ICDO Third Edition
I10	ICD-10
C4	CPT-4
C5	CPT-5
I8	ICD 8
SNM	SNOMED Second Edition
SNM3	SNOMED International
SNT	SNOMED Topology
SCT	SNOMED CT (concept identifier codes)
SCT2	SNOMED CT (legacy codes)
LN	LOINC
L	LOCAL Codes

3.4 PIPE-DELIMITED/HL7 COMPARISON TABLE

NAACCR OPT: R - required; R* - required when available; O - optional.								
HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME Location Name Field ID (description)	NAACCR OPT	Item #	NAACCR Item Name	E-path Flat File Field	Note
No equivalent			Specified by Receiving software	R	10	Record Type	1	
No equivalent			Specified by Translation software	R	7000	Path-Version Number	2	Revised
MSH	4	00004	MSH 4/Batch Sending Facility (See also BHS-4 #00084)	R	7010	Reporting Facility ID No	3	
MSH	4	00004	MSH 4/Sending Facility (Name)	R	7020	Path Lab Name	4	Revised
No equivalent			Sending Facility (Street) - (Not applicable to this segment)	R	7030	Path Lab Addr--No & Street	5	
No equivalent			Sending Facility (City) - (Not applicable to this segment)	R	7040	Path Lab Addr--City	6	
No equivalent			Sending Facility (State) - (Not applicable to this segment)	R	7050	Path Lab Addr--State	7	
No equivalent			Sending Facility (ZIP) - (Not applicable to this segment)	R	7060	Path Lab Addr--Postal Code	8	Revised
OBR	21	00254	Filler field 2	R*	7070	Path Lab Phone Number	9	Revised
PID	5	00108	PID 5/Patient Name (Last)	R	2230	Name--Last	10	
			PID 5/Patient Name (First)	R	2240	Name--First	11	
			PID 5/Patient Name (Middle)	R*	2250	Name--Middle	12	
PID	11	00114	PID 11/Patient Address (Street)	R*	2330	Addr at DX--No&Street	13	Revised
			PID 11/Patient Address (City)	R*	70	Addr at DX--City	14	Revised
			PID 11/Patient Address (State)	R*	80	Addr at DX--State	15	Revised
			PID 11/Patient Address (ZIP)	R*	100	Addr at DX--Postal Code	16	Revised
PID	13	00116	PID 13/Phone Number (Home)	O	2360	Telephone	17	Revised
PID	7	00110	PID 7/Date of Birth	R*	240	Birth Date	18	Revised
OBX	5	00573	OBX 5/Observation Value (Patient age)	R	7080	Patient Age at Specimen	19	Revised

NAACCR OPT: R - required; R* - required when available; O - optional.								
HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME Location Name Field ID (description)	NAACCR OPT	Item #	NAACCR Item Name	E-path Flat File Field	Note
PID	3	00106	PID 3/Patient	R	2320	Social Security Number	20	Revised
PID	8	00111	PID 8/Sex	R*	220	Sex	21	Revised
PID	3	00106	PID 3/Patient Identifier list (Medical record number)	R	2300	Medical Record Number	22	Revised
OBR	3	00217	OBR 3/Filler Order Number	R	7090	Path Report Number	23	
OBR	16	00226	OBR 16/Ordering Provider (License Number)	R	7100	Path Ordering Client/Phys--Lic No.	24	Revised
			OBR 16/Ordering Provider (Last Name)	R	7110	Path Ordering Client/Phys--LName	25	Revised
			OBR 16/Ordering Provider (First Name)	R	7120	Path Ordering Client/Phys--FName	26	
			OBR 16/Ordering Provider (Middle Name)	R	7130	Path Ordering Client/Phys--MName	27	
ORC	24	01314	ORC 24/Ordering Provider Address (Street)	R*	7140	Path Ordering Client/Phys Addr--Street	28	Revised
			ORC 24/Ordering Provider Address (City)	R*	7150	Path Ordering Client/Phys Addr--City	29	Revised
			ORC 24/Ordering Provider Address (State)	R*	7160	Path Ordering Client/Phys Addr--State	30	Revised
			ORC 24/Ordering Provider Address (ZIP)	R*	7170	Path Ordering Client/Phys Addr--Postal Code	31	Revised
OBR	17	00250	OBR 17/Order Callback Phone Number	O	7180	Path Ordering Client/Phys--Phone	32	
ORC	21	01311	ORC 21/Ordering Facility Name	R*	7190	Path Ordering Facility Number (AHA Number)	33	Revised
ORC	21	01311	ORC 21/Ordering Facility Name	R	7200	Path Ordering Facility Name	34	Revised
ORC	22	01312	ORC 22/Ordering Facility Address (Street)	R*	7210	Path Ordering Fac Addr--No & St	35	
			ORC 22/Ordering Facility Address (City)	R*	7220	Path Ordering Fac Addr--City	36	

NAACCR OPT: R - required; R* - required when available; O - optional.								
HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME Location Name Field ID (description)	NAACCR OPT	Item #	NAACCR Item Name	E-path Flat File Field	Note
			ORC 22/Ordering Facility Address (State)	R*	7230	Path Ordering Fac Addr--State	37	
			ORC 22/Ordering Facility Address (ZIP)	R*	7240	Path Ordering Fac Addr--Postal Code	38	
ORC	23	01313	ORC 23/Ordering Facility Phone Number	R*	7250	Path Ordering Fac--Telephone	39	
OBR	32	00264	OBR 32/Principal Result Interpreter (Last Name)	R	7260	Pathologist Last Name	40	Revised
			OBR 32/Principal Result Interpreter (First Name)	R	7270	Pathologist First Name	41	Revised
			OBR 32/Principal Result Interpreter (Middle Name)	R	7280	Pathologist Middle Name	42	Revised
OBR	32	00264	OBR 32/Principal Result Interpreter (Suffix)	R	7290	Pathologist Name Suffix	43	Revised
			OBR 32/Principal Result Interpreter (License Number)	R	7300	Pathologist Lic Number	44	Revised
			OBR 32/Principal Result Interpreter (License State)	R	7310	Pathologist Lic State	45	Revised
OBR	7	00241	OBR 7/Observation Date/Time	R	7320	Path--Date Spec Collection	46	
OBR	25	00258	OBR 25/Result status	R	7330	Path--Result Status	47	
OBX	5	00573	OBX 5/Observation value (Path SNOMED code/s)	R	7340	Path--SNOMED CT Code(s)	48	Revised
			OBX 5/Observation value (Path SNOMED version)	R	7350	Path--SNOMED CT Version	49	Revised
			OBX 5/Observation value (Path ICD-CM code)	R	7360	Path--ICD-CM Code	50	Revised
			OBX 5/Observation value (Path ICD revision number)	R	7370	Path--ICD Version Number	51	Revised
			OBX 5/Observation value (Path CPT code)	R	7380	Path--CPT Codes	52	Revised
			OBX 5/Observation value (Path CPT code version)	R	7390	Path--CPT Code Version	53	Revised

NAACCR OPT: R - required; R* - required when available; O - optional.								
HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME Location Name Field ID (description)	NAACCR OPT	Item #	NAACCR Item Name	E-path Flat File Field	Note
			OBX 5/Observation value (Path Text Diagnosis)	R	7400	Path--Text Diagnosis	54	
			OBX 5/Observation value (Path- Clin History)	R	7410	Path--Clinical History	55	
			OBX 5/Observation value (Path Nature of Specimen)	R	7420	Path--Nature of Specimen	56	
			OBX 5/Observation value (Path Gross Path)	R	7430	Path--Gross Pathology	57	
			OBX 5/Observation value (Path Microscopic Path)	R	7440	Path--Micro Pathology	58	
			OBX 5/Observation value (Path Final Diagnosis)	R	7450	Path--Final Diagnosis	59	
			OBX 5/Observation value (Path Comment Section)	R	7460	Path--Comment Section	60	
			OBX 5/Observation value (Path Suppl Reports)	R	7470	Path--Suppl Reports	61	
			OBX 5/Observation value (Path Text Staging)	R	2600	Text--Staging	62	
MSH	7	00007	MSH 7/Date/Time of Message (Date Transmitted)	R	7490	E-Path Date/Time Stamp	63	Revised
OBR	4	00238	Universal Service ID	R	7480	Path--Report Type	64	Revised
MSH	10	00010	Message Control ID	R	7500	Message Control ID	65	Revised
MSH	11	00011	Processing ID	R	7510	Processing ID	66	Revised
PID	10	00113	Race	R*	160	Race1	67	Revised
PID	11	00114	Patient Address (Address type code)	O	7520	Address Type Code	68	Revised
PV1	7	00137	Attending Doctor	R*	2460	Physician Managing	69	Revised
PV1	8	00138	Referring Doctor	R*	2470	Physician Follow-up	70	Revised
OBR	22	00255	Results Rpt/Status Change-Date/Time	R*	7530	Date/Time Results Written as a Report or Report Changed	71	Revised
OBX	6	00574	Units (for age in field 19)	R*	7540	Units for Age at Specimen	72	Revised

NAACCR OPT: R - required; R* - required when available; O - optional.								
HL7 Segment	HL7 Seq	HL7 Item #	HL7 ELEMENT NAME Location Name Field ID (description)	NAACCR OPT	Item #	NAACCR Item Name	E-path Flat File Field	Note
ORC	24	01314	ORC 24/Ordering Provider Address (Country)	O	7165	Path Ordering Client/Phys Addr--Country	73	Revised
MSH	4	00004	Sending Facility (Country) - (Not applicable to this segment)	O	7055	Path Lab Addr--Country	74	Revised
OBR	32	00264	Principal Result Interpreter (Country)	O	7315	Pathologist Lic--Country	75	Revised
ORC	22	01312	Ordering Facility Address (Country)	O	7235	Path Ordering Fac Addr--Country	76	Revised
PID	9	00112	Patient Alias	O	2280	Name--Alias	77	New
PID	22	00125	Ethnic Group	R*	190	Spanish/Hispanic Origin	78	New
PID	16	00119	Marital Status	R*	150	Marital Status at Dx	79	New
PID	17	00120	Religion	O	260	Religion	80	New
PID	29	00740	Patient Death Date	R*	7550	Path-Date of Death	81	New
OBR	10	00244	Collector Identifier	R*	2480	Physician--Primary Surgeon	82	New
OBR	14	00248	Specimen Received Date/Time	R*	7560	Specimen Received Date	83	New
OBX	15	00583	Producer's ID	R	7515	Producer ID	84	New
			State/Requestor Items	O	2220	State/Requestor Items	85	Revised

Note: Revised items = revisions to the data item name, maximum length, description, rationale, codes, and/or allowable values.

4 Index

- American Joint Committee on Cancer, 5
- BHS Field Definitions
 - BHS-1 Batch field separator, 80
 - BHS-10 Batch Comments, 81
 - BHS-11 Batch control ID, 82
 - BHS-12 Batch reference batch control ID, 82
 - BHS-2 Batch encoding characters, 81
 - BHS-3 Batch sending application, 81, 107
 - BHS-4 Batch sending facility, 81, 143
 - BHS-5 Batch receiving application, 81, 107
 - BHS-6 Batch receiving facility, 81
 - BHS-7 Batch creation date/time, 81
 - BHS-8 Batch security, 81
 - BHS-9 Batch name/ID/type, 81
- BTS Field Definitions
 - BTS-1 Batch message count, 82
 - BTS-2 Batch comment, 82
 - BTS-3 Batch totals, 78, 82
- Centers for Disease Control and Prevention, vii, 4
- CLIA, 14, 20, 21, 75, 78, 143
- College of American Pathologists, 5
- FHS Field Definitions
 - FHS-1 File field separator, 79
 - FHS-10 File header comment, 79
 - FHS-11 File control ID, 79
 - FHS-12 Reference file control ID, 79
 - FHS-2 File encoding characters, 79
 - FHS-3 File sending application, 79, 107
 - FHS-4 File sending facility, 79
 - FHS-5 File receiving application, 79, 107
 - FHS-6 File receiving facility, 79
 - FHS-7 File creation date/time, 79
 - FHS-8 File security, 79
 - FHS-9 File name/ID, 79
- FTS Field Definitions
 - FTS-1 File batch count, 80
 - FTS-2 File trailer comment, 80
- Health Insurance Portability and Accountability Act, 2, 3
- HL7- Defined Table 0065 - Specimen action code, 95
- HL7- Defined Table 0123 - Result status, 100
- HL7 Standard, 2, 4, 7, 11, 12, 25, 30, 32, 33, 34, 36, 39, 40, 41, 42, 43, 44, 46, 48, 49, 51, 62, 83, 84, 85, 86, 87, 89, 91, 94, 98, 105, 107
- HL7-defined Table 0003 - Event type, 91
- HL7-defined Table 0061 - Check digit scheme, 94
- HL7-defined Table 0070 - Specimen source codes, 95
- HL7-defined Table 0074 - Diagnostic service section ID, 98
- HL7-defined Table 0076 - Message type, 98
- HL7-defined Table 0078 - Abnormal flags, 99
- HL7-defined Table 0085 - Observation result status codes interpretation, 99
- HL7-defined Table 0103 - Processing ID, 100
- HL7-defined Table 0104 - Version ID, 100
- HL7-defined Table 0105 - Source of comment, 100
- HL7-defined Table 0125 - Value type, 101
- HL7-defined Table 0136 - Yes/no indicator, 101
- HL7-defined Table 0155 - Accept/application acknowledgment conditions, 101
- HL7-defined Table 0163 - Administrative site, 102
- HL7-defined Table 0190 - Address type, 102
- HL7-defined Table 0200 - Name type, 103
- HL7-defined Table 0201 - Telecommunication use code, 103
- HL7-defined Table 0202 - Telecommunication equipment type, 103
- HL7-defined Table 0207 - Processing mode, 104
- HL7-defined Table 0211 - Alternate character sets, 105
- HL7-defined Table 0224 - Transport arranged, 105
- HL7-defined Table 0225 - Escort required, 105
- HL7-defined Table 0354 - Message structure, 107
- HL7-defined Table 4000 - Name/address representation, 113
- Laboratory Codes Version Control Table, 189
- MSH Field Definitions
 - MSH-1 Field separator, 13
 - MSH-10 Message control ID, 15, 79, 82, 174
 - MSH-11 Processing ID, 15, 100, 104, 175
 - MSH-12 Version ID, 16, 100
 - MSH-13 Sequence number, 16
 - MSH-14 Continuation pointer, 16
 - MSH-15 Accept acknowledgment type, 16, 101
 - MSH-16 Application acknowledgement type, 16, 101
 - MSH-17 Country code, 17
 - MSH-18 Character set, 17, 105
 - MSH-19 Principal language of message, 17
 - MSH-2 Encoding characters, 13
 - MSH-20 Alternate character set handling scheme, 17
 - MSH-21 Conformance statement ID, 17

- MSH-3 Sending application, 13, 107
- MSH-4 Sending facility, 14, 143, 182
- MSH-5 Receiving application, 14, 107
- MSH-6 Receiving facility, 14
- MSH-7 Day/time of message, 14, 49, 172
- MSH-8 Security, 15
- MSH-9 Message type, 15, 91, 98, 107
- NAACCR Board of Directors, iv
- NAACCR Data Item
 - Addr at DX--City, 24, 149
 - Addr at DX--No & Street, 24, 148
 - Addr at DX--Postal Code, 24, 150
 - Addr at DX--State, 24, 149
 - Address Type Code, 177
 - Birth Date, 151
 - E-Path Date/Time Stamp, 172
 - Marital Status at DX, 25
 - Medical Record Number, 20, 153
 - Name--Alias, 23
 - Name--First, 147
 - Name--Last, 22, 147
 - Name--Middle, 22, 148
 - Path Lab Addr--Country, 182
 - Path Lab Addr--Postal Code, 146
 - Path Lab Name, 144
 - Path Lab Phone Number, 60
 - Path Lab--Phone Number, 146
 - Path Order Client/Phys Addr--Country, 181
 - Path Order Fac Addr--Country, 184
 - Path Ordering Client/Phys Addr--City, 52, 156
 - Path Ordering Client/Phys Addr--Postal Code, 52, 157
 - Path Ordering Client/Phys Addr--State, 52, 157
 - Path Ordering Client/Phys Addr--Street, 52, 156
 - Path Ordering Client/Phys--FName, 60
 - Path Ordering Client/Phys--Lic No, 60, 154
 - Path Ordering Client/Phys--LName, 60, 154
 - Path Ordering Client/Phys--MName, 60, 155
 - Path Ordering Client/Phys--Phone, 60
 - Path Ordering Fac Addr--City, 52, 160
 - Path Ordering Fac Addr--No & St, 52
 - Path Ordering Fac Addr--State, 52
 - Path Ordering Facility Name, 51, 159
 - Path Ordering Facility Number, 51
 - Path Ordering Facility Number (AHA Number), 158
 - Path Ordering Fac--Postal Code, 52
 - Path Ordering Fac--Telephone, 52
 - Path Report Number, 55
 - Path--Clinical History, 68
 - Path--Comment Section, 68
 - Path--CPT Code Version, 168
 - Path--CPT Codes, 168
 - Path--Date Spec Collection, 57
 - Path--Final Diagnosis, 68
 - Path--Gross Pathology, 68
 - Path--ICD Version Number, 167
 - Path--ICD-CM Code, 167
 - Path--Micro Pathology, 68
 - Path--Nature of Speciment, 68
 - Pathologist First Name, 63, 162
 - Pathologist Last Name, 63, 162
 - Pathologist Lic Number, 63, 164
 - Pathologist Lic State, 164
 - Pathologist Lic--Country, 183
 - Pathologist Lic--State, 63
 - Pathologist Middle Name, 63, 163
 - Pathologist Name Suffix, 63, 163
 - Path--Report Type, 173
 - Path--Result Status, 61, 74, 165
 - Path--SNOMED CT Code(s), 166
 - Path--SNOMED CT Version, 166
 - Path--Suppl Reports, 68
 - Path--Text Diagnosis, 68, 169
 - Patient Age At Specimen, 151
 - Physician Follow-up, 39
 - Physician Managing, 39
 - Race, 186, 187, 188
 - Race 1, 23
 - Record Type, 142
 - Referring Physician, 185
 - Religion, 26
 - Sex, 23, 152
 - Social Security Number, 20, 152
 - State/Requestor Items, 188
 - Telephone, 24, 150
 - Text--Staging, 172
 - Vital Status, 28
- NAACCR E-Path Transmission Work Group, vi, vii, 4, 5
- NAACCR Information and Technology Committee, v
- National Committee on Vital and Health Statistics, 2
- NK1 Field Definitions
 - NK1-1 Set ID - NK1, 30
 - NK1-10 Next of kin / associated parties job title, 32
 - NK1-11 Next of kin / associated parties job code/class, 32

- NK1-12 Next of kin / associated parties employee number, 32
- NK1-13 Organization name - NK1, 32
- NK1-14 Marital status, 33
- NK1-15 Administrative sex, 33, 91
- NK1-16 Date/time of birth, 33
- NK1-17 Living dependency, 33
- NK1-18 Ambulatory status, 33
- NK1-19 Citizenship, 33
- NK1-2 Name, 30
- NK1-20 Primary language, 34
- NK1-21 Living arrangement, 34, 105
- NK1-22 Publicity code, 34
- NK1-23 Protection indicator, 34
- NK1-24 Student indicator, 34
- NK1-25 Religion, 34
- NK1-26 Mother's maiden name, 34
- NK1-27 Nationality, 34
- NK1-28 Ethnic group, 35
- NK1-29 Contact reason, 35
- NK1-3 Relationship, 30, 35
- NK1-30 Contact person's name, 35
- NK1-31 Contact person's telephone number, 35
- NK1-32 Contact person's address, 35
- NK1-33 Next of kin / associated party's identifiers, 35, 36
- NK1-34 Job status, 35
- NK1-35 Race, 36, 92
- NK1-36 Handicap, 36
- NK1-37 Contact person's social security number, 36
- NK1-4 Address, 31
- NK1-5 Phone number, 31
- NK1-6 Business phone number, 31
- NK1-7 Contact role, 32
- NK1-8 Start date, 32
- NK1-9 End date, 32
- NTE Field Definitions
 - NTE-1 Set ID, 77
 - NTE-2 Source of comment, 77, 100
 - NTE-3 Comment, 77
 - NTE-4 Comment type, 77, 107
- OBR Field Definitions
 - OBR-1 Set ID - OBR, 55
 - OBR-10 Collector identifier, 57
 - OBR-11 Specimen action code, 58, 63, 95
 - OBR-12 Danger code, 58
 - OBR-13 Relevant clinical information, 58
 - OBR-14 Specimen received date/time, 58
 - OBR-15 Specimen source, 58, 59, 95
 - OBR-16 Ordering provider, 50, 52, 59, 154, 155
 - OBR-17 Order callback phone number, 60, 158
 - OBR-18 Placer field 1, 60
 - OBR-19 Placer field 2, 60
 - OBR-2 Placer order number, 55
 - OBR-20 Filler field 1, 60
 - OBR-21 Filler field 2, 60, 146
 - OBR-22 Results rpt/status change - date/time, 60, 179
 - OBR-23 Charge to practice, 61
 - OBR-24 Diagnostic service sect ID, 61, 98
 - OBR-25 Result status, 54, 61, 100, 165
 - OBR-26 Parent result, 61, 62, 107
 - OBR-27 Quantity/timing, 56, 61
 - OBR-28 Result copies to, 62
 - OBR-29 Parent, 61, 62
 - OBR-3 Filler order number, 55, 153
 - OBR-30 Transportation mode, 62
 - OBR-31 Reason for study, 58, 62
 - OBR-32 Principal result interpreter, 63, 162, 163, 164, 183
 - OBR-33 Assistant result interpreter, 63
 - OBR-34 Technician, 63
 - OBR-35 Transcriptionist, 63
 - OBR-36 Scheduled - date/time, 63
 - OBR-37 Number of sample containers, 64
 - OBR-38 Transport logistics of collected sample, 64
 - OBR-39 Collector's comment, 64
 - OBR-4 Universal service ID, 56, 61, 68, 107, 173
 - OBR-40 Transport arrangement responsibility, 64
 - OBR-41 Transport arranged, 64, 105
 - OBR-42 Escort required, 64, 105
 - OBR-43 Planned patient transport comment, 64
 - OBR-44 Procedure code, 64
 - OBR-45 Procedure code modifier, 65
 - OBR-5 Priority - OBR, 56
 - OBR-6 Requested date/time, 57
 - OBR-7 Observation date/time, 57, 165
 - OBR-8 Observation end date/time, 57
 - OBR-9 Collection volume, 57
- OBX Field Definitions
 - OBX-1 Set ID - observation simple, 67
 - OBX-10 Nature of abnormal test, 74
 - OBX-11 Observation result status, 74, 99
 - OBX-12 Date last observation normal values, 74

- OBX-13 User defined access checks, 75
- OBX-14 Date-time of the observation, 75
- OBX-15 Producer's ID, 75
- OBX-16 Responsible observer, 76
- OBX-17 Observation method, 76, 107
- OBX-2 Value type, 67, 69, 71, 101
- OBX-3 Observation identifier, 56, 66, 68, 69, 71, 107
- OBX-4 Observation sub-ID, 69
- OBX-5 Observation value, 56, 61, 66, 67, 68, 69, 70, 71, 73, 74, 107, 151, 166, 167, 168, 169, 170, 171, 172
- OBX-6 Units, 73, 180
- OBX-7 Reference range, 73
- OBX-8 Abnormal flags, 74, 99
- OBX-9 Probability, 74
- ORC Field Definitions
 - ORC-1 Order control, 48, 49, 50
 - ORC-10 Entered by, 49, 50
 - ORC-11 Verified by, 49
 - ORC-12 Ordering provider, 50, 51
 - ORC-13 Enterer's location, 50
 - ORC-14 Call back phone number, 50
 - ORC-15 Order effective date/time, 50
 - ORC-16 Order control code reason, 50
 - ORC-17 Entering organization, 50
 - ORC-18 Entering device, 50
 - ORC-19 Action by, 50
 - ORC-2 Placer order number, 48
 - ORC-20 Advanced beneficiary notice code, 51
 - ORC-21 Ordering facility name, 51, 52, 158, 159
 - ORC-22 Ordering facility address, 51, 159, 160, 161, 184
 - ORC-23 Ordering facility phone number, 52, 161
 - ORC-24 Ordering provider address, 52, 156, 157, 181
 - ORC-3 Filler order number, 48
 - ORC-4 Placer group number, 48
 - ORC-5 Order status, 48, 60
 - ORC-6 Response flag, 49
 - ORC-7 Quantity/timing, 49
 - ORC-8 Parent, 49
 - ORC-9 Date/time of transaction, 49
- Path--Clinical History, 70
- Path--Comment Section, 70
- Path--CPT code, 70
- Path--CPT Code Version, 70
- Path--Final Diagnosis, 70
- Path--Gross Pathology, 70
- Path--ICD Version Number, 70
- Path--ICD-CM codes, 70
- Path--Micro Pathology, 70
- Path--Nature of Specimen, 70
- Path--SNOMED CT Code(s), 70
- Path--SNOMED CT Version, 70
- Path--Supple Reports, 70
- Path--Text Diagnosis, 70
- PID Field Definitions
 - PID-1 Set ID - PID, 19
 - PID-10 Race, 23, 28, 92, 176, 186, 187, 188
 - PID-11 Patient address, 23, 27, 102, 105, 106, 113, 148, 149, 150, 177
 - PID-12 County code, 24
 - PID-13 Phone number - home, 24, 103, 150
 - PID-14 Phone number - business, 24, 103
 - PID-16 Marital status, 25, 91
 - PID-17 Religion, 25, 92
 - PID-18 Patient account number, 26
 - PID-19 SSN number - patient, 20, 26, 152
 - PID-2 Patient ID, 19, 20
 - PID-20 Driver's license number - patient, 26
 - PID-21 Mother's identifier, 26
 - PID-22 Ethnic group, 27, 28
 - PID-23 Birth place, 27
 - PID-24 Multiple birth indicator, 27, 101
 - PID-25 Birth order, 27
 - PID-26 Citizenship, 28, 102
 - PID-27 Veterans military status, 28, 102
 - PID-28 Nationality, 28
 - PID-29 Patient death date and time, 28
 - PID-3 Patient identifier list, 20, 21, 22, 26, 75, 152, 153
 - PID-30 Patient death indicator, 28, 101
 - PID-4 Alternate patient ID, 21
 - PID-5 Patient name, 21, 103, 113, 147, 148
 - PID-6 Mother's maiden name, 22, 103, 113
 - PID-7 Date/time of birth, 22, 151
 - PID-8 Sex, 22, 91, 152
 - PID-9 Patient alias, 21, 23, 103, 113
- PV1 Field Definitions
 - PV1-1 Set ID - PV1, 38
 - PV1-10 Hospital service, 40
 - PV1-11 Temporary location, 40
 - PV1-12 Preadmit test indicator, 40
 - PV1-13 Re-admission indicator, 40
 - PV1-14 Admit source, 40
 - PV1-15 Ambulatory status, 41
 - PV1-16 VIP indicator, 41

PV1-17 Admitting doctor, 41	PV1-48 Total adjustments, 45
PV1-18 Patient type, 41	PV1-49 Total payments, 45
PV1-19 Visit number, 41	PV1-5 Preadmit number, 39
PV1-2 Patient class, 38, 91	PV1-50 Alternate visit ID, 45
PV1-20 Financial class, 41	PV1-51 Visit indicator, 46
PV1-21 Charge price indicator, 41	PV1-52 Other healthcare provider, 46
PV1-22 Courtesy code, 42	PV1-6 Prior patient location, 39
PV1-23 Credit rating, 42	PV1-7 Attending doctor, 39, 178
PV1-24 Contract code, 42	PV1-8 Referring doctor, 39, 178, 185
PV1-25 Contract effective date, 42	PV1-9 Consulting doctor, 39
PV1-26 Contract amount, 42	Surveillance Epidemiology and End Results, 5
PV1-27 Contract period, 42	User-defined Table 0001 - Sex, 91
PV1-28 Interest code, 42	User-defined Table 0002 - Marital status, 91
PV1-29 Transfer to bad debt code, 42	User-defined Table 0004 - Patient class, 91
PV1-3 Assigned patient location, 39	User-defined Table 0005 - Race, 92
PV1-30 Transfer to bad debt date, 43	User-defined Table 0006 - Religion, 92
PV1-31 Bad debt agency code, 43	User-defined Table 0010 - Physician ID, 94
PV1-32 Bad debt transfer amount, 43	User-defined Table 0063 - Relationship, 94
PV1-33 Bad debt recovery amount, 43	User-defined Table 0171 - Citizenship, 102
PV1-34 Delete account indicator, 43	User-defined Table 0172 - Veterans military status, 102
PV1-35 Delete account date, 43	User-defined Table 0189 - Ethnic group, 102
PV1-36 Discharge disposition, 43	User-defined Table 0203 - Identifier type, 104
PV1-37 Discharged to location, 44	User-defined Table 0212 - Nationality, 105
PV1-38 Diet type, 44	User-defined Table 0215 - Publicity code, 105
PV1-39 Servicing facility, 44	User-defined Table 0220 - Living arrangement, 105
PV1-4 Admission type, 39	User-defined Table 0288 - Census tract, 105
PV1-40 Bed status, 44	User-defined Table 0289 - County/parish, 106
PV1-41 Account status, 44	User-defined Table 0296 - Language, 106
PV1-42 Pending location, 44	User-defined Table 0361 - Sending/receiving application, 107
PV1-43 Prior temporary location, 45	User-defined Table 0364 - Comment type, 107
PV1-44 Admit date/time, 45	User-defined Table 0396 - Coding system, 107
PV1-45 Discharge date/time, 45	
PV1-46 Current patient balance, 45	
PV1-47 Total charges, 45	