

Why E-path Reporting is Important

The Role of Standards and Informatics

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Presenters

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Contents of this talk

- Why E-path reporting is important
- Role of Standards in E-Path
- Role of Informatics in E-Path
- Illustrations taken from :
 - C/NET's CAS Software
 - Reporting Pathology Protocols Pilot

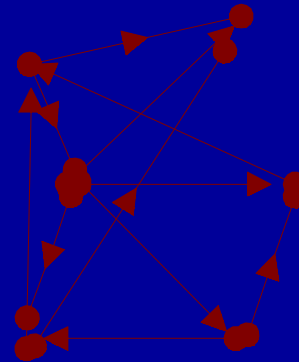
Why is E-path is important?

- Which is faster?
 - Reading paper path reports
 - or scanning electronic documents?

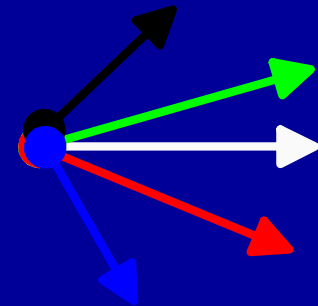
Why standards for E-Path?

(1)

- The many-to-many connections problem
 - Assume 10 nationwide labs need to talk to 50 states
 - That's 500 different connections to manage
 - Wouldn't it be nice if they all used the same method?



Why standards for E-Path? (2)



- The one-to-many connections problem
 - Labs usually report to many different departments and agencies
 - To Hospital medical records
 - To billing systems
 - To the ordering physician
 - To State Health Departments for many diseases
 - Wouldn't it be nice if they all used the same method too?

Hospital Messaging —

- A whimsical look

Health Care Industry Standards

- Support the medical records community
- Pencils are out: Almost all data are on somebody's computer system
- Promote computer-computer communication.
- Local approaches are important, but aligning local solutions with industry standards builds smoother e-communication.
- Mapping to defined data elements.
 - Communication structures are in parallel with industry.

'Standards for Dummies' Rules

- Use existing standards if present
- Work to improve them if they are deficient
- Propose them if they are non-existent
- Avoid the 'Not Invented Here' syndrome

Current E-Path Standards

- HL7: ORU results message now used for routine path reports .
- NAACCR: Path HL7 Record Layout defines the specifics we need

NAACCR Standard

NORTH AMERICAN ASSOCIATION OF CENTRAL CANCER REGISTRIES

NAACCR

Consensus Standards for Cancer Registries



**Pathology Laboratory Electronic
Reporting Recommendations**

Data Items, Formatting, Recommendations

**Supplement to NAACCR Volume II
Chapter 6**

**Version 1.1
September 2000**

Example of Using Standards:

- California's multiple-vendor E-Path

Goals for California's multiple-vendor E-path:

- Implement E-path
- using open rules and procedures
- allowing multiple solutions
- For adapting to varied environments

Analyze the need

- Stand-alone path labs required too much manual casefinding
- Hospitals path labs have different environment:
 - Existing messaging
 - Hospital registry key customer
 - State registry also key customer

Current implementations in California

- AIM using HL7
 - (next talk)
- CAS using HL7
 - (Wednesday AM breakout session 'Beyond Epath')

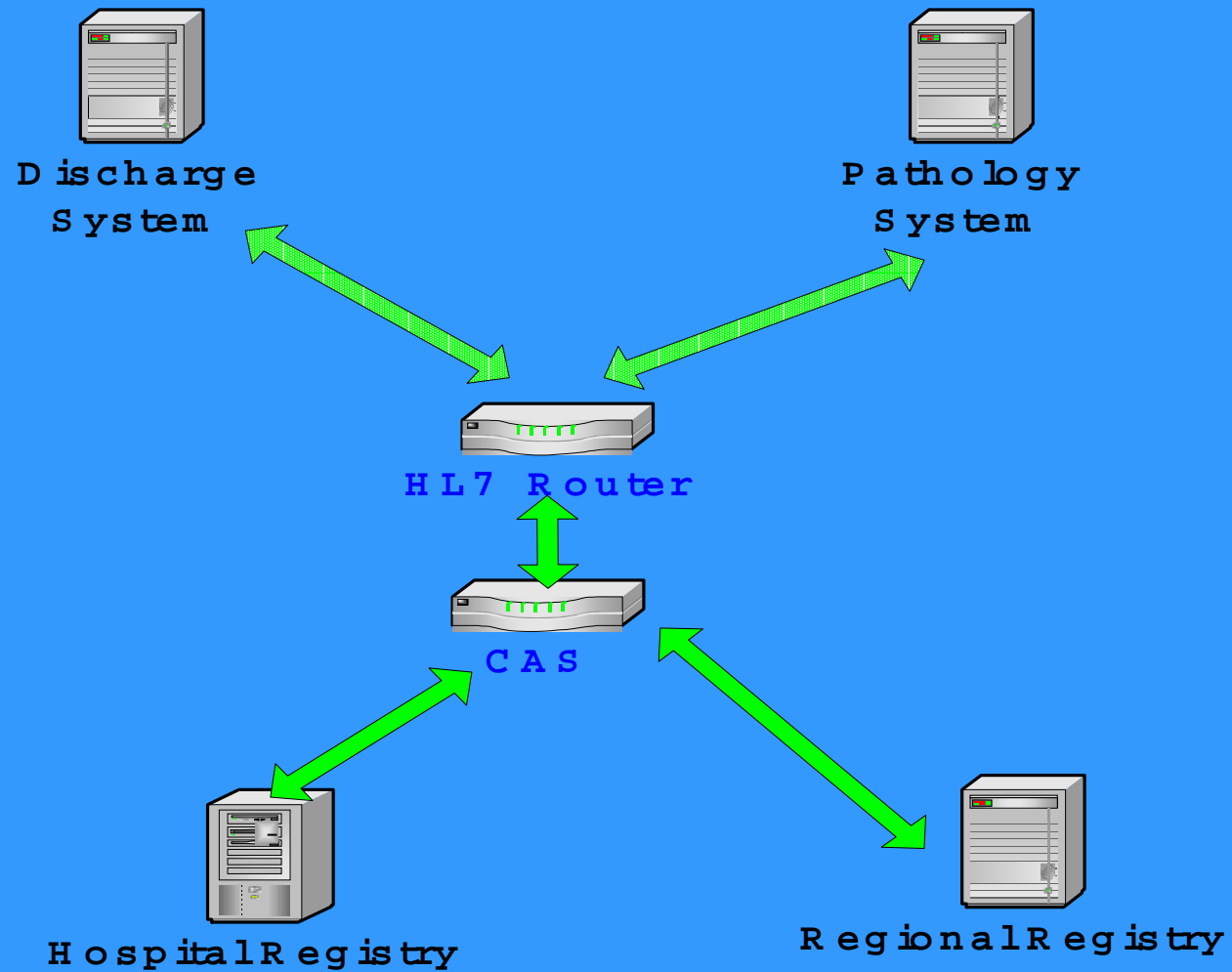
California E-Path



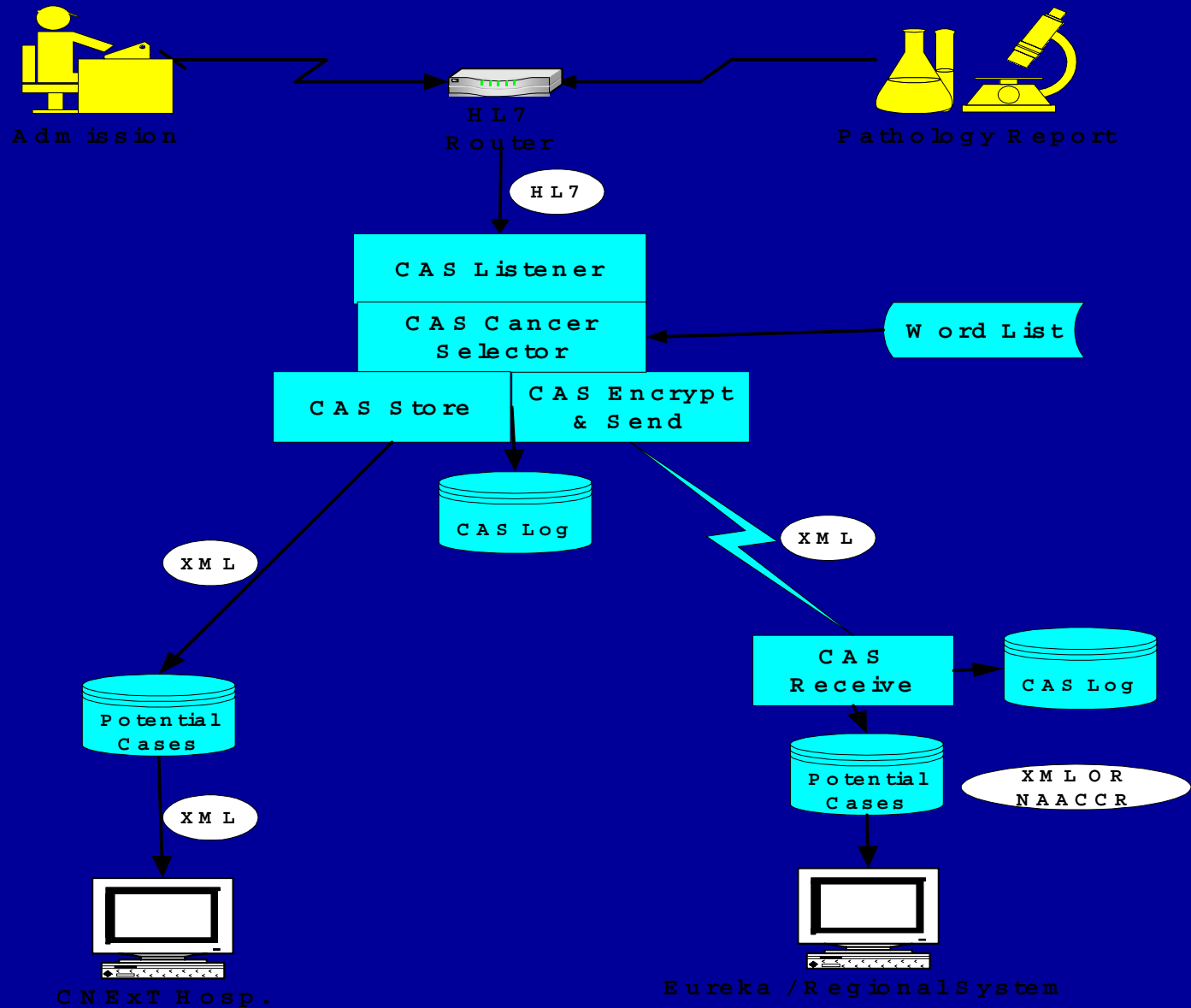
Example: CAS E-Path System

- Intercepts Hospital HL7
 - Pathology reports
 - Discharges
- Selects potential cancers
- Integrates into registry software (CNEXT)
- Forwards E-Path to central registry

What's added by CAS E-Path



CAS E-Path



A look at the Industry Standards Used in These Demonstrations

- Message:
 - Health Level Seven (HL7)
 - ANSI Standards Body to support health care
 - WWW.HL7.ORG
 - Two approaches Version 2.x and Version 3
 - Large organization of vendors, public organizations.

HL7 Example Structure

DRUCoPathForShow.sem

- + OBX"OBX|1|CE|500-3441\T\ANT|A|||||F[OD]"
- + OBX"OBX|2|TX|500-3441\T\CDX||The patient is a 73 year old woman with history of pharyngeal carcinoma,|||||F[OD]"
- + OBX"OBX|3|TX|500-3441\T\CDX||status post radiation therapy, with submandibular nodule. The patient|||||F[OD]"
- + OBX"OBX|4|TX|500-3441\T\CDX||undergoes core biopsy.|||||F[OD]"
- + OBX"OBX|5|TX|500-3441\T\GDT||The specimen is received fresh labeled with the patient's name and|||||F[OD]"
- + OBX"OBX|6|TX|500-3441\T\GDT||accession number, and consists of multiple irregular tan fragments of|||||F[OD]"
- + OBX"OBX|7|TX|500-3441\T\GDT||soft tissue, measuring 0.6 x 0.8 cm in greatest dimension each. The|||||F[OD]"
- + OBX"OBX|8|TX|500-3441\T\GDT||specimen is submitted entirely for frozen section analysis and the|||||F[OD]"
- + OBX"OBX|9|TX|500-3441\T\GDT||remaining frozen section is submitted in cassette A1.|||||F[OD]"
- + OBX"OBX|10|TX|500-3441\T\ERZ||?????F51?????(A) Submandibular soft tissue, core biopsy: Skin with|||||F[OD]"

MSH|^~\&|CoPath C/S||Meditech||20000331094000||ORU^R01|4400000009957|P|2.2[OD]
 PID|1||99999999||LAST^FIRST^MIDDLE^^Ms.||19270816|F||626 ANY ST^^ALBANY^CA^94706^United States||
 PV1|1||L14|||||ENT|||||IP|3289195|B|||||1^Hospital| |||200003280600[
 ORC|RE||500-441^CoPathC/S||CM|||200003280815|^Welby^Marcus||12345^DOCTOR^THATSME[OD]
 OBR|1||500-3441^CoPath C/S|S^Surgical Pathology||200003280814|||||200003280814|^Lymph node, b
 OBX|1|CE|500-3441\T\ANT|A|||||F[OD]
 OBX|2|TX|500-3441\T\CDX||The patient is a 73 year old woman with history of pharyngeal carcinoma,
 OBX|3|TX|500-3441\T\CDX||status post radiation therapy, with submandibular nodule. The patient||

MSH|^~\&|CoPathC/S||Meditech||20000331094000||ORU^R01|4400000009957|P|2.2
[0D]ID|1||99999999||LAST^FIRST^MIDDLE^^Ms.||19270816|F||626 ANY
ST^^ALBANY^CA^94706^United States||(510)555-9999||||444-44-4444[0D]

PV1|1||L14||||ENT||||IP|3289195|B||||1^Hospital| ||200003280600[0D]

ORC|RE||S00-

441^CoPathC/||CM||||200003280815|^Welby^Marcus||12345^DOCTOR^THATSME
[0D]

OBR|1||S00-3441^CoPath C/S|S^Surgical

Pathology||200003280814||||200003280814|^Lymph node, biopsy, submandibular,
fs|59223^SINGER^MARK||||200003310940||S\S\Surgical Pathology -
Parnassus|F||||89743^KLEIN^HARVEY[0D]

OBX|1|CE|S00-3441\T\ANT|A||||F[0D]

OBX|2|TX|S00-3441\T\CDX||The patient is a 73 year old woman with history of
pharyngeal carcinoma,||||F[0D]

What Informatics Brings to Electronic Pathology Reporting

- Promotes a systematic evaluation of the problem and the solutions
 - Don't just apply technology, strategically apply solutions based on need. "Think Globally, act locally"
 - Promote standards-based solutions
 - Model; vocabulary models, messaging, other
 - Critical eye towards content and analysis
 - Narrative search string evaluation, checklist review, coding evaluation

Industry Coding and Vocabulary Applied in E-Pathology Reporting

- Logical Observations Names and Codes (LOINC)
 - www.regenstrife.org
 - Identifies key sections of the narrative pathology report
- Systematized Nomenclature of Medicine (SNOMED)
 - www.snomed.org
 - Codifies relevant information Morphology, Topography, Procedures.....

Example: Informatics in the Reporting Path Protocol pilot

- Goal: implement CAP synoptic checklist via electronic reporting (colorectal pilot)
- Informatics Problem:
 - protocol too ambiguous to implement cleanly
 - Required review for consistency, logic, hierarchy, required responses.

Surgical Pathology Cancer Case Summary

COLON AND RECTUM: Cytology/Biopsy

Patient name:

Cytology/Surgical pathology number:

MACROSCOPIC (check all that apply)

SPECIMEN TYPE

- Cytology
- Incisional biopsy
- Excisional biopsy (polypectomy)

TUMOR SITE

- Cecum
- Right (ascending) colon
- Hepatic flexure
- Transverse colon
- Splenic flexure
- Left (descending) colon
- Sigmoid colon
- Rectum
- Unknown

POLYPECTOMY ONLY

Size: ___ x ___ x ___

Polyp configuration:

- Pedunculated
 - Stalk (stalk length: ___ cm)
 - No stalk
- Sessile

Revised checklist item

Polyp configuration: (choose 1 response)

- Pedunculated with Stalk (stalk length: ___ cm)
- Pedunculated No stalk
- Sessile
- Fragmented (configuration indeterminate)

In Summary

- Messaging standards are crucial to E-Path Reporting
- Modeling and Vocabulary standards crucial as well
- E-Path systems must integrate with both hospital and central registries

For More Information on these topics:

- Email barryg@askcnet.org