EPRs and Central Cancer Registries

NAACCR Informatics Workshop
June 2002

Ian Brunskill
CIO & VP Planning
Cancer Care Ontario

Objectives

- Ensure common understanding of terms
- Describe the context for Electronic Patient Records
- Discuss implications for central cancer registries

Cancer Care Ontario

- Provincial cancer agency serving 11 million residents of Ontario
  - >50,000 cases of cancer
- Range of services: primary prevention to bereavement support
- 2,500 staff in 9 regional cancer centres and >100 points of service across large geographical area
- Ontario Cancer Registry is a program of CCO

Patient Record

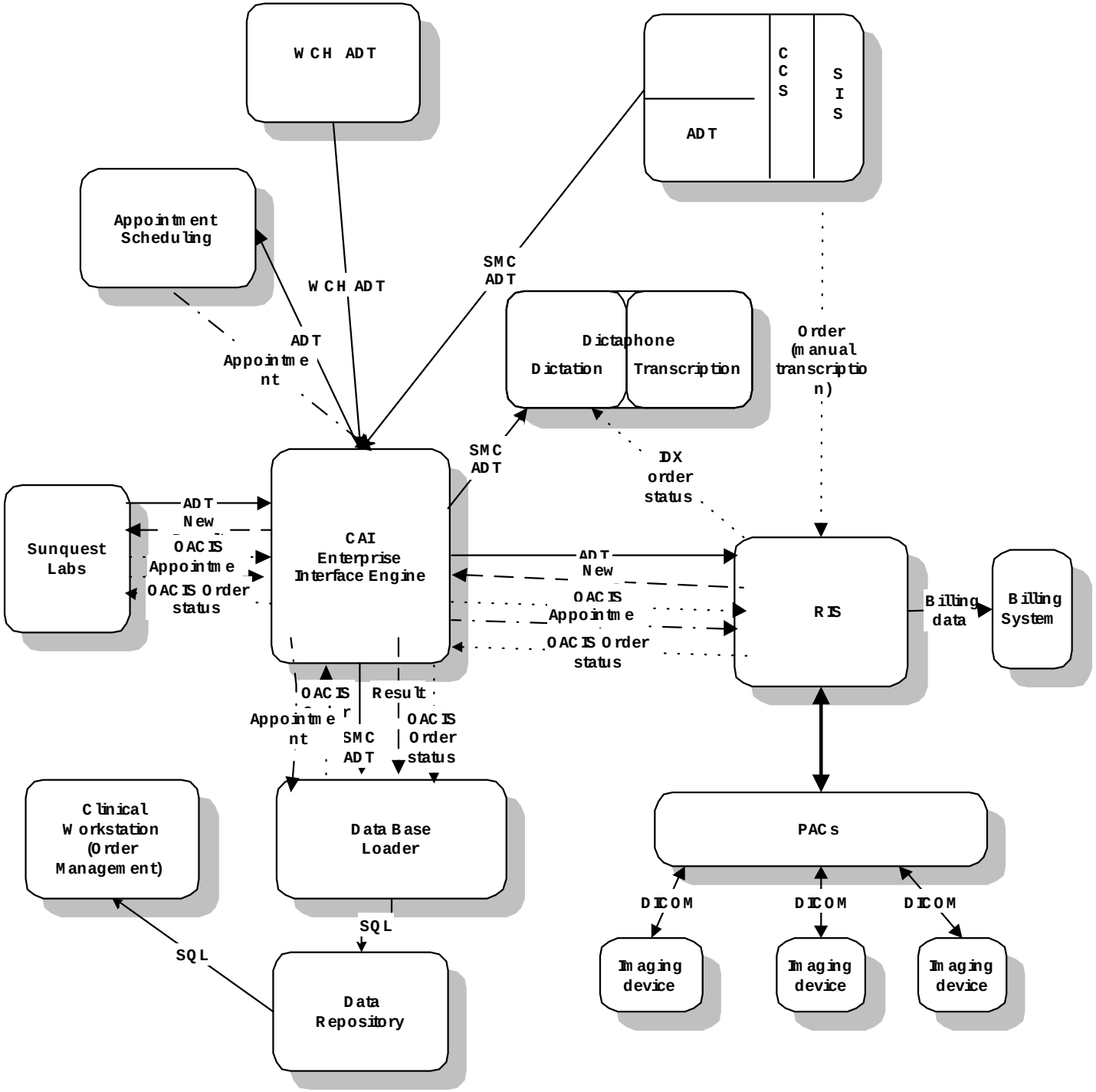
- The **Patient Record** is a repository of information about a single patient. The main purpose of the patient record is to facilitate care. The patient record is the primary communications mechanism for supporting continuity throughout the patient's inpatient and outpatient episodes of care.

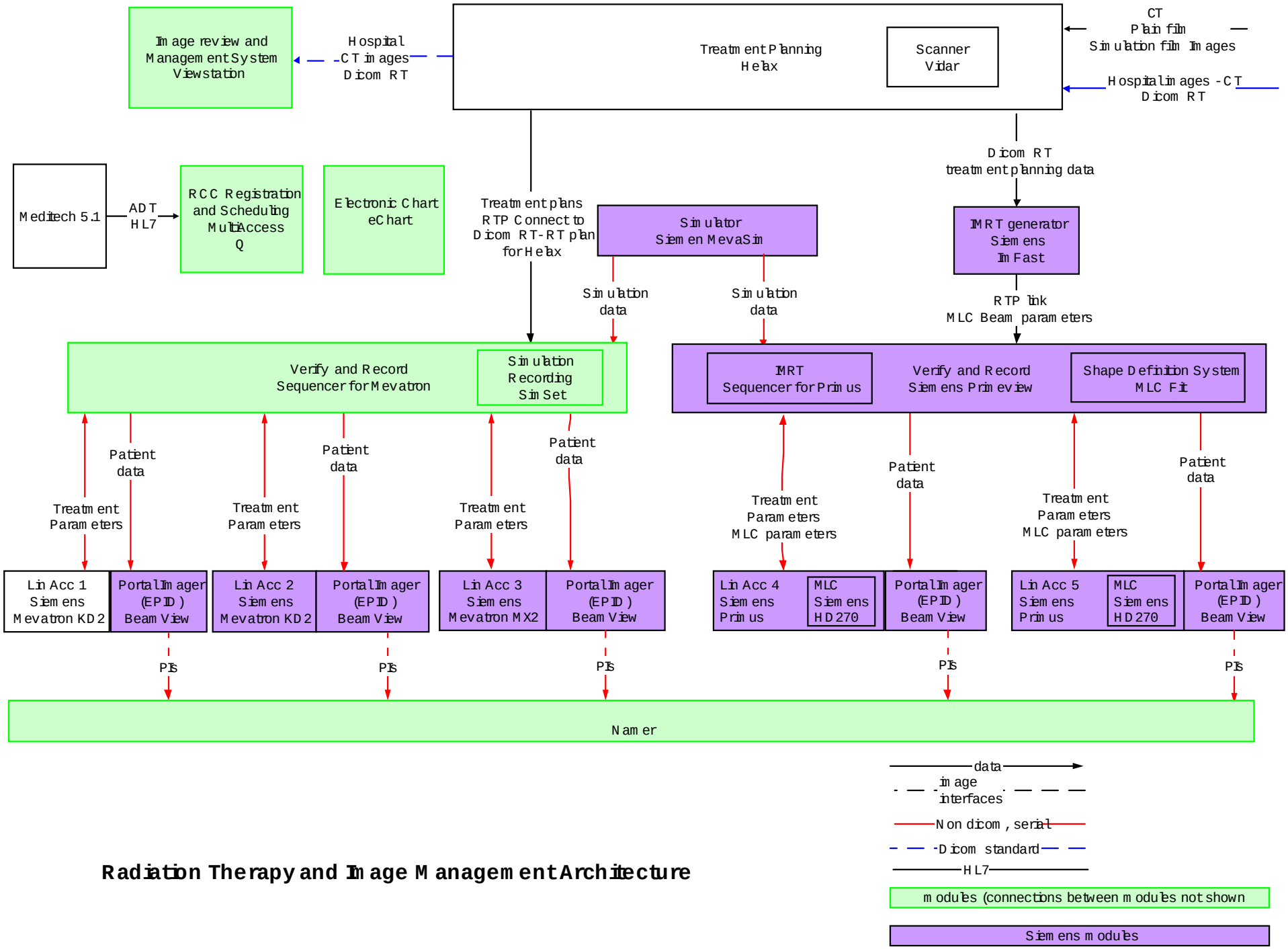
- The **Longitudinal Patient Record** describes a lifelong view of a patient's health experience over time and across institutional and geographical barriers. Episodes of care are linked seamlessly to provide essential patient information for ongoing care and treatment decisions

Electronic Patient Record (System)

- The **electronic patient record system** is the set of components that comprise the mechanism by which patient records are created, used, stored and retrieved.

  - a comprehensive resource for patient care providing patient specific data, access to knowledge bases and a set of computer based tools which enable care providers to better perform their work


WCH ADT
ADT
CCS
SIS
Appointment Scheduling
WCH ADT
SMC ADT
ADT Appointment
Dictaphone
Dictation
Transcription
Order (manual transcription)
SMC ADT
DX order status
Sunquest Labs
ADT
New
OACIS Appointment
OACIS Order status
CAI Enterprise Interface Engine
ADT
New
OACIS Appointment
OACIS Order status
RIS
Billing data
Billing System
OACIS Appointment
Result
SMC ADT
OACIS Order status
Clinical Workstation (Order Management)
Data Base Loader
PACs
DICOM
DICOM
DICOM
SQL
SQL
Imaging device
Imaging device
Imaging device
Data Repository



Radiation Therapy and Image Management Architecture

Levels of Information Architecture

- **Executive Direction for IT** (Strategic planning, decision making)
- **IT Management / Organization / Support Architecture**
- **Application Architecture** (e.g. Patient registration systems, Specialist Clinical Modules, Human Resources systems)
- **Data Architecture** (e.g Data models, data structures, controlled vocabularies)
- **Services / Facilities Layer** (e.g. LAN / WAN infrastructure, operating systems, platforms, networking technologies)
- **Tool Type** (e.g. Client server, intranet technologies, mobile, handheld, emerging technologies)

Levels of Specification

- **Drivers** (e.g. organizational strategic plan, KM plan, increased need for services, new centres)
- **Principles** (e.g clinical process automation, paperless and filmless)
- **Processes** (e.g. Administrative, Clinical, Management)
- **Standards** (e.g. technology, application, minimum data set, identifiers)
- **Buy List**

The Canadian / Ontario Environmental Context

- Strategic drivers for EPRs within health care (Canada)
  - Reduce medical errors
  - Address health human resource shortages (best use, recruitment, retention)
  - Improve clinical decision making at the point of care
- Recent initiatives within Canada
  - $500-million for "pan-Canadian EPR"
  - $38-million for standards development
    - Client Registry HL7 standard balloting
  - Every province is undertaking provider and / or patient registries
  - Networking infrastructure becoming a non-issue

The Canadian/Ontario Environmental Context

- Cancer specific context
  - Canadian Strategy for Cancer Control - Information Management components
  - Increased emphasis upon integrated view of clinical data and patient flow
  - The most critical gap in data is represented by surgery and systemic therapy in hospitals (especially oral systemic therapy)

- Barriers common to the health system
  - Lack of human resources (current and future)
  - Privacy

The Canadian/Ontario Environmental Context

- Future Directions in Ontario
  - Pathology
  - Include oncology in national ambulatory data collection mandate and standards
  - Modify incentive systems (volume related funding)

Challenges for the central cancer registries

- Policy direction for many developments is driven by health system / "care" issues and are occurring "around" disease registries
  - Standards for messaging, vocabularies etc
  - Privacy - rules may seriously limit ability of registries to function, and research to be undertaken
  - Integration of Care
  - Changing funding models
- What is the role of the consumer?