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 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.
Consensus Standards for Cancer Registries

Pathology Laboratory Electronic Reporting Recommendations

Data Items, Formatting, Recommendations

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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’)
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

Discharge System → HL7 Router → CAS

HL7 Router → Pathology System

CAS → Hospital Registry

CAS → Regional Registry
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](http://WWW.HL7.ORG)
  - Two approaches Version 2.x and Version 3
  - Large organization of vendors, public organizations.
HL7 Example Structure
The patient is a 73 year old woman with history of pharyngeal carcinoma.
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

- **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)

<table>
<thead>
<tr>
<th>SPECIMEN TYPE</th>
<th>POLYPECTOMY ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>__ Cytology</td>
<td>Size: ___ x ___ x ___</td>
</tr>
<tr>
<td>__ Incisional biopsy</td>
<td>Polyp configuration:</td>
</tr>
<tr>
<td>__ Excisional biopsy (polypectomy)</td>
<td>___ Pedunculated</td>
</tr>
<tr>
<td></td>
<td>___ Stalk (stalk length: ___ cm)</td>
</tr>
<tr>
<td></td>
<td>___ No stalk</td>
</tr>
<tr>
<td></td>
<td>___ Sessile</td>
</tr>
</tbody>
</table>

TUMOR SITE

| ___ Cecum                              |
| ___ Right (ascending) colon            |
| ___ Hepatic flexure                    |
| ___ Transverse colon                   |
| ___ Splenic flexure                    |
| ___ Left (descending) colon            |
| ___ Sigmoid colon                      |
| ___ Rectum                             |
| ___ Unknown                            |
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:

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