National Staging Initiative: Pathology Update

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Clinical Lead,
Synoptic Pathology Reporting
National Staging Initiative

Jan 31, 2011
Agenda

- NSI/Pathology Background and Deliverables
- Path and Stage Expert Panels
- CAP cancer protocol knowledge transfer sessions
- Communities of Practice (electronic solutions)
- Work with Canada Health Infoway and international groups
- Synoptic Pathology and Quality Indicators (Ontario)
National Staging Initiative

National population-based collaborative stage data collection for cancer cases diagnosed on or after January 1, 2010:

- Colorectal
- Breast
- Lung
- Prostate

Synoptic Pathology was identified as a critical component of the National Staging Initiative

Clinical Leads - Jim Brierley (Stage); John Srigley (Pathology)
Overview of Provincial/Territorial Cancer Registry and Pathology Status

- Cancer Registry Upgrades or Purchase
  - BC/YK
  - AB/NW
  - SK
  - MB
  - ON/NV
  - (QC)
  - NB
  - NS
  - PE
  - NL

- Electronic transmission or access to pathology or other reports
  - Electronic transmission of pathology reports
    - MB
    - ON
    - NL
  - EMR access
    - ON (OLIS)
    - NB (OPOR)

- CAP Cancer Checklists
  - pan-Canadian clinical content standard
  - Paper
    - All provinces
  - Electronic tool pilots
    - ON
    - (QC)
    - NB
    - NL

Orange: Partnership funding
White: Provincial in-kind funding
Key Pathology Objectives

☑ Creation of National Pathology Standards Committee

☑ CAP-ACP endorsement of the CAP(US) protocols as a pan-Canadian content standard

☑ MOU between CAP and CAP-ACP

☑ CAP KT sessions

☑ Promotion, adoption and implementation of the CAP protocols

✍ Increased Canadian representation on the CAP cancer committee and protocols review panels

✍ Similar expertise required for both the pathology and staging protocols
Key Staging Objectives

- Creation of National Staging Steering Committee
- pan-Canadian endorsement of Collaborative Stage version 2
- Determination and endorsement of a minimum Canadian data set for Collaborative Stage version 2
- Promotion, adoption and implementation of the Cancer staging protocols
- Identification of opportunities to strengthen current cancer staging systems in Canada and Internationally
- Provide a mechanism for increased Canadian feedback on the AJCC and UICC staging protocols, their development and implementation
Historically there has been limited Canadian input into the international pathology or staging protocols.

CPAC pathology and staging committees both recognized the need to create expert panel structures for input into international path/staging standards.

July 2010: MOU signed between the CAP and the CAP-ACP allowing formal Canadian representation and input on the CAP Cancer Committee and the CAP Site Specific Protocol Review Panels.

Expert panels will be:
- Multi-disciplinary
- Acknowledged expertise and leadership in the disease site
- Experienced in writing academic papers
- Committed to reviewing the protocol and providing feedback
- Geographical representation where feasible
Pathology and Stage Expert Panels: Structure and Function

Present to March 2012:
- Begin with breast, lung, prostate and colorectal expert panels
- Appoint the Cdn rep to the CAP Cancer Committee (MOU requirement)
- Appoint the Cdn reps to the CAP Cancer Protocols Review Panels (MOU requirement)
- Investigate opportunities to add Cdn reps to the AJCC site specific task forces

Post 2012:
- Expand panels to all disease groups as outlined above
- Expand the mandate to the panels to be advisory for all future Partnership pathology and Staging initiatives
- Appoint Cdn reps to AJCC site specific task forces

<table>
<thead>
<tr>
<th>CAP Cancer Protocol Review Panel Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breast</strong></td>
</tr>
<tr>
<td><strong>Gynecologic</strong></td>
</tr>
<tr>
<td><strong>Pediatric</strong></td>
</tr>
</tbody>
</table>
### 2010-2011 CAP Cancer Checklists Knowledge Transfer Sessions

#### Phase 1 disease site: National Staging Initiative
- Dr. K. Butnor: Lung
- Dr. M.K. Washington: Colon and Rectum
- Dr. P. Humphrey: Prostate
- Dr. S. Lester: Breast

#### Phase 2
- Dr. D. Daya: Endometrium
- Dr. D. Driman: Stomach, Esophagus
- Dr. M. Bullock: Thyroid Gland
- Dr. M. Trotter: Melanoma
- Dr. M. McLachlin: Ovary
- Dr. T. van der Kwast: Urinary Bladder
- Dr. J. Srigley: Kidney

- Phase 2 added due to demand
- National sessions using WebEx and recorded
- CME credit eligible
- Record attendance levels

- **Pathologist feedback**: protocols are being implemented and reporting practice is being influenced based on the education provided
## Electronic Pathology: Communities of Practice

<table>
<thead>
<tr>
<th>Vendor solution</th>
<th>“Owner”</th>
<th>Provinces attending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meditech</td>
<td>CPAC/CCO</td>
<td>BC, ON, NB, NL</td>
</tr>
<tr>
<td>Cerner Millenium</td>
<td>CPAC/CCO</td>
<td>AB, ON, NS, PEI</td>
</tr>
<tr>
<td>mTuitive</td>
<td>CCO</td>
<td>ON</td>
</tr>
<tr>
<td>Soft Computer</td>
<td>CCO</td>
<td>ON</td>
</tr>
<tr>
<td>Sunquest</td>
<td>CCO</td>
<td>ON</td>
</tr>
<tr>
<td>Impac</td>
<td>CCO</td>
<td>ON</td>
</tr>
<tr>
<td>Cerner CoPath Plus</td>
<td>CCO</td>
<td>ON</td>
</tr>
<tr>
<td>GE Centricity</td>
<td>CCO</td>
<td>ON</td>
</tr>
</tbody>
</table>
Canada Health Infoway: Canadian Approved Standards Status

Application for Canadian Approved Standards Status:

- CAP cancer protocols
- AJCC 7th edition TNM
- Collaborative Stage version 2
- NAACCR Volumes II and V
- ICD-O3

- Promote Pathology, Staging and Registry standards with Canada Health Infoway and iEHR vendors
International Work

- Royal College of Pathologists of Australasia
- Brazil: National Cancer Institute
  - Discussions on standardized synoptic reporting
- International Quadripartite meeting
  - CAP-ACP, CAP(US), RCPath UK, RCPath Australasia
  - International data set for pathology reporting
## Evolution of pathology reporting standardization in Ontario

<table>
<thead>
<tr>
<th>Reporting Level</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
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</thead>
<tbody>
<tr>
<td>Description</td>
<td>Narrative</td>
<td>Narrative</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 4</td>
<td>Level 5</td>
</tr>
<tr>
<td>• Narrative</td>
<td>• Narrative</td>
<td>• Level 2</td>
<td>• Level 3</td>
<td>• Level 4</td>
<td>• Level 5</td>
<td>• Level 5</td>
</tr>
<tr>
<td>• No CAP content</td>
<td>• CAP content</td>
<td>• Electronic reporting tools using drop-down menus</td>
<td>• Standardized reporting language</td>
<td>• Common data and messaging standards with C-Keys, SNOMED CT or other encoding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Single text field data</td>
<td>• Single text field data</td>
<td>• Structured format</td>
<td>• Data elements stored in discrete data fields</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Ontario Hospitals 2004-05</th>
<th>5%</th>
<th>40%</th>
<th>50%</th>
<th>5%</th>
<th>0%</th>
<th>0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Ontario Hospitals 2006-07</td>
<td>0%</td>
<td>5%</td>
<td>70%</td>
<td>25%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>% Ontario Hospitals 2008-09</td>
<td>0%</td>
<td>0%</td>
<td>65%</td>
<td>17%</td>
<td>18%</td>
<td>0%</td>
</tr>
<tr>
<td>% Ontario Hospitals 2009-10</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>2%</td>
<td>78%</td>
<td>0%</td>
</tr>
<tr>
<td>% Ontario Hospitals Sept 2010</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>2%</td>
<td>69%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Phase 1**
- CCO Standard aligned to 2005 CAP/CS 5 common cancer resections
- All mandated resections

**Phase 2**

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Ontario hospitals includes 110 acute care facilities - 59 primary and 51 secondary. Primary sites submit cancer pathology reports directly to the Ontario Cancer Registry through Ontario’s Path Information Management System (PIMS) or via fax/mail (5 sites). Primary sites may also report cancer pathology for secondary hospitals. Private labs and paediatric facilities are not included.
Since implementation - achieved completeness rates of over 95% for each of the 5 mandated pathology resections reports.

Data Source: CCO PIMS Database; Synoptic reports received by month of date of surgery; from May 08 to July 10, as of Sept 9, 2010

### Completeness Rate Since "Go-Live" by Disease Site

<table>
<thead>
<tr>
<th>Disease Site</th>
<th>% of Complete</th>
<th>% of Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endometrium</td>
<td>1152</td>
<td>58</td>
</tr>
<tr>
<td>Breast</td>
<td>5226</td>
<td>277</td>
</tr>
<tr>
<td>Prostate</td>
<td>2097</td>
<td>115</td>
</tr>
<tr>
<td>CRC</td>
<td>3341</td>
<td>237</td>
</tr>
<tr>
<td>Lung</td>
<td>1120</td>
<td>81</td>
</tr>
<tr>
<td>Grand Total</td>
<td>12936</td>
<td>768</td>
</tr>
</tbody>
</table>

90% target
Colorectal surgical pathology indicators are now available soon after surgery with synoptic reports.

Percent of Discrete Synoptic CRC Resection Reports reporting 12 or more nodes were examined.

Data Source: CCO PIMS Database; Reports received by date of surgery; from Jun 08 to Mar 10, as of May 11/10.
Prostate margin rates can be calculated using synoptic pathology data without labor intensive manual audits.

Percent of Discrete Synoptic pT2 Prostatectomy Reports reporting positive margins

Data Source: CCO PIMS Database; Reports received by quarter of date of surgery; from Jun 08 to Mar 10, as of May 11/10.
Next Steps

- Establish Canadian Expert Panels including Chairs and Members
- Appointment of site specific protocol panel experts to CAP(US) panels
- Completion of 2010-2011 Education sessions
- Planning for 2012 Education sessions
- Further support of synoptic pathology implementation across Canada
Questions?

Dr. John Srigley

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Pathology and Staging Expert Panels

- CAP checklist feedback will be provided to the CAP cancer committee and the CAP protocol review panels via the appointed Cdn reps

- Canadian representative on the CAP Cancer Committee on behalf of the CAP-ACP: Dr. John Srigley

- Canadian representative on the AJCC and UICC on behalf of the Partnership: Dr. James Brierley