MedLIS Update and QI Programme Interaction

Medical Laboratory Information System

Miriam Horan
MedLIS National Project Team / Histology Lead

10th May 2016
Project Timeline – To date

• Contract Signed: September 2015 for Cerner Pathnet

• Project team assembled September 2015

• Project kick off: November 2015

• Current state review: Jan – Feb 2016

• Future state review: April 2016

• Future State Validation: May 2016
<table>
<thead>
<tr>
<th>Event</th>
<th>Start Date</th>
<th>Duration</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future State Validation</td>
<td>23 May - 27 May</td>
<td>1 Wks</td>
<td>Dublin</td>
<td>Full team onsite in Ireland to lead event with MedLIS. Final review of MedLIS &quot;Standard&quot; roll out design.</td>
</tr>
<tr>
<td>Unit &amp; System Testing</td>
<td>4, Jul - 26, Aug</td>
<td>2 Mths</td>
<td>Virtual</td>
<td>UK team facilitates review with MedLIS core support team - will be Virtual sessions planned beginning 1st, August through the 26th for each solution.</td>
</tr>
<tr>
<td>Maintenance Training &amp; Conversion Prep</td>
<td>01/08/2016</td>
<td>5 Days</td>
<td>Virtual</td>
<td>UK team to facilitate with US SA's on call. (Select SA's may be requested to travel.)</td>
</tr>
<tr>
<td>Integration Testing 1</td>
<td>29 - Aug, 2016</td>
<td>5 Days</td>
<td>Dublin</td>
<td>UK team to facilitate with US SA's on call. (Select SA's may be requested to travel.)</td>
</tr>
<tr>
<td>Integration Testing 2</td>
<td>10 - Oct, 2016</td>
<td>5 Days</td>
<td>Dublin</td>
<td>UK team to facilitate with US SA's on call. (Select SA's may be requested to travel.)</td>
</tr>
<tr>
<td>End User Training</td>
<td>24, Oct - 9, Dec</td>
<td>7 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Go Live Phase 1, Group 1</td>
<td>10 - Dec, 2016</td>
<td>2 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Go Live Phase 1, Group 2</td>
<td>18 - Feb, 2017</td>
<td>2 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Optimization</td>
<td>01/04/2017</td>
<td>4 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Health Check</td>
<td>03/04/2017</td>
<td>5 Days</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Value Achievement Review</td>
<td>03/11/2017</td>
<td>1 Day</td>
<td>Ireland</td>
<td>Go Live dates per contracted phase at 30 wks per phase</td>
</tr>
<tr>
<td>Go Live Phase 2</td>
<td>16 - Sept, 2017</td>
<td>2 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Go Live Phase 3</td>
<td>14 - Apr, 2018</td>
<td>2 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Go Live Phase 4</td>
<td>10 - Nov, 2018</td>
<td>2 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
<tr>
<td>Go Live Phase 5</td>
<td>8 - Jun, 2019</td>
<td>2 Weeks</td>
<td>Ireland</td>
<td></td>
</tr>
</tbody>
</table>
Go Live Dates

• Go Live Phase 1, Group 1 10 - Dec, 2016
  St James, Tullamore, Portlaoise
• Go Live Phase 1, Group 2 18 - Feb, 2017
  Beaumont, Connolly, Cavan, MMUH, Mullingar
• Go Live Phase 2 16 - Sept, 2017
  Tallaght, Coombe, Naas, OLOL, SVUH, Navan,
  St. Columcilles
• Go Live Phase 3 14 - Apr, 2018
  Galway, Letterkenny, Sligo, Roscommon, Mayo,
  Portiuncula, Limerick, Ennis, St Johns, Nenagh
Go Live Dates ctd.

- **Go Live Phase 4** 10 - Nov, 2018
  Cork, Waterford, Kerry, Mallow, Tipperary General, Mercy, Bantry, Sth Infirmary, Kilkenny, St Lukes

- **Go Live Phase 5** 8 - Jun, 2019
  Crumlin, Temple St, St Lukes, Cappagh, Rotunda, St. Michaels, RVEE
Modules available within MedLIS – Pathnet – AP

- Order Communications Module – all hospitals, GPs, dentists, external institutions
- Advanced Bar Code and tracking – purchased as part of solution, available to all sites
- Synoptic reporting
- Inventory Management
- Document Imaging
- Image Management
Aspects of MedLIS

- Data Migration
- Voice Recognition
- QI Programme
- Referred Material
- Reporting
- Synoptic Reporting
Data Migration

Cerner have employed Stalis to manage Data Migration

National Data Migration Strategy currently in development

All data will be migrated from legacy systems to Care Xml and available for look up.

Selected data from Care Xml will be migrated to MedLIS

- Histopathology reports
- Cytology reports
- Blood transfusion
- Some Serology
Voice Recognition

- MedLIS has purchased Dragon
- Dragon will need to be trained
- Limitations to use are up to individual
- HSE will have SLA with Dragon
QI Programme

Where will data be recorded???

• Processing tasks
• Correlation events
• Case Flags
Processing Tasks – Specimen and Reports

- Assigned to specimen types at set up
- Auto verified – when case moves to or past a certain stage e.g. embedding
- E.g. P Codes, Specimen Groupings

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Protocol</th>
<th>P Code</th>
<th>Spec Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLON BX</td>
<td>01B1S</td>
<td>P02</td>
<td>QCOL</td>
</tr>
<tr>
<td>COLON, RES</td>
<td>10B1S</td>
<td>P04</td>
<td>QCOL</td>
</tr>
<tr>
<td>COLON RES, TUMOUR</td>
<td>10B1S</td>
<td>P03</td>
<td>QCOL</td>
</tr>
</tbody>
</table>

- Addendum Reports – Q020, Q021, Q22
- Post Mortem codes – Q035 - Q049
Correlation events

Added at on line review (case sign out)

- Events can be standard or local
- Wide range of parameters can be used
- All searchable outside of QI programme

<table>
<thead>
<tr>
<th>Agreement/Disagreement</th>
<th>Discrepancy</th>
<th>Disagreement Reason</th>
<th>Investigation</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max 15</td>
<td>Max 15</td>
<td>Max 15</td>
<td>Max 15</td>
<td>Max 15</td>
</tr>
<tr>
<td>Agree</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Review noted</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Disagree</td>
<td>Major</td>
<td>Differ opinions</td>
<td>None</td>
<td>Addendum report</td>
</tr>
<tr>
<td></td>
<td>Minor</td>
<td>Process error</td>
<td>Rev QA proced</td>
<td>Amend procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sampling error</td>
<td>Rev with Cyto</td>
<td>Error correct</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Screening error</td>
<td>Sent out</td>
<td>No resolution</td>
</tr>
</tbody>
</table>
Correlation events ctd.

Types of Correlation events

- Frozen v Paraffin - Q007, Q008, Q009
- Focussed Review - Q015, Q016
- External Referral - Q001, Q003
- Internal Referrals - Q002, Q003, Q064 (new)
- MDT Review - Q017, Q019
- Random Review - Q033, Q034
- Autopsy Review – Q042, Q43 etc

Codes will be assigned based on results of correlation events
Diagnostic Correlation screen
Case flags – Diagnosis Coding
Custom Codes

• Useful for items that can not be included as processing tasks or correlation events

• Can be site specific

• QI Codes can be standard

• E.g. FS TATs, Phoned Reports

• Assigned at ‘Online Review’ - case sign out.
Add Diagnostic Codes
MedLIS to NQAIS

- NQAIS unable to take HL7 message...Flat File required
- Report to be run in MedLIS to include
  - Volumetrics
  - Processing tasks
  - Correlation events
  - Case Flags
- Reporting tool Discern Analytics – report will be devised by Cerner reporting team
- Report can be set to run and upload automatically, however requirement for local sign off will prevent this
- Mapping from MedLIS to NQAIS will be required
Reporting in MedLIS

• Clinical reports – managed by separate solution, once Pathology reports are verified
• Pathology reports are broken in to sections, sections are only reportable if there is content in them. Canned text and word templates easily incorporated into reports with fast keys and local codes.
• Standard queries in AP are managed through Case Retrieval....user friendly tool for routine searches
• More complex reports managed through Cerner query tool Discern Analytics.....
Material referred in

• Separate Section which easily encompasses external number.
• Processing tasks to be set up to drive correlation events

Material Referred Out

• Inventory management in AP facilitates management of material sent externally,
• TATs can be applied and letters produced to remind locations to return material

MedLIS proposes one Electronic patient record.....all material should be viewable by all pathologists
Synoptic Reports – Cerner Workflow

- Pathologist enters Online review
- Synoptic reports (RCPath) assigned to specific specimens
- Leave online review to select and complete synoptic report
- Synoptic data populates bottom of surgical pathology report…present in addition to the Surgical Pathology report

Pathologists involved at FSR felt this was not a viable solution
Synoptic reports – Proposed Workflow

Proposed Workflow

Pathologist enters on line review
Applies relevant template from Library
Templates will have defined data items
Data items will be transmitted to Synoptic report on verification of report.

OR

Synoptic report will be filled out which populates data items in Template
MedLIS Will.........

• Standardise reports...by 2019 all pathology reports will have same format, look etc
• Provide Electronic Laboratory record
• Provide increased efficiencies in laboratory
• Provide increased efficiencies in reporting
• With increased use of order comms reduce labelling/transcription errors
• Fix resourcing issue...but increased efficiencies may help here
• Provide new hardware country wide....there is a very **LIMITED** hardware budget.
• Read your mind.....interaction will be required
• Not fix **EVERYTHING**, but we will do our best to fix as much as we can.
• Make the tea!
Thank You

Any Questions?