Zynx-Allscripts Integration

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Holy Spirit Hospital
University of Pennsylvania Sunrise Roundtable
January 6, 2012
About Holy Spirit Hospital

- 319 bed community hospital
- Competitive marketplace
- About 14,000 annual admissions
- About 50,000 annual ED visits
- Hospitalists provide care for:
  - About 50% of all patients in hospital
  - About 90% of all internal medicine
  - Critical Care (new)
  - Surgery (one group)
About Holy Spirit Hospital

Allscripts customer since 2006

Live components include:

- Acute Care 5.5 FP1 HFRU3
- Secure Health Messaging
- ED Manager & Tracking Board
- Device Integration
- Clinician Portal
- Zynx with OSIT
- Signature Manager
- CPOE (2/2008)
- KBC
- Exit Care
- Rx Writer
- Pharmacy
- KBMA (limited)
- eLink
Objectives

• Explain rationale for NORIC
• Emphasize importance of governance
• Describe Zynx and its tools
• Illustrate OSIT integration
• Elucidate benefits of integration
Why NORIC?

• Holy Spirit has a custom catalog
• SCM has an order item catalog
• Zynx has its own catalog
• National Order and Result Item Catalog
Why NORIC?

content

{ Zynx \hspace{1cm} Allscripts \}

NORIC (Order Item Catalog)

software

CPOE
3 types of items

• Holy Spirit items mapped to NORIC
  – Includes NORIC and Holy Spirit ancillary codes

• NORIC items that are not used:
  – Kept in case of future need
  – Description field changed to emphasize
  – Specific security settings

• Holy Spirit items with no NORIC equivalent
Item mapped to NORIC

Catalog Maintenance - Edit Catalog Item

- Name: X-ray Chest 1 View
- Description: X-ray Chest 1 View
- Owner: X-ray
- Effective Date: Sep 30 2005
- Expiration Date: 

Options:
- Ancillary Information
  - Name: 104759-52655209, NORIC
  - Name: Diagnostic Radiology, ORDERTYPE
  - Name: DUN9109, RAD DUN CTR_OUT
  - Name: EXR1096, RAD ER1_OUT
  - Name: HXR8094, RAD ESO_OUT
  - Name: OXR1093, RAD RAM_OUT
  - Name: 36101095, RAD_IN
  - Name: 36501096, RAD_IN
  - Name: 62011094, RAD_IN

Add New... Modify... Delete...
NOT used NORIC items
Active items easy to spot

Catalog Search

- Show:
  - Items
  - Order Sets
  - Generic Sets
  - Clinical Paths

Name: xray ch

- Xray Chest + Ribs Bilateral: NORIC Item | Not Used
- Xray Chest + Ribs Unilateral: NORIC Item | Not Used
- Xray Chest 1 View: Xray Chest 1 View
- Xray Chest 2 Views: Xray Chest 2 Views
- Xray Chest AP: NORIC Item | Not Used
- Xray Chest AP Erect: NORIC Item | Not Used
Synonyms

- Former terms kept as synonyms where necessary
Governance Policy

HOLY SPIRIT HOSPITAL
Administrative Manual

TITLE: Electronic Order Sets: Development and Maintenance
NUMBER: 120.27
CATEGORY: Gen Operating Policy

ORIGINAL BY: R. Schreiber, MD
DATE: 10/08

LAST REVISED BY: R. Schreiber, MD
DATE: 1/4/10

LAST REVIEWED BY: Senior Leadership Team
DATE: 4/12/10
PAGES: 2

APPROVED BY: Med Exec
DATE: 1/5/10

Senior Leadership
DATE: 4/12/10

I. STAFF AFFECTED: Physicians, Specified Professional Personnel, IT Analysts, Pharmacists, Risk Management, Nursing

II. POLICY: Holy Spirit Hospital supports an effective and rapid process for the development and maintenance of order sets. The Medical Executive Committee (MEC) of the Medical Staff has endorsed the concept that there will be no individual physician order sets, rather each order set will represent the consensus of members of the medical staff who are likely to use that order set. The Physician Clinical Decision Support Committee (PCDSC) incorporates the duties of the previous Physician Information Technology Council (PITC) and the order set development tasks of the Forms Committee. The Chief Medical Informatics Officer (CMIO) chairs the PCDSC.

III. PURPOSE: This policy clarifies the process of electronic and paper order set development. It also synchronizes electronic, paper, and downtime forms, which enhances the update and maintenance process, and promotes clinician use of computerized provider order entry.

IV. This policy guides practice in compliance with The Joint Commission Element MM.04.01.01 of Performance 7, or the current applicable standard.

V. PROCEDURE:
Order Set Development

When complete, proceed to export and OSIT.

Zynx designer

CMIO

OWNER

Pharmacy

Forms

Ad hoc

Quality

Nursing
### Zynx content and tools

#### Our Content: Chest Pain Eval Pathway 3

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Status</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3</td>
<td>Retired</td>
<td>1</td>
</tr>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3</td>
<td>Retired</td>
<td>2</td>
</tr>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3</td>
<td>Retired</td>
<td>3</td>
</tr>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3</td>
<td>Retired</td>
<td>4</td>
</tr>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3</td>
<td>Draft</td>
<td>-</td>
</tr>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3</td>
<td>Released</td>
<td>5</td>
</tr>
<tr>
<td>Order Set</td>
<td>Chest Pain Evaluation-Pathway 3 (print out)</td>
<td>Retired</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Diagram

- **Cardiology**
  - Acute MI Order Sets
  - Cardiac Procedures
  - Chest Pain Eval Pathway 3
- **Critical Care**
  - Heart Failure
  - Telemetry
- **Diabetes Management**
- **ECU Protocols**
Zynx content and tools

Order Set Process Life Cycle

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Target Date</th>
<th>Actual Date</th>
<th>Last Modified</th>
</tr>
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<tbody>
<tr>
<td>-post op spine order set</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pharm re-review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POD #1 and POD #2 addition for pharmacy</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subject | Priority | Status | Due Date | Requested By | Assigned To | Delegated To |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>post cp spine order set</td>
<td>Normal</td>
<td>Complete</td>
<td></td>
<td>Richard Schreiber</td>
<td>Jody Harcerode, Sheryl Reed</td>
<td></td>
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<tr>
<td>Reviewed</td>
<td>Normal</td>
<td>Complete</td>
<td></td>
<td>Sheryl Reed</td>
<td>Jody Harcerode</td>
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<tr>
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<td>Normal</td>
<td>Complete</td>
<td>1/18/2011</td>
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<td>Jody Harcerode</td>
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<td>Complete</td>
<td>3/9/2011</td>
<td>Sheryl Reed</td>
<td>Beth Thomson, Kimberly LaPointe</td>
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<tr>
<td>POD #1 and POD #2 addition for pharmacy</td>
<td>Normal</td>
<td>Complete</td>
<td>4/4/2011</td>
<td>Sheryl Reed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Options:
- Mark as Linkable Content
- Publish to ViewSpace

Edit Header | Release | Make Reviewable | Manage Reviewers
Zynx content and tools
OSIT: Order Set Integration Tool

- Export from Zynx in .xml format
- Download to analyst’s file
- Use Order Set Mapping tool to configure order set
  - Grids
  - Grouping of orders
  - Headers
- Then export to Sunrise (bulk download)
Order Set Integration Tool

- **Convert Sunrise Clinical Manager™ Catalog**
  Select this option to convert a Sunrise Clinical Manager catalog and prepare it for export to the Order Set Content Provider.

- **Send Converted Catalog to Order Set Content Provider**
  Select this option to send a converted Sunrise Clinical Manager catalog to the Order Set Content Provider.

- **Configure Order Sets and Convert to Workbook Format**
  Select this option to associate the order sets received from the Order Set Content Provider with the appropriate order set forms and convert the data into Sunrise Clinical Manager workbook format.
Order Set Integration Tool

Configure Order Sets and Convert to Workbook Format

1. Add Order Sets, Order Set Forms and Organizational Units
2. For each Order Set select the appropriate Owner (Org Unit) and Order Set Form
3. Configure the Order Set Sections on the form
4. Select and Export Order Set(s)

Add Order Sets

Order Set Forms and Owners
Catalog: C:\OSIT\Newborn Admission\CATALOGS.XLS

Org Index: C:\OSIT\Newborn Admission\DICTARY.XLS

Owners have not been loaded

Order Set
Owner (Org Unit)
Order Set Form

Newborn Admission
OK
Newborn Admission OS

Exclude evidence from export
Release Level 5.5
Export Selected Order Set

Order Set Form Mapping

Order Set Name: Newborn Admission
Order Set Form Name: Newborn Admission OS

Order Set Section Name
Order Set Form Control Name

Reminders
Admit Status
Vital Signs
Vital Signs - Grid(2)
Nursing Orders
Diet
Diet - Grid(5)
Medications
Medications - Grid(8)
Blood Bank
Blood Bank - Grid(20)
Laboratory
Laboratory - Grid(21)
Consults
Consults - Grid(13)
Order Set Integration Tool

Order Set Form Mapping

Order Set Name: Newborn Admission

Order Set Form Name: Newborn Admission OS

Order Set Section Name

- Reminders
- Nursing Orders
  - Assessments
  - Interventions
- Patient/Caregiver Education
- Diet

Order Set Form Control Name

- Admit Status
- Vital Signs
- Nursing Orders
- Diet
- Medications
- Blood Bank
- Laboratory

- Vital Signs - Grid(2)
- Nursing - Grid(4)
- Diet - Grid(6)
- Medications - Grid(8)
- Zynx Evidence - Grid(12)
- Consults - Grid(13)
- Admit To: - Grid(16)
- Diagnostic Tests - Grid(19)

Save the mapping configuration as default for this Order Set form

OK Cancel
Order Set Integration Tool

Newborn Admission

Export Selected Order Sets

to Sunrise
Order Set Integration Tool
Advantages

• Shortened implementation time
  – Avoids building OS’s twice

• Evidence based order sets
  – Provided by recognized experts
  – Vendor maintains up-to-date links
  – Vendor continuously reviews evidence

• Prior links persist in Zynx data base
  – Metadata can help identify what evidence clinician used at time of order entry, in situations where evidence may change over time
Advantages

• Future information uses:
  – Enables content sharing
  – Allows customers to access multiple 3rd party content providers
  – Coded content for Analytics
Disadvantages

- If item is not selected, evidence link is not active

- Only when item is selected, does the link work
Updating order sets in Sunrise

• Cannot just replace the order set in SCM with an updated one from Zynx

• Non-visible data elements must be included to upload, such as OrderTemplateID

• There is no “reverse OSIT” function
  – If order sets must be changed in prod or test, Zynx updates must be done manually
Lessons Learned, 1

• Critical pre- and on-going work:
  – Clean custom catalog
  – Up-to-date NORIC catalog
  – Up-to-date mapping
  – Remapping periodically

• Gain consensus on all changes before loading order set to all environments
Lessons Learned, 2

• Clear governance:
  – Assists analysts by allowing them to concentrate on technical work, and avoid being go-betweens
  – Saves time
  – Delineates responsibilities, ownership, and sign-off
Lessons Learned, 3

• OSIT does save time; cuts building time by approximately 1/3
  – One might expect by ½, but some configuration occurs on Sunrise side
Lessons Learned, 4

• If item is not selected, evidence link is not active

• Although evidence statements are visible in the orders, the evidence links are not
  – Evidence is great for provider at order entry (correct point in workflow).
  – Not easy for others to get access to evidence is a downside at a teaching hospital
Acknowledgements

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Thank you

Questions?