Agenda

• Introduction
• Terminology Overview
• System Demonstration
  • Core Research Workflows
    • Establishing a Study Record
    • Patient-Study Association
    • Research Dashboards/Reports
    • Encounter-Study Association
    • Research Order Linking and Notes
    • Basic Charge Review
• Project One Training
• Questions
What is Project One?

Project One

• The implementation of a single electronic medical record across Northwestern Medicine using Epic
  • One clinical history
  • One patient portal
  • One set of workflows
  • One point of coordinated scheduling
  • One consolidated bill
  • One procedure list
  • ...and more!

• A stated goal to:
  • Advance research growth, the spread of medical knowledge, and educational experiences
Today’s focus is within the ORANGE
Terminology

Epic EHR vs. CTMS

**EHR Primary Concerns:** Comprehensive management of a patient over time
- Provide high-quality patient care
- Patient safety
- Clinical user efficiency and productivity
- Research billing compliance (ability to separate clinical and research charges)

**CTMS Primary Concerns:** Comprehensive management of a study
- Administrative activities (budgeting, approval tracking, study design, randomization)
- Investigator compliance to administrative requirements
- Subject protocol compliance
- Direct reporting to sponsors

**Overlapping Needs:**
- Basic study information
- Patients associated with studies
- Orders/results associated with studies
- Research billing definition for study

**EHR**
Patient-Centric

**CTMS**
Study-Centric
Terminology

- **Epic Research Module aka Research Application aka Research Activity**
  - Functionality built into various Epic applications to help track research studies, patients, and services across all areas of NM

- **Main features:**
  - **Research Study Maintenance** - creates an administrative record (RSH) for each study that includes a study description, the staff members working on the study, the research guarantor account, and other administrative information. These are referred to as RSH records or study records.

  - **Research Studies activity** - allows authorized users to link a patient record to one or more studies and track the status of the patient for each study.
    - Encounter linking
    - Order linking
    - Charge linking

  - **Research Billing Review** – used by staff to review charges and make changes to them as necessary.

  - **Research account** - NOT the same as a RSH record. Billing account created with and permanently linked to the RSH record where charges post.
System Demonstration

1. Establishing a Study Record
2. Patient-Study Association
3. Research Dashboards/Reports
4. Encounter-Study Association
5. Research Order Linking and Notes
6. Basic Charge Review

Please write down questions as you follow along with the system demonstration. Questions will be addressed after completion of the system demonstration.
Establishing a Study Record
Research in Epic

Epic needs to know about the STUDY (Study Administrative Record)

Release of Information Requests

Which PATIENTS are associated with the study
Which ENCOUNTERS are associated with the study
Which ORDERS are associated with the study

Recruit Patients

Study Approved

PRL creation and linking to study (for beacon and/or billing)

Visit charges generated from clinical activity and/or manual charge entry

Research charge routing engine evaluates and predirects charges to appropriate account

Research Billing Review

Charges Billed Appropriately
Research
Dashboards/Reports
Patient-Study Association
Research in Epic
<table>
<thead>
<tr>
<th>StudyTracker Event</th>
<th>Description</th>
<th>Epic Status</th>
<th>Epic Status Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-screened</td>
<td>The participant fits the general criteria for the study. Meets inclusion/exclusion criteria</td>
<td>Identified</td>
<td>Pre-consent</td>
</tr>
<tr>
<td>Consented</td>
<td>The participant has signed informed consent form</td>
<td>Consented - In Screening</td>
<td>Active</td>
</tr>
<tr>
<td>Screening</td>
<td>The participant is in the screening process</td>
<td>Enrolled</td>
<td>Active</td>
</tr>
<tr>
<td>On Study</td>
<td>The participant has passed screening and is enrolled on the study</td>
<td>Enrolled</td>
<td>Active</td>
</tr>
<tr>
<td>Randomized</td>
<td>The participant has been assigned to a study arm/drug</td>
<td>Enrolled</td>
<td>Active</td>
</tr>
<tr>
<td>Completed</td>
<td>The participant has completed all aspects of the study, including active monitoring or follow-up</td>
<td>Completed</td>
<td>Inactive</td>
</tr>
<tr>
<td>Follow-Up</td>
<td>The participant has completed the treatment phase of the study and is no longer receiving treatment but is being followed or monitored</td>
<td>Completed</td>
<td>Inactive</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>The participant has withdrawn from the study on their own accord</td>
<td>Withdrawn</td>
<td>Inactive</td>
</tr>
<tr>
<td>Failed (study adherence)</td>
<td>The participant is no longer eligible for this study or is non-compliant with the study requirements</td>
<td>Disqualified</td>
<td>Inactive</td>
</tr>
<tr>
<td>Lost to Follow-Up</td>
<td>The participant was in follow-up but can no longer be reached. Status is unknown</td>
<td>Withdrawn</td>
<td>Inactive</td>
</tr>
<tr>
<td>Death</td>
<td>The participant has died. Please indicate reason in notes. Common reasons: Protocol Disease, Protocol Treatment, Unrelated to Protocol (elaborate in notes), Unknown</td>
<td>Withdrawn</td>
<td>Inactive</td>
</tr>
<tr>
<td>Off Treatment</td>
<td>The participant is no longer receiving any medical services</td>
<td>Completed</td>
<td>Inactive</td>
</tr>
</tbody>
</table>
Patient-Study Association

Functionality based on patient enrollment values in Epic

- Research indicator that can appear in the patient header
- Notifications for admissions, transfers, cancellations, etc.
- Workqueue configuration for billing
- Reporting on research patients
- Inclusion and exclusion criteria for BestPractice Advisories
- Workflow Engine rules that effect clinical workflows
- Filters in the Research Studies activity
- Confirmation rules to evaluate whether a patient is a research patient
Encounter-Study Association
Encounter-Study Association

Replacing the eSPRV
Current Source of Truth

Two Main Functions

1. Encounter notification/identification
2. Charge identification

These functions will be performed in Epic
Encounter-Study Association

Replacing the eSPRV
Current Source of Truth

Two Main Functions

1. Encounter notification/identification
   i. Replaced by Encounter-Study Association in Epic
2. Charge identification

Study teams will continue to be the source of truth for identifying research encounters
Research Order Linking and Notes
Research Order Linking and Notes

Order linking is another way charges are stopped for research review

• Dependent on study record and patient enrollment
  • Can be linked to studies that a patient is actively enrolled
• Is NOT dependent on encounter linking
• Does not automatically route related charges to a study account
Creating a “Research” note type does NOT effect how charges are stopped for research review

- Not dependent on a patient’s enrollment, encounter-study linking, or order-study linking
- “Research” note type allows for separation from “Progress Notes”
Basic Charge Review
Basic Charge Review

Replacing the eSPRV
Current Source of Truth

Two Main Functions

1. Encounter notification/identification
   i. Replaced by Encounter-Study Association in Epic

2. Charge identification

Study teams will continue to be the source of truth for identifying research encounters
Basic Charge Review

Replacing the eSPRV
Current Source of Truth

Two Main Functions

1. Encounter notification/identification
   i. Replaced by Encounter-Study Association in Epic

2. Charge identification
   i. Replaced by charge identification in Epic (Yes, there will be variations...to the least extent possible)

Study teams will continue to be the source of truth for identifying research charges
Project One Training
Main Training Events

Pilot Training
- First chance to run through classroom training
- Analysts and managers will attend training
- **Training Dates: 9/18/2017-10/6/2017**

Credentialed Trainer Training
- Onboarding additional trainers who will be responsible for end user training
- **Training Dates: 10/23/2017-12/1/2017**

Super User Training
- End users that will provide classroom and go-live support for the Project One project
- **Training Dates: 12/4/2017-12/22/2017**

End User Training
- Largest training effort
- Training all end users impacted by the Project One implementation

**Dates assume March 3, 2018 go-live**
### Additional Training Events

#### Provider Personalization Labs
- Providers login to Production and customize what they have quick access to and what they can see. (Order sets, smart sets)
- **Training Dates: 1/22/2018-4/13/2018**

#### Shadow Charting
- OpTime and Anesthesia providers will practice charting in an Epic environment during an actual surgery

#### Simulation Labs
- Clinical staff will have an opportunity to practice in an actual work setting once they have completed classroom training
- Details still being determined

#### Drop In Practice Sessions
- Open classrooms staffed with trainers. End users may drop in to ask questions, practice in the system, watch e-learning lessons, etc.
- **Training Dates: 1/22/2018-3/2/2018**

**Dates assume March 3, 2018 go-live**
What is a Super User?

• Super Users are members of the Northwestern staff that provide support to their peers during training, go-live, and beyond.

• Super Users will:
  – Attend training prior to end users
  – Provide classroom support during end user training
  – Assist with change management and go-live preparation within their department
  – Provide at-the-elbow support at go-live
Super User Program Key Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January – March 2017</td>
<td>• Super User Recruitment</td>
</tr>
<tr>
<td>April 2017</td>
<td>• Super User Kick-Off Meeting</td>
</tr>
<tr>
<td>May 2017</td>
<td>• Super User Monthly Meetings Begin</td>
</tr>
<tr>
<td>December 2017</td>
<td>• Super User Training</td>
</tr>
<tr>
<td>January – February 2018</td>
<td>• Support End User Training</td>
</tr>
<tr>
<td>March 2018</td>
<td>• At-the-Elbow Go-Live Support</td>
</tr>
</tbody>
</table>
What is a Training Track?

The path to Epic access by end user type

• Detailed information on which e-learning lessons, instructor-led classes, hands-on learning labs, and assessments each end user will need to complete in order to gain access to the system.
  – Required and optional E-Learning lessons
  – 100 Level Classes (Instructor-Led) and Main Topics
  – 200 Level Classes (Practice/Learning Labs/Simulation Training) and Main Topics
  – Personalization Labs (Clinicians only)
  – Assessment Points

• Includes number of hours per class and total hours per track.
  *Note: The number of training hours is a best estimate based on workflows being covered and Epic-recommendations. Hours may fluctuate slightly once training materials are developed.

• Includes high-level overview of what workflows are included in each class.
Curriculum Development

Curriculum Review Board

• Curriculum Review Board Includes:
  – Project One application-specific analysts
  – Epic application-specific AC/AM
  – Project One Operational Project Manager (OPMs)
  – Northwestern Operational Stakeholder
  – Northwestern Super User (optional)

• All of these individuals will be responsible for reviewing lessons and providing feedback.
  – Each lesson will take approximately 30 minutes to review.

• The goal of these review boards should be to critically analyze the training materials and ensure that they are designed to accurately reflect the workflows and teach to the utmost competency of the end users.
# Curriculum Development

Curriculum Review Board – Review Cycle Key Dates

<table>
<thead>
<tr>
<th>Bucket</th>
<th>Instructional Designer Due Date</th>
<th>Epic Review Due Date</th>
<th>Analyst Review Due Date</th>
<th>Operational PM Review Due Date</th>
<th>Operational Stakeholder Review Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket 3</td>
<td>April 7, 2017</td>
<td>April 14, 2017</td>
<td>April 14, 2017</td>
<td>April 26, 2017</td>
<td>May 5, 2017</td>
</tr>
</tbody>
</table>
Next Steps

− P1 Research team to provide details of Training Tracks for NU by June 7, 2017
− NU provides feedback on training materials to P1 Research team and sign-off on Training Tracks by June 16, 2017
− NU provides list of users and study teams for training due by September 15, 2017
  • Abby already coordinating effort to identify NU users
  • Will need to be maintained through Go-Live
− NU identifying Super Users and sending names to P1 Research team
  • Recommendation:
    • One per department
    • Use historic eSPRV submitter data as part of selection criteria
    • Initial list provided by March 31, 2017
Keys to Success

Large undertaking with significant impact for NM and NU...and our PATIENTS

Keys to a POSITIVE significant impact

- Realistic optimism
- Communication/Open Dialogue/Participation
- Testing
- Feedback
- Trust the implementation process

Recognize coinciding interests and shared benefits
Project One Research Team

- Nick Nash – Project One IT Project Manager
- Shehnila Mahkri – Advisory Chair
- Andrew Naidech, MD – Physician Sponsor
- Johnny Bui – Lead Analyst
- Aaron Powers – Operational Project Manager
- Mike Reiher – Documentarian
- Johnny Bui – Parking Lot Owner
- Mike Reiher, Dotty Russell, Christa Westenberger – Instructional Designers
- Nancy Owen – Deloitte Advisor
- Dan Conwell – Epic Application Manager
- Jordyn Noblitt – Epic Application Coordinator and Timekeeper
Research Content Survey

Objective: Discover fragmented, specialized functionality across systems that will be impacted by Project One

- Custom data capture and/or storage methods in existing Epic, Cerner, or other systems that are vital to research activities and reporting
- PROJECT ONE IS A RISK TO THESE

Content: Questions about current Epic, Cerner, RedCap, EDW, and data storage used for research studies

- Sent to ~1,100 recipients
- 300+ responses
<table>
<thead>
<tr>
<th>Phase 0: Groundwork &amp; Project Scope</th>
<th>Phase 1: WF Review &amp; Improvement</th>
<th>Phase 2: Adoption &amp; System Configuration</th>
<th>Phase 3: Testing</th>
<th>Phase 4: Training, Deployment, &amp; Go-Live</th>
<th>Phase 5: Post Live Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY Q4</td>
<td>FY Q1</td>
<td>FY Q2</td>
<td>FY Q3</td>
<td>FY Q4</td>
<td>FY Q1</td>
</tr>
<tr>
<td>Project Team Staffing &amp; Certification</td>
<td>Enterprise Workflow R&amp;I, System Build and Adoption</td>
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<td>Data Conversion</td>
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<td>Revenue Cycle Stabilization</td>
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<td>Advisory/Groups Kickoff</td>
<td>Operational Workgroups Kickoff</td>
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<td>You are here</td>
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<td>Kish Move to NM</td>
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<tr>
<td>P1 Go Live</td>
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Questions?