

caEHR Domain SME F2F Meeting - Las Vegas, NV

Thursday, April 22, 2010
8:13 AM

Day 1 Agenda

Attendance - John E, Gene K, Anna S, Dianne R, Christine B, Bill D, Jean D, Lisa S
Telecon Attendance - Raymond L, Ann S, Helen S, Patrick L, Harris M, Val B, Derek A, Marti V

- Introduction to Meeting Goals, Agenda Review and Adjustments
- Project Status Update
 - Long-Term
 - Short-Term
 - CBIIT service specifications built
 - Moving from Application development to service development
 - Building shell of services, to full scale reference implementation
 - To be adapted by NCCCP - contracted site
 - Deployment team is working on deployment

Q: Shell to Pilot(Reference Implementation) ?

A:

Q: Is DE team helping to validate the reference implementation?

A: that is the expectation

- Stakeholder management - Marc Koehn
- Service development is underway
- As team grows, all team members won't be able to be at all meetings that don't align with their expertise or deliverable assignments.
 - Single DE team members to be broken out into specific groups
- Project Scope is not well defined out side initial business capabilities
 - Scope capability documents being arranged
 - Outcomes
 - Referrals
 - Business capabilities List
 - Q: Why is Outcomes Management last
 - A: Ken B determined that Outcomes Management should be moved to the top of the list.
 - Team is still continuing work on Referral and Consult capabilities
 - Tools like Patient Registration exist and is considered a commodity service. We can leverage those.
 - CBIIT tools exist, but relevant pieces can't be de-coupled
 - NCCCP site can allow us to determine what the right components are and to choose the appropriate services. Leverage " Plug/Play-type" components

Get DE's access to team wiki site

Outcomes/PODS

Patients and Providers need to be de-identified.

- **Referrals Working Session**

- Iteration 1 Status Update
 - See Bill's slide deck
 - Published Create, Receive - base documents
 - Accept, Reject Variations
- ? ○ The place where the DE provide information at level 1 and 2 then the handoff to the architects for level 3; this is where systems become apparent in the use cases the business process remains as they did in levels 1 and 2
- ? ○ Where does the leveling concept arise from? Is based on HL7 usage but is commonly used in system development to denote the decomposition of business processes
- Level set on the Iteration and Sprint schedule and how it impacts the work items that will be produced by our group
- Use Case and Activity Diagram Review
 - Use case and activity diagram primer
- Referrals
 - Need to remove medical release form from activity diagram level 2 create patient referral order
 - There is some question about when in the referral process the additional diagnostic information
- **Parking Lot**
 - What is being sent in support of the referral and when is it sent over to the referred To provider
- **Referrals Working Session cont.**
 - Use Case Development
 - Outstanding Issues
 - Narratives
- **Domain Analysis Model**
 - Review R1 DAM
 - Review Treatment Cycle and Course attributes
 - Discuss Observations
- Discuss Outcomes modeling focusing on Treatment Activities
- Determine Insurance Eligibility and Evaluate Referral Acceptability are sequential vs. parallel L1 Receive and Process Patient Referral Order
- Minimum data set is those item listed as critical on our Referral Data Document but we do need an additional decision point to reject the referral at that point that there is no need to proceed with referral as it is not a valid request. E.G. select an oncologist that does not treat gynecological cancers and that is what the referral is for.
- Many insurance companies provide contracts to the physician that outline what types of interventions are provided such as a CT SCAN
- When a referral is rejected it is communicated back to the referred from provider is there any other activities that happen
 - Yes, purge any information that was received electronically, shred any paper documents and make note in your records that you reviewed the referral and captured a reason for rejection. This patient record would only include patient name and unique identifier such as medical insurance number
- Lite patient record to be used in reject referrals could include patient name, and a unique identifier such as medical insurance number
- ? The DE team feels that retaining records for patient that were rejected through a referral request is not necessary and is not currently done in a paper system.



ACTION: The project team will take this question forward to an expert group to ensure there

are no medical/legal implications and addressed as non functional requirements

On a reject back to the Referred From there needs to be a reason for rejection, name and role of person who reviewed and executed decision as well as the lite patient record.

L2 Receive and Process Referral

Update patient record? Is this in scope, yes if new information was presented at this time it would be okay to update the record

This is impacted by time... is this a record that has already been approved and just adding additional information or is it a patient that has not been seen

Is this a current referral or a historical patient being re-referred

Additional Notes in this section from Bill D.

1. Diagnostic Model Components:

- o A family meeting is a form of diagnostic activity. It is a therapeutic activity.
- o Dietary consultations are to be considered
- o Home Care - Data is captured and comes back into the system

For a Physician, most of the encounter with patient (approx 60%) is counseling

Make sure these are accounted for in the model:

- o Counseling/Education
- o Pulmonary Function test
- o Capture of clinical requirements
- o Genetic testing

Comment: would be nice to have a pedigree tool in the caEHR as most pedigree checks are done manually and in person. Some are sent out to experts.

2. Administrative Activity Model Components

- o Transporting Patient
- o Non-medication orders
- o Access records (i.e. gathering consent)
- o Scheduling

3. Order Pattern

4. Imaging

Use cases need to identify the Health care facility



Glossary: SUV= Standard Uptake Value

5. Observations:

(Doesn't mean it is experienced/observed/reported)

- o In the H&P structure. An HL7 structured document

6. Advance Directives

- o DNI/DNR - helps with building the care plan
- o CWAD - Concerns, Warnings, Alerts, D(?)

7. Problems

- o

- Pause in treatment cycle is equivalent to the term 'spacer'
- i.e. course has a cycle, and it is repeated 4 times with a certain duration
 - 'collection of cycles in a course'
 - Course does not have a frequency
 - Courses don't often get revisited
 - There is a requirement for a 'category' for a treatment course.

Friday April 23, 2010

Day 2 Agenda

Referral Acceptance Scenario

As we move into the electronic world we can let the systems do some of the work, in a scenario where we have two systems interoperating, system handshake is complete, next expectation is that caEHR have a rules engine allow for preliminary triaging of the electronic referral request to be done in advance of a human interaction with the system. In the example of a pediatric request coming to an adult only oncology practice the system based on the referral demographic data could "reject" the request for referral because the patient does not meet the outlined criteria by the Referred To Provider, however there is no need for human intervention at this point.

Does this sound reasonable to the DE Team to plan for this future functionality

Yes, Gene is familiar with a system that currently uses a small rules engine however they keep copies of system interactions that a human reviews weekly to ensure no further action needs to be taken.

HL7 Issue model can be leveraged to support this function

Reject by caEHR is accompanied by a reason for reject

Passes automated rules, then clinician sees the referral there is still an opportunity for the referral to be rejected based on reasons not included in the rules (however if the patient arrives in the clinic that referral is accepted).

Need a use case for the cancellation of a referral in the example of referral has been accepted by office now dr is reviewing chart and realizes they will not proceed with treatment of this patient (for many reasons, wrong disease, wrong dr) therefore the referral needs to be cancelled and a update needs to be sent to the Referred To Provider

 ACTION : Jean to produce a state diagram for Referral, Patrick to review

Level 2 - 3 different dimensions any process that drives out information differences
No business rules identified for Referrals on the accept or receive

Referral Narratives

Level 2 Referral Create Order Electronic Modify

 ACTION: Christine to follow up with up Anna to rewrite the modify referral based on the

scenario where Dr Cutter originally sent a request for referral to Dr. Tumor for suspected Colon CA and now knows it is a lymphoma and needs to update this information on the referral request.

Level 2 Referral Receive and Process Patient Manual Rejected
Change vacation to unavailable and or failed insurance eligibility check

Additional Notes from Bill D.

8. Introduce Diagramming & Review Referral Diagrams

- Use case diagrams make assumption that patient is not currently active at the Referred to provider practice
 - Action to add a check for existing patient record in the Receive & Process diagramming
- What happens to record if patient is rejected?
 - Would want to know who was rejected and by whom and the reason, termed "patient record lite"
 - Manually delivered paper records for a rejected referral are shredded.
 - Add retention of some basic rejection information to rejection scenarios in diagrams
 - Patient is not provider responsibility until first assessment visit, so records are not retained... No legal requirement to divulge information on rejected patients that were never officially the responsibility of the provider.
 - In electronic situation there is a risk that the record is deleted from the user point of view, but system actually retains traces of record(unseen).
 - Represents a potential legal issue if there is no legal record of the rejection
 - Is the electronic existence of data important?
 - Non-functional requirement - Christine to follow-up to check relevance of this
 - Medical(Clinical) information is typically sent on after the acceptance of the referral
 - Typically three types of checks in referral receipt and acceptance process:
 - Administrative check: i.e. is the provider accepting patients? And patients of this type/diagnosis?
 - Insurance Check: very important to make sure patient is eligible for insurance coverage.
 - Clinical Check - relevant diagnostics are critical to confirming the acceptance or going back to the RFP for more information.
 - Typically a stage release of information
 - Loopback for more information...is it at all steps?
 - Parking Lot item, is request for more information viable at all three check steps.

9. Referral Q&A:

- Review process steps for Receive and Process Patient Manual Accepted use case;
 - Acceptance takes place over the phone, mostly.
 - Provider wouldn't see the patient, then reject the referral.
 - Patient may bring additional paperwork into the assessment visit, but it is only supplementary information
 - Jean/Lorraine are working on a state transition diagram on this process
- What are the important informational differences that we are missing in our current modeling and use case decomposition work?
 - Pediatric situations involve legal guardian for consents/decisions if patient is under 8 years old.
 - Implied consent in some situations
 - Social Assistance or Incarceration situations?

- Ordering of referral might include information/allowances for special circumstances.
- Narrative reviews
- Referral Narratives and branches examined and tightened:
 - Consumer of narratives are software engineers to have traceable business context for the solutions they are developing.
 - Main cancer journey narrative is sufficient but needs viable branches of storyline to account for variations in the process.
 - Approach is for analyst to build out plausible scenario for the branches and confirm them with the Domain Expert team to assign reality.
 - For Modify use case, there is an update on the Narrative branch. More suitable story is for the provider to suspect and refer for colon cancer diagnosis, upon finding lesion in colon. Modification is required when the biopsy shows it to be lymphoma instead.
 - Bill to work this into updated use case
 - For Manual Reject use case - use scenario with elusive small cell cancer.
 - ▣ **ACTION:** In Manual-Accepted use case the team to check at X12 to see what insurance verifications are required.
 - Rebuild use case with patient visit included.
 - Update and review with DE team
 - Table of critical/important/optional data components that were built with the DE team was built in reference to the manual referral process.
 - Demographics
 - Reason for Referral
 - Insurance
 - Contact info
 - Pathology report
 - Are patient records put into a pending state?
 - A: no, they are typically accepted and updated as information arrives or deleted if there is a subsequent rejection or cancellation.
 - Definition for 'Current' = begins at last visit
 - Most recent interaction with patient and what is still active since last visit.
 - This is the information that is required and deemed pertinent to the referral.
 - Are Consents important? Written or Verbal?
 - Referred to provider doesn't need to know about consents for prior treatment
- Review of Clinical Document Exchange Scope Document
 - Homework for DE team is to comment on existing standards pages in the document that Helen would be distributing.

10. Outcomes

- Explanation of PODS and outcomes repository
 - Outcomes divided into direct care and supportive care.
 - Query for patient outcomes
 - Use for effectiveness evaluation
 - Use for planning trials and Patient eligibility for trials
 - VA has issue with clinical trials
 - Supportive Care - includes comparative analysis
 - Financial evaluation is currently out of scope
 - Risk that financial analysis is out of scope
 - Company expense on drug versus its effectiveness
 - Which is best for patient??
 - If two drugs are equally effective and have the same side effect profile, then economics usually determines the access and utilization of the drug.
 - Requirement: Physician must be anonymized when they are given access to the outcomes repository system.

- Lisa reviewed the PODS slides showing application feature screen shots.
 - Codes for disease are not in the caEHR but in the PODS DB.
 - Requirement: tumor measurement range
 - Looking for manual input requirement in PODS. Currently manual data entry is not part of the feature set.
 - Off treatment - reason wouldn't be discrete data element
 - A date might exist, but the reason wouldn't
 - System would treat it as an observation & measure
 - Doc would have to mine notes to find particular element.
 - 'Add Disease Eval' screen wouldn't contain discrete data
 - Wouldn't be part of the caEHR
 - Docs always put a performance status(as a text element)
 - Easy & consistent to capture
 - Discrete Data Elements
 - Disease response (better, worse, stable)
 - Performance status= functional status
 - ProCTCAE Questionnaire=Defined side effects
 - Data of next line of therapy
 - Diagnosis?

- Date of diagnosis and death= two important data points

Narrative Review:

Narrative is from PODS work

- QOPI - Quality, Practice, Indication
- Discrete indicators are tied to diagnoses



Send the Outcomes guidance from Ken B, to Dianne