CommonWell & Carequality

Joe Lamy

Clarifying document lifecycles for Encounter and Patient Summary Documents

Agenda

- Joint Document Content Work Group
- Sharing Through the Encounter Lifecycle
- Next steps for SDWG
- Extra/Background Slides (If Needed)
  - Guidance for Dynamically Generated documents
  - Use Cases for Versioning Encounter Summaries
  - Guidance on using the IHE mechanisms
  - Prioritized list of labs
- Other work items in backlog

JOINT DOCUMENT CONTENT WORK GROUP
What is the Joint Document Content Work Group?

- Carequality and CommonWell launched in 2018
- Solve common problems
  - Too large C-CDA documents
  - Absence of clinical notes
  - Need for encounter summaries
  - Need for version management
- Output is best practices document
  - Each exchange incorporates into its governance process

What is the group’s “lane”?

- Top level operational spec for exchanges
- Participation from clinicians, vendors, standards SMEs
- Can address problems crossing multiple standards lanes
  - Content: HL7 CDA, C-CDA documents
  - Query and retrieval: IHE Document Sharing
  - Relationships between EHR state, queries, and generated content
- Can feed back issues to standards bodies
  - E.g. consider for C-CDA Companion Guide

Work so far

- Feb 2019: Concise Consolidated CDA: Deploying Encounter Summary CDA Documents with Clinical Notes
  - Guidance for Progress Notes and Discharge Summaries
  - Guidance for Clinical note placement
  - How dates in queries relate to returned/generated documents
  - Guidance for Smart Senders and Resilient Receivers
Challenges with encounter summaries

- For consumers
  - Want to get the same document if nothing has changed
  - Want to know without retrieving if something has changed

- For generators
  - Want to know when in encounter lifecycle is appropriate to share a document
  - Want to proactively create and host documents (even paper documents that are scanned and hosted), or generate documents when requested
  - Want to never generate a document if never asked for

When to share an encounter as document?

- When and how to share the current state of an incomplete encounter as an encounter summary document?
  - Encounter with a start but not an end date
  - Encounter that has concluded, but which still has outstanding results that are expected to be included in an updated encounter summary
  - Encounter waiting to be “locked down” or “signed”
- Share based on data completeness or explicit action?
  - As soon as enough data to generate a conformant document?
  - Only after a specific trigger (e.g. signing)?
  - Allow sharing in special cases (very incomplete) only through action?
Challenges with legalAuthenticator

- Intent of legalAuthenticator seems to be the provider “signing off” or “completing” the document
  - Some systems don’t populate this by default unless configured
  - Receiving systems would have to decide after a certain time that they have the final version.
  - Some systems use a single configured person (e.g. HIMSS manager), rather than the clinician who actually attests
  - This may be case dependent (Attachments IG requires legalAuth between payers and providers)

Clinician input

- Clinicians decided:
  - Must share after encounter is done
    - Not ok with waiting until legally authenticated to share (because of issues on next slide)
    - Might want to share in progress in some cases
      - Note: Discharge Summary required to have discharge date – can use nullFlavor?
    - Must share all updates
  - Considered each of these as potentially marking an encounter as “done”
    - End time is available
    - Authenticator is available (discuss: passive vs. active attestation)
    - Legal Authenticator is available
  - See CDA Book: 2.2.3 Potential for Authentication

Sharing through the encounter lifecycle: Tentative decisions
Next steps for SDWG

Note: These are not all from the topics presented today

- Need Results section in C-CDA Discharge Summary
  - There is a Hospital Discharge Studies Summary Section, but it’s text
  - Need discrete result entries, so Results Section (entries required)
- How to connect results to original order?
  - CDA allows an entire document to be in fulfillment of an order (inFulfillmentOf)
  - But when results are just part of a larger document?

- If a lab is cancelled, how to report?
  - Lab result in Results with statusCode code="cancelled"?
  - Lab order in Plan of Treatment with statusCode code="cancelled"?
- How to correct a lab result in a subsequent CDA?
  - Create a new result somehow tying to the original result (same id?)
  - Nothing in Table 335: Result Status, but ActStatus has “nullified” (created in error) and “obsolete” (replaced)
Next steps for SDWG

- Consider guidance for C-CDA Companion Guide
  - Incomplete encounters
  - Versioning
- Add labs to C-CDA rubric?

62

EXTRA/BACKGROUND SLIDES (IF NEEDED)

63

GUIDANCE FOR DYNAMICALLY GENERATED DOCUMENTS

64
They say “On-demand”, but it’s bigger than that

- The original ask was for help with “on-demand”
  - Few actually use the IHE On-Demand mechanism (host the metadata for a potential document and generate at retrieve)
  - But many generate documents or metadata on request
- Topic now covers all issues related to dynamic generation
  - How many documents should be generated?
  - Wait until retrieve to generate CDA (via Delayed Doc Assembly)
  - Indicate new version before retrieve (fix chicken and egg problem)
  - Handle long-latency generation (via XCA Deferred)
- Guidance on using the IHE mechanisms

How many documents should be generated?

- Some vendors are generating new documents every time someone asks
  - New document ID, new creation time = metadata immediately deprecated so others won’t see in queries
  - Difficult to detect duplicative data
- When does it make sense to share the same document instance?
  - Same encounter, nothing has changed = share same instance
  - Encounter goes through revisions = share same versions
  - Patient summary (CCD) newly generated = each request gets new

USE CASES FOR VERSIONING ENCOUNTER SUMMARIES
Sharing versions of encounter summary documents

- **Examples**
  - Unexpected corrections
  - Expected updates (e.g. labs come in after discharge)

- **Versioning scenario**
  - Monday, you get four documents for a patient: one patient summary (CCD) and three encounter summaries.
  - During the week, two encounters get updated in the EHR, some multiple times, and others have requested those versions, causing them to be saved and earlier versions to be deprecated.

Versioning scenario continued

Friday, you see the patient again. Assuming you want the latest info, how do you want to see it?

- Just want to get the latest (i.e. 10, 6, 3, 9)
- Want to know without reading the document which of the encounters each update is for (i.e. 6 is an update to 2)
- Want to see the entire chain of revisions before retrieving and decide if I want to retrieve any intermediate versions.

GUIDANCE ON USING THE IHE MECHANISMS
Some general guidance on IHE mechanisms

- If the data for an encounter has changed since the last generated encounter summary, a query shall return a new stable approved document entry, and the earlier stable entry shall be deprecated.
  - IOW, don’t have to retrieve to find out something has changed
  - Makes choice of mechanism more invisible to requester
- For encounter summaries, pre-create or use Delayed Document Assembly
- For patient summaries, use IHE On-Demand
The problem

- Want to develop a prioritized list of laboratory results to be shared, similar to "most common allergens" from Allergies and Intolerances
- Many examples of problems captured
  - Mismatched codes
  - One to many mappings
  - Excessive use of local codes coming from labs
- Considering limiting scope to COVID-19 to get something useful

Potential solutions

- Leverage work Epic and Sutter have already been doing
- Develop harmonized list
- Develop mappings to/from other value sets
- Choose deployment options and governance
  - Burden on the source to do mappings; harmonized values on the wire
  - Just publish mappings and leave to implementers

Other work items in backlog

- Additions/revisions to v1.1 guide
- Best practices for rendering documents
- Guidance for Data Provenance
- Guidance for documents vs. clinical scenarios
- Guidance for longitudinal view
- Guidance for patient summaries
- Guidance for populating meaningful narratives
- Guidance for Referral Notes and Consultation Notes
- Guidance for sharing entries within/across documents
- Guidance for meaningful codes
- Problems with name formats between XDS/CDA