DISCUSSION: Modeling of time periods (e.g. admission, initial evaluation, discharge, etc.) in the Document Ontology

Background

At the Spring Clinical LOINC Meeting (2018) and during a Document Ontology workgroup meeting, the Committee discussed whether the time period should continue to be modeled in the Type of Service axis or whether it should be either 1) moved to its own new axis or 2) moved to the Kind of Document axis. Below are some of the Type of Service axis values that contain a time period (italicized):

Evaluation
  Annual Evaluation
  Initial Evaluation
    Admission Evaluation
    Admission History and Physical
  Reevaluation (New)

History and Physical
  Annual History and Physical
  Admission History and Physical
    Labor and Delivery Admission History and Physical

Summary
  Antepartum Summary
  Immunization Summary
  Labor and Delivery Summary
  Discharge Summary
  Transfer Summary

Notification
  Admission Notification
  Discharge Notification
  Visit Notification

Proposal Alternative 1: status quo

Keep the time period as represented in the TOS axis since the time period sets the context and provides scope for the Type of Service provided – it is a key attribute in the definition of the TOS axis value.
Proposal Alternative 2: *new axis*

Create a new axis for approved time periods, e.g.
- Admission
- Annual
- Discharge
- Initial
- Transfer

The above can then be appended to various *TOS* axis values in the Component, e.g. for Admission:
- Admission Evaluation
- Admission History and Physical
- Admission Notification
- Admission...

The net effect would be the same style of names we have now, except that the *Type of Service* attribute would be “cleaner” and the timing would be a searchable/sortable attribute.

In this approach, the name of the axis should have careful consideration so as to not confuse with the *Timing* attribute of the LOINC term. That attribute is for duration of the observation, not the point in the episode sequence when the observation occurred.

Options for the name of the axis: *Type of Service Context, Episode Type*, etc.

Proposal Alternative 3: *move to Kind of Document*

Move the Time periods to the KOD axis, e.g.
- Admission note
- Annual note
- Discharge note
- Initial note
- Transfer note
- Reevaluation note

The TOS axis value would then go before the KOD in the Component, e.g.:
- History and Physical Admission note
- Summary Discharge note
- Summary Transfer note
- Evaluation Initial note?

[Committee Decision]
PROPOSAL: Consolidate History and Physical (exam) with Evaluation Type of Service

Background

The APTA would like to clarify how the main types of PT notes would be handled in the HIPAA attachments standards. The current specifications point to C-CDA as the means of request and exchange of clinical documentation. Reminder of the 5 types of notes:

- PT initial evaluation document
  [18735-1] Physical therapy Initial evaluation note
- PT subsequent visit document
  *[11508-9] Physical therapy Progress note
- PT reevaluation document
  [Pending]
- PT conclusion of care document
  [84331-8] Physical therapy Discharge summary
- PT plan of care document
  [80762-8] Physical therapy Plan of care note

*For now, we are going to set aside the lack of clarity about what distinguishes “progress note” in LOINC from a regular visit note from a progress note/report that summarizes the progress a patient has made (wrt goal attainment, etc)...e.g. the Medicare Part B progress report due every 10 visits. My guess is that 1/2 of the world would use 11508-9 and the other half would use 28579-1 (plain ‘ole PT Note).

C-CDA has document “templates” for several document types, including Progress Note, History and Physical, etc. The value set of allowed LOINCs for the H&P type has traditionally included only terms with Type of Service equal to History and physical. We have many (100+) such terms in LOINC.

LOINC also has many terms (100+) defined with Type of Service equal to Initial Evaluation.

In consultation with APTA, Lisa Nelson has proposed that all Initial Evaluation terms be included in the History and Physical value set. Looking a common definitions of what an H&P document and an initial evaluation would contain, there is significant overlap that would be difficult to untangle. A few examples of H&P definitions:

- from UCSD
- from LSUHSD
- from Providence with reference to CMS and Joint Commission policies

Most include (Chief complaint, HPI, PHx, FamHx, SocialHx, Review of Systems, Phys exam, lab/data, assessment/plan). There are also somewhat overlapping connotations in “Admission H&P” with “Initial Evaluation” in particular contexts/roles. My sense is that H&P is a more common term for physician authored documents, whereas other disciplines (e.g. rehab therapies) typically use (initial) evaluation as the label for this activity. Yet, we have terms for the same Subject Matter Domain for all three variants.
See related spreadsheet for current LOINC terms.

From Lisa's perspective, ideally, the ontology would support an intensional definition of this value set that rolled up **Initial Evaluation** under H&P. I fear that these may be distinctions without differences when we compare actual document content.

Here, I propose that we merge the Evaluation and H&P nodes of the ontology. The previous resolution of the prior issue about modeling time-dependent types of service will influence the outcome of this proposal. We may want to retain certain labels (Admission H&P) due to their prevalence, but otherwise treat the two *Type of Service* nodes as synonymous.

[Committee Decision]
DISCUSSION: Request from CHI to add “Heart Function” as a new SMD under “Cardiovascular Disease”

Requested terms from CHI:

<table>
<thead>
<tr>
<th>Plan of Care</th>
<th>{Setting}</th>
<th>Heart function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial evaluation note</td>
<td>{Setting}</td>
<td>Heart function</td>
</tr>
<tr>
<td>Consultation note</td>
<td>{Setting}</td>
<td>Heart function</td>
</tr>
<tr>
<td>Progress note</td>
<td>{Setting}</td>
<td>Heart function</td>
</tr>
<tr>
<td>Note</td>
<td>Telephone encounter</td>
<td>Heart function</td>
</tr>
<tr>
<td>Conference note</td>
<td>{Setting}</td>
<td>Heart function.team</td>
</tr>
</tbody>
</table>

Background

Submitted term description:
Heart Function is a specialization of Cardiovascular Disease and is a distinct clinic that deals with HEART FAILURE in most Toronto Hospitals.

RI question to submitter:
Is there a reason why "Heart function" was proposed instead of "Heart failure"?

Heart failure and transplant program
Heart failure fellowships

We have the following SMD under Internal medicine and Cardiology – Advanced Heart Failure and Transplant Cardiology.

Submitter response:
The clinics in Canada are overwhelmingly called Heart Function Clinics. However there is one site that does call it a Heart Failure Clinic - and you are correct, the fellowship is in Heart Failure and Transplant. Maybe the differentiation is that the Heart Function Clinic is an outpatient environment, so maybe we can cover it in the setting?

RI f/u question:
If they are typically an outpatient environment, we think you can use the Cardiology terms with Outpatient as the setting.
If the Heart function clinics could involve both inpatients and outpatients, it may be better to map these notes to LOINC codes with {Setting} not specified?

Submitter response:
The Heart Function Clinic is a specialized outpatient cardiac clinic for the care of patients with heart failure. Heart Function is really a clinic... outpatients only

Proposal

Recommend Cardiology Outpatient notes are used for Heart Function/Failure Clinics that are Outpatient only.

<table>
<thead>
<tr>
<th>Plan of Care</th>
<th>Outpatient</th>
<th>Cardiovascular disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial evaluation note</td>
<td>Outpatient</td>
<td>Cardiovascular disease</td>
</tr>
<tr>
<td>Consultation note</td>
<td>Outpatient</td>
<td>Cardiovascular disease</td>
</tr>
<tr>
<td>Progress note</td>
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<td>Cardiovascular disease</td>
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<tr>
<td>Note</td>
<td>Telephone encounter</td>
<td>Cardiovascular disease</td>
</tr>
<tr>
<td>Conference note</td>
<td>Outpatient</td>
<td>Cardiovascular disease.team</td>
</tr>
</tbody>
</table>

[Committee Decision]
PROPOSAL: Add “Thromboembolism” as a new SMD under “Pulmonary disease”

Requested term from CHI:

<table>
<thead>
<tr>
<th>Type</th>
<th>Field</th>
<th>Setting</th>
<th>Doc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference note</td>
<td>Find Pt</td>
<td>{Setting}</td>
<td>Thromboembolism.team</td>
</tr>
<tr>
<td>Procedure note</td>
<td>Find Pt</td>
<td>{Setting}</td>
<td>Thromboembolism</td>
</tr>
<tr>
<td>Note</td>
<td>Find Pt</td>
<td>{Setting}</td>
<td>Thromboembolism</td>
</tr>
<tr>
<td>Progress note</td>
<td>Find Pt</td>
<td>{Setting}</td>
<td>Thromboembolism</td>
</tr>
</tbody>
</table>

Background

[Question to submitter] What department does your Thromboembolism service fall under?

[Response] In Canada, venous thromboembolism prevention/Thromboprophylaxis by pharmacologic or mechanical means is a significant quality standard of care at time of admission – and so is its own service. However, I think if we had to, we would put it under Respirology (which LOINC calls Pulmonary Disease)- (see sample hospital web site below)

![Sample Hospital Website](https://www.sunnybrook.ca/)

[Committee Decision]
DISCUSSION: Request from Canada to add Focus to the SMD

Background

Comments from requestor
Similar to what we need for Referrals and Consults where the specialty of the doctor you are referring to would be like:
General surgeon – focus: hernia
Orthopedic Surgeon – focus: hip and knee replacements
Etc

In our document ontology we could use this for documents from specialty clinics like Thromboembolism or Tracheostomy care. The SMD could be “Respirology.Thromboembolism” or “Wound care management.Tracheostomy”.

[Committee Decision]
PROPOSAL: Add “Medical history screening form” as a new KOD under “Form” and move terms to DOC.ONTOLOGY Class

Medical history screening form terms:

64285-0  Medical history screening form  Find Pt  {Setting}  Doc  {Role}  
[DOC.MISC]
Term description: A generic kind of document for various medical history screening forms that are often completed prior to care delivery or in the case of the military DD form 2807-2, prior to applying for service.

89430-3  Medical history screening form  Find Pt  Outpatient  Doc  {Role}  
[DOC.MISC]

Background
LOINC 64285-0 was originally created for Health Artifact and Image Management Solution (HAIMS) in 2011 and also requested as a part of the Japan document code requests.
LOINC 89430-3 was created as a part of the Japan document code requests.

Examples:
https://wmich.edu/sites/default/files/attachments/u89/2014/Medical-History_0.pdf
https://dmna.ny.gov/arno/docs/forms/DD2807-2_Medical_History_Report.pdf
http://www.aahf.info/pdf/Medical_Questionnaire.doc

[Committee Decision]
PROPOSAL: Deprecate LOINC 83930-8, Research consent, and map to 77602-1, Research study consent. Add “Research study consent” as a new KOD under “Consent”

Research consent terms:

<table>
<thead>
<tr>
<th>LOINC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>83930-8</td>
<td>Consent</td>
</tr>
<tr>
<td>77602-1</td>
<td>Research study consent</td>
</tr>
</tbody>
</table>

**Background**

LOINC 83930-8 was created for the VA.

LOINC 77602-1 was created for the [OMOP Common Data Model](https://www.ohdsi.org/omop/) that uses LOINC as the key terminology.

Our current precedent is to deprecate the newer term and map to the older one since it has been released for a longer period of time and more likely to be used. If we deprecated 83930-8 and map to 77602-1, we need to update 77602-1 (or add “Research study consent” as proposed) and move this term to the DOC.ONTOLOGY Class.

[Committee Decision]