Diameter Health

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Participation Roles in C-CDA

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**Agenda**

- USCDI and Pressure for Data Provenance
- Review Definitions
- Meaning by Clinical Domain
- Examples
  - A diagnosis made and managed by another provider
  - A medication prescribed by another provider
  - A vital sign performed by one person and recorded by another
  - A lab order and its result
- Next Steps

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**Topic Name?**

- Authors, Performers and Other Participants in C-CDA: When to use which and what they mean

What problem are you trying to solve?

Authors and performers can be used to document key person/organization information within individual C-CDA entries. These can help meet requirements for data provenance, as required by the United States Core Data for Interoperability, but they impart different meaning with different clinical sections. This session will work through easy-to-understand definitions of what an author or performer means within different clinical sections.

How are you planning on leading the discussion? (What is your planned approach, what steps will you take?)

There will be a combination of slides and XML examples. We will be actively soliciting input from C-CDA creators and consumers attending the C-CDA IAT.

What samples do you plan to use to support the discussion? (Please describe or attach sample xml you will be reviewing.)

We will use examples already approved within https://cdasearch.hl7.org as well as new examples to be created. Here are three examples:

1. https://github.com/HL7/C-CDA-Examples/blob/master/Results/Result%20with%20lab%20location/Result%20with%20lab%20location(C-CDA2.1).xml
3. https://github.com/HL7/C-CDA-Examples/blob/master/Problems/Active%20Problem/Active%20Problem(C-CDA2.1).xml

What actions do you want attendees to do before or what samples or examples do you want them to bring to the session?

No prior work required except for reviewing how current C-CDA generators and receivers work.

What actions are you expecting to happen as a result of your session?

We'll have a few slides, which we could writeup as an informative document available on https://cdasearch.hl7.org. This could be integrated into future Companion Guides of C-CDA as well.

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### CDA Base Schema for Participants

- CDA allows all four participation elements in the CDA base schema for:
  - Act
  - Encounter
  - Observation
  - Organizer
  - Procedure
  - SubstanceAdministration
- Order is performer, author, informant, participant

### Sections

<table>
<thead>
<tr>
<th>Have a role in a clinical system</th>
<th>Performer</th>
<th>Author</th>
<th>Informant</th>
<th>Participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergies</td>
<td>Who diagnosed</td>
<td>Who originates the record</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>Who is the author for the diagnosis?</td>
</tr>
<tr>
<td>Medications</td>
<td>Who administers or prescribes</td>
<td>Who originates the record</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>Who is the performer for the diagnosis?</td>
</tr>
<tr>
<td>Observations</td>
<td>Who originates the record</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>What times go in act &amp; observation effectiveTime?</td>
</tr>
<tr>
<td>Problems</td>
<td>Who diagnoses</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>What times go author and performer time?</td>
</tr>
<tr>
<td>Procedures</td>
<td>Who performs (e.g., surgeon)</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>Other information source (e.g. patient or guardian)</td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td>Who performs (e.g., lab or imaging center)</td>
<td>Other information source (e.g. patient or guardian)</td>
<td>Other information source (e.g. patient or guardian)</td>
<td></td>
</tr>
</tbody>
</table>

### Example 1

- Patient Johnny Accident is seen for the first time by Dr. Ed Emergency for fainting in the ER. That doctor finds external documentation that Dr. Mary Primary diagnosed Johnny with diabetes last year. For the diabetes diagnosis:
  - Who is the author for the diagnosis?
  - Who is the performer for the diagnosis?
  - What times go in act & observation effectiveTime?
  - What times go author and performer time?
Example 2

- Patient Johnny Accident is seen for the first time by Dr. Ed Emergency for fainting in the ER. That doctor finds external documentation that Dr. Mary Primary prescribed insulin for Johnny last year. For the insulin medication entry:
  - Who is the author for the medication?
  - Who is the performer for the medication?
  - What times go author and performer times?

Medication Prescribed by Another Provider

Example 2

- Patient Johnny Accident is seen for the first time by Dr. Ed Emergency for fainting in the ER. That doctor finds external documentation that Dr. Mary Primary prescribed insulin for Johnny last year. For the insulin medication entry:
  - Who is the author for the medication?
  - Who is the performer for the medication?
  - What times go author and performer times?

Example 2

- Patient Johnny Accident is seen for the first time by Dr. Ed Emergency for fainting in the ER. That doctor finds external documentation that Dr. Mary Primary prescribed insulin for Johnny last year. For the insulin medication entry:
  - Who is the author for the medication?
  - Who is the performer for the medication?
  - What times go author and performer times?

Example 2

- Patient Johnny Accident is seen for the first time by Dr. Ed Emergency for fainting in the ER. That doctor finds external documentation that Dr. Mary Primary prescribed insulin for Johnny last year. For the insulin medication entry:
  - Who is the author for the medication?
  - Who is the performer for the medication?
  - What times go author and performer times?
Example 3

- A physician’s assistant, Paul Assistant, PA measures the blood pressure for the patient which is entered in the EHR by Dr. Ed Emergency. For the blood pressure:
  - Who is the author for the vital sign?
  - Who is the performer for the vital sign?
  - What would happen if information was provided by a patient, guardian or caregiver?

A Vital Sign Recorded by Another Provider

Example 4

- Patient Johnny Accident is seen for the first time by Dr. Ed Emergency for fainting in the ER. The doctor orders a metabolic panel for which blood is drawn today. The lab is completed by High Quality Labs tomorrow
  - Who is the author of the order?
  - Who is the performer for lab (once performed)?
  - How is the reporting time recorded?
A Lab Order Performed by External Lab

<table>
<thead>
<tr>
<th>Lab Order</th>
<th>Planned Observation</th>
<th>Completed Lab (Result Observation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dr. Ed Emergency

Lab performing results & time

<table>
<thead>
<tr>
<th>Time the blood was collected</th>
<th>Time the order was placed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-10-22 05:21:33-05:00</td>
<td>2020-10-22 05:21:11-05:00</td>
</tr>
</tbody>
</table>

Altogether Now

<table>
<thead>
<tr>
<th>Summer 2019</th>
<th>Winter 2019</th>
<th>Today Oct 21</th>
<th>Tomorrow Oct 22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>PCP</td>
<td>Perform &amp; Record Blood Pressure</td>
<td>Metabolic Panel Ordered</td>
</tr>
<tr>
<td>PCP</td>
<td>Dr. Ed</td>
<td>PCP</td>
<td>PCP</td>
</tr>
</tbody>
</table>

Points for Discussion

- Authors record the last hop. Authors from prior hops can also be included but not required from data provenance perspective.
- Authors are permanent for that “record” or “resource” but may not be maintained as information flows into other systems.
- Performers are permanent more generically (excepting corrections).
- Performers may be the earliest author in some contexts.
- Patient generated content means the patient is the “author.” Use “informant” when information comes from another source but then entered in legal record.
Next Steps

- Post sectional guidance

- Bring examples for approval