

Undifferentiated pathology and radiology reports

Question

The CDA implementation guides that include diagnostic service reports (eReferral, Specialist Letter, Event Summary, and Discharge Summary) divide the reports into pathology and radiology. What should we do if our system cannot distinguish between pathology and radiology reports?

Background

The diagnostic services section contains a series of reports, each with its own sub-sections containing the following information:

- a section code that identifies whether the section contains a pathology or radiology report
- a title that describes the report (usually including the report name and date)
- a CDA representation of the report content (which can either be narrative, text only or a link to the PDF document)
- a structured data representation of the report that contains:
 - the report name (coded, if available)
 - the status of the report (interim, final, amended, withdrawn)
 - the date of the report
 - the representation of the report in a supported attachment type (plain text, PDF or both)
 - additional representation of detailed pathology or radiology data – atomic results, requesting details, codes, and/or specimen details.

These clinical documents are built by clinical systems, which are in effect secondary users of information sourced from pathology and radiology systems. The degree to which this information can be populated therefore depends on what information is sent in a processable form from the pathology/radiology system to the clinical system, and how the information is stored in the clinical system. Since the various diagnostic services provide different amounts of information, many systems build a common intermediate representation to store – generally the lowest case denominator. In some cases, this is simply a text copy-and-paste by a system user, with no traceability to the original source of the information.

This means that the majority of clinical systems do not currently differentiate between pathology and radiology results and are not able to determine the type of these reports retrospectively based on the name of the report or its origin system. In addition, these systems sometimes store reports from minor diagnostic systems, such as cardiology etc., in the same store.

These systems face a problem: they are unable to categorise the report sections (using the section code) as either pathology or radiology, and so must:

- miscategorise all the reports as either pathology or radiology reports
- miscategorise the reports some other way.

Either way, these systems are unable to safely represent diagnostic reports in the CDA document.

Answer

If the system cannot use the correct pathology (102.16144) or radiology (102.16145) NCTIS code, it should use the NCTIS code 102.16029. When this code is used, it is not known what kind of diagnostic service a report comes from; it may be radiology, pathology, or something else, such as cardiology or gastroenterology.

When NCTIS code 102.16029 is used, only the basic diagnostic investigation information can be used, namely:

- section code (required)
- section title (required)
- section text (required)
- report name (required)
- report status (optional, but recommended)
- report date (optional, but recommended)
- report content (required, text or PDF – or RTF if not for PCEHR).

For reference, this table summarises the equivalent SCS fields for these concepts in the existing radiology and pathology reports:

Element	Pathology SCS Equivalent	Imaging SCS Equivalent
section code	N/A	N/A
section title	N/A	N/A
section text	N/A	N/A
report name	Pathology Test Result > Pathology Test Result Name	Imaging Examination Result > Imaging Examination Result Name
report status	Pathology Test Result > Overall Pathology Test Result Status	Imaging Examination Result > Imaging Examination Result Status
report date	Pathology Test Result > Pathology Test Result DateTime	Imaging Examination Result > Imaging Examination Result DateTime
report content	Pathology Test Result > Test Result Representation	Imaging Examination Result > Examination Result Representation

Note that for undifferentiated diagnostic reports, some fields that are mandatory for a full pathology or imaging report are optional.

Below is an example with additional comments showing how to present just a textual report and/or a PDF attachment.

```
<component>
<section>
<id root="ff037326-1ee4-44c5-a34c-67c1d2c58dc0"/>
<code code="102.16029" codeSystem="1.2.36.1.2001.1001.101"
codeSystemName="NCTIS Data Components"
displayName="Diagnostic Investigation"/>
<title>Diagnostic Investigation</title>
<text>
<paragraph>[representation of investigation and/or
link to pdf]</paragraph>
<!--
```

the representation could be just the text of
the report:

```
<paragraph styleCode="xPre">
```

Text of this report....

```
</paragraph>
```

You could choose to include a heading with a text summary of the report name, status and date in this case

```
-->
```

```
<!--
```

Or, if you have a pdf:

```
<referenceMultiMedia referencedObject="x1"/>
```

With the additional fields – maybe in a table.

```
-->
```

```
</text>
```

```
<entry>
```

```
<observation classCode="OBS" moodCode="EVN">
```

```
<!-- optional identifier - only include if it will be  
the same each time the diagnostic investigation  
appears in a CDA document -->
```

```
<id root="[xx]"/>
```

```
<code>
```

```
<!-- if a code is available, then it  
would be good to add it here, but mostly in this  
case just a plain text description is available -->
```

```
<originalText>[Description]</originalText>
```

```
</code>
```

```
<!-- if report time is available (highly recommended)
```

```
See other FAQ "Pathology Date Time" -->
```

```
<effectiveTime value="20120517"/>
```

```
<value xsi:type="ED">
```

```
Text of report, or reference to a PDF
```

```
</value>
```

```
<!-- if a report status is available  
(highly recommended) -->
```

```
<entryRelationship typeCode="COMP">
```

```
<observation classCode="OBS" moodCode="EVN">
```

```
<code code="308552006"
```

```
codeSystem="2.16.840.1.113883.6.96"
```

```
codeSystemName="SNOMED CT-AU"
```

```
codeSystemVersion="20110531"
```

```
displayName="report status"/>
```

```
<value xsi:type="CD" code="2"
```

```
codeSystem="1.2.36.1.2001.1001.101.104.16501"
```

```
codeSystemName="NCTIS Result Status Values"
```

```
displayName="Interim"/>
```

```
</observation>
```

```
</entryRelationship>
```

```
<!-- if report is pdf, you need to repeat the link  
to the attachment that already exists under the  
value in an observationMedia, so that it can be  
referred to the from the narrative. Duplication,  
unfortunately, but at least it's just a reference -->
```

```
<entryRelationship typeCode="COMP">
```

```
<observationMedia classCode="OBS" moodCode="EVN"  
ID="x1" >
```

```
<!-- actual reference to pdf in CDA Package -->
```

```
<value mediaType="application/pdf"
```

```
integrityCheck="[..]">
```

```
<reference value="[x].pdf" />
```

```
</value>
</observationMedia>
</entryRelationship>

</observation>
</entry>
</section>
</component>
```

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Revision 1: 24 August 2012, changed OID for result status code.

Revision 2: 12 December 2012, fixed OID for the result status code to final agreed value; enhancements for conformance clarity; notes about narrative & ObservationMultimedia; reformatted.

Revision 3 (v1.3): 14 October 2013. Editorial correction to fixed transposed cells in the last two rows, last column of table on page 2.

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