```
            </representedOrganization>
        </assignedEntity>
    </performer>
</supply>
```

3.15 Note Activity

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01 (open)]

Table 55: Note Activity Contexts

Contained By:	Contains:
Notes Section (required) Care Team Member Act (V2) (optional) Care Team Organizer (V2) (optional)	

The Note Activity represents a clinical note. Notes require authorship, authentication, timing information, and references to other discrete data such as encounters. Similar to the Comment Activity, the Note Activity permits a more specific code to characterize the type of information available in the note. The Note Activity template SHOULD NOT be used in place of a more specific C-CDA entry. Note information included needs to be relevant and pertinent to the information being communicated in the document.

When the note information augments data represented in a more specific entry template, the Note Activity can be used in an entryRelationship to the associated standard C-CDA entry. For example, a Procedure Note added as an entryRelationship to a Procedure Activity Procedure entry).

The Note Activity template can be used as a standalone entry within a standard C-CDA section (e.g., a note about various procedures which have occurred during a visit as an entry in the Procedures Section) when it does not augment another standard entry. It may also be used to provide additional data about the source of a currently narrative-only section, such as Hospital Course.

Finally, if the type of data in the note is not known or no single C-CDA section is appropriate enough, the Note Activity should be placed in a Notes Section. (e.g., a free-text consultation note or a note which includes subjective, objective, assessment, and plan information combined).

An alternative is to place the Note Activity as an entryRelationship to an Encounter Activity entry in the Encounters Section, but implementers may wish to group notes categorically into a separate location in CDA documents rather than overloading the Encounters Section.

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Table 56: Note Activity Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.202:2016-11-01)					
@classCode	1..1	SHALL		3250-16899	ACT
@moodCode	1..1	SHALL		3250-16900	EVN
templateId	1..1	SHALL		3250-16933	
@root	1..1	SHALL		3250-16934	2.16.840.1.113883.10.20.22.4.202
@extension	1..1	SHALL		3250-16937	2016-11-01
code	1..1	SHALL		3250-16895	
@code	1..1	SHALL		3250-16940	urn:oid:2.16.840.1.113883.6.1 (LOINC) = 34109-9
@codeSystem	1..1	SHALL		3250-16941	2.16.840.1.113883.6.1
translation	0..*	SHOULD		3250-16939	urn:oid:2.16.840.1.113883.11.20.9.68 (Note Types)
text	1..1	SHALL		3250-16896	
@mediaType	0..1	MAY		3250-16906	urn:oid:2.16.840.1.113883.11.20.7.1 (SupportedFileFormats)
reference	1..1	SHALL		3250-16897	
@nullFlavor	0..0	SHALL NOT		3250-16920	
@value	1..1	SHALL		3250-16898	
statusCode	1..1	SHALL		3250-16916	
effectiveTime	1..1	SHALL		3250-16903	
@value	0..1	SHOULD		3250-16917	
author	1..*	SHALL		3250-16913	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
participant	0..*	MAY		3250-16923	
@typeCode	1..1	SHALL		3250-16925	LA
time	1..1	SHALL		3250-	US Realm Date and Time

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XPath	Card.	Verb	Data Type	CONF#	Value
				16926	(DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3
participantRole	1..1	SHALL		3250-16924	
id	1..*	SHALL		3250-16927	
playingEntity	0..1	MAY		3250-16928	
name	1..*	SHALL		3250-16929	US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1
entryRelationship	0..*	SHOULD		3250-16907	
@typeCode	1..1	SHALL		3250-16921	COMP
@inversionInd	1..1	SHALL		3250-16922	true
@negationInd	0..1	MAY		3250-16931	
encounter	1..1	SHALL		3250-16908	
id	1..*	SHALL		3250-16909	
reference	0..*	MAY		3250-16910	
externalDocument	1..1	SHALL		3250-16911	
id	1..1	SHALL		3250-16915	
code	0..1	SHOULD		3250-16918	

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" Act (CONF:3250-16899).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CONF:3250-16900).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:3250-16933) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.202" (CONF:3250-16934).
    b. **SHALL** contain exactly one [1..1] **@extension**="2016-11-01" (CONF:3250-16937).
4. **SHALL** contain exactly one [1..1] **code** (CONF:3250-16895).
    a. This code **SHALL** contain exactly one [1..1] **@code**="34109-9" Note (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3250-16940).
    b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" LOINC (CONF:3250-16941).

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c. This code **SHOULD** contain zero or more [0..*] **translation**, which **SHOULD** be selected from ValueSet **Note Types** urn:oid:2.16.840.1.113883.11.20.9.68 **DYNAMIC** (CONF:3250-16939).
    i. If the Note Activity is within a Note Section, the translation **SHOULD** match or specialize the section code (CONF:3250-16942).
    Note: For example, a cardiologist consult note may specialize a consult note but not a progress note.
    ii. If the Note Activity is within a narrative-only section (e.g. Hospital Course), the translation **MAY** match the section code (CONF:3250-16943).

5. **SHALL** contain exactly one [1..1] **text** (CONF:3250-16896).

If the note was originally in another format, such as RTF, this element may also contain the base-64-encoded raw data of the note in addition to a reference to the narrative.

a. This text **MAY** contain zero or one [0..1] **@mediaType**, which **SHOULD** be selected from ValueSet **SupportedFileFormats** urn:oid:2.16.840.1.113883.11.20.7.1 **DYNAMIC** (CONF:3250-16906).
    i. If @mediaType is present, the text **SHALL** contain exactly one [1..1] @representation="B64" and mixed content corresponding to the contents of the note (CONF:3250-16912).
b. This text **SHALL** contain exactly one [1..1] **reference** (CONF:3250-16897).

The note activity must reference human-readable content in the narrative, so this reference must not be null.

    i. This reference **SHALL NOT** contain [0..0] **@nullFlavor** (CONF:3250-16920).
    ii. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:3250-16898).
        1. This reference/@value **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1) (CONF:3250-16902).

Indicates the status of the note. The most common statusCode is completed indicating the note is signed and finalized.

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:3250-16916).

The effectiveTime represents the clinically relevant time of the note. The precise timestamp of creation / updating should be conveyed in author/time.

7. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:3250-16903).
    a. This effectiveTime **SHOULD** contain zero or one [0..1] **@value** (CONF:3250-16917).

Represents the person(s) who wrote the note.

8. **SHALL** contain at least one [1..*] Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:3250-16913).

Represents the person(s) legally responsible for the contents of the note.

9. **MAY** contain zero or more [0..*] **participant** (CONF:3250-16923) such that it
    a. **SHALL** contain exactly one [1..1] **@typeCode="LA"** Legal Authenticator (CONF:3250-16925).

Indicates the time of signing the note.

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b. **SHALL** contain exactly one [1..1] US Realm Date and Time (DT.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.3) (CONF:3250-16926).
c. **SHALL** contain exactly one [1..1] **participantRole** (CONF:3250-16924).

This may be the ID of the note author. If so, no additional information in this participant is required.

i. This participantRole **SHALL** contain at least one [1..*] **id** (CONF:3250-16927).
ii. This participantRole **MAY** contain zero or one [0..1] **playingEntity** (CONF:3250-16928).
1. The playingEntity, if present, **SHALL** contain at least one [1..*] US Realm Person Name (PN.US.FIELDED) (identifier: urn:oid:2.16.840.1.113883.10.20.22.5.1.1) (CONF:3250-16929).
iii. If no id matches an author or participant elsewhere in the document, then playingEntity **SHALL** be present (CONF:3250-16930).

Links the note to an encounter. If the Note Activity is present within a document containing an encompassingEncounter, then this entryRelationship is optional and the note is associated with the encounter represented by the encompassingEncounter.

10. **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:3250-16907) such that it
a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** (CONF:3250-16921).
b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** (CONF:3250-16922).

To communicate that the note is not associated with any encounter, this entryRelationship MAY be included with @negationInd="true" and encounter/id/@nullFlavor="NA". The negationInd + encounter indicate this note is not associated with any encounter.

c. **MAY** contain zero or one [0..1] **@negationInd** (CONF:3250-16931).
d. **SHALL** contain exactly one [1..1] **encounter** (CONF:3250-16908).
i. This encounter **SHALL** contain at least one [1..*] **id** (CONF:3250-16909).
1. If the id does not match an encounter/id from the Encounters Section or encompassingEncounter within the same document and the id does not contain @nullFlavor="NA", then this entry **SHALL** conform to the Encounter Activity (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.49:2015-08-01) (CONF:3250-16914).

Represents an unstructured C-CDA document containing the original contents of the note in the original format.

11. **MAY** contain zero or more [0..*] **reference** (CONF:3250-16910) such that it
a. **SHALL** contain exactly one [1..1] **externalDocument** (CONF:3250-16911).
i. This externalDocument **SHALL** contain exactly one [1..1] **id** (CONF:3250-16915).
ii. This externalDocument **SHOULD** contain zero or one [0..1] **code** (CONF:3250-16918).

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Table 57: SupportedFileFormats

Value Set: SupportedFileFormats urn:oid:2.16.840.1.113883.11.20.7.1

(Clinical Focus: Indicates the file format of an unstructured document contained in a CDA Unstructured Document.),(Data Element Scope: File format concepts selected from the mediType code system.),(Inclusion Criteria: Include concepts where the file format is supported by an Unstructured Document.),(Exclusion Criteria: Exclude concepts where the file format is not supported by an Unstructured Document.)

This value set was imported on 11/23/2022 with a version of Latest.

Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.7.1/expansion

Code	Code System	Code System OID	Print Name
application/msword	Media Type	urn:oid:2.16.840.1.113883.5.79	MSWORD
application/pdf	Media Type	urn:oid:2.16.840.1.113883.5.79	PDF
audio	Media Type	urn:oid:2.16.840.1.113883.5.79	AudioMediaType
audio/basic	Media Type	urn:oid:2.16.840.1.113883.5.79	Basic Audio
audio/k32adpcm	Media Type	urn:oid:2.16.840.1.113883.5.79	K32ADPCM Audio
audio/mpeg	Media Type	urn:oid:2.16.840.1.113883.5.79	MPEG audio layer 3
image/gif	Media Type	urn:oid:2.16.840.1.113883.5.79	GIF Image
image/jpeg	Media Type	urn:oid:2.16.840.1.113883.5.79	JPEG Image
image/png	Media Type	urn:oid:2.16.840.1.113883.5.79	PNG Image
image/tiff	Media Type	urn:oid:2.16.840.1.113883.5.79	TIFF Image
…			

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Figure 38: Note Activity as entryRelationship to C-CDA Entry

```
<?xml version="1.0" encoding="UTF-8"?>
<section>
    <!-- C-CDA 2.1 Procedures Section -->
    <templateId root="2.16.840.1.113883.10.20.22.2.7.1"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.7.1" extension="2014-06-09"/>
    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="HISTORY OF PROCEDURES"/>
    <title>Procedures</title>
    <text>
        <table>
            <thead>
                <tr>
                    <th>Description</th>
                    <th>Date and Time (Range)</th>
                    <th>Status</th>
                    <th>Notes</th>
                </tr>
            </thead>
            <tbody>
                <tr ID="Procedure1">
                    <td ID="ProcedureDesc1">Laparoscopic appendectomy</td>
                    <td>(03 Feb 2014 09:22am- 03 Feb 2014 11:15am)</td>
                    <td>Completed</td>
                    <td ID="ProcedureNote1">
                        <paragraph>Dr. Physician - 03 Feb 2014</paragraph>
                        <paragraph>Free-text note about the procedure.</paragraph>
                    </td>
                </tr>
            </tbody>
        </table>
    </text>
    <entry typeCode="DRIV">
        <!-- Procedures should be used for care that directly changes the patient's
physical state.-->
        <procedure moodCode="EVN" classCode="PROC">
            <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09"/>
            <id root="64af26d5-88ef-4169-ba16-c6ef16a1824f"/>
            <code code="6025007" displayName="Laparoscopic appendectomy"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED-CT">
                <originalText>
                    <reference value="#ProcedureDesc1" />
                </originalText>
            </code>
            <text>
                <reference value="#Procedure1" />
            </text>
            <statusCode code="completed" />
            <effectiveTime>
                <low value="20140203092205-0700" />
                <high value="20140203111514-0700" />
            </effectiveTime>
            <!-- Note Activity entry -->
            <entryRelationship typeCode="COMP">
                <act classCode="ACT" moodCode="EVN">
```


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```
                    <templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-
01"/>
                    <code code="34109-9" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="note">
                        <translation code="28570-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure note" />
                    </code>
                    <text>
                        <reference value="#ProcedureNote1" />
                    </text>
                    <statusCode code="completed"/>
                    <!-- Clinically-relevant time of the note -->
                    <effectiveTime value="20140203" />
                    <!-- Author Participation -->
                    <author>
                        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
                        <!-- Time note was actually written -->
                        <time value="20140204083215-0500" />
                        <assignedAuthor>
                            <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
                            <assignedPerson>
                                <name>Dr. Physician</name>
                            </assignedPerson>
                        </assignedAuthor>
                    </author>
                    <!-- Reference to encounter -->
                    <entryRelationship typeCode="COMP" inversionInd="true">
                        <encounter classCode="ENC" moodCode="EVN">
                            <!-- Encounter ID matches an encounter in the Encounters
Section -->
                            <id root="1.2.3.4" />
                        </encounter>
                    </entryRelationship>
                </act>
            </entryRelationship>
        </procedure>
    </entry>
</section>
```


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Figure 39: Note Activity as Standalone Entry

```
<section>
    <!-- C-CDA 2.1 Procedures Section, entries optional -->
    <templateId root="2.16.840.1.113883.10.20.22.2.7"/>
    <templateId root="2.16.840.1.113883.10.20.22.2.7" extension="2014-06-09"/>
    <code code="47519-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="HISTORY OF PROCEDURES"/>
    <title>Procedures</title>
    <text>
        <list>
            <item ID="ProcedureNote1">
                <paragraph>Dr. Physician - 03 Feb 2014</paragraph>
                <paragraph>Free-text note about procedures which have occurred during this
visit.</paragraph>
            </item>
        </list>
    </text>
    <!-- If section were entries required, an additional <entry nullFlavor="NI"> would be
required for a Procedure Activity -->
    <!-- Note Activity entry -->
    <entry>
        <act classCode="ACT" moodCode="EVN">
            <templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>
            <code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Note">
                <translation code="28570-0" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Procedure note" />
            </code>
            <text>
                <reference value="#ProcedureNote1" />
            </text>
            <statusCode code="completed"/>
            <!-- Clinically-relevant time of the note -->
            <effectiveTime value="20140203" />
            <!-- Author Participation -->
            <author>
                <templateId root="2.16.840.1.113883.10.20.22.4.119" />
                <!-- Time note was actually written -->
                <time value="20140204083215-0500" />
                <assignedAuthor>
                    <id root="20cf14fb-b65c-4c8c-a54d-b0cca834c18c" />
                    <assignedPerson>
                        <name>Dr. Physician</name>
                    </assignedPerson>
                </assignedAuthor>
            </author>
            <!-- Reference to encounter -->
            <entryRelationship typeCode="COMP" inversionInd="true">
                <encounter classCode="ENC" moodCode="EVN">
                    <!-- Encounter ID matches an encounter in the Encounters Section -->
                    <id root="1.2.3.4" />
                </encounter>
            </entryRelationship>
        </act>
    </entry>
</section>
```


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Figure 40: RTF Example

```
<section>
    <text>
        <list>
            <item ID="note1">
                <caption>Nursing Note written by Nick Nurse</caption>
                <paragraph>Completed rounds; no incident</paragraph>
            </item>
        </list>
    </text>
    <!-- Note Activity (extra markup removed to focus on <text>) -->
    <entry>
        <act>
            <code>...</code>
            <text mediaType="text/rtf"
representation="B64">e1xydGYxXGFuc2lcYW5zaWNwZzEyNTJcZGVmZjBcbm91aWNvbXBhdFxkZWZsYW5nMTAzM3
tcZm9udHRibHtcZjBcZm5pbFxmY2hhcnNldDAgQ2FsaWJyaTt9fQ0Ke1wqXGdlbmVyYXRvciBSaWNoZWQyMCA2LjMuO
TYwMH1cdmlld2tpbmQ0XHVjMSANClxwYXJkXHNhMjAwXHNsMjc2XHNsbXVsdDFcZjBcZnMyMlxsYW5nOSBDb21wbGV0
ZWQgcm91bmRzOyBubyBpbmNpZGVudFxwYXINCn0NCiA=

                <reference value="#note1"/>
            </text>
            <!--...-->
        </act>
    </entry>
</section>
```

3.16 Planned Procedure (V3)

`[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01 (open)]`

This template represents planned alterations of the patient's physical condition. Examples of such procedures are tracheostomy, knee replacement, and craniectomy. The priority of the procedure to the patient and provider is communicated through Priority Preference. The effectiveTime indicates the time when the procedure is intended to take place and authorTime indicates when the documentation of the plan occurred. The Planned Procedure Template may also indicate the potential insurance coverage for the procedure.

Planned Procedure V3 Usage Note: Common practice in the industry has shown that Planned Procedure is the usually implemented CDA template for any type of intervention or procedure regardless of if the "immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient", or not. As a result, it is recommended to use Planned Procedure when sending procedures also thought of as "interventions" such as "Home Environment Evaluation" or "Assessment of nutritional status".

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