

**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">e1xydGYxXGFuc2lcYW5zaWNwZzEyNTJcZGVmZjBcbm9laWNvbXBhdFxxZWZsYW5nMTAzM3
tcZm9udHRibHtcZjBcZm5pbFxmY2hhcnNldDagQ2FsaWJyaTt9fQ0KelwqXGdlbmVYXRvciBSaWN0ZWQyMCA2LjMuO
TYwMHlcdmllld2tpbmQ0XHvjMSANC1xwYXJkXHNhMjAwXHNsMjc2XHNSbXVsdDFcZjBcZnMyMlxsYW5nOSBDd21wbGV0
ZWQgcmlbmRzOyBubyBpbmNpZGVudFxxYXINCn0NCiA=

      <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".

**Table 58: Planned Procedure (V3) Constraints Overview**

| XPath  | Card. | Verb   | Data Type | CONF#                      | Value   |
|--|-------|--------|-----------|----------------------------|---|
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2022-06-01) |       |        |           |                            |   |
| @classCode   | 1..1  | SHALL  |           | <a href="#">4515-8568</a>  | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC                                |
| @moodCode  | 1..1  | SHALL  |           | <a href="#">4515-8569</a>  | urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure)) |
| templateId   | 1..1  | SHALL  |           | <a href="#">4515-30444</a> |   |
| @root  | 1..1  | SHALL  |           | <a href="#">4515-30445</a> | 2.16.840.1.113883.10.20.22.4.41   |
| @extension   | 1..1  | SHALL  |           | <a href="#">4515-32554</a> | 2022-06-01  |
| id   | 1..*  | SHALL  |           | <a href="#">4515-8571</a>  |   |
| code   | 1..1  | SHALL  |           | <a href="#">4515-31976</a> |   |
| statusCode   | 1..1  | SHALL  |           | <a href="#">4515-30446</a> |   |
| @code  | 1..1  | SHALL  |           | <a href="#">4515-31978</a> | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active                            |
| effectiveTime  | 0..1  | SHOULD |           | <a href="#">4515-30447</a> |   |
| methodCode   | 0..*  | MAY    |           | <a href="#">4515-31980</a> |   |
| targetSiteCode   | 0..*  | MAY    |           | <a href="#">4515-31981</a> | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)                  |
| performer  | 0..*  | MAY    |           | <a href="#">4515-30449</a> |   |
| author   | 0..1  | SHOULD |           | <a href="#">4515-31979</a> | Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)       |
| entryRelationship  | 0..*  | MAY    |           | <a href="#">4515-31079</a> |   |
| @typeCode  | 1..1  | SHALL  |           | <a href="#">4515-31080</a> | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR                  |
| observation  | 1..1  | SHALL  |           | <a href="#">4515-31081</a> | Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143)        |
| entryRelationship  | 0..*  | MAY    |           | <a href="#">4515-31982</a> |   |
| @typeCode  | 1..1  | SHALL  |           | <a href="#">4515-31983</a> | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType)                         |

| XPath             | Card. | Verb  | Data Type | CONF#                      | Value   |
|-------------------|-------|-------|-----------|----------------------------|---|
|                   |       |       |           |                            | = RSON  |
| observation       | 1..1  | SHALL |           | <a href="#">4515-31984</a> | Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)  |
| entryRelationship | 0..*  | MAY   |           | <a href="#">4515-31985</a> |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">4515-31986</a> | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ                    |
| @inversionInd     | 1..1  | SHALL |           | <a href="#">4515-31987</a> | true  |
| act               | 1..1  | SHALL |           | <a href="#">4515-31989</a> | Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) |
| entryRelationship | 0..*  | MAY   |           | <a href="#">4515-31990</a> |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">4515-31991</a> | COMP  |
| act               | 1..1  | SHALL |           | <a href="#">4515-31992</a> | Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129)             |
| entryRelationship | 0..*  | MAY   |           | <a href="#">4515-32994</a> |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">4515-32998</a> | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON                    |
| observation       | 1..1  | SHALL |           | <a href="#">4515-32995</a> | Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69)  |
| entryRelationship | 0..*  | MAY   |           | <a href="#">4515-32996</a> |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">4515-32999</a> | RSON  |
| act               | 1..1  | SHALL |           | <a href="#">4515-32997</a> | Entry Reference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.122)              |

1. **SHALL** contain exactly one [1..1] @classCode="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-8568).
2. **SHALL** contain exactly one [1..1] @moodCode, which **SHALL** be selected from ValueSet [Planned moodCode \(Act/Encounter/Procedure\)](#) urn:oid:2.16.840.1.113883.11.20.9.23 **STATIC** 2011-09-30 (CONF:4515-8569).
3. **SHALL** contain exactly one [1..1] templateId (CONF:4515-30444) such that it
  - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.41" (CONF:4515-30445).

- b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-32554).
- 4. **SHALL** contain at least one [1..\*] **id** (CONF:4515-8571).
- 5. **SHALL** contain exactly one [1..1] **code** (CONF:4515-31976).
  - a. This **@code** **SHOULD** be selected from LOINC (CodeSystem: 2.16.840.1.113883.6.1) or SNOMED CT (CodeSystem: 2.16.840.1.113883.6.96) or CPT (CodeSystem: 2.16.840.1.113883.6.12) or ICD-10-PCS (CodeSystem: 2.16.840.1.113883.6.4) or HCPCS (Code System: 2.16.840.1.113762.1.4.1247.9) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:4515-31977).
  - b. If the Planned Intervention Procedure is a Social Determinant of Health Planned Intervention Procedure, the procedure code **SHOULD** be selected from ValueSet Social Determinant of Health Service Request**DYNAMIC** (CONF:4515-32993).
- 6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-30446).
  - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4515-31978).

The **effectiveTime** in a planned procedure represents the time that the procedure should occur.

- 7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:4515-30447).

In a planned procedure the provider may suggest that a procedure should be performed using a particular method.

**MethodCode** *SHALL NOT* conflict with the method inherent in Procedure / code.

- 8. **MAY** contain zero or more [0..\*] **methodCode** (CONF:4515-31980).

The **targetSiteCode** is used to identify the part of the body of concern for the planned procedure.

- 9. **MAY** contain zero or more [0..\*] **targetSiteCode**, which **SHALL** be selected from ValueSet Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:4515-31981).

The clinician who is expected to perform the procedure could be identified using procedure/performer.

- 10. **MAY** contain zero or more [0..\*] **performer** (CONF:4515-30449).

The author in a planned procedure represents the clinician who is requesting or planning the procedure.

- 11. **SHOULD** contain zero or one [0..1] Author Participation (**identifier**: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:4515-31979).

The following **entryRelationship** represents the priority that a patient or a provider places on the procedure.

- 12. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4515-31079) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31080).
  - b. **SHALL** contain exactly one [1..1] Priority Preference (**identifier**: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:4515-31081).

The following entryRelationship represents the indication for the procedure.

13. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4515-31982) such that it
- SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31983).
  - SHALL** contain exactly one [1..1] Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:4515-31984).

The following entryRelationship captures any instructions associated with the planned procedure.

14. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4515-31985) such that it
- SHALL** contain exactly one [1..1] **@typeCode="SUBJ"** Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-31986).
  - SHALL** contain exactly one [1..1] **@inversionInd="true"** True (CONF:4515-31987).
  - SHALL** contain exactly one [1..1] Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:4515-31989).

The following entryRelationship represents the insurance coverage the patient may have for the procedure.

15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4515-31990) such that it
- SHALL** contain exactly one [1..1] **@typeCode="COMP"** Has component (CONF:4515-31991).
  - SHALL** contain exactly one [1..1] Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:4515-31992).

When an Assessment Scale Observation is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Assessment scale **MAY** contain Assessment Scale observations that represent LOINC question and answer pairs from SDOH screening instruments.

16. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4515-32994) such that it
- SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4515-32998).
  - SHALL** contain exactly one [1..1] Assessment Scale Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.69) (CONF:4515-32995).

When an Entry Reference Template is contained in a Procedure Template instance that is a Social Determinant of Health procedure, that Entry Reference **MAY** refer to Assessment Scale Observation in the same document that represent LOINC question and answer pairs from SDOH screening instruments.

17. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:4515-32996) such that it
- SHALL** contain exactly one [1..1] **@typeCode="RSON"** Has reason (CONF:4515-32999).

- b. **SHALL** contain exactly one [1..1] Entry Reference (identifier:  
urn:oid:2.16.840.1.113883.10.20.22.4.122) (CONF:4515-32997).

**Table 59: Planned moodCode (Act/Encounter/Procedure)**

| Value Set: Planned moodCode (Act/Encounter/Procedure) urn:oid:2.16.840.1.113883.11.20.9.23<br>This value set is used to restrict the moodCode on an act, an encounter or a procedure to future moods<br>Value Set Source:<br><a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.23/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.23/expansion</a> |             |                                   |                     |
|--|-------------|-----------------------------------|---------------------|
| Code   | Code System | Code System OID                   | Print Name          |
| INT  | HL7ActMood  | urn:oid:2.16.840.1.113883.5.10.01 | Intent              |
| ARQ  | HL7ActMood  | urn:oid:2.16.840.1.113883.5.10.01 | Appointment Request |
| PRMS   | HL7ActMood  | urn:oid:2.16.840.1.113883.5.10.01 | Promise             |
| PRP  | HL7ActMood  | urn:oid:2.16.840.1.113883.5.10.01 | Proposal            |
| RQO  | HL7ActMood  | urn:oid:2.16.840.1.113883.5.10.01 | Request             |
| APT  | HL7ActMood  | urn:oid:2.16.840.1.113883.5.10.01 | Appointment         |

**Table 60: Body Site Value Set**

| Value Set: Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9<br>(Clinical Focus: All SNOMED CT anatomic structures, locations, abnormal structures that can be considered to describe an anatomical site.),(Data Element Scope: data element describing body location),(Inclusion Criteria: SNOMED CT concepts descending from the Anatomical Structure (91723000) or Acquired body structure (body structure) (280115004) or Anatomical site notations for tumor staging (body structure) (258331007) or Body structure, altered from its original anatomical structure (morphologic abnormality) (118956008) or Physical anatomical entity (body structure) (91722005)),(Exclusion Criteria: none)<br><br>This value set was imported on 6/24/2019 with a version of 20190420.<br>Value Set Source:<br><a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion</a> |             |                                |   |
|---|-------------|--------------------------------|---|
| Code  | Code System | Code System OID                | Print Name  |
| 10013000  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Lateral meniscus structure (body structure)   |
| 10024003  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of base of lung (body structure)  |
| 10025002  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of base of phalanx of index finger (body structure)                                     |
| 10026001  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of ventral spinocerebellar tract of pons (body structure)                               |
| 10036009  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of nucleus pulposus of intervertebral disc of eighth thoracic vertebra (body structure) |
| 10042008  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of intervertebral foramen of fifth thoracic vertebra (body structure)                   |
| 10047002  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of transplanted lung (body structure)   |
| 1005009   | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Entire diaphragmatic lymph node (body structure)  |
| 10052007  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Male structure (body structure)   |
| 10056005  | SNOMED CT   | urn:oid:2.16.840.1.113883.6.96 | Structure of ophthalmic nerve (body structure)  |
| ...   |             |                                |   |

**Figure 41: Planned Procedure Example**

```
<entry>
  <procedure moodCode="RQO" classCode="PROC">
    <!-- **Planned Procedure template ** -->
    <templateId root="2.16.840.1.113883.10.20.22.4.41" />
    <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2022-06-01" />
    <!-- **Planned Procedure template ** -->
    <id root="9a6d1bac-17d3-4195-89c4-1121bc809b5a" />
    <code code="73761001" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED
CT" displayName="Colonoscopy" />
    <statusCode code="active" />
    <effectiveTime value="20130613" />
    <!-- Author Participation -->
    <author typeCode="AUT">
      ...
    </author>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Patient Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.142" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Provider Priority Preference-->
        <templateId root="2.16.840.1.113883.10.20.22.4.143" />
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="RSON">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Indication-->
        <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09"
/>
        ...
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
      <act classCode="ACT" moodCode="INT">
        <!-- Instruction-->
        <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09"
/>
        ...
      </act>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="ACT" moodCode="INT">
        <!-- Planned Coverage -->
        <templateId root="2.16.840.1.113883.10.20.22.4.129" />
        ...
      </observation>
    </entryRelationship>
  </procedure>

```



```

        </observation>
    </entryRelationship>
</procedure>
</entry>

```

**Figure 42: Social Determinant of Health Planned Procedure Example**

```

<entry>
  <procedure classCode="PROC" moodCode="RQO">
    <templateId root="2.16.840.1.113883.10.20.22.4.41"/>
    <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2022-06-01"/>
    <id extension="2448483" root="1.2.840.114350.1.13.5552.1.7.2.798268"/>
    <code code="464171000124102" codeSystem="2.16.840.1.113883.6.96"
displayName="Referral to Senior Farmers' Market Nutrition Program (procedure)"
codeSystemName="SNOMED-CT">
      <originalText>
        <reference value="#Procedure1name"/>
      </originalText>
    </code>
    <text>
      <reference value="#Procedure1"/>
    </text>
    <statusCode code="completed"/>
    <effectiveTime value="20160413"/>
  </procedure>
</entry>

```

### 3.17 Policy Activity (V4)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.61:2023-05-01 (open)]

A policy activity represents the policy or program providing the coverage. The person for whom payment is being provided (i.e., the patient) is the covered party. The subscriber of the policy or program is represented as a participant that is the holder of the coverage. The payer is represented as the performer of the policy activity.