

```

    </entryRelationship>
  </act>

```

### 3.82 Procedure Activity Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09  
(open) ]

**Table 434: Procedure Activity Observation (V2) Contexts**

| Contained By:  | Contains:   |
|--|---|
| <a href="#">Procedures Section (entries optional) (V2)</a> (optional)<br><a href="#">Procedures Section (entries required) (V2)</a> (optional)<br><a href="#">Intervention Act (V2)</a> (optional) | <a href="#">Service Delivery Location</a> (optional)<br><a href="#">Medication Activity (V2)</a> (optional)<br><a href="#">Reaction Observation (V2)</a> (optional)<br><a href="#">Indication (V2)</a> (optional)<br><a href="#">Instruction (V2)</a> (optional)<br><a href="#">Author Participation</a> (optional) |

The common notion of procedure is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy).

This template represents procedures that result in new information about the patient that cannot be classified as a procedure according to the HL7 RIM. Examples of these procedures are diagnostic imaging procedures, EEGs, and EKGs.

**Table 435: Procedure Activity Observation (V2) Constraints Overview**

| XPath  | Card. | Verb   | Data Type | CONF#                      | Value   |
|--|-------|--------|-----------|----------------------------|---|
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09) |       |        |           |                            |   |
| @classCode   | 1..1  | SHALL  |           | <a href="#">1098-8282</a>  | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS   |
| @moodCode  | 1..1  | SHALL  |           | <a href="#">1098-8237</a>  | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId   | 1..1  | SHALL  |           | <a href="#">1098-8238</a>  |   |
| @root  | 1..1  | SHALL  |           | <a href="#">1098-10520</a> | 2.16.840.1.113883.10.20.22.4.13                     |
| @extension   | 1..1  | SHALL  |           | <a href="#">1098-32507</a> | 2014-06-09  |
| id   | 1..*  | SHALL  |           | <a href="#">1098-8239</a>  |   |
| code   | 1..1  | SHALL  |           | <a href="#">1098-19197</a> |   |
| originalText   | 0..1  | SHOULD |           | <a href="#">1098-19198</a> |   |
| reference  | 0..1  | SHOULD |           | <a href="#">1098-</a>      |   |

| XPath                   | Card. | Verb   | Data Type | CONF#                      | Value   |
|-------------------------|-------|--------|-----------|----------------------------|---|
|                         |       |        |           | <a href="#">19199</a>      |   |
| @value                  | 0..1  | SHOULD |           | <a href="#">1098-19200</a> |   |
| statusCode              | 1..1  | SHALL  |           | <a href="#">1098-8245</a>  |   |
| @code                   | 1..1  | SHALL  |           | <a href="#">1098-32365</a> | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)                              |
| effectiveTime           | 0..1  | SHOULD |           | <a href="#">1098-8246</a>  |   |
| priorityCode            | 0..1  | MAY    |           | <a href="#">1098-8247</a>  | urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority)  |
| value                   | 1..1  | SHALL  |           | <a href="#">1098-16846</a> |   |
| @nullFlavor             | 0..1  | MAY    |           | <a href="#">1098-32778</a> |   |
| methodCode              | 0..1  | MAY    |           | <a href="#">1098-8248</a>  |   |
| targetSiteCode          | 0..*  | SHOULD |           | <a href="#">1098-8250</a>  | urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)                            |
| performer               | 0..*  | SHOULD |           | <a href="#">1098-8251</a>  |   |
| assignedEntity          | 1..1  | SHALL  |           | <a href="#">1098-8252</a>  |   |
| id                      | 1..*  | SHALL  |           | <a href="#">1098-8253</a>  |   |
| addr                    | 1..*  | SHALL  |           | <a href="#">1098-8254</a>  |   |
| telecom                 | 1..*  | SHALL  |           | <a href="#">1098-8255</a>  |   |
| representedOrganization | 0..1  | SHOULD |           | <a href="#">1098-8256</a>  |   |
| id                      | 0..*  | SHOULD |           | <a href="#">1098-8257</a>  |   |
| name                    | 0..*  | MAY    |           | <a href="#">1098-8258</a>  |   |
| telecom                 | 1..*  | SHALL  |           | <a href="#">1098-8260</a>  |   |
| addr                    | 1..*  | SHALL  |           | <a href="#">1098-8259</a>  |   |
| author                  | 0..*  | SHOULD |           | <a href="#">1098-32478</a> | <a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a> |
| participant             | 0..*  | MAY    |           | <a href="#">1098-</a>      |   |

| XPath             | Card. | Verb  | Data Type | CONF#                      | Value   |
|-------------------|-------|-------|-----------|----------------------------|---|
|                   |       |       |           | <a href="#">8261</a>       |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">1098-8262</a>  | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC   |
| participantRole   | 1..1  | SHALL |           | <a href="#">1098-15904</a> | <a href="#">Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32)</a>     |
| entryRelationship | 0..*  | MAY   |           | <a href="#">1098-8264</a>  |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">1098-8265</a>  | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP                                    |
| @inversionInd     | 1..1  | SHALL |           | <a href="#">1098-8266</a>  | true  |
| encounter         | 1..1  | SHALL |           | <a href="#">1098-8267</a>  |   |
| @classCode        | 1..1  | SHALL |           | <a href="#">1098-8268</a>  | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC   |
| @moodCode         | 1..1  | SHALL |           | <a href="#">1098-8269</a>  | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN   |
| id                | 1..1  | SHALL |           | <a href="#">1098-8270</a>  |   |
| entryRelationship | 0..1  | MAY   |           | <a href="#">1098-8272</a>  |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">1098-8273</a>  | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ                                    |
| @inversionInd     | 1..1  | SHALL |           | <a href="#">1098-8274</a>  | true  |
| act               | 1..1  | SHALL |           | <a href="#">1098-31394</a> | <a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a> |
| entryRelationship | 0..*  | MAY   |           | <a href="#">1098-8276</a>  |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">1098-8277</a>  | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON                                    |
| observation       | 1..1  | SHALL |           | <a href="#">1098-15906</a> | <a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>  |
| entryRelationship | 0..*  | MAY   |           | <a href="#">1098-8279</a>  |   |
| @typeCode         | 1..1  | SHALL |           | <a href="#">1098-8280</a>  | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP                                    |

| XPath                   | Card. | Verb  | Data Type | CONF#                      | Value   |
|-------------------------|-------|-------|-----------|----------------------------|---|
| substanceAdministration | 1..1  | SHALL |           | <a href="#">1098-15907</a> | <a href="#">Medication Activity (V2)</a><br>( <a href="#">identifier:</a><br><a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09</a> |
| entryRelationship       | 0..*  | MAY   |           | <a href="#">1098-32470</a> |   |
| @typeCode               | 1..1  | SHALL |           | <a href="#">1098-32471</a> | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP  |
| observation             | 1..1  | SHALL |           | <a href="#">1098-32472</a> | <a href="#">Reaction Observation (V2)</a><br>( <a href="#">identifier:</a><br><a href="#">urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09</a> |

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8282).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8237).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-8238) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.13" (CONF:1098-10520).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32507).
4. **SHALL** contain at least one [1..\*] **id** (CONF:1098-8239).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-19197).
  - a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19198).
    - i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-19199).
      1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-19200).
        - a. 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:1098-19201).
    - b. 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), and **MAY** be selected from CPT (CodeSystem: 2.16.840.1.113883.6.12) or ICD-10-PCS (CodeSystem: 2.16.840.1.113883.6.4) or CDT-2 (Code System: 2.16.840.1.113883.6.13) (CONF:1098-19202).
  6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-8245).
    - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ProcedureAct statusCode](#) urn:oid:2.16.840.1.113883.11.20.9.22 **STATIC** 2014-04-23 (CONF:1098-32365).
  7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-8246).

8. **MAY** contain zero or one [0..1] **priorityCode**, which **SHALL** be selected from ValueSet [ActPriority](#) urn:oid:2.16.840.1.113883.1.11.16866 **DYNAMIC** (CONF:1098-8247).
9. **SHALL** contain exactly one [1..1] **value** (CONF:1098-16846).

If nothing is appropriate for value, use an appropriate nullFlavor.

- a. This value **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:1098-32778).
10. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-8248).
  - a. MethodCode **SHALL NOT** conflict with the method inherent in Observation / code (CONF:1098-8249).
11. **SHOULD** 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:1098-8250).
12. **SHOULD** contain zero or more [0..\*] **performer** (CONF:1098-8251).
  - a. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-8252).
    - i. This assignedEntity **SHALL** contain at least one [1..\*] **id** (CONF:1098-8253).
    - ii. This assignedEntity **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8254).
    - iii. This assignedEntity **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8255).
    - iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-8256).
      1. The representedOrganization, if present, **SHOULD** contain zero or more [0..\*] **id** (CONF:1098-8257).
      2. The representedOrganization, if present, **MAY** contain zero or more [0..\*] **name** (CONF:1098-8258).
      3. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **telecom** (CONF:1098-8260).
      4. The representedOrganization, if present, **SHALL** contain at least one [1..\*] **addr** (CONF:1098-8259).
13. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32478).
14. **MAY** contain zero or more [0..\*] **participant** (CONF:1098-8261) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="LOC"** Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1098-8262).
  - b. **SHALL** contain exactly one [1..1] [Service Delivery Location](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15904).
15. **MAY** contain zero or more [0..\*] **entryRelationship** (CONF:1098-8264) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode="COMP"** Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8265).
  - b. **SHALL** contain exactly one [1..1] **@inversionInd="true"** true (CONF:1098-8266).
  - c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-8267).

- i. This encounter **SHALL** contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8268).
  - ii. This encounter **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-8269).
  - iii. This encounter **SHALL** contain exactly one [1..1] id (CONF:1098-8270).
    - 1. Set encounter/id to the id of an encounter in another section to signify they are the same encounter (CONF:1098-16847).
- 16. **MAY** contain zero or one [0..1] entryRelationship (CONF:1098-8272) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" Has Subject (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8273).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" true (CONF:1098-8274).
  - c. **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:1098-31394).
- 17. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1098-8276) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" Has Reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8277).
  - b. **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:1098-15906).
- 18. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1098-8279) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-8280).
  - b. **SHALL** contain exactly one [1..1] [Medication Activity \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09) (CONF:1098-15907).
- 19. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1098-32470) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Has Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1098-32471).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32472).

**Figure 202: Procedure Activity Observation (V2) Example**

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.13" extension="2014-06-09" />
  <id extension="123456789" root="2.16.840.1.113883.19" />
  <code code="274025005"
    codeSystem="2.16.840.1.113883.6.96"
    displayName="Colonic polypectomy"
    codeSystemName="SNOMED-CT">
    <originalText>
      <reference value="#Proc1" />
    </originalText>
  </code>
  <statusCode code="aborted" />
  <effectiveTime value="20110203" />
  <priorityCode code="CR" codeSystem="2.16.840.1.113883.5.7" codeSystemName="ActPriority"
  displayName="Callback results" />
  <value nullFlavor="NA" />
  <methodCode nullFlavor="UNK" />
  <targetSiteCode code="416949008" codeSystem="2.16.840.1.113883.6.96"
  codeSystemName="SNOMED CT" displayName="Abdomen and pelvis" />
  <performer>
    <assignedEntity>
      <id root="2.16.840.1.113883.19" extension="1234" />
      <addr>
        <streetAddressLine>1001 Village Avenue</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel: +1(555)-555-5000" />
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5" />
        <name>Community Health and Hospitals</name>
        <telecom use="WP" value="tel:+1(555)-555-5000" />
        <addr>
          <streetAddressLine>1001 Village Avenue</streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
        </addr>
      </representedOrganization>
    </assignedEntity>
  </performer>
  <participant typeCode="LOC">
    <participantRole classCode="SDLOC">
      <templateId root="2.16.840.1.113883.10.20.22.4.32" />
      . . .
    </participantRole>
  </participant>
  <entryRelationship typeCode="RSON">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.19" extension="2014-06-09" />
      . . .
    </observation>
  </entryRelationship>
</observation>
```

```

    </observation>
  </entryRelationship>
  <entryRelationship typeCode="SUBJ" inversionInd="true">
    <act classCode="ACT" moodCode="INT">
      <templateId root="2.16.840.1.113883.10.20.22.4.20" extension="2014-06-09" />
      . . .
    </act>
  </entryRelationship>
</observation>

```

### 3.83 Procedure Activity Procedure (V2)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09  
(open) ]

**Table 436: Procedure Activity Procedure (V2) Contexts**

| Contained By:   | Contains:  |
|---|--|
| <a href="#">Reaction Observation (V2)</a> (optional)<br><a href="#">Medical Equipment Section (V2)</a> (optional)<br><a href="#">Anesthesia Section (V2)</a> (optional)<br><a href="#">Procedures Section (entries optional) (V2)</a> (optional)<br><a href="#">Procedures Section (entries required) (V2)</a> (optional)<br><a href="#">Medical Equipment Organizer</a> (optional)<br><a href="#">Intervention Act (V2)</a> (optional) | <a href="#">Service Delivery Location</a> (optional)<br><a href="#">Product Instance</a> (optional)<br><a href="#">Medication Activity (V2)</a> (optional)<br><a href="#">Reaction Observation (V2)</a> (optional)<br><a href="#">Indication (V2)</a> (optional)<br><a href="#">Instruction (V2)</a> (optional)<br><a href="#">Author Participation</a> (optional) |

The common notion of "procedure" is broader than that specified by the HL7 Version 3 Reference Information Model (RIM). Therefore procedure templates can be represented with various RIM classes: act (e.g., dressing change), observation (e.g., EEG), procedure (e.g., splenectomy). This template represents procedures whose immediate and primary outcome (post-condition) is the alteration of the physical condition of the patient. Examples of these procedures are an appendectomy, hip replacement, and a creation of a gastrostomy. This template can be used with a contained Product Instance template to represent a device in or on a patient. In this case, targetSiteCode is used to record the location of the device in or on the patient's body. Equipment supplied to the patient (e.g., pumps, inhalers, wheelchairs) is represented by the Non-Medicinal Supply Activity (V2) template.

**Table 437: Procedure Activity Procedure (V2) Constraints Overview**

| XPath  | Card. | Verb  | Data Type | CONF#                     | Value   |
|--|-------|-------|-----------|---------------------------|---|
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.14:2014-06-09) |       |       |           |                           |   |
| @classCode   | 1..1  | SHALL |           | <a href="#">1098-7652</a> | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC  |
| @moodCode  | 1..1  | SHALL |           | <a href="#">1098-7653</a> | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId   | 1..1  | SHALL |           | <a href="#">1098-7654</a> |   |