## 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:
Procedures Section (entries optional) (V2) (optional)	Service Delivery Location (optional)
Procedures Section (entries required) (V2) (optional)	Medication Activity (V2) (optional)
Planned Intervention Act (V2) (optional)	Reaction Observation (V2) (optional)
Intervention Act (V2) (optional)	Indication (V2) (optional)
	Instruction (V2) (optional)
	Author Participation (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:hl	7ii:2.16.840.1.	113883.10.2	0.22.4.13	3:2014-06-09	9)
@classCode	11	SHALL		1098- 8282	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	11	SHALL		1098- 8237	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	11	SHALL		1098- 8238	
@root	11	SHALL		1098- 10520	2.16.840.1.113883.10.20.22.4 .13
@extension	11	SHALL		1098- 32507	2014-06-09
id	1*	SHALL		1098- 8239	
code	11	SHALL		1098- 19197	
originalText	01	SHOULD		1098- 19198	
reference	01	SHOULD		1098- 19199	
@value	01	SHOULD		1098- 19200	
statusCode	11	SHALL		1098- 8245	
@code	11	SHALL		1098- 32365	urn:oid:2.16.840.1.113883.11. 20.9.22 (ProcedureAct statusCode)
effectiveTime	01	SHOULD		1098- 8246	
priorityCode	01	MAY		1098- 8247	urn:oid:2.16.840.1.113883.1.1 1.16866 (ActPriority)
value	11	SHALL		1098- 16846	
@nullFlavor	01	MAY		1098- 32778	
methodCode	01	MAY		1098- 8248	
targetSiteCode	0*	SHOULD		1098- 8250	urn:oid:2.16.840.1.113883.3.8 8.12.3221.8.9 (Body Site Value Set)
performer	0*	SHOULD		1098- 8251	
assignedEntity	11	SHALL		1098- 8252	
id	1*	SHALL		1098- 8253	

XPath	Card.	Verb	Data Type	CONF#	Value
addr	1*	SHALL		1098- 8254	
telecom	1*	SHALL		1098- 8255	
representedOrganization	01	SHOULD		1098- 8256	
id	0*	SHOULD		1098- 8257	
name	0*	MAY		1098- 8258	
telecom	11	SHALL		1098- 8260	
addr	11	SHALL		1098- 8259	
author	0*	SHOULD		1098- 32478	Author Participation (identifier: urn:oid:2.16.840.1.113883.10. 20.22.4.119
participant	0*	MAY		1098- 8261	
@typeCode	11	SHALL		1098- 8262	urn:oid:2.16.840.1.113883.5.9 0 (HL7ParticipationType) = LOC
participantRole	11	SHALL		1098- 15904	Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10. 20.22.4.32
entryRelationship	0*	MAY		1098- 8264	
@typeCode	11	SHALL		1098- 8265	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = COMP
@inversionInd	11	SHALL		1098- 8266	true
encounter	11	SHALL		1098- 8267	
@classCode	11	SHALL		1098- 8268	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	11	SHALL		1098- 8269	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
id	11	SHALL		1098- 8270	
entryRelationship	01	MAY		1098- 8272	
@typeCode	11	SHALL		1098- 8273	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = SUBJ

XPath	Card.	Verb	Data Type	CONF#	Value
@inversionInd	11	SHALL		1098- 8274	true
act	11	SHALL		<u>1098-</u> <u>31394</u>	Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.20:2014-06-09
entryRelationship	0*	MAY		1098- 8276	
@typeCode	11	SHALL		1098- 8277	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = RSON
observation	11	SHALL		1098- 15906	Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.19:2014-06-09
entryRelationship	0*	MAY		1098- 8279	
@typeCode	11	SHALL		1098- 8280	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = COMP
substanceAdministration	11	SHALL		1098- 15907	Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.16:2014-06-09
entryRelationship	0*	MAY		1098- 32470	
@typeCode	11	SHALL		1098- 32471	urn:oid:2.16.840.1.113883.5.1 002 (HL7ActRelationshipType) = COMP
observation	11	SHALL		1098- 32472	Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.1 0.20.22.4.9:2014-06-09

- 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-4 (CodeSystem: 2.16.840.1.113883.6.12) or ICD10 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 exactly one [1..1] **telecom** (CONF:1098-8260).
      - 4. The representedOrganization, if present, **SHALL** contain exactly one [1..1] **addr** (CONF:1098-8259).

- 13. **SHOULD** contain zero or more [0..\*] <u>Author Participation</u> (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] <u>Instruction (V2)</u> (identifier: urn:h17ii: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] <u>Indication (V2)</u> (identifier: urn:h17ii: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] <u>Medication Activity (V2)</u> (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:h17ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1098-32472).

## Figure 201: 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"</pre>
displayName="Callback results" />
    <value nullFlavor="NA" />
    <methodCode nullFlavor="UNK" />
    <targetSiteCode code="416949008" codeSystem="2.16.840.1.113883.6.96"</pre>
codeSystemName="SNOMED CT" displayName="Abdomen and pelvis" />
    <performer>
        <assignedEntity>
            <id root="2.16.840.1.113883.19" extension="1234" />
                <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>
```

## 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:
Reaction Observation (V2) (optional)	Service Delivery Location (optional)
Medical Equipment Section (V2) (optional)	Product Instance (optional)
Anesthesia Section (V2) (optional)	Medication Activity (V2) (optional)
Procedures Section (entries optional) (V2) (optional)	Reaction Observation (V2) (optional)
Procedures Section (entries required) (V2) (optional)	Indication (V2) (optional)
Medical Equipment Organizer (optional)	Instruction (V2) (optional)
Planned Intervention Act (V2) (optional)	Author Participation (optional)
Intervention Act (V2) (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.