```
            </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:
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)
Intervention Act (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 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		1098-7652	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		1098-7653	urn:oid:2.16.840.1.113883.5.1 001 (HL7ActMood) = EVN
templateId	1..1	SHALL		1098-7654	

XPath	Card.	Verb	Data Type	CONF#	Value
@root	1..1	SHALL		[1098-10521](#)	2.16.840.1.113883.10.20.22.4.14
@extension	1..1	SHALL		[1098-32506](#)	2014-06-09
id	1..*	SHALL		[1098-7655](#)	
code	1..1	SHALL		[1098-7656](#)	
originalText	0..1	SHOULD		[1098-19203](#)	
reference	0..1	SHOULD		[1098-19204](#)	
@value	0..1	SHOULD		[1098-19205](#)	
statusCode	1..1	SHALL		[1098-7661](#)	
@code	1..1	SHALL		[1098-32366](#)	urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode)
effectiveTime	0..1	SHOULD		[1098-7662](#)	
priorityCode	0..1	MAY		[1098-7668](#)	urn:oid:2.16.840.1.113883.1.11.16866 (ActPriority)
methodCode	0..1	MAY		[1098-7670](#)	
targetSiteCode	0..*	SHOULD		[1098-7683](#)	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
specimen	0..*	MAY		[1098-7697](#)	
specimenRole	1..1	SHALL		[1098-7704](#)	
id	0..*	SHOULD		[1098-7716](#)	
performer	0..*	SHOULD		[1098-7718](#)	
assignedEntity	1..1	SHALL		[1098-7720](#)	
id	1..*	SHALL		[1098-7722](#)	
addr	1..*	SHALL		[1098-7731](#)	
telecom	1..*	SHALL		[1098-7732](#)	
representedOrganization	0..1	SHOULD		[1098-](#)	

XPath	Card.	Verb	Data Type	CONF#	Value
				7733	
id	0..*	SHOULD		1098-7734	
name	0..*	MAY		1098-7735	
telecom	1..*	SHALL		1098-7737	
addr	1..*	SHALL		1098-7736	
author	0..*	SHOULD		1098-32479	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
participant	0..*	MAY		1098-7751	
@typeCode	1..1	SHALL		1098-7752	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = DEV
participantRole	1..1	SHALL		1098-15911	Product Instance (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37
participant	0..*	MAY		1098-7765	
@typeCode	1..1	SHALL		1098-7766	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC
participantRole	1..1	SHALL		1098-15912	Service Delivery Location (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32
entryRelationship	0..*	MAY		1098-7768	
@typeCode	1..1	SHALL		1098-7769	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		1098-8009	true
encounter	1..1	SHALL		1098-7770	
@classCode	1..1	SHALL		1098-7771	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC
@moodCode	1..1	SHALL		1098-7772	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
id	1..1	SHALL		1098-7773	
entryRelationship	0..1	MAY		1098-	

XPath	Card.	Verb	Data Type	CONF#	Value
				7775	
@typeCode	1..1	SHALL		1098-7776	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		1098-7777	true
act	1..1	SHALL		1098-31395	Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09
entryRelationship	0..*	MAY		1098-7779	
@typeCode	1..1	SHALL		1098-7780	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		1098-15914	Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09
entryRelationship	0..*	MAY		1098-7886	
@typeCode	1..1	SHALL		1098-7887	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
substanceAdministration	1..1	SHALL		1098-15915	Medication Activity (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.16:2014-06-09
entryRelationship	0..*	MAY		1098-32473	
@typeCode	1..1	SHALL		1098-32474	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		1098-32475	Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-7652).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:1098-7653).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-7654) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:1098-10521).
    b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32506).
4. **SHALL** contain at least one [1..*] **id** (CONF:1098-7655).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-7656).

a. This code **SHOULD** contain zero or one [0..1] **originalText** (CONF:1098-19203).

    i. The originalText, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:1098-19204).

        1. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-19205).

            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:1098-19206).

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:1098-19207).

6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-7661).

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:1098-32366).

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-7662).

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:1098-7668).

9. **MAY** contain zero or one [0..1] **methodCode** (CONF:1098-7670).

a. MethodCode **SHALL NOT** conflict with the method inherent in Procedure / code (CONF:1098-7890).

In the case of an implanted medical device, targetSiteCode is used to record the location of the device, in or on the patient's body.

10. **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:1098-7683).

11. **MAY** contain zero or more [0..*] **specimen** (CONF:1098-7697).

a. The specimen, if present, **SHALL** contain exactly one [1..1] **specimenRole** (CONF:1098-7704).

    i. This specimenRole **SHOULD** contain zero or more [0..*] **id** (CONF:1098-7716).

        1. If you want to indicate that the Procedure and the Results are referring to the same specimen, the Procedure/specimen/specimenRole/id **SHOULD** be set to equal an Organizer/specimen/ specimenRole/id (CONF:1098-29744).

b. This specimen is for representing specimens obtained from a procedure (CONF:1098-16842).

12. **SHOULD** contain zero or more [0..*] **performer** (CONF:1098-7718) such that it

a. **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1098-7720).

    i. This assignedEntity **SHALL** contain at least one [1..*] **id** (CONF:1098-7722).

    ii. This assignedEntity **SHALL** contain at least one [1..*] **addr** (CONF:1098-7731).

      iii. This assignedEntity **SHALL** contain at least one [1..*] **telecom** (CONF:1098-7732).

      iv. This assignedEntity **SHOULD** contain zero or one [0..1] **representedOrganization** (CONF:1098-7733).

         1. The representedOrganization, if present, **SHOULD** contain zero or more [0..*] **id** (CONF:1098-7734).

         2. The representedOrganization, if present, **MAY** contain zero or more [0..*] **name** (CONF:1098-7735).

         3. The representedOrganization, if present, **SHALL** contain at least one [1..*] **telecom** (CONF:1098-7737).

         4. The representedOrganization, if present, **SHALL** contain at least one [1..*] **addr** (CONF:1098-7736).

13. **SHOULD** contain zero or more [0..*] **Author Participation** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1098-32479).

14. **MAY** contain zero or more [0..*] **participant** (CONF:1098-7751) such that it

    a. **SHALL** contain exactly one [1..1] **@typeCode**="DEV" Device (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1098-7752).

    b. **SHALL** contain exactly one [1..1] **Product Instance** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.37) (CONF:1098-15911).

15. **MAY** contain zero or more [0..*] **participant** (CONF:1098-7765) 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:1098-7766).

    b. **SHALL** contain exactly one [1..1] **Service Delivery Location** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.32) (CONF:1098-15912).

16. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-7768) 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:1098-7769).

    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" true (CONF:1098-8009).

    c. **SHALL** contain exactly one [1..1] **encounter** (CONF:1098-7770).

      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:1098-7771).

      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:1098-7772).

      iii. This encounter **SHALL** contain exactly one [1..1] **id** (CONF:1098-7773).

         1. Set the encounter ID to the ID of an encounter in another section to signify they are the same encounter (CONF:1098-16843).

17. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1098-7775) 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:1098-7776).

b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" true (CONF:1098-7777).

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:1098-31395).

18. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-7779) 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:1098-7780).

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:1098-15914).

19. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-7886) 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:1098-7887).

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:1098-15915).

20. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-32473) 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:1098-32474).

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:1098-32475).

Figure 203: Procedure Activity Procedure (V2) Example

```
<procedure classCode="PROC" moodCode="EVN">
    <!-- Procedure Activity Procedure V2-->
    <templateId root="2.16.840.1.113883.10.20.22.4.14" extension="2014-06-09" />
    <id root="d5b614bd-01ce-410d-8726-e1fd01dcc72a" />
    <code code="103716009" codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
displayName="Stent Placement">
        <originalText>
            <reference value="#Proc1" />
        </originalText>
    </code>
    <statusCode code="completed" />
    <effectiveTime value="20130512" />
    <targetSiteCode code="28273000" displayName="bile duct"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" />
    <specimen typeCode="SPC">
        <specimenRole classCode="SPEC">
            <id root="a6d7b927-2b70-43c7-bdf3-0e7c4133062c" />
            <specimenPlayingEntity>
                <code code="57259009" codeSystem="2.16.840.1.113883.6.96"
displayName="gallbladder bile" />
            </specimenPlayingEntity>
        </specimenRole>
    </specimen>
    <performer>
        ...
    </performer>
</procedure>
```

3.84 Procedure Context

[act: identifier urn:oid:2.16.840.1.113883.10.20.6.2.5 (open)]

Table 438: Procedure Context Contexts

Contained By:	Contains:
Diagnostic Imaging Report (V3) (optional)	

The ServiceEvent Procedure Context of the document header may be overridden in the CDA structured body if there is a need to refer to multiple imaging procedures or acts. The selection of the Procedure or Act entry from the clinical statement choice box depends on the nature of the imaging service that has been performed. The Procedure entry shall be used for image-guided interventions and minimally invasive imaging services, whereas the Act entry shall be used for diagnostic imaging services.