```
<observation classCode="OBS" moodCode="INT">
    <templateId root="2.16.840.1.113883.10.20.22.4.44"
        extension="2014-06-09" />
    <id root="b52bee94-c34b-4e2c-8c15-5ad9d6def205" />
    <code code="59408-5"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Oxygen saturation in Arterial blood by Pulse oximetry" />
    <statusCode code="active" />
    <effectiveTime value="20130903" />
    <author typeCode="AUT">
        <!-- Author Participation -->
    </author>
    <entryRelationship typeCode="REFR">
        <!-- Priority Preference -->
    ...

    </entryRelationship>
    <entryRelationship typeCode="RSON">
        <!-- Indication (V2) -->
    ...

    </entryRelationship>
    <entryRelationship typeCode="SUBJ">
        <!-- Instruction (V2) -->
    ...

    </entryRelationship>
    <entryRelationship typeCode="COMP">
        <!-- Planned Coverage -->
    ...

    </entryRelationship>
</observation>
```

3.69 Planned Procedure (V2)

```
[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09
(open)]
```

Table 395: Planned Procedure (V2) Contexts

Contained By:	Contains:
Plan of Treatment Section (V2) (optional)	Indication (V2) (optional)
Nutrition Recommendation (optional)	Priority Preference (optional)
Planned Procedure Section (V2) (optional)	Instruction (V2) (optional)
Planned Intervention Act (V2) (optional)	Author Participation (optional)
	Planned Coverage (optional)

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.

Table 396: Planned Procedure (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.41:2014-06-09)					
@classCode	1..1	SHALL		1098-8568	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC
@moodCode	1..1	SHALL		1098-8569	urn:oid:2.16.840.1.113883.11.20.9.23 (Planned moodCode (Act/Encounter/Procedure))
templateId	1..1	SHALL		1098-30444	
@root	1..1	SHALL		1098-30445	2.16.840.1.113883.10.20.22.4.41
@extension	1..1	SHALL		1098-32554	2014-06-09
id	1..*	SHALL		1098-8571	
code	1..1	SHALL		1098-31976	
statusCode	1..1	SHALL		1098-30446	
@code	1..1	SHALL		1098-31978	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = active
effectiveTime	0..1	SHOULD		1098-30447	
methodCode	0..*	MAY		1098-31980	
targetSiteCode	0..*	MAY		1098-31981	urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 (Body Site Value Set)
performer	0..*	MAY		1098-30449	
author	0..1	SHOULD		1098-31979	Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119
entryRelationship	0..*	MAY		1098-31079	
@typeCode	1..1	SHALL		1098-31080	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
observation	1..1	SHALL		1098-31081	Priority Preference (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143
entryRelationship	0..*	MAY		1098-31982	
@typeCode	1..1	SHALL		1098-31983	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON

XPath	Card.	Verb	Data Type	CONF#	Value
observation	1..1	SHALL		[1098-31984](#)	[Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09](#)
entryRelationship	0..*	MAY		[1098-31985](#)	
@typeCode	1..1	SHALL		[1098-31986](#)	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		[1098-31987](#)	true
act	1..1	SHALL		[1098-31989](#)	[Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09](#)
entryRelationship	0..*	MAY		[1098-31990](#)	
@typeCode	1..1	SHALL		[1098-31991](#)	COMP
act	1..1	SHALL		[1098-31992](#)	[Planned Coverage (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129](#)

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1098-8568).
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:1098-8569).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-30444) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.41" (CONF:1098-30445).
   b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32554).
4. **SHALL** contain at least one [1..*] **id** (CONF:1098-8571).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1098-31976).
   a. The procedure/code in a planned procedure **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) (CONF:1098-31977).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1098-30446).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="active" Active (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1098-31978).

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

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:1098-30447).

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:1098-31980).

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:1098-31981).

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

10. **MAY** contain zero or more [0..*] **performer** (CONF:1098-30449).

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:1098-31979).

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:1098-31079) 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:1098-31080).
    b. **SHALL** contain exactly one [1..1] **Priority Preference** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.143) (CONF:1098-31081).

The following entryRelationship represents the indication for the procedure.

13. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-31982) 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) (CONF:1098-31983).
    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:1098-31984).

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

14. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-31985) 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) (CONF:1098-31986).
    b. **SHALL** contain exactly one [1..1] **@inversionInd**="true" True (CONF:1098-31987).
    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:1098-31989).

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

15. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1098-31990) such that it

    a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Has component (CONF:1098-31991).

    b. **SHALL** contain exactly one [1..1] **Planned Coverage** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.129) (CONF:1098-31992).

Figure 189: Planned Procedure (V2) Example

```
<entry>
    <procedure moodCode="RQO" classCode="PROC">
        <templateId root="2.16.840.1.113883.10.20.22.4.41" extension="2014-06-09" />
        <!-- **Planned Procedure (V2) 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>
</entry>
```

3.70 Planned Supply (V2)

```
[supply: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.43:2014-06-09
(open)]
```

Table 397: Planned Supply (V2) Contexts

Contained By:	Contains:
Plan of Treatment Section (V2) (optional) Nutrition Recommendation (optional) Planned Intervention Act (V2) (optional)	Product Instance (optional) Indication (V2) (optional) Medication Information (V2) (optional) Priority Preference (optional) Instruction (V2) (optional) Author Participation (optional) Immunization Medication Information (V2) (optional) Planned Coverage (optional)

This template represents both medicinal and non-medicinal supplies ordered, requested, or intended for the patient (e.g., medication prescription, order for wheelchair). The importance of the supply order or request to the patient and provider may be indicated in the Priority Preference.

The effective time indicates the time when the supply is intended to take place and author time indicates when the documentation of the plan occurred. The Planned Supply template may also indicate the potential insurance coverage for the procedure.

Depending on the type of supply, the product or participant will be either a Medication Information product (medication), an Immunization Medication Information product (immunization), or a Product Instance participant (device/equipment).