

3 ENTRY

3.1 Assessment Scale Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01
(open)]

Table 26: Assessment Scale Observation (V2) Contexts

Contained By:	Contains:
Disability Status Observation (optional)	

An assessment scale is a collection of observations that together can yield a calculated or non-calculated summary evaluation of a one or more conditions. Examples include the Braden Scale (assesses pressure ulcer risk), APACHE Score (estimates mortality in critically ill patients), Mini-Mental Status Exam (assesses cognitive function), APGAR Score (assesses the health of a newborn), Glasgow Coma Scale (assesses coma and impaired consciousness), and WE CARE (Well Child Care, Evaluation, Community Resources, Advocacy, Referral, Education - a clinic-based screening and referral system developed for pediatric settings).

When an Assessment Scale Observation is contained in a Problem Observation, a Social History Observation or a Procedure instance that is Social Determinant of Health focused, that Assessment scale **MAY** contain assessment scale observations that represent question and answer pairs from SDOH screening instruments that are represented in LOINC. Note that guidance on the use of LOINC in assessment scales already exists in Assessment Scale Observation constraints and Assessment Scale Supporting Observations constraints.

Table 27: Assessment Scale Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.69:2022-06-01)					
@classCode	1..1	SHALL		4515-14434	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-14435	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-14436	
@root	1..1	SHALL		4515-14437	2.16.840.1.113883.10.20.22.4.69
@extension	1..1	SHALL		4515-33037	2022-06-01
id	1..*	SHALL		4515-14438	
code	1..1	SHALL		4515-14439	urn:oid:2.16.840.1.113883.6.1 (LOINC)
derivationExpr	0..1	MAY		4515-14637	
statusCode	1..1	SHALL		4515-14444	
@code	1..1	SHALL		4515-19088	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
effectiveTime	1..1	SHALL		4515-14445	
value	1..1	SHALL		4515-14450	
interpretationCode	0..*	MAY		4515-14459	
translation	0..*	MAY		4515-14888	
author	0..*	MAY		4515-14460	
entryRelationship	0..*	SHOULD		4515-14451	
@typeCode	1..1	SHALL		4515-16741	COMP
observation	1..1	SHALL		4515-16742	Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86
referenceRange	0..*	MAY		4515-16799	
observationRange	1..1	SHALL		4515-16800	
text	0..1	SHOULD		4515-	

XPath	Card.	Verb	Data Type	CONF#	Value
				16801	
reference	0..1	SHOULD		4515-16802	
@value	0..1	MAY		4515-16803	

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-14434).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-14435).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:4515-14436) such that it
 - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.69" (CONF:4515-14437).
 - b. **SHALL** contain exactly one [1..1] **@extension**="2022-06-01" (CONF:4515-33037).
4. **SHALL** contain at least one [1..*] **id** (CONF:4515-14438).
5. **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) **DYNAMIC** (CONF:4515-14439).

Such derivation expression can contain a text calculation of how the components total up to the summed score

6. **MAY** contain zero or one [0..1] **derivationExpr** (CONF:4515-14637).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:4515-14444).
 - a. This **statusCode** **SHALL** contain exactly one [1..1] **@code**="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 **STATIC**) (CONF:4515-19088).

Represents clinically effective time of the measurement, which may be when the measurement was performed (e.g., a BP measurement), or may be when sample was taken (and measured some time afterwards)

8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:4515-14445).
9. **SHALL** contain exactly one [1..1] **value** (CONF:4515-14450).
10. **MAY** contain zero or more [0..*] **interpretationCode** (CONF:4515-14459).
 - a. The **interpretationCode**, if present, **MAY** contain zero or more [0..*] **translation** (CONF:4515-14888).
11. **MAY** contain zero or more [0..*] **author** (CONF:4515-14460).
12. **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:4515-14451) such that it
 - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" has component (CONF:4515-16741).
 - b. **SHALL** contain exactly one [1..1] Assessment Scale Supporting Observation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.86) (CONF:4515-16742).
13. **MAY** contain zero or more [0..*] **referenceRange** (CONF:4515-16799).

- a. The referenceRange, if present, **SHALL** contain exactly one [1..1] **observationRange** (CONF:4515-16800).

The text may contain a description of the scale (e.g., for a Pain Scale 1 to 10: 1 to 3 = little pain, 4 to 7= moderate pain, 8 to 10 = severe pain)

- i. This observationRange **SHOULD** contain zero or one [0..1] **text** (CONF:4515-16801).
 1. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:4515-16802).
 - a. The reference, if present, **MAY** contain zero or one [0..1] **@value** (CONF:4515-16803).
 - i. 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:4515-16804).

Figure 20: Assessment Scale Observation Example

```
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.69" extension="2022-06-01"/>
  <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>
  <code code="54614-3"
    displayName="Brief Interview for Mental Status"
    codeSystem="2.16.840.1.113883.6.1"
    codeSystemName="LOINC"/>
  <derivationExpr>Text description of the calculation</derivationExpr>
  <statusCode code="completed"/>
  <effectiveTime value="20120214"/>
  <!-- Summed score of the component values -->
  <value xsi:type="INT" value="7"/>
  <entryRelationship typeCode="COMP">
    <observation classCode="OBS" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
      . . .
    </observation>
  </entryRelationship>
</observation>
```

Figure 21: Assessment Scale Observation - Hunger Vital Signs Example

```

<entry>
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.69" extension="2022-06-01"/>
    <id root="c6b5a04b-2bf4-49d1-8336-636a3813df0b"/>
    <code code="88121-9" displayName="Hunger Vital Signs"
          codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"/>
    <derivationExpr>Text description of the calculation</derivationExpr>
    <statusCode code="completed"/>
    <effectiveTime value="20120214"/>
    <!-- Summed score of the component values -->
    <value xsi:type="INT" value="2"/>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
        <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
        <code code="88122-7" displayName="(I/We) worried whether (my/our) food
would run out before (I/we) got money to buy more"
              codeSystem="2.16.840.1.113883.6.1"
              codeSystemName="LOINC"/>
        <statusCode code="completed"/>
        <value xsi:type="CD" code="LA28397-0" displayName="Often true"
              codeSystem="2.16.840.1.113883.6.1">
          <translation code="1" codeSystem="2.16.840.1.113883.6.1"
            codeSystemName="LOINC"/>
        </value>
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
        <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
        <code code="88123-5" displayName="Within the past 12Mo the food we bought
just didn't last and we didn't have money to get more"
              codeSystem="2.16.840.1.113883.6.1"
              codeSystemName="LOINC"/>
        <statusCode code="completed"/>
        <value xsi:type="CD" code="LA28397-0" displayName="Often true"
              codeSystem="2.16.840.1.113883.6.1">
          <translation code="1" codeSystem="2.16.840.1.113883.6.1"
            codeSystemName="LOINC"/>
        </value>
      </observation>
    </entryRelationship>
    <entryRelationship typeCode="COMP">
      <observation classCode="OBS" moodCode="EVN">
        <templateId root="2.16.840.1.113883.10.20.22.4.86"/>
        <id root="f4dce790-8328-11db-9fe1-0800200c9a44"/>
        <code code="88124-3" displayName="Food insecurity risk [HVS]"
              codeSystem="2.16.840.1.113883.6.1"
              codeSystemName="LOINC"/>
        <statusCode code="completed"/>
        <value xsi:type="CD" code="LA19952-3" displayName="At risk"
              codeSystem="2.16.840.1.113883.6.1"/>
      </observation>
    </entryRelationship>
  </observation>
</entry>

```

```
</observation>
</entry>
```

3.2 Assessment Scale Supporting Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01 (open)]

An Assessment Scale Supporting Observation represents the components of a scale used in an Assessment Scale Observation. The individual parts that make up the component may be a group of physical, cognitive, functional status, social observations or answers to questions.

Table 28: Assessment Scale Supporting Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.86:2022-06-01)					
@classCode	1..1	SHALL		4515-16715	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		4515-16716	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		4515-16722	
@root	1..1	SHALL		4515-16723	2.16.840.1.113883.10.20.22.4.86
@extension	1..1	SHALL		4515-33036	2022-06-01
id	1..*	SHALL		4515-16724	
code	1..1	SHALL		4515-19178	urn:oid:2.16.840.1.113883.6.1 (LOINC)
statusCode	1..1	SHALL		4515-16720	
@code	1..1	SHALL		4515-19089	urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed
value	1..*	SHALL		4515-16754	

1. **SHALL** contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:4515-16715).
2. **SHALL** contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:4515-16716).
3. **SHALL** contain exactly one [1..1] templateId (CONF:4515-16722) such that it
 - a. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.86" (CONF:4515-16723).
 - b. **SHALL** contain exactly one [1..1] @extension="2022-06-01" (CONF:4515-33036).
4. **SHALL** contain at least one [1..*] id (CONF:4515-16724).