Table 449: DICOMPurposeOfReference

Value Set: DICOMPurposeOfReference urn:oid:2.16.840.1.113883.11.20.9.28			
Value Set Source: **http://www.hl7.org**			
Code	**Code System**	**Code System OID**	**Print Name**
121079	DCM	urn:oid:1.2.840.10008.2.16.4	Baseline
121080	DCM	urn:oid:1.2.840.10008.2.16.4	Best illustration of finding
121112	DCM	urn:oid:1.2.840.10008.2.16.4	Source of Measurement

Figure 209: Purpose of Reference Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.9"/>
    <code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>
    <value xsi:type="CD" code="121112" codeSystem="1.2.840.10008.2.16.4"
       codeSystemName="DCM"
       displayName="Source of Measurement"/>
</observation>
```

3.89 Quantity Measurement Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.14 (open)]

Table 450: Quantity Measurement Observation Contexts

Contained By:	**Contains:**
Text Observation (optional)	SOP Instance Observation (optional)
Code Observations (optional)	
Diagnostic Imaging Report (V3) (optional)	

A Quantity Measurement Observation records quantity measurements based on image data such as linear, area, volume, and numeric measurements. The codes in DIRQuantityMeasurementTypeCodes (ValueSet: 2.16.840.1.113883.11.20.9.29) are from the qualifier hierarchy of SNOMED CT and are not valid for observation/code according to the Term Info guidelines. These codes can be used for backwards compatibility, but going forward, codes from the observable entity hierarchy will be requested and used.

Table 451: Quantity Measurement Observation Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.14)					
@classCode	1..1	SHALL		81-9317	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		81-9318	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		81-9319	
@root	1..1	SHALL		81-10532	2.16.840.1.113883.10.20.6.2.14
code	1..1	SHALL		81-9320	
@code	0..1	SHOULD		81-19210	urn:oid:2.16.840.1.113883.11.20.9.29 (DIRQuantityMeasurementTypeCodes)
effectiveTime	0..1	SHOULD		81-9326	
value	1..1	SHALL	PQ	81-9324	
entryRelationship	0..*	MAY		81-9327	
@typeCode	1..1	SHALL		81-9328	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT
observation	1..1	SHALL		81-15916	SOP Instance Observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9317).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9318).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9319) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.14" (CONF:81-10532).

The value set of the observation/code includes numeric measurement types for linear dimensions, areas, volumes, and other numeric measurements. This value set is extensible and comprises the union of SNOMED codes for observable entities as reproduced in DIRQuantityMeasurementTypeCodes (ValueSet: 2.16.840.1.113883.11.20.9.29) and DICOM Codes in DICOMQuantityMeasurementTypeCodes (ValueSet: 2.16.840.1.113883.11.20.9.30).

4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9320).
   a. This code **SHOULD** contain zero or one [0..1] **@code**, which **SHOULD** be selected from ValueSet **DIRQuantityMeasurementTypeCodes** urn:oid:2.16.840.1.113883.11.20.9.29 **DYNAMIC** (CONF:81-19210).
5. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9326).
6. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:81-9324).

7. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:81-9327) such that it

    a. **SHALL** contain exactly one [1..1] @**typeCode**="SPRT" Has Support (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9328).

    b. **SHALL** contain exactly one [1..1] **SOP Instance Observation** (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8) (CONF:81-15916).

Table 452: DIRQuantityMeasurementTypeCodes

Value Set: DIRQuantityMeasurementTypeCodes urn:oid:2.16.840.1.113883.11.20.9.29

(Clinical Focus: The specific dimension of a structure measured by the associated physical quantity),(Data Element Scope: Contains imaging measurement (observable entity) concepts.),(Inclusion Criteria:),(Exclusion Criteria:)

This value set was imported on 6/24/2019 with a version of 20190319.

Value Set Source: **https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.29/expansion**

Code	Code System	Code System OID	Print Name
439428006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Short axis length of structure by imaging measurement (observable entity)
439429003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Radius of structure by imaging measurement (observable entity)
439746004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Area of structure by imaging measurement (observable entity)
439747008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Circumference of circular structure by imaging measurement (observable entity)
439748003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Diameter of circular structure by imaging measurement (observable entity)
439749006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Volume of structure by imaging measurement (observable entity)
439932008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Length of structure by imaging measurement (observable entity)
439933003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Long axis length of structure by imaging measurement (observable entity)
439934009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Depth of structure by imaging measurement (observable entity)
439982003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Major axis length of structure by imaging measurement (observable entity)
...			

Figure 210: Quantity Measurement Observation Example

```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.14"/>
    <code code="439984002" codeSystem="2.16.840.1.113883.6.96"
        codeSystemName="SNM3"
        displayName="Diameter of structure">
        <originalText>
            <reference value="#Diam2"/>
        </originalText>
    </code>
    <statusCode code="completed"/>
    <effectiveTime value="200802260805-0800"/>
    <value xsi:type="PQ" value="45" unit="mm"
        codeSystemVersion="1.5"/>
    <!-- entryRelationships to SOP Instance Observations may go here -->
</observation>
```

3.90 Reaction Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09 (open)]

Table 453: Reaction Observation (V2) Contexts

Contained By:	Contains:
Medication Activity (V2) (optional)	Medication Activity (V2) (optional)
Procedure Activity Procedure (V2) (optional)	Procedure Activity Procedure (V2) (optional)
Procedure Activity Observation (V2) (optional)	Severity Observation (V2) (optional)
Allergy - Intolerance Observation (V2) (optional)	
Substance or Device Allergy - Intolerance Observation (V2) (optional)	
Immunization Activity (V3) (optional)	
Health Concern Act (V2) (optional)	
Risk Concern Act (V2) (optional)	

This clinical statement represents the response to an undesired symptom, finding, etc. due to administered or exposed substance. A reaction can be defined described with respect to its severity, and can have been treated by one or more interventions.

Table 454: Reaction Observation (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)					
@classCode	1..1	SHALL		1098-7325	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS
@moodCode	1..1	SHALL		1098-7326	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		1098-	