```
<observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.22.4.38"
        extension="2015-08-01" />
    <id root="37f76c51-6411-4e1d-8a37-957fd49d2cef" />
    <code code="160573003" displayName="Alcohol intake"
                            codeSystem="2.16.840.1.113883.6.96"
                            codeSystemName="SNOMED CT" >
        <translation code="74013-4"
        codeSystem="2.16.840.1.113883.6.1"
        codeSystemName="LOINC"
        displayName="Alcoholic drinks per day"/>
    </code>
    <statusCode code="completed" />
    <effectiveTime>
        <low value="20120215" />
    </effectiveTime>
    <value xsi:type="PQ" value="12" />
    <author typeCode="AUT">
        <templateId root="2.16.840.1.113883.10.20.22.4.119" />
    ...




    </author>
</observation>
```

3.102 SOP Instance Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.6.2.8 (open)]

Table 486: SOP Instance Observation Contexts

Contained By:	Contains:
Series Act (required)	Purpose of Reference Observation (optional)
Text Observation (optional)	Referenced Frames Observation (optional)
Code Observations (optional)	
Quantity Measurement Observation (optional)	
Diagnostic Imaging Report (V3) (optional)	

A SOP Instance Observation contains the DICOM Service Object Pair (SOP) Instance information for referenced DICOM composite objects. The SOP Instance act class is used to reference both image and non-image DICOM instances. The text attribute contains the DICOM WADO reference.

Table 487: SOP Instance Observation Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.8)					
@classCode	1..1	SHALL		81-9240	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = DGIMG
@moodCode	1..1	SHALL		81-9241	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
id	1..*	SHALL		81-9242	
code	1..1	SHALL		81-9244	
@code	1..1	SHALL		81-19225	
@codeSystem	1..1	SHALL		81-19227	1.2.840.10008.2.6.1
text	0..1	SHOULD		81-9246	
@mediaType	1..1	SHALL		81-9247	application/dicom
reference	1..1	SHALL		81-9248	
@value	1..1	SHALL		81-9249	
effectiveTime	0..1	SHOULD		81-9250	
@value	1..1	SHALL		81-9251	
low	0..0	SHALL NOT		81-9252	
high	0..0	SHALL NOT		81-9253	
entryRelationship	0..*	MAY		81-9254	
@typeCode	1..1	SHALL		81-9255	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
entryRelationship	0..*	MAY		81-9257	
@typeCode	1..1	SHALL		81-9258	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		81-15935	Purpose of Reference Observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.9
entryRelationship	0..*	MAY		81-9260	
@typeCode	1..1	SHALL		81-9261	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
observation	1..1	SHALL		81-15936	Referenced Frames Observation (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.10

1. **SHALL** contain exactly one [1..1] **@classCode**="DGIMG" Diagnostic Image (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9240).

2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" Event (CodeSystem: `HL7ActMood` `urn:oid:2.16.840.1.113883.5.1001` **STATIC**) (CONF:81-9241).

The @root contains an OID representing the DICOM SOP Instance UID

3. **SHALL** contain at least one [1..*] **id** (CONF:81-9242).
4. **SHALL** contain exactly one [1..1] **code** (CONF:81-9244).
   a. This code **SHALL** contain exactly one [1..1] **@code** (CONF:81-19225).
      i. @code is an OID for a valid SOP class name UID (CONF:81-19226).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="1.2.840.10008.2.6.1" DCMUID (CONF:81-19227).
5. **SHOULD** contain zero or one [0..1] **text** (CONF:81-9246).
   a. The text, if present, **SHALL** contain exactly one [1..1] **@mediaType**="application/dicom" (CONF:81-9247).
   b. The text, if present, **SHALL** contain exactly one [1..1] **reference** (CONF:81-9248).

WADO reference as a URI

      i. This reference **SHALL** contain exactly one [1..1] **@value** (CONF:81-9249).
6. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9250).
   a. The effectiveTime, if present, **SHALL** contain exactly one [1..1] **@value** (CONF:81-9251).
   b. The effectiveTime, if present, **SHALL NOT** contain [0..0] **low** (CONF:81-9252).
   c. The effectiveTime, if present, **SHALL NOT** contain [0..0] **high** (CONF:81-9253).
7. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:81-9254) 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:81-9255).
8. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:81-9257) 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:81-9258).
   b. **SHALL** contain exactly one [1..1] **Purpose of Reference Observation** (identifier: `urn:oid:2.16.840.1.113883.10.20.6.2.9`) (CONF:81-15935).
9. **MAY** contain zero or more [0..*] **entryRelationship** (CONF:81-9260) 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:81-9261).
   b. **SHALL** contain exactly one [1..1] **Referenced Frames Observation** (identifier: `urn:oid:2.16.840.1.113883.10.20.6.2.10`) (CONF:81-15936).
   c. This entryRelationship **SHALL** be present if the referenced DICOM object is a multiframe object and the reference does not apply to all frames (CONF:81-9263).

Figure 223: SOP Instance Observation Example

```
<observation classCode="DGIMG" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.6.2.8"/>
    <id root="1.2.840.113619.2.62.994044785528.20060823.200608232232322.3"/>
    <code code="1.2.840.10008.5.1.4.1.1.1"
codeSystem="1.2.840.10008.2.6.1" codeSystemName="DCMUID"
displayName="Computed Radiography Image Storage"></code>
    <text mediaType="application/dicom">
        <reference
value="http://www.example.org/wado?requestType=WADO&amp;studyUID=1.2.840.113619.2.62.994044
785528.114289542805&amp;seriesUID=1.2.840.113619.2.62.994044785528.20060823223142485051&amp
;objectUID=1.2.840.113619.2.62.994044785528.20060823.200608232232322.3&amp;contentType=appl
ication/dicom"/>
        <!--reference to image 1 (PA) -->
    </text>
    <effectiveTime value="200608231235-0800"/>
</observation>
```

3.103 Study Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.6.2.6 (open)]

Table 488: Study Act Contexts

Contained By:	Contains:
DICOM Object Catalog Section - DCM 121181 (required)	Series Act (required)

A Study Act contains the DICOM study information that defines the characteristics of a referenced medical study performed on a patient. A study is a collection of one or more series of medical images, presentation states, SR documents, overlays, and/or curves that are logically related for the purpose of diagnosing a patient. Each study is associated with exactly one patient. A study may include composite instances that are created by a single modality, multiple modalities, or by multiple devices of the same modality. The study information is modality-independent. Study Act clinical statements are only instantiated in the DICOM Object Catalog section; in other sections, the SOP Instance Observation is included directly.