

**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&studyUID=1.2.840.113619.2.62.994044
785528.114289542805&seriesUID=1.2.840.113619.2.62.994044785528.20060823223142485051&
;objectUID=1.2.840.113619.2.62.994044785528.20060823.200608232232322.3&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:
<a href="#">DICOM Object Catalog Section - DCM 121181</a> (required)	<a href="#">Series Act</a> (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.

**Table 489: Study Act Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
act (identifier: urn:oid:2.16.840.1.113883.10.20.6.2.6)					
@classCode	1..1	SHALL		<a href="#">81-9207</a>	urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT
@moodCode	1..1	SHALL		<a href="#">81-9208</a>	urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN
templateId	1..1	SHALL		<a href="#">81-9209</a>	
@root	1..1	SHALL		<a href="#">81-10533</a>	2.16.840.1.113883.10.20.6.2.6
id	1..*	SHALL		<a href="#">81-9210</a>	
@root	1..1	SHALL		<a href="#">81-9213</a>	
@extension	0..0	SHALL NOT		<a href="#">81-9211</a>	
code	1..1	SHALL		<a href="#">81-19172</a>	
@code	1..1	SHALL		<a href="#">81-19173</a>	113014
@codeSystem	1..1	SHALL		<a href="#">81-26506</a>	urn:oid:1.2.840.10008.2.16.4 (DCM) = 1.2.840.10008.2.16.4
text	0..1	MAY		<a href="#">81-9215</a>	
reference	0..1	SHOULD		<a href="#">81-15995</a>	
@value	0..1	SHOULD		<a href="#">81-15996</a>	
effectiveTime	0..1	SHOULD		<a href="#">81-9216</a>	
entryRelationship	1..*	SHALL		<a href="#">81-9219</a>	
@typeCode	1..1	SHALL		<a href="#">81-9220</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
act	1..1	SHALL		<a href="#">81-15937</a>	<a href="#">Series Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.63)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:81-9207).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 **STATIC**) (CONF:81-9208).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:81-9209) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.6.2.6" (CONF:81-10533).
4. **SHALL** contain at least one [1..\*] **id** (CONF:81-9210).

The **@root** contains the OID of the study instance UID since DICOM study ids consist only of an OID

- a. Such ids **SHALL** contain exactly one [1..1] **@root** (CONF:81-9213).
- b. Such ids **SHALL NOT** contain [0..0] **@extension** (CONF:81-9211).

5. **SHALL** contain exactly one [1..1] **code** (CONF:81-19172).
  - a. This code **SHALL** contain exactly one [1..1] **@code**="113014" (CONF:81-19173).
  - b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="1.2.840.10008.2.16.4" (CodeSystem: DCM urn:oid:1.2.840.10008.2.16.4) (CONF:81-26506).

If present, the text element contains the description of the study.

6. **MAY** contain zero or one [0..1] **text** (CONF:81-9215).
  - a. The text, if present, **SHOULD** contain zero or one [0..1] **reference** (CONF:81-15995).
    - i. The reference, if present, **SHOULD** contain zero or one [0..1] **@value** (CONF:81-15996).
      1. 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:81-15997).

If present, the effectiveTime contains the time the study was started

7. **SHOULD** contain zero or one [0..1] **effectiveTime** (CONF:81-9216).
8. **SHALL** contain at least one [1..\*] **entryRelationship** (CONF:81-9219) such that it
  - a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:81-9220).
  - b. **SHALL** contain exactly one [1..1] **Series Act** (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.63) (CONF:81-15937).

**Figure 224: Study Act Example**

```
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.6.2.6"/>
  <id root="1.2.840.113619.2.62.994044785528.114289542805"/>
  <code code="113014" codeSystem="1.2.840.10008.2.16.4" codeSystemName="DCM"
  displayName="Study"/>
  <!-- **** Series ****-->
  <entryRelationship typeCode="COMP">
    <act classCode="ACT" moodCode="EVN">
      . . .
    </act>
  </entryRelationship>
</act>
```

### 3.104 Substance Administered Act

[act: identifier urn:oid:2.16.840.1.113883.10.20.22.4.118 (open)]

**Table 490: Substance Administered Act Contexts**

Contained By:	Contains:
<a href="#">Medication Activity (V2)</a> (optional)	
<a href="#">Immunization Activity (V3)</a> (optional)	