

Digital Imaging and Communications in Medicine (DICOM)

Supplement 79: Breast Imaging Report Templates

DICOM Standards Committee

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Foreword

This supplement to the DICOM standard introduces a DICOM format for encoding the radiologist's interpretation of a patient's current breast imaging study. This document is a Supplement to the DICOM Standard. It is an extension to the following parts of the published DICOM Standard:

- PS 3.3 - Information Object Definitions
- PS 3.16 - Content Mapping Resource

Scope and Field of Application

This supplement to the DICOM standard defines how a radiologist's breast imaging report is encoded for storage and exchange. This is in the form of a DICOM Structured Report. It consists of the radiologist's narrative text, supplemented with numeric data, BI-RADS® or other coded terms when available, and references to specific images or coordinates on images. This document specifies the Breast Imaging Report templates, expected to be stored and exchanged via the Enhanced SR SOP Class. Since this supplement proposes changes to existing parts of DICOM, the reader should have a working understanding of the Standard.

The Breast Imaging Report templates are designed to support minimal coded content, depending on the capabilities of the system producing this object. Mammography reporting systems may populate optional content items as they see fit, to meet the requirements of the market; different mammography reporting systems may produce different content (e.g., plain text alone, or supplemented with numeric or coded content items).

The specific rendering of the content of the report is not within the scope of the DICOM standard, except that it must be complete and unambiguous (see PS 3.4 Annex O).

Part 3, Annex X Addendum

Add the following to PS 3.3

ANNEX X (INFORMATIVE)

X.1 Breast Imaging Report Content Tree Structure

The templates for the Breast Imaging Report are defined in PS 3.16, Annex A, DCMR Templates. Relationships defined in the Breast Imaging Report templates are by-value. This template structure may be conveyed using the Enhanced SR SOP Class or the Basic Text SR SOP Class.

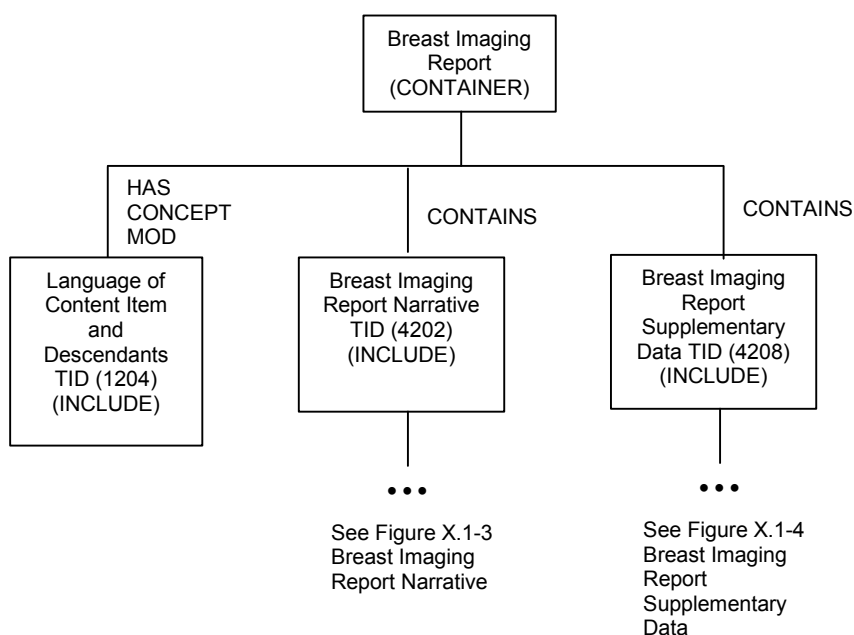


Figure X.1-1: Top Level of Breast Imaging Report Content Tree

As shown in Figure X.1-1, the Breast Imaging Report Narrative and Breast Imaging Report Supplementary Data sub-trees together form the content tree of the Breast Imaging Report.

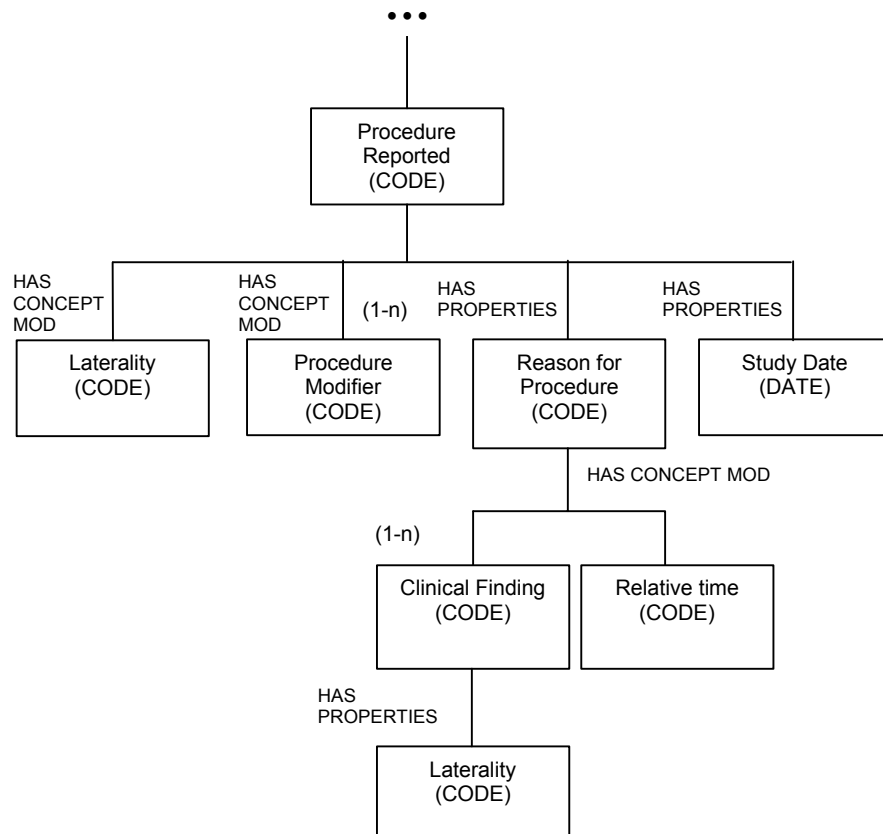


Figure X.1-2: Breast Imaging Procedure Reported Content Tree

The Breast Imaging Procedure Reported sub-tree is a mandatory child of the Supplementary Data content item, to describe all of the procedures to which the report applies using coded terminology. It may also be used as a sub-tree of sections within the Supplementary Data sub-tree, for the instance in which a report covers more than one procedure, but different sections of the Supplementary Data record the evidence of a subset of the procedures.

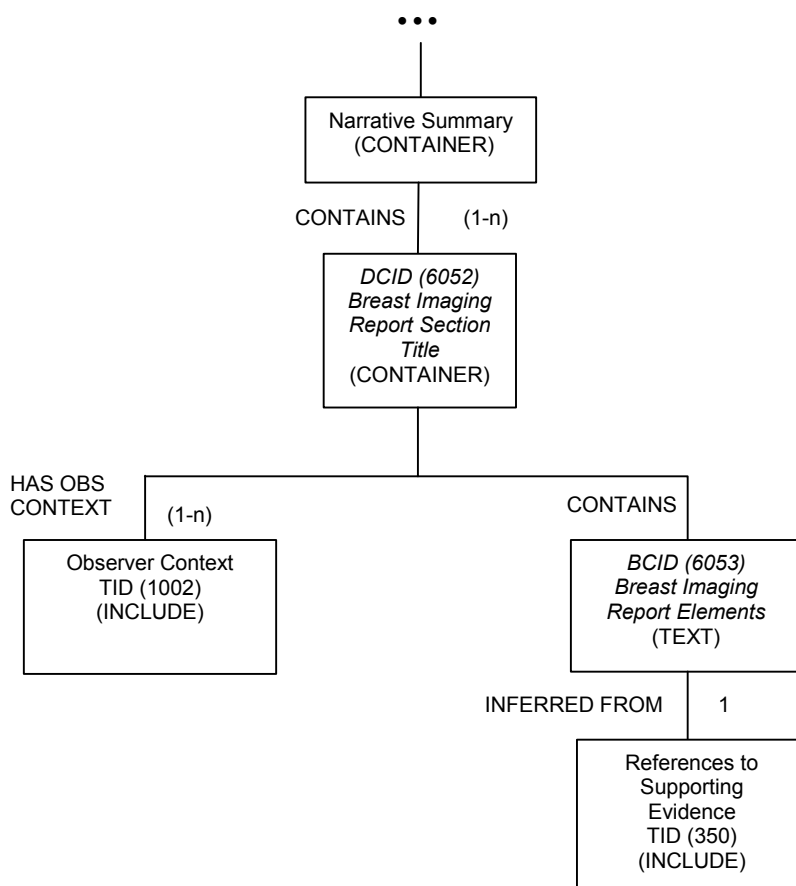


Figure X.1-3: Breast Imaging Report Narrative Content Tree

An instance of the Breast Imaging Report Narrative sub-tree contains one or more text-based report sections, with a name chosen from CID 6052, Breast Imaging Report Section Title. Within a report section, one or more observers may be identified. This sub-tree is intended to contain the report text as it was created, presented to, and signed off by the verifying observer. It is not intended to convey the exact rendering of the report, such as formatting or visual organization. Report text may reference one or more image or other composite objects on which the interpretation was based.

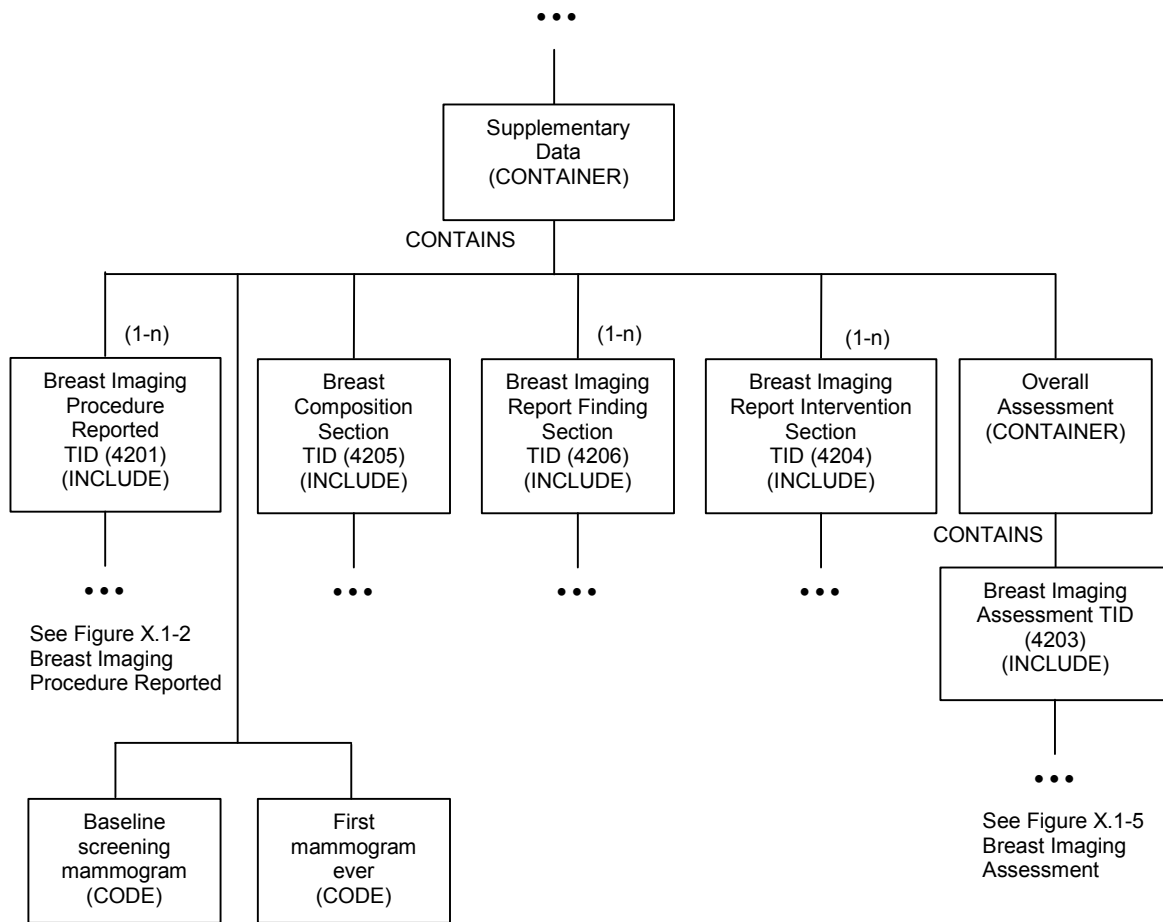


Figure X.1-4: Breast Imaging Report Supplementary Data Content Tree

An instance of the Breast Imaging Report Supplementary Data sub-tree contains one or more of: Breast Imaging Procedure Reported, Breast Composition Section, Breast Imaging Report Finding Section, Breast Imaging Report Intervention Section, Overall Assessment. This sub-tree is intended to contain the supporting evidence for the Breast Imaging Report Narrative sub-tree, using coded terminology and numeric data.

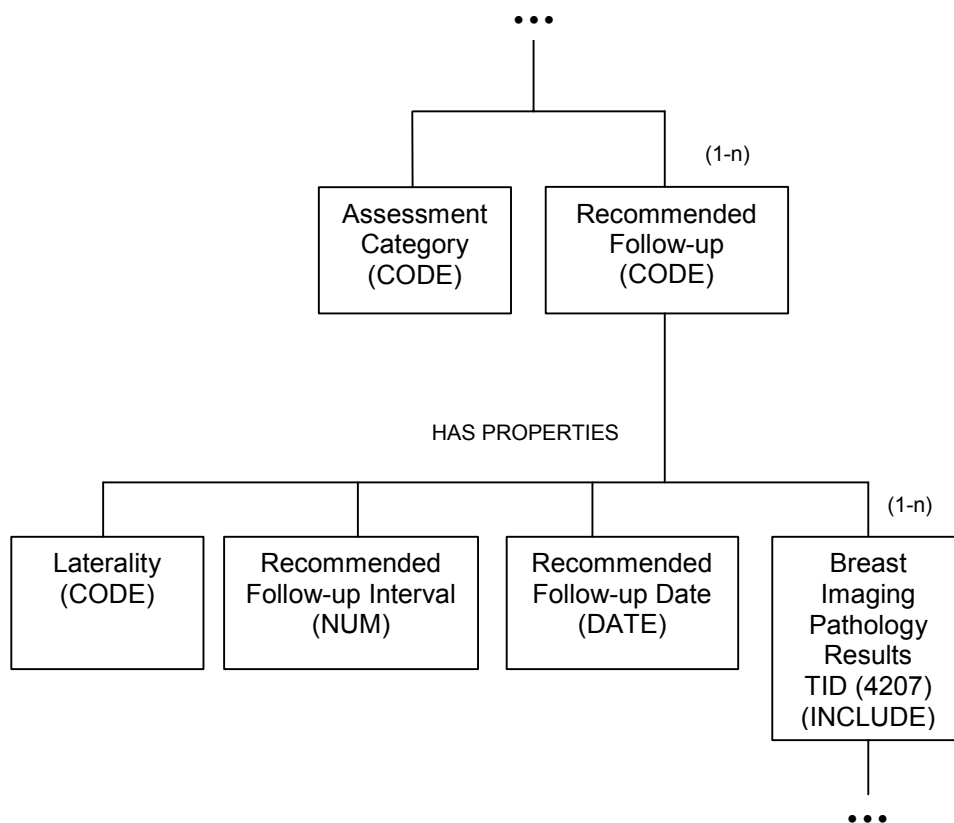


Figure X.1-5: Breast Imaging Assessment Content Tree

The Breast Imaging Assessment sub-tree may be instantiated as the content of an Overall Assessment section of a report (see Figure X.1-4), or as part of a Findings section of a report (see TID 4206). Reports may provide an individual assessment for each Finding, and then an overall assessment based on an aggregate of the individual assessments.

X.2 Breast Imaging Report Examples

The following are simple illustrations of encoding Mammography procedure based Breast Imaging Reports.

X.2.1 Example 1: Screening Mammogram with Negative Findings

A screening mammography case, i.e., there are typically four films and no suspicious abnormalities. The result is a negative mammogram with basic reporting. This example illustrates a report encoded as narrative text only:

Report Sample:

Procedure reported
Film screen mammography, both breasts.
Reason for procedure
Screening

<p>Findings</p> <p>Comparison was made to exam from 11/14/2001. The breasts are heterogeneously dense. This may lower the sensitivity of mammography. No significant masses, calcifications, or other abnormalities are present. There is no significant change from the prior exam.</p> <p>Impressions</p> <p>BI-RADS® Category 1: Negative. Recommend normal interval follow-up in 12 months</p>
--

TABLE X.2-1: Breast Image Report Content for Example 1

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1	Breast Imaging Report		4200
1.1	Language of Content Item and Descendants	English	1204
1.2	Narrative Summary		4202
1.2.1	Procedure reported		4202/6052
1.2.1.1	Procedure reported	Film screen mammography, both breasts.	4202/6053
1.2.2	Reason for procedure		4202/6052
1.2.2.1	Reason for procedure	Screening	4202/6053
1.2.3	Findings		4202/6052
1.2.3.1	Finding	Comparison was made to exam from 11/14/2001. The breasts are heterogeneously dense. This may lower the sensitivity of mammography. No significant masses, calcifications, or other abnormalities are present. There is no significant change from the prior exam.	4202/6053
1.2.4	Impressions		4202/6052
1.2.4.1	Impression	BI-RADS® Category 1: Negative. Recommend normal interval follow-up in 12 months.	4202/6053

X.2.2 Example 2: Screening Mammogram with Negative Findings

A screening mammography case, i.e., there are typically four films and no suspicious abnormalities. The result is a negative mammogram with basic reporting. This example illustrates a report encoded as narrative text with minimal supplementary data, and follows BI-RADS® and MQSA:

Report Sample:

<p>Procedure reported</p> <p>Film screen mammography, both breasts.</p>

Reason for procedure
Screening
Comparison to previous exams
Comparison was made to exam from 11/14/2001.
Breast composition
The breasts are heterogeneously dense. This may lower the sensitivity of mammography.
Findings
No significant masses, calcifications, or other abnormalities are present. There is no significant change from the prior exam.
Impressions
BI-RADS® Category 1: Negative. Recommend normal interval follow-up in 12 months.
Overall Assessment
Negative

TABLE X.2-2: Breast Imaging Report Content for Example 2

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1	Breast Imaging Report		4200
1.1	Language of Content Item and Descendants	English	1204
1.2	Narrative Summary		4202
1.2.1	Procedure reported		4202/6052
1.2.1.1	Procedure reported	Film screen mammography, both breasts.	4202/6053
1.2.2	Reason for procedure		4202/6052
1.2.2.1	Reason for procedure	Screening	4202/6053
1.2.3	Comparison to previous exams		4202/6052
1.2.3.1	Comparison to previous exams	Comparison was made to exam from 11/14/2001.	4202/6053
1.2.4	Breast composition		4202/6052
1.2.4.1	Breast composition	The breasts are heterogeneously dense. This may lower the sensitivity of mammography.	4202/6053
1.2.5	Findings		4202/6052

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1.2.5.1	Finding	No significant masses, calcifications, or other abnormalities are present. There is no significant change from the prior exam.	4202/6053
1.2.6	Impressions		4202/6052
1.2.6.1	Impression	BI-RADS® Category 1: Negative. Recommend normal interval follow-up in 12 months.	4202/6053
1.2.7	Overall Assessment		4202/6052
1.2.7.1	Overall Assessment	Negative	4202/6053
1.3	Supplementary Data		4208
1.3.1	Procedure reported	Film Screen Mammography	4201/6050
1.3.1.1	Laterality	Both breasts	4201/6022
1.3.1.2	Reason for procedure	Screening	4201/6051
1.3.2	Breast composition		4205
1.3.2.1	Breast composition	Heterogeneously dense	4205/6000
1.3.2.1.1	Laterality	Both breasts	4205/6022
1.3.3	Overall Assessment		4208
1.3.3.1	Assessment Category	1 – Negative	4203/6026
1.3.3.2	Recommended Follow-up	Normal interval follow-up	4203/6028

X.2.3 Example 3: Diagnostic Mammogram - Unilateral

A diagnostic mammogram was prompted by a clinical finding. The result is a probably benign finding with a short interval follow-up of the left breast. This report provides the narrative text with more extensive supplementary data.

Report Sample:

<p>Procedure reported</p> <p>Film screen mammography, left breast.</p> <p>Reason for procedure</p> <p>Non-bloody discharge left breast.</p> <p>Breast composition</p> <p>The breast is almost entirely fat.</p> <p>Findings</p> <p>Film screen mammograms were performed. There are heterogeneous calcifications regionally distributed in the 1 o'clock upper outer quadrant, anterior region of the left breast. There is an increase in the number of calcifications from the prior exam.</p>
--

Impressions

BI-RADS® Category 3: Probably Benign Finding. Short interval follow-up of the left breast is recommended in 6 months.

Table X.2-3: Breast Imaging Report Content for Example 3

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1	Breast Imaging Report		4200
1.1	Language of Content Item and Descendants	English	1204
1.2	Narrative Summary		4202
1.2.1	Procedure reported		4202/6052
1.2.1.1	Procedure reported	Film screen mammography, left breast.	4202/6053
1.2.2	Reason for procedure		4202/6052
1.2.2.1	Reason for procedure	Non-bloody discharge left breast.	4202/6053
1.2.3	Breast composition		4202/6052
1.2.3.1	Breast composition	The breast is almost entirely fat.	4202/6053
1.2.4	Findings		4202/6052
1.2.4.1	Finding	Film screen mammograms were performed. There are heterogeneous calcifications regionally distributed in the 1 o'clock upper outer quadrant, anterior region of the left breast. There is an increase in the number of calcifications from the prior exam.	4202/6053
1.2.5	Impressions		4202/6052
1.2.5.1	Impression	BI-RADS® Category 3: Probably Benign Finding. Short interval follow-up of the left breast is recommended in 6 months.	4202/6053
1.3	Supplementary Data		4208
1.3.1	Procedure reported	Film Screen Mammography	4201/6050
1.3.1.1	Laterality	Left breast	4201/6022
1.3.1.2	Reason for procedure	Clinical Finding	4201/6051
1.3.1.2.1	Clinical Finding	Non-bloody discharge	4201/6055
1.3.1.2.1.1	Laterality	Left breast	4201/6022
1.3.2	Breast composition		4205
1.3.2.1	Breast composition	Almost entirely fat	4205/6000
1.3.2.1.1	Laterality	Left breast	4205/6022
1.3.3	Findings		4206
1.3.3.1	Finding	Calcification of breast	4206/6054

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1.3.3.1.1	Assessment Category	3 – Probably Benign Finding – short interval follow-up	4203/6026
1.3.3.1.2	Recommended Follow-up	Follow-up at short interval (1-11 months)	4203/6028
1.3.3.1.2.1	Laterality	Left breast	4203/6022
1.3.3.1.2.2	Recommended Follow-up Interval	6 months	4203/6046
1.3.3.1.3	Clockface or region	1 o'clock position	4206/6018
1.3.3.1.4	Quadrant location	Upper outer quadrant of breast	4206/6020
1.3.3.1.5	Depth	Anterior	4206/6024
1.3.3.1.6	Calcification Type	Heterogeneous calcification	4206/6010
1.3.3.1.7	Calcification Distribution	Regional calcification distribution	4206/6012
1.3.3.1.8	Change since last mammogram	Increase in number of calcifications	4206/6002

X.2.4 Example 4: Diagnostic Mammogram and Ultrasound - Unilateral

Following a screening mammogram, the patient was asked to return for additional imaging and an ultrasound on the breast, for further evaluation of a mammographic mass. This example demonstrates a report on multiple breast imaging procedures. This report provides the narrative text with some supplementary data.

Report Sample:

<p>Procedure reported</p> <p>Film screen mammography, left breast; Ultrasound procedure, left breast.</p> <p>Reason for procedure</p> <p>Additional evaluation requested at current screening.</p> <p>Comparison to previous exams</p> <p>Comparison was made to exam from 11/14/2001.</p> <p>Findings</p> <p>Film Screen Mammography: A lobular mass with obscured margins is present measuring 7mm in the upper outer quadrant.</p> <p>Findings</p> <p>Ultrasound demonstrates a simple cyst.</p> <p>Impressions</p> <p>BI-RADS® Category 2: Benign, no evidence of malignancy. Normal interval follow-up of both breasts is recommended in 12 months.</p> <p>Overall Assessment</p> <p>Benign</p>
--

Table X.2-4: Breast Imaging Report Content for Example 4

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1	Breast Imaging Report		4200
1.1	Language of Content Item and Descendants	English	1204
1.2	Narrative Summary		4202
1.2.1	Procedure reported		4202/6052
1.2.1.1	Procedure reported	Film screen mammography, left breast; Ultrasound procedure, left breast.	4202/6053
1.2.2	Reason for procedure		4202/6052
1.2.2.1	Reason for procedure	Additional evaluation requested at current screening.	4202/6053
1.2.3	Comparison to previous exams		4202/6052
1.2.3.1	Comparison to previous exams	Comparison was made to exam from 11/14/2001.	4202/6053
1.2.4	Findings		4202/6052
1.2.4.1	Finding	Film Screen Mammography: A lobular mass with obscured margins is present measuring 7mm in the upper outer quadrant.	4202/6053
1.2.5	Findings		4202/6052
1.2.5.1	Finding	Ultrasound demonstrates a simple cyst.	4202/6053
1.2.6	Impressions		4202/6052
1.2.6.1	Impression	BI-RADS® Category 2: Benign, no evidence of malignancy. Normal interval follow-up of both breasts is recommended in 12 months.	4202/6053
1.2.7	Overall Assessment		4202/6052
1.2.7.1	Overall Assessment	Benign	4202/6053
1.3	Supplementary Data		4208
1.3.1	Procedure reported	Film Screen Mammography	4201/6050
1.3.1.1	Laterality	Left breast	4201/6022
1.3.1.2	Reason for procedure	Additional evaluation requested at current screening	4201/6051
1.3.2	Procedure reported	Ultrasound procedure	4201/6050
1.3.2.1	Laterality	Left breast	4201/6022
1.3.2.2	Reason for procedure	Additional evaluation requested at current screening	4201/6051
1.3.3	Findings		4206
1.3.3.1	Procedure reported	Film Screen Mammography	4201/6050
1.3.3.1.1	Laterality	Left breast	4201/6022

Node	Code Meaning of Concept Name	Code Meaning or Example Value	TID/CID
1.3.3.1.2	Reason for procedure	Additional evaluation requested at current screening	4201/6051
1.3.3.2	Finding	Mammographic breast mass	4206/6054
1.3.3.2.1	Quadrant location	Upper outer quadrant of breast	4206/6020
1.3.3.2.2	Diameter	7 mm	1400/7470
1.3.3.2.3	Shape	Lobular	4206/6004
1.3.3.2.4	Margins	Obscured lesion	4206/6006
1.3.4	Findings		4206
1.3.4.1	Procedure reported	Ultrasound procedure	4201/6050
1.3.4.1.1	Laterality	Left breast	4201/6022
1.3.4.1.2	Reason for procedure	Additional evaluation requested at current screening	4201/6051
1.3.4.2	Finding	Simple cyst of breast	4206/6054
1.3.5	Overall Assessment		4208
1.3.5.1	Assessment Category	2 – Benign Finding	4203/6026

Part 16 Addendum

Add the following Templates to Part 16, Section 2, Normative References:

AJCC

American Joint Committee on Cancer (AJCC) Cancer Staging Handbook, from the AJCC Cancer Staging Manual, Sixth Edition, Springer-Verlag, 2002 [ISBN 0-387-95270-5].

Add the following Templates to Part 16 Annex A DCMR Templates (Normative):

Annex A DCMR Templates (Normative)

A.X: BREAST IMAGING REPORT TEMPLATES

The templates that comprise the Breast Imaging Report are interconnected as in Figure A.X-1:

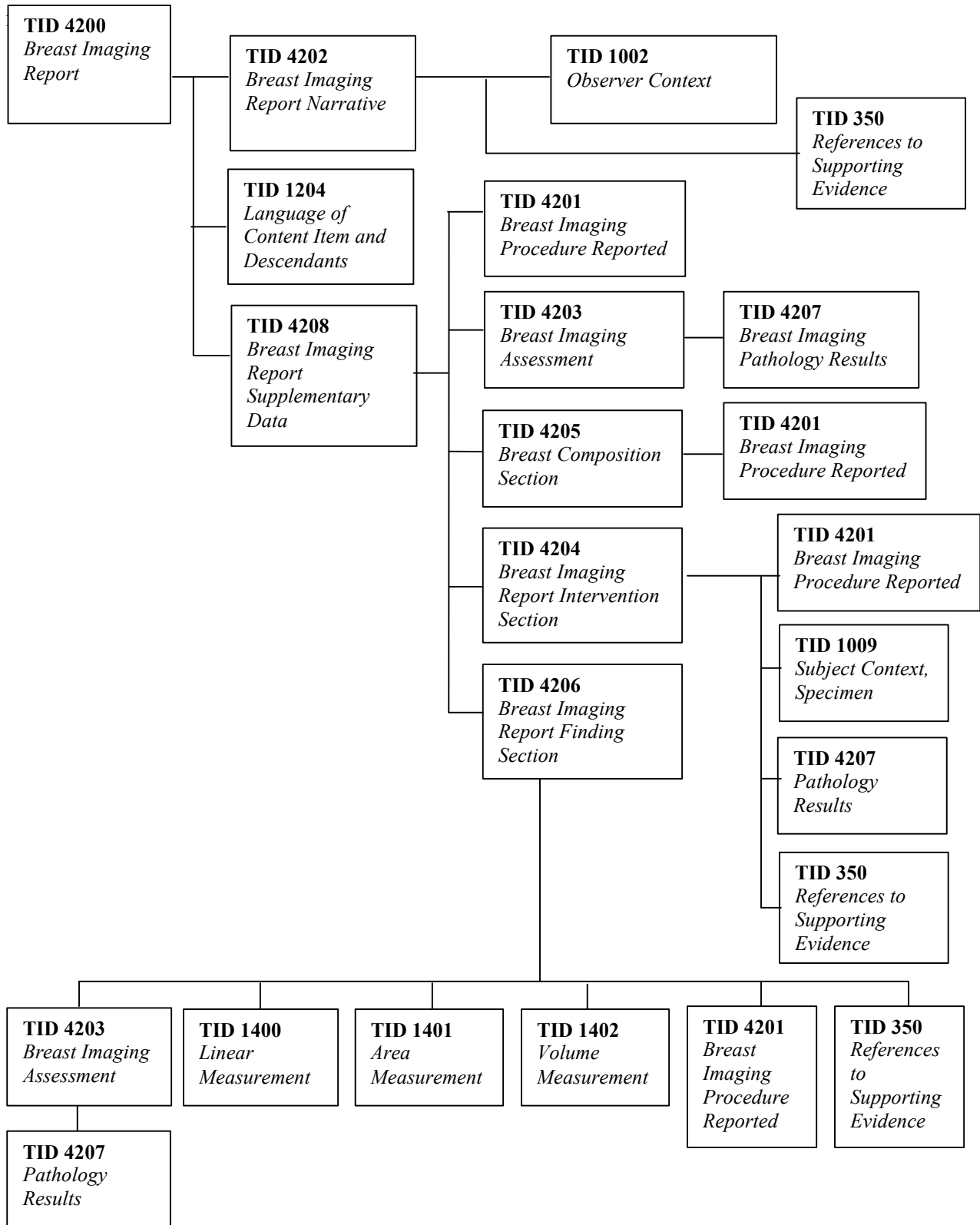


Figure A.X-1: Breast Imaging Report Template Structure

TID 4200 Breast Imaging Report

This template forms the content tree that allows a Breast Imaging Report device to describe the results of a radiologist's diagnostic interpretation of Breast Imaging (e.g., X-ray mammography or breast ultrasound) evidence. This template, together with its subordinate templates, describes the results for presentation to clinicians, or for consumption by Breast Imaging Report devices for subsequent Breast Imaging Reports.

This template shall be instantiated at the Root node only.

See the figure entitled "Top Levels of Breast Imaging Report Content Tree" in the "Breast Imaging Report Content Tree Structure" Annex of PS 3.3.

**TID 4200
BREAST IMAGING REPORT**

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (111400, DCM, "Breast Imaging Report")	1	M		
2	>	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants	1	M		
3	>	CONTAINS	INCLUDE	DTID (4202) Breast Imaging Report Narrative	1	M		
4	>	CONTAINS	INCLUDE	DTID (4208) Breast Imaging Report Supplementary Data	1	U		

TID 4201 Breast Imaging Procedure Reported

A procedure that is reported in a Breast Imaging Report is expressed in this template. The results of more than one procedure may be included in a single report instance (see TID 4208).

See the figure entitled “Breast Imaging Procedure Reported Content Tree” in the “Breast Imaging Report Content Tree Structure” Annex of PS 3.3.

**TID 4201
BREAST IMAGING PROCEDURE REPORTED**

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CODE	EV (121058, DCM, "Procedure reported")	1	M		DCID (6050) Breast Procedure Reported
2	>	HAS CONCEPT MOD	CODE	EV (111464, DCM, "Procedure Modifier")	1-n	U		DCID (6058) Procedure Modifiers for Breast
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")	1	M		DCID (6022) Side
4	>	HAS PROPERTIES	CODE	EV (111401, DCM, "Reason for procedure")	1	U		DCID (6051) Breast Procedure Reason
5	>>	HAS CONCEPT MOD	CODE	EV (G-D709, SRT, "Relative time")	1	U		DCID (12102) Temporal Periods Relating To Procedure or Therapy
6	>>	HAS CONCEPT MOD	CODE	EV (111402, DCM, "Clinical Finding")	1-n	UC	IFF row 4 value is "Clinical Finding"	DCID (6055) Breast Clinical Finding or Indicated Problem
7	>>>	HAS PROPERTIES	CODE	EV (G-C171, SRT, "Laterality")	1	U		DCID (6022) Side
8	>	HAS PROPERTIES	DATE	EV (111060, DCM, "Study Date")	1	U		

Content Item Descriptions

Row 5 “Relative time”	This content item indicates whether the value of “Reason for procedure” (row 4) is modified with “pre-“ or “follow-up”.
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TID 4202 Breast Imaging Report Narrative

This template contains the narrative text sub-tree of the content tree of a Breast Imaging Report. The narrative summary may be subdivided into sections with section headings.

See the figure entitled “Breast Imaging Report Narrative Content Tree” in the “Breast Imaging Report Content Tree Structure” Annex of PS 3.3.

**TID 4202
BREAST IMAGING REPORT NARRATIVE**

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (111412, DCM, “Narrative Summary”)	1	M		
2	>	CONTAINS	CONTAINER	BCID (6052) Breast Imaging Report Section Title	1-n	M		
3	>>	HAS OBS CONTEXT	INCLUDE	DTID (1002) Observer Context	1-n	U		
4	>>	CONTAINS	TEXT	BCID (6053) Breast Imaging Report Elements	1	M		
5	>>>	INFERRED FROM	INCLUDE	DTID (350) References to Supporting Evidence	1	U		

TID 4203 Breast Imaging Assessment

This template provides the content of a Breast Imaging Assessment, for an overall assessment section for the entire report (see TID 4208) or an assessment of a particular finding (see TID 4206). This template defines a code-based assessment of the interpretation results.

See the figure entitled “Breast Imaging Assessment Content Tree” in the “Breast Imaging Report Content Tree Structure” Annex of PS 3.3.

**TID 4203
BREAST IMAGING ASSESSMENT**

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CODE	EV (111005, DCM, “Assessment Category”)	1	M		DCID (6026) Mammography Assessment
2			CODE	EV (111053, DCM, “Recommended Follow-up”)	1-n	U		BCID (6028) Mammography Recommended Follow-up
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, “Laterality”)	1	U		DCID (6022) Side
4	>	HAS PROPERTIES	NUM	EV (111055, DCM, “Recommended Follow-up Interval”)	1	U		UNITS = DCID (6046) Units of Follow-up Interval Values = Integer ≥ 0, where 0 = immediate follow-up
5	>	HAS PROPERTIES	DATE	EV (111054, DCM, “Recommended Follow-up Date”)	1	U		
6	>	HAS PROPERTIES	INCLUDE	DTID (4207) Breast Imaging Pathology Results	1-n	U		

TID 4204 Breast Imaging Report Intervention Section

This template defines a supplementary data section for an Intervention of the breast, for the Breast Imaging Report. It is included from TID 4208, Breast Imaging Report Supplementary Data.

**TID 4204
BREAST IMAGING REPORT INTERVENTION SECTION**

Type: Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (111463, DCM, "Supplementary Data for Intervention")	1	M		
2	>	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported	1	M		
3	>	CONTAINS	CODE	EV (A-00110, SRT, "Instrument")	1	U		
4	>>	HAS PROPERTIES	TEXT	EV (111465, DCM, "Needle Gauge")	1	UC	XOR row 5	
5	>>	HAS PROPERTIES	CODE	EV (111465, DCM, "Needle Gauge")	1	UC	XOR row 4	
6	>>	HAS PROPERTIES	NUM	EV (111467, DCM, "Needle Length")	1	U		UNITS = EV (cm, UCUM, "centimeter")
7	>	CONTAINS	NUM	EV (111436, DCM, "Number of passes")	1	U		UNITS = EV ({passes}, UCUM, "passes")
8	>	CONTAINS	NUM	EV (111437, DCM, "Number of specimens")	1	U		UNITS = EV ({specimens}, UCUM, "specimens")
9	>	CONTAINS	CODE	EV (111431, DCM, "Instrument Approach")	1-n	U		DCID (6065) Instrument Approach
10	>	CONTAINS	CODE	EV (111438, DCM, "Needle in target")	1	U		DCID (230) Yes-No
11	>	CONTAINS	NUM	EV (111439, DCM, "Number of needles around target")	1	U		UNITS = EV ({needles}, UCUM, "needles")
12	>	CONTAINS	CODE	EV (F-04460 SRT, "Medication given")	1-n	U		
13	>	CONTAINS	CODE	EV (111440, DCM, "Incision made")	1	U		DCID (230) Yes-No
14	>	CONTAINS	CODE	EV (111441, DCM, "Microclip placed")	1	U		DCID (230) Yes-No
15	>	CONTAINS	CODE	EV (111442, DCM, "Confirmation of target")	1	U		DCID (6066) Target Confirmation

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	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
16	>	CONTAINS	CODE	EV (DD-60002, SRT, "Complication of procedure")	1-n	U		DCID (6062) Interventional Procedure Complications
17	>>	HAS PROPERTIES	CODE	EV (111466, DCM, "Severity of Complication")	1	U		DCID (251) Severity of Complication
18	>	CONTAINS	CONTAINER	EV (121027, DCM, "Specimen")	1-n	U		
19	>>	HAS OBS CONTEXT	INCLUDE	DTID (1009) Subject Context, Specimen	1	U		
20	>>	CONTAINS	CODE	EV (F-00E6D, SRT, "Color of fluid")	1	U		DCID (6067) Fluid Color
21	>>	CONTAINS	CODE	EV (111456, DCM, "Action on fluid")	1	U		DT (111457, DCM, "Sent for analysis") or DT (111458, DCM, "Discarded")
22	>>	CONTAINS	CODE	EV (111455, DCM, "Occult blood test result")	1	U		DCID (250) Positive-Negative
23	>>	CONTAINS	INCLUDE	DTID (4207) Breast Imaging Pathology Results	1-n	U		
24	>	CONTAINS	INCLUDE	DTID (350) References to Supporting Evidence	1	U		

TID 4205 Breast Composition Section

This template defines a Breast Composition section for the supplementary data sub-tree of the Breast Imaging Report. It is included from TID 4208, Breast Imaging Report Supplementary Data.

**TID 4205
BREAST COMPOSITION SECTION**

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (F-01710, SRT, "Breast composition")	1	M		
2	>	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported	1-n	U		
3	>	CONTAINS	CODE	EV (F-01710, SRT, "Breast composition")	1-n	MC	At least one of row 3, 5 shall be present	DCID (6000) Overall Breast Composition
4	>>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")	1	M		DCID (6022) Side
5	>	CONTAINS	NUM	EV (111046, DCM, "Percent Glandular Tissue")	1-n	MC	At least one of row 3, 5 shall be present	UNITS = (% , UCUM "Percent")
6	>>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")	1	M		DCID (6022) Side

TID 4206 Breast Imaging Report Finding Section

This template defines a supplementary data section for the Findings of the Breast Imaging Report. It is included from TID 4208, Breast Imaging Report Supplementary Data.

**TID 4206
BREAST IMAGING REPORT FINDING SECTION**

Type: Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (121070, DCM, "Findings")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID (1002) Observer Context	1-n	U		
3	>	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported	1	M		
4	>	CONTAINS	CODE	EV (121071, DCM, "Finding")	1-n	M		DCID (6054) Breast Imaging Findings
5	>>	HAS CONCEPT MOD	CODE	EV (111405, DCM, "Implant type")	1-n	UC	May be present if value of row 4 is (A-04010, SRT, "Implant")	DCID (6059) Breast Implant Types
6	>>	HAS PROPERTIES	INCLUDE	DTID (4203) Breast Imaging Assessment	1	U		
7	>>	HAS PROPERTIES	CODE	EV (111014, DCM, "Clockface or region")	1	U		DCID (6018) Clockface Location or Region
8	>>	HAS PROPERTIES	CODE	EV (111048, DCM, "Quadrant location")	1	U		DCID (6020) Quadrant Location
9	>>	HAS PROPERTIES	INCLUDE	DTID (1400) Linear Measurement	1-n	U		
10	>>	HAS PROPERTIES	INCLUDE	DTID (1401) Area Measurement	1-n	U		
11	>>	HAS PROPERTIES	INCLUDE	DTID (1402) Volume Measurement	1-n	U		
12	>>	HAS PROPERTIES	CODE	EV (111020, DCM, "Depth")	1	U		DCID (6024) Depth
13	>>	HAS PROPERTIES	CODE	EV (111035, DCM, "Lesion Density")	1	U		DCID (6008) Density Modifier
14	>>	HAS PROPERTIES	CODE	EV (M-020F9, SRT, "Shape")	1-n	U		DCID (6004) Mammography Characteristics of Shape
15	>>	HAS PROPERTIES	CODE	EV (111037, DCM, "Margins")	1-n	U		DCID (6006) Mammography Characteristics of Margin
16	>>	HAS PROPERTIES	CODE	EV (111009, DCM, "Calcification Type")	1-n	U		DCID (6010) Mammography Calcification Types
17	>>	HAS PROPERTIES	CODE	EV (111008, DCM, "Calcification Distribution")	1	U		DCID (6012) Calcification Distribution Modifier

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	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
18	>>	HAS PROPERTIES	NUM	EV (111038, DCM, "Number of calcifications")	1	U		UNITS = EV ({calcifications}, UCUM, "calcifications") Value = Integer 1 – n
19	>>	HAS PROPERTIES	CODE	EV (111407, DCM, "Implant finding")	1-n	U		DCID (6072) Breast Implant Findings
20	>>	HAS PROPERTIES	CODE	EV (G-C189, SRT, "Associated Finding")	1-n	U		DCID (6056) Associated Findings for Breast
21	>>	HAS PROPERTIES	NUM	EV (111406, DCM, "Number of similar findings")	1	U		UNITS = EV ({findings}, UCUM, "findings") Value = Integer 2 – n
22	>>	HAS PROPERTIES	CODE	EV (F-01720, SRT, "Change since last mammogram")	1-n	U		DCID (6002) Change Since Last Mammogram or Prior Surgery
23	>>	INFERRED FROM	INCLUDE	DTID (350) References to Supporting Evidence	1	U		

TID 4207 Breast Imaging Pathology Results

This template defines the pathology results for a procedure. It may be applied to a Breast Imaging Assessment (see TID 4203), or a Breast Imaging Intervention (see TID 4204).

**TID 4207
BREAST IMAGING PATHOLOGY RESULTS**

Type: Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (111468, DCM, "Pathology Results")	1	M		
2	>	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported	1	U		
3	>	CONTAINS	DATETIME	EV (111469, DCM, "Sampling Datetime")	1	M		
4	>	CONTAINS	CODE	EV (122177, DCM, "Procedure Result")	1	M		DCID (6063) Interventional Procedure Results
5	>	CONTAINS	CODE	EV (111042, DCM, "Pathology")	1-n	U		BCID (6030) Mammography Pathology Codes
6	>>	HAS PROPERTIES	NUM	DCID (7470) Linear Measurements	1-n	U		UNITS = EV (mm, UCUM, "millimeter")
7	>>	HAS PROPERTIES	CODE	EV (F-02900, SRT, "Histological grade finding")	1	U		BCID (6069) Nottingham Combined Histologic Grade, BCID (6070) Bloom-Richardson Histologic Grade
8	>>>	HAS CONCEPT MOD	CODE	EV (R-00258, SRT, "Histologic grade")	1	U		BCID (6071) Histologic Grading Method
9	>>	HAS PROPERTIES	CODE	EV (R-00274, SRT, "Tumor margin status")	1	U		DT (111470, DCM, "Uninvolved"), DT (111471, DCM, "Involved")
10	>>	HAS PROPERTIES	CODE	EV (111472, DCM, "Nipple involved")	1	U		DCID (230) Yes-No
11	>>	HAS PROPERTIES	NUM	EV (111473, DCM, "Number of nodes removed")	1	U		UNITS=EV ({nodes}, UCUM, "nodes")
12	>>	HAS PROPERTIES	NUM	EV (111474, DCM, "Number of nodes positive")	1	MC	Shall be present IFF value of row 11 is > 0	UNITS=EV ({nodes}, UCUM, "nodes")
13	>>	HAS PROPERTIES	CODE	EV (R-00443, SRT, "Tumor stage finding")	1	U		BCID (6068) Tumor Stages from AJCC
14	>>	HAS PROPERTIES	CODE	EV (111475, DCM, "Estrogen receptor")	1	U		DCID (250) Positive-Negative
15	>>	HAS PROPERTIES	CODE	EV (111476, DCM, "Progesterone receptor")	1	U		DCID (250) Positive-Negative

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
16	>>	HAS PROPERTIES	NUM	EV (111477, DCM, "S Phase")	1	U		UNITS=EV (% , UCUM, "percent")

TID 4208 Breast Imaging Report Supplementary Data

This template forms a supplementary data sub-tree of the content tree of a Breast Imaging Report. Each subsection provides a specific type of supporting evidence to the narrative text sub-tree, for example, as coded and numeric data.

See the figure entitled "Breast Imaging Report Supplementary Data Content Tree" in the "Breast Imaging Report Content Tree Structure" Annex of PS 3.3.

TID 4208 BREAST IMAGING REPORT SUPPLEMENTARY DATA

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (111414, DCM, "Supplementary Data")	1	M		
2	>	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported	1-n	M		
3	>	CONTAINS	CODE	EV (111403, DCM, "Baseline screening mammogram")	1	U		DCID (230) Yes-No
4	>	CONTAINS	CODE	EV (111404, DCM, "First mammogram ever")	1	U		DCID (230) Yes-No
5	>	CONTAINS	INCLUDE	DTID (4205) Breast Composition Section	1	U		
6	>	CONTAINS	INCLUDE	DTID (4206) Breast Imaging Report Finding Section	1-n	U		
7	>	CONTAINS	INCLUDE	DTID (4204) Breast Imaging Report Intervention Section	1-n	U		
8	>	CONTAINS	CONTAINER	EV (111413, DCM, "Overall Assessment")	1	U		
9	>>	CONTAINS	INCLUDE	DTID (4203) Breast Imaging Assessment	1	M		

TID 350 References to Supporting Evidence

This template provides references to supporting evidence in the form of DICOM composite objects. This includes references to images, spatial coordinates on images, and other composite objects, such as Structured Reports.

**TID 350
REFERENCES TO SUPPORTING EVIDENCE**

Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			IMAGE	BCID (7003) Diagnostic Imaging Report Purposes of Reference	1-n	U		
2			SCOORD	BCID (7003) Diagnostic Imaging Report Purposes of Reference	1-n	U		
3	>	SELECTED FROM	IMAGE		1	M		
4			COMPOSITE	DT (122073, DCM, "Current procedure evidence")	1-n	U		
5	>	HAS CONCEPT MOD	CODE	EV (121144, DCM, "Document Title")	1	U		

Change name of context group in TID 5100 row 2 (from sup71_ft & associated CP):

TID 5100 Vascular Ultrasound Report

...

2	>	HAS OBS CONTEXT	CODE	EV (R-40FB8, SRT, "Temporal Periods Relating to Procedure")	1	U		DCID (12102) <u>Intervention Phase</u> <u>Temporal Periods Relating To Procedure or Therapy</u>
---	---	-----------------	------	---	---	---	--	---

Add the following Context Groups to Part 16 Annex B DCMR Context Groups (Normative):

Annex B DCMR Context Groups (Normative)

CID 6050 BREAST PROCEDURE REPORTED

Context ID 6050

Breast Procedure Reported

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111408	Film Screen Mammography
DCM		111409	Digital Mammography
SRT		P5-B8500	Ultrasonography of breast
SRT		P5-0900D	MRI of breast
SRT		P1-48011	Pre-biopsy localization of breast lesion
SRT		P1-48145	Fine needle aspiration of breast
SRT		P1-48142	Diagnostic aspiration of breast cyst
SRT		P1-48304	Core needle biopsy of breast
SRT		P1-4830F	Breast – surgical biopsy
SRT		P5-40060	Mammary ductogram
SRT		P5-0801C	CT of breast
SRT		P5-D0042	Radionuclide localization of tumor, limited area
SRT		P5-40030	Specimen radiography of breast
SRT		P2-4A000	Examination of breast
DCM		111410	Surgical consult
DCM		111411	Mammography CAD

CID 6051 BREAST PROCEDURE REASON

Context ID 6051

Breast Procedure Reason

Type: Extensible Version: 20040112

Note: Some of these terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-42453	Screening
DCM		111415	Additional evaluation requested from prior outside study
DCM		111416	Follow-up at short interval from prior study
DCM		111417	History of breast augmentation, asymptomatic
DCM		111418	Review of an outside study
DCM		111402	Clinical finding
SRT		P1-48830	Reduction mammoplasty
SRT		P5-C0000	Radiation therapy
SRT		P1-48840	Augmentation mammoplasty
DCM		111419	Additional evaluation requested at current screening
SRT		P5-C0610	Brachytherapy
DCM		111420	History of benign breast biopsy
DCM		111421	Personal history of breast cancer with breast conservation therapy

CID 6052 BREAST IMAGING REPORT SECTION TITLE

Context ID 6052

Breast Imaging Report Section Title

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111423	Physical Examination Results
DCM		111424	Comparison to previous exams
DCM		121070	Findings
DCM		121072	Impressions
DCM		121074	Recommendations
DCM		121076	Conclusions
DCM		121078	Addendum
SRT		F-01710	Breast composition
DCM		111413	Overall Assessment
DCM		121058	Procedure reported
DCM		111401	Reason for procedure

CID 6053 BREAST IMAGING REPORT ELEMENTS

Context ID 6053

Breast Imaging Report Elements

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111423	Physical Examination Results
DCM		111424	Comparison to previous exams
DCM		121071	Finding
DCM		121073	Impression
DCM		121075	Recommendation
DCM		121077	Conclusion
SRT		F-01710	Breast composition
DCM		111413	Overall Assessment
DCM		121058	Procedure reported
DCM		111401	Reason for procedure

CID 6054 BREAST IMAGING FINDINGS

Context ID 6054

Breast Imaging Findings

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		F-8A084	Breast normal
SRT		F-8A057	Calcification of breast
DCM		111459	Mass with calcifications
SRT		A-04010	Implant
<i>Include CID 6016</i>			
<i>Include CID 6057</i>			
<i>Include CID 6064</i>			

CID 6055 BREAST CLINICAL FINDING OR INDICATED PROBLEM

Context ID 6055

Breast Clinical Finding or Indicated Problem

Type: Extensible Version: 20040112

Note: Some of these terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-207D7	O/E - Breast lump palpated
SRT		D7-90565	Bloody nipple discharge
DCM		111478	Non-bloody discharge
DCM		111479	Difficult physical examination
SRT		D7-90010	Disorder of breast implant
SRT		F-0179A	Skin thickening of breast
SRT		F-01799	Skin retraction of breast
SRT		D7-90560	Peau d'orange surface of breast
SRT		F-8A09C	Nipple problem
SRT		R-20099	O/E – axillary lymphadenopathy
SRT		F-8A030	Breast pain
DCM		111480	Cancer elsewhere
SRT		D7-90530	Breast lump
SRT		F-8A074	Discoloration of skin of breast

CID 6056 ASSOCIATED FINDINGS FOR BREAST**Context ID 6056****Associated Findings for Breast****Type: Extensible Version: 20040112**

Note: These terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		D7-9002A	Breast hematoma
SRT		M-78280	Surgical scar
SRT		D7-90554	Nipple retraction
<i>Include CID 6015</i>			

CID 6057 DUCTOGRAPHY FINDINGS FOR BREAST**Context ID 6057****Ductography Findings for Breast****Type: Extensible Version: 20040112**

Note: These terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111287	Normal breast tissue
DCM		111425	Intraluminal filling defect
SRT		D7-90370	Mammary duct ectasia
DCM		111426	Multiple filling defect
DCM		111427	Abrupt duct termination
DCM		111428	Extravasation
DCM		111429	Duct narrowing
DCM		111430	Cyst fill

CID 6058 PROCEDURE MODIFIERS FOR BREAST

Context ID 6058

Procedure Modifiers for Breast

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
<i>Include CID 6059</i>			
<i>Include CID 6060</i>			
<i>Include CID 6061</i>			

CID 6059 BREAST IMPLANT TYPES

Context ID 6059

Breast Implant Types

Type: Extensible Version: 20040112

Note: Some of these terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		A-04830	Breast implant, type not specified
SRT		A-04831	Silicone gel implant
DCM		111481	Saline implant
DCM		111482	Polyurethane implant
DCM		111483	Percutaneous silicone injection
DCM		111484	Combination implant
DCM		111485	Pre-pectoral implant
DCM		111486	Retro-pectoral implant

CID 6060 BREAST BIOPSY TECHNIQUES**Context ID 6060****Breast Biopsy Techniques****Type: Extensible Version: 20040112**

Note: Some of these terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		P1-03005	Lumpectomy
SRT		P1-43850	Mastectomy
SRT		P1-4834A	Quadrantectomy of breast
SRT		P5-00032	Diagnostic radiography, stereotactic localization
SRT		P1-03115	Ultrasound guided biopsy
SRT		P5-40010	Mammography
DCM		111487	Mammographic (crosshair)
DCM		111488	Mammographic (grid)
SRT		P1-03107	Magnetic resonance imaging guided biopsy
SRT		P1-03106	Computed tomography guided biopsy
DCM		111489	Palpation guided
DCM		111490	Vacuum assisted

CID 6061 BREAST IMAGING PROCEDURE MODIFIERS**Context ID 6061****Breast Imaging Procedure Modifiers****Type: Extensible Version: 20040112**

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-42453	Screening
SRT		R-408C3	Diagnostic

CID 6062 INTERVENTIONAL PROCEDURE COMPLICATIONS

Context ID 6062

Interventional Procedure Complications

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		DD-66A67	Hemorrhage postprocedure
DCM		111491	Abnormal discharge
SRT		F-0147C	Hematoma - postoperative
SRT		D0-00165	Weal
SRT		DD-67700	Infection as complication of medical care
SRT		F-A2632	Persistent pain following procedure
SRT		D2-80300	Pneumothorax
SRT		D0-00058	Rash
SRT		M-02570	Swelling
SRT		F-A5581	Vasovagal attack
DCM		111492	No complications

CID 6063 INTERVENTIONAL PROCEDURE RESULTS

Context ID 6063

Interventional Procedure Results

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-A249	Benign
SRT		R-41DDC	High risk tumor
SRT		G-A245	Malignant
SRT		M-09024	Insufficient sample
SRT		F-01E06	Indeterminate result

CID 6064 ULTRASOUND FINDINGS FOR BREAST**Context ID 6064****Ultrasound Findings for Breast****Type: Extensible Version:**

Note: These terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		F-01BF8	Ultrasound scan normal
SRT		D7-90360	Simple cyst of breast
DCM		111460	Complex cyst
DCM		111461	Intracystic lesion
SRT		D7-90370	Mammary duct ectasia
DCM		111462	Solid mass
SRT		T-C4000	Lymph node
SRT		D7-90382	Sebaceous cyst of skin of breast

CID 6065 INSTRUMENT APPROACH**Context ID 6065****Instrument Approach****Type: Extensible Version: 20040112**

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-A109	Medial
SRT		G-A104	Lateral
SRT		G-A116	Superior
SRT		G-A115	Inferior
DCM		111432	Inferolateral to superomedial
DCM		111433	Inferomedial to superolateral
DCM		111434	Superolateral to inferomedial
DCM		111435	Superomedial to inferolateral

CID 6066 TARGET CONFIRMATION

Context ID 6066

Target Confirmation

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111443	Target contained in the specimen
DCM		111444	Target partially obtained in the specimen
DCM		111445	Target not in the specimen
DCM		111446	Calcifications seen in the core
DCM		111447	Lesion completely removed
DCM		111448	Lesion partially removed
DCM		111449	Fluid obtained

CID 6067 FLUID COLOR

Context ID 6067

Fluid Color

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-A12B	White color
SRT		G-A11D	Yellow color
DCM		111450	Light brown color
SRT		G-A11E	Green color
SRT		G-A12D	Gray color
DCM		111451	Dark red color
DCM		111452	Dark brown color
SRT		R-4205B	Clear
SRT		G-A12E	Brown color
DCM		111453	Bright red color
DCM		111454	Blood tinged color
SRT		G-A12C	Black color

CID 6068 TUMOR STAGES FROM AJCC

Context ID 6068

Tumor Stages from AJCC

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111494	Stage 0
DCM		111495	Stage I
DCM		111496	Stage IIA
DCM		111497	Stage IIB
DCM		111498	Stage IIIA
DCM		111499	Stage IIIB
DCM		111500	Stage IIIC
DCM		111501	Stage IV

CID 6069 NOTTINGHAM COMBINED HISTOLOGIC GRADE

Context ID 6069

Nottingham Combined Histologic Grade

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		F-02B9B	Nottingham Combined Grade cannot be determined
SRT		G-F616	Nottingham Combined Grade I: 3-5 points
SRT		G-F617	Nottingham Combined Grade II: 6-7 points
SRT		G-F618	Nottingham Combined Grade III: 8-9 points

CID 6070 BLOOM-RICHARDSON HISTOLOGIC GRADE

Context ID 6070

Bloom-Richardson Histologic Grade

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-F211	Grade 1: well differentiated
SRT		G-F212	Grade 2: moderately differentiated
SRT		G-F213	Grade 3: poorly differentiated
SRT		R-41DC5	Grade 4: undifferentiated

CID 6071 HISTOLOGIC GRADING METHOD

Context ID 6071

Histologic Grading Method

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111502	Bloom-Richardson Grade
SRT		R-00288	Nottingham Combined Grade

CID 6072 BREAST IMPLANT FINDINGS

Context ID 6072

Breast Implant Findings

Type: Extensible Version: 20040112

Note: These terms were obtained from BI-RADS®

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		111503	Normal implants
DCM		111504	Asymmetric implants
DCM		111505	Calcified implant
DCM		111506	Distorted implant
DCM		111507	Silicone-laden lymph nodes
DCM		111508	Free silicone
DCM		111509	Herniated implant
SRT		DD-66544	Rupture of breast implant
DCM		111510	Explantation

CID 250 POSITIVE-NEGATIVE

Context ID 250

Positive-Negative

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-A200	Positive
SRT		R-40759	Negative

CID 251 SEVERITY OF COMPLICATION

Context ID 251

Severity of Complication

Type: Extensible Version: 20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-404F9	Major
SRT		R-404FC	Minor

Change name of context group 12102 (from sup71_ft & associated CP):

CID 12102 INTERVENTION PHASE TEMPORAL PERIODS RELATING TO PROCEDURE OR THERAPY

Context ID 12102

Intervention Phase Temporal Periods Relating to Procedure or Therapy

Type: Extensible Version: ~~20030327~~20040112

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-422A4	After procedure
SRT		R-40FB9	Before procedure

<i>Add the following definitions to Part 16 Annex D DICOM Controlled Terminology Definitions (Normative):</i>

Annex D DICOM Controlled Terminology Definitions (Normative)

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111400	Breast Imaging Report	Report title for the diagnostic report for one or more breast imaging or intervention procedures.
111401	Reason for procedure	Concept name for the description of why a procedure has been performed.
111402	Clinical Finding	A finding during clinical examination (i.e., history and physical examination) such as pain, palpable mass or discharge.
111403	Baseline screening mammogram	First screening mammogram taken for patient that is used as a comparison baseline for further examinations.
111404	First mammogram ever	First mammogram taken for a patient without regard to whether it was for screening or a diagnostic procedure.
111405	Implant type	Concept name for the material of which a breast prosthetic device is constructed.
111406	Number of similar findings	A numeric count of findings classified as similar in nature.
111407	Implant finding	Concept name for the status of a breast prosthetic device as noted by imaging.
111408	Film Screen Mammography	Mammogram using traditional x-ray film.
111409	Digital Mammography	Mammogram using a digital image acquisition system.
111410	Surgical consult	Referred for evaluation by a surgeon.
111411	Mammography CAD	Computer aided detection and/or computer aided diagnosis for mammography.
111412	Narrative Summary	Concept name for a text-based section of a report.
111413	Overall Assessment	A title for a report section that summarizes all interpretation results for a report with one overriding assessment (e.g., benign or negative).
111414	Supplementary Data	Concept name for a collection of supporting evidence for a report.
111415	Additional evaluation requested from prior outside study	Prior outside study indicates that additional imaging be performed to further evaluate a suspicious or questionable anatomic region.
111416	Follow-up at short interval from prior study	The prior study recommended a follow-up breast imaging exam in 1 to 11 months (generally in 6 months).

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111417	History of breast augmentation, asymptomatic	Prior breast augmentation (breast enlargement) and is not presenting with any symptoms.
111418	Review of an outside study	Review or second opinion made on an image performed outside of the facility.
111419	Additional evaluation requested at current screening	Additional breast imaging performed at the time of the patient's screening mammogram.
111420	History of benign breast biopsy	Patient has had previous benign breast biopsies.
111421	Personal history of breast cancer with breast conservation therapy	Patient has had a prior surgery such as a lumpectomy or quadrantectomy to remove malignant breast tissue, but breast tissue remains.
111423	Physical Examination Results	The results of a physical examination performed on the patient, possibly including the results of inspection, palpation, auscultation, or percussion.
111424	Comparison to previous findings	The result of assessing the current imaging exam in comparison to previous imaging exams.
111425	Intraluminal filling defect	An abnormality observed during ductography where the ductal system within the breast fills in an abnormal pattern. Ductography is an imaging exam in which a radio opaque contrast media is introduced into the ductal system of the breast through the nipple and images of the ductal system are obtained.
111426	Multiple filling defect	During ductography an observation of more than one filling abnormality within the breast ductal system.
111427	Abrupt duct termination	An abnormality observed during ductography where the ductal system within the breast terminates in an unusual fashion.
111428	Extravasation	Abnormal flowage of contrast media within the breast noted on ductography.
111429	Duct narrowing	An abnormality observed during ductography where the ductal system within the breast appears narrow.
111430	Cyst fill	During ductography an observation of the contrast media filling a cyst within the breast.
111431	Instrument Approach	The area and line within the anatomy through which a needle or instrument passes during an interventional procedure.
111432	Inferolateral to superomedial	The line within the anatomy from the lower outer to the upper inner aspect, for example, through which a needle or instrument passes in an interventional procedure.

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111433	Inferomedial to superolateral	The line within the anatomy from the lower inner to the upper outer aspect, for example, through which a needle or instrument passes in an interventional procedure.
111434	Superolateral to inferomedial	The line within the anatomy from the upper outer to the lower inner aspect, for example, through which a needle or instrument passes in an interventional procedure.
111435	Superomedial to inferolateral	The line within the anatomy from the upper inner to the lower outer aspect, for example, through which a needle or instrument passes in an interventional procedure.
111436	Number of passes	The number of times a biopsy instrument is passed through an area of interest.
111437	Number of specimens	The number of biopsy specimens obtained from an interventional procedure.
111438	Needle in target	An indicator of whether or not a biopsy or localizing needle in an interventional procedure is seen to be in the area of interest.
111439	Number of needles around target	The number of localizing needles placed around the area of interest in an interventional procedure.
111440	Incision made	An indicator of whether or not an incision was made in the anatomy during an interventional procedure.
111441	Microclip placed	An indicator of whether or not a radio opaque microclip was placed in the anatomy during an interventional procedure.
111442	Confirmation of target	An indicator of the degree of success of an interventional procedure.
111443	Target completely contained in the specimen	An indicator that during an interventional procedure the area of interest was fully excised and is noted in the resultant biopsy specimen.
111444	Target partially obtained in the specimen	An indicator that during an interventional procedure the area of interest was partially excised and is noted in the resultant biopsy specimen.
111445	Target not in the specimen	An indicator that following an interventional procedure the area of interest is not seen in the resultant biopsy specimen.
111446	Calcifications seen in the core	An indicator that following an interventional procedure the targeted calcifications are noted in the resultant biopsy specimen.
111447	Lesion completely removed	An indicator that during an interventional procedure the area of interest was fully excised and is noted in the resultant biopsy specimen.

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111448	Lesion partially removed	An indicator that during an interventional procedure the area of interest was partially excised and is noted in the resultant biopsy specimen.
111449	Fluid obtained	An indicator that during an interventional procedure fluid was successfully aspirated.
111450	Light brown color	Color that is a light shade of brown.
111451	Dark red color	Color that is a dark shade of red.
111452	Dark brown color	Color that is a dark shade of brown.
111453	Bright red color	Color that is a bright shade of red.
111454	Blood tinged color	Color that is tinged with the color of blood.
111455	Occult blood test result	An indicator of whether or not the fluid obtained during an interventional procedure contains red blood cells.
111456	Action on fluid	An indicator of whether or not fluid during an interventional procedure was sent for cytological analysis or simply discarded.
111457	Sent for analysis	An indicator that fluid obtained during an interventional procedure was sent to a laboratory for analysis.
111458	Discarded	An indicator that fluid obtained during an interventional procedure was discarded.
111459	Mass with calcifications	A radiopaque density noted during diagnostic imaging which has associated calcific densities.
111460	Complex cyst	A fluid-filled sac with greater than normal characteristics.
111461	Intracystic lesion	A tumor within a cyst.
111462	Solid mass	A tumor or lesion.
111463	Supplementary Data for Intervention	Supporting evidence for interpretation results of an interventional procedure.
111464	Procedure Modifier	A descriptor that further qualifies or characterizes a type of procedure.
111465	Needle Gauge	Needle size (diameter) characterization, for example, of a biopsy needle.
111466	Severity of Complication	An indicator of the gravity of a problem experienced by a patient, related to a procedure that was performed.
111467	Needle Length	Distance from the hub or bushing to the tip of the needle.
111468	Pathology Results	The collection of observations and findings from pathologic analysis.
111469	Sampling Datetime	The date and time that the sample was collected from the patient.

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111470	Uninvolved	Indicates that the margin of the biopsy specimen was not involved with the tumor.
111471	Involved	Indicates that the margin of the biopsy specimen was involved with the tumor.
111472	Nipple involved	Indicates whether the nipple was involved in an interventional procedure or pathologic analysis.
111473	Number of nodes removed	Indicates the number of lymph nodes removed.
111474	Number of nodes positive	Indicates the number of lymph nodes removed that contain cancer cells.
111475	Estrogen receptor	The result of a test for the presence of a protein that binds with estrogen.
111476	Progesterone receptor	The result of a test for the presence of a protein that binds with progesterone.
111477	S Phase	Indicates the percentage of cells in S phase. Cell division is defined by phases; the S phase is the stage during which DNA replicates.
111478	Non-bloody discharge	The visible emission of non-bloody fluid from the nipple.
111479	Difficult physical examination	The inability to discern normal versus abnormal breast tissue during palpation.
111480	Cancer elsewhere	An indication that a patient has or had a malignant occurrence in an area of the body other than the breast.
111481	Saline implant	A salt water filled prosthetic device implanted in the breast.
111482	Polyurethane implant	A polymer based (plastic) prosthetic device implanted in the breast.
111483	Percutaneous silicone injection	The introduction of polymeric organic silicon based material through the skin, as for breast augmentation or reconstruction.
111484	Combination implant	A prosthetic device that contains more than one material implanted in the breast.
111485	Pre-pectoral implant	A breast implant placed in front of the pectoralis major muscle.
111486	Retro-pectoral implant	A breast implant placed behind the pectoralis major muscle.
111487	Mammographic (crosshair)	Using x-ray technique and a superimposed set of crossed lines for detection or placement.
111488	Mammographic (grid)	Using x-ray technique and a superimposed aperture for detection or placement.
111489	Palpation guided	Using physical touch for detection or placement.
111490	Vacuum assisted	The performance of a biopsy procedure using a vacuum device attached to the biopsy needle.
111491	Abnormal discharge	Unusual or unexpected emission of fluid.

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111492	No complications	Having experienced no adverse medical conditions related to or resulting from an interventional procedure.
111494	Stage 0	TNM grouping of tumor stage, from AJCC, where primary tumor is Tis, regional lymph node is N0, and distant metastasis is M0.
111495	Stage I	TNM grouping of tumor stage, from AJCC, where primary tumor is T1, regional lymph node is N0, and distant metastasis is M0.
111496	Stage IIA	TNM grouping of tumor stage, from AJCC, where primary tumor is T0 or T1, with regional lymph node N1 and distant metastasis is M0, or T2 with N0 and M0.
111497	Stage IIB	TNM grouping of tumor stage, from AJCC, where primary tumor is T2, with regional lymph node N1 and distant metastasis is M0, or T3 with N0 and M0.
111498	Stage IIIA	TNM grouping of tumor stage, from AJCC, where primary tumor is T0, T1 or T2, with regional lymph node N2 and distant metastasis is M0, or T3 with N1 or N2 and M0.
111499	Stage IIIB	TNM grouping of tumor stage, from AJCC, where primary tumor is T4, regional lymph node is N0, N1 or N2, and distant metastasis is M0.
111500	Stage IIIC	TNM grouping of tumor stage, from AJCC, where primary tumor is any T value, regional lymph node is N3, and distant metastasis is M0.
111501	Stage IV	TNM grouping of tumor stage, from AJCC, where primary tumor is any T value, regional lymph node is any N value, and distant metastasis is M1.
111502	Bloom-Richardson Grade	Histologic tumor grade (sometimes called Scarff-Bloom-Richardson grade) is based on the arrangement of the cells in relation to each other -- whether they form tubules, how closely they resemble normal breast cells (nuclear grade) and how many of the cancer cells are in the process of dividing (mitotic count).
111503	Normal implants	Breast prosthetic devices are intact, not leaking, and are in a normal shape and form.
111504	Asymmetric implants	Breast prosthetic devices are not symmetric, equal, corresponding in form, or are in one breast (unilateral).
111505	Calcified implant	Fibrous or calcific contracture of the tissue capsule that forms around a breast prosthetic device.

Code Value (0008,0100)	Code Meaning (0008,0104)	Definition
111506	Distorted implant	Breast prosthetic device is twisted out of normal shape or form.
111507	Silicone-laden lymph nodes	Silicone from breast prosthetic device found in lymphatic tissue.
111508	Free silicone	Silicone found in breast tissue outside of the prosthetic capsule or implant membrane.
111509	Herniated implant	Protrusion of part of the structure normally encapsulating the content of the breast prosthetic device.
111510	Explantation	Evidence of removal of a breast prosthetic device.

Add the following definitions to Part 16 Annex G English Code Meanings of Selected Codes (Normative):

Annex G English Code Meanings of Selected Codes (Normative)

Coding Scheme Designator (0008,0102)	Coding Scheme Version	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		D0-00165	Weal
			Hives
SRT		D7-90010	Disorder of breast implant
			Breast implant problem
SRT		D7-90530	Breast lump
			Lump or thickening
SRT		D7-90560	Peau d'orange surface of breast
			Peau d'orange
SRT		D7-90565	Bloody nipple discharge
			Bloody discharge
SRT		DD-66A67	Hemorrhage postprocedure
			Abnormal bleeding
SRT		DD-67700	Infection as complication of medical care
			Infection
SRT		F-01BF8	Ultrasound scan normal
			Normal; the finding is not seen sonographically
SRT		F-01E06	Indeterminate result
			Inconclusive
SRT		F-02B9B	Nottingham Combined Grade cannot be determined
			GX - grade cannot be assessed
SRT		F-8A057	Calcification of breast
			Calcifications
SRT		F-8A074	Discoloration of skin of breast
			Redness of skin
SRT		F-8A09C	Nipple problem
			Nipple abnormality
SRT		F-A2632	Persistent pain following procedure
			Unusual pain
SRT		F-A5581	Vasovagal attack
			Vasovagal reaction
SRT		G-F616	Nottingham Combined Grade I: 3-5 points

Coding Scheme Designator (0008,0102)	Coding Scheme Version	Code Value (0008,0100)	Code Meaning (0008,0104)
			G1 - Low combined histologic grade (favorable)
SRT		G-F617	Nottingham Combined Grade II: 6-7 points
			G2 - Intermediate combined histo grade (moderately favorable)
SRT		G-F618	Nottingham Combined Grade III: 8-9 points
			G3 - High combined histologic grade (unfavorable)
SRT		M-78280	Surgical scar
			Post-surgical scar
SRT		P1-03106	Computed tomography guided biopsy
			CT guided
SRT		P1-03107	Magnetic resonance imaging guided biopsy
			MRI guided
SRT		P1-03115	Ultrasound guided biopsy
			Ultrasound guided
SRT		P1-48011	Pre-biopsy localization of breast lesion
			Localization for surgical biopsy
SRT		P1-48142	Diagnostic aspiration of breast cyst
			Cyst aspiration
SRT		P1-48145	Fine needle aspiration of breast
			FNA - Fine needle aspiration
SRT		P1-48304	Core needle biopsy of breast
			Core biopsy
SRT		P1-4830F	Breast – surgical biopsy
			Surgical biopsy
SRT		P2-4A000	Examination of breast
			Clinical breast exam
SRT		P5-00032	Diagnostic radiography, stereotactic localization
			Stereotactic
SRT		P5-40030	Specimen radiography of breast
			Specimen imaging
SRT		P5-D0042	Radionuclide localization of tumor, limited area
			Scintimammography
SRT		R-20099	O/E – axillary lymphadenopathy
			Large axillary lymph nodes
SRT		R-207D7	O/E - Breast lump palpated
			Palpable abnormality

Coding Scheme Designator (0008,0102)	Coding Scheme Version	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-40FB9	Before procedure
			Pre-
SRT		R-41DDC	High risk tumor
			High risk
SRT		R-422A4	After procedure
			Follow-up