DICOM CONFORMANCE STATEMENT

FOR

Consona N6 Series/Consona N7 Series Consona N8 Series/Consona N9 Series

Diagnostic Ultrasound System

Version V3.0 2023-01-13

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SHENZHEN MINDRAY BIO-MEDICAL ELECTRONICS CO., LTD.

3 Introduction

3.1 Review History

DOCUMENT VERSION	DATE OF ISSUE	DESCRIPTION
1.0	Invalidated	/
2.0	May.05,2022	

actively involved in the development of the DICOM standard,. Therefore, Mindray reserves the right to make changes to its products or to discontinue its delivery.

The Ultrasound System follows the IHE SWF, PDI, ED Profiles.

3.4 Terms and Definitions

- **Abstract Syntax** the information agreed to be exchanged between applications, generally equivalent to a Service/Object Pair (SOP) Class. Examples: Verification SOP Class, Modality Worklist Information Model Find SOP Class, Computed Radiography Image Storage SOP Class.
- **Application Context** the specification of the type of communication used between *Application Entities*. Example: DICOM network protocol.
- **Application Entity (AE)** an end point of a DICOM information exchange, including the DICOM network or media interface software; i.e., the software that sends or receives DICOM information objects or messages. A single device may have multiple Application Entities.
- **Application Entity Title** the externally known name of an *Application Entity*, used to identify a DICOM application to other DICOM applications on the network. The Called AE Title defines the intended receiver of an Association. Nevertheless, the Calling AE Title defines the requestor of an Association.
- **Application Profile** - A Media Storage Application Profile defines a selection of choices at the various layers of the DICOM Media Storage Model which are applicable to a specific need or context in which the media interchange is intended to be performed.
- **Association** a network communication channel set up between *Application Entities*.
- **Association Establishment** - an Association Establishment is the first phase of communication between two DICOM Application Entities. The AEs use the Association Establishment to negotiate how data will be encoded and the type of data to be exchanged.
- **Attribute** a unit of information in an object definition; a data element identified by a *tag*. The information may be a complex data structure (Sequence), itself composed of lower level data elements. Examples: Patient ID (0010,0020), Accession Number (0008,0050), Photometric Interpretation (0028,0004), Procedure Code Sequence (0008,1032).
- **DICOM File Format** - the DICOM File Format provides a means to encapsulate in a File the Data Set representing a SOP Instance related to a DICOM Information Object.
- **DICOM Message Service Element (DIMSE)** a DIMSE defines the services and protocols utilized by an Application Entity to exchange messages.
- **File** - a File is an ordered string of zero or more bytes, where the first byte is at the beginning of the file and the last byte is at the end of the File. Files are identified by an

unique File ID and may by written, read, or deleted.

- **File Meta Information** - the File Meta Information includes data identifying and describing the DICOM File. Optional (Type 3) information may be included with the specified data. Each DICOM File has a mandatory header at the beginning of every DICOM File.
- **Information Object Definition (IOD)** - the specified set of *Attributes* that comprise a type of data object; does not represent a specific instance of the data object, but rather a class of similar data objects that have the same properties. The *Attributes* may be specified as Mandatory (Type 1), Required but possibly unknown (Type 2), or Optional (Type 3), and there may be conditions associated with the use of an Attribute (Types 1C and 2C). Examples: 1.2.840.10008.5.1.4.1.1.2 CT Image Storage
- **Joint Photographic Experts Group (JPEG)**

MWL	Modality Worklist
NEMA	National Electrical Manufacturers Association
O	Optional (Key Attribute)
PACS	Picture Archiving and Communication System
PDU	Protocol Data Unit
R	Required (Key Attribute)
RIS	Radiology Information System
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair
SR	Structured Reporting
TCP/IP	Transmission Control Protocol/Internet Protocol
U	Unique (Key Attribute)
UL	Upper Layer
VR	Value Representation
US	Ultrasound
UID	Unique Identifier

3.6 References

DICOM Quick Guide & FAQ, Revision 1.0 Final Text, Mindray Co. Ltd

Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3, available free at http://medical.nema.org/

IHE Technical Framework, available free at http://www.ihe.net/

4 Networking

4.1 Implementation Model

4.1.1 Application Data Flow

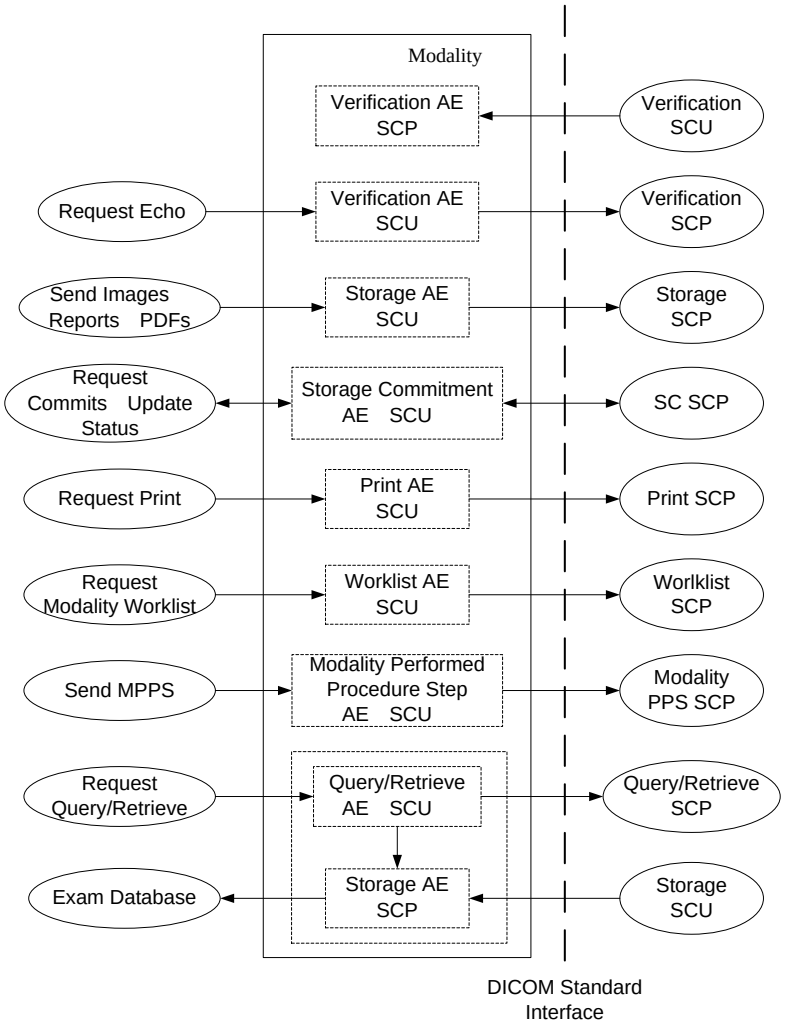

Figure 1

Implementation Model

Note Storage AE SCP only be used in Query/Retrieve

This application entity provides a user interface, internal database and network listener that spawns additional threads as necessary to handle incoming connections.

however, in fact all

- Verification AE (as SCU and SCP)

- Storage AE (as SCU and SCP)
- Storage Commitment AE SCU
- Print AE (as SCU)
- Worklist AE (as SCU)
- MPPS AE (as SCU)
- Query/Retrieve AE (as SCU)

4.1.2 Functional Definitions of AE s

4.1.2.1 Verification AE

The ultrasound system supports the Verification service as a SCU and SCP.

As a SCU, verification is activated when the verify button is selected on the dicom service configuration page where the verification results will also be showed to the user.

As a SCP, verification AE waits in the background for connections, will accept associations with Presentation Contexts for SOP Class of the Verification Service Class, and will respond successfully to echo requests.

4.1.2.2 Storage AE

As a SCU, the Storage AE originates associations for the transfer of DICOM Ultrasound single frame images, multi-frame images, secondary capture images, comprehensive Structured reports ,and Encapsulated PDFs to remote AE Structured reports ,and Encapsulated PDFs to remote AE

3ns joeTJJETO EMC /Span &MCID 53/Lang (e6-US)>> BDC q0.000008871 0 595.32 841.92 reW* nBT/F3 10.56 Tf1 0 0 1 426.

Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	No	Yes[1]
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	No	Yes[1]
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	No	Yes[1]
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	Yes[1]
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33	Yes	Yes[1]
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	Yes	Yes[1]
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	Yes	No
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	Yes	Yes
Storage Commitment Push Model	1.2.840.10008.1.20.1	Yes	No
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Yes	No
Basic Color Print Management Meta SOP Class	1.2.840.10008.5.1.1.18	Yes	No
Basic Film Session SOP Class	1.2.840.10008.5.1.1.1	Yes	No
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2	Yes	No
Basic Grayscale Image Box SOP Class	1.2.840.10008.5.1.1.4	Yes	No
Printer SOP Class	1.2.840.10008.5.1.1.16	Yes	No
Print Job SOP Class	1.2.840.10008.5.1.1.14	Yes	No
Modality Worklist Information Model Find	1.2.840.10008.5.1.4.31	Yes	No
Modality Performed Procedure Step SOP Class	1.2.840.10008.3.1.2.3.3	Yes	No
Study Root Query/Retrieve Information Model - Find	1.2.840.10008.5.1.4.1.2.2.1	Yes	No
Study Root Query/Retrieve Information Model - Move	1.2.840.10008.5.1.4.1.2.2.2	Yes	No

Note 1 Yes only used in Query/Retrieve, otherwise No.

4.2.1.2 Association Establishment Policies

4.2.1.2.1General

The DICOM standard application context name for DICOM 3.0 is always proposed:

Table 6

DICOM Application Context for Modality AE

Application Context Name	1.2.840.10008.3.1.1.1

The PDU size is configurable with a minimum size of 16,384 and a maximum size of 65,536. The default PDU size is 32,768.

4.2.1.2.2Number of Associations

The system initiates one Association at a time for each destination to which a transfer request is being processed in the active job queue list. Since Storage and Print tasks are executed within a same thread, when they are selected simultaneously, only one job will be active at a time, the other(s) remain pending until the active job is successful or failed.

Table 10
Presentation Contexts for Verification

PROPOSED PRESENTATION CONTEXTS					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name**	**UID**		
Verification	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None

4.2.1.3.1.3 SOP Specific Conformance

It summarizes the behavior of Ultrasound System when receiving status codes in a C-ECHO response.

Table 11
Verification C-Echo Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior (as SCU)
Success	Success	0000	Device Status is set to: Verify Successful
Refused	Out of Resources	A7XX	Device Status is set to: Verify Failed
Failed	Unable to process	CXXX	Device Status is set to: Verify Failed
*	*	Any other status code	Device Status is set to: Verify Failed

4.2.1.3.2 Activity Store images, SRs, PDFs, 3D/4D images

4.2.1.3.2.1 Description and Sequencing of Activities

For each exam, image selected from the user interface to be transferred, an attempt will be made to transfer it to the selected remote AE. When the storage fails, not only the failed task will automatically retry specific times if configured on Preset UI, but also user can restart the failed task by pressing Retry Button on the ultrasound task management dialog. Besides that, in the event that the ultrasound system is taken off the network or when a network failure occurs during a background store, the Storage SCU maintains a queue of failed C-STORE requests. Once the network is restored, the system will retry automaticlly.

Structured Reports will contain a part of common used measurements and calculations created by ultrasound system, and custom measurements or calculations will also be sent in SR

If custom measurements or calculations were defined, all custom measurements or calculations will be contained in private elements(M-99999,MRUS, "custom-measurement-name") in SR, where " custom-measurement-name " means the name of user custom measurement in the ultrasound system.

		Sequential with Huffman Coding (Process 1)	50		
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008.1.2.4.70	SCU	None
		RLE Lossless	1.2.840.10008.1.2.5	SCU	None
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008.1.2.4.90	SCU	None

Coding (Process 1)

Storage	008.5.1.4.1.1.66	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008.1.2.4.70	SCU	None
		RLE Lossless	1.2.840.10008.1.2.5	SCU	None
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008.1.2.4.90	SCU	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCU	None

4.2.1.3.2.3 SOP Specific Conformance

Storage AE provides Standard Conformance to the Storage Service Class.

Storage AE will behave as described in the Table below in response to the status returned in the C-STORE response command message.

Table 13
Storage C-STORE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Image transmission is successful, The status code is logged and the task success is reported to the user via task management.
Refused	Out of Resources	A7xx	The association is aborted using A-ABORT and the send task is marked as failed. The reason is logged and, If user selects the failed task, the reasons for this failure will be showed via task management.
Error	Data Set does not match SOP Class	A9xx	The association is aborted using A-ABORT and the send task is marked as failed. The reason is logged and, If user selects the failed task, the reasons for this failure will be showed via task management.
Error	Cannot Understand	Cxxx	The association is aborted using A-ABORT and the send job is marked as failed. The reason is logged and, If user selects the failed task, the reasons for this failure will be showed via task management.

Failure	Any other failure	xxxx	The association is aborted using A-ABORT and the send job is marked as failed. The reason is logged and, If user selects the failed task, the reasons for this failure will be showed via task management.
Warning	Coercion of Data Elements	B000	Image transmission is considered successful but the status meaning is logged.
	Data Set does not match SOP Class	B007	Image transmission is considered successful but the status meaning is logged.
	Elements Discarded	B006	Image transmission is considered successful but the status meaning is logged.
	Any other status code.	xxxx	The Association is aborted using A-ABORT and the send job is marked as failed. The status code is logged and the job failure is reported to the user via task management.

The behavior during communication failure is summarized in the Table below:

Table 14

Storage Communication Failure Behavior

Equipment	General Equipment
	SC Equipment
Image	General Image
	Image Pixel
	SC Image
	VOI LUT
	SOP Common

Table 18

Encapsulated PDF IOD

IE	**Module**
Patient	Patient
Study	General Study
	Patient Study
Series	Encapsulated Document
Equipment	General Equipment
	SC Equipment
Encapsulated Document	Encapsulated Document
	SOP Common

Table 19

Raw Data IOD

IE	**Module**
Patient	Patient
Study	General Study
	Patient Study
Series	General Series
Equipment	General Equipment
Raw Data	Acquisition Context
	Raw Data
	SOP Common

Table 20

Enhanced US Volume IOD

IE	**Module**
Patient	Patient

Study	General Study
	Patient Study
Series	General Series
	Enhanced US Series
Frame of Reference	Frame of Reference

(0040,0244)	DA	3	Performed Procedure Step Start Date	MPPS
(0040,0245)	TM	3	Performed Procedure Step Start Time	MPPS
(0040,0254)	LO	3	Performed Procedure Step Description	MPPS
(0040,0260)	SQ	3	Performed Protocol Code Sequence	MPPS

Table 25

Encapsulated Document Series Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0060)	CS	1	Modality	
(0020,000E)	UI	1	Series Instance UID	AUTO
(0020,0011)	IS	1	Series Number	AUTO
(0008,103E)	LO	3	Series Description	MWL/USER
(0040,0275)	SQ	3	Request Attributes Sequence	MWL

(0008,0102)	SH	1C	>>Coding Scheme designator	MWL
(0008,0103)	SH	1C	>>Coding Scheme Version	MWL
(0008,0104)	LO	1C	>>Code Meaning	MWL

Table 26

Enhanced US Series Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0060)	CS	1	Modality	US
(0008,1111)	SQ	1C	Referenced Performed Procedure Step Sequence	MPPS
(0040,0260)	SQ	1C	Performed Protocol Code Sequence	MWL

Table 27

Frame of Reference Module

ATTRIBUTE

				service is not enabled.
(0018,1802)	CS	3	Time Distribution Protocol	: Time Synchronized service is enabled. Set to zero length: Time Synchronized service is not enabled.

Table 30

General Equipment Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0070)	LO	2	Manufacturer	MINDRAY
(0008,0080)	LO	3	Institution Name	CONFIG
(0008,1010)	SH	3	Station Name	AUTO-Set to computer name
(0008,1040)	LO	3	Institutional Department Name	CONFIG
(0008,1090)	LO	3	Manufacturer's Model Name	AUTO
(0018,1000)	LO	3	Device Serial Number	The Ethernet card Mac Address
(0018,1020)	LO	3	Software Version(s)	AUTO

Table 31

SC Equipment Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0060)	CS	157.61		

(0018,1019)	LO	3	Secondary Capture Device Software Version(s)	AUTO

Table 32

Enhanced General Equipment Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0070)	LO	1	Manufacturer	MINDRAY
(0008,1090)	LO	1	Model Name	

(0018,5010)	LO	3	Transducer Data	USER
(0018,5020)	LO	3	Processing Function	USER
(0028,0002)	US	1	Samples per Pixel	1 or 3
(0028,0004)	CS	1	Photometric	

				using JPEGLossy, JPEG 2000 Image Compression or MPEG2 MP@ML

Table 35

SC Image Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0018,1012)	DA	3	Date of Secondary Capture	AUTO
(0018,1014)	TM	3	Time of Secondary Capture	AUTO

Table 36

Image Pixel Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0028,0010)	US	1	Rows	CONFIG
(0028,0011)	US	1	Columns	CONFIG
(0028,0034)	IS	1c	Pixel Aspect Ratio	Set to zero length
(7FE0,0010)	OW	1	Pixel Data	

Table 37

Image Pixel Module for MPEG2 MP@ML

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0028,0010)	US	1	Rows	480---the cine rate(0018,0040) is 30; 576---the cine rate(0018,0040) is 25;
(0028,0011)	US	1	Columns	720
(0028,0034)	IS	1c	Pixel Aspect Ratio	/
(7FE0,0010)	OW	1	Pixel Data	

Table 38

VOI LUT Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0028,1050)	DS	1C	Window Center	AUTO

(0028,1051)	DS	1C	Window Width	AUTO

Table 39

SOP Common Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0005)	CS	1C	Specific Character Set	AUTO
(0008,0012)	DA	3	Instance Creation Date	AUTO
(0008,0013)	TM	3	Instance Creation Time	AUTO
(0008,0016)	UI	1C	SOP Class UID	AUTO
(0008,0018)	UI	1C	SOP Instance UID	AUTO

Table 40

US Region Calibration Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0018,6011)	SQ	1	Sequence of Ultrasound Regions	
>(0018,6012)	US	1	Region Spatial Format	Set by the system
>(0018,6014)	US	1	Region Data Type	Set by the system
>(0018,6016)	UL	1	Region Flags	Set by the system
>(0018,6018)	UL	1	Region Location Min X0	Set by the system
>(0018,6020)	UL	1	Reference Pixel x0	Set by the system
>(0018,6022)	UL	1	Reference Pixel y0	Set by the system
>(0018,6028)	UL	1	Ref. Pixel Physical Value X	Set by the system
>(0018,602A)	UL	1	Ref. Pixel Physical Value Y	Set by the system
>(0018,601A)	UL	1	Region Location Min Y0	Set by the system
>(0018,601C)	UL	1	Region Location Max X1	Set by the system

>(0018,601E)	UL	1	Region Location Max Y1	Set by the system
>(0018,6024)	US	1	Physical Units X Direction	Set by the system

			Designator	
(0008,0104)	LO	1	>>Code Meaning	Doppler audio
(003A,0301)	IS	1	>Channel Identification Code	1
(003A,0302)				

Table 44

SC Image Module Used for Second Capture Images Only

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0018,1012)	DA	3	Date of Secondary Capture	AUTO
(0018,1014)	TM	3	Time of Secondary Capture	AUTO

Table 45

Encapsulated Document Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0020,0013)	IS	1	Instance Number	AUTO
(0008,0023)	DA	2	Content Date	AUTO
(0008,0033)	TM	2	Content Time	AUTO
(0008,002A)	DT	2	Acquisition DateTime	AUTO
(0028,0301)	CS	1	Burned In Annotation	YES
(0042,0010)	ST	2	Document Title	The Title of the Document
(0040,A043)	SQ	2	Concept Name Code Sequence	Set to zero length
(0040,A493)	CS	3	Verification Flag	AUTO. UNVERIFIED = Not attested by a legally accountable person. VERIFIED = Attested to (signed) by a Verifying Observer or Legal Authenticator named in the document, who is accountable for its content.
(0042,0012)	LO	1	MIME Type of Encapsulated Document	
(0042,0011)	OB	1	Encapsulated Document	The PDF Document

Table 46

Acquisition Context Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0040,0555)	SQ	2	Acquisition Context Sequence	Set to zero length

Table 47

Raw Data Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0020,0013)	SQ	2	Instance Number	Set to zero length
(0008,0023)		1	Content Date	AUTO
(0008,0033)		1	Content Time	AUTO
(0008,9123)		1	Creator-Version UID	AUTO
(5001,0010)			: private mapped to (5001,00FF)	MindrayRawData
(5001,1011)			: private mapped to (5001,FF11)	
(5001,1013)			: private mapped to (5001,FF13)	

Table 48

Multi-frame Functional Groups Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(5200,9229)	SQ	2	Shared Functional Groups Sequence	
(0028,9132)	SQ		> Frame VOI	

(0020,930E)	SQ	1	>Plane Position (Volume) Sequence	
(0020,9301)	FD	1	>>Image Position (Volume)	Set by the system
(0020,9310)	SQ	1	>Temporal Position Sequence	
(0020,930D)	FD	1	>>Temporal Position Time Offset	Set by the system
(0018,9807)	SQ	1	>Image Data Type Sequence	
(0018,9808)	CS	1	>>Data Type	Set by the system or
(0018,980B)	CS	1	>>Aliased Data Type	NO
(0020,0013)	IS	1	Instance Number	AUTO
(0008,0023)	DA	1	Content Date	AUTO
(0008,0033)	TM	1	Content Time	AUTO
(0028,0008)	IS	1	Number of Frames	AUTO

Table 49

Multi-frame Dimension Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0020,9221)	SQ	1	Dimension Organization Sequence	
(0020,9164)	UI	1	>Dimension Organization UID	AUTO
(0020,9222)	SQ	1	Dimension Index Sequence	

(0020,9165)	AT	1	>Dimension Index Pointer	Item1: 0x0020930d Item2: 0x00209301 Item3: 0x00189808
(0020,9167)	AT	1C	>Functional Group Pointer	Item1: 0x00209310 Item2: 0x0020930e Item3: 0x00189807
(0020,9164)	UI	1C	>Dimension Organization UID	Item1, Item2, Item3: AUTO
(0020,9421)	LO	3	>Dimension Description Label	Item1: Time Item2: Image position(Z) Item3: Data type

Table 50

Enhanced US Image Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0008)	CS	1	Image Type	/- / 2 /
(0028,0002)	US	1	Samples Per Pixel	1
(0028,0004)	CS	1	Photometric Interpretation	MONOCHROME2
(0028,0100)	US	1	Bits Allocated	8
(0028,0101)	US	1	Bits Stored	8
(0028,0102)	US	1	High Bit	7
(0028,0103)	US	1	Pixel Representation	0
(0020,9311)	CS	1	Dimension Organization Type	3D or 3D_TEMPORAL :
(0008,002A)	DT	1	Acquisition Datetime	AUTO
(0018,9073)	FD	1	Acquisition Duration	Set by the system
(0028,0030)	DS	1	Pixel Spacing	Set by the system
(0018,980C)	CS	1C	Position Measuring Device Used	FREEHAND

(2050,0020)	CS	1	Presentation LUT Shape	IDENTITY
(0028,1052)	DS	1	Rescale Intercept	0
(0028,1053)	DS	1	Rescale Slope	1
(0028,0301)	CS	1	Burned In Annotation	NO
(0018,9809)	SQ	1	Transducer Scan Pattern Code Sequence	
>(0008,0100)	SH	1	Code Value	125242
>(0008,0102)	SH	1	Coding Scheme Designator	DCM
>(0008,0103)	SH	1	Coding Scheme Version	20090409
>(0008,0104)	LO	1	Code Meaning	Volume scan pattern
(0018,980D)	SQ	1	Transducer Geometry Code Sequence	
>(0008,0100)	SH	1	Code Value	125254
>(0008,0102)	SH	1	Coding Scheme Designator	DCM
>(0008,0103)	SH	1	Coding Scheme Version	20090409
>(0008,0104)	LO	1	Code Meaning	Sector ultrasound transducer geometry
(0018,980E)	SQ	1	Transducer Beam Steering Code Sequence	
>(0008,0100)	SH	1	Code Value	125258
>(0008,0102)	SH	1	Coding Scheme Designator	DCM
>(0008,0103)	SH	1	Coding Scheme Version	20090409
>(0008,0104)	LO	1	Code Meaning	Mechanical beam steering
(0018,980F)	SQ	1	Transducer Application Code Sequence	
>(0008,0100)	SH	1	Code Value	125261

>(0008,0102)	SH	1	Coding Scheme Designator	DCM
>(0008,0103)	SH	1	Coding Scheme Version	20090409
>(0008,0104)	LO	1	Code Meaning	External Transducer
(0018,5022)	DS	1	Mechanical Index	Set by the system
(0018,5024)	DS	1	Bone Thermal Index	Set by the system
(0018,5026)	DS	1	Cranial Thermal Index	Set by the system
(0018,5027)	DS	1	Soft Tissue Thermal Index	Set by the system
(0018,9801)	FD	1	Depth(s) of Focus	Set by the system
(0018,5050)	IS	1	Depth of Scan Field	Set by the system

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Storage Commitment Push Model	1.2.840.10008.1.20.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCU	None

The Storage Commitment AE will only accept the SCU role within a Presentation Context for the Storage Commitment Push Model SOP Class.

4.2.1.3.3.3 SOP Specific Conformance

4.2.1.3.3.3.1 Storage Commitment Operations (N-ACTION)

The Storage Commitment AE will request storage commitment for the configured device.

The behavior of Storage Commitment AE when receiving N-Action response status codes is summarized in the table below:

Table 52

Storage Commitment N-ACTION Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The request for storage commitment is considered successfully sent. The ultrasound system waits for the N-EVENT-REPORT in background.
*	*	Any other status code.	The request for storage commitment is failed.

The behavior of Storage Commitment AE during communication failure is summarized in the table below:

Table 53

Storage Commitment Communication Failure Behavior

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the send job is marked as failed.
Association aborted by the SCP or network layers	The send job is marked as failed.

Storage Commitment AE will request storage commitment using the following tags

NOTE: Storage Commitment may only be automatically requested upon successful completion of an end exam storage task,

Table 54

EVENT TYPE NAME	EVENT TYPE ID	ATTRIBUTE	TAG	REQUIREMENT TYPE SCP
Storage Commitment Request Successful	1	Transaction UID	(0008,1195)	1
		Referenced SOP Sequence	(0008,1199)	1
		>Referenced SOP Class UID	(0008,1150)	1
		>Referenced SOP Instance UID	(0008,1155)	1
Storage Commitment Request Complete Failures Exist	2	Transaction UID	(0008,1195)	1
		Referenced SOP Sequence	(0008,1199)	1
		>Referenced SOP Class UID	(0008,1150)	1
		>Referenced SOP Instance UID	(0008,1155)	1
		Failed SOP Sequence	(0008,1198)	1
		>Referenced SOP Class UID	(0008,1150)	1
		>Referenced SOP Instance UID	(0008,1155)	1
		>Failure Reason	(0008,1197)	1

4.2.1.3.4 Activity Film Images

4.2.1.3.4.1 Description and Sequencing of Activities

A user composes images onto film sheets and requests them to be sent to a specific hardcopy device. The user can select the desired film format and number of copies. Each print-job is forwarded to the job queue and processed individually.

The system is invoked by the user on Send to UI if the print remote AE is pre-configured. Status of the print-job is reported through task management UI. If pre-configured on Preset UI, the failed print task will be automatically retried specified times. If no pre-configuration, the user can also retry manually. Only one task will be active at a time for each separate hardcopy device. The same as Storage, the system could retry automaticlly the failed task caused by network failure when the network is restored.

A typical sequence of DIMSE messages sent over an association between Print AE and a Printer is illustrated in Figure 4:

1. Print AE opens an association with the Printer.
2. N-GET on the Printer SOP Class is used to obtain current printer status information.
3. N-CREATE on the Film Session SOP Class creates a Film Session.
4. N-CREATE on the Film Box SOP Class creates a Film Box linked to the Film Session. A single Image Box will be created as the result of this operation (Print AE default uses the format STANDARD\1.1, but user can change it on Preset UI).
5. N-SET on the Image Box SOP Class transfers the contents of the film sheet to the printer.
6. N-ACTION on the Film Box SOP Class instructs the printer to print the Film Box.
7. The Printer prints the requested number of film sheets.
8. The Printer asynchronously reports its status via N-EVENT-REPORT notification

(Printer SOP Class). The Printer can send this message at any time. Print AE does not require the N-EVENT-REPORT to be sent. Print AE

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Implicit VR Little Endian	1.2.840.10008.1.2		

AUTO the attribute value is generated automatically

CONFIG the attribute value source is a configurable parameter

PRINTER the attribute value is provided by priubtypeFooter>> BDC q0.000008ue is s s

4.2.1.3.4.4.2 Printer SOP Class Notifications (N-EVENT-REPORT)

Print AE is capable of receiving an N-EVENT-REPORT request at any time during an association. The behavior of Print AE when receiving Event Types within the N-EVENT-REPORT is summarized in the Table 62.

Table 62

Printer SOP Class N-Event-Report Behavior

Event Type Name	Event Type ID	Behavior
Normal	1	The print-job continues to be printed.
Warning	2	The print-job continues to be printed. The contents of Printer Status Info (2110, 0020) is logged and reported to the user via the job-control application.
Failure	3	The print-job is marked as failed. The contents of Printer Status Info (2110, 0020) is logged and reported to the user via the job-control application.
*	*	An invalid Event Type ID will cause a status code of 0113H to be returned in a N-EVENT-REPORT response.

The reasons for returning specific status codes in a N-EVENT-REPORT response are summarized in the Table below:

Table 63

Printer SOP Class N-EVENT-REPORT Response Status Reasons

Service Status	Further Meaning	Error Code	Reasons
Success	Success	0000	The notification event has been successfully received.
Failure	No Such Event Type	0113H	An invalid Event Type ID was supplied in the N-EVENT-REPORT request.
Failure	Processing Failure	0110H	An internal error occurred during processing of the N-EVENT-REPORT. A short description of the error will be returned in Error Comment (0000, 0902).

4.2.1.3.4.5 SOP Specific Conformance for the Film Session SOP Class

Print AE

(N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the Table below:

Table 64
Film Session SOP Class N-CREATE Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source
Number of Copies	(2000,0010)	IS	[1, 100]	ALWAYS	CONFIG
Print Priority	(2000,0020)	CS	LOW, MED,HIGH	ALWAYS	CONFIG
Medium Type	(2000,0030)	CS	BLUE FILM, CLEAR FILM, PAPER	ALWAYS	CONFIG
Film Destination	(2000,0040)	CS	MAGAZINE PROCESSOR	ALWAYS	CONFIG

The behavior of Print AE when encountering status codes in a N-CREATE response is summarized in the Table below:

Table 65
Film Session SOP Class N-CREATE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully.
Warning	Memory allocation not supported	B600	The N-CREATE operation is considered successful.
Warning	any warning	xxxx	The N-CREATE operation is considered successful.
Failure	any failure	xxxx	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

4.2.1.3.4.5.2 Film Session SOP Class Operations (N-DELETE)

The behavior of Print AE when encountering status codes in a N-DELETE response is summarized in the Table below:

Table 66
Printer SOP Class N-DELETE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully.
Warning	Any warning	xxxx	The N-DELETE operation is considered successful.
Failure	Any failure	xxxx	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

4.2.1.3.4.6 SOP Specific Conformance for the Film Box SOP Class

Print AE supports the following DIMSE operations for the Film Box SOP Class:

N-CREATE

N-ACTION

N-DELETE

Details of the supported attributes and status handling behavior are described in the following subsections.

4.2.1.3.4.6.1 Film Box SOP Class Operations (N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the Table below:

Table 67
Film Box SOP Class N-CREATE Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source

			STANDARD\4,6 STANDARD\4,7 STANDARD\4,8 STANDARD\5,5 STANDARD\5,6 STANDARD\5,7 STANDARD\5,8 STANDARD\6,6 STANDARD\6,7 STANDARD\6,8 STANDARD\6,9 STANDARD\6,10 STANDARD\7,7 STANDARD\7,8 STANDARD\7,9 STANDARD\7,10 STANDARD\8,8 STANDARD\8,9 STANDARD\8,10 LANDSCAPE: STANDARD\1,1 STANDARD\2,1 STANDARD\3,1 STANDARD\1,2 STANDARD\2,2 STANDARD\3,2 STANDARD\4,2 STANDARD\3,3 STANDARD\4,3 STANDARD\5,3 STANDARD\6,3 STANDARD\4,4 STANDARD\5,4 STANDARD\6,4 STANDARD\7,4 STANDARD\8,4		

			STANDARD\5,5 STANDARD\6,5 STANDARD\7,5 STANDARD\8,5 STANDARD\6,6 STANDARD\7,6 STANDARD\8,6 STANDARD\9,6 STANDARD\10,6 STANDARD\7,7 STANDARD\8,7 STANDARD\9,7 STANDARD\10,7 STANDARD\8,8 STANDARD\9,8 STANDARD\10,8		
Referenced Film Session Sequence	(2010,0500)	SQ		ALWAYS	AUTO
>Referenced SOP Class UID	(0008,1150)	UI	1.2.840.10008.5.1.1.1	ALWAYS	AUTO
>Referenced SOP Instance UID	(0008,1155)	UI	From created Film Session SOP Instance	ALWAYS	AUTO
Film Orientation	(2010,0040)	CS	PORTRAIT or LANDSCAPE	ALWAYS	CONFIG
Film Size ID	(2010,0050)	CS	8INX10IN 8_5INX11IN 10INX12IN 10INX14IN 11INX14IN 11INX17IN 14INX14IN 14INX17IN 24CMX24CM 24CMX30CM	ALWAYS	CONFIG

			A4 A3		

Magnification

Type

summarized in the Table below:

Table 69
Film Box SOP Class N-ACTION Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully. The film has been accepted for printing.
Warning	Film Box SOP Instance hierarchy does not contain Image Box SOP Instances (empty page)	B603H	The N-ACTION operation is considered successful.
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	The N-ACTION operation is considered successful.
Warning	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	The N-ACTION operation is considered successful.
Warning	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	The N-ACTION operation is considered successful.
Warning	Any other warning	xxxx	The N-ACTION operation is considered successful.
Failure	Unable to create Print Job SOP Instance; print queue is full.	C602	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Image size is larger than Image Box size.	C603	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Combined Print Image Size is larger than Image Box size.	C613	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Any other failure	xxxx	The Association is aborted using

			A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

4.2.1.3.4.6.3 Film Session SOP Class Operations (N-DELETE)

The behavior of Print AE when encountering status codes in a N-DELETE response is summarized in the Table below:

Table 70
Printer SOP Class N-DELETE Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully.
Warning	Any warning	xxxx	The N-DELETE operation is considered successful.
Failure	Any other failure	xxxx	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

4.2.1.3.4.7 SOP Specific Conformance for the Image Box SOP Class

Print AE supports the following DIMSE operations for the Image Box SOP Class:

N-SET

Details of the supported attributes and status handling behavior are described in the following subsections.

4.2.1.3.4.7.1 Image Box SOP Class Operations (N-SET)

The attributes supplied in an N-SET Request are listed in the Table below:

Table 71
Image Box SOP Class N-SET Request Attributes

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Position	(2020,0010)	US	[1, num_image1]	ALWAYS	AUTO
Basic Grayscale Image Sequence	(2020,0111)	SQ		If the service is configured as MONOCHROME2	AUTO
>Samples Per Pixel	(0028,0002)	US	1	ALWAYS	AUTO
>Photometric	(0028,0004)	CS	MONOCHROME2	ALWAYS	CONFIG

Interpretation					
>Rows	(0028,0010)	US	Depends on film size	ALWAYS	AUTO
>Columns	(0028,0011)	US	Depends on film size	ALWAYS	AUTO
Pixel Aspect Ratio	(0028,0034)	IS	Set to zero length	VNAP	AUTO
>Bits Allocated	(0028,0100)	US	8	ALWAYS	AUTO
>Bits Stored	(0028,0101)	US	8	ALWAYS	AUTO
>High Bit	(0028,0102)	US	7	ALWAYS	AUTO
>Pixel Representation	(0028,0103)	US	0	ALWAYS	AUTO
>Pixel Data	(7FE0,0010)	OB	Pixels of rendered film sheet	ALWAYS	AUTO
Basic Color Image Sequence	(2020,0111)	SQ		If the service is configured as RGB	AUTO
>Samples Per Pixel	(0028,0002)	US	3	ALWAYS	AUTO
>Photometric Interpretation	(0028,0004)	CS	RGB	ALWAYS	CONFIG
>Planar Configuration	(0028,0006)	US	1	ALWAYS	AUTO
>Rows	(0028,0010)	US	Depends on film size	ALWAYS	AUTO
>Columns	(0028,0011)	US	Depends on film size	ALWAYS	AUTO
Pixel Aspect Ratio	(0028,0034)	IS	Set to zero length	VNAP	AUTO
>Bits Allocated	(0028,0100)	US	8	ALWAYS	AUTO
>Bits Stored	(0028,0101)	US	8	ALWAYS	AUTO
>High Bit	(0028,0102)	US	7	ALWAYS	AUTO

>Pixel RepresentationJETQ

Table 72
Image Box SOP Class N-SET Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Image print is successful, The status code is logged and the task success is reported to the user via task management.
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	The N-SET operation is considered successful.
Warning	Requested Min Density or Max operating range.	B605H	The N-SET operation is considered successful.
Warning	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	The N-SET operation is considered successful.
Warning	Image size or Combined Print Image Size is larger than Image Box size. The image or combined		

			A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

4.2.1.3.5 Activity Send Find Request

4.2.1.3.5.1 Description and Sequencing of Activities

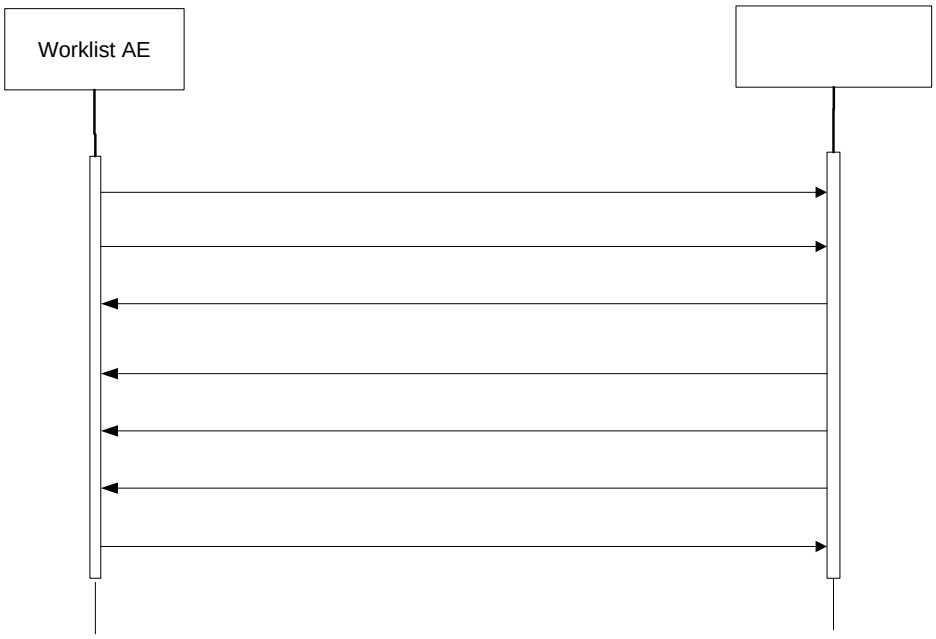

Figure 5

Sequencing of Activity Send FIND Request

A possible sequence of interactions between the Worklist AE and a remote AE (e.g. a system such as a RIS or HIS; or a PACS) is illustrated in the Figure below:

1. The Worklist AE opens an association with the remote AE
2. The Worklist AE sends a C-

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
Modality Worklist Information Model Find	1.2.840.10008.5.1.4.31	Implicit VR Little Endian	1.2.840.10008.1.2		

			processing.
*	The Association is aborted using A-ABORT and the query is marked as failed. The status meaning is logged and reported to the user if an interactive query. Any additional error information in the Response will be logged.	Any other status code.	The association is aborted using A-ABORT and a notify message is displayed: Some errors happen when query worklist server.

Worklist AE provides Standard Conformance to the Storage Service Class.

Worklist AE will behave as described in the Table 74 in response to the status returned in the C-FIND response command message.

The behavior of Ultrasound System during communication failure is summarized in the Table below.

Table 75

COMMUNICATION FAILURE BEHAVIOR FOR WORKLIST AE

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the worklist marked as failed. The reason is logged and reported to the user if an interactive query.
Association aborted by the SCP or network layers	The query is marked as failed. The reason is logged and reported to the user if an interactive query.

The Table below provides a description of the Ultrasound system Worklist Request Identifier and specifies the attributes that are copied into the images. Unexpected attributes returned in a C-FIND response are ignored.

Requested return attributes not supported by the SCP are set to have no value. Non-matching responses returned by the SCP due to unsupported optional matching keys are ignored. No attempt is made to filter out possible duplicate entries.

Table 76

Worklist Request Identifier

ATTRIBUTE	VR	ATTRIBUTE NAME	MATCHING KEYS

(0010,0040)	CS	Patient's Sex		X(DI)
(0010,1020)	DS	Patient's Size		X (DI)
(0010,1030)	DS	Patient's Weight		X (DI)
(0010,2160)	SH	Ethnic Group		X (DI)
(0010,4000)	LT	Patient Comments		X (DI)
(0040,3001)	LO	Confidentiality constraint on patient data Description		X (DI)
Module: Patient Medical Module (M)				
(0010,2000)	LO	Medical Alerts		X (DI)
(0010,2110)	LO	Contrast Allergies		X (DI)
(0010,21B0)	US	History		X (DI)
(0010,21C0)	US	Pregnancy Status		X (DI)
(0010,21D0)	DA	Last Menstrual Date		X (DI)
(0038, 0050)	LO	Special Needs		X (DI)
(0038, 0500)	LO	Patient State		X (DI)
Module: Visit Relationship Module (M)				
(0008,1120)	SQ	Referenced Patient Sequence		X (DI)
Module: Visit Identification Module (M)				
(0038,0010)	LO	Admission ID		X (DI)
Module: Visit Status Module (M)				
(0038,0300)	LO	Current Patient Location		X (DI)
Module: Visit Admission Module (M)				
(0008,1080)	LO	Admitting Diagnosis Description		X (DI)
Module: Scheduled Procedure Step Module (M)				
(0040,0100)	SQ	Scheduled Procedure Step Sequence		X (DI)
>(0008,0060)	CS	Modality	Configurable and the default is set to	
>(0032,1070)	LO	Requested Contrast Agent		X (DI)

>(0040,0001)	AE	Scheduled Station AE Title	configurable	X (DI)
>(0040,0002)	DA	Scheduled Procedure Step Start Date	configurable and the	

		Sequence		
> (0008,1150)	UI	Referenced SOP Class UID		X (DI)
> (0008,1155)	UI	Referenced SOP Instance UID		X

(0008,0032)	TM	Acquisition Time		X (DI)

The convention used for Matching Keys is:

X - Return keys. An " X " indicates that MODALITY supplies this attribute as a Return Key with zero length for Universal Matching.

DI Display to the user.

4.2.1.3.6 Activity Send MPPS Request

4.2.1.3.6.1 Description and Sequencing of Activities

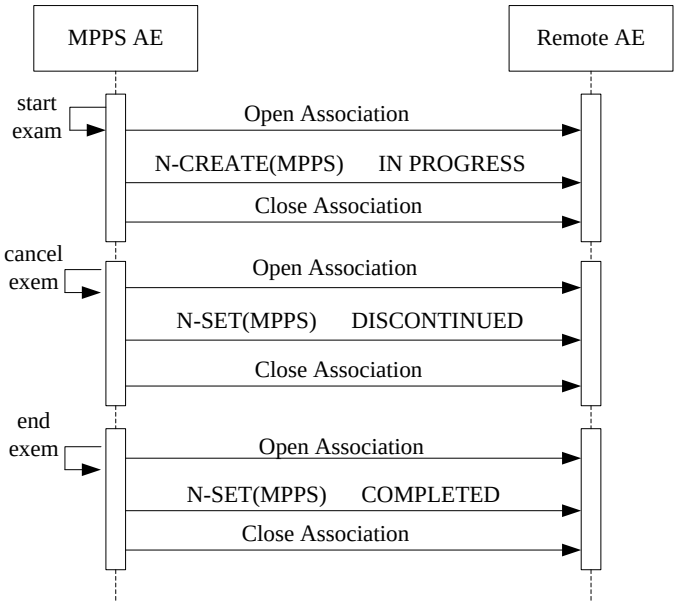

Figure 6

Sequencing of Activity MPPS progress

A possible sequence of interactions between the MPPS AE and a Remote AE(Departmental Scheduler, e.g. a device such as a RIS or HIS which supports the MPPS SOP Class as an SCP) is illustrated in Figure B.4.2-4:

1. The MPPS AE opens an association with the Remote AE.
2. The MPPS AE sends an N-CREATE request to the Remote AE to create an MPPS ssary attributes. The Remote AE acknowledges the MPPS creation with an N-CREATE response (status success).
3. The MPPS AE closes the association with the Remote AE.
4. All images are acquired and stored in the local database.
5. The MPPS AE opens an association with the Remote AE.
6. The MPPS AE sends an N-SET request to the Remote AE to update the MPPS

   Departmental Scheduler acknowledges the MPPS update with an N-SET response (status success).
7. The MPPS AE closes the association with the Remote AE.

Note: The Cancel and End Exam commands are mutually exclusive. They are both represented here for illustration purposes only. Actual workflow uses one or the other for a given exam.

For each exam step transfer, an attempt will be made to transmit it to the selected remote AE. If it fails, it will automatically retry specific times if configured on Preset UI..

4.2.1.3.6.2 Proposed Presentation Contexts

Table 77
Proposed Presentation Contexts for MPPS AE

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Extended Negotiation**
Name	**UID**	**Name**	**UID**		

			the Response identifying the attributes out of range will be logged (i.e. Elements in the Modification List/Attribute List)
*	*	Any other status code.	The Association is aborted using A-ABORT and the MPPS is marked as failed. The status meaning is logged.

The behavior of MPPS AE during communication failure is summarized in the Table below:

Table 79

MPPS COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and MPPS marked as failed. The reason is logged.
Association aborted by the SCP or network layers	The MPPS is marked as failed. The reason is logged.

Table below provides a description of the MPPS N-CREATE and N-SET request identifiers sent by ultrasound system. Empty cells in the N-CREATE and N-SET columns indicate

Table 80

MPPS N-CREATE / N-SET Request Identifier

Attribute Name	Tag	Req. Type N-CREATE	Req. Type N-SET
Module: Performed Procedure Step Relationship Module (M)			
Referenced Patient Sequence	(0008,1120)	2 (Default is set to null)	Not allowed
	(0010,0010)	2	Not allowed
Patient ID	(0010,0020)	2	Not allowed

>Requested Procedure Description	(0032,1060)	2	Not allowed
>Scheduled Procedure Step Description	(0040,0007)	2	Not allowed
>Scheduled Protocol Code Sequence	(0040,0008)	2	Not allowed
>Scheduled Procedure Step ID	(0040,0009)	2	Not allowed
>Requested Procedure ID	(0040,1001)	2	Not allowed
Module: Image Acquisition Results Module (M)			
Modality	(0008,0060)	1	Not allowed
Study ID	(0020,0010)	2	Not allowed
Performed Protocol Code Sequence	(0040,0260)	2 (Default is set to null)	3
Performed Series Sequence	(0040,0340)	2	3
>Retrieve AE Title	(0008,0054)	2 (Default is set to null)	2
>Series Description	(0008,103E)	2 (Default is set to null)	2
	(0008,1050)	2	2
	(0008,1070)	2	2
>Referenced Image Sequence	(0008,1140)	2	2
>Protocol Name	(0018,1030)	1	1
>Series Instance UID	(0020,000E)	1	1
>Referenced Non-			

Date			
Performed Procedure Step Start Time	(0040,0245)	1	Not allowed
Performed Procedure Step End Date	(0040,0250)	2 (Default is set to null)	3
Performed Procedure Step End Time	(0040,0251)	2	3
Performed Procedure Step Status	(0040,0252)	1	3
Performed Procedure Step ID	(0040,0253)	1	Not allowed
Performed Procedure Step Description	(0040,0254)	2 (Default is set to null)	3
Performed Procedure Type Description	(0040,0255)	2 (Default is set to null)	3
Performed Procedure Step Discontinuation Reason Code Sequence	(0040,0281)	3	3
Module: SOP Common Module (M)			
Specific Character Set	(0008,0005)	1C (Required if an extended or replacement character set is used)	Not allowed

4.2.1.3.7 Activity Query/Retrieve from Remote AE

4.2.1.3.7.1 Description and Sequencing of Activities for SCU

Figure 7

Sequencing of Activity Query/Retrieve progress

The associated Real-World activity is a C-Find request initiated by the user. The user specifies some attributes the system should use to query its database. If the query user successfully establishes an association to the remote AE, it will send a C-Find request (according to the query model) and will then return the results to the application.

The C-MOVE-RQs are used to retrieve the referenced instances. The Query/Retrieve AE supports the Study Root Information Model.

4.2.1.3.7.3 SOP Specific Conformance

The ultrasound system provides Standard Conformance to the DICOM Query/Retrieve Class

Failed	Identifier does not match SOP Class	A900	(0000,0901) (0000,0902)	is aborted using A-ABORT and a notify message is displayed: The remote server error.

(0010,0040)	CS	O	Patient's Sex		S(SK)
(0020,0010)	SH	R	Study ID		S(SK)
(0020,000D)	UI	U	Study Instance UID		N
(0008,0061)	CS	O	Modalities in Study	US	N
(0008,0090)	PN	O	Referring Physician's Name		N
(0008,1030)	LO	O	Study Description		N
(0008,1032)	SQ	O	Procedure Code Sequence		N
(0008,1060)	PN	O	Name of Physician(s) Reading Study		N
(0008,1080)	LO	O	Admitting Diagnoses Description		N
(0008,1110)	SQ	O	Referenced Study Sequence		N
(0008,1120)	SQ	O	Referenced Patient Sequence		N
(0010,0021)	LO	O	Issuer of Patient ID		N
(0010,0032)	TM	O	Patient's Birth Time		N
(0010,1000)	LO	O	Other Patient IDs		N
(0010,1001)	PN	O	Other Patient Names		N
(0010,1010)	AS	O	Patient's Age		N
(0010,1020)	DS	O	Patient's Size		N
(0010,1030)	DS	O	Patient's Weight		N
(0010,2160)	SH	O	Ethnic Group		N
(0010,2180)	SH	O	Occupation		N
(0010,21B0)	LT	O	Additional Patient History		N
(0010,4000)	LT	O	Patient Comments		N
(0020,1070)	IS	O	Other Study Numbers		N
(0020,1200)	IS	O	Number of Patient Related Studies		N
(0020,1202)	IS	O	Number of Patient Related Series		N
(0020,1204)	IS	O	Number of Patient Related Instances		N
(0020,1206)	IS	O	Number of Study Related Series		N
(0020,1208)	IS	O	Number of Study Related Instances		N
(4008,010C)	PN	O	Interpretation Author		N
Module: Additional Attributes Module (O)					
(0008,0062)	UN	O	SOP Classes in Study		N

4.2.1.3.7.3.5 Series Level Attributes

Table 85

SERIES LEVEL ATTRIBUTES

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE	MATCHINGKEYS
Module: Study Root Information Model (M)					
(0020,000D)	UI	U	Study Instance UID		S
(0020,000E)	UI	U	Series Instance UID		N
(0008,0060)	CS	R	Modality		N
(0020,0011)	IS	R	Series Number		N
(0020,1209)	IS	O	Number of Series Related Instances		N
Module: Additional Attributes Module (O)					
(0008,0021)	DA	O	Series Date		N
(0008,0031)	TM	O	Series Time		N

4.2.1.3.7.3.6 Composite Object Instance Level

Table 86

COMPOSITE OBJECT INSTANCE LEVEL ATTRIBUTES

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE	MATCHINGKEYS
Module: Study Root Information Model (M)					

(0040,A504)	SQ	O	Content Template Sequence		N
>(0008,0105)	CS	O	Mapping Resource		N
>(0040,DB00)	CS	O	Template Identifier		N

4.2.1.4 Association Acceptance Policy

4.2.1.4.1 Activity Receive Echo Request

4.2.1.4.1.1 Description and Sequencing of Activities

The Verification AE (as SCP) accepts associations only if they have valid Presentation Contexts. If Verification AE (as SCP) receives an echo (C-ECHO) request then the response will be sent over the same association used to send the C-ECHO-RQ.

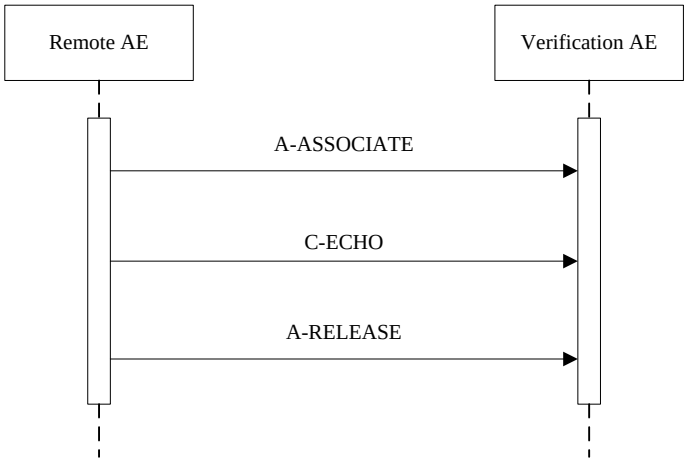

Figure 8
Sequencing of Activity Receive Echo Request

4.2.1.4.1.2 Accepted Presentation Contexts

It will accept Presentation Contexts as shown in the following table:

Table 87
Proposed Presentation Contexts for Activity Verification

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name	UID		
Verification	1.2.840.10008.1.1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None

4.2.1.4.1.3 SOP Specific Conformance

The Application conforms to the definition of a Verification SCP in accordance with the DICOM Standard.

4.2.1.4.2 Activity Receive Storage

4.2.1.4.2.1 Description and SeqreW*nBT5JETQ EMC /Span /MCID 6/La SeqreW*nB

		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008.1.2.4.70	SCP	None
		RLE Lossless	1.2.840.10008.1.2.5	SCP	None
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008.1.2.4.90	SCP	None
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91	SCP	None
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None
		Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None

4.3 Network Interface

4.3.1 Supported Communications Stacks

Modality DICOM AEs provide DICOM 3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

4.3.2 TCP/IP Stack

Modality DICOM AEs inherit their TCP/IP stack from the Linux Operating System upon which they execute.

4.3.3 Physical Network Interface

Modality supports a single network interface. One of the following physical network interfaces will be available depending on installed hardware options:

Table 89
Supported Physical Network Interfaces

ETHERNET 1000BASET
Ethernet 100baseT
Ethernet 10baseT

4.3.4 Additional Protocols

Modality does not support additional protocols.

4.4 Configuration

The Configuration Utility allows the service engineer to set and maintain configuration parameters of local and remote DICOM application entities.

4.4.1 AE Title/Presentation Address Mapping

This mapping (including IP and port numbers) is defined during the system Network Configuration procedure.

4.4.2 Configu(u(uETQq0.0004-ur

Print:

- Device, Service name, AE Title and Port .
- Timeout.
- TLS.
- Maximum retries. (default value is 3)
- Interval Time (In this version, this parameter is not usable.)
- Media Type: PAPER, CLEAR FILM, or BLUE FILM
- Film Size:
  - 8INX10IN
  - 8_5INX11IN
  - 10INX12IN
  - 10INX14IN
  - 11INX14IN
  - 11INX17IN
  - 14INX14IN
  - 14INX17IN
  - 24CMX24CM
  - 24CMX30CM
  - A4
  - A3
- Copies:1-100
- Max Density: 0-65535
- Min Density:0-65535
- Settings: RGB or MONOCHROME2
- Display Format:
  - ✧ PORTRAIT:
    - STANDARD\1,1
    - STANDARD\1,2
    - STANDARD\1,3
    - STANDARD\2,1
    - STANDARD\2,2
    - STANDARD\2,3
    - STANDARD\2,4
    - STANDARD\3,3
    - STANDARD\3,4
    - STANDARD\3,5
    - STANDARD\3,6

STANDARD\4,4
STANDARD\4,5
STANDARD\4,6
STANDARD\4,7
STANDARD\4,8
STANDARD\5,5
STANDARD\5,6
STANDARD\5,7
STANDARD\5,8
STANDARD\6,6
STANDARD\6,7
STANDARD\6,8
STANDARD\6,9
STANDARD\6,10
STANDARD\7,7
STANDARD\7,8
STANDARD\7,9
STANDARD\7,10
STANDARD\8,8
STANDARD\8,9
STANDARD\8,10

✧ LANDSCAPE:

STANDARD\1,1
STANDARD\1,1
STANDARD\2,1
STANDARD\3,1
STANDARD\1,2
STANDARD\2,2
STANDARD\3,2
STANDARD\4,2
STANDARD\3,3
STANDARD\4,3
STANDARD\5,3
STANDARD\6,3
STANDARD\4,4
STANDARD\5,4
STANDARD\6,4

STANDARD\7,4
STANDARD\8,4
STANDARD\5,5
STANDARD\6,5
STANDARD\7,5
STANDARD\8, 5
STANDARD\6,6
STANDARD\7,6
STANDARD\8,6
STANDARD\9,6
STANDARD\10,6
STANDARD\7,7
STANDARD\8,7
STANDARD\9,7
STANDARD\10,7
STANDARD\8,8
STANDARD\9,8
STANDARD\10,8

- Destination: MAGAZINE or PROCESSOR
- Film Orientation: LANDSCAPE or PORTRAIT
- Priority: HIGH, MED, or LOW
- Configuration Info
- Magnification Type: NONE, CUBIC, REPLICATE, or BILINEAR
- Trim: Yes/Not
- Strategy Name.
- Default Status (Y/N)

WORKLIST:

- Device, Service name, AE Title and Port .
- TLS.
- Timeout.
- Maximum retries, Interval Time (In this version, these two parameters are not usable.)
- Strategy Name.
- Remove Attributes.
- Default Status (Y/N)

MPPS:

- Device, Service name, AE Title and Port.
- TLS.
- Timeout.
- Maximum retries (default value is 3)
- Interval Time (In this version, this parameter is not usable.)
- Default Status (Y/N)

Storage Commitment:

- Device, Service name, AE Title and Port.
- TLS.
- Timeout.
- Maximum retries, Interval Time (In this version, these two parameters are not usable.)
- Associated Storage Service
- Default Status (Not available)

Query/Retrieve

- Device, Service name, AE Title and Port.
- TLS.
- Timeout.
- Maximum retries, Interval Time (In this version, these two parameters are not usable.)
- Default Status (Y/N)

5 Media Storage

5.1 Implementation Model

5.1.1 Application Data Flow

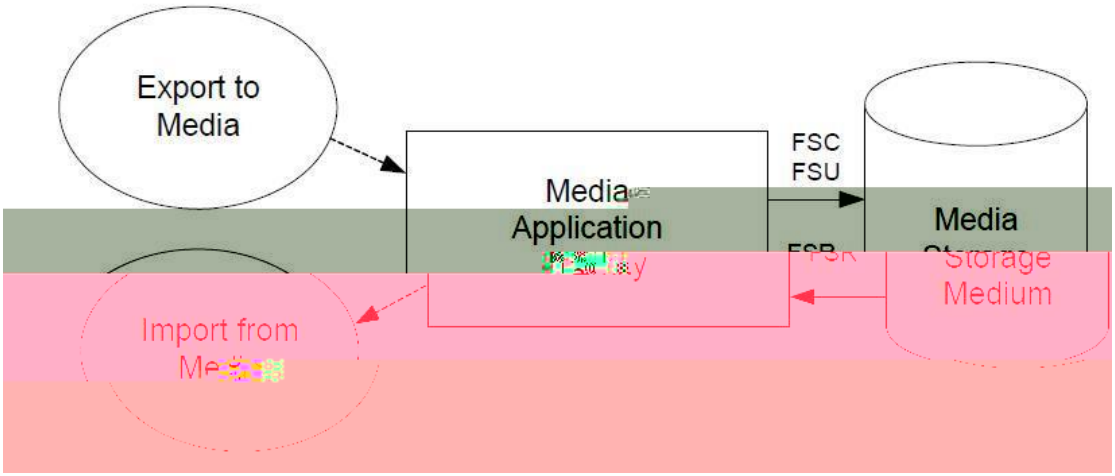

Figure 9

Application Data Flow Diagram for Media Storage

The Media Application Entity exports Images and Structured Reports to a removable storage medium. It is associated with the local real- Backup configured export selection parameters for selected Structured Reports).

5.1.2

5.1.2.1 Functional Definition of Media Application Entity

images to the Media Application Entity. The contents of each export job will be written to

5.1.4 File Meta Information Options

The implementation information written to the File Meta Header in each file is:

Table 90
DICOM Implementation Class and Version for Media Storage

Implementation Class UID	1.2.156.112536.1.2162.0.1.0.1
Implementation Version Name	MINDRAY_V1.0

5.2 AE Specifications

5.2.1 Media Application Entity Specification

The Media Application Entity provides standard conformance to the Media Storage Service Class. The Application Profiles and roles are listed below: The available physical media is CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM, and USB devices.

Table 91
Application Profiles, Activities and Roles

Application Profiles Supported	Real World Activity	Role
STD-GEN-USB-JPEG STD-US-SC-SF&MF-CDR STD-US-SC-SF&MF-DVD STD-US-SC-SF&MF-DVD-RAM	Export Exam	FSC/FSU[1]
	Read Exam	FSR
	Import Exam	FSR

Note: 1 functionality requires DVD+RW, DVD-RW, or USB

5.2.1.1 File Meta Information for the Application Entity

The File Meta Header does not include the Source Application Entity Title.

5.2.1.2 Real-World Activities

5.2.1.2.1 Activity-FSC-Export exams

When system user exports exams, images, SR, or Encapsulated PDF to a media upon which no DICOM data resides, it creates a DICOM file set and writes this DICOM File Set to this media.

The Media Application Entity acts as an FSC using the interchange option when requested to export SOP Instances from the local database to media upon which no DICOM data resides.

5.2.1.2.2 Activity-FSR-Import exams

When system user presents the directory of the media, presses Restore button and the selected exams are transferred from the media to the system for review. Objects transferred to the system retain their original SOP Instance UIDs.

The Media Application Entity acts as an FSR using the interchange option when requested to import SOP Instances from media to the local database.

5.2.1.2.3 Activity-FSU-Export exams

		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008.1.2.4.90
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian	1.2.840.10008.1.2.1
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50
		JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008.1.2.4.70
		RLE Lossless	1.2.840.10008.1.2.5
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008.1.2.4.90
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian	1.2.840.10008.1.2.1
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50
		JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008.1.2.4.70
		RLE Lossless	1.2.840.10008.1.2.5
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008.1.2.4.90
		JPEG 2000 Image Compression	1.2.840.10008.1.2.4.91

Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	Explicit VR Little Endian	1.2.840.10008.1.2.1

ATTRIBUTE

(0008,0021)	DA	3	Series Date	AUTO
(0008,0031)	TM	3	Series Time	AUTO

6 SUPPORT OF CHARACTER SETS

The system charaset of all languages is unified as UTF-8. As for compatibility of different US series, add Dicom output character which AUTO is default in DICOM preset.AUTO charasets in Table 98 are supported.

Table 98

AUTO Character Set Defined Terms

Character Set Description	Defined Term	System Language
AUTO UTF-8	ISO_IR 192	English, French, G Tf1 0 0 1 379.3 611.26

7 SECURITY

7.1 Security Profiles

Modality supports secure DICOM communication in conformance with the Basic TLS Secure Transport Connection Profile and the AES TLS Secure Transport Connection Profile.At default configuration,the TLS option is deactivated.

Basic TLS Secure Transport Connection Profile and the AES TLS Secure Transport Connection Profile are supported using Transport Layer Security Version 1.2 protocol with the following features:

Supported TLS Feature	**Mechanism**
Entity Authentication	RS A based certificates
Exchange of Master Secrets	RSA
Data Integrity	SHA
Privacy (Cyphersuite Options)	TLS_RSA_WITH_AES_128_CBC_SHA TLS_RSA_WITH_3DES_EDE_CBC_SHA

7.2 Association level security

None supported.

Any Calling AE Titles and/or IP addresses may open an Association.

7.3 Application level security

DICOM TLS.

8 ANNEXES

8.1 IOD contents

8.1.1 Created SOP Instances

None.

8.1.2 Usage of attributes from received IO

No SOP Class specific fields are required.

The local database makes

8.5 Standard extended/specialized/private sop Classes

None.

8.6 Private Transfer Syntaxes

None.

A. Appendix : OB GYN structured reporting template

This appendix lists the DICOM Structured Report (SR) mappings used in the Obstetric and Gynecologic Structured Reports of ultrasound system SR files.

The mappings are organized in a manner similar to the DICOM SR Templates as described in PS 3.16 of the DICOM Standard. The OB-GYN Report mappings follow the DICOM SR Template TID 5000: OB-GYN Ultrasound Procedure Report, except where noted.

All private code values use the Coding Scheme Designator "MRUS".

A.1. TID (300) Measurement

This Template provides a general structure for a numeric measurement, together with evaluations of its normality and/or significance, and the inference source(s) for its value.

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			NUM	$Measurement			Units = $Units
2	>	HAS CONCEPT MOD	CODE	EV (G-C036, SRT, "Measurement Method")			$Method
3	>	HAS CONCEPT MOD	CODE	EV (121401, DCM, "Derivation")			$Derivation
4	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT, "Finding Site")			$TargetSite
5	>>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, "Laterality")			DCID (244) Laterality
6	>	HAS PROPERTIES	CODE	EV (121404, DCM, "Selection Status")			
7	>	INFERRED FROM	CODE	DCID (228) Equation or Table			
8	>>	HAS PROPERTIES	NUM				

A.2. TID 1008 Subject Context, Fetus

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			PNAME	EV (121036,DCM,			
2			UIDREF	EV (121028,DCM,			
3			TEXT	EV (121030,DCM,			
4			TEXT	EV (11951-1,LN,			
5			NUM	EV (11878-6,LN, "Number of			

A.3. TID (5000) OB-GYN Ultrasound Procedure Report

This is the template for the root of the content tree for the OB-GYN ultrasound procedure report.

NO	**NL**	**Relation with Parent**	**Value Type**	**Concept Name**	**Used in MODALITY**	**Condition**	**Value Set Constraint**
1			CONTAINER	EV (125000, -GYN Ultrasound Procedure			
2	>	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants			
3	>	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context			
4	>	CONTAINS	INCLUDE	DTID (5001) Patient Characteristics			
5	>	CONTAINS	CONTAINER	DT (111028,			

6	>>	CONTAINS	IMAGE	No purpose of reference			
7	>	CONTAINS	INCLUDE	DTID (5002) OB-GYN Procedure Summary Section			
8	>	CONTAINS	INCLUDE	DTID (5004) Fetal Biometry Ratio Section			
9	>	CONTAINS	INCLUDE	DTID (5005) Fetal Biometry Section			
10	>	CONTAINS	INCLUDE	DTID (5006) Long Bones Section			
11	>	CONTAINS	INCLUDE	DTID (5007) Fetal Cranium Section			
12	>	CONTAINS	INCLUDE	DTID (5009) Fetal Biophysical Profile Section			
13	>	CONTAINS	INCLUDE	DTID (5011) Early Gestation Section			

19	>	CONTAINS	INCLUDE	DTID (5013_1) Follicles Section			$Laterality = EV (G- $Number = EV (11879- of smart follicles in left
20	>	CONTAINS	INCLUDE	DTID (5013_1) Follicles Section			$Laterality = EV (G- Right $Number = EV (11879- of smart follicles in right
21	>	CONTAINS	CONTAINER	EV (121070,			
22	>>	HAS CONCEPT MOD	CODE	EV (G-C0E3,			EV (T-F6800, SRT,
23	>>	CONTAINS	INCLUDE	DTID (5025) OB-GYN Fetal Vascular Measurement Group			$AnatomyGroup = DCID (12141) Fetal Vasculature
24	>	CONTAINS	CONTAINER	EV (121070,			
25	>>	HAS CONCEPT MOD	CODE	EV (G-C0E3,			EV (T-D6007, SRT,
26	>>	CONTAINS	INCLUDE	DTID (5026) OB-GYN Pelvic Vascular Measurement Group			$AnatomyGroup = DCID (12140) Pelvic Vasculature Anatomical Location
27	>	CONTAINS	INCLUDE	DTID (SELFTMP-1)			
28	>	CONTAINS	TEXT	(20121120,MRUS, self-defined-Measurementfile)			
29	>	CONTAINS	INCLUDE	DTID (Pelvic floor Section)			

A.4. TID (SELFTMP-1) Fetal Cardiac Measurement Group

This is a private template referenced by TID (5000).

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV(T0001,MRUS,Fetel Cardiac)			
2	>	HAS OBS CONTEXT	INCLUDE	DTID (1008) Subject Context, Fetus			
3	>	CONTAINS	INCLUDE	DTID (SELFTMP-2) Fetal ZSCORE			$MeasType = DCID (12119) Vascular Ultrasound Property $Derivation = DCID (3627) Measurement Type

A.5. TID (SELFTMP-2) Fetal ZScore

This is a private template referenced by TID (5000).

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	INCLUDE	DTID (300) Measurement			
2		CONTAINS	NUM	EV (C12017-1, MRUS, -Score by Femur Len			calculated by $MeasType and Femur Length
3		CONTAINS	NUM	EV (C12017-2, MRUS, -Score by Biparietal			calculated by $MeasType and Biparietal Diameter
4		CONTAINS	NUM	EV (C12017-3, MRUS, -Score by Clinical			calculated by $MeasType and Clinical Gestational Age

A.6. TID(SELFTMP-PelvicFloor) Pelvic Floor Section

This is a private template referenced by TID (5000)

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (121070, DCM,			

2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT,			EV (M99900,MRUS, Pelvic floor)
3	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-01,

12	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-06, Neck Symphyseal
13	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-05, MRUS,
14	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-07, MRUS,
15	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-08, MRUS,
16	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-09,
17	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-10, Tilt Angle
18	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-06, MRUS,
19	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-11, MRUS, Pubovesical Angle
20	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-12, MRUS,

21	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-13, MRUS,
22	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-14, MRUS,
23	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-15, MRUS, Bladder Post Wall - Symphysis Publis Distance (Rest)
24	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-16, Post Wall - Symphysis Publis
25	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-17, MRUS, Cervix - Symphysis Publis
26	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-18, MRUS, Cervix - Symphysis Publis
27	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-19, MRUS, Rectal Ampulla - Symphysis Publis

28	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-20, Ampulla - Symphysis Publis
29	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-21,
30	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-22,
31	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-23,
32	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-24,
33	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-25,
34	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-26, Angle
35	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-07, MRUS,
36	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-08, MRUS,

37	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-27, Hiatal Anteroposterior
38	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-28, Hiatus Anteroposterior Diameter
39	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-29, Hiatus Anteroposterior Diameter
40	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-30, Levator Hiatus Lateral
41	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-31, Hiatus Lateral Diameter
42	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-32, MRUS, Hiatus Lateral Diameter
43	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-33,

51	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-41, Ani Thickness
52	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-42,
53	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-43, Ani Angle
54	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-44, Ani Angle
55	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-48,
56	>	CONTAINS					

(8038.66 392.09 46.8 65JET193.58.83 TMO G[()]TJE(=EVS)>> BDC q238.13 392.09

60	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-53,
61	>	CONTAINS	INCLUDE	DTID (300) Measurement		[redacted]	= EV
62	>	CONTAINS	INCLUDE	EV (M99901, MRUS Levator Urethra Gap			$AnatomyGroup = EV (M99901, MRUS Levator Urethra Gap $SectionLaterality = DCID (244) Laterality

68	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-57, MRUS,
69	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-58, MRUS,
70	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-59, MRUS,
71	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-60,
72	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-61, Neck Symphyseal Distance1
73	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-62, Bladder Descent1
74	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-63, MRUS, Angle1 (Vals
75	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-64, MRUS,

76	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-65, MRUS,
77	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-66, Tilt Angle1
78	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-67, Neck Symphyseal
79	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-68, Bladder Descent2
80	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-69, MRUS,
81	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-70, MRUS,
82	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-71, MRUS,
83	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-72,

84	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-73, Neck Symphyseal Distance2
85	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-74, Bladder Descent2
86	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-75, MRUS,
87	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-76, MRUS, ical
88	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-77, MRUS,
89	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-78, Tilt Angle2 (Valsav
90	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-79, Neck Symphyseal
91	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-80, Bladder Descent3

92	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-81, MRUS,
93	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-82, MRUS,
94	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-83, MRUS,
95	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-84,
96	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-85, Neck Symphyseal Distance3
97	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-86, Bladder Descent3
98	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-87, MRUS,
99	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-88, MRUS,

100	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-89, MRUS,
101	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-90, Tilt Angle3

102 W* r

108	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-09, MRUS,
109	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-10, MRUS,
110	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-11, MRUS,
111	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-12, MRUS,
112	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-13, MRUS,
113	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-14, MRUS,

A.7. TID (1001) OBSERVATION CONTEXT

This template specifies attributes of observation context that may be defined, extended or replaced at any location in the SR tree.

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1	>	HAS OBS CONTEXT	CODE	EV (121005,DCM,			(121006,DCM,
2	>	HAS OBS CONTEXT	PNAME	EV (121008,DCM,			Operator from Info
3	>	HAS OBS CONTEXT	TEXT	EV (121009,DCM,			Institution Name (0008,0080) of the General Equipment Module

4	>	HAS OBS CONTEXT	CODE	EV (121010,DCM, Role in the			(121093, DCM, "Sonographer")
5	>	HAS OBS CONTEXT	CODE	EV (121024, DCM,			(121025, DCM,
6	>	HAS OBS CONTEXT	PNAME	EV (121029,DCM,			Name (0010,0010) in Patient Module
7	>	HAS OBS CONTEXT	DATE	EV (121031,DCM,			Birth Date (0010,0030) in Patient Module
8	>	HAS OBS CONTEXT	CODE	EV (121032,DCM, "Subj			value equivalent to (0010,0040) in Patient Module
9	>	HAS OBS CONTEXT	NUM	EV (121033,DCM,			Age (0010,1010) in Patient Study Module

A.8. TID (5001) OB-GYN Patient Characteristics

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (121118, DCM,			
2	>	CONTAINS	TEXT	EV (121106, DCM,			from info
3	>	CONTAINS	NUM	EV (8302-2, LN,			
4	>	CONTAINS	NUM	EV (29463-7, LN,			
5	>	CONTAINS	NUM	EV (11996-6, LN,			
6	>	CONTAINS	NUM	EV (11977-6, LN,			
7	>	CONTAINS	NUM	EV (11612-9, LN,			

8	>	CONTAINS	NUM	EV (33065-4, LN,			

A.9. TID (5002) OB-GYN Procedure Summary

NO	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT (121111, DCM,			
2	>	CONTAINS	DATE	11778-8, LN, "EDD"			from info
3	>	CONTAINS	DATE	(11779-6, LN, "EDD from LMP")			from info
4	>	CONTAINS	DATE	(11781-2, LN, "EDD from average ultrasound age")			
5	>	CONTAINS	DATE	11780-4, LN, "EDD from ovulation date"			from info
6	>	CONTAINS	DATE	(11955-2, LN, "LMP"			from info
7	>	CONTAINS	DATE	33066-2, LN, "Estimated LMP by EDD"			from info
8	>	CONTAINS	DATE	11976-8, LN, "Ovulation date"			from info
9	>	CONTAINS	DATE	(I12003-01, MRUS, "IVF")			from info
10	>	CONTAINS	DATE	(C12003-01, MRUS, "EDD from IVF")			from info
11	>	CONTAINS	DATE	(I12003-02, MRUS, "PRV")			from info
12	>	CONTAINS	DATE	(C12003-02, MRUS, "EDD from PRV")			from info
13	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11886-9, LN, "Gestational Age by ovulation date")
14	>	CONTAINS	TEXT	EV (121106, DCM, Comment)			from info
15	>	CONTAINS	TEXT	(I12101-01, MRUS, "Primary Indications")			from info
16	>	CONTAINS	TEXT	(I12101-02, MRUS, "Secondary Indications")			from info
17	>	CONTAINS	TEXT	(I12101-03, MRUS, "CPT4 Code")			from info

18	>	CONTAINS	TEXT	(I12101-04, MRUS, "CPT4 Description")			from info
19	>	CONTAINS	TEXT	(I12101-06,MRUS, "follicle-stimulating hormone")			
20	>	CONTAINS	TEXT	(I12101-07,MRUS, "luteinizing hormone")			
21	>	CONTAINS	TEXT	(I12101-08,MRUS, "estradiol")			
22	>	CONTAINS	TEXT	(I12101-09,MRUS, "Serum prolactin")			
23	>	CONTAINS	TEXT	(I12101-10,MRUS, "progesterone")			
24	>	CONTAINS	TEXT	(I12101-11,MRUS, "testosterone")			
25	>	CONTAINS	TEXT	(I12101-12,MRUS, "clomiphene citrate")			
26	>	CONTAINS	TEXT	(I12101-14,MRUS, "human menopausal gonadotropin")			
27	>	CONTAINS	TEXT	(I12101-13,MRUS, "human chorionic gonadotropin")			
28	>	CONTAINS	TEXT	[redacted]			

37	>	CONTAINS	NUM	(I12101-18,MRUS,Caesarean Section)			from info
38	>	CONTAINS	INCLUDE	FINDING_7			
39	>	CONTAINS	INCLUDE	BTID (5003) OB-GYN Fetus Summary			

A.10. TID (5003) OB-GYN Fetus Summary

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT (125008, DCM,			
2	>	HAS OBS CONTEXT	TEXT	EV (11951-1,LN,"Fetus			
3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN,			
4	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (18185-9, LN, "Gestational Age")
5	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11888-5, LN, " Composite Ultrasound Age")
6	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11885-1, LN, "Gestational Age
7	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11727-5, LN, "Estimated
8	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11767-1, LN, "EFW percentile rank")
9	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11948-7, LN, " Fetal Heart Rate")

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
10	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (C12019-01, MRUS, "Gestational Age by IVF")
11	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (I12019-01, MRUS, "GA of Previous Exam")
12	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (C12019-02, MRUS, "Gestational Age by PRV")
13	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (C12019-03, MRUS, "Gestational Age by EDD")
14	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (18185-9, LN, "Gestational Age by EFW")
15	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11727-5, LN, "Gestational Age by mean Gestational Sac Diameter")
16	>	CONTAINS	INCLUDE	FINDING_1			
17	>	CONTAINS	INCLUDE	FINDING_2			
18	>	CONTAINS	INCLUDE	FINDING_3			
19	>	CONTAINS	INCLUDE	FINDING_4			
20	>	CONTAINS	INCLUDE	FINDING_5			
21	>	CONTAINS	INCLUDE	FINDING_6			

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(FG12019-01,MRUS,"Fetal Description")			
2	>	CONTAINS	TEXT	(FG12018-02,MRUS,"Fetal Lie")			
3	>	CONTAINS	TEXT	(FG7455-01,MRUS,"Gender")			
4	>	CONTAINS	TEXT	(FG7160-01,MRUS,"3 Vessel Cord")			
5	>	CONTAINS	TEXT	(T-D1200,SNM3,"Face")			
6	>	CONTAINS	TEXT	(FG4-01,MRUS,"Nose Lips")			
7	>	CONTAINS	TEXT	(FG12011-01,MRUS,"Cord insertion")			
8	>	CONTAINS	TEXT	(T-57000,SNM3,"Stomach")			
9	>	CONTAINS	CONTAINER	(T-71000,SRT,"Kidney")			
10	>>	CONTAINS	TEXT	(G-A100,SNM3,"Left")			
11	>>	CONTAINS	TEXT	(G-A101,SNM3,"Right")			
12	>	CONTAINS	TEXT	(T-74000,SRT,"Bladder")			
13	>	CONTAINS	TEXT	(T-			
14	>	CONTAINS	TEXT	(T-62000,SRT,"Liver")			
15	>	CONTAINS	TEXT	(T-D3400,SRT," Diaphragm ")			
16	>	CONTAINS	TEXT	(FG4031-03,MRUS,"Fetal Bowel")			
	>	CONTAINS	TEXT	FG12007-05,MRUS, intracranial translucency			

A.12. TID (FINDING_2) Fetus Limbs

This is a private template referenced by TID (5003).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(FG4031-04,MRUS,"Fetus Limbs")			
2	>	CONTAINS	TEXT	(FG4031-05,MRUS,"Upper Extremities")			
3	>	CONTAINS	TEXT	(FG4031-06,MRUS,"Lower Extremities")			

A.13. TID (FINDING_3) Fetal Cardiology

This is a private template referenced by TID (5003).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(FG4031-07,MRUS,"Fetal Cardiology")			
2	>	CONTAINS	TEXT	(FG12239-01,MRUS,"Cardiac Activity")			
3	>	CONTAINS	TEXT	(FG4031-08,MRUS,"4C HEART")			
4	>	CONTAINS	TEXT	(T-42000,SNM3,"Aorta")			
5	>	CONTAINS	TEXT	(T-44000,SNM3,Pulmonary Artery)			
6	>	CONTAINS	TEXT	(FG3010-02,MRUS,Ascending Aorta)			
7	>	CONTAINS	TEXT	(FG3010-01,MRUS,"ARCH")			
8	>	CONTAINS	TEXT	(FG3010-03,MRUS," Decrease ARCH ")			
9	>	CONTAINS	TEXT	(T-32650,SRT,Left Ventricular Outflow Tract)			
10	>	CONTAINS	TEXT	(T-32550,SRT,Right Ventricle Outflow Tract)			

A.14. TID (FINDING_4) Fetal Brain

This is a private template referenced by TID (5003).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(FG4030-01,MRUS,"Fetal Brain")			
2	>	CONTAINS	TEXT	(FG4030-02,MRUS,"Lateral Ventricles")			
3	>	CONTAINS	TEXT	(11860-4,LN,"Cisterna Magna")			
4	>	CONTAINS	TEXT	(T-A600A,SNM3,"Cerebellum")			
5	>	CONTAINS	TEXT	(FG4030-03,MRUS,"CSP")			

A.15. TID (FINDING_5) Spine

This is a private template referenced by TID (5003).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(T-11500,SRT,"Spine")			
2	>	CONTAINS	TEXT	(T-11501,SNM3,"Cervical Spine")			
3	>	CONTAINS	TEXT	(T-11502,SNM3,"Thoracic Spine")			
4	>	CONTAINS	TEXT	(T-11503,SNM3,"Lumbar Spine")			
5	>	CONTAINS	TEXT	(FG4031-,MRUS,"Sacral Spine")			

A.16. TID (FINDING_6) Fetal Environment

This is a private template referenced by TID (5003).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(FG12019-03,MRUS,"Fetal Environment")			
2	>	CONTAINS	TEXT	(FG12011-01,MRUS,"Placental Location")			
3	>	CONTAINS	TEXT	(FG12011-02,MRUS,"Amniotic Fluid")			
4	>	CONTAINS	TEXT	(FG12011-03,MRUS,"Placental Grade")			

A.17. TID (FINDING_7) Maternal Description

This is a private template referenced by TID (5003).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	(FG6088-01,MRUS,"Maternal Description")			
2	>	CONTAINS	CONTAINER	(FG12011-03,MRUS,"Adnexa")			
3	>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
4	>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
5	>	CONTAINS	CONTAINER	(T-87000,SRT,"Ovary")			
6	>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
7	>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
8	>	CONTAINS	CONTAINER	(T-71000,SRT,Kidney)			
9	>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
10	>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
11	>	CONTAINS	TEXT	(FG4031-02,MRUS,"LUS")			
12	>	CONTAINS	TEXT	(T-83200,SRT,Cervix)			

3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN,			

3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN, "Number of			
4	>	CONTAINS	INCLUDE	DTID (5008) Fetal Biometry Group			$BiometryType = MemberOf {DCID (12007) Fetal Cranium}

A.22. TID (5008) Fetal Biometry Group

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT(125005,			
2	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = $BiometryType
							$Derivation = DCID (3627) Measurement Type
3	>	CONTAINS	NUM	EV (18185-9,			Units= EV (d,UCUM, days)
4	>>	INFERRED FROM	CODE	DCID (228) Equation or Table			DCID (12013) Gestational Age Equations and Tables
5	>>	R-INFERRED FROM	NUM				
6	>>	HAS PROPERTIES	NUM	DCID (226) Population Statistical Descriptors			
7	>	CONTAINS	NUM	(DCM, 125012, "Growth Percentile Rank")			
8	>>	INFERRED FROM	CODE	DCID (228) Equation or Table			

A.23. TID (5009) Fetal Biophysical Profile Section

	NL	Relation with Parent	Value Type	Concept Name	Used in Modality	Condition	Value Set Constraint
1			CONTAINER	DT (125006,			
2	>	HAS OBS CONTEXT	INCLUDE	EV (11951-1,LN,			
3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN, "Number of			
4	>	CONTAINS	NUM	EV (11631-9, LN,			Units = DT
5	>>	HAS PROPERTIES	TEXT	(121106, DCM,			
6	>	CONTAINS	NUM	EV (11632-7, LN,			Units = DT
7	>>	HAS PROPERTIES	TEXT	(121106, DCM,			
8	>	CONTAINS	NUM	EV (11635-0, LN,			Units = DT
9	>>	HAS PROPERTIES	TEXT	(121106, DCM,			

13	>>	HAS PROPERTIES	TEXT	(121106,	DCM,

8	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12008-01,MRUS, "Amniotic Fluid")

A.25. TID (5011) Early Gestation Section

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT (125009,			
2	>	HAS OBS CONTEXT	TEXT	EV (11951-1,LN,			
3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN, "Number of			
4	>	CONTAINS	INCLUDE	DTID (5008) Fetal Biometry Group			$BiometryType= Member of {DCID (12009) Early Gestation Biometry Measurements}

A.26. TID (5012) Ovaries Section

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		DT (T-87000,	

3	>	CONTAINS	INCLUDE	EV (T-87000,			$Measurement = EV (T-87000,
4	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (11829-
5	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (11840-
6	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (11857- Ovary
7	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (12164-
8	>	CONTAINS	INCLUDE	EV (T-87000,			$GroupName = EV (T-87000,
9	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (11830-
10	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (11841-
11	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (11858-
12	> >	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (12165-
13	>	CONTAINS	INCLUDE	EV (T-87000, MRUS			$AnatomyGroup = EV (T-87000, MRUS Ovarian Cyst $SectionLaterality = DCID (244) Laterality
14	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-

15	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-2
16	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-3
17	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-4 Ovarian Cyst2
18	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-5 Ovarian Cyst2
19	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-6 Ovarian Cyst2
20	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-7 Ovarian Cyst3
21	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-8 Ovarian Cyst3

				of follicles in left OR EV (11880-2, of follicles in Number of follicles in the ovary.			
5	>	CONTAINS	INCLUDE	DTID (5014) Follicle Measurement Group			

A.28. TID (5013_1) Smart Follicles Section

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,			DT (T-87600_1, SRT, Smart
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,			$Laterality
4	>	CONTAINS	NUM	EV (11879-4, of smart follicles OR EV (11880-2, of smart follicles in right			

				Number of smart follicles in the ovary.			
5	>	CONTAINS	INCLUDE	DTID (5014) Follicle Measurement Group			

A.29. TID (5014) Follicle Measurement Group

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (125007, DCM,			
2	>	HAS OBS CONTEXT	TEXT	EV (12510, DCM,			Unique among all groups of same laterality
3	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (G-D705, SRT,
4	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C11793-01, MRUS,

A.30. TID (5014_1) Smart Follicle Measurement Group

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (125007, DCM,			
2	>	HAS OBS CONTEXT	TEXT	EV (12510, DCM,			Unique among all groups of same laterality

3	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (G-D705_1, SRT,
4	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-05, MRUS, Smart Follicle d1
5	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-06, LN, Smart Follicle d2
6	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-07, MRUS, Smart Follicle d3
7	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-04, LN, Smart Follicle MeanDiam
8	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C11793-01, LN Mean Follicle Diameter

A.31. TID (5015) Pelvis And Uterus Section

	NL	**Relation with Parent**	**Value Type**	**Concept Name**	**Used in MODALITY**	**Condition**	**Value Set Constraint**
1			CONTAINER	DT (125011,			
2	>	CONTAINS	CONTAINER	$GroupName			$GroupName = EV (T-
3	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = $Width $Width = EV (11865-
4	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = $Length $Length = EV (11842-2,

5	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = $Height $Height = EV (11859-6,
6	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = $Volume $Volume = EV (33192-6,
7	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV(LN,11961-0,Cervix Length)
8	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV(LN,12145-9,Endometrium Thickness)

18	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-08,MRUS,Fibroid2 Width)
19	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-09,MRUS,Fibroid2 Height)
20	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-10,MRUS,Fibroid3 Length)
21	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-11,MRUS,Fibroid3 Width)
22	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-12,MRUS,Fibroid3 Height)
23	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-13,MRUS, UT Anterior wall thickness)
24	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-14,MRUS, UT Posterior wall thickness)
25	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-15,MRUS,Lesion1 Height)
26	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-16,MRUS,Lesion2 Length)
27	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-17,MRUS,Lesion2 Width)
28	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-18,MRUS,Lesion2 Height)
29	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-19,MRUS,Lesion3 Length)
30	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-20,MRUS,Lesion3 Width)
31	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-21,MRUS,Lesion3

4	>	CONTAINS	INCLUDE	DTID (300) Measurement			$MeasType = DCID (12119) Vascular Ultrasound Property $Derivation = DCID (3627) Measurement Type

A.34. CID (228) Equation or Table

CSD	CV	Code Meaning
DCM	121420	Equation
DCM	121421	Equation Citation
DCM	121424	Table of Values
DCM	121422	Table of Values Citation
DCM	121423	Method Citation

A.35. CID (244) Laterality

CSD	CV	Code Meaning
SRT	G-A100	Right
SRT	G-A101	Left
SRT	G-A102	Right and left
SRT	G-A103	Unilateral

A.36. CID (3627) Measurement Type

CSD	CV	Code Meaning
SRT	R-002E1	Best value
SRT	R-00317	Mean
SRT	R-00319	Median
SRT	R-0032E	Mode
SRT	R-00355	Point source measurement
SRT	R-00353	Peak to peak
SRT	R-41D27	Visual estimation
SRT	R-10260	Estimated
SRT	R-41D2D	Calculated
SRT	R-41D41	Measured

A.37. CID (12005) Fetal Biometry Measurements

CSD	CV	Code Meaning
LN	11979-2	Abdominal Circumference
LN	11818-2	Anterior-Posterior Abdominal Diameter
LN	11819-0	Anterior-Posterior Trunk Diameter
LN	11820-8	Biparietal Diameter
LN	11860-4	Cisterna Magna
LN	11963-6	Femur Length
LN	11965-1	Foot length
LN	11984-2	Head Circumference
LN	11851-3	Occipital-Frontal Diameter
LN	11988-3	Thoracic Circumference
LN	33068-8	Thoracic Area
LN	11862-0	Tranverse Abdominal Diameter
LN	11863-8	Trans Cerebellar Diameter
LN	11864-6	Transverse Thoracic Diameter
LN	33191-8	APAD * TAD
MRUS	M12005-04	Facial angle
MRUS	M12005-05	Fetal Kidney length
MRUS	M12005-06	Nose Bone Length
MRUS	M12005-01	Thoracic Diameter
MRUS	M12005-02	Heart Circumference
MRUS	M12011-01	Placental Thickness
MRUS	M12005-03	Heart Area
MRUS	C12005-01	Abdominal Circumference c
MRUS	M12005-05	Fetal Kidney length

MRUS

CSD	CV	Code Meaning
MRUS	M12005-15	Lliac Wing Angle
MRUS	M12005-16	Fetal adrenal gland length
MRUS	M12005-17	Fetal adrenal gland area
MRUS	M12005-18	Fetal adrenal gland circumference
MRUS	M12005-19	Intestinum Crassum
MRUS	M12005-20	Liver Length
MRUS	M12005-21	Rib Length
MRUS	M12005-22	Shoulder Blade
MRUS	C12005-7	Mean Abdominal Diameter

A.38. CID (12006) Fetal Long Bones Measurements

CSD	CV	Code Meaning
LN	11966-9	Humerus length
LN	11967-7	Radius length
LN	11969-3	Ulna length
LN	11968-5	Tibia length
LN	11964-4	Fibula length
LN	11962-8	C

CSD	CV	Code Meaning
MRUS	M12007-04	OFDHC
MRUS	C12007-01	HCc
MRUS	M12007-05	intracranial translucency
LN	33197-5	Anterior Horn Lateral ventricular width
LN	33196-7	Posterior Horn Lateral ventricular width
SRT	T-A1740	Third ventricle
MRUS	M12007-06	NT above cord
MRUS	M12007-07	NT below cord
MRUS	M12007-08	right eye
SRT	T-11180	Mandible
MRUS	M12007-09	Prenasal thickness
MRUS	M12007-10	Cavum Septum Pellucidum
MRUS	M12007-11	

MRUS	M12009-06	Yolk Sac Width
MRUS	M12009-07	Amniotic sac length
MRUS	M12009-08	Amniotic sac Height
MRUS	M12009-09	Amniotic sac Width
MRUS	M12009-10	Ovary Cyst length
MRUS	M12009-11	Ovary Cyst Height
MRUS	M12009-12	Ovary Cyst Width

A.41. CID (12013) Gestational Age Equations and Tables

CSD	CV	Code Meaning
LN	11885-1	Gestational Age by LMP
LN	11892-7	AC, Hadlock 1984
LN	11893-5	AC, Jeanty 1984
LN	33148-8	AC by GA, Merz 1988
LN	11902-4	BPD, Hadlock 1984
LN	11903-2	BPD, Hansmann 1985
LN	11905-7	BPD, Jeanty 1984
LN	33082-9	BPD, Osaka 1989
LN	33083-7	BPD, Rempen 1991
LN	11906-5	BPD, Kurtz 1980
LN	33088-6	Clavical length,Yarkoni 1985
LN	33091-0	CRL, Daya 1993
LN	11910-7	CRL, Hadlock 1992
LN	11911-5	CRL, Hansmann 1985
LN	11917-2	CRL, Jeanty 1984
LN	11913-1	CRL, Nelson 1981
LN	33094-4	CRL, Rempen 1991
LN	11914-9	CRL, Robinson 1975
LN	33138-9	Fetal Trunk Cross-Sectional Area, Osaka 1989
LN	11920-6	FL, Hadlock 1984
LN	11922-2	FL, Hohler 1982
LN	11923-0	FL, Jeanty 1984
LN	11929-7	GS, Rempen 1991
LN	11932-1	HC, Hadlock 1984
LN	33112-4	HC, Hansmann 1985

CSD	CV	Code Meaning
LN	11934-7	HC, Jeanty 1984
LN	33111-6	HC derived, Chitty 1997
LN	11936-2	Humerus, Jeanty 1984
LN	33544-8	OFD, Hansmann 1985
LN	33134-8	TCD, Hill 1990
LN	11944-6	Ulna, Jeanty 1984
LN	11941-2	Tibia, Jeanty 1984
LN	33110-8	,HC measured, Chitty 1997
LN	33146-2	AC by GA,Hadlock 1984
MRUS	F12013-01	AC, ASUM 2001
MRUS	F12013-02	AC,Nicolaides 1994
MRUS	F12013-03	BPD, ASUM 2001
MRUS	F12013-04	BPD, Merz 1991
MRUS	F12013-05	BPD, Tokyo 1989
MRUS	F12013-06	BPD-oo, Chitty 1994
MRUS	F12013-07	CRL, ASUM 2001
MRUS	F12013-08	CRL, Tokyo 1989
MRUS	F12013-23	EFW, Tokyo 1989

CSD	CV	Code Meaning
MRUS	F12013-43	EFW, Hadlock 1991
MRUS	F12013-44	Mean Sac Diameter Daya 1991
MRUS	F12013-45	GS,China 1997
MRUS	F12013-46	CRL,China 1997
MRUS	F12013-47	BPD,China 1997
MRUS	F12013-48	BPD,Nicolaides 1994
MRUS	F12013-49	FL,China 1997
MRUS	F12013-50	FL,Nicolaides 1994
MRUS	F12013-51	FL,Osaka 1989
MRUS	F12013-52	AC,Hansmann1986
MRUS	F12013-53	AC,CFEF Crequat2000
MRUS	F12013-54	AC,Chitty plotted 1994
MRUS	F12013-55	CRL,Robinson hp BMUS 1975
MRUS	F12015-22	FL,Osaka 1989
MRUS	F12013-56	MSD, Hellman 1969
MRUS	F12013-57	

CSD	CV	Code Meaning
LN	11751-5	EFW by AC, FL, Hadlock 1985
LN	11746-5	EFW by AC, FL, HC, Hadlock 1985
LN	11884-4	Average Ultrasound Age
MRUS	F12013-27	CUA by BPD, Hadlock 1984
MRUS	F12013-28	CUA by AC, Hadlock 1984
MRUS	F12013-29	CUA by HC, Hadlock 1984
MRUS	F12013-30	CUA by FL, Hadlock 1984
MRUS	F12013-31	CUA by BPD, HC, Hadlock 1984
MRUS	F12013-32	CUA by BPD, AC, Hadlock 1984
MRUS	F12013-33	CUA by BPD, FL, Hadlock 1984
MRUS	F12013-34	CUA by HC, AC, Hadlock 1984
MRUS	F12013-35	CUA by HC, FL, Hadlock 1984
MRUS	F12013-36	CUA by AC, FL, Hadlock 1984
MRUS	F12013-37	CUA by BPD, HC, AC, Hadlock 1984
MRUS	F12013-38	CUA by BPD, HC, FL, Hadlock 1984
MRUS	F12013-39	CUA by BPD, AC, FL, Hadlock 1984
MRUS	F12013-40	CUA by HC, AC, FL, Hadlock 1984
MRUS	F12013-41	CUA by BPD, HC, AC, FL, Hadlock 1984
MRUS	F12014-01	EFW by AC,BPD,Merz 1991
MRUS	F12014-02	EFW by AC,Merz 1991
MRUS	F12014-03	EFW by BPD, TTD, Hansmann 1995
MRUS	F12014-04	EFW by BPD, FTA, FL, Osaka 1983
MRUS	F12014-05	EFW by AC,HC,FL,Schild 2004
MRUS	F12014-06	EFW by BPD,FL,MAD,Persson 1996
MRUS	F12014-08	EFW CFEF 2014
LN	11738-2	EFW by AC ,BPD, Hadlock 1984

A.43. CID (12015) Fetal Growth Equations and Tables

CSD	CV	Code Meaning
LN	33146-2	AC by GA, Hadlock 1984
LN	33147-0	AC(measured) by GA, Chitty 1994
LN	33546-3	AC (derived) by GA, Chitty 1994
LN	33198-3	BPD by GA, Hadlock 1984
LN	33152-0	outer-outer by GA, Chitty 1994

CSD	CV	Code Meaning
LN	33155-3	BPD by GA, Rempen 1991
LN	33160-3	CRL by GA, Rempen1991
LN	33166-0	FL by GA, Hadlock 1984
LN	33167-8	FL by GA, Chitty 1994
LN	33171-0	GS by GA, Rempen 1991
LN	33173-6	HC by GA, Hadlock 1984
LN	33174-4	HC derived by GA, Chitty 1994
LN	33181-9	TCD by GA Goldstein 1987
LN	33097-7	Fibula, Jeanty 1983
LN	33126-4	Radius, Jeanty 1983
MRUS	F12015-01	AC by GA, ASUM 2001
MRUS	F12015-02	AC by GA, Merz 1991
MRUS	F12015-03	AC, Jeanty 1984
MRUS	F12015-04	APAD,Merz 1991
MRUS	F12015-05	BPD by GA, ASUM 2001
MRUS	F12015-06	BPD, Hansmann 1985
MRUS	F12015-07	BPD by GA, Merz 1988
MRUS	F12015-08	BPD,Kurtz,1980
MRUS	F12015-09	BPD,Sabbagha 1978
MRUS	F12015-10	BPD, Tokyo 1989
MRUS	F12015-12	Clavical length,Yarkoni 1985
MRUS	F12015-13	CRL by GA ASUM 2001
MRUS	F12015-14	CRL, Hansmann 1985
MRUS	F12015-15	CRL, Robinson 1975
MRUS	F12015-16	CRL, Tokyo 1989
MRUS	F12015-17	EFW by GA, Hadlock 1984
MRUS	F12015-18	FL by GA, ASUM 2001
MRUS	F12015-19	FL, Hansmann 1995
MRUS	F12015-20	FL by GA, Merz 1991
MRUS	F12015-21	FL, O'Brien,1981
MRUS	F12015-22	FL, Osaka 1989
MRUS	F12015-23	FL, Tokyo, 1989
MRUS	F12015-24	FL,Warda,1985
MRUS	F12015-25	FIB,Merz,1991
MRUS	F12015-26	FTA, Osaka 1989

CSD	CV	Code Meaning
MRUS	F12015-27	HC by GA, ASUM 2001
MRUS	F12015-28	HC, Hansmann 1985
MRUS	F12015-29	HC by GA, Merz 1991
MRUS	F12015-30	Humerus Length by GA, ASUM 2001
MRUS	F12015-31	OFD by GA, ASUM 2001
MRUS	F12015-32	OFD, Hansmann 1985
MRUS	F12015-33	OFD,Merz 1991
MRUS	F12015-34	OFD,Nicolaides 1994
MRUS	F12015-35	RAD,Merz 1991
MRUS	F12015-36	TAD,Merz 1991
MRUS	F12015-37	TCD,Hill 1990
MRUS	F12015-38	THD, Hansmann 1985
MRUS	F12015-39	Tibia,Merz 1991
MRUS	F12015-40	Ulna,Merz 1991
MRUS	F12015-41	EFW by GA, Hansmann 1995
MRUS	F12015-42	FL, Jeanty 1984
MRUS	F12015-43	HC, Jeanty 1984
MRUS	F12015-44	OFD, Jeanty 1984
MRUS	F12015-45	HUM, Jeanty 1984
MRUS	F12015-46	ULNA, Jeanty 1984
MRUS	F12015-47	TIBIA, Jeanty 1984
MRUS	F12015-48	BPD, CFEF Crequat 2000
MRUS	F12015-49	HC, CFEF Crequat 2000
MRUS	F12015-50	FL, CFEF Crequat 2000
MRUS	F12015-51	TAD, CFEF Crequat 2000
MRUS	F12015-52	OOD, Jeanty 1984
MRUS	F12015-53	AC, CFEF Crequat 2000
MRUS	F12012-54	AC,Nicolaides 1994
MRUS	F12012-55	HC,Nicolaides 1994
MRUS	F12015-67	IT CHINA 2012
MRUS	F12015-68	IT Saulo 2016
MRUS	F12015-69	NBL Bunduki V 2003
MRUS	F12015-70	NBL Sonek JD 2003
MRUS	F12015-71	AC Verburg 2008
MRUS	F12015-72	BPD Verburg 2008

MRUS	M12119-02	Theta
LN	11726-7	PV
MRUS	M12119-04	D.S
LN	20167-	

MRUS	M12119-32	Measure.Length
MRUS	M12119-33	Quality.Index

A.46. CID (12121) Vascular Indices and Ratios

CSD	CV	Code Meaning
LN	12008-9	Pulsatility Index
LN	12023-8	Resistivity Index
LN	12144-2	Systolic to Diastolic Velocity Ratio
MRUS	M12119-04	Diastolic to Systolic Velocity Ratio
MRUS	C12121-1	Systolic to Atrial Contraction Velocity Ratio
MRUS	M12120-1	Peak Early Diastolic Velocity
MRUS	C12121-2	Peak velocity index for the vein
MRUS	M12119-11	Reflux time
MRUS	M12119-17	inner diameter
STR	G-D785	Depth

A.47. CID (12122) Other Vascular Properties

CSD	CV	Code Meaning
LN	20168-1	Acceleration Time
LN	20217-6	Deceleration Time
SRT	R-1025C	Vessel Intimal Diameter
LN	20247-3	Peak Gradient
LN	20256-4	Mean Gradient
LN	20354-7	Velocity Time Integral
LN	11948-7	Fetal Heart Rate
LN	8867-4	Heart rate
MRUS	M12119-02	Angle
MRUS	M12119-01	Mean Velocity Mean Pressure Gradient
MRUS	M12119-06	Vol Flow(TAMAX&VAS_AREA)
MRUS	M12119-07	Vol Flow(TAMEAN&VAS_AREA)
SRT	G-0366	Vessel lumen cross-sectional area
MRUS	M12119-10	pseudoaneurysm Neck
MRUS	M12119-09	pseudoaneurysm Width
MRUS	M12119-08	pseudoaneurysm Height

MRUS	M12119-07	pseudoaneurysm Lengh
MRUS	M12119-28	Splenic V Diam
MRUS	M12119-29	Splenic A Diam
MRUS	C12119-1	Aorta Sten D
MRUS	C12119-2	

SRT	T-46980	Ovarian Artery
SRT	T-46820	Uterine Artery

A.49. CID (12141) Fetal Vasculature Anatomical Location

CSD	CV	Code Meaning
SRT	T-42000	Aorta
SRT	T-D0765	Descending Aorta
SRT	T-42100	Ascending Aorta
SRT	T-32650	Left Ventricular Outflow Tract
	T-32550	Right Ventricle Outflow Tract
SRT	T-45600	Middle Cerebral Artery
MRUS	V12141-01	Ductus Venosus
SRT	T-F1810	Umbilical Artery
SRT	T-F1820	Umbilical Vein
SRT	T-F1412	Vitelline Artery of Placenta
SRT	T-42070	Thoracic aorta
SRT	T-48720	hepatic vein
SRT	T-48710	Inferior Vena cava
SRT	T-87000	Ovary
SRT	T-83400	Endometrium
MRUS	A12141-1	Cervical carcinoma
MRUS	A12141-2	Fibroid
SRT	T-F6845	Ductus arteriosus
SRT	T-45300	Internal carotid artery
SRT	T-46400	Celiac artery

A.50. CID (SELFCID-1) Fetal Z-Score

CSD

LN	18158-6	Interventricular Septum Systolic Thickness
MRUS	M18015-8	Aortic Root Diameter(Z Score)
MRUS	M18020-8	Main Pulmonary Artery Diameter(Z Score)
MRUS	C12201-06	Left Ventricular Diameter/Right Ventricular Diameter
MRUS	C12201-07	Left Ventricular Diameter/Right Ventricular Diameter(Z Score)
MRUS	C12205-03	Left Atrium Diameter / Right Atrium Diameter
MRUS	C12205-04	Left Atrium Diameter / Aorta Diameter
MRUS	C12205-05	Left Atrium Diameter / Aorta Diameter(Z Score)
MRUS	C12212-01	Aorta Diameter/Main Pulmonary Artery Diameter
MRUS	C12212-03	Aorta Diameter/Main Pulmonary Artery Diameter(Z Score)
MRUS	M12201-01	Left ventricular short-axis diameter at end diastole
MRUS	M12201-08	Left ventricular short-axis diameter at end diastole(Z Score)
MRUS	M12201-02	Left ventricular short-axis diameter at end systole
MRUS	M12201-03	Left ventricular Diameter
MRUS	M12201-09	Left ventricular Diameter(Z Score)
MRUS	M12201-04	interventricular septal thichness
MRUS	M12201-05	Left Ventricular Outflow Tract Diameter
MRUS	M12204-01	Right ventricular short-axis diameter at end diastole
MRUS	M12204-07	Right ventricular short-axis diameter at end diastole(Z Score)
MRUS	M12204-02	Right ventricular short-axis diameter at end systole
MRUS	M12204-03	Right ventricular Diameter
MRUS	M12204-08	Right ventricular Diameter(Z Score)
MRUS	M12204-09	Right ventricular area(Z Score)
MRUS	M12204-04	Right ventricular area
MRUS	M12206-01	Right Atrium Diameter
MRUS	M12204-05	Right Ventricular Outflow Tract Diameter
MRUS	M12205-01	Left Atrium Diameter
MRUS	M12205-02	Left Atrium area
MRUS	M12206-02	Right Atrium area
MRUS	M12240-01	Left ventricular area
MRUS	M12240-02	Left ventricular area(Z Score)
MRUS	M12209-1	Pulmonary Valve Diameter(Z Score)
MRUS	M12215-1	Inferior Vene Cava Diameter(Z Score)
MRUS	M12212-1	Duct Aorta Diameter(Z Score)
MRUS	M12208-1	Tricuspid Valve Diameter(Z Score)
MRUS	M12207-1	Mitral Valve Diameter(Z Score)

A.51. Mapping between Modality measurements and DICOM Concepts.

A.51.1. OB-GYN Measurements

MODALITY Label	*DICOM Mapping*
FHR	11948-7,LN,Fetal Heart Rate
HC/AC	11947-9,LN,HC/AC
FL/AC	11871-1,LN,FL/AC
FL/BPD	11872-9,LN,FL/BPD
CI	11823-2,LN,Cephalic Index
FL/HC	11873-7,LN,FL/HC
HrtC/TC	C12004-01,MRUS,HrtC/TC
TCD/AC	C12004-02,MRUS,TCD/AC
LVW/HW	C12004-03,MRUS,LVW/HW
CIHC	C12004-04, MRUS,Cephalic Index by HC
AC	11979-2,LN,Abdominal Circumference
BPD	11820-8,LN,Biparietal Diameter
FL	11963-6,LN,Femur Length
HC	11984-2,LN,Head Circumference

MODALITY Label	***DICOM Mapping***
HUM	11966-9,LN,Humerus length
RAD	11967-7,LN,Radius length
Ulna	11969-3,LN,Ulna length
Tibia	11968-5,LN,Tibia length
FIB	11964-4,LN,Fibula length
CLAV	11962-8,LN,Clavicle length
LVW	12171-5,LN,Lateral Ventrical width
NFT	12146-7,LN,Nuchal Fold thickness
IOD	33070-4,LN,Inner Orbital Diameter
OOD	11629-3,LN,Outer Orbital Diameter
TCD	11863-8,LN,Trans Cerebellar Diameter
NT	33069-6,LN,Nuchal Translucency
WH	12170-7,LN,Width of Hemisphere
EarL	M12007-01,MRUS,Ear Length
MPL	M12007-02,MRUS,Middle Phalanx Length
Orbit	M12007-03,MRUS,Orbit
OFD(HC)	M12007-04,MRUS,OFDHC
HC(c)	C12007-01,MRUS,HCc

MODALITY Label	***DICOM Mapping***
Ovarian.Cyst3.d2	T-87000-8,MRUS,Ovarian Cyst3 Width
Ovarian.Cyst3.d3	T-87000-9,MRUS,Ovarian Cyst3 Height
UT W	11865-3,LN,Uterus Width
UT L	11842-2,LN,Uterus Length
UT H	11859-6,LN,Uterus Height
UT Vol	33192-6,LN,Uterus Volume
FVol	G-D705,SRT,Volume
Follicle MD	C11793-01, MRUS,Follicle MeanDiam
Smart Follicle > Follicle d1	M11793-05, MRUS, Smart Follicle d1
Smart Follicle > Follicle d2	M11793-06,MRUS, Smart Follicle d2
Smart Follicle > Follicle1 d3	M11793-06,MRUS, Smart Follicle d3
Smart Follicle >Follicle Vol	G-D705_1,SRT,Volume
Smart Follicle ->Follicle MD	11793-7,LN,Smart Follicle MeanDiam
EFW	11727-5,LN,Estimated Weight
EFW2	11727-5,LN,Estimated Weight
UP	11767-1,LN EFW percentile rank
CP	11767-1,LN EFW percentile rank
UP	11767-1,LN EFW percentile rank
EFW(Campbell)	11727-5,LN,Estimated Weight
EFW(Hadlock1)	11727-5,LN,Estimated Weight
EFW(Hadlock2)	11727-5,LN,Estimated Weight
EFW(Hadlock3)	11727-5,LN,Estimated Weight
EFW(Hadlock4)	11727-5,LN,Estimated Weight
EFW(Hansmann)	11727-5,LN,Estimated Weight
EFW(Merz1)	11727-5,LN,Estimated Weight
EFW(Merz2)	11727-5,LN,Estimated Weight
EFW(Osaka)	11727-5,LN,Estimated Weight
EFW(Shepard)	11727-5,LN,Estimated Weight
EFW(Tokyo)	11727-5,LN,Estimated Weight
PL Thickness	M12011-01,MRUS,Placental Thickness
HrtA	M12005-03,MRUS,Heart Area
Facial angle	M12005-04,MRUS,Facial angle
Sac Diam1	M12009-01,MRUS,Gestational Sac Diameter1
Sac Diam2	M12009-02,MRUS,Gestational Sac Diameter2
Sac Diam3	M12009-03,MRUS,Gestational Sac Diameter3

MODALITY Label	***DICOM Mapping***
F.kidney	M12005-05 MRUS Fetal Kidney length
F.kidney.H	M12005-07 MRUS Fetal Kidney Height
F.kidney.W	M12005-08 MRUS Fetal Kidney width
Lung	T-28000,SRT,Lung
Stomach	T-57000,SRT,Stomach
Heart.T	M12005-09 MRUS Cardiac Diameter (T)
Heart.AP	M12005-10 MRUS Cardiac Diameter (A-P)
Lung.CCAM.L	M12005-11 MRUS Lung CCAM Length
Lung.CCAM.H	M12005-12 MRUS Lung CCAM Height
Lung.CCAM.W	M12005-13 MRUS Lung CCAM Width
AD	M12005-14 MRUS Abdominal Diameter
Lliac.Wing.Angle	M12005-15 MRUS Lliac Wing Angle

MODALITY Vasculature Anatomic Location	*DICOM Mapping*
Min	R-404FB,SRT Minimum
Mean	R-00317,SRT Mean
Std	113061,DCM Standard Deviation
ROI.Length	M12119-31,MRUS ROI Length
Measure.Length	M12119-32,MRUS Measure Length
Quality.Index	M12119-33,MRUS Quality.Index

A.51.3. OB-GYN Vascular Measurements

MODALITY Label	*DICOM Mapping*
<Vasculature Anatomic Location> ED	11653-3, LN, End Diastolic Velocity
<Vasculature Anatomic Location> MD	11665-7 , LN, Minimum Diastolic Velocity
<Vasculature Anatomic Location> PS	11726-7, LN, Peak Systolic Velocity
<Vasculature Anatomic Location> TAMEAN	20352-1, LN, Time averaged mean velocity
<Vasculature Anatomic Location> TAMAX	11692-1, LN, Time averaged peak velocity
<Vasculature Anatomic Location> PV	11726-7, LN, Peak Velocity
<Vasculature Anatomic Location> PI	12008-9, LN, Pulsatility Index
<Vasculature Anatomic Location> RI	12023-8, LN, Resistivity Index
<Vasculature Anatomic Location> S/D	12144-2, LN, Systolic to Diastolic Velocity Ratio
<Vasculature Anatomic Location> D/S	M12119-04, MRUS, Diastolic to SystolicVelocity Ratio
<Vasculature Anatomic Location> AT	20168-1, LN, Acceleration Time
<Vasculature Anatomic Location> DT	20217-6, LN, Deceleration Time
<Vasculature Anatomic Location> PPG	20247-3, LN, Peak Gradient
<Vasculature Anatomic Location> MPG	20256-4, LN, Mean Gradient
<Vasculature Anatomic Location> MMPG	M12119-01, MRUS, Mean Velocity Mean Pressure Gradient
<Vasculature Anatomic Location> VTI	M12119-02, MRUS,Velocity-Time Integral
<Vasculature Anatomic Location> HR	11948-7, LN, Fetal Heart Rate
<Vasculature Anatomic Location>	M12119-03, MRUS, Angle
<Vasculature Anatomic Location> VD	R-1025C, SRT, Vessel Intimal Diameter
<Vasculature Anatomic Location> VolFlow	M12119-06, MRUS, Vol Flow(TAMAX&VAS_AREA)
<Vasculature Anatomic Location> VolFlow.TAMEAN	M12119-07, MRUS,Vol Flow(TAMEAN&VAS_AREA)
<Vasculature Anatomic Location> Area	G-0366,SRT,Vessel lumen cross-sectional area

A.51.4. OB-GYN Cardic Measurements

MODALITY Label	*DICOM Mapping*
Ao Diam	18015-8,LN,Aortic Root Diameter
<Z.Scores> Ao Diam	M18015-8,MRUS,Aortic Root Diameter(Z Score)

Ao.Asc.Diam	18012-5,LN,Ascending Aortic Diameter
Ao.Desc.Diam	18013-3,LN,Descending Aortic Diameter
<Z.Scores>PV.Diam	M12209-1,MRUS,Pulmonary Valve Diameter(Z Score)
<Z.Scores>IVC.Diam	M12215-1,MRUS,Inferior Vene Cava Diameter(Z Score)
MPA Diam	18020-8 Main Pulmonary Artery Diameter
<Z.Scores> MPA Diam	M18020-8,MRUS,Main Pulmonary Artery Diameter(Z Score)
LPA.Diam	18019-0,LN,Left Pulmonary Artery Diameter
RPA.Diam	18021-6,LN,Right Pulmonary Artery Diameter
<Z.Scores>Duct.Art	M12212-1,MRUS,Duct Aorta Diameter(Z Score)
<Z.Scores>TV.Diam	M12208-1,MRUS,Tricuspid Valve Diameter(Z Score)
<Z.Scores>MV.Diam	M12207-1,MRUS,Mitral Valve Diameter(Z Score)
IVSd	18154-5, LN, Interventricular Septum Diastolic Thickness
IVSs	18158-6, LN, Interventricular Septum Systolic Thickness
LVD/RVD	C12201-06,MRUS,Left Ventricular Diameter/Right Ventricular Diameter
<Z.Scores> LVD/RVD	C12201-07,MRUS,Left Ventricular Diameter/Right Ventricular Diameter(Z Score)
LAD/RAD	C12205-03,MRUS,Left Atrium Diameter / Right Atrium Diameter
LAD/AoD	C12205-04,MRUS,Left Atrium Diameter / Aorta Diameter
<Z.Scores> LAD/AoD	C12205-05,MRUS,Left Atrium Diameter / Aorta Diameter(Z Score)
AoD/MPAD	C12212-01,MRUS,Aorta Diameter/Main Pulmonary Artery Diameter
<Z.Scores> AoD/MPAD	C12212-03,MRUS,Aorta Diameter/Main Pulmonary Artery Diameter(Z Score)
LVIDd	M12201-01,MRUS,Left ventricular short-axis diameter at end diastole
<Z.Scores> LVIDd	M12201-08,MRUS,Left ventricular short-axis diameter at end diastole(Z Score)
LVIDs	M12201-02,MRUS,Left ventricular short-axis diameter at end systole
LV Diam	M12201-03,MRUS,Left ventricular Diameter
<Z.Scores> LV Diam	M12201-09,MRUS,Left ventricular Diameter(Z Score)
IVS	M12201-04,MRUS,interventricular septal thichness
LVOT Diam	M12201-05,MRUS,Left Ventricular Outflow Tract Diameter
RVIDd	M12204-01,MRUS,Right ventricular short-axis diameter at end diastole
<Z.Scores> RVIDd	M12204-07,MRUS,Right ventricular short-axis diameter at end diastole(Z Score)
RVIDs	M12204-02,MRUS,Right ventricular short-axis diameter at end systole
RV Diam	M12204-03,MRUS,Right ventricular Diameter
<Z.Scores> RV Diam	M12204-08,MRUS,Right ventricular Diameter(Z Score)
RA Diam	M12206-01,MRUS,Right Atrium Diameter
RV Area	M12204-04,MRUS,Right ventricular area
<Z.Scores> RV Area	M12204-09,MRUS,Right ventricular area(Z Score)
RVOT Diam	M12204-05,MRUS,Right Ventricular Outflow Tract Diameter
LA Diam	M12205-01,MRUS,Left Atrium Diameter
LA Area	M12205-02,MRUS,Left Atrium area
RA Area	M12206-02,MRUS,Right Atrium area
LV Area	M12240-01,MRUS,Left ventricular area
<Z.Scores> LV Area	M12240-02,MRUS,Left ventricular area(Z Score)
ZScoreFL	C12017-1,MRUS,Z-Score by Femur Length

ZScoreBPD	C12017-2,MRUS,Z-Score by Biparietal Diameter
ZScoreClinicalGA	C12017-3,MRUS,Z-Score by Clinical Gestational Age

A.51.5. Biophysical Profile Measurements

MODALITY Label	*DICOM Mapping*
FM	11631-9,LN,Gross Body Movement
FBM	11632-7,LN,Fetal Breathing
FT	11635-0,LN,Fetal Tone
FHR	11635-5,LN,Fetal Heart Reactivity
AF	11630-1,LN,Amniotic Fluid Volume
Total Score	11634-3,LN,Biophysical Profile Sum Score
Fetal Lie	FG12018-02,MRUS,Fetal Lie
Gender	FG7455-01,MRUS,Gender
3 Vessel Cord	FG7160-01,MRUS,3 Vessel Cord
Face	T-D1200,SNM3,Face
Nose Lips	FG4-01,MRUS,Nose Lips
Cord insertion	FG12011-01,MRUS,Cord insertion
LUS	FG4031-02,MRUS,LUS
Stomach	T-57000,SNM3,Stomach
Left Kidney	T-71000,SRT,Kidney
Right Kidney	T-71000,SRT,Kidney
Bladder	T-74000,SRT,Bladder
Gall Bladder	T-63000,SRT,Gall bladder
Liver	T-62000,SRT,Liver
Fetal Bowel	FG4031-03,MRUS,Fetal Bowel
Upper Extremities	FG4031-05,MRUS,Upper Extremities
Lower Extremities	FG4031-06,MRUS,Lower Extremities
Cardiac Activity	FG12239-01,MRUS,Cardiac Activity
4C HEART	FG4031-08,MRUS,4C HEART
Aorta	T-42000,SNM3,Aorta
Pulmonary Artery	T-44000,SNM3,Pulmonary Artery
ARCH	FG3010-01,MRUS,ARCH
LVOT	T-32650,SRT,Left Ventricular Outflow Tract
RVOT	T-32550,SRT,Right Ventricle Outflow Tract
Lateral Ventricles	FG4030-02,MRUS,Lateral Ventricles
Cisterna Magna	11860-4,LN,Cisterna Magna
Cerebellum	T-A600A,SNM3,Cerebellum
CSP	FG4030-03,MRUS,CSP
Cervical Spine	T-11501,SNM3,Cervical Spine
Thoracic Spine	T-11502,SNM3,Thoracic Spine
Lumbar Spine	T-11503,SNM3,Lumbar Spine
Sacral Spine	FG4031-,MRUS,Sacral Spine
Placental Location	FG12011-01,MRUS,Placental Location

Amniotic Fluid	FG12011-02,MRUS,Amniotic Fluid
Placental Grade	FG12011-03,MRUS,Placental Grade
Adnexa	FG12011-03,MRUS,Adnexa
Ovaries	T-87000,SRT,Ovary
Kidney	T-71000,SRT,Kidney
Cervix	T-83200,SRT,Cervix

A.51.6. Pelvic Floor Measurements

BL Depth	M99901-01,MRUS,Bladder Length
BL Height	M99901-02,MRUS,Bladder Height
BL Width	M99901-03,MRUS,Bladder Width
DWT	M99901-04,MRUS,Detrusor Wall Thickness
BSD(R)	M99901-05,MRUS,Bladder Neck-Symphyseal Distance (Rest)
BSD(S)	M99901-06,MRUS,Bladder Neck-Symphyseal Distance (Stress)
RVA(R)	M99901-07,MRUS,Retrovesical Angle (Rest)
RVA(S)	M99901-08,MRUS,Retrovesical Angle (Stress)
UTA(R)	M99901-09,MRUS,Urethral Tilt Angle (Rest)
UTA(S)	M99901-10,MRUS,Urethral Tilt Angle (Stress)
PVA(R)	M99901-11,MRUS,Pubovesical Angle (Rest)
PVA(S)	M99901-12,MRUS,Pubovesical Angle (Stress)
PUA(R)	M99901-13,MRUS,Pubourethral Angle (Rest)
PUA(S)	M99901-14,MRUS,Pubourethral Angle (Stress)
BL Desc. Max(R)	M99901-15,MRUS,Maximal Bladder Descent (Rest)
BL Desc. Max(S)	M99901-16,MRUS,Maximal Bladder Descent (Stress)
UT Desc. Max(R)	M99901-17,MRUS,Maximal Uterus Descent (Rest)
UT Desc. Max(S)	M99901-18,MRUS,Maximal Uterus Descent (Stress)
R Amp. Desc. Max(R)	M99901-19,MRUS,Maximal Rectal Ampulla Descent (Rest)
R Amp. Desc. Max(S)	M99901-20,MRUS,Maximal Rectal Ampulla Descent (Stress)
URA	M99901-21,MRUS,Urethral Rotation Angle

LH Lateral Diam(R)	M99901-30,MRUS,Levator Hiatus Lateral Diameter (Rest)
LH Lateral Diam(S)	M99901-31,MRUS,Levator Hiatus Lateral Diameter (Stress)
LH Lateral Diam(C)	M99901-32,MRUS,Levator Hiat

BSD(S) (Ref Coord C1)	M99901-61,MRUS,Bladder Neck-Symphyseal Distance1 (Stress)
BL Desc. Max(S) (Ref Coord C1)	M99901-62,MRUS,Maximal Bladder Descent1 (Stress)
PUA(S) (Ref Coord C1)	M99901-63,MRUS,Pubourethral Angle1 (Stress)
PVA(S) (Ref Coord C1)	M99901-64,MRUS, Pubovesical Angle1 (Stress)
RVA(S) (Ref Coord C1)	M99901-65,MRUS,Retrovesical Angle1 (Stress)
UTA(S) (Ref Coord C1)	M99901-66,MRUS,Urethral Tilt Angle1 (Stress)
BSD(R) (Ref Coord C2)	M99901-67,MRUS,Bladder Neck-Symphyseal Distance2 (Rest)
BL Desc. Max(R) (Ref Coord C2)	M99901-68,MRUS,Maximal Bladder Descent2 (Rest)
PUA(R) (Ref Coord C2)	M99901-69,MRUS,Pubourethral Angle2 (Rest)
PVA(R) (Ref Coord C2)	M99901-70,MRUS,Pubovesical Angle2 (Rest)
RVA(R) (Ref Coord C2)	M99901-71,MRUS,Retrovesical Angle2 (Rest)
UTA(R) (Ref Coord C2)	M99901-72,MRUS,Urethral Tilt Angle2 (Rest)
BSD(S) (Ref Coord C2)	M99901-73,MRUS,Bladder Neck-Symphyseal Distance2 (Stress)

							(12200) Echocardiography Left Ventricle
9	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			

								Echocardiography Pulmonic Valve
15	>	CONTAINS	INCLUDE	DTID (5202) Echo Section				$SectionSubject = EV (T

							Echocardiography Cardiac Shunt
21	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (D4-30000, SRT, of Cardiovascular = DCID (12218) Echocardiography Congenital
22	>	CONTAINS	INCLUDE	DTID (5204) Wall Motion Analysis			
23	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (D3-90000, SRT, $MeasType = DCID (90000) Pericardial disease
24	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-48720, SRT, $MeasType = DCID (12216) Echocardiography Hepatic Veins
25	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (88EV$-TQ-ef4443.14S

U[(C)-4[7F6(9)-3(048reEV)29 0 G [($)-(0.95999170.959584 476.10 5 [( )] TJ E)] TJ TJ/Spagan n BT /38159.03824 34.224 re W 0 B4 0 1 458.26 543.0.95999170.9

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1	>	HAS OBS CONTEXT	CODE	EV (121005,DCM,			(121006,DCM,
2	>	HAS OBS CONTEXT	PNAME	EV (121008,DCM,			Operator from Info
3	>	HAS OBS CONTEXT	TEXT	EV (121009,DCM,			Institution Name (0008,0080) of the General Equipment Module
4	>	HAS OBS CONTEXT	CODE	EV (121010,DCM, Role in the			(121093, DCM, "Sonographer")
5	>	HAS OBS CONTEXT	CODE	EV (121024, DCM,			(121025, DCM,
6	>	HAS OBS CONTEXT	PNAME	EV (121029,DCM,			(0010,0010) in Patient Module
7	>	HAS OBS CONTEXT	DATE	EV (121031,DCM,			Date (0010,0030) in Patient Module
8	>	HAS OBS CONTEXT	CODE	EV (121032,DCM,			value equivalent to (0010,0040) in Patient Module
9	>	HAS OBS CONTEXT	NUM	EV (121033,DCM,			(0010,1010) in Patient Study Module

B.3. TID (5201) Echocardiography Patient Characteristics

	NL	Rel with Parent	VT	Concept Name	Used in Modality	Value Set Constraint	Comments
1			CONTAINER	EV (121118, DCM,			
2	>	CONTAINS	NUM	EV (121033, DCM,		Units = DCID (7456) Units of Measure for Age	from Info

3 > CONTAINS CODE EV (121032, DCM,

B.6. TID (5203) Echo Measurement

	NL	Relation with Parent	Value Type	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			INCLUDE	DTID (300) Measurement		$Measurement = $Measurement $Method = $Method $TargetSite = BCID (12236) Echo Anatomic Sites $TargetSiteMod = BCID (12237) Echocardiography Anatomic Site Modifiers	
2	>	HAS CONCEPT MOD	CODE	EV(G-C036,SRT,"Measurement Method")		This row is used only if the measurement or calculation this template is invoked with mandates it. Otherwise this row is not used. The values are taken from the BCID 12227	
3	>	HAS CONCEPT MOD	CODE	EV (G-		BCID (12221) Flow Direction	
4	>	HAS CONCEPT MOD	CODE	EV (R-		DCID (12234) Respiration State	
5	>	HAS CONCEPT MOD	CODE	EV (R-		DCID (12233) Respiration State	
6	>	HAS ACQ CONTEXT	CODE	EV (G-		DCID (12224) Ultrasound Image Modes	

7	>	HAS ACQ CONTEXT	CODE	ge		BCID (12226) Echocardiography Image View	

B.7. CID (12200) Echocardiography Left Ventricle

INCLUDE CID 12220 Echocardiography Common Measurements
INCLUDE CID 12201 Left Ventricle Linear
INCLUDE CID 12240 Left Ventricle Area
INCLUDE CID 12202 Left Ventricle Volume
INCLUDE CID 12222 Orifice Flow Properties
INCLUDE CID 12203 Left Ventricle Other
INCLUDE CID 12239 Cardiac Output Properties

B.8. CID (12201) Left Ventricle Linear

CSD	CV	Code Meaning
LN	29436-3	Left Ventricle Internal End Diastolic Dimension
LN	29438-9	Left Ventricle Internal Systolic Dimension
LN	18051-3	Left Ventricular Fractional Shortening
LN	18154-5	Interventricular Septum Diastolic Thickness
LN	18155-2	Interventricular Septum to Posterior Wall Thickness Ratio
LN	18054-7	Interventricular Septum % Thickening
LN	18158-6	Interventricular Septum Systolic Thickness
LN	18053-9	Left Ventricle Posterior Wall % Thickening
LN	18077-8	Left Ventricle diastolic major axis
LN	18076-0	Left Ventricle systolic major axis
LN	18156-0	Left Ventricle Posterior Wall Systolic Thickness
LN	18152-9	Left Ventricle Posterior Wall Diastolic Thickness
MRUS	M12201-01	Left ventricular Major
MRUS	M12201-02	Left ventricular Minor
MRUS	C12201-01	Mean Velocity of Circumferential Fiber Shortening
MRUS	M12201-03	A Distance
MRUS	M12201-04	B Distance
MRUS	M12201-05	Left ventricular internal diameter to BSA Ratio

MRUS	M12201-06	Left ventricular mean circumference Fractional Shortening
MRUS	C12201-02	Relative Wall Thickness

CSD	CV	Code Meaning
SRT	G-0380	Right Ventricular Peak Systolic Pressure
LN	18153-7	Right Ventricular Anterior Wall Diastolic Thickness
LN	18157-8	Right Ventricular Anterior Wall Systolic Thickness
MRUS	M12204-01	Right ventricular Major
MRUS	M12204-02	Right ventricular Minor
MRUS	M12204-03	Right ventricular Area at end-diastole
MRUS	M12204-04	Right ventricular Area at end-systole
MRUS	M12204-05	Right Ventricle Pre-Ejection Period
MRUS	M12204-06	Right Ventricle Ejection Time
MRUS	C12204-01	Right Ventricle Pre-Ejection Period to Ejection Time Ratio
MRUS	C12204-02	Right Ventricle Acceleration Time to Ejection Time Ratio
MRUS	C12204-03	Right Ventricular Fractional Area Change
LN	20304-2	Right Ventricular Internal Diastolic Dimension
LN	20305-9	Right Ventricular Internal Systolic Dimension
MRUS	M12204-03	Right ventricular Area at end-diastole
MRUS	M12204-04	Right ventricular Area at end-systole
MRUS	M12204-07	Right ventricular end-diastolic basal diameter
MRUS	M12204-08	Right ventricular end-diastolic midcavity diameter

B.12. CID (12205) Echocardiography Left Atrium

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
LN	29469-4	Left Atrium Antero-posterior Systolic Dimension
LN	17985-3	Left Atrium to Aortic Root Ratio
LN	17977-0	Left Atrium Systolic Area
SRT	G-0383	Left Atrium Systolic Volume
MRUS	M12205-01	Left atrium Major
MRUS	M12205-02	Left atrium Minor
MRUS	C12205-01	Aortic Root to Left Atrium Ratio
MRUS	C12205-02	Left Atrium Volume index
LN	29469-4	Left Atrium Antero-posterior Systolic Dimension
LN	17977-0	Left Atrium Systolic Area
MRUS	M12205-03	LA LL Diam

B.13. CID (12206) Echocardiography Right Atrium

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		

LN

CSD	CV	Code Meaning
MRUS	M12207-07	Mitral Valve E-wave Pressure Gradient
MRUS	M12207-08	Mitral Valve A-wave Pressure Gradient
MRUS	M12207-09	E wave Velocity Time Integral
MRUS	M12207-10	A wave Velocity Time Integral
MRUS	M12207-11	Mitral Valve E-Wave Duration
MRUS	M12207-12	Systolic Velocity of the Mitral Annulus(medial)
MRUS	M12207-13	Early diastolic velocity of the mitral annulus(medial)
MRUS	M12207-14	Late diastolic velocity of the mitral annulus(medial)
MRUS	M12207-15	Early diastolic velocity to Late diastolic velocity Ratio
MRUS	M12207-16	Acceleration Time of Early diastolic velocity
MRUS	M12207-17	Acceleration Rate of Early diastolic velocity
MRUS	M12207-18	Deceleration Time of Early diastolic velocity
MRUS	M12207-19	Deceleration Rate of Early diastolic velocity
MRUS	M12207-20	Systolic Velocity of the Mitral Annulus(lateral)
MRUS	M12207-21	Early diastolic velocity of the mitral annulus(lateral)
MRUS	M12207-22	Late diastolic velocity of the mitral annulus(lateral)
MRUS	M12207-23	Early diastolic velocity to Late diastolic velocity Ratio
MRUS	M12207-24	Acceleration Time of Early diastolic velocity
MRUS	M12207-25	Acceleration Rate of Early diastolic velocity
MRUS	M12207-26	Deceleration Time of Early diastolic velocity
MRUS	M12207-27	Deceleration Rate of Early diastolic velocity
MRUS	M12207-28	Mitral Stenosis Radius
MRUS	M12207-29	Mitral Stenosis Aliasing Velocity
MRUS	M12207-30	Mitral Stenosis Maximum Velocity
MRUS	M12207-31	Mitral Stenosis Area
MRUS	M12207-32	Mitral Stenosis Maximum Pressure Gradient
MRUS	M12207-33	Mitral Valve A-C Slope
MRUS	M12207-34	A Wave Amplitude to C Wave Amplitude Ratio
MRUS	M12207-35	MV E/Ea medial
MRUS	M12207-36	MV E/Ea lateral
MRUS	M12207-37	MV E/Ea medial lateral
MRUS	M12207-38	Mitral Valve A-C Interval
MRUS	M12207-39	Mitral Annular Plane Systolic Excursion

B.15. CID (12208) Echocardiography Tricuspid Valve

CSD

B.18. CID (12211) Echocardiography Aortic Valve

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
INCLUDE CID 12222 Orifice Flow Properties		
LN	17996-0	Aortic Valve Cusp Separation
SRT	G-0382	Ratio of Aortic Valve Acceleration Time to Ejection Time

B.19. CID (12212) Echocardiography Aorta

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
LN	18015-8	Aortic Root Diameter
LN	18011-7	Aortic Arch Diameter
LN	18012-5	Ascending Aortic Diameter
LN	18014-1	Aortic Isthmus Diameter
LN	18013-3	Descending Aortic Diameter
MRUS	M12212-01	Aortic Sinotubular junction Diameter
MRUS	M12212-02	Aortic Sinus Diameter
MRUS	M12212-03	Ductus Artery Diameter
MRUS	M12212-04	Previous Ductal Diameter
MRUS	M12212-05	Left Coronary Artery Diameter
MRUS	M12212-06	Right Coronary Artery Diameter
MRUS	C12212-02	Aortic Sinotubular junction Diameter/Aorta Root Diameter
LN	18014-1	Aortic Isthmus Diameter
MRUS	M12212-01	Aortic Sinotubular junction Diameter
MRUS	M12212-02	Aortic Sinus Diameter
MRUS	M12212-07	Ao Arch IA-LCA
MRUS	M12212-08	Ao Arch LCA-LSA
MRUS	M12212-09	Ao Arch After LSA
MRUS	M12212-	Thoracic Ao Diam

B.20. CID (12214) Echocardiography Pulmonary Veins

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
SRT	G-038B	Pulmonary Vein A-Wave Duration

CSD	CV	Code Meaning

CSD	CV	Code Meaning
		Gradient

B.23. CID (12217) Echocardiography Cardiac Shunt

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
INCLUDE CID 12239 Cardiac Output Properties		
LN	29462-9	Pulmonary-to-Systemic Shunt Flow Ratio
MRUS	M12217-01	Pulmonary-sub-Systemic Shunt Flow Difference

B.24. CID (12218) Echocardiography Congenital

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
INCLUDE CID 12222 Orifice Flow Properties		
MRUS	M12218-01	Patent Ductus Arteriosus Diameter
MRUS	M12218-02	Patent Foramen Ovale Diameter
MRUS	M12218-03	Patent Ductus Arteriosus Diastolic Velocity
MRUS	M12218-04	Patent Ductus Arteriosus Systolic Velocity
MRUS	M12218-05	Coarctation of Pre-Ductus Velocity
MRUS	M12218-06	Coarctation of Post-Ductus Velocity
MRUS	M12218-07	Patent Ductus Arteriosus Diastolic Peak Gradient
MRUS	M12218-08	Patent Ductus Arteriosus Systolic Peak Gradient
MRUS	M12218-09	Coarctation of Pre-Ductus Peak Gradient
MRUS	M12218-10	Coarctation of Post-Ductus Peak Gradient

B.25. CID (12220) Echocardiography Common Measurements

CSD	CV	Code Meaning
LN	8867-4	Heart rate

B.26. CID (12221) Flow Direction

CSD	CV	Code Meaning
SRT	R-42047	Antegrade Flow
SRT	R-42E61	Regurgitant Flow

B.27. CID (12222) Orifice Flow Properties

CSD	CV	Code Meaning
SRT	G-038E	Cardiovascular Orifice Area
SRT	G-038F	Cardiovascular Orifice Diameter
SRT	G-0390	

CSD	CV	Code Meaning
SRT	R-409E2	Doppler Color Flow
SRT	R-409E4	Doppler Pulsed
SRT	R-409E3	Doppler Continuous Wave
DCM	125230	Power Doppler
DCM	125231	3D mode
MRUS	IM12224-01	Tissue Doppler Imaging

B.29. CID (12226) Echocardiography Image View

CSD	CV	Code Meaning
SRT	G-A19B	Apical two chamber
SRT	G-A19C	Apical four chamber
SRT	G-0395	Apical long axis
SRT	G-0396	Parasternal long axis
SRT	G-0397	Parasternal short axis
SRT	G-0398	Parasternal short axis at the aortic valve level
SRT	G-0399	Parasternal short axis at the level of the mitral chords
SRT	G-039A	Parasternal short axis at the Mitral Valve level
SRT	G-039B	Parasternal short axis at the Papillary Muscle level
SRT	G-039C	Right Ventricular Inflow Tract View
SRT	G-039D	Right Ventricular Outflow Tract View
SRT	G-039E	Subcostal long axis
SRT	G-039F	Subcostal short axis
SRT	G-03A0	Suprasternal long axis
SRT	G-03A1	Suprasternal short axis

B.30. CID (12227) Echocardiography Measurement Method

INCLUDE CID 12228 Echocardiography Volume Methods
INCLUDE CID 12229 Echocardiography Area Methods
INCLUDE CID 12231 Volume Flow Methods
INCLUDE CID 12232 Myocardium Mass Methods

B.31. CID (12228) Volume Methods

CSD	CV	Code Meaning
DCM	125204	Area-Length Biplane
DCM	125205	Area-Length Single Plane
DCM	125211	Biplane Ellipse
DCM	125226	Single Plane Ellipse
DCM	125206	Cube Method
DCM	125207	Method of Disks, Biplane
DCM	125208	Method of Disks, Single Plane
DCM	125209	Teichholz
MRUS	VM12228-01	Bullet
MRUS	VM12228-02	Method of Disks,Simpson
MRUS	VM12228-03	Gibson

B.32. CID (12229) Area Methods

CSD	CV	Code Meaning
DCM	125210	Area by Pressure Half-Time
DCM	125212	Continuity Equation
DCM	125213	Continuity Equation by Mean Velocity
DCM	125214	Continuity Equation by Peak Velocity
DCM	125215	Continuity Equation by Velocity Time Integral
DCM	125216	Proximal Isovelocity Surface Area
DCM	125220	Planimetry

B.33. CID (12230) Gradient Methods

CSD	CV	Code Meaning
DCM	125217	Full Bernoulli
DCM	125218	Simplified Bernoulli

B.34. CID (12231) Volume Flow Methods

CSD	CV	Code Meaning
DCM	125219	Doppler Volume Flow
DCM	125216	Proximal Isovelocity Surface Area

B.35. CID (12232) Myocardium Mass Methods

CSD	CV	Code Meaning
DCM	125221	Left Ventricle Mass by M-mode
DCM	125222	Left Ventricle Mass by Truncated Ellipse

B.36. CID (12233) Cardiac Phase

CSD	CV	Code Meaning
SRT	F-32020	Systole
SRT	F-32010	Diastole
SRT	F-32011	End Diastole
DCM	109070	End Systole

B.37. CID (12234) Respiration Phase

CSD	CV	Code Meaning
SRT	F-20010	Inspiration
SRT	F-20020	Expiration

B.38. CID (12239) Cardiac Output Properties

CSD	CV	Code Meaning
SRT	F-32120	Stroke Volume
SRT	F-32100	Cardiac Output
SRT	F-32110	Cardiac Index
SRT	F-00078	Stroke Index
SRT	F-04FD8	RV Stroke Volume
SRT	F-04FE5	RV Stroke Index
SRT	F-04FA5	RV Cardiac Output
SRT	F-04F84	RV Cardiac Index

B.39. CID (12240) Left Ventricle Area

CSD	CV	Code Meaning
SRT	G-0374	Left Ventricular Systolic Area
SRT	G-0375	Left Ventricular Diastolic Area

SRT	G-0379	Left Ventricle Epicardial Diastolic Area, psax pap view
MRUS	M12240-01	Left Ventricle Endocardiac Diastolic Area, psax pap view
SRT	G-0376	Left Ventricular Fractional Area Change

B.40. CID (90000) Pericardial disease

CSD	CV	Code Meaning
MRUS	C90000-01	Pericard Effusion at end-diastole
MRUS	C90000-02	Pericard Effusion at end-systole
SRT	T-35313	Mitral Annulus

B.41. Mapping between Modality measurements and DICOM Concepts.

B.41.1. Left Ventricle Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
LVOT HR	8867-4,LN,Heart rate	
LVIDd(2D)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode;
LVIDd Cube(2D)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
LVIDd Teich(2D)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
LVIDd Gibson(2D)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
LVIDd Gibson(M)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
LVIDd Cube(M)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
LVIDd Teich(M)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
LVIDd LV Mass(Cube)(2D)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode;
LVIDd LV Mass(Cube)(M)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =125221,DCM,Left Ventricle Mass by M-mode

LVIDd(BP Ellipse)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
LVIDd(M)	29436-3,LN,Left Ventricle Internal End Diastolic Dimension	ImageMode = G-0394,SRT,M Mode;
LVIDs(2D)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-03A2,SRT,2D mode;
LVIDs Cube(2D)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
LVIDs Teich(2D)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
LVIDs Gibson(2D)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
LVIDs Cube(M)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
LVIDs Teich(M)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
LVIDs Gibson(M)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
LVIDs(BP Ellipse)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
LVIDs(M)	29438-9,LN,Left Ventricle Internal Systolic Dimension	ImageMode = G-0394,SRT,M Mode;
FS(Cube-M)	18051-3,LN,Left Ventricular Fractional Shortening	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
FS(Teich-M)	18051-3,LN,Left Ventricular Fractional Shortening	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
FS(Gibson-M)	18051-3,LN,Left Ventricular Fractional Shortening	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
FS(Cube-2D)	18051-3,LN,Left Ventricular Fractional Shortening	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
FS(Teich-2D)	18051-3,LN,Left Ventricular Fractional Shortening	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
FS(Gibson-2D)	18051-3,LN,Left Ventricular Fractional Shortening	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
IVSd(2D)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode;
IVSd(LV Mass Cube-2D)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode;

IVSd(LV Mass Cube-M)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125221,DCM,Left Ventricle Mass by M-mode
IVSd(M)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =
IVSd Teich(2D)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
IVSd Teich(M)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
IVSd Cube(2D)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
IVSd Cube(M)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
IVSd Gibson(2D)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
IVSd Gibson(M)	18154-5,LN,Interventricular Septum Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
IVSd/LVPWd(2D)	18155-2,LN,Interventricular Septum to Posterior Wall Thickness Ratio	CardiacCyclePoint =F-32011,SRT,End Diastole; ImageMode = G-03A2,SRT,2D mode;
IVSs/LVPWs(2D)	18155-2,LN,Interventricular Septum to Posterior Wall Thickness Ratio	CardiacCyclePoint =109070,SRT,End Systole; ImageMode = G-03A2,SRT,2D mode;
IVSd/LVPWd(M)	18155-2,LN,Interventricular Septum to Posterior Wall Thickness Ratio	CardiacCyclePoint =F-32011,SRT,End Diastole; ImageMode = G-0394,SRT,M Mode;
IVSs/LVPWs(M)	18155-2,LN,Interventricular Septum to Posterior Wall Thickness Ratio	CardiacCyclePoint =109070,SRT,End Systole; ImageMode = G-0394,SRT,M Mode;
IVS%(2D)	18054-7,LN,Interventricular Septum % Thickening	ImageMode = G-03A2,SRT,2D mode;
IVS%(M)	18054-7,LN,Interventricular Septum % Thickening	ImageMode = G-0394,SRT,M Mode;
IVSs(2D)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-03A2,SRT,2D mode;
IVSs(M)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-0394,SRT,M Mode;
IVSs Teich(2D)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
IVSs Teich(M)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
IVSs Cube(2D)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method

IVSs Cube(M)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
IVSs Gibson(2D)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
IVSs Gibson(M)	18158-6,LN,Interventricular Septum Systolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
LVPW%(2D)	18053-9,LN,Left Ventricle Posterior Wall % Thickening	ImageMode = G-03A2,SRT,2D mode;
LVPW%(M)	18053-9,LN,Left Ventricle Posterior Wall % Thickening	ImageMode = G-0394,SRT,M Mode;
LVLd apical(Mod.Simpson)	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson
LVLd(A2C)	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125208,DCM,Method of Disks, Single Plane
LVLd(A4C)	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView =G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane
LVLd apical(SP Ellipse)	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
LVLd apical(Bullet)	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
LVLd apical(LV Mass A-L)	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; Method =125205,DCM,Area-Length Single Plane
LVLd2i	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
LVLd4i	18077-8,LN,Left Ventricle diastolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
LVLs apical(Mod.Simpson)	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode;
LVLs(A2C)	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125226,DCM,Single Plane Ellipse

LVLs(A4C)	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView =G-A19C,SRT,Apical four chamber; Method =125226,DCM,Single Plane Ellipse
LVLs apical(SP Ellipse)	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode;
LVLs apical(Bullet)	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode;
LVLs2i	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
LVLs4i	18076-0,LN,Left Ventricle systolic major axis	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
LVPWs(2D)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-03A2,SRT,2D mode;
LVPWs(M)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-0394,SRT,M Mode;
LVPWs Cube(2D)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
LVPWs Cube(M)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
LVPWs Teich(2D)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
LVPWs Teich(M)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
LVPWs Gibson(2D)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
LVPWs Gibson(M)	18156-0,LN,Left Ventricle Posterior Wall Systolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
LVPWd(2D)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode;
LVPWd(LV Mass-2D)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode;
LVPWd(LV Mass-M)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125221,DCM,Left Ventricle Mass by M-mode
LVPWd(M)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-0394,SRT,M Mode;

LVPWd Cube(2D)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
LVPWd Cube(M)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
LVPWd Teich(2D)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
LVPWd Teich(M)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
LVPWd Gibson(2D)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
LVPWd Gibson(M)	18152-9,LN,Left Ventricle Posterior Wall Diastolic Thickness	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
LV Major	M12201-01,MRUS,Left ventricular Major	ImageMode = G-03A2,SRT,2D mode;
LV Minor	M12201-02,MRUS,Left ventricular Minor	ImageMode = G-03A2,SRT,2D mode;
MVCF(Cube-M)	C12201-01,MRUS,Mean Velocity of Circumferential Fiber Shortening	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
MVCF(Teich-M)	C12201-01,MRUS,Mean Velocity of Circumferential Fiber Shortening	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
MVCF(Gibson-M)	C12201-01,MRUS,Mean Velocity of Circumferential Fiber Shortening	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
MVCF(Cube-2D)	C12201-01,MRUS,Mean Velocity of Circumferential Fiber Shortening	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
MVCF(Teich-2D)	C12201-01,MRUS,Mean Velocity of Circumferential Fiber Shortening	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
MVCF(Gibson-2D)	C12201-01,MRUS,Mean Velocity of Circumferential Fiber Shortening	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
RWT(2D)	C12201-02,MRUS ,Relative Wall Thickness	ImageMode = G-03A2,SRT,2D mode;
RWT(M)	C12201-02,MRUS ,Relative Wall Thickness	ImageMode = G-0394,SRT,M Mode;
a	M12201-03,MRUS,A Distance	ImageMode = G-03A2,SRT,2D mode;
d	M12201-04,MRUS,B Distance	ImageMode = G-03A2,SRT,2D mode;
LVIDd Index(M)	M12201-05,MRUS,Left ventricular internal diameter to BSA Ratio	CardiacCyclePoint =F-32011,SRT,End Diastole; ImageMode = G-0394,SRT,M Mode;
LVIDs Index(M)	M12201-05,MRUS,Left ventricular internal diameter to BSA Ratio	CardiacCyclePoint =109070,SRT,End Systole; ImageMode = G-0394,SRT,M Mode;
LVIDd Index(2D)	M12201-05,MRUS,Left ventricular internal diameter to BSA Ratio	CardiacCyclePoint =F-32011,SRT,End Diastole; ImageMode = G-03A2,SRT,2D mode;

LVIDs Index(2D)	M12201-05,MRUS,Left ventricular internal diameter to BSA Ratio	CardiacCyclePoint =109070,SRT,End Systole; ImageMode = G-03A2,SRT,2D mode;
rd2i	M12222-06,MRUS,Flow Radius	CardiacCyclePoint =F-32011,SRT,End Diastole; ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
rd4i	M12222-06,MRUS,Flow Radius	CardiacCyclePoint =F-32011,SRT,End Diastole; ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
rs2i	M12222-06,MRUS,Flow Radius	CardiacCyclePoint =109070,SRT,End Systole; ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
rs4i	M12222-06,MRUS,Flow Radius	CardiacCyclePoint =109070,SRT,End Systole; ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
LV Area(s)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode = G-03A2,SRT,2D mode;
LVAs apical(SP Ellipse)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode = G-03A2,SRT,2D mode; ImageView = G-0395,SRT,Apical long axis;
LVAs sax MV(Mod.Simpson)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039A,SRT,Parasternal short axis at the Mitral Valve level;
LVAs sax PM	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039B,SRT,Parasternal short axis at the Papillary Muscle level;
LVAs(A2C)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125208,DCM,Method of Disks, Single Plane
LVAs(A4C)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane

LVAs sax MV(BP Ellipse)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039A,SRT,Parasternal short axis at the Mitral Valve level; Method =125211,DCM,Biplane Ellipse
LVAs sax MV(Bullet)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039A,SRT,Parasternal short axis at the Mitral Valve level; Method =VM12228-01,MRUS,Bullet
LVAs apical(BP Ellipse)	G-0374,SRT,Left Ventricular Systolic Area	ImageMode =G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
LV Area(d)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode;
FAC	G-0376, SRT ,Left Ventricular Fractional Area Change	ImageMode =G-03A2,SRT,2D mode;
LVAd apical(SP Ellipse)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-0395,SRT,Apical long axis;
LVAd sax MV(Mod.Simpson)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039A,SRT,Parasternal short axis at the Mitral Valve level;
LVAd sax PM	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039B,SRT,Parasternal short axis at the Papillary Muscle level;
LVAd(A2C)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125208,DCM,Method of Disks, Single Plane
LVAd(A4C)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane
LVAd sax MV(BP Ellipse)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039A,SRT,Parasternal short axis at the Mitral Valve level; Method =125211,DCM,Biplane Ellipse
LVAd sax MV(Bullet)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039A,SRT,Parasternal short axis at the Mitral Valve level; Method =VM12228-01,MRUS,Bullet
LVAd apical(BP Ellipse)	G-0375,SRT,Left Ventricular Diastolic Area	ImageMode =G-03A2,SRT,2D mode; ImageView = G-0395,SRT,Apical long axis; Method =125211,DCM,Biplane Ellipse

LVAd sax Epi(LV Mass T-E)	G-0379,SRT,Left Ventricle Epicardial Diastolic Area, psax pap view	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039B,SRT,Parasternal short axis at the Papillary Muscle level; Method =125222,DCM,Left Ventricle Mass by Truncated Ellipse
LVAd sax Epi(LV Mass A-L)	G-0379,SRT,Left Ventricle Epicardial Diastolic Area, psax pap view	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039B,SRT,Parasternal short axis at the Papillary Muscle level; Method =125205,DCM,Area-Length Single Plane
LVAd sax Endo(LV Mass T-E)	M12240-01,MRUS,Left Ventricle Endocardiac Diastolic Area, psax pap view	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039B,SRT,Parasternal short axis at the Papillary Muscle level; Method =125222,DCM,Left Ventricle Mass by Truncated Ellipse
LVAd sax Endo(LV Mass A-L)	M12240-01,MRUS,Left Ventricle Endocardiac Diastolic Area, psax pap view	ImageMode =G-03A2,SRT,2D mode; ImageView = G-039B,SRT,Parasternal short axis at the Papillary Muscle level; Method =125205,DCM,Area-Length Single Plane
EDV(SP Ellipse)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
EDV(BP Ellipse)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
EDV(Bullet)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
EDV(Mod.Simpson)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson
EDV(Simp SP-A2C)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125208,DCM,Method of Disks, Single Plane
EDV(Simpson BP)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125207,DCM,Method of Disks, Biplane
EDV(Simp BP-A2C)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane

EDV(Simp BP-A4C) 18026-

ESV(Simp BP-A4C)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
ESV(Cube-M)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
ESV(Teich-M)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
ESV(Gibson-M)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
ESV(Cube-2D)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
ESV(Teich-2D)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
ESV(Gibson-2D)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
ESV(Simp SP-A4C)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane
EF(SP Ellipse)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
EF(BP Ellipse)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
EF(Bullet)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
EF(Mod.Simpson)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson
EF(A2C)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =125208,DCM,Method of Disks, Single Plane
EF(Simpson BP)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =125207,DCM,Method of Disks, Biplane
EF2(Simpson BP)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane

EF4(Simpson BP)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
EF(Cube-M)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
EF(Teich-M)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
EF(Gibson-M)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
EF(Cube-2D)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
EF(Teich-2D)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
EF(Gibson-2D)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
EF(A4C)	18043-0,LN,Left Ventricular Ejection Fraction	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane

LVOT VTI

LV Mass-I(Cube-M)	C12203-01,MRUS,Left	ventricular	Mass	ImageMode	=G-0394,SRT,M	Mode;			
	Weight Index								

SV(Cube-M)	F-32120,SRT,Stroke Volume	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
SV(Teich-M)	F-32120,SRT,Stroke Volume	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
SV(Gibson-M)	F-32120,SRT,Stroke Volume	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
SV(Cube-2D)	F-32120,SRT,Stroke Volume	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
SV(Teich-2D)	F-32120,SRT,Stroke Volume	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
SV(Gibson-2D)	F-32120,SRT,Stroke Volume	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
SV(A4C)	F-32120,SRT,Stroke Volume	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane
LVOT CO	F-32100,SRT,Cardiac Output	
CO(SP Ellipse)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
CO(BP Ellipse)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
CO(Bullet)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
CO(Mod.Simpson)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson
CO(A2C)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; Method =125208,DCM,Method of Disks, Single Plane
CO(Simpson BP)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; Method =125207,DCM,Method of Disks, Biplane
CO2(Simpson BP)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
CO4(Simpson BP)	F-32100,SRT,Cardiac Output	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane

CI(Cube-M)	F-32110,SRT,Cardiac Index	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
CI(Teich-M)	F-32110,SRT,Cardiac Index	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
CI(Gibson-M)	F-32110,SRT,Cardiac Index	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
CI(Cube-2D)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
CI(Teich-2D)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
CI(Gibson-2D)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
CI(A4C)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane
LVOT SI	F-00078,SRT,Stroke Index	
SI(SP Ellipse)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
SI(BP Ellipse)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
SI(Bullet)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
SI(Mod.Simpson)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =VM1222804 Tf1 0 0 1 414.46 355.37

SI(Cube-M)	F-00078,SRT,Stroke Index	ImageMode = G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
SI(Teich-M)	F-00078,SRT,Stroke Index	ImageMode = G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
SI(Gibson-M)	F-00078,SRT,Stroke Index	ImageMode = G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
SI(Cube-2D)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
SI(Teich-2D)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
SI(Gibson-2D)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson
SI(A4C)	F-00078,SRT,Stroke Index	G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane

B.41.2. Right Ventricle Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
RVDd(2D)	20304-2,LN,Right Ventricular Internal Diastolic Dimension	ImageMode = G-03A2,SRT,2D mode;
RVDd(M)	20304-2,LN,Right Ventricular Internal Diastolic Dimension	ImageMode = G-0394,SRT,M Mode;
RVDs(2D)	20305-9,LN,Right Ventricular Internal Systolic Dimension	ImageMode = G-03A2,SRT,2D mode;
RVDs(M)	20305-9,LN,Right Ventricular Internal Systolic Dimension	ImageMode = G-0394,SRT,M Mode;
RVIMP	G-0381,SRT,Right Ventricular Index of Myocardial Performance	
RVSP	G-0380,SRT,Right Ventricular Peak Systolic Pressure	
RVAWd(2D)	18153-7,LN,Right Ventricular Anterior Wall Diastolic Thickness	ImageMode = G-03A2,SRT,2D mode;
RVAWd(M)	18153-7,LN,Right Ventricular Anterior Wall Diastolic Thickness	ImageMode = G-0394,SRT,M Mode;
RVAWs(2D)	18157-8,LN,Right Ventricular Anterior Wall Systolic Thickness	ImageMode = G-03A2,SRT,2D mode;
RVAWs(M)	18157-8,LN,Right Ventricular Anterior Wall Systolic Thickness	ImageMode = G-0394,SRT,M Mode;
RV Major	M12204-01,MRUS,Right ventricular Major	ImageMode = G-03A2,SRT,2D mode;

RV Minor	M12204-02,MRUS,Right ventricular Minor	ImageMode = G-03A2,SRT,2D mode;
RV Area(d)	M12204-03,MRUS,Right ventricular Area at end-diastole	ImageMode = G-03A2,SRT,2D mode;
RV Area(s)	M12204-04,MRUS,Right ventricular Area at end-systole	ImageMode = G-03A2,SRT,2D mode;
RV FAC	C12204-03,MRUS ,Right Ventricular Fractional Area Change	ImageMode = G-03A2,SRT,2D mode;

LA Diam(M)	29469-4,LN,Left Atrium Antero-posterior Systolic Dimension	ImageMode = G-0394,SRT,M Mode;
LA Diam(LA Vol A-L)	29469-4,LN,Left Atrium Antero-posterior Systolic Dimension	ImageMode = G-03A2,SRT,2D mode; Method = 125205,DCM,Area-Length Single Plane
LA Diam(LA/Ao-2D)	29469-4,LN,Left Atrium Antero-posterior Systolic Dimension	ImageMode = G-03A2,SRT,2D mode;
LA Diam(LA/Ao-M)	29469-4,LN,Left Atrium Antero-posterior Systolic Dimension	ImageMode = G-0394,SRT,M Mode;
LA/Ao(2D)	17985-3,LN,Left Atrium to Aortic Root Ratio	ImageMode = G-03A2,SRT,2D mode;
LA/Ao(M)	17985-3,LN,Left Atrium to Aortic Root Ratio	ImageMode = G-0394,SRT,M Mode;
LA Area	17977-0,LN,Left Atrium Systolic Area	ImageMode = G-03A2,SRT,2D mode;
LAA(A2C)	17977-0,LN,Left Atrium Systolic Area	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method = 125205,DCM,Area-Length Single Plane
LAA(A4C)	17977-0,LN,Left Atrium Systolic Area	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method = 125205,DCM,Area-Length Single Plane
LA Vol(A-L)	G-0383,SRT,Left Atrium Systolic Volume	ImageMode = G-03A2,SRT,2D mode; Method = 125205,DCM,Area-Length Single Plane
LA Vol(A2C)	G-0383,SRT,Left Atrium Systolic Volume	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method = 125208,DCM,Method of Disks, Single Plane
LA Vol(A4C)	G-0383,SRT,Left Atrium Systolic Volume	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method = 125208,DCM,Method of Disks, Single Plane
LA Major	M12205-01,MRUS,Left atrium Major	ImageMode = G-03A2,SRT,2D mode;
LA Minor	M12205-02,MRUS,Left atrium Minor	ImageMode = G-03A2,SRT,2D mode;
LeftA.AR/LA.M	C12205-01,MRUS,Aortic Root to Left Atrium Ratio	

B.41.4. Right Atrium Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
RAP	18070-3,LN,Right Atrium Systolic Pressure	
RA Area	17988-7,LN,Right Atrium Systolic Area	ImageMode = G-03A2,SRT,2D mode;
RA Major	M12206-01,MRUS,Right atrium Major	ImageMode = G-03A2,SRT,2D mode;
RA Minor	M12206-02,MRUS,Right atrium Minor	ImageMode = G-03A2,SRT,2D mode;
RA Vol(A4C)	M12206-03,MRUS,Right atrium Volume	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method = 125208,DCM,Method of Disks, Single Plane

B.41.5. Aortic Valve Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
ACS(2D)	17996-0,LN,Aortic Valve Cusp Separation	ImageMode = G-03A2,SRT,2D mode;
ACS(M)	17996-0,LN,Aortic Valve Cusp Separation	ImageMode = G-0394,SRT,M Mode;
AV AccT/ET	G-0382,SRT,Ratio of Aortic Valve Acceleration Time to Ejection Time	
AV HR	8867-4,LN,Heart rate	
AR Flow	33878-0,LN,Volume Flow	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method =125216,DCM,Proximal Isovelocity Surface Area
AR Flow Rate	34141-2,LN,Peak Instantaneous Flow Rate	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow; Method =125216,DCM,Proximal Isovelocity Surface Area
AVA	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT,Antegrade Flow; ImageMode = G-03A2,SRT,2D mode; Method =125220,DCM,Planimetry
AVA(VTI)	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT,Antegrade Flow; Method =125215,DCM,Continuity Equation by Velocity Time Integral
AV Diam(2D)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode = G-03A2,SRT,2D mode;
AV Diam(Qp/Qs)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode = G-03A2,SRT,2D mode;

AR Fraction	G-0390,SRT,Regurgitant Fraction	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method =125216,DCM,Proximal Isovelocity Surface Area
AR Ved	11653-3,LN,End Diastolic Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow
AV Vmax	11726-7,LN,Peak Velocity	Flow Direction = R-42047,SRT,Antegrade Flow;
AR Vmax	11726-7,LN,Peak Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AR Vmax(AR VTI)	11726-7,LN,Peak Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AR Vmax(AR PHT)	11726-7,LN,Peak Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AR Vmax(PISA AR)	11726-7,LN,Peak Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow; Method =125216,DCM,Proximal Isovelocity Surface Area
AV Vmax(AV VTI)	11726-7,LN,Peak Velocity	Flow Direction = R-42047,SRT,Antegrade Flow;
AV Vmean	20352-1,LN,Mean Velocity	Flow Direction = R-42047,SRT,Antegrade Flow;
AR Vmean	20352-1,LN,Mean Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV PGmax	20247-3,LN,Peak Gradient	Flow Direction = R-42047,SRT,Antegrade Flow;
AR PGmax	20247-3,LN,Peak Gradient	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV PGmax(AV VTI)	20247-3,LN,Peak Gradient	Flow Direction = R-42047,SRT,Antegrade Flow;
AR PGmax(AR VTI)	20247-3,LN,Peak Gradient	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AR PGmax(AR PHT)	20247-3,LN,Peak Gradient	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV PGmean	20256-4,LN,Mean Gradient	Flow Direction = R-42047,SRT,Antegrade Flow;
AR PGmean	20256-4,LN,Mean Gradient	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV VTI	20354-7,LN,Velocity Time Integral	Flow Direction = R-42047,SRT,Antegrade Flow;
AR VTI	20354-7,LN,Velocity Time Integral	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV VTI(Qp/Qs)	20354-7,LN,Velocity Time Integral	Flow Direction = R-42047,SRT,Antegrade Flow;
AR VTI(PISA AR)	20354-7,LN,Velocity Time Integral	Flow Direction = R-42E61,SRT,Regurgitant Flow; Method =125216,DCM,Proximal Isovelocity Surface Area
AV VTI(AVA VTI)	20354-7,LN,Velocity Time Integral	Flow Direction = R-42047,SRT,Antegrade Flow;
AR PHT	20280-4,LN,Pressure Half-Time	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV AccT	20168-1,LN,Acceleration Time	Flow Direction = R-42047,SRT,Antegrade Flow;
AV DecT	20217-6,LN,Deceleration Time	Flow Direction = R-42047,SRT,Antegrade Flow;
AR DcT	20217-6,LN,Deceleration Time	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AR DecT	20217-6,LN,Deceleration Time	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV Dec Slope	20216-8,LN,Deceleration Slope	Flow Direction = R-42047,SRT,Antegrade Flow;
AR Dec Slope	20216-8,LN,Deceleration Slope	Flow Direction = R-42E61,SRT,Regurgitant Flow;

AV Acc Slope	M12222-02,MRUS,Acceleration Slope	Flow Direction = R-42047,SRT,Antegrade Flow;
AR Rad	M12222-06,MRUS,Flow Radius	Flow Direction = R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
AR Als.Vel	M12222-05,MRUS,Aliasing Velocity	Flow Direction = R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
AR Time	M12222-04,MRUS,Time	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AR DcR	M12222-03,MRUS,Deceleration Rate	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV	M12222-01,MRUS,Angle	Flow Direction = R-42047,SRT,Antegrade Flow;
AR	M12222-01,MRUS,Angle	Flow Direction = R-42E61,SRT,Regurgitant Flow;
AV SV	F-32120,SRT,Stroke Volume	
AV CO	F-32100,SRT,Cardiac Output	
AV CI	F-32110,SRT,Cardiac Index	
AV SI	F-00078,SRT,Stroke Index	
PISA	M12222-09,MRUS, Effective Regurgitant Orifice Area	

B.41.6. Mitral Valve Measurements

MODALITY Label	***DICOM Mapping***	***Optional Modifiers***
MV A Vel	17978-8,LN,Mitral Valve A-Wave Peak Velocity	
MV A Vel(MV A VTI)	17978-8,LN,Mitral Valve A-Wave Peak Velocity	
MV A Vel(MV E/A)	17978-8,LN,Mitral Valve A-Wave Peak Velocity	
MV E Vel	18037-2,LN,Mitral Valve E-Wave Peak Velocity	
MV E Vel(MV E VTI)	18037-2,LN,Mitral Valve E-Wave Peak Velocity	
MV E Vel(MV E/A)	18037-2,LN,Mitral Valve E-Wave Peak Velocity	
MV E/A	18038-0,LN,Mitral Valve E to A Ratio	
MV E/A(MV E/A)	18038-0,LN,Mitral Valve E to A Ratio	
MV AccT/DecT	G-0386,SRT,Mitral Valve AT/DT Ratio	
MV E-F Slope	18040-6,LN,Mitral Valve E-F Slope by M-Mode	ImageMode = G-0394,SRT,M Mode ;
EPSS(2D)	18036-4,LN,Mitral Valve EPSS, E wave	ImageMode = G-03A2,SRT,2D mode ;
EPSS(M)	18036-4,LN,Mitral Valve EPSS, E wave	ImageMode = G-0394,SRT,M Mode ;
MV A Dur	G-0385,SRT,Mitral Valve A-Wave Duration	
MV C-O dur(M)	G-0387,SRT,Mitral Valve Closure to Opening Time	ImageMode = G-0394,SRT,M Mode ;

MV C-O dur(Doppler)	G-0387,SRT,Mitral Valve Closure to Opening Time	
dP/dt	18035-6,LN,Mitral Regurgitation Dp/dt derived from Mitral Reg. velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MCS(2D)	M12207-01,MRUS,Mitral valve cusp separate distance	ImageMode = G-03A2,SRT,2D mode ;
MCS(M)	M12207-01,MRUS,Mitral valve cusp separate distance	ImageMode = G-0394,SRT,M Mode ;
MV D-E Slope	M12207-02,MRUS,Mitral Valve D-E Slope	ImageMode = G-0394,SRT,M Mode ;
MV A Amp	M12207-03,MRUS,Amplitude of the A wave	ImageMode = G-0394,SRT,M Mode ;
MV E Amp	M12207-04,MRUS,Amplitude of the E wave	ImageMode = G-0394,SRT,M Mode ;
MV DE	M12207-05,MRUS,Amplitude from D Point to E Point	ImageMode = G-0394,SRT,M Mode ;
MV E PG	M12207-07,MRUS,Mitral Valve E-wave Pressure Gradient	
MV A PG	M12207-08,MRUS,Mitral Valve A-wave Pressure Gradient	
MV E VTI	M12207-09,MRUS,E wave Velocity Time Integral	Flow Direction =R-42047,SRT,Antegrade Flow;
MV A VTI	M12207-10,MRUS,A wave Velocity Time Integral	Flow Direction =R-42047,SRT,Antegrade Flow;
MV E Dur	M12207-11,MRUS,Mitral Valve E-Wave Duration	Flow Direction =R-42047,SRT,Antegrade Flow;
Sa(medial)	M12207-12,MRUS,Systolic Velocity of the Mitral Annulus(medial)	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ea(medial)	M12207-13,MRUS,Early diastolic velocity of the mitral annulus(medial)	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Aa(medial)	M12207-14,MRUS,Late diastolic velocity of the mitral annulus(medial)	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ea/Aa(medial)	M12207-15,MRUS,Early diastolic velocity to Late diastolic velocity Ratio	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ata(medial)	M12207-16,MRUS,Acceleration Time of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ara(medial)	M12207-17,MRUS,Acceleration Rate of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;

Dta(medial)	M12207-18,MRUS,Deceleration Time of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Dra(medial)	M12207-19,MRUS,Deceleration Rate of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Sa(lateral)	M12207-20,MRUS,Systolic Velocity of the Mitral Annulus(lateral)	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ea(lateral)	M12207-21,MRUS,Early diastolic velocity of the mitral annulus(lateral)	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Aa(lateral)	M12207-22,MRUS,Late diastolic velocity of the mitral annulus(lateral)	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ea/Aa(lateral)	M12207-23,MRUS,Early diastolic velocity to Late diastolic velocity Ratio	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ata(lateral)	M12207-24,MRUS,Acceleration Time of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Ara(lateral)	M12207-25,MRUS,Acceleration Rate of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Dta(lateral)	M12207-26,MRUS,Deceleration Time of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
Dra(lateral)	M12207-27,MRUS,Deceleration Rate of Early diastolic velocity	ImageMode = IM12224-01,MRUS,Tissue Doppler Imaging;
MS Rad	M12207-28,MRUS,Mitral Stenosis Radius	ImageMode = R-409E2, SRT, Doppler Color Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MS Als.Vel	M12207-29,MRUS,Mitral Stenosis Aliasing Velocity	ImageMode = R-409E2, SRT, Doppler Color Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MS Vmax	M12207-30,MRUS,Mitral Stenosis Maximum Velocity	Method = 125216,DCM,Proximal Isovelocity Surface Area

MS Vmax(PISA MS)	M12207-30,MRUS,Mitral Stenosis Maximum Velocity	Method = 125216,DCM,Proximal Isovelocity Surface Area
MS Area	M12207-31,MRUS,Mitral Stenosis Area	Method = 125216,DCM,Proximal Isovelocity Surface Area
MS Pgmax	M12207-32,MRUS,Mitral Stenosis Maximum Pressure Gradient	
MV HR	8867-4,LN,Heart rate	
MR Flow	33878-0,LN,Volume Flow	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MR Flow Rate	34141-2,LN,Peak Instantaneous Flow Rate	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MVA	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT,Antegrade Flow; ImageMode = G-03A2,SRT,2D mode; Method = 125220,DCM,Planimetry
MVA(PHT)	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT,Antegrade Flow; Method = 125210,DCM,Area by Pressure Half-Time
MVA(VTI)	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT,Antegrade Flow; Method = 125215,DCM,Continuity Equation by Velocity Time Integral
MV Diam	G-038F,SRT,Cardiovascular Orifice Diameter	Flow Direction =R-42047,SRT,Antegrade Flow; ImageMode = G-03A2,SRT,2D mode;
MR Fraction	G-0390,SRT,Regurgitant Fraction	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MV Vmax	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;

MV DecT	20217-6,LN,Deceleration Time	Flow Direction =R-42047,SRT, Antegrade Flow;
MV Dec Slope	20216-8,LN,Deceleration Slope	Flow Direction =R-42047,SRT, Antegrade Flow;
MV Acc Slope	M12222-02,MRUS,Acceleration Slope	Flow Direction =R-42047,SRT, Antegrade Flow;
dt	M12222-04,MRUS,Time	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MR Rad	M12222-06,MRUS,Flow Radius	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
MR Als.Vel	M12222-05,MRUS,Aliasing Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
MV	M12222-01,MRUS,Angle	Flow Direction =R-42047,SRT,Antegrade Flow;
MR	M12222-01,MRUS,Angle	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MV SV	F-32120,SRT,Stroke Volume	
MV CO	F-32100,SRT,Cardiac Output	
MV CI	F-32110,SRT,Cardiac Index	
MV SI	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode;
E/Ea	M12207-35,MRUS,MV E/Ea	ImageMode = G-03A2,SRT,2D mode;
PISA	M12222-09,MRUS, Effective Regurgitant Orifice Area	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MAPSE	M12207-39, MRUS, Mitral Annular Plane Systolic Excursion	Image Mode = G-0394,SRT,M Mode

B.41.7. Pulmonic Valve Measurements

MODALITY Label	***DICOM Mapping***	***Optional Modifiers***
PV	M12222-01,MRUS,Angle	Flow Direction =R-42047,SRT,Antegrade Flow;
PR	M12222-01,MRUS,Angle	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV HR	8867-4,LN,Heart rate	

PR Flow	33878-0,LN,Volume Flow	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
PR Flow Rate	34141-2,LN,Peak Instantaneous Flow Rate	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
PV Diam	G-038F,SRT,Cardiovascular Orifice Diameter	Flow Direction =R-42047,SRT,Antegrade Flow; ImageMode = G-03A2,SRT,2D mode;
PV Diam(Qp/Qs)	G-038F,SRT,Cardiovascular Orifice Diameter	Flow Direction =R-42047,SRT,Antegrade Flow; ImageMode = G-03A2,SRT,2D mode;
PR Fraction	G-0390,SRT,Regurgitant Fraction	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
PR Ved	11653-3,LN,End Diastolic Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PR Ved(PAEDP)	11653-3,LN,End Diastolic Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV Vmax	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
PR Vmax	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV Vmax(PV VTI)	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
PR Vmax(PR VTI)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PR Vmax(PR PHT)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PR Vmax(PISA PR)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV Vmean	20352-1,LN,Mean Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
PR Vmean	20352-1,LN,Mean Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV PGmax	20247-3,LN,Peak Gradient	Flow Direction =R-42047,SRT,Antegrade Flow;
PR PGmax	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV PGmax(PV VTI)	20247-3,LN,Peak Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
PR PGmax(PR VTI)	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PR PGmax(PR PHT)	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV PGmean	20256-4,LN,Mean Gradient	Flow Direction =R-42047,SRT,Antegrade Flow;

PR DecT	20217-6,LN,Deceleration Time	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PR Dec Slope	20216-8,LN,Deceleration Slope	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV Acc Slope	M12222-02,MRUS,Acceleration Slope	Flow Direction =R-42047,SRT,Antegrade Flow;
PR Rad	M12222-06,MRUS,Flow Radius	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
PR Als.Vel	M12222-05,MRUS,Aliasing Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
PR PGed	M12222-08,MRUS,Presure Gradient at end-Diastole	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PR PGed(PAEDP)	M12222-08,MRUS,Presure Gradient at end-Diastole	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV SV	F-32120,SRT,Stroke Volume	
PV CO	F-32100,SRT,Cardiac Output	
PV CI	F-32110,SRT,Cardiac Index	
PV SI	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode;
PISA	M12222-09,MRUS, Effective Regurgitant Orifice Area	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area

B.41.8. Tricuspid Valve Measurements

MODALITY Label

TV HR	8867-4,LN,Heart rate	
TR Flow	33878-0,LN,Volume Flow	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
TR Flow Rate	34141-2,LN,Peak Instantaneous Flow Rate	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
TVA	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT, Antegrade Flow; ImageMode = G-03A2,SRT,2D mode; Method = 125220,DCM,Planimetry
TVA(PHT)	G-038E,SRT,Cardiovascular Orifice Area	Flow Direction =R-42047,SRT, Antegrade Flow; Method = 125210,DCM,Area by Pressure Half-Time
TV Diam	G-038F,SRT,Cardiovascular Orifice Diameter	Flow Direction =R-42047,SRT, Antegrade Flow; ImageMode = G-03A2,SRT,2D mode;
TR Fraction	G-0390,SRT,Regurgitant Fraction	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
TV Vmax	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
TR Vmax	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV Vmax(TV PHT)	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
TV Vmax(TV VTI)	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
TR Vmax(TR VTI)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TR Vmax(PISA TR)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
TR Vmax(RVSP)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV Vmean	20352-1,LN,Mean Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
TR Vmean	20352-1,LN,Mean Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV PGmax(TV PHT)	20247-3,LN,Peak Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
TV PGmax(TV VTI)	20247-3,LN,Peak Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
TV PGmax	20247-3,LN,Peak Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
TR PGmax	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TR PGmax(TR VTI)	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TR PGmax(RVSP)	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV PGmean	20256-4,LN,Mean Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
TR PGmean	20256-4,LN,Mean Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;

TV VTI	20354-7,LN,Velocity Time Integral	Flow Direction =R-42047,SRT, Antegrade Flow;
TR VTI	20354-7,LN,Velocity Time Integral	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TR VTI(PISA TR)	20354-7,LN,Velocity Time Integral	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method =125216,DCM,Proximal Isovelocity Surface Area
TV PHT	20280-4,LN,Pressure Half-Time	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV AccT	20168-1,LN,Acceleration Time	Flow Direction =R-42047,SRT, Antegrade Flow;
TV DecT	20217-6,LN,Deceleration Time	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV Dec Slope	20216-8,LN,Deceleration Slope	Flow Direction =R-42E61,SRT,Regurgitant Flow;
TV A Dur	M12208-01,MRUS,Tricuspid Valve E-Wave Duration	Flow Direction =R-42047,SRT, Antegrade Flow;
TV E PG	M12208-02,MRUS,Tricuspid Valve E Wave Pressure Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
TV A PG	M12208-03,MRUS,Tricuspid Valve A Wave Pressure Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
TV Acc Slope	M12222-02,MRUS,Acceleration Slope	Flow Direction =R-42047,SRT, Antegrade Flow;
TV AccT/DecT	M12222-07,MRUS,Acceleration Time/Deceleration Time	Flow Direction =R-42047,SRT, Antegrade Flow;
TR Rad	M12222-06,MRUS,Flow Radius	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = R-409E2, SRT, Doppler Color Flow;
TR Als.Vel	M12222-05,MRUS,Aliasing Velocity	ImageMode = R-409E2, SRT, Doppler Color Flow;
TV SV	F-32120,SRT,Stroke Volume	
TV CO	F-32100,SRT,Cardiac Output	
TV CI	F-32110,SRT,Cardiac Index	
TV SI	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode;
PISA	M12222-09,MRUS, Effective Regurgitant Orifice Area	ImageMode = G-03A2,SRT,2D mode;

B.41.9. Aorta Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
Ao Diam(2D)	18015-8,LN,Aortic Root Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao Diam(M)	18015-8,LN,Aortic Root Diameter	ImageMode = G-0394,SRT,M Mode;

Ao Diam(LA/Ao-2D)	18015-8,LN,Aortic Root Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao Diam(LA/Ao-M)	18015-8,LN,Aortic Root Diameter	ImageMode = G-0394,SRT,M Mode;

PAEDP	C12210-01,MRUS,Pulmonary Artery End Diastolic Pressure	
LPA Vmax	11726-7,LN,Peak Velocity	
RPA Vmax	11726-7,LN,Peak Velocity	
MPA PGmax	20247-3,LN,Peak Gradient	
LPA PGmax	20247-3,LN,Peak Gradient	
RPA PGmax	20247-3,LN,Peak Gradient	

B.41.11. Vena Cava Measurements

MODALITY Label	***DICOM Mapping***	***Optional Modifiers***
IVC Diam(Insp)	18006-7,LN,Inferior Vena Cava Diameter	RespiratoryCyclePoint=F-20010,SRT, Inspiration; ImageMode =G-03A2,SRT,2D mode;
IVC Diam(Expir)	18006-7,LN,Inferior Vena Cava Diameter	

Qp-Qs	M12217-01,MRUS,Pulmonary-sub-Systemic Shunt Flow Difference	
PV HR(Qp/Qs)	8867-4,LN,Heart rate	
AV HR(Qp/Qs)		

B.41.15. Pericardial Disease Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
PEd(2D)	C90000-01,MRUS,Pericard Effusion at end-diastole	ImageMode =G-03A2,SRT,2D mode;
PEd(M)	C90000-01,MRUS,Pericard Effusion at end-diastole	ImageMode =G-0394,SRT,M Mode;
PEs(2D)	C90000-02,MRUS,Pericard Effusion at end-systole	ImageMode =G-03A2,SRT,2D mode;
PEs(M)	C90000-02,MRUS,Pericard Effusion at end-systole	ImageMode =G-0394,SRT,M Mode;
MR Tau Bai	SRT,T-35313,Mitral Annulus	

B.41.16. Heart Rate Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
HR	8867-4 LN Heart rate	Image Mode = G-0394,SRT,M Mode
HRSP.Ellipse	8867-4 LN Heart rate	Method =125226,DCM,Single Plane Ellipse
HRBP.Ellipse	8867-4 LN Heart rate	Method=125211,DCM,Biplane Ellipse
HRBullet	8867-4 LN Heart rate	Method =VM12228-01,MRUS,Bullet
HRMod.Simp	8867-4 LN Heart rate	Method= VM12228-02,MRUS,Method of Disks,Simpson
HRSimp.SP	8867-4 LN Heart rate	Method= 125208,DCM,Method of Disks, Single Plane
HRSimp.SP.A4C	8867-4 LN Heart rate	Method= 125208,DCM,Method of Disks, Single Plane
HRSimp.BP	8867-4 LN Heart rate	Method= 125207,DCM,Method of Disks, Biplane
HRTeich.		

C. Appendix : Vascular structured reporting template

This appendix lists the DICOM Structured Report (SR) mappings used in the

Vascular Structured Reports of ultrasound system SR files.

The mappings are organized in a manner similar to the DICOM SR Templates as described in PS 3.16 of the DICOM Standard. The Vascular Report mappings follow the DICOM SR Template TID 5100: Vascular Ultrasound Procedure Report, except where noted.

All private code values use the Coding Scheme Designator "MRUS".

C.1. TID (5100) Vascular Ultrasoud Report

This is the template for the root the content tree for the vascular ultrasound procedure report.

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13	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12104) Extracranial Arteries $AnatomyRatio = DCID (12123) Carotid Ratios	
14	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12109) Lower Extremity Arteries $AnatomyRatio = 8581-1,LN,Tibial/brachial index	
15	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12109) Lower Extremity Arteries $AnatomyRatio = 8581-1,LN,Tibial/brachial index	
15	>	CONTAINS	INCLUDE	DTID (5103_3_1) Vascular Ultrasound Section		$SectionScope = DT (T-	

16

20	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (SELFCID-2) Upper Extremity Arteries(unilateral)	
21	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12108) Upper Extremity Veins	
22	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12108) Upper Extremity Veins	
23	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- ery $SectionLaterality = EV (G- $Anatomy = DCID (12111) Abdominal Arteries (lateral)	

24	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12111) Abdominal Arteries (lateral)	
25	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G-A103, $Anatomy = DCID (12112) Abdominal Arteries (unilateral)	
26	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12113) Abdominal Veins (lateral)	
27	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12113) Abdominal Veins (lateral)	

28	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G-A103, $Anatomy = DCID (12114) Abdominal Veins (unilateral)	
29	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T-71019, $SectionLaterality = EV (G- $Anatomy = DCID (12115) Renal Vessels	
30	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T-71019, $SectionLaterality = EV (G- $Anatomy = DCID (12115) Renal Vessels	
31	>	CONTAINS	INCLUDE	DTID (5105) Ultrasound Graft Section			
32	>	CONTAINS	TEXT	(20121120,MRUS, self-defined-Measurementfile)			

C.2. TID (1001) Observation Context

This template specifies attributes of observation context that may be defined, extended or replaced at any location in the SR tree.

3	>	CONTAINS	CODE	EV (121032, DCM,		DCID (7455) Sex	
4	>	CONTAINS	NUM	EV (F-008EC, SRT,			

7	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")			From report interface Comment
8	>	CONTAINS	TEXT	(I12101-05,MRUS,"Prompt")			From report interface Prompt
9	>	CONTAINS	TEXT	(121071,DCM,"Findings")			From report interface Findings
10	>	CONTAINS	CONTAINER	(T-45100, SNM3, Common carotid artery)			
11	>>	CONTAINS	CONTAINER	(FG3495-01, MRUS, Plaque Description)			
12	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
13	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
14	>>	CONTAINS	CONTAINER	(FG3495-02, MRUS, Plaque Area)			
15	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			

29	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
30	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
31	>	CONTAINS	CONTAINER	(T-45200,SRT,External Carotid Artery)			ECA
32	>>	CONTAINS	CONTAINER	(FG3495-01, MRUS, Plaque Description)			
33	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
34	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
35	>>	CONTAINS	CONTAINER	(FG3495-02, MRUS, Plaque Area)			
36	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
37	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
38	>	CONTAINS	CONTAINER	(T-45700 ,SRT ,Vertebral Artery)			
39	>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
40	>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
41	>	CONTAINS	CONTAINER	(T-46100,SRT,Subclavian Artery)			
42	>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
43	>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
44	>	CONTAINS	TEXT	(T-46010,SRT,Brachiocephalic trunk)			

CSD	CV	Code Meaning
MRUS	A12104-11	Carotid Graft 1 Native Inflow
MRUS	A12104-12	Carotid Graft 1 Anastomosis Pre
MRUS	A12104-13	Carotid Graft 1 Anastomosis Max
MRUS	A12104-14	Carotid Graft 1 Anastomosis Post
MRUS	A12104-15	Carotid Graft 1 Native Outflow
MRUS	A12104-16	Carotid Graft 2 Native Inflow
MRUS	A12104-17	Carotid Graft 2 Anastomosis Pre
MRUS	A12104-18	Carotid Graft 2 Anastomosis Max
MRUS	A12104-19	Carotid Graft 2 Anastomosis Post
MRUS	A12104-20	Carotid Graft 2 Native Outflow
MRUS	A12104-21	Carotid Graft 3 Native Inflow
MRUS	A12104-22	Carotid Graft 3 Anastomosis Pre
MRUS	A12104-23	Carotid Graft 3 Anastomosis Max
MRUS	A12104-24	Carotid Graft 3 Anastomosis Post
MRUS	A12104-25	Carotid Graft 3 Native Outflow
MRUS	A12104-26	Common Carotid Arterial Aneurysm
MRUS	A12104-27	Bulbillate Aneurysm
MRUS	A12104-28	Carotid Bifurcation Aneurysm
MRUS	A12104-29	Internal Carotid Arterial Aneurysm
MRUS	A12104-30	External Carotid Arterial Aneurysm
MRUS	A12104-31	Vertebral Arterial Aneurysm
MRUS	A12104-32	Subclavian Arterial Aneurysm
MRUS	A12104-33	Common Carotid Artery Stenosis
MRUS	A12104-34	Bulbillate Stenosis
MRUS	A12104-35	Carotid Bifurcation Stenosis
MRUS	A12104-36	Internal Carotid Artery Stenosis
MRUS	A12104-37	External Carotid Artery Stenosis
MRUS	A12104-38	Vertebral Artery Stenosis
MRUS	A12104-39	Subclavian Artery Stenosis
MRUS	A12104-40	Carotid Stenosis 1
MRUS	A12104-41	Carotid Stenosis 2
MRUS	A12104-42	Carotid Stenosis 3
MRUS	A12104-43	Carotid Stenosis 4
MRUS	A12104-44	Common Carotid Artery Intima Media Thickness

CSD	CV	Code Meaning
		Anastomosis
MRUS	A12107-4	Upper External Arterial Graft 1 Graft
MRUS	A12107-5	Upper External Arterial Graft 1 Native Outflow
MRUS	A12107-6	Upper External Arterial Graft 2 Native Inflow
MRUS	A12107-7	Upper External Arterial Graft 2 Anastomosis
MRUS	A12107-8	Upper External Arterial Graft 2 Graft
MRUS	A12107-9	Upper External Arterial Graft 2 Native Outflow
MRUS	A12107-10	Upper External Arterial Graft 3 Native Inflow
MRUS	A12107-11	Upper External Arterial Graft 3 Anastomosis
MRUS	A12107-12	Upper External Arterial Graft 3 Graft
MRUS	A12107-13	Upper External Arterial Graft 3 Native Outflow
MRUS	A12107-14	Upper External Arterial Stent 1
MRUS	A12107-15	Upper External Arterial Stent 2
MRUS	A12107-16	Upper External Arterial Stent 3
MRUS	A12107-17	Mammary Arterial Aneurysm
MRUS	A12107-18	Axillary Artery Aneurysm
MRUS	A12107-19	Brachial Artery

CSD	CV	Code Meaning
		Aneurysm
MRUS	A12107-20	Radial Artery Aneurysm
MRUS	A12107-21	Ulnar Artery Aneurysm
MRUS	A12107-22	Brachiocephalic Aneurysm
MRUS	A12107-24	Mammary A Stenosis
MRUS	A12107-26	Brachial Artery Stenosis
MRUS	A12107-27	Radial Artery Stenosis
MRUS	A12107-28	Ulnar Artery Stenosis
MRUS	A12107-29	Upper External Arterial Stenosis 1
MRUS	A12107-30	Upper External Arterial Stenosis 2
MRUS	A12107-31	Upper External Arterial Stenosis 3
MRUS	A12107-32	Upper External Arterial Stenosis 4
MRUS	A12107-33	Upper Artery

C.12. CID (SELFCID-2) Upper Extremity Arteries(unilateral)

CSD	CV	Code Meaning
SRT	T-46010	Innominate Artery

C.13. CID (12108) Upper Extremity Veins

CSD	CV	Code Meaning
SRT	T-49110	Axillary vein
SRT	53 191.18 53.3	

CSD	CV	Code Meaning
SRT	T-48170	Internal Jugular vein
MRUS	V12108-1	Cephalic Vein and Axillary Vein Junction
MRUS	V12108-2	Upper Arm Cephalic Vein
MRUS	V12108-3	Cephalic Anterior-Cubital Vein
MRUS	V12108-4	Forearm Cephalic Vein
MRUS	V12108-5	Basilic Vein and Axillary Vein Junction
MRUS	V12108-6	Upper Arm Basilic Vein
MRUS	V12108-7	Basilic Anterior-Cubital Vein
MRUS	V12108-8	Forearm Basilic Vein
MRUS	V12108-9	Digital Vein
MRUS	V12108-10	Arteriovenous Fistula-Inflow Artery
MRUS	V12108-11	Arteriovenous Fistula-Arterial Anastomosis
MRUS	V12108-12	Arteriovenous Fistula-Outflow Vein Level 1
MRUS	V12108-13	Arteriovenous Fistula-Outflow Vein Level 2
MRUS	V12108-14	Arteriovenous Fistula-Outflow Vein Level 3
MRUS	V12108-15	Arteriovenous Fistula-Outflow Vein Level 4

CSD	CV	Code Meaning

CSD	CV	Code Meaning
MRUS	V12108-35	Median Cubital Vein

C.14. CID (12109) Lower Extremity Arteries

CSD	CV	Code Meaning
SRT	T-46710	Common Iliac Artery
SRT	T-47700	Anterior Tibial Artery
SRT	T-47400	Common Femoral Artery
SRT	T-47741	Dorsalis Pedis Artery
SRT	T-46910	External Iliac Artery
SRT	T-46740	Internal Iliac Artery
SRT	T-47630	Peroneal Artery
SRT	T-47500	Popliteal Artery
SRT	T-47600	Posterior Tibial Artery
SRT	T-47440	Profunda Femoris Artery
SRT	T-47403	Superficial Femoral Artery
MRUS	V12109-01	TP Trunk Artery
SRT	T-46710	Common Iliac Artery
SRT	T-47700	Anterior Tibial Artery
SRT	T-47400	Common Femoral Artery
SRT	T-47741	Dorsalis Pedis Artery
SRT	T-46910	External Iliac Artery
SRT	T-46740	Internal Iliac Artery
SRT	T-47630	Peroneal Artery
SRT	T-47500	Popliteal Artery
SRT	T-47600	Posterior Tibial Artery
SRT	T-47440	Profunda Femoris Artery
SRT	T-47403	Superficial Femoral Artery
MRUS	A12109-1	Tibial Peroneal Trunk Artery
MRUS	A12109-2	Lower External Arterial Graft 1 Native Inflow
MRUS	A12109-3	Lower External Arterial Graft 1 Anastomosis
MRUS	A12109-4	Lower External Arterial Graft 1 Graft
MRUS	A12109-5	Lower External Arterial Graft 1 Native Outflow
MRUS	A12109-6	Lower External Arterial Graft 2 Native

CSD	CV	Code Meaning
		Inflow
MRUS	A12109-7	Lower External Arterial Graft 2 Anastomosis
MRUS	A12109-8	Lower External Arterial Graft 2 Graft
MRUS	A12109-9	Lower External Arterial Graft 2 Native Outflow
MRUS	A12109-10	Lower External Arterial Graft 3 Native Inflow
MRUS	A12109-11	Lower External Arterial Graft 3 Anastomosis
MRUS	A12109-12	Lower External Arterial Graft 3 Graft
MRUS	A12109-13	Lower External Arterial Graft 3 Native Outflow
MRUS	A12109-14	Lower External Arterial Stent 1
MRUS	A12109-15	Lower External Arterial Stent 2
MRUS	A12109-16	Lower External Arterial Stent 3
MRUS	A12109-17	Lower External Arterial Finding 1
MRUS	A12109-18	Lower External Arterial Finding 2
MRUS	A12109-19	Lower External Arterial Finding 3
MRUS	A12109-20	Lower External Arterial Finding 4
MRUS	A12109-21	Lower External Arterial Finding 5
MRUS	A12109-22	Lower External Arterial Finding 6
MRUS	A12109-23	Common Iliac Arterial Aneurysm
MRUS	A12109-24	External Iliac Arterial Aneurysm
MRUS	A12109-25	Common Femoral Arterial Aneurysm
MRUS	A12109-26	Profunda Femoral Arterial Aneurysm
MRUS	A12109-27	Superficial Femoral Arterial Aneurysm
MRUS	A12109-28	Popliteal Arterial Aneurysm
MRUS	A12109-29	Tibial Peroneal Trunk Arterial Aneurysm
MRUS	A12109-30	Anterior Tibial Arterial Aneurysm
MRUS	A12109-31	Peroneal Arterial Aneurysm
MRUS	A12109-32	Posterior Tibial Arterial Aneurysm
MRUS	A12109-33	Dorsalis Pedis Arterial Aneurysm
MRUS	A12109-34	Lower External Arterial Graft 1 Anastomosis Pre
MRUS	A12109-35	Lower External Arterial Graft 1 Anastomosis Max
MRUS	A12109-36	Lower External Arterial Graft 1 Anastomosis

CSD	CV	Code Meaning
		Post
MRUS	A12109-37	Lower External Arterial Graft 2 Anastomosis Pre
MRUS	A12109-38	Lower External Arterial Graft 2 Anastomosis Max
MRUS	A12109-39	Lower External Arterial Graft 2 Anastomosis Post
MRUS	A12109-40	Lower External Arterial Graft 3 Anastomosis Pre
MRUS	A12109-41	Lower External Arterial Graft 3 Anastomosis Max
MRUS	A12109-42	Lower External Arterial Graft 3 Anastomosis Post
MRUS	A12109-43	Common Iliac Artery Stenosis
MRUS	A12109-44	External Iliac Artery Stenosis
MRUS	A12109-45	Common Femoral Artery Stenosis
MRUS	A12109-46	Profunda Femoral Artery Stenosis

CSD **CV**

CSD	CV	Code Meaning
SRT	T-46510	Superior Mesenteric Artery
SRT	T-46520	Inferior Mesenteric Artery

C.17. CID (12114) Abdominal Veins (unilateral)

CSD	CV	Code Meaning
SRT	T-48720	Hepatic Vein
SRT	T-48726	Middle Hepatic Vein
SRT	T-48810	Portal Vein
SRT	T-48710	Inferior Vena Cava
SRT	T-48890	Splenic Vein
SRT	T-48840	Superior Mesenteric Vein
MRUS	V12114-01	Main Portal Vein
SRT	T-48910	Inferior Mesenteric Vein
SRT	T-48727	Left Hepatic Vein
SRT	T-48725	Right Hepatic Vein
MRUS	V12114-02	Hepatic V Anast Liver Transplant
MRUS	V12114-03	Portal V Anast Liver Transplant
MRUS	V12114-04	IVC Liver Transplant
MRUS	V12114-05	Hep V Confl Liver Transplant
MRUS	V12114-06	Donor IVC Liver Transplant
MRUS	V12114-07	TIPS

C.18. CID (12115) Renal Vessels

CSD	CV	Code Meaning
SRT	T-46600	Renal Artery
SRT	T-48740	Renal Vein
SRT	T-46659	Segmental Artery
SRT	T-4668A	Arcuate Artery of the Kidney
SRT	T-4667D	Interlobar Artery of Kidney
MRUS	V12115-01	Main Renal Artery
MRUS	A12115-01	Ren A Org
MRUS	A12115-02	Renal A1
MRUS	A12115-03	Renal A2
MRUS	A12115-04	Hilum

CSD	CV	Code Meaning
MRUS	A12115-05	

CSD	CV	Code Meaning
MRUS	12116-7	SupraRenal
MRUS	12116-8	Renal
MRUS	12116-9	1
MRUS	12116-10	2
MRUS	12116-11	3
MRUS	12116-12	Pre Sten
MRUS	12116-13	Sten
MRUS	12116-14	Post Sten
SRT	R-40775	None
SRT	R-42191	Sup
SRT	R-404D5	Mid
SRT	R-4094A	Inf

C.20. CID (12117) Vessel Segment Modifiers

CSD	CV	Code Meaning
SRT	R-404D5	Mid
SRT	G-A100	Right
MRUS	12117-1	Common
MRUS	12117-2	Proper
SRT	G-A101	Left
MRUS	12117-3	R Ant
MRUS	12117-4	R Post
SRT	G-A332	main

C.21. CID (12120) Abdominal Arteries (unilateral)

CSD	CV	Code Meaning
SRT	T-42000	Aorta
SRT	T-46400	Celiac Axis
SRT	T-46421	Common Hepatic Artery
SRT	T-46440	Gastroduodenal Artery
SRT	T-46520	Inferior Mesenteric Artery
SRT	T-46422	Proper Hepatic Artery
SRT	T-46460	Splenic Artery
SRT	T-46510	Superior Mesenteric Artery

CSD	CV	Code Meaning
MRUS	A12120-2	

CSD	CV	Code Meaning
MRUS	A12120-43	ABD Stenosis 1
MRUS	A12120-44	ABD Stenosis 2
MRUS	A12120-45	ABD Stenosis 3
MRUS	A12120-46	ABD Stenosis 4

C.22. Mapping between Modality measurements and DICOM Concepts.

C.22.1. Vascular Measurements

MODALITY Label	*DICOM Mapping*	*Contain Content*
<Vasculature Anatomic Location> EDV	11653-3, LN, End Diastolic Velocity	
<Vasculature Anatomic Location> MDV	11665-7 , LN, Minimum Diastolic Velocity	
<Vasculature Anatomic Location> PSV	11726-7, LN, Peak Systolic Velocity	
<Vasculature Anatomic Location> TAMV	20352-1, LN, Time averaged mean velocity	
<Vasculature Anatomic Location> TAPV	11692-1, LN, Time averaged peak velocity	
<Vasculature Anatomic Location> PV	11726-7, LN, Peak Velocity	
<Vasculature Anatomic Location> PI	12008-9, LN, Pulsatility Index	
<Vasculature Anatomic Location> RI	12023-8, LN, Resistivity Index	
<Vasculature Anatomic Location> S/D	12144-2, LN, Systolic to Diastolic Velocity Ratio	
<Vasculature Anatomic Location> D/S	M12119-04, MRUS, Diastolic to SystolicVelocity Ratio	
<Vasculature Anatomic Location> AT	20168-1, LN, Acceleration Time	
<Vasculature Anatomic Location> DT	20217-6, LN, Deceleration Time	
<Vasculature Anatomic Location> PG	20247-3, LN, Peak Gradient	
<Vasculature Anatomic Location> MG	20256-4, LN, Mean Gradient	
<Vasculature Anatomic Location> MVMPG	M12119-01, MRUS, Mean Velocity Mean Pressure Gradient	
<Vasculature Anatomic Location> VTI	20354-7, LN,Velocity-Time Integral	
<Vasculature Anatomic Location> HR	8867-4, LN, Heart Rate	
<Vasculature Anatomic Location>	M12119-02, MRUS, Angle	
<Vasculature Anatomic Location> Diam	R-1025C, SRT, Vessel Intimal Diameter	
<Vasculature Anatomic Location> VolFlow	M12119-06, MRUS, Vol Flow(TAMAX)	
<Vasculature Anatomic Location> VolFlow.TAMEAN	M12119-07, MRUS,Vol Flow(TAMEAN)	

MODALITY Label	*DICOM Mapping*	*Contain Content*
<Vasculature Anatomic Location>Reflux time	M12119-11,MRUS,Reflux time	1 C.Iliac V Reflux time 2 Ex.Iliac V Reflux time 3 IIV Reflux time 4 Femoral V Reflux time 5 CFV Reflux time 6 DFV Reflux time 7 SFV Reflux time 8 Popliteal V Reflux time 9 TP Trunk V Reflux time 10 Sural V Reflux time 11 Soleal V Reflux time 12 Peroneal V Reflux time 13 P.Tib. V Reflux time 14 Saph V Reflux time 15 SSV Reflux time 16 IVC Reflux time 17 A.Tib. V Reflux time
<Vasculature Anatomic Location> Splenic V Diam	M12119-12,MRUS,Splenic V Diam	Splenic Vein
<Vasculature Anatomic Location> Splenic A Diam	M12119-13,MRUS,Splenic A Diam	Splenic Arteries
<Vasculature Anatomic Location> Aorta Sten D	C12119-1,MRUS,Aorta Sten D	Abdominal Arteries
<Vasculature Anatomic Location> Aorta Sten A	C12119-2,MRUS,Aorta Sten A	Abdominal Arteries
<Vasculature Anatomic Location> Aneurysm Length	M12119-14,MRUS,Aneurysm Length	Abdominal Arteries
<Vasculature Anatomic Location> Aneurysm Height	M12119-15,MRUS,Aneurysm Height	Abdominal Arteries
<Vasculature Anatomic Location> Aneurysm Width	M12119-16,MRUS,Aneurysm Width	Abdominal Arteries

MODALITY Label	*DICOM Mapping*	*Contain Content*
<Vasculature Anatomic Location> inner diameter	M12119-17,MRUS,inner diameter	Cephalic V Depth Basilic V Depth Axill. V Depth Brachial V Depth Ulnar V Depth Radial V Depth C.Iliac V Depth Ex.Iliac V Depth IIV Depth Femoral V Depth CFV Depth DFV Depth SFV Depth Pop V Depth TP Trunk V Depth Sural V Depth Soleal V Depth Peroneal V Depth A.Tib. V Depth P.Tib. V Depth Saph V Depth SSV Depth
<Vasculature Anatomic Location> Depth	G-D785,SRT,Depth	Cephalic V Diam Basilic V Diam Axill. V Diam Brachial V Diam Ulnar V Diam Radial V Diam C.Iliac V Diam Ex.Iliac V Diam IIV Diam Femoral V Diam CFV Diam DFV Diam SFV Diam Pop V Diam TP Trunk V Diam Sural V Diam Soleal V Diam Peroneal V Diam A.Tib. V Diam P.Tib. V Diam Saph V Diam

C.22.2. Extracranial Arteries

MODALITY Label	*DICOM Mapping*
Bulb	T-45170,SRT,Carotid Bulb
CCA	T-45100,SRT,Common Carotid Artery
ECA	T-45200,SRT,External Carotid Artery
ICA	T-45300,SRT,Internal Carotid Artery
Subclav A	T-46100,SRT,Subclavian Artery
Vert A	T-45700,SRT,Vertebral Artery
Carotid.Bifurcation	T-45160,SRT,Carotid Bifurcation
Carotid.Bifurcation	T-45160,SRT,Carotid Bifurcation
Terminal.Vert.A	A12104-1,MRUS,Terminal Vertebral Artery
Carotid Graft 1 Anastomosis	A12104-2,MRUS,Carotid Graft 1 Anastomosis
Carotid.Graft.1.Graft	A12104-3,MRUS,Carotid Graft 1 Graft
Carotid Graft 2 Anastomosis	A12104-4,MRUS,Carotid Graft 2 Anastomosis
Carotid.Graft.2.Graft	A12104-5,MRUS,Carotid Graft 2 Graft
Carotid Graft 3 Anastomosis	A12104-6,MRUS,Carotid Graft 3 Anastomosis
Carotid.Graft.3.Graft	A12104-7,MRUS,Carotid Graft 3 Graft
Carotid.Stent.1	A12104-8,MRUS,Carotid Stent 1
Carotid.Stent.1	A12104-8,MRUS,Carotid Stent 1
Carotid.Stent.2	A12104-9,MRUS,Carotid Stent 2
Carotid.Stent.2	A12104-9,MRUS,Carotid Stent 2
Carotid.Stent.3	A12104-10,MRUS,Carotid Stent 3
Carotid.Stent.3	A12104-10,MRUS,Carotid Stent 3
Carotid.Graft.1.Native.Inflow	A12104-11,MRUS,Carotid Graft 1 Native Inflow
Carotid.Graft.1.Anst.Pre	A12104-12,MRUS,Carotid Graft 1 Anastomosis Pre
Carotid.Graft.1.Anst.Max	A12104-13,MRUS,Carotid Graft 1 Anastomosis Max
Carotid.Graft.1.Anst.Post	A12104-14,MRUS,Carotid Graft 1 Anastomosis Post
Carotid.Graft.1.Native.Outflow	A12104-15,MRUS,Carotid Graft 1 Native Outflow
Carotid.Graft.2.Native.Inflow	A12104-16,MRUS,Carotid Graft 2 Native Inflow
Carotid.Graft.2.Anst.Pre	A12104-17,MRUS,Carotid Graft 2 Anastomosis Pre
Carotid.Graft.2.Anst.Max	A12104-18,MRUS,Carotid Graft 2 Anastomosis Max
Carotid.Graft.2.Anst.Post	A12104-19,MRUS,Carotid Graft 2 Anastomosis Post
Carotid.Graft.2.Native.Outflow	A12104-20,MRUS,Carotid Graft 2 Native Outflow
Carotid.Graft.3.Native.Inflow	A12104-21,MRUS,Carotid Graft 3 Native Inflow
Carotid.Graft.3.Anst.Pre	A12104-22,MRUS,Carotid Graft 3 Anastomosis Pre

Carotid.Graft.3.Anst.Max	A12104-23,MRUS,Carotid Graft 3 Anastomosis Max
Carotid.Graft.3.Anst.Post	A12104-24,MRUS,Carotid Graft 3 Anastomosis Post
Carotid.Graft.3.Native.Outflow	A12104-25,MRUS,Carotid Graft 3 Native Outflow
CCA.Aneurysm	A12104-26,MRUS,Common Carotid Arterial Aneurysm
CCA.Aneurysm	A12104-26,MRUS,Common Carotid Arterial Aneurysm
Bulb.Aneurysm	A12104-27,MRUS,Bulbillate Aneurysm
Bulb.Aneurysm	A12104-27,MRUS,Bulbillate Aneurysm
Carotid.Bifurcation.Aneurysm	A12104-28,MRUS,Carotid Bifurcation Aneurysm
Carotid.Bifurcation.Aneurysm	A12104-28,MRUS,Carotid Bifurcation Aneurysm
ICA.Aneurysm	A12104-29,MRUS,Internal Carotid Arterial Aneurysm
ICA.Aneurysm	A12104-29,MRUS,Internal Carotid Arterial Aneurysm
ECA.Aneurysm	A12104-30,MRUS,External Carotid Arterial Aneurysm
ECA.Aneurysm	A12104-30,MRUS,External Carotid Arterial Aneurysm
Vert.A.Aneurysm	A12104-31,MRUS,Vertebral Arterial Aneurysm
Vert.A.Aneurysm	A12104-31,MRUS,Vertebral Arterial Aneurysm
Subclav.A.Aneurysm	A12104-32,MRUS,Subclavian Arterial Aneurysm
Subclav.A.Aneurysm	A12104-32,MRUS,Subclavian Arterial Aneurysm
CCA.Sten	A12104-33,MRUS,Common Carotid Artery Stenosis
Bulb.Sten	A12104-34,MRUS,Bulbillate Stenosis
Carotid.Bifurcation.Sten	A12104-35,MRUS,Carotid Bifurcation Stenosis
ICA.Sten	A12104-36,MRUS,Internal Carotid Artery Stenosis
ECA.Sten	A12104-37,MRUS,External Carotid Artery Stenosis
Vert.A.Sten	A12104-38,MRUS,Vertebral Artery Stenosis
Subclav.A.Sten	A12104-39,MRUS,Subclavian Artery Stenosis
Carotid.Stenosis.1(2D)	A12104-40,MRUS,Carotid Stenosis 1
Carotid.Stenosis.2.(2D)	A12104-41,MRUS,Carotid Stenosis 2
Carotid.Stenosis.3.(2D)	A12104-42,MRUS,Carotid Stenosis 3
Carotid.Stenosis.4.(2D)	A12104-43,MRUS,Carotid Stenosis 4
Carotid.Stenosis.1	A12104-40,MRUS,Carotid Stenosis 1
Carotid.Stenosis.2.	A12104-41,MRUS,Carotid Stenosis 2
Carotid.Stenosis.3	A12104-42,MRUS,Carotid Stenosis 3
Carotid.Stenosis.4	A12104-43,MRUS,Carotid Stenosis 4

UE.A.Graft.1.Anast.2D	A12107-3,MRUS,Upper External Arterial Graft 1 Anastomosis
UE.A.Graft.1.Graft.2D	A12107-4,MRUS,Upper External Arterial Graft 1 Graft
UE.A.Graft.1.Native.Outflow.2D	A12107-5,MRUS,Upper External Arterial Graft 1 Native Outflow
UE.A.Graft.2.Native.Inflow.2D	A12107-6,MRUS,Upper External Arterial Graft 2 Native Inflow
UE.A.Graft.2.Anast.2D	A12107-7,MRUS,Upper External Arterial Graft 2 Anastomosis
UE.A.Graft.2.Graft.2D	A12107-8,MRUS,Upper External Arterial Graft 2 Graft
UE.A.Graft.2.Native.Outflow.2D	A12107-9,MRUS,Upper External Arterial Graft 2 Native Outflow
UE.A.Graft.3.Native.Inflow.2D	A12107-10,MRUS,Upper External Arterial Graft 3 Native Inflow
UE.A.Graft.3.Anast.2D	A12107-11,MRUS,Upper External Arterial Graft 3 Anastomosis
UE.A.Graft.3.Graft.2D	A12107-12,MRUS,Upper External Arterial Graft 3 Graft
UE.A.Graft.3.Native.Outflow.2D	A12107-13,MRUS,Upper External Arterial Graft 3 Native Outflow
UE.A.Stent.1.2D	A12107-14,MRUS,Upper External Arterial Stent 1
UE.A.Stent.2.2D	A12107-15,MRUS,Upper External Arterial Stent 2
UE.A.Stent.3.2D	A12107-16,MRUS,Upper External Arterial Stent 3
Mammary.A.Aneurysm.2D	A12107-17,MRUS,Mammary Arterial Aneurysm
Axillary.A.Aneurysm.2D	A12107-18,MRUS,Axillary Artery Aneurysm
Brachial.A.Aneurysm.2D	A12107-19,MRUS,Brachial Artery Aneurysm
Radial.A.Aneurysm.2D	A12107-20,MRUS,Radial Artery Aneurysm
Ulnar.A.Aneurysm.2D	A12107-21,MRUS,Ulnar Artery Aneurysm
Brachiocephalic.Aneurysm.2D	A12107-22,MRUS,Brachiocephalic Aneurysm
Mammary.A.Sten	A12107-24,MRUS,Mammary A Stenosis
Brachial.A.Sten	A12107-26,MRUS,Brachial Artery Stenosis
Radial.A.Sten	A12107-27,MRUS,Radial Artery Stenosis

Ulnar.A.Sten	A12107-28,MRUS,Ulnar Artery Stenosis
UE.A.Stenosis.1.2D	A12107-29,MRUS,Upper External Arterial Stenosis 1
UE.A.Stenosis.2.2D	A12107-30,MRUS,Upper External Arterial Stenosis 2
UE.A.Stenosis.3.2D	A12107-31,MRUS,Upper External Arterial Stenosis 3
UE.A.Stenosis.4.2D	A12107-32,MRUS,Upper External Arterial Stenosis 4
Mammary.A	A12107-1,MRUS,Mammary Artery
UE.A.Graft.1.Native.Inflow	A12107-2,MRUS,Upper External Arterial Graft 1 Native Inflow
UE.A.Graft.1.Anast	A12107-3,MRUS,Upper External Arterial Graft 1 Anastomosis
UE.A.Graft.1.Graft	A12107-4,MRUS,Upper External Arterial Graft 1 Graft
UE.A.Graft.1.Native.Outflow	A12107-5,MRUS,Upper External Arterial Graft 1 Native Outflow
UE.A.Graft.2.Native.Inflow	A12107-6,MRUS,Upper External Arterial Graft 2 Native Inflow
UE.A.Graft.2.Anast	A12107-7,MRUS,Upper External Arterial Graft 2 Anastomosis
UE.A.Graft.2.Graft	A12107-8,MRUS,Upper External Arterial Graft 2 Graft
UE.A.Graft.2.Native.Outflow	A12107-9,MRUS,Upper External Arterial Graft 2 Native Outflow
UE.A.Graft.3.Native.Inflow	A12107-10,MRUS,Upper External Arterial Graft 3 Native Inflow
UE.A.Graft.3.Anast	A12107-11,MRUS,Upper External Arterial Graft 3 Anastomosis
UE.A.Graft.3.Graft	A12107-12,MRUS,Upper External Arterial Graft 3 Graft
UE.A.Graft.3.Native.Outflow	A12107-13,MRUS,Upper External Arterial Graft 3 Native Outflow
UE.A.Stent.1	A12107-14,MRUS,Upper External Arterial Stent 1
UE.A.Stent.2	A12107-15,MRUS,Upper External Arterial Stent 2

UE.A.Stent.3	A12107-16,MRUS,Upper External Arterial Stent 3
Mammary.A.Aneurysm	A12107-17,MRUS,Mammary Arterial Aneurysm
Mammary.A.Sten	A12107-24,MRUS,Mammary A Stenosis
Brachial.A.Sten	A12107-26,MRUS,Brachial Artery Stenosis
Radial.A.Sten	A12107-27,MRUS,Radial Artery Stenosis
Ulnar.A.Sten	A12107-28,MRUS,Ulnar Artery Stenosis
UE.A.Stenosis.1	A12107-29,MRUS,Upper External Arterial Stenosis 1
UE.A.Stenosis.2	A12107-30,MRUS,Upper External Arterial Stenosis 2
UE.A.Stenosis.3	A12107-31,MRUS,Upper External Arterial Stenosis 3
UE.A.Stenosis.4	A12107-32,MRUS,Upper External Arterial Stenosis 4
Upper	A12107-33,MRUS,Upper Artery
Innomi.A	T-46010, SRT, Innominate Artery
Innomi.A.Sten	A12107-33, MRUS, Innominate Artery Sten
Innomi.A.Aneurysm	A12107-34, MRUS, Innominate Artery Aneurysm

C.22.6. Upper Extremity Arteries(unilateral)

MODALITY Label	***DICOM Mapping***
Innom A	T-46010, SRT, Innominate Artery

C.22.7. Upper Extremity Veins

MODALITY Label	***DICOM Mapping***
Axill V	T-49110,SRT ,Axillary vein
Basilic V	T-48052,SRT,Basilic vein
Brachial V	T-49350,SRT,Brachial vein
Cephalic V	T-49240,SRT,Cephalic vein
Radial V	T-49340,SRT,Radial vein
Subclav V	T-48330,SRT,Subclavian vein

Int.Jug.V	T-48170,SRT,Internal Jugular vein
CA.Junction	V12108-1,MRUS,Cephalic Vein and Axillary Vein Junction
Upper.Arm.Cephalic.V	V12108-2,MRUS,Upper Arm Cephalic Vein
Cephalic.Antecubital.V	V12108-3,MRUS,Cephalic Anterior-Cubital Vein
Forearm.Cephalic.V	V12108-4,MRUS,Forearm Cephalic Vein
BA.Junction	V12108-5,MRUS,Basilic Vein and Axillary Vein Junction
Upper.Arm.Basilic.V	V12108-6,MRUS,Upper Arm Basilic Vein
Basilic.Antecubital.V	V12108-7,MRUS,Basilic Anterior-Cubital Vein
Forearm.Basilic.V	V12108-8,MRUS,Forearm Basilic Vein
Digital.V	V12108-9,MRUS,Digital Vein
AVF.Inflow.Artery.2D	V12108-10,MRUS,Arteriovenous Fistula-Inflow Artery
AVF.Anast.2D	V12108-11,MRUS,Arteriovenous Fistula-Arterial Anastomosis
AVF.Outflow.Vein.Level.1.2D	V12108-12,MRUS,Arteriovenous Fistula-Outflow Vein Level 1
AVF.Outflow.Vein.Level.2.2D	V12108-13,MRUS,Arteriovenous Fistula-Outflow Vein Level 2
AVF.Outflow.Vein.Level.3.2D	V12108-14,MRUS,Arteriovenous Fistula-Outflow Vein Level 3
AVF.Outflow.Vein.Level.4.2D	V12108-15,MRUS,Arteriovenous Fistula-Outflow Vein Level 4
AVF.Outflow.Vein.Level.5.2D	V12108-16,MRUS,Arteriovenous Fistula-Outflow Vein Level 5
AVF.Outflow.Vein.Level.6.2D	V12108-17,MRUS,Arteriovenous Fistula-Outflow Vein Level 6
AVF.Stenosis.1.2D	V12108-18,MRUS,Arteriovenous Fistula-Stenosis 1
AVF.Stenosis.2.2D	V12108-19,MRUS,Arteriovenous Fistula-Stenosis 2
AVF.Stenosis.3.2D	V12108-20,MRUS,Arteriovenous Fistula-Stenosis 3
AVF.Aneurysm.1.2D	V12108-21,MRUS,Arteriovenous Fistula-Aneurysm 1
AVF.Aneurysm.2.2D	V12108-22,MRUS,Arteriovenous Fistula-Aneurysm 2
AVF.Aneurysm.3.2D	V12108-23,MRUS,Arteriovenous Fistula-Aneurysm 3
AV.Graft.Inflow.Artery.2D	V12108-24,MRUS,Arteriovenous Graft-Inflow Artery
AV.Graft.Arterial.Anast.2D	V12108-25,MRUS,Arteriovenous Graft-Arterial Anastomosis
AV.Graft.Graft.2D	V12108-26,MRUS,Arteriovenous Graft-Graft

AV.Graft.Venous.Anast.2D	V12108-27,MRUS,Arteriovenous Graft-Venous Anastomosis
AV.Graft.Outflow.Vein.Level.1.2D	V12108-28,MRUS,Arteriovenous Graft-Outflow Vein Level 1
AV.Graft.Outflow.Vein.Level.2.2D	V12108-29,MRUS,Arteriovenous Graft-Outflow Vein Level 2
AV.Graft.Outflow.Vein.Level.3.2D	V12108-30,MRUS,Arteriovenous Graft-Outflow Vein Level 3
AV.Graft.Outflow.Vein.Level.4.2D	V12108-31,MRUS,Arteriovenous Graft-Outflow Vein Level 4
AV.Graft.Outflow.Vein.Level.5.2D	V12108-32,MRUS,Arteriovenous Graft-Outflow Vein Level 5
AV.Graft.Outflow.Vein.Level.6.2D	V12108-33,MRUS,Arteriovenous Graft-Outflow Vein Level 6
Volar.V.2D	V12108-34,MRUS,Volar Vein
Median.Cubital.V.2D	V12108-35,MRUS,Median Cubital Vein
AVF.Inflow.Artery	V12108-10,MRUS,Arteriovenous Fistula-Inflow Artery
AVF.Outflow.Vein.Level.1	V12108-12,MRUS,Arteriovenous Fistula-Outflow Vein Level 1
AVF.Outflow.Vein.Level.2	V12108-13,MRUS,Arteriovenous Fistula-Outflow Vein Level 2
AVF.Outflow.Vein.Level.3	V12108-14,MRUS,Arteriovenous Fistula-Outflow Vein Level 3
AVF.Outflow.Vein.Level.4	V12108-15,MRUS,Arteriovenous Fistula-Outflow Vein Level 4
AVF.Outflow.Vein.Level.5	V12108-16,MRUS,Arteriovenous Fistula-Outflow Vein Level 5
AVF.Outflow.Vein.Level.6	V12108-17,MRUS,Arteriovenous Fistula-Outflow Vein Level 6
AVF.Stenosis.1	V12108-18,MRUS,Arteriovenous Fistula-Stenosis 1
AVF.Stenosis.2	V12108-19,MRUS,Arteriovenous Fistula-Stenosis 2
AVF.Stenosis.3	V12108-20,MRUS,Arteriovenous Fistula-Stenosis 3
AV.Graft.Inflow.Artery	V12108-24,MRUS,Arteriovenous Graft-Inflow Artery
AV.Graft.Arterial.Anast	V12108-25,MRUS,Arteriovenous Graft-Arterial Anastomosis
AV.Graft.Graft	V12108-26,MRUS,Arteriovenous Graft-Graft
AV.Graft.Venous.Anast	V12108-27,MRUS,Arteriovenous Graft-Venous Anastomosis

AV.Graft.Outflow.Vein.Level.1	V12108-28,MRUS,Arteriovenous Graft-Outflow Vein Level 1
AV.Graft.Outflow.Vein.Level.2	V12108-29,MRUS,Arteriovenous Graft-Outflow Vein Level 2
AV.Graft.Outflow.Vein.Level.3	V12108-30,MRUS,Arteriovenous Graft-Outflow Vein Level 3
AV.Graft.Outflow.Vein.Level.4	V12108-31,MRUS,Arteriovenous Graft-Outflow Vein Level 4
AV.Graft.Outflow.Vein.Level.5	V12108-32,MRUS,Arteriovenous Graft-Outflow Vein Level 5
AV.Graft.Outflow.Vein.Level.6	V12108-33,MRUS,Arteriovenous Graft-Outflow Vein Level 6

C.22.8. Lower Extremity Arteries

MODALITY Label	***DICOM Mapping***
C.Iliac A	T-46710,SRT,Common Iliac Artery
A.Tib A	T-47700,SRT ,Anterior Tibial Artery
CFA	T-47400,SRT ,Common Femoral Artery
Dors.Ped A	T-47741,SRT,Dorsalis Pedis Artery
Ex.Iliac A	T-46910,SRT ,External Iliac Artery
IIA	T-46740,SRT ,Internal Iliac Artery
Peroneal A	T-47630,SRT ,Peroneal Artery
Pop A	T-47500,SRT ,Popliteal Artery
P.Tib A	T-47600,SRT ,Posterior Tibial Artery
PFA	T-47440,SRT ,Profunda Femoris Artery
SFA	T-47403 ,SRT ,Superficial Femoral Artery
TP Trunk A	A12109-01,MRUS,TP Trunk Artery
C.Iliac.A.2D	T-46710,SRT,Common Iliac Artery
A.Tib.A.2D	T-47700,SRT,,Anterior Tibial Artery
CFA	T-47400,SRT, Common Femoral Artery
Dors.Ped.A.2D	T-47741,SRT,Dorsalis Pedis Artery
Ex.Iliac.A.2D	T-46910,SRT, External Iliac Artery
IIA.2D	T-46740,SRT, Internal Iliac Artery
Peroneal.A.2D	T-47630,SRT, Peroneal Artery
Pop.A.2D	T-47500,SRT, Popliteal Artery
PTA.2D	T-47600,SRT, Posterior Tibial Artery

TP.Trunk.A.Aneurysm.2D	A12109-29,MRUS,Tibial Peroneal Trunk Arterial Aneurysm
A.Tib.A.Aneurysm.2D	A12109-30,MRUS,Anterior Tibial Arterial Aneurysm
Peroneal.A.Aneurysm.2D	A12109-31,MRUS,Peroneal Arterial Aneurysm
P.Tib.A.Aneurysm.2D	A12109-32,MRUS,Posterior Tibial Arterial Aneurysm
Dors.Ped.A.Aneurysm.2D	A12109-33,MRUS,Dorsalis Pedis Arterial Aneurysm
CFA.Aneurysm	A12109-25,MRUS,Common Femoral Arterial Aneurysm
CIA.Sten	A12109-43,MRUS,Common Iliac Artery Stenosis
EIA.Sten	A12109-44,MRUS,External Iliac Artery Stenosis
CFA.Sten	A12109-45,MRUS,Common Femoral Artery Stenosis
PFA.Sten	A12109-46,MRUS,Profunda Femoral Artery Stenosis
SFA.Sten	A12109-47,MRUS,Superficial Femoral Artery Stenosis
Pop.A.Sten	A12109-48,MRUS,Popliteal Artery Stenosis
TP.Trunk.A.Sten	A12109-49,MRUS,Tibial Peroneal Trunk Artery Stenosis
ATA.Sten	A12109-50,MRUS,Anterior Tibial Artery Stenosis
Peroneal.A.Sten	A12109-51,MRUS,Peroneal Artery Stenosis
PTA.Sten	A12109-52,MRUS,Posterior Tibial Artery Stenosis
DPA.Sten	A12109-53,MRUS,Dorsalis Pedis Artery Stenosis
LE.A.Stenosis.1.2D	A12109-54,MRUS,Lower External Arterial Stenosis 1
LE.A.Stenosis.2.2D	A12109-55,MRUS,Lower External Arterial Stenosis 2
LE.A.Stenosis.3.2D	A12109-56,MRUS,Lower External Arterial Stenosis 3
LE.A.Stenosis.4.2D	A12109-57,MRUS,Lower External Arterial Stenosis 4
IIA.Aneurysm.2D	A12109-58,MRUS,Internal Iliac Arterial Aneurysm
IIA.Sten	A12109-59,MRUS,Internal Iliac Artery Stenosis
Lower	A12109-60,MRUS,Lower Artery
C.Iliac.A	T-46710,SRT,Common Iliac Artery
A.Tib.A	T-47700,SRT,,Anterior Tibial Artery
CFA	T-47400,SRT, Common Femoral Artery
Dors.Ped.A	T-47741,SRT,Dorsalis Pedis Artery
Ex.Iliac.A	T-46910,SRT, External Iliac Artery
IIA	T-46740,SRT, Internal Iliac Artery
Peroneal.A	T-47630,SRT, Peroneal Artery
Pop.A	T-47500,SRT, Popliteal Artery
P.Tib.A	T-47600,SRT, Posterior Tibial Artery
PFA	T-47440,SRT, Profunda Femoris Artery
TP.Trunk.A	A12109-1,MRUS,Tibial Peroneal Trunk Artery

LE.A.Graft.1.Native.Inflow	A12109-2,MRUS,Lower External Arterial Graft 1 Native Inflow
LE.A.Graft.1.Graft	A12109-4,MRUS,Lower External Arterial Graft 1 Graft
LE.A.Graft.1.Native.Outflow	A12109-5,MRUS,Lower External Arterial Graft 1 Native Outflow
LE.A.Graft.2.Native.Inflow	A12109-6,MRUS,Lower External Arterial Graft 2 Native Inflow
LE.A.Graft.2.Graft	A12109-8,MRUS,Lower External Arterial Graft 2 Graft
LE.A.Graft.2.Native.Outflow	A12109-9,MRUS,Lower External Arterial Graft 2 Native Outflow
LE.A.Graft.3.Native.Inflow	A12109-10,MRUS,Lower External Arterial Graft 3 Native Inflow
LE.A.Graft.3.Graft	A12109-12,MRUS,Lower External Arterial Graft 3 Graft
LE.A.Graft.3.Native.Outflow	A12109-13,MRUS,Lower External Arterial Graft 3 Native Outflow
LE.A.Stent.1	A12109-14,MRUS,Lower External Arterial Stent 1
LE.A.Stent.2	A12109-15,MRUS,Lower External Arterial Stent 2
LE.A.Stent.3	A12109-16,MRUS,Lower External Arterial Stent 3
LE.A.Graft.1.Anst.Pre	A12109-34,MRUS,Lower External Arterial Graft 1 Anastomosis Pre
LE.A.Graft.1.Anst.Max	A12109-35,MRUS,Lower External Arterial Graft 1 Anastomosis Max
LE.A.Graft.1.Anst.Post	A12109-36,MRUS,Lower External Arterial Graft 1 Anastomosis Post
LE.A.Graft.2.Anst.Pre	A12109-37,MRUS,Lower External Arterial Graft 2 Anastomosis Pre
LE.A.Graft.2.Anst.Max	A12109-38,MRUS,Lower External Arterial Graft 2 Anastomosis Max
LE.A.Graft.2.Anst.Post	A12109-39,MRUS,Lower External Arterial Graft 2 Anastomosis Post
LE.A.Graft.3.Anst.Pre	A12109-40,MRUS,Lower External Arterial Graft 3 Anastomosis Pre
LE.A.Graft.3.Anst.Max	A12109-41,MRUS,Lower External Arterial Graft 3 Anastomosis Max
LE.A.Graft.3.Anst.Post	A12109-42,MRUS,Lower External Arterial Graft 3 Anastomosis Post
C.Iliac.A.Sten	A12109-43,MRUS,Common Iliac Artery Stenosis
Ex.Iliac.A.Sten	A12109-44,MRUS,External Iliac Artery Stenosis

A.Tib.A.Sten	A12109-50,MRUS,Anterior Tibial Artery Stenosis
Peroneal.A.Sten	A12109-51,MRUS,Peroneal Artery Stenosis
P.Tib.A.Sten	A12109-52,MRUS,Posterior Tibial Artery Stenosis
Dors.Ped.A.Sten	A12109-53,MRUS,Dorsalis Pedis Artery Stenosis
LE.A.Stenosis.1	A12109-54,MRUS,Lower External Arterial Stenosis 1
LE.A.Stenosis.2	A12109-55,MRUS,Lower External Arterial Stenosis 2
LE.A.Stenosis.3	A12109-56,MRUS,Lower External Arterial Stenosis 3
LE.A.Stenosis.4	A12109-57,MRUS,Lower External Arterial Stenosis 4
CFA.Sten	A12109-45,MRUS,Common Femoral Artery Stenosis
PFA.Sten	A12109-46,MRUS,Profunda Femoral Artery Stenosis
SFA.Sten	A12109-47,MRUS,Superficial Femoral Artery Stenosis
Pop.A.Sten	A12109-48,MRUS,Popliteal Artery Stenosis
TP.Trunk.A.Sten	A12109-49,MRUS,Tibial Peroneal Trunk Artery Stenosis

C.22.9. Lower Extremity Veins

MODALITY Label	***DICOM Mapping***
A.Tib V	T-49630,SRT,Anterior Tibial Vein
CFV	G-035B,SRT,Common Femoral Vein
C.Iliac V	T-48920,SRT,Common Iliac Vein
Ex.Iliac V	T-48930,SRT,External Iliac Vein
Sural V	T

SP.Junction	T-4941A,SRT,Saphenopopliteal junction

EVAR Residual Aneurysm Sac	A12120-31,MRUS,Aortic Endograft Residual Aneurysm Sac
EVAR Inflow	A12120-3,MRUS,Aortic Endograft Inflow
EVAR Graft Body	A12120-4,MRUS,Aortic Endograft Graft Body
EVAR Limb	A12120-5,MRUS,Aortic Endograft Limb
EVAR Outflow	A12120-6,MRUS,Aortic Endograft Outflow
Aortic Bypass Graft Anast	A12120-7,MRUS,Aortic Bypass Graft Anastomosis
Aortic Bypass Graft Graft	A12120-8,MRUS,Aortic Bypass Graft Graft
URO Artery Anast Transplant 1	A12120-9,MRUS,Artery Anastomosis
URO Artery Anast 2 Transplant 1	A12120-10,MRUS,Artery Anastomosis2
Arterial Post Aorta	A12120-21,MRUS,Arterial Post Abdominal Aorta
Arterial Post Celiac Axis	A12120-22,MRUS,Arterial Post Celiac Axis
Hepatic Artery	A12120-23,MRUS,Hepatic Artery
Arterial Post SMA	A12120-24,MRUS,Arterial Post SMA
Arterial Post Com Hepatic A	A12120-25,MRUS,Arterial Post Com Hepatic A
Arterial Post Proper Hepatic A	A12120-26,MRUS,Arterial Post Proper Hepatic A
Arterial Post Hepatic A	A12120-27,MRUS,Arterial Post Hepatic A
Arterial Post Splenic Artery	A12120-28,MRUS,Arterial Post Splenic Artery
Arterial Post GDA	A12120-29,MRUS,Arterial Post GDA
Arterial Post IMA	A12120-30,MRUS,Arterial Post IMA
EVAR Residual Aneurysm Sac	A12120-31,MRUS,EVAR Residual Aneurysm Sac
EVAR Inflow	A12120-3,MRUS,EVAR Inflow
EVAR Graft Body	A12120-4,MRUS,EVAR Graft Body
EVAR Limb	A12120-5,MRUS,EVAR Limb
EVAR Outflow	A12120-6,MRUS,EVAR Outflow
Aortic Bypass Graft Anast	A12120-7,MRUS,Aortic Bypass Graft Anast
Aortic Bypass Graft Graft	A12120-8,MRUS,Aortic Bypass Graft Graft
Stenosis 1	A12120-43,MRUS,ABD Stenosis 1
Stenosis 2	A12120-44,MRUS,ABD Stenosis 2
Stenosis 3	A12120-45,MRUS,ABD Stenosis 3
Stenosis 4	A12120-46,MRUS,ABD Stenosis 4
Celiac Axis 2D	T-46400,SRT,Celiac Axis
Com Hepatic A 2D	T-46421,SRT,Common Hepatic Artery
GDA 2D	T-46440,SRT,Gastroduodenal Artery
IMA 2D	T-46520,SRT,Inferior Mesenteric Artery

Proper Hepatic A 2D	T-46422,SRT,Proper Hepatic Artery
Splenic A 2D	T-46460,SRT,Splenic Artery
SMA 2D	T-46510,SRT,Superior Mesenteric Artery
EVAR Residual Aneurysm Sac	A12120-31,MRUS,Aortic Endograft Residual Aneurysm Sac
EVAR Inflow	A12120-3,MRUS,Aortic Endograft Inflow
EVAR Graft Body	A12120-4,MRUS,Aortic Endograft Graft Body
EVAR Limb	A12120-5,MRUS,Aortic Endograft Limb
EVAR Outflow	A12120-6,MRUS,Aortic Endograft Outflow
Aortic Bypass Graft Graft	A12120-7,MRUS,Aortic Bypass Graft Anastomosis
Aortic Bypass Graft Graft	A12120-8,MRUS,Aortic Bypass Graft Graft
Aorta Aneurysm	A12120-12,MRUS,Abdominal Aorta Aneurysm
Celiac Axis Aneurysm	A12120-13,MRUS,Celiac Axis Aneurysm
SMA Aneurysm	A12120-14,MRUS,Superior Mesenteric Arterial Aneurysm
Com Hepatic A Aneurysm	A12120-15,MRUS,Com Hepatic A Aneurysm
Proper Hepatic A Aneurysm	A12120-16,MRUS,Proper Hepatic A Aneurysm
Hepatic A Aneurysm	A12120-17,MRUS,Hepatic A Aneurysm
Splenic A Aneurysm	A12120-18,MRUS,Splenic Arterial Aneurysm
GDA Aneurysm	A12120-19,MRUS,Gastroduodenal Arterial Aneurysm
IMA Aneurysm	A12120-20,MRUS,Inferior Mesenteric Arterial Aneurysm
Hepatic.A.2D	A12120-23,MRUS,Hepatic Artery

C.22.11. Abdominal Veins (unilateral)

MODALITY Label	***DICOM Mapping***
Hepatic V	T-48720,SRT,Hepatic Vein
Left Hepatic V	T-48727,SRT,Left Hepatic Vein
Right Hepatic V	T-48725,SRT,Right Hepatic Vein
M Hepatic V	T-48726,SRT,Middle Hepatic Vein
Portal V	T-48810,SRT,Portal Vein
IVC	T-48710,SRT,Inferior Vena Cava
Splenic V	T-48890,SRT,Splenic Vein
SMV	T-48840,SRT,Superior Mesenteric Vein
M Portal V	V12114-01,MRUS,Main Portal Vein

IMV	T-48910,SRT,Inferior Mesenteric Vein
Hepatic.V.Anast.Liver.Transplant	V12114-02,MRUS,Hepatic V Anast Liver Transplant
Portal.V.Anast.Liver.Transplant	V12114-03,MRUS,Portal V Anast Liver Transplant
IVC.Liver.Transplant	V12114-04,MRUS,IVC Liver Transplant

D. Appendix : Breast Ultrasound structured reporting template

This appendix lists the DICOM Structured Report (SR) mappings used in the Breast Structured Reports of ultrasound system SR files.

The mappings are organized in a manner similar to the DICOM SR Templates as described in PS 3.16 of the DICOM Standard. The Breast Report mappings follow the DICOM SR Template TID 4200: Breast Imaging Report, except where noted.

All private code values use the Coding Scheme Designator "MRUS".

D.1. TID 1400 Linear Measurement Template

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			NUM	DCID (7470)			UNITS = of Linear
2	>	INFERRED FROM	SCOORD	EV (121055,DCM,			
3	>>	R-SELECTED FROM	IMAGE				
4	>>	SELECTED FROM	IMAGE				
5	>	INFERRED FROM	SCOORD	EV (121230,			
6	>>	R-SELECTED FROM	IMAGE				
7	>>	SELECTED FROM	IMAGE				

D.2. TID (4200) Breast Ultrasound Procedure Report

This is the template for the root the content tree for the breast ultrasound procedure report.

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	Breast Ultrasound Report			
2	>	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants			
3	>	CONTAINS	INCLUDE	DTID (4202) Breast Ultrasound Report Narrative			
4	>	CONTAINS	CONTAINER				
5	>>	CONTAINS	IMAGE	No purpose of reference			
6	>	CONTAINS	INCLUDE	DTID (SELFTMP-3) Breast Ultrasound t SUMMAY			
7	>	CONTAINS	INCLUDE	DTID (4208) Breast Ultrasound Report Supplementary Data			
8	>	CONTAINS	TEXT	(20121120,MRUS, self-defined-measurementfile)			

D.3. TID (4201) BREAST ULTRASOUND PROCEDURE REPORTED

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CODE	EV (121058,			DCID (6050) Breast Procedure Reported
2	>	HAS CONCEPT MOD	CODE	EV (111464, dure			DCID (6058) Procedure Modifiers for Breast
3	>	HAS CONCEPT MOD	CODE	EV (G-C171,			DCID (6022) Side
4	>	HAS PROPERTIES	CODE	EV (111401,			DCID (6051) Breast Procedure Reason
5	>>	HAS CONCEPT MOD	CODE	EV (G-D709,			DCID (12102) Temporal Periods Relating To Procedure

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
							or Therapy
6	>>	HAS CONCEPT MOD	CODE	EV (111402,		IFF row 4 value is	DCID (6055) Breast Clinical Finding or Indicated Problem
7	>>>	HAS PROPERTIES	CODE	EV (G-C171,			DCID (6022) Side
8	>	HAS PROPERTIES	DATE	EV (111060,			

D.4. TID (4202) BREAST ULTRASOUND REPORT NARRATIVE

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (111412, DCM,			
2	>	CONTAINS	CONTAINER	BCID (6052) Breast Ultrasound Report Section Title			
3	>>	HAS OBS CONTEXT	INCLUDE	DTID (1002) Observer Context			
4	>>	CONTAINS	TEXT	BCID (6053) Breast Ultrasound Report Elements			DCM 121058 Procedure reported
5	>>>	INFERRED FROM	INCLUDE	DTID (350) References to Supporting Evidence			

D.5. TID (SELFTMP-3) BREAST IMAGING SUMMAY

This is a private template referenced by TID(4200).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (121111, DCM, "Summary")			
2	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")			
3	>	CONTAINS	TEXT	EV (I12101-			
4	>	CONTAINS	TEXT	EV (I12101-			

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
9	>	CONTAINS	INCLUDE	EV (T6006-11, MRUS			

D.7. TID (4208) BREAST ULTRASOUND REPORT SUPPLEMENTARY DATA

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (111414, DCM,			
2	>	CONTAINS	INCLUDE	DTID (4201) Breast Imaging Procedure Reported			
3	>	CONTAINS	CODE				DCID (230) Yes-No
4	>	CONTAINS	CODE				DCID (230) Yes-No
5	>	CONTAINS	INCLUDE	DTID (4205) Breast Composition Section			
6	>	CONTAINS	INCLUDE	DTID (4206) Breast Imaging Report Finding Section			
7	>	CONTAINS	INCLUDE	DTID (4204) Breast Imaging Report Intervention Section			
8	>	CONTAINS	CONTAINER				
9	>>	CONTAINS	INCLUDE	DTID (4203) Breast Imaging Assessment			

D.8. TID (SELFTMP-4) BREAST MASS FINDING

This is a private template referenced by TID(4206).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CODE	EV (121071			
2	>	HAS OBS CONTEXT	TEXT	EV (M-03000, SRT Mass			

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
3	>>	HAS PROPERTIES	INCLUDE	DTID (SELFTMP-5) BREAST IMAGING MASS MEASUREMENT			
4	>>	HAS PROPERTIES	INCLUDE	DTID (SELFTMP-6) BREAST IMAGING MASS MEASUREMENT ANALYSIS			

D.9.

3	>	CONTAINS	TEXT	EV (T6006-18,MRUS,Vascular abnormalities)			
4	>	CONTAINS	TEXT	EV (T6006-19,MRUS,Postsurgical fluid collection)			
5	>	CONTAINS	TEXT	EV (T6006-20,MRUS,Fat necrosis)			
6	>	CONTAINS	TEXT	EV (T6006-21,MRUS,Cortical thickening)			
7	>	CONTAINS	TEXT	EV (T6006-22,MRUS,Shape)			
8	>	CONTAINS	TEXT	EV (T6006-23,MRUS,Margin)			
9	>	CONTAINS	TEXT	EV(T6006-24,MRUS,Hilar compression or displacement)			
9	>	CONTAINS	TEXT	EV (T6006-25,MRUS,Assessment)			
10	>	CONTAINS	TEXT	EV(T6006-26,MRUS,Calcifications)			

D.13. Mapping between Modality measurements and DICOM Concepts.

D.13.1. Breast Measurements

MODALITY Label	***DICOM Mapping***
Mass L	G-A22A, SRT, Length
Mass W	G-A220, SRT, Width
Mass H	121207, DCM, Height
Mass Nipple-Mass Dist	121242, DCM, Distance from nipple
Mass Skin-Mass Dist	121243, DCM, Distance from skin
Mass Shape	T6006-41,MRUS,Shape
Orientation	T6006-42,MRUS,Orientation
Margin	T6006-43,MRUS,Margin
Echopattern	T6006-44,MRUS,Echo pattern
Posterior.Features	T6006-45,MRUS,Posterior features
Calcifications	T6006-46,MRUS,Calcifications
Associated.features	T6006-47,MRUS,Associated fetures
Skin.changes	T6006-48,MRUS,Skin changes
Vascularity	T6006-49,MRUS,Vascularity

Elas	T6006-50,MRUS,Elasticity assessment
Assessment	T6006-51,MRUS,Assessment categories
Tissue composition	T6006-16,MRUS,Tissue composition
SpecialCases	T6006-17,MRUS,Special cases
Vascular.abnormalities	T6006-18,MRUS,Vascular abnormalities
Postsurgical.Fluid	T6006-19,MRUS,Postsurgical fluid collection
Fat.necrosis	T6006-20,MRUS,Fat necrosis
Lymphnodes.thickening	T6006-21,MRUS,Cortical thickening
Lymphnodes.Shape	T6006-22,MRUS,Shape
Lymphnodes.Margin	T6006-23,MRUS,Margin
Lymphnodes.hilar	T6006-24,MRUS,Hilar compression or displacement
Assessment	T6006-25,MRUS,Assessment
Calcifications	T6006-26,MRUS,Calcifications

Note: The maximum of mass findings is 10.

E. Appendix : Abdomen Imaging structured reporting template

This appendix lists the DICOM Structured Report (SR) mappings used in the Abdomen Structured Reports of ultrasound system SR files.

The mappings are organized in a manner similar to the DICOM SR Templates as described in PS 3.16 of the DICOM Standard. The Abdomen Report mappings follow the self DICOM SR Template TID 0100: Abdomen Ultrasound Procedure Report, except where noted.

All private code values use the Coding Scheme Designator "MRUS".

E.1. TID (0100) Abdomen Ultrasoud Report

This is the template for the root the content tree for the Abdomen ultrasound procedure report.

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (MR0100-01, MRUS, Abdomen Ultrasound Procedure Report)			
2	>	HAS CONCEPT MOD	INCLUDE	DTID (1001) Observation Context			
3	>	CONTAINS	INCLUDE	DTID (0101) Abdomen Patient Characteristics			
4	>	CONTAINS	CONTAINER				
5	>>	CONTAINS	IMAGE	No purpose of reference			
6	>	CONTAINS	INCLUDE	DTID (0102) Abdomen Procedure Summary Section			
7	>	CONTAINS	INCLUDE	DTID (0103) Abdomen Ultrasound Section			$SectionScope=T-62000,SRT,Liver;$SectionLaterality = G-A103,SRT,Unilateral
8	>	CONTAINS	INCLUDE	DTID (0104) Abdomen Ultrasound Section			$SectionScope=T-63000,SRT,Gallbladd

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
							er;$SectionLaterality = G-A103, SRT,Unilateral
9	>	CONTAINS	INCLUDE	DTID (0105) Abdomen Ultrasound Section			$SectionScope=T-65000,SRT,Pancreas;$SectionLaterality = G-A103, SRT,Unilateral
10	>	CONTAINS	INCLUDE	DTID (0106) Abdomen Ultrasound Section			$SectionScope=T-C3000,SRT,Spleen;$SectionLaterality = G-A103, SRT,Unilateral
11	>	CONTAINS	INCLUDE	DTID (0107) Abdomen Ultrasound Section			$SectionScope=T-71000,SRT,Kidney;$SectionLaterality = G-A101, SRT,Left
12	>	CONTAINS	INCLUDE	DTID (0107) Abdomen Ultrasound Section			$SectionScope=T-71000,SRT,Kidney;$SectionLaterality = G-A100, SRT,Right

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
				Section			Abdomen
20	>	CONTAINS	INCLUDE	DTID (SELFTMP_5103_10) Vascular Ultrasound Section			$SectionScope=T-487A0,SRT, Artery of Abdomen;$SectionLaterality=G-A101, SRT,Left
21	>	CONTAINS	INCLUDE	DTID (SELFTMP_5103_10) Vascular Ultrasound Section			$SectionScope=T-487A0,SRT, Artery of Abdomen;$SectionLaterality=G-A100, SRT,Right
22	>	CONTAINS	INCLUDE	DTID (0110) Abdomen Ultrasound Section			$SectionScope=DT (T-59600, Laterality= EV (G-A103,
23	>	CONTAINS	INCLUDE	DTID (0110) Abdomen Ultrasound Section			$SectionScope=DT (T-D0070, onLaterality= EV (G-A103, lat

E.2. TID (0101) Abdomen Patient Characteristics

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONT				

			AINER				
2	>	CONTAINS	NUM	EV (121033, DCM,		Units = DCID (7456) Units of Measure for Age	
3	>	CONTAINS	CODE	EV (121032, DCM,		DCID (7455) Sex	
4	>	CONTAINS	NUM	EV (8302-2, LN,			
5	>	CONTAINS	NUM	EV (29463-7, LN, "Patient Weight")			
6	>	CONTAINS	NUM	EV (F-01860, SRT, "Body Mass Index")			
7	>	CONTAINS		MRUS 121118-1 Fasting			
8	>	CONTAINS					

E.3. TID (0102) Abdomen Procedure Summary Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	COMMENT
1			CONTAINER	DT (121111, DCM,			
2	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")			from Info comment
3	>	CONTAINS	TEXT	(I12101-01,MRUS,"Primary Indications")			from Info
4	>	CONTAINS	TEXT	(I12101-02,MRUS,"Secondary Indications")			from Info
5	>	CONTAINS	TEXT	(I12101-03,MRUS,"CPT4 Code")			from Info
6	>	CONTAINS	TEXT	(I12101-04,MRUS,"CPT4			from Info

				Description")			
7	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")			From report comment

E.4. TID (0103) Abdomen Ultrasound Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = DCID(62000)	

E.5. TID (0104) Abdomen Ultrasound Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = DCID(63000)	

5	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (MT-73000-01, ;	
6	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV CT-62000-01 MRUS Liver Vol ;	
7	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV MT-62000-21 MRUS Skin-L.Capsule Dist. ;	
8	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV MT-62000-22 MRUS R Liver Lobe ;	
9	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV ;	

E.6. TID (0105) Abdomen Ultrasound Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = DCID(65010)	
5	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV	
6	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement =EV	

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = DCID(71000); $Laterality=$SectionLaterality	

E.9. TID (0108) Abdomen Ultrasound Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (MT-73000-01, ; $Laterality=$SectionLaterality	

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = DCID(74000)	

E.11.TID (0110) Abdomen Ultrasound Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope = DT (T-	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality = EV (G-	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = DCID(74000)	
5	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (T-59200,SRT,Appendix);	

1	CONTAINER	DT	(121070, DCM,

12	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-13, ;	
13	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-25, ;	
14	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12120-1, Mesenteric Artery Peak Systolic Velocity/Abdominal Aorta ;	
15	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12120-2, Systolic Velocity/Abdominal Aorta ;	

E.14.TID (SELFTMP_5103_8) Vascular Ultrasound Section

This is a private template referenced by TID(0100).

	NL	**Rel with Parent**	**VT**	**Concept Name**	**Used in MODALITY**	**Value Set Constraint**	**Comment**
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= DCID (12114) Abdominal Arteries (unilateral);	

						$Modifier =DCID(12116)	
5	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= EV (T-48727 ;	
6	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= EV (T-48725 ;	
7	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (R-1025C, SRT,	

5	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= EV (T-46600 ; $Modifier = (G-)	
6	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12119-3 l ; $Laterality=$SectionLaterality	

E.16.TID (SELFTMP_5103_10) Vascular Ultrasound Section

This is a private template referenced by TID(0100).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT,		$SectionScope	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12119-3 ; $Laterality=$SectionLaterality	

E.17.Mapping between Modality measurements and DICOM Concepts.

E.17.1. Abdomen Measurements

MODALITY Label	*DICOM Mapping*

GB.Vol	CT-63000-01 MRUS GB Vol
GB.Finding.1	MT-63000-04 MRUS GB Finding 1
GB.Finding.2	MT-63000-04 MRUS GB Finding 2
GB.Finding.3	MT-63000-04 MRUS GB Finding 3
GB.Finding.4	MT-63000-04 MRUS GB Finding 4
GB.Finding.5	MT-63000-04 MRUS GB Finding 5
GB.W	MT-63000-10 MRUS Gall Bladder Width
Cystic.Duct	MT-63000-11 MRUS Cystic Duct
Appendix	T-59200,SRT,Appendix
Appendix.Wall	MT-59600-1,MRUS Appendix Wall
Pylorus	MT-59600-2,MRUS Pylorus
Pylorus.Wall	MT-59600-3,MRUS Pylorus Wall
Panc.Finding.1	MT-65010-05 MRUS Panc Finding 1
Panc.Finding.2	MT-65010-06 MRUS Panc Finding 2
Panc.Finding.3	MT-65010-07 MRUS Panc Finding 3

Panc.Finding.4

E.17.3. Abdominal Veins

MODALITY Label	*DICOM Mapping*
Hepatic V	T-48720,SRT,Hepatic Vein
Left Hepatic V	T-48727,SRT,Left Hepatic Vein
Right Hepatic V	T-48725,SRT,Right Hepatic Vein
M Hepatic V	T-48726,SRT,Middle Hepatic Vein
Portal V	T-48810,SRT,Portal Vein
IVC	T-48710,SRT,Inferior Vena Cava
Splenic V	T-48890,SRT,Splenic Vein
SMV	T-48840,SRT,Superior Mesenteric Vein
M Portal V	V12114-01,MRUS,Main Portal Vein

ı-US,

F. Appendix : SMP Imaging structured reporting template

This appendix lists the DICOM Structured Report (SR) mappings used in the

Small Part Structured Reports of ultrasound system SR files.

The mappings are organized in a manner similar to the DICOM SR Templates as described in PS 3.16 of the DICOM Standard. The Small Part Report mappings follow the self DICOM SR Template TID 0100: Small Part Ultrasound Procedure Report, except where noted.

All private code values use the Coding Scheme Designator "MRUS".

F.1. TID (0200) Small Part ULTRASOUND REPORT

This is the template for the root the content tree for the Small Part ultrasound procedure report.

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1							

2	>	CONTAINS	NUM	EV (121033, DCM,		Units = DCID (7456) Units of Measure for Age	
3	>	CONTAINS	CODE	EV (121032, DCM,		DCID (7455) Sex	
4	>	CONTAINS	NUM	EV (8867-			
5	>	CONTAINS	NUM	EV (8302-2, LN,			
6	>	CONTAINS	NUM	EV (29463-7, LN,			

F.4. TID (0102) Small Part PROCEDURE SUMMARY SECTION

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER				
2	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")			
3	>	CONTAINS	TEXT	(I12111-01,MRUS,"Primary Indications")			
4	>	CONTAINS	TEXT	(I12111-02,MRUS,"Secondary			

F.5. TID (0203) Small Part ULTRASOUND SECTION

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3, SRT,		$SectionScope = DT (T-B6000,	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality =EV (G-A101, EV (G-A100,	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = $AnatomyRatio	
5	>	CONTAINS	CODE	CID (12133) Thyroid Nodules ANALYSIS			

F.6. TID (0204) URO ULTRASOUND SECTION

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM,			
2	>	HAS CONCEPT MOD	CODE	EV (G-C0E3,		$SectionScope = DT (T-94000,	
3	>	HAS CONCEPT MOD	CODE	EV (G-C171,		$SectionLaterality =EV (G-A101, EV (G-A100,	

F.9. CID (12133) Thyroid Nodules Analysis

CSD	CV	Code Meaning
MRUS	MT-B6000-90	Thyroid.Nodule.1
MRUS	MT-B6000-91	Thyroid.Nodule.2
MRUS	MT-B6000-92	Thyroid.Nodule.3
MRUS	MT-B6000-93	Thyroid.Nodule.4
MRUS	MT-B6000-94	Thyroid.Nodule.5
MRUS	MT-B6000-95	Thyroid.Nodule.6
MRUS	MT-B6000-96	Thyroid.Nodule.7
MRUS	MT-B6000-97	Thyroid.Nodule.8
MRUS	MT-B6000-98	Thyroid.Nodule.9
MRUS	MT-B6000-99	Thyroid.Nodule.10
MRUS	M12119-34	Position
MRUS	M12119-17,	Anterior-Posterior diameter
MRUS	M12119-29	Trans diameter
SRT	G-A143,	Longitudinal
SRT	G-D705	Volume
MRUS	MT-B6000-80	Composition
MRUS	MT-B6000-81	Echogenicity
MRUS	MT-B6000-82	Shape
MRUS	MT-B6000-83	Margin
MRUS	MT-B6000-84	Echogenic.Foci

F.10. CID (12131) URO Measurements

CSD	CV	Code Meaning
DCM	121207	Height
SRT	G-D7FE	Length
DCM	122445	Wall Thickness
SRT	G-D705	Volume
DCM	121207	Height
SRT	G-D7FE	Length
MRUS	MT-94000-01	Testicular Mass1 d1

CSD	CV	Code Meaning
MRUS	MT-94000-02	Testicular Mass1 d2
MRUS	MT-94000-03	Testicular Mass1 d3
MRUS	MT-94000-04	Testicular Mass2 d1
MRUS	MT-94000-05	Testicular Mass2 d2
MRUS	MT-94000-06	Testicular Mass2 d3
MRUS	MT-94000-07	Testicular Mass3 d1
MRUS	MT-94000-08	Testicular Mass3 d2
MRUS	MT-94000-09	Testicular Mass3 d3

F.11. CID (12132) Thyroid Arteries (Left &Right)

CSD	CV	Code Meaning
SRT	T-45210	Superior thyroid artery
MRUS	MT-45210-01	Inferior Thyroid artery
MRUS	MT-45210-02	Parathyroid 1
MRUS	MT-45210-03	Parathyroid 2
MRUS	MT-45210-04	Isthmus

F.12. Mapping between Modality measurements and DICOM Concepts.

F.12.1. Thyroid Measurements

MODALITY Label	*DICOM Mapping*
Thy.H	121207,DCM,Height
Thy.L	G-D7FE,SRT,Length
Thy.W	122445,DCM,Wall Thickness
Thy.Vol	G-D705,SRT,Volume
Thy.Vol0.523	G-D705,SRT,Volume
Isthmus.H	MT-B6000-10 MRUS Thyroid Isthmus Height
Thyroid.Nodule.1	MT-B6000-90，MRUS，Thyroid.Nodule.1
Thyroid.Nodule.2	MT-B6000-91，MRUS，Thyroid.Nodule.2
Thyroid.Nodule.3	MT-B6000-92，MRUS，Thyroid.Nodule.3

F.12.2. URO Measurements

MODALITY Label	*DICOM Mapping*
Testis.H	121207,DCM,Height
Testis.L	G-D7FE,SRT,Length
Testis.W	122445,DCM,Wall Thickness
Testis.Vol	G-D705,SRT,Volume
Epididymis.H	121207,DCM,Height
Epididymis.L	G-D7FE,SRT,Length
Epididymis.W	122445,DCM,Wall Thickness
Testis.Mass1.L	MT-94000-01 MRUS Testicular Mass1 d1
Testis.Mass1.W	MT-94000-02 MRUS Testicular Mass1 d2
Testis.Mass1.H	MT-94000-03 MRUS Testicular Mass1 d3
Testis.H	121207,DCM,Height
Testis.Mass2.L	MT-94000-04 MRUS Testicular Mass2 d1
Testis.Mass2.W	MT-94000-05 MRUS Testicular Mass2 d2
Testis.Mass2.H	MT-94000-06 MRUS Testicular Mass2 d3
Testis.Mass3.L	MT-94000-07 MRUS Testicular Mass3 d1
Testis.Mass3.W	MT-94000-08 MRUS Testicular Mass3 d2
Testis.Mass3.H	MT-94000-09 MRUS Testicular Mass3 d3

F.12.3. Thyroid Arteries (Left &Right)

MODALITY Label	*DICOM Mapping*
STA	T-45210,SRT, Superior thyroid artery
ITA	MT-45210-01,MRUS, Inferior Thyroid artery
Parathyroid.1	MT-45210-02,MRUS, Parathyroid 1
Parathyroid.2	MT-45210-03,MRUS, Parathyroid 2
Isthmus	MT-45210-04,MRUS, Isthmus

AV TPV	GEK ,99914-1 ,Aortic Valve	99914-5 GEK,TPV
ICA	\	SNM3, T-45010,carotid Artery
MV	\	99909-1, GEK,Mitral Valve

G.4. Other Fetal Cardiac Measurements

Measurement	*DICOM Mapping*	*Measurement Method*
FHR(M)	8867-4, LN, Heart rate	
MVE	99906-14, GEK	Mitral Valve open exc.
TVE	99906-15, GEK	Tricuspid Valve open exc.
MAPSE	99922-8, GEK, MAPSE	
TAPSE	99922-7, GEK TAPSE	

G.5. Other Measurements According with DICOM Standard Protocol

Measurement	DICOM Mapping
UT L	11842-2, LN ,Uterus Length
UT H	11859-6, LN ,Uterus Height
UT W	11865-3, LN ,Uterus Width
Endo	12145-9, LN ,Endometrium Thickness
Cervix L	11961-0, LN ,Cervix Length
Ovary L	M12009-10, MRUS ,Ovary Cyst length
Ovary H	M12009-11, MRUS,Ovary Cyst Height
Ovary W	M12009-12, MRUS ,Ovary Cyst Width
UT Vol	33192-6, LN ,Uterus Volume

GS	11850-5, LN ,Gestational Sac Diameter
Sac Diam1	M12009-01, MRUS ,Gestational Sac Diameter1
Sac Diam2	M12009-02, MRUS ,Gestational Sac Diameter2
Sac Diam3	M12009-03, MRUS ,Gestational Sac Diameter3
CRL	11957-8, LN ,Crown Rump Length
BPD	11820-8, LN ,Biparietal Diameter
HC	11984-2, LN ,Head Circumference
AC	11979-2, LN ,Abdominal Circumference
FL	11963-6, LN ,Femur Length
OFD	11851-3, LN ,Occipital-Frontal Diameter
OFD(HC)	M12007-04, MRUS ,OFDHC
APAD	11818-2,LN ,Anterior-Posterior Abdominal Diameter
TAD	11862-0, LN ,Transverse Abdominal Diameter
THD	M12005-01, MRUS ,Thoracic Diameter
APTD	11819-0, LN ,Anterior-Posterior Trunk Diameter
YS L	11816-6, LN ,Yolk Sac length
HUM	11966-9, LN ,Humerus length

Ulna	11969-3, LN ,Ulna length
Tibia	11968-5, LN ,Tibia length
RAD	11967-7, LN ,Radius length
FIB	11964-4, LN ,Fibula length
CLAV	11962-8, LN ,Clavicle length
TCD	11863-8, LN ,Trans Cerebellar Diameter
OOD	11629-3, LN ,Outer Orbital Diameter
Vertebrae	33071-2, LN,Spine Length
NT	33069-6, LN ,Nuchal Translucency
HW	12170-7, LN ,Width of Hemisphere
NF	12146-7, LN ,Nuchal Fold thickness
Cervix L	11961-0, LN ,Cervix Length
LVW	12171-5, LN ,Lateral Ventrical width
IOD	33070-4, LN ,Inner Orbital Diameter
Foot	11965-1, LN ,Foot length
TC	11988-3, LN ,Thoracic Circumference
AF1	11624-4, LN ,First Quadrant Diameter
AF2	11626-9, LN ,Second Quadrant Diameter
AF3	11625-1, LN ,Third Quadrant Diameter
AF4	11623-6, LN ,Fourth Quadrant Diameter
AFI	11627-7, LN ,Amniotic Fluid Index

	at end systole
RV Diam	M12204-03, MRUS,Right ventricular Diameter
RV Area	M12204-04, MRUS,Right ventricular area
LA Diam	M12205-01, MRUS,Left Atrium Diameter
LA Area	M12205-02, MRUS,Left Atrium area

RA Diam

	Ventricular Wall at end diastole
LVWs	M12240-06, MRUS,Left Ventricular Wall at end systole
RVWd	M12204-12, MRUS,Right Ventricular Wall at end diastole
RVWs	M12204-13, MRUS,Right Ventricular Wall at end systole
AV Diam	T-35410, SRT,Aortic Valve Ring
AV Area	M12240-13, MRUS,Aortic Valve Area
LVD/RVD	C12201-06, MRUS,Left Ventricular Diameter/Right Ventricular Diameter
LAD/RAD	C12205-03, MRUS,Left Atrium Diameter / Right Atrium Diameter
AoD/MPAD	C12212-01, MRUS,Aorta Diameter/Main Pulmonary Artery Diameter
LAD/AoD	C12205-04, MRUS,Left Atrium Diameter / Aorta Diameter
PV Area	M12240-14, MRUS ,Pulmonic Valve Area
Ao Diam_Z	M18015-8, MRUS,Aortic Root Diameter(Z Score)
IVC Diam	M12215-1, MRUS,Inferior Vene Cava Diameter(Z Score
Duct Art Diam	M12212-1, MRUS,Duct Aorta Diameter(Z Score)
TV Diam	M12208-1, MRUS,Tricuspid Valve Diameter(Z Score)
RVIDd_Z	M12204-07, MRUS,Right ventricular short-axis diameter at end diastole(Z Score)
RV Diam_Z	M12204-08, MRUS,Right ventricular Diameter(Z Score)
RV Area_Z	M12204-09, MRUS ,Right

	ventricular area(Z Score)
MV Diam	M12207-1, MRUS ,Mitral Valve Diameter(Z Score)
LVIDd_Z	M12201-08, MRUS,Left ventricular short-axis diameter at end diastole(Z Score)
LV Diam_Z	M12201-09, MRUS,Left ventricular Diameter(Z Score)
LV Area_Z	M12240-02, MRUS,Left ventricular area(Z Score)
PV PV	LN,79920-5, Pulmonic valve Vmax
PV VTI	LN ,79910-6, Pulmonic valve VTI
PV TPV	MRUS ,T-35200-1,Pulmonic valve Time to Peak
Duct Art Vmax	T-F6845-1, MRUS ,Ductus arteriosus Vmax
Duct Art VTI	T-F6845-3, MRUS ,Ductus arteriosus VTI
Duct Art TPV	T-F6845-2, MRUS ,Ductus arteriosus Time to Peak
MV E	T-35300-3, MRUS ,Mitral Valve E-Wave Peak Velocity(TDI)
	T-35300-4, MRUS ,Mitral Valve A-Wave Peak Velocity(TDI)
MV S'	T-35300-5, MRUS ,Mitral Valve S-Wave Peak Velocity(TDI)
	T-35300-6, MRUS ,Mitral valve E-to-E' ratio
TV E'	T-35100-2, MRUS ,Tricuspid Valve E Wave Peak Velocity(TDI)
TV A'	T-35100-3, MRUS ,Tricuspid Valve A Wave Peak Velocity(TDI)

TV S'	T-35100-4, MRUS ,Tricuspid Valve S Wave Peak Velocity(TDI)
	CT-35100-2, MRUS ,Tricuspid Valve E-to-E' ratio
AVE	T-35400-1, MRUS, AVE
LV ICT	G-037E, SRT, Left Ventricular Isovolumic Contraction Time