DICOM CONFORMANCE STATEMENT

FOR

Resona I10 Series/Nuewa I10 Series/Imagyn I10 Series/ Resona I9 Series/Imagyn I9 Series/Nuewa I9 Series/ Hepatus 9 Series/ Resona I8 Series/Nuewa I8 Series/Imagyn I8 Series

Diagnostic Ultrasound System

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3 Introduction

3.1 Review History

DOCUMENT VERSION	DATE OF ISSUE	DESCRIPTION
2.0	Mar,11,2021	Creation of the document

3.2 Audience

This document is intended for potential customers, system integrators of medical equipment, marketing staff interested in system functionality and software designers implementing DICOM interfaces. It is assumed that the readers of this document are familiar with the DICOM Standard and with the terminology and concept which are used in the Standard. If readers are unfamiliar with DICOM terminology they should read the DICOM Standard, prior to reading this DICOM Conformance Statement document.

3.3 Remarks

The scope of this DICOM Conformance Statement is to facilitate integration between Mindray Products and other DICOM products. The Conformance Statement should be read and understood in conjunction with the DICOM Standard. DICOM by itself does not guarantee interoperability. The Conformance Statement does, however, facilitate a first-level comparison for interoperability between different applications supporting compatible DICOM functionality.

This Conformance Statement is not supposed to replace validation with other DICOM equipment to ensure proper exchange of intended information. In fact, the user should be aware of the following important issues:

- The comparison of different Conformance Statements is the first step towards assessing interconnectivity and interoperability between Mindray medical equipment and other DICOM conformant equipments.

  Test procedures should be defined and executed to validate the required level of interoperability with specific compatible DICOM equipment, as established by the healthcare facility.

  7KH ',&20 VWDQGDUG ZLOO HYROYH WR PHHW WKH XVHU¶V JU 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 identifying information on the encapsulated Data Set. It is 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: Print Job IOD.
- **Joint Photographic Experts Group (JPEG)** ± a set of standardized image compression techniques, available for use by DICOM applications.
- **Module** ±a set of *Attributes* within an *Information Object Definition* that are logically related to each other. Example: Patient Module includes Patient Name, Patient ID, Patient Birth Date, and Patient Sex.
- **Negotiation** ± first phase of *Association* establishment that allows *Application Entities* to agree on the types of data to be exchanged and how that data will be encoded.
- **Physical Media** - a piece of material with recording capabilities for streams of bits. Characteristics of a Physical Media include form factor, mechanical characteristics, recording properties and rules for recording and organizing bit streams in accessible structures.
- **Presentation Context** ± the set of DICOM network services used over an *Association*, as negotiated between *Application Entities*; includes *Abstract Syntaxes* and *Transfer Syntaxes*.
- **Protocol Data Unit (PDU)** ±a packet (piece) of a DICOM message sent across the network. Devices must specify the maximum size packet they can receive for DICOM messages.
- **Security Profile** ±a set of mechanisms, such as encryption, user authentication, or digital signatures, used by an *Application Entity* to ensure confidentiality, integrity, and/or availability of exchanged DICOM data
- **Service Class Provider (SCP)** ±role of an *Application Entity* that provides a DICOM network service; typically, a server that performs operations requested by another *Application Entity* (*Service Class User*). Examples: Picture Archiving and Communication System (image storage SCP, and image query/retrieve SCP), Radiology Information System (modality worklist SCP).
- **Service Class User (SCU)** ±role of an *Application Entity* that uses a DICOM network service; typically, a client. Examples: imaging modality (image storage SCU, and modality worklist SCU), imaging workstation (image query/retrieve SCU)
- **Service/Object Pair (SOP) Class** ±the specification of the network or media transfer (service) of a particular type of data (object); the fundamental unit of DICOM interoperability specification. Examples: Ultrasound Image Storage Service, Basic Grayscale Print Management.
- **Service/Object Pair (SOP) Instance** ±an information object; a specific occurrence of information exchanged in a *SOP Class*. Examples: a specific x-ray image.

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 2.0 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/

- 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 (selected from a pre-configured list)..

The system supports automatic and manual storage.

The operations for automatic storage service are described below:

- Operation 1

6WHS (QDEOHGLVDEOHWKH(QG([DP´LQWKHXVHUSUHVHW

Step 2: End Exam, the ended exam (maybe include images, SRs, PDFs) would automatically send to the default storage service SCPs which are set to be default in the DICOM service preset dialog.

- Operation 2

Step 1: Open the system preset dialog and switch to the "key config" tab page.

Step 2: Set the shortcut key which means sending image to the default DICOM storage SCPs.

Step 3: During the examining, the user can press the Send key to send image to default DICOM storage service SCPs.

The operations for manual storage service are described below:

- Operation 1

Step 1: Select the images from thumbnail menu in main UI

Table 4
3D/4D Transfer Option

3D/4D Option	SOP Class	SOP Class UID
Normal	US Image Storage	1.2.840.10008.5.1.4.1.1.6.1
	US Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1
Volume	Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2
Rawdata	Raw Data Storage	1.2.840.10008.5.1.4.1.1.66

Transfer with Rawdata form is mainly used for MINDRAY Ultrasonic machine to get the raw data of the image and review it.OtherStorage SCP received the image could not review it because the image information is coded in private form..

In the event that the ultrasound system is taken off the network as a portable system or when a network failure occurs during a background store, the Storage SCU maintains a queue of failed C-STORE requests. If pre-configured on Preset UI, the failed C-Store requests will be automatically retried specified times. If no pre-configuration, the user can also retry the failed requests manually.

As a SCP, the Storage AE could only be used in Query/Retrieve, otherwise couldn't.

4.1.2.3 Storage Commitment AE

The Storage Commitment AE originates associations to ensure the reliable storage of DICOM composite information objects on remote DICOM device after sending DICOM Storage Service to the device.

The Storage Commitment service will be executed automatically in the circumstance as below:

- The Storage Commitment Service is set to associate with the Storage Service in DICOM storage service preset dialog and the associated Storage Service is executed.
- Exam is the unit to send.
- The status of the exam is "End". It would not be executed when an "Active", "Paused" or "Cancelled" exam is selected.

4.1.2.4 Print AE

As a SCU, the Print AE originates associations for the print of DICOM Ultrasound single frame images and secondary capture images to remote AE (selected from a pre-configured list).

The system is capable of grayscale (B/W) and color print supporting with automatic and manual print functions.

The operations for automatic print service are described below:

- Operation 1

6WHS (QD Eo pHin gHDQW U (QG ([DP´ LQ WKH XVHU SUHVHW

Step 2: End Exam, the single frame images and secondary capture images of ended exam would automatically send to the default print service SCPs which are set to be default in the DICOM service preset dialog.

Notes: This RSHUDWLRQ DVVRFLDWHV ZLWK WKH ³'LVSOD\ )RUPDW´ P DICOM print will be not active until one page is filled with the images or the exam end. For H[DPSOH LI WKH ³'LVSOD\ )RUPDW´ KDV EHHQ VHW WR WKHQ WKH 'V&20 SULQW ZLOO EH DFWLYH RQO\ DIWHU WKH LPDJHV EH not active until the shortcut key has been pressed 6 times. However, when the exam end, the DICOM print will be active even if one page is not filled.

- Operation 2

Step 1: Open the system preset dialog and switch to the "key config" tab page.

Step 2: Set the shortcut key which which means saving image to hard disk and combines the key with the function of sending image to the default DICOM print SCPs.

Step 3: During the examining, the user can press the print key to send image to default DICOM print service SCPs.

The operations for manual print service are described below:

- Operation 1

Step 1: Select the images from thumbnail menu in main UI.

Step 2: Pres V ³6HQG WR´ EXWWRQ DQG VHOHFW ',&20 SULQW VHUYLFH SCPs.

Step 3: Send the images to the DICOM print service SCPs.

- Operation 2

Step 1: Select exams in the iStation Dialog.

Step 2: Pr HVV ³6HQG´ EXWWRQ and select DICOM print service SCPs.

Step 3: Send the single frame images and secondary capture images of the selected exams to the DICOM print service SCPs.

- Operation 3

Step 1: Select thumbnail in the iStation Dialog.

Step 2: 3UHVV ³6HQG WR´ EXWWRQ DQG VHOHFW ',&20 SULQW VHUYLFH SCPs.

Step 3: Send the image to the DICOM print service SCPs.

- Operation 4

Step 1: Open the review dialog and select the images.

Step 2: P UHVV WKH ³6HQG 7R´ EXWWRQ. WR FKRRVH WKH

Step 3: Send the images to the DICOM print service SCPs.

4.1.2.5 Worklist AE

The Worklist AE is activated through the Worklist UI when the user selects a remote AE to query (from a pre-configured list).The system supports automatic and manual query depending on its configuration on Preset UI. The system supports fuzzy query using ?´ and *´.

- If set one and only one remote AE to be default status. The system can initiate a query with default rules when show the Worklist UI. The Worklist Server is the default server. The Modality Type is US, the Exam Date is today, and the Scheduled Station AE Title is blank.
- Alternatively if the default status is no, the user can specify query rules on Worklist UI. Such as Patient ID, Patient Name, Accession Number, Requested Procedure ID, Worklist Server, Exam Date, Modality Type and Scheduled Station AE Title.

If no matches are found, a dialogue will be presented to the user to indicate so. The possible reasons for this failure are listed to help trouble shooting.

If more than one matching patients found, user can discover lists number on the UI. The user can also change query rules for another query, or for further filter in local database to locate the patients quickly. And the lists can be sorted in ascending or descending order.

4.1.2.6 MPPS AE

MPPS AE sends event transactions that facilitate the transfer of exam procedure status from the ultrasound system to the information system.

MPPS messages are sent from the system under the following circumstances:

- MPPS N-Create, Status = IN PROGRESS. Starting a new exam or reactive an exam result in automated crea32 841.92 rcrea32 [illegible]

select Search Key. If no matches are found, a dialogue will be presented to the user to indicate so. The user can also change query rules for another query, or for further filter in local database to locate the patients quickly.

As a Move SCU, the system supports the Study Root Query Model. The stystem can only retrieve ultrasound images or structed reports, whose modality atrributes are "US" or "SR", but will leap all the other ones. Furthermore, the retrieval destination is only local host.

The system initiates a C-MOVE request to the remote Retrieve SCP when user selects items to retrieve. The remote Retrieve SCP in turn starts C-STORE sub operations to the ultrasound system.

User can discover lists number for queried items, as well as retrieval items. And the lists can be sorted in ascending or descending order.

The system can retrieve the 3D/4D images that have sent to PACS or other Storage SCP in rawdata form. After retrieveing, the system can convert it to the identifiable format and review it.

4.1.3 Sequence of Real World Activities

All SCP activities are performed asynchronously in the background and not dependent on any sequencing.

All SCU activities are sequentially initiated in the user interface, and another activity may not be initiated until the prior activity has completed.

4.2 AE Specifications

4.2.1 Modality AE

4.2.1.1 SOP Classes

The ultrasound system provides Standard Conformance to (en-US)>> BDC10(f)-5(or)14(m)3(ance t)8(o (en-U

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		

Table 7

Number of Associations as an Association Initiator

Maximum number of simultaneous associations	1

Table 8

Number of Associations as an Association Acceptor

Maximum number of simultaneous associations	1

4.2.1.2.3 Asynchronous Nature

The ultrasound system will only allow a single outstanding operation on an association.

4.2.1.2.4 Implementation Identifying Information

Table 9

DICOM Implementation Class and Version for Modality AE

Implementation Class UID	1.2.156.112536.1.2142.0.1.0.1
Implementation Version Name	MINDRAY_V1.0

4.2.1.3 Association Initiation Policy

4.2.1.3.1 Activity Request Echo

4.3 Description and Sequencing of Activities

The user can verify the existence of a DICOM server on the hospitals network, through a E X W W R Q L Q Service ¶ u 'V & 2 U H H Q : K H Q W K H X V H U the Ultrasound V W K L V E X W T O system will initiate the association.

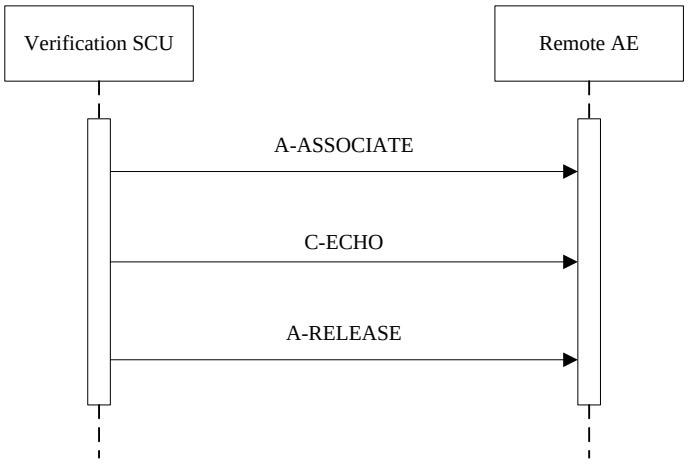

Figure 2

Sequencing of Activity Send Echo Request

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.

- The OB and Gyn exam types create OB-GYN Ultrasound Procedure Reports.
- The Adult Card exam type creates Adult Echocardiography Reports.
- The Abd, Uro and Vas exam types create Vascular Reports
- The Breast exam types create Breast Imaging Reports.

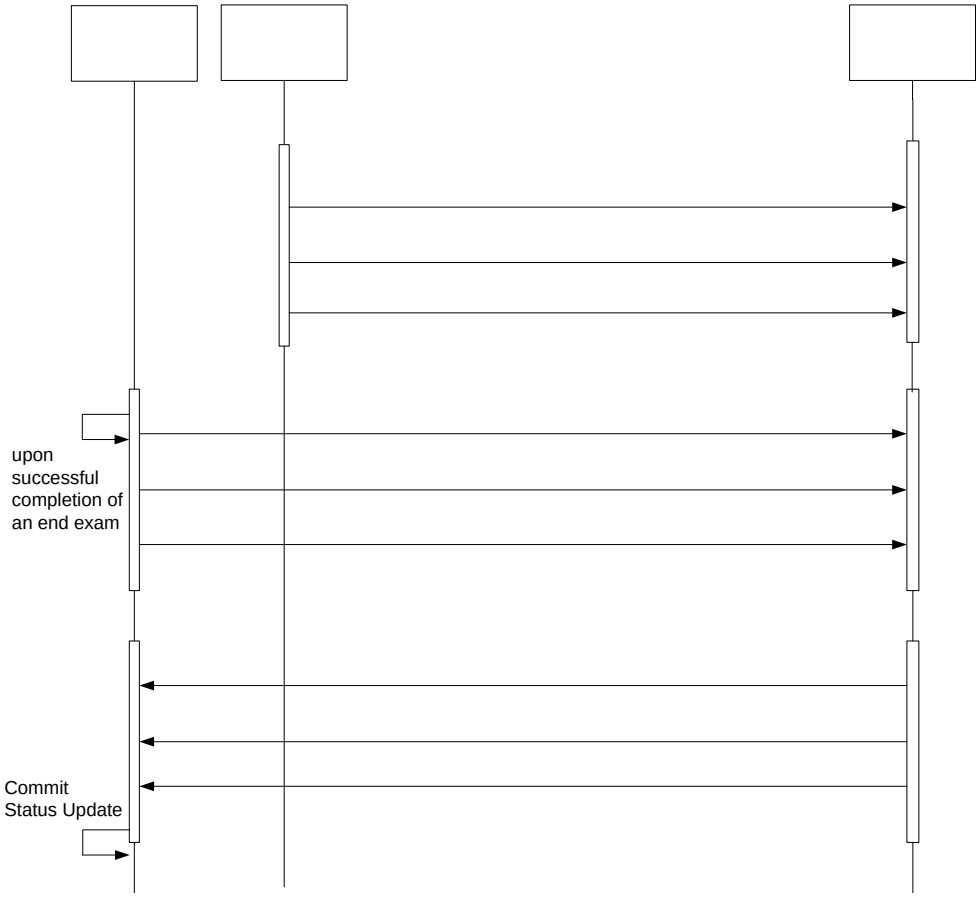

Figure 3

Sequencing of Activity Send Storage Request

4.3.1.1.2.2 Proposed Presentation Contexts

If Storage AE is offered a choice of Transfer Syntaxes in the accepted Presentation Contexts, it will apply the first encountered to use for the C-STORE operation. As to Compress Transfer Syntaxes, it will apply the user configured one.

Table 12

Proposed Presentation Contexts for Storage

PROPOSED PRESENTATION CONTEXTS					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name**	**UID**		
US Image Storage	1.2.840.10008.5.1.4.1.1.6.1	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
		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
US Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1	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
		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

		MPEG2 Main Profile @ Main Level	1.2.840.10008.1.2.4.100	SCU	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	SCU	None
		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
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33	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
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	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
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	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
		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
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	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

IE	Module
Patient	Patient
Study	General Study
	Patient Study
Series	General Series
Equipment	General Equipment
Image	General Image
	Image Pixel
	US Region Calibration
	US Image
	VOI LUT
	SOP Common

Table 16

US Multi-Frame Image IOD

IE	Module
Patient	Patient
Study	General Study
	Patient Study
Series	General Series
Equipment	General Equipment
Image	General Image
	Image Pixel
	Cine
	Multi-frame
	US Region Calibration
	US Image
	VOI LUT
	SOP Common

Table 17

SC Image IOD

IE	Module
Patient	Patient
Study	General Study
	Patient Study
Series	General Series

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

(0008,1032)	SQ	3	Procedure Code Sequence	MWL
(0020,000D)	UI	1	Study Instance UID	MWL/AUTO
(0020,0010)	SH	2	Study ID	MWL/AUTO

Table 23

Patient Study Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,1080)	LO	3	Admitting Diagnoses Description	MWL
(0010,1010)	AS	3	Patient's Age	MWL/USER, default is set to zero length If the user set Patient Birth Date, it will be calculated automatically.
(0010,1020)	DS	3	Patient's Size	MWL/USER, default is set to zero length
(0010,1030)	DS	3	Patient's Weight	MWL/USER, default is set to zero length
(0010,21B0)	LT	3	Additional Patient History	MWL

Table 24

General Series Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0021)	DA	3	Series Date	AUTO
(0008,0031)	TM	3	Series Time	AUTO
(0008,0060)	CS	1	Modality	
(0008,103E)	LO	3	Series Description	MWL/USER
(0008,1050)	PN	3	Performing Physician's Name	MWL/USER, default is set to zero length
(0008,1070)	PN	3	Operators' Name	MWL/USER, default is set to zero length
(0018,1030)	LO	3	Protocol Name	AUTO set to ExamType
(0018,5100)	CS	2C	Patient Position	Set to zero length
(0020,000E)	UI	1	Series Instance UID	AUTO
(0020,0011)	IS	2	Series Number	AUTO
(0020,0060)	CS	2C	Laterality	Set to zero length

(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	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0020,0052)	UI	1	Frame of Reference UID	AUTO
(0020,1040)	LO	2	Position Reference Indicator	Set to zero length

Table 28

Ultrasound Frame of Reffrence Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0020,9312)	UI	1	Volume Frame of Reference UID	AUTO
(0020,9307)	CS	1	Ultrasound Acquisition Geometry	³APEX ´
(0020,9308)	FD	1C	Apex Position	Position of the apex (or phase center) of the acquisition geometry, encoded as xA, yA, and zA in mm units in the Volume Frame of Reference.
(0020,9309)	FD	1	Volume to Transducer Mapping Matrix	A 4x4 homogeneous transformation matrix that maps the Volume Frame of Reference coordinate system (XV, YV, ZV) to the Transducer Frame of Reference coordinate

(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	AUTO
(0018,1000)	LO	1	Device Serial Number	The Ethernet card Mac Address
(0018,1020)	LO	3	Software Versions	AUTO

Table 33

General Image Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0023)	DA	2C	Content Date	AUTO
(0008,0033)	TM	2C	Content Time	AUTO
(0008,2111)	ST	3	Derivation Description	CONFIG, default is set to zero length
(0020,0013)	IS	2	Instance Number	AUTO
(0020,0020)	CS	2C	Patient Orientation	Set to zero length
(0020,4000)	LT	3	Image Comments	Set to zero length
(0028,0301)	CS	3	Burned In Annotation	YES
(0028,2114)	CS	3	Lossy Image Compression Method	if the transfer syntax is MPEG2 MP@ML,otherwise this element is not.used

Table 34

US Image Module

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,0008)	CS	2	Image Type	ORIGINAL/PRIMARY

				using JPEGLossy, JPEG 2000 Image Compression or MPEG2 MP@ML
(0008,2120)	SH	3	Stage Name	Rest or post
(0008,2122)	IS	3	Stage Number	1 or 2
(0008,2124)	IS	2C	Number of Stages	2
(0008,2127)	SH	3	View Name	PSLA PSSA 4Ch 2Ch
(0008,2128)	IS	3	View Number	0 1 2
(0008,212A)	IS	2C	Number of View in Stage	AUTO

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	/
(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	CONFIG
(0028,0011)	US	1	Columns	CONFIG
(0028,0034)	IS	1c	Pixel Aspect Ratio	/

			Value X	
>(0018,602A)	UL	1	Ref. Pixel Physical Value Y	AUTO
>(0018,601A)	UL	1	Region Location Min Y0	AUTO
>(0018,601C)	UL	1	Region Location Max X1	AUTO
>(0018,601E)	UL	1	Region Location Max Y1	AUTO
>(0018,6024)	US	1	Physical Units X Direction	AUTO
>(0018,6026)	US	1	Physical Units Y Direction	AUTO
>(0018,602C)	FD	1	Physical Delta X	AUTO
>(0018,602E)	FD	1	Physical Delta Y	AUTO

Table 41

Cine Module Used for US Multi-Frame Images Only

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0008,2142)	IS	3	Start Trim	AUTO
(0008,2143)	IS	3	Stop Trim	AUTO
(0008,2144)	IS	3	Recommended Display Frame Rate	AUTO
(0018,0040)	IS	3	Cine Rate	AUTO
(0018,0072)	DS	3	Effective Duration	AUTO
(0018,1063)	DS	1C	Frame Time	AUTO
(0018,1065)	DS	1C	Frame Time Vector	AUTO
(0018,1066)	DS	3	Frame Delay	AUTO
(0018,1242)	IS	3	Actual Frame Duration	AUTO
(0018,1244)	US	3	Preferred Playback Sequencing	AUTO
(003A,0300)	SQ	2C	Multiplexed Audio Channels Description Code Sequence	Used if the Transfer Syntax is MPEG2 MP@ML,otherwise not.
(003A,0208)	SQ	1	>Channel Source	Doppler audio

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)	³MindrayRawData´
(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)	AUTO
(0020,9310)	SQ	1	>Temporal Position Sequence	
(0020,930D)	FD	1	>>Temporal Position Time Offset	AUTO
(0018,9807)	SQ	1	>Image Data Type Sequence	
(0018,9808)	CS	1	>>Data Type	AUTO ³7,668(B,17(16or7<´ ³)/2:B9(/2&,7<´
(0018,980B)	CS	1	>>Aliased Data Type	³NO´
(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

(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	“ORIGINAL/PRIMARY”
(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	AUTO
(0028,0030)	DS	1	Pixel Spacing	AUTO
(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	AUTO
(0018,5024)	DS	1	Bone Thermal Index	AUTO
(0018,5026)	DS	1	Cranial Thermal Index	AUTO
(0018,5027)	DS	1	Soft Tissue Thermal Index	AUTO
(0018,9801)	FD	1	Depth(s) of Focus	AUTO
(0018,5050)	IS	1	Depth of Scan Field	AUTO

Conventions used for the Value(s) and Comments section are:

MWL ±the attribute value source is from Modality WORKLIST

USER ±WKH DWWULEXWH YDOXH VRXUFH LV IURP 8VHU¶V LQSXW

AUTO ±automatically generated by the MODALITY system

CONFIG - the attribute value source is a configurable parameter

4.3.1.1.3 Activity Request Storage Commitment

4.3.1.1.3.1 Description and Sequencing of Activities

A possible sequence of interactions between the Storage Commitment AE and a remote AE is illustrated in the Figure 3

Sequencing of Activity ±Send Storage Request.

4.3.1.1.3.2 Proposed Presentation Contexts

The Storage Commitment AE is capable of proposing the Presentation Contexts shown in the table below:

Table 51

Proposed Presentation Contexts for Activity Request Storage Commitment

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.

4.3.1.1.3.3 SOP Specific Conformance

4.3.1.1.3.3.1 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

Storage Commitment N-Actiont Request Attributes

Action Type Name	Event Type ID	Attribute	Tag
Storage Commitment Request	1	Transaction UID	(0008,1195)
		Referenced SOP Sequence	(0008,1199)

(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 is capable of receiving an N-EVENT-REPORT notification at any time during an association.

9. N-DELETE on the Film Box SOP Class deletes the complete Film box SOP Instance hierarchy.
10. N-DELETE on the Film Session SOP Class deletes the complete Film Session SOP Instance hierarchy.
11. Print AE closes the association with the Printer.

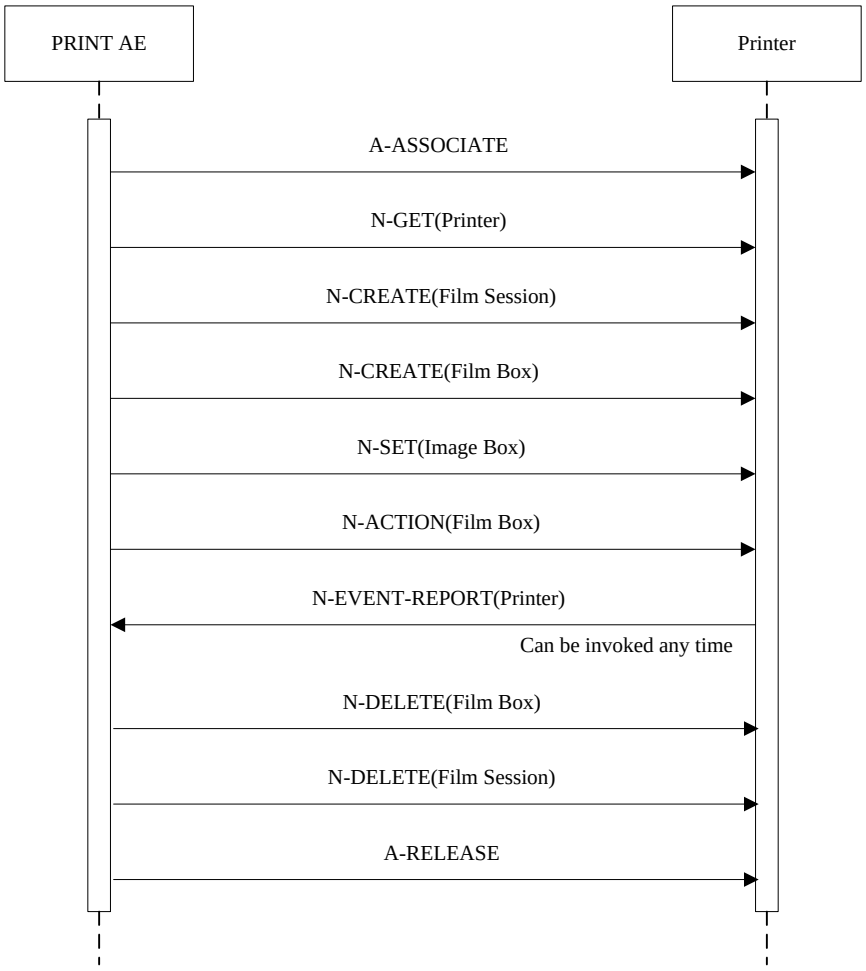

Figure 4

Sequencing of Activity Film Images

4.3.1.1.4.2 Proposed Presentation Contexts

Print AE is scap

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	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
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	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

4.3.1.1.4.3 Common SOP Specific Conformance for all Print SOP Classes

The general behavior of Print AE during communication failure is summarized in the Table below. This behavior is common for all SOP Classes supported by Print AE.

Table 59
Print AE Communication Failure Behavior

Exception	Behavior
Timeout	The association is aborted using A-ABORT and the print-job is marked as failed.
Association aborted by the SCP or network layers	The print-job is marked as failed. The reason is logged and the job failure is reported to the user.

Recommended abbreviations to be used for the tables are:

VNAP Value Not Always Present (attribute sent zero length if no value is present)

ANAP Attribute Not Always Present

ALWAYS Always Present with a value

EMPTY Attribute is sent without a value

Recommended abbreviations to be used for the source of the data values in the tables are:

USER the attribute value source is from User input

AUTO the attribute value is generated automatically

CONFIG the attribute value source is a configurable parameter

PRINTER the attribute value is provided by printer

4.3.1.1.4.4 SOP Specific Conformance for the Printer SOP Class

Print AE supports the following DIMSE operations and notifications for the Printer SOP Class:

- N-GET
- N-EVENT-REPORT

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

4.3.1.1.4.4.1 Printer SOP Class Operations (N-GET)

Print AE uses the Printer SOP Class N-GET operation to obtain information about the current printer status. The attributes excepted via N-GET are listed in the Table below:

Table 60

Printer SOP Class N-GET Request Attribute Identifier List

Attribute Name	Tag
Printer Status	(2110,0010)
Printer Status Info	(2110,0020)
Printer Name	(2110,0030)
Manufacturer	

4.3.1.1.4.4.2 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).

4.3.1.1.4.5 SOP Specific Conformance for the Film Session SOP Class

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

- N-CREATE
- N-DELETE

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

4.3.1.1.4.5.1 Film Session SOP Class Operations

(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.

4.3.1.1.4.5.2 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

			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	(2010,0060)	CS	REPLICATE, BILINEAR, CUBIC or NONE	ALWAYS	CONFIG
Max Density	(2010,0130)	US	0 .. 65535	ANAP	CONFIG
Min Density	(2010,0120)	US	0 .. 65535	ANAP	CONFIG
Trim	(2010,0140)	CS	YES or No	ALWAYS	CONFIG
Configuration Information	(2010,0150)	ST	User defined text	ANAP	USER

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

Table 68

Film Box 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	Requested Min Density or Max		

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.

4.3.1.1.4.6.3 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.

4.3.1.1.4.7 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.

4.3.1.1.4.7.1 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

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

4.3.1.1.5 Activity Send Find Request

4.3.1.1.5.1 Description and Sequencing of Activities

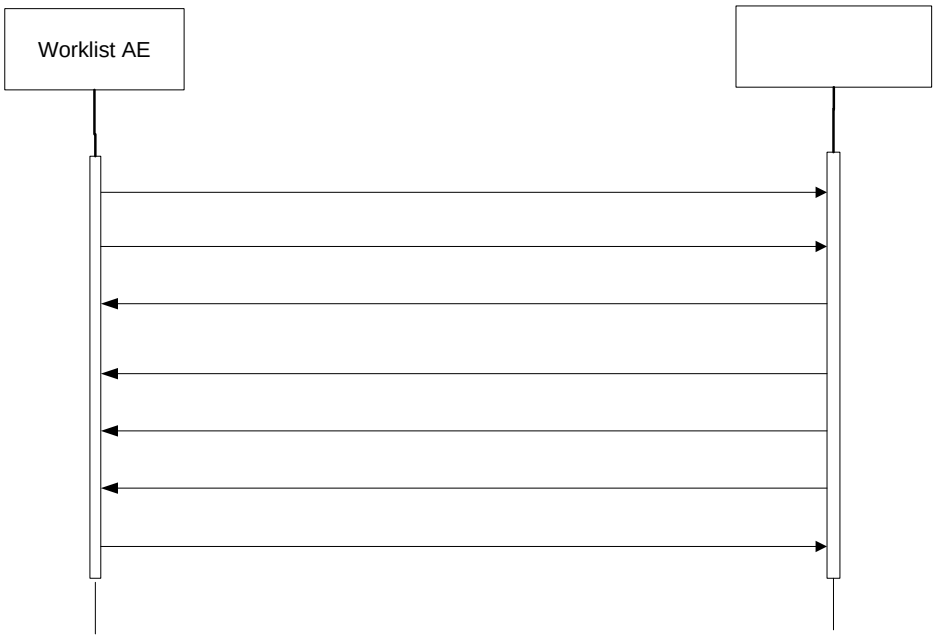

Figure 5

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-FIND request to the remote AE containing the Query attributes.
3. The remote AE returns a C-FIND response containing the requested attributes of the first matching Item.
4. The remote AE returns another C-FIND response containing the requested attributes of the second matching Item. And then another one.
5. When the remote AE returns all the C-FIND responses with status Success indicating that no further matching Items exist.
6. The C-Find AE closes the association with the remote AE.

4.3.1.1.5.2 Proposed Presentation Contexts

Table 73

Proposed Presentation Contexts for Worklist AE

(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 default is set to	X(DI)
>(0040,0003)	TM	Scheduled Procedure Step Start Time		X (DI)
>(0040,0004)	DA	Scheduled Procedure Step End Date		X (DI)
>(0040,0005)	TM	Scheduled Procedure Step End Time		X (DI)
>(0040,0006)	PN	Scheduled Performing Physician's Name		X (DI)
>(0040,0007)	LO	Scheduled Procedure Step Description		X(DI)
>(0040,0008)	SQ	Scheduled Protocol Code Sequence		X (DI)
> >(0008,0100)	SH	Code Value		X (DI)
> >(0008,0102)	SH	Coding Scheme Designator		X (DI)
> >(0008,0103)	SH	Coding Scheme Version		X (DI)
> >(0008,0104)	LO	Code Meaning		X (DI)
>(0040,0009)	SH	Scheduled Procedure Step ID		X (DI)
>(0040,0010)	SH	Scheduled Station Name		X (DI)
>(0040,0011)	SH	Scheduled Procedure Step Location		X (DI)
>(0040,0012)	LO	Pre-Medication		X (DI)
> (0040,0020)	CS	Scheduled Procedure Step Status		X (DI)
> (0040,0400)	LT	Comments on the Scheduled Procedure Step		X (DI)
Module: Requested Procedure Module (M)				
(0008,1110)	SQ	Referenced Study		X (DI)

		Sequence		
> (0008,1150)	UI	Referenced SOP Class UID		X (DI)
> (0008,1155)	UI	Referenced SOP Instance UID		X (DI)
(0020,000D)	UI	Study Instance UID		X (DI)
(0032,1060)	LO	Requested Procedure Description		X (DI)
(0032,1064)	SQ	Requested Procedure Code Sequence		X (DI)
> (0008,0100)	SH	Code Value		X (DI)
> (0008,0102)	SH	Coding Scheme Designator		X (DI)
>(0008,0103)	SH	Coding Scheme Version		X (DI)
>(0008,0104)	LO	Code Meaning		X (DI)
(0040,1001)	SH	Requested Procedure ID	configurable	X (DI)
(0040,1003)	SH	Requested Procedure Priority		X (DI)
(0040,1004)	LO	Patient Transport Arrangements		X (DI)
(0040,1400)	LT	Requested Procedure Comments		X (DI)
Module: Imaging Service Request Module (M)				
(0008,0050)	SH	Accession Number	configurable	X (DI)
(0008,0090)	PN	Referring Physician's Name		X (DI)
(0032,1032)	PN	Requesting Physician		X (DI)
(0032,1033)	LO	Requesting Service		X (DI)
(0040,2400)	LT	Imaging Service Request Comments		X (DI)
Module: SOP Common Module (M)				
(0008,0005)	CS	Specific Character Set		X (DI)
Module: Additional Attributes Module (M)				

(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.

4.3.1.1.6 Activity Send MPPS Request

4.3.1.1.6.1 Description and Sequencing of Activities

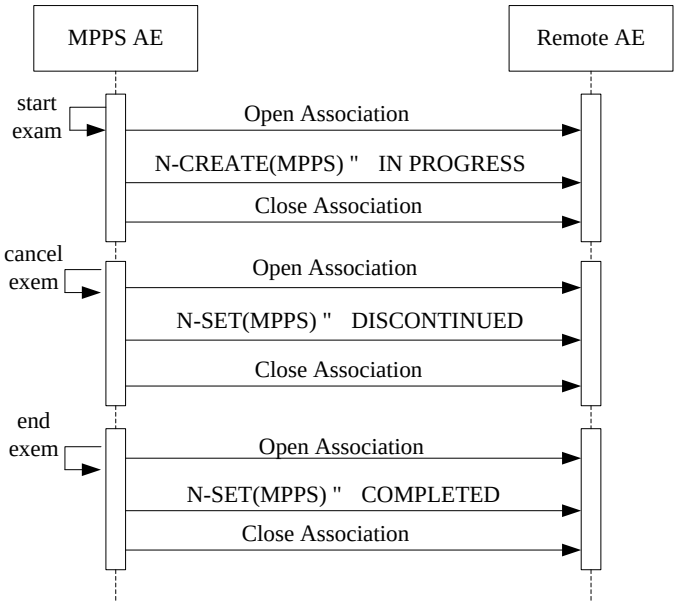

Figure 6

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 instance with status IN PROGRESS and all 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 instance with status COMPLETED and all attributes. The 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..

4.3.1.1.6.2 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**		
Modality Performed Procedure Step SOP Class	1.2.840.10008.3.1.2.3.3	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

MPPS-SCU will propose Presentation Contexts for the SOP Classes listed above. For these SOP Class, MPPS-SCU will propose multiple Presentation Contexts, one for each of the supported Transfer Syntaxes.

If MPPS AE is offered a choice of Transfer Syntaxes in the accepted Presentation Contexts, it will apply the first encountered to use for the MPPS AE operation.

4.3.1.1.6.3 SOP Specific Conformance

MPPS AE provides Standard Conformance to the MPPS Service Class.

MPPS-SCU will behave as described in the Table below in response to the status returned in the N-Create or N-Set response command message.

Table 78
MPPS N-CREATE / N-SET Response Status Handling Behavior

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully.
Failure	Processing Failure Performed Procedure Step Object may no longer be updated	0110	

			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 WKDW WKH DWWULEXWH LV QRW VHQW $Q ³[´ LQGLFDWHV WKD ³=HUR OHQJWK´ DWWULEXWH ZLOO EH VHQW ZLWK]HUR OHQJWK

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
□	(0010,0030)	2	Not allowed
□	(0010,0040)	2	Not allowed
Scheduled Step Attribute Sequence	(0040,0270)	1	Not allowed
>Accession Number	(0008,0050)	2	Not allowed
>Referenced Study Sequence	(0008,1110)	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-Image Composite SOP Instance Sequence	(0040,0220)	2 (Default is set to null)	2
Module: Billing And Material Management Code Module (M)			
Billing Procedure Step Sequence	(0040,0320)	3	3
Film Consumption Sequence	(0040,0321)	3	3
Billing Supplies and Devices Sequence	(0040,0324)	3	3
Module: Performed Procedure Step Information Module (M)			
Procedure Code Sequence	(0008,1032)	2 (Default is set to null)	3
Performed Station AE Title	(0040,0241)	1	Not allowed
Performed Station Name	(0040,0242)	2 (Default is set to null)	Not allowed
Performed Location	(0040,0243)	2 (Default is set to null)	Not allowed
Performed Procedure Step Start	(0040,0244)	1	Not allowed

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

4.3.1.1.7 Activity Query/Retrieve from Remote AE

4.3.1.1.7.1 Description and Sequencing of Activities for SCU

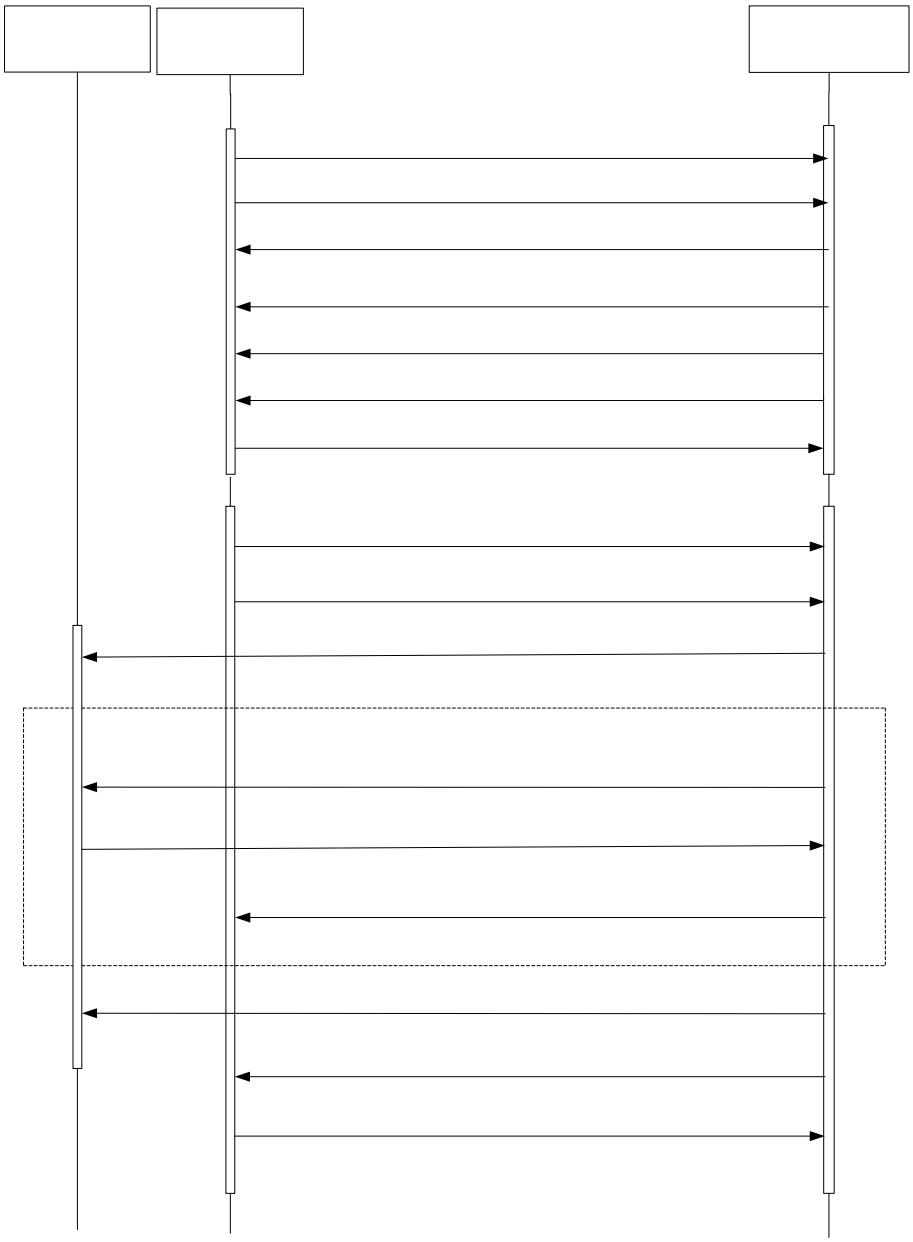

Figure 7

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.

4.3.1.1.7.2 Proposed Presentation Contexts

Table

	final Identifier is supplied			the UI
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys	FF00	Identifier	/
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence and/or matching for this identifier	FF01	Identifier	/

The ultrasound system supports the following query levels:

‡Study

The Query/Retrieve AE interprets following status codes

Table 83

C-Move Response Status Handling Behavior

Service Status	Meaning	Protocol Codes	Related Fields	Behavior (as SCU)
Refused	Refused Out of Resources	A700	(0000,0902)	The association is aborted using A-ABORT and a notify message is displayed: The remote server error.
Failed	Identifier does not match SOP Class	A900	(0000,0901) (0000,0902)	
	Unable to process	CXXX	(0000,0901) (0000,0902)	
Canceling	Matching terminated due to Cancel request	FE00	None	
Success	Matching is complete - No final Identifier is supplied	0000	None	Image retrieve is successful, Patient lists show on the UI
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys	FF00	Identifier	/
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence and/or matching for this identifier	FF01	Identifier	/

4.3.1.1.7.3.2 Study Root Query/Retrieve Attributes

4.3.1.1.7.3.3 Supported Matching

(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

4.3.1.1.7.3.5 Series Level Attributes

Table 85

SERIES LEVEL ATTRIBUTES

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE	MATCHINGKEYS

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE

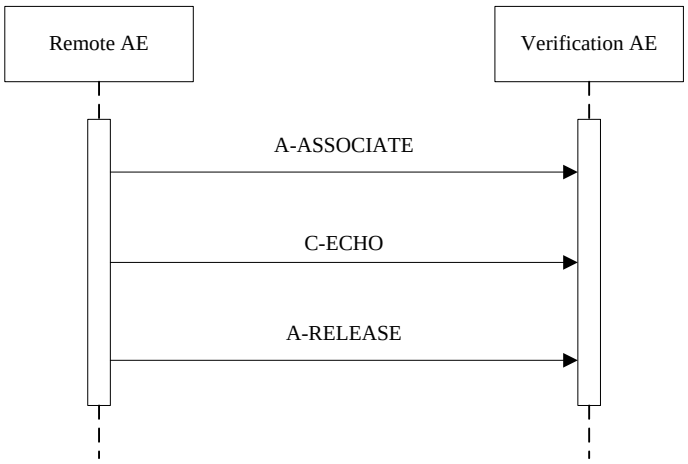

Figure 8
Sequencing of Activity Receive Echo Request

4.3.1.2.1.2 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

4.3.1.2.1.3 SOP Specific Conformance

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

4.3.1.2.2 Activity Receive Storage

4.3.1.2.2.1 Description and Sequencing of Activities

The system could act as Storage SCP in Query/Retrieve, otherwise couldn't. A possible sequence of interactions between the Storage AE (as SCP) and a remote AE is illustrated in the Figure 7.

4.3.1.2.2.2 Accepted Presentation Contexts

The Storage AE (as SCP) will accept Presentation Contexts as shown in the Table below.

Table 88

Proposed Presentation Contexts for Storage

PROPOSED PRESENTATION CONTEXTS					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name**	**UID**		
US Image Storage	1.2.840.10008.5.1.4.1.1.6.1	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
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		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
US Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1	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
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		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	1.2.840.100	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	None

Capture Image Storage	08.5.1.4.1.1.7	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		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
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33	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
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		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
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	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
		JPEG Lossy, Baseline Sequential with Huffman Coding (Process 1)	1.2.840.10008.1.2.4.50	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	SCP	None
		JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 [Selection	1.2.840.10008.1.2.4.70	SCP	None

4.5 Configuration

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

4.5.1 AE Title/Presentation Address Mapping

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

4.5.2 Configurable Parameters

Localhost DICOM Service Property(Including SCU and SCP):

- AE Title
- Port
- PDU

Server Setting:

- Device
- IP address

Storage:

- Device, Service name, AE Title and Port.
- Timeout.
- Maximum retries. (default value is 3)
- Interval Time (In this version, this parameter is not usable.)
- Compression Mode, Compression Ratio.
- Color Mode (Color, Mixed, or Gray).
- Cine Zoom Mode (original, 840*480, 1048*600 or 1400*768)
- Allow Multiframe(Enable or not)
- Max Framerate(options(25, 30, 35, full), or other inputed valid value)
- 3D/4D(Normal, Rawdata or Volume)
- SR Storage Option("Attach SR When Store Images ", "Only Store SR ", and "Not Store SR")
- Encapsulated PDF(Enable or not)
- Doppler Audio(None or MPEG_MP@ML)
- Storage Mode(Parallel file or Parallel frame)

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
- Default Status (Y/N)

WORKLIST:

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

MPPS:

- Device, Service name, AE Title and Port.
- 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.
- 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.
- 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

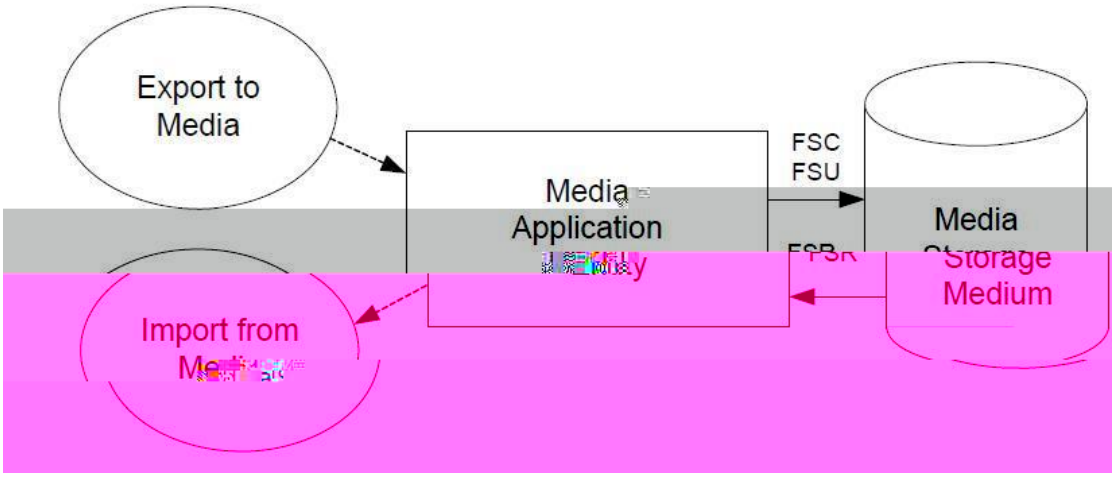

Figure 9

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-w R U O G DBackupY LXW\L3Q J W K H configured export selection parameters for selected S D W L H Q W V ¶ G D W D L P D J H V D Q Structured Reports).

5.1.2

5.1.2.1 Functional Definition of Media Application Entity

8 V L Q J S R U W ´ Z L O O S D V V H W K H F X U U H Q W V ¶ H [D P V R U L Q G L Y L images to the Media Application Entity. The contents of each export job will be written to the selected media destination. The size of the selected media is used to determine and display the number of media required for the export. When a device is filled to capacity, the system will prompt the user for addition media and continue.

5.1.3 Sequencing of Real-World Activities

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	1.2.156.112536.1.2142.0.1.0.1
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

7KH V\VWHP XVHU VHOHFWV H[DPV IURP WKH V\VWHP¶V GLUHFW
already contains data. The DICOMDIR is updated allowing access to original and new data.

The Media Application Entity acts as an FSU using the interchange option when requested to export SOP Instances from the local database to media upon which DICOM data already resides.

5.2.1.2.3.1 Media Storage Application Profiles

See Table 91 for supported Application Profiles.

5.2.1.2.3.1.1 Options

The Media Application Entity supports the SOP Classes and Transfer Syntaxes listed in the Table below:

Table 92
IODs, SOP Classes and Transfer Syntaxes

Information Object Definition	SOP Class UID	Transfer Syntax	Transfer Syntax UID
DICOM Media Storage Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	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
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

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0004,1430)	CS	1	Directory Record Type	PATIENT
(0010,0020)	LO	1	Patient ID	MWL/USER
(0010,0010)	PN	2	Patient's Name	MWL/USER
(0010,0030)	DA	3	Patient's Birth Date	MWL/USER
(0010,0040)	CS	3	Patient's Sex	MWL/USER
(0010,1000)	LO	3	Other Patient IDs	MWL/USER

Table 95

Study Directory Record

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0004,1430)	CS	1	Directory Record Type	STUDY
(0008,0020)	DA	1	Study Date	AUTO
(0008,0030)	TM	1	Study Time	AUTO
(0020,0010)	SH	1	Study ID	AUTO
(0020,000D)	UI	1C	Study Instance UID	AUTO
(0008,0050)	SH	2	Accession Number	MWL/USER
(0008,1030)	LO	2	Study Description	If it is a scheduled exam, the value is mapped from Scheduled Procedure Step Description; If not, USER
(0008,0090)	PN		Referring Physician's Name	MWL/USER

Table 96

Series Directory Record

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0004,1430)	CS	1	Directory Record Type	SERIES
(0008,0060)	CS	1	Modality	US
(0020,000E)	UI	1	Series Instance UID	AUTO
(0020,0011)	IS	1	Series Number	AUTO

(0008,0021)	DA	3	Series Date	AUTO
(0008,0031)	TM	3	Series Time	AUTO
(0008,103e)	LO		Series Description	If it is a scheduled exam, the value is mapped from Scheduled Procedure Step Description; If not, same as the value of Study Description
(0008,1050)	PN		Performing Physician's Name	MWL/USER

Table 97

Image Directory Record

ATTRIBUTE	VR	TYPE	ATTRIBUTE NAME	VALUE(S) AND COMMENTS
(0004,1430)	CS	1	Directory Record Type	IMAGE
(0004,1500)	CS	1C	Referenced File ID	AUTO
(0004,1510)	UI	1C	Referenced SOP Class UID in File	AUTO
(0004,1511)	UI	1C	Referenced SOP Instance UID in File	AUTO
(0004,1512)	UI	1C	Referenced Transfer Syntax UID in File	AUTO
(0020,0013)	IS	1	Instance Number	AUTO
(0028,0008)	IS	3	Number of Frames	AUTO(Only used for mutil-frame image)

5.4 Augmented and Private Application Profiles

No augmented/private profile is supported.

5.5 Media Configuration

None.

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, German, Italian, Portuguese, Spanish, Finnish, Danish, Icelandic, Norwegian, Swedish,Lithuanian,Dutch
AUTO UTF-8	ISO_IR 166	Thai
AUTO ISO-8859-2	ISO_IR 101	Polish, Czech, Serbian,Hungarian
AUTO ISO 8859-5	ISO_IR 144	Russian
AUTO ISO-8859-7	ISO_IR 126	Greek
AUTO ISO-8859-9	ISO_IR 148	Turkish
AUTO GB18030	GB18030	Chinese

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

DICOM TLS

7.3 Application level security

DICOM TLS.

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,			

18	>	CONTAINS	INCLUDE	DTID (5013) Follicles Section			$Laterality = EV (G- $Number = EV (11880- of follicles in right
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, Depth
4	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-02,
5	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-03,
6	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-01, MRUS, □
7	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-02, MRUS, □ □
8	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-03, MRUS, Urine
9	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-04, □

10	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C99901-04, MRUS, Thickness
11	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-05, Neck Symphyseal □
12	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-06, Neck Symphyseal Distance (Valsava)
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, □ (Valsava
16	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-09, □
17	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-10, Tilt Angle (Valsava
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, □ (Valsava
21	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-13, MRUS, □
22	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-14, MRUS, □ (Valsava
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, MRUS, 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, MRUS, 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, □ Angle (Valsava
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 (Valsava
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 (Valsava
42	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-32, MRUS, Hiatus Lateral Diameter □ □

43	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-33,
44	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-34, r Hiatus Circumference
45	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-35, Hiatus Area (Valsava
46	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-36, Hiatus Circumference (Valsava
47	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-37, Hiatus Area □ □
48	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-38, Hiatus Circumference □ □
49	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-39, Ani Thickness
50	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-40, Ani Thickness (Valsava

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 (Valsava
54	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-44, Ani Angle □ □
55	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-48, □

60	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-53,
61	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-54,
62	>	CONTAINS	INCLUDE	EV (M99901, MRUS Levator Urethra Gap			$AnatomyGroup = EV (M99901, MRUS Levator Urethra Gap $SectionLaterality = DCID (244) Laterality
63	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-45, Urethra Gap
64	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-46, Urethra Gap (Valsava
65	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-47, Urethra Gap □ □
66	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-55, Neck Symphyseal □
67	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-56,

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 (Valsava
73	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-62, Bladder Descent1 (Valsava
74	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-63, MRUS, Angle1 (Valsava
75	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-64, MRUS, Pubovesical Angle1 (Valsava

76	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-65, MRUS, Angle1 (Valsava
77	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-66, Tilt Angle1 (Valsava
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 (Valsava
85	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-74, Bladder Descent2 (Valsava
86	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-75, MRUS, Angle2 (Valsava
87	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-76, MRUS, Pubovesical Angle2 (Valsava
88	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-77, MRUS, Angle2 (Valsava
89	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-78, Tilt Angle2 (Valsava
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 (Valsava
97	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-86, Bladder Descent3 (Valsava
98	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-87, MRUS, Angle3 (Valsava
99	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-88, MRUS, Pubovesical Angle3 (Valsava

100	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-89, MRUS, Angle3 (Valsava
101	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-90, Tilt Angle3 (Valsava
102	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-91, r Urethra Gap1
103	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-92, Urethra Gap1
104	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-93, Urethra Gap1 (Con □
105	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-94, MRUS, Levator Urethra Gap2
106	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-95, Urethra Gap2
107	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M99901-96, Urethra Gap2 □ □

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

7	>	CONTAINS	NUM	EV (11612-9, LN,			from info
8	>	CONTAINS	NUM	EV (33065-4, LN,			from info(Ectopic)

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

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, "progesterone")			
26	>	CONTAINS	TEXT	(I12101-14,MRUS, "human menopausal gonadotropin")			
27	>	CONTAINS	TEXT	(I12101-13,MRUS, "clomiphene citrate")			
28	>	CONTAINS	TEXT	(I12101-15,MRUS, "Others drug")			
29	>	CONTAINS	NUM	(8302-2, LN, "Patient Height")			from info
30	>	CONTAINS	NUM	(29463-7, LN, "Patient Weight")			from info
31	>	CONTAINS	TEXT	EV (121106, DCM, Comment)			report interface Comments
32	>	CONTAINS	TEXT	(I12101-05, MRUS, "Prompt")			report interface Prompt
33	>	CONTAINS	TEXT	(121071, DCM, "Findings")			report interface Findings
34	>>		INCLUDE	DTID (320) Image or Spatial Coordinates			

35	>	CONTAINS	NUM	(I12101-16,MRUS,Vaginal Delivery)			from info
36	>	CONTAINS	NUM	(I12101-17,MRUS,Assisted Vaginal Delivery)			from info
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, "Number of			
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

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
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")
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 = (C12019-4, MRUS, "Gestational Age by EFW")
15	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (C12019-4, MRUS, "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

A.11. TID (FINDING_1) Fetal Description

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

NL

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

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
11	>	CONTAINS	NUM	(C12004-03, MRUS, LVW/HW)			
12	>	CONTAINS	NUM	(C12004-04, MRUS, "Cephalic Index by HC")			

A.19. TID (5005) Fetal Biometry Section

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	DT (125002,			
2	>	HAS OBS CONTEXT	TEXT	EV (11951-1,LN,			
3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN,			

							$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 T**

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, □			
10	>	CONTAINS	NUM	EV (11635-5, LN,			Units = DT □
11	>>	HAS PROPERTIES	TEXT	(121106, DCM, □			
12	>	CONTAINS	NUM	EV (11630-1, LN, □			Units = DT □
13	>>	HAS PROPERTIES	TEXT	(121106, DCM, □			
14	>	CONTAINS	NUM	DT (11634-3, LN,			
15	>>	HAS PROPERTIES	TEXT	(121106, DCM, □			

A.24. TID (5010) Amniotic Sac Section

	N L	**Rel with Parent**	**VT**	**Concept Name**	**Used in MODALITY**	**Condition**	**Value Set Constraint**
1			CONTAINER	DT (121070, DCM, □ □			
2	>	HAS	CODE	EV (G-C0E3,			DT (T-F1300,

		CONCEPT MOD		Sit			
3	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = DT (11627-7, LN,
4	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11624-4, LN,
5	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11626-9, LN, Second Quadrant
6	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11625-1, LN,
7	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (11623-6, LN, "Fourth Quadrant
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	[redacted]						

[redacted]

				"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-
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, MRUS □
16	>>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (T-87000-3 Ovarian Cyst1 Height
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

A.27. TID (5013) 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, SRT, □
3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,			$Laterality
4	>	CONTAINS	NUM	EV (11879-4, 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, r of smart follicles 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 (M11793-01 d1
5	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-02, LN, d2
6	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11794-03, MRUS, d3
7	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (C11793-01, MRUS, Mean Follicle Diameter

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 (M11793-01, LN, Follicle d1
9	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-02, LN, Follicle d2
10	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = EV (M11793-03, LN, Follicle d3
11	>	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)
9	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (MRUS,M12011-01,Cervix Height)
10	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (MRUS,M12011-02,Cervix Width)
11	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (MRUS,C12011-03,Uterus Body)
12	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (MRUS,C12011-04,UT_L/CX_L)
13	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (MRUS,M12011-03,Matrix Kindney Length)
14	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-04,MRUS,Fibroid1 Length)
15	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-05,MRUS,Fibroid1 Width)
16	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-06,MRUS,Fibroid1

							Height)
1	>	CONTAINS	INCLUDE	DTID (300)			$Measurement (M12011-	=
7				Measurement			

							Length)
30	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-20,MRUS,Lesion32 Width)
31	>	CONTAINS	INCLUDE	DTID (300) Measurement			$Measurement = (M12011-21,MRUS,Lesion3 Height)

A.32. TID (5025) OB-GYN Fetus Vascular Ultrasound Measurement Group

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	$AnatomyGroup			
2	>	HAS OBS CONTEXT	TEXT	EV (11951-1,LN,			
3	>	HAS OBS CONTEXT	NUM	EV (11878-6,LN, "Number of			
4	>	HAS CONCEPT MOD	CODE	EV (G-			DCID (244) Laterality
5	>	CONTAINS	INCLUDE	DTID (300) Measurement			$MeasType = DCID (12119) Vascular Ultrasound Property $Derivation = DCID (3627) Measurement Type

A.33. TID (5026) OB-GYN Pelvic Vascular Ultrasound Measurement Group

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

			R				
2	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,			DCID (244) Laterality
3	>	HAS CONCEPT MOD	TEXT	(112050, DCM,			

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

CSD	CV	Code Meaning
MRUS	M12005-10	Cardiac Diameter (A-P)
MRUS	M12005-11	Lung CCAM Length
MRUS	M12005-12	Lung CCAM Height

CSD	CV	Code Meaning
LN	11863-8	Trans Cerebellar Diameter
LN	33069-6	Nuchal Translucency
LN	12170-7	Width of Hemisphere
MRUS	M12007-01	Ear Length
MRUS	M12007-02	Middle Phalanx Length
MRUS	M12007-03	Orbit
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	Frontomaxillary facial angle

MRUS	M12009-03	Gestational Sac Diameter3
MRUS	C12009-01	Mean Gestational Sac Diameter
MRUS	M12009-01	Gestational Sac Diameter1
MRUS	M12009-02	Gestational Sac Diameter2
MRUS	M12009-03	Gestational Sac Diameter3
MRUS	M12009-04	Yolk Sac length
MRUS	M12009-05	Yolk Sac Height
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

CSD	CV	Code Meaning
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
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
MRUS	F12013-09	FL, ASUM 2001
MRUS	F12013-10	FL, Chitty 1997
MRUS	F12013-11	FL, Merz 1991
MRUS	F12013-12	FL, Tokyo 1989
MRUS	F12013-13	FL,Warda,1985
MRUS	F12013-14	GS, Tokyo 1986
MRUS	F12013-15	HC, ASUM 2001
MRUS	F12013-16	HC derived, Chitty 1994
MRUS	F12013-17	HC,Nicolaides 1994

CSD	CV	Code Meaning
MRUS	F12013-18	Humerus Length, ASUM 2001
MRUS	F12013-19	OFD, ASUM 2001
MRUS	F12013-20	OFD,Nicolaides 1994
MRUS	F12013-21	OOD, Jeanty 1984
MRUS	F12013-22	TCD,Nicolaides 1994
MRUS	F12013-24	THD,Hansmann 1985
MRUS	F12013-25	GS, Hansmann 1985
MRUS	F12013-26	FL, Hansmann 1995
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	OFD, Jeanty 1984
MRUS	F12013-58	RAD, Jeanty 1984
MRUS	F12013-59	FIB, Jeanty 1984
MRUS	F12013-57	BPD, CFEF Crequat 2000
MRUS	F12013-58	FL, CFEF Crequat 2000
MRUS	F12013-59	HC, CFEF Crequat 2000
MRUS	F12013-60	TAD, CFEF Crequat 2000
LN	11926-3	Foot Length by GA Mercer 1987
MRUS	F12013-61	CRL Verburg 2008
MRUS	F12013-62	BPD Verburg 2008

A.42. CID (12014) Fetal Body Weight

CSD	CV	Code Meaning
LN	11739-0	EFW by AC and BPD, Shepard 1982
LN	11756-4	EFW by AC, Campbell 1975
MRUS	F12014-07	EFW by BPD, APTD, TTD, FL, Tokyo 1987
LN	11735-8	EFW by AC, BPD, FL, Hadlock 1985
LN	11732-5	EFW by AC, BPD, FL, HC, Hadlock 1985
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
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

CSD	CV	Code Meaning
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
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

CSD	CV	Code Meaning
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	F12015-73	FL Verburg 2008
MRUS	F12015-74	HC Verburg 2008
MRUS	F12015-75	TCD Verburg 2008
MRUS	F12015-76	AC,CFEF Crequat 2006
MRUS	F12015-77	AC c ,CFEF Crequat 2006
MRUS	F12015-78	BPD,CFEF Crequat 2006
MRUS	F12015-79	FL,CFEF Crequat 2006
MRUS	F12015-80	HC,CFEF Crequat 2006
MRUS	F12015-81	HC c ,CFEF Crequat 2006
MRUS	F12015-82	EFW CFEF 2014

A.44. CID (12119) Vascular Ultrasound Property

CSD	CV	Code Meaning
INCLUDE CID 12120 Blood Velocity Measurements		
INCLUDE CID 12121 Vascular Indices and Ratios		
INCLUDE CID 12122 Other Vascular Properties		

A.45. CID (12120) Blood Velocity Measurements

CSD	CV	Code Meaning
LN	11653-3	End Diastolic Velocity
LN	11665-7	Minimum Diastolic Velocity
LN	11726-7	Peak Velocity
LN	11692-1	Time averaged peak velocity
LN	11692-1	TAMAX

LN	12008-9	PI
LN	12023-8	RI
LN	12144-2	S.D
LN	20168-1	AT
LN	20217-6	DT
LN	20247-3	PPG
LN	20256-4	MPG
MRUS	M12119-01	MMPG
LN	20354-7	VTI
LN	8867-4	HR
MRUS	M12119-02	Theta
LN	11726-7	PV
MRUS	M12119-04	D.S
LN	20167-3	D.S
MRUS	M12119-28	VolFlow
MRUS	M12119-29	Vas.Area
MRUS	M12119-30	VolFlow.TAMEAN
LN	20167-3	AI
DCM	122675	AP
SRT	G-A117	Trans
SRT	G-0364	Outer.D
MRUS	M12119-18	Inner.D
SRT	R-101BB	Stenosis.D
SRT	R-101BA	Stenosis.A
MRUS	M12119-19	Checklist
SRT	G-A143	Long
MRUS	M12119-20	Reflux.V
MRUS	M12119-11	Reflux.Time
MRUS	M12119-21	Pre.Sten
MRUS	M12119-22	Sten
MRUS	M12119-23	Post.Sten
MRUS	C12119-3	RAR
MRUS	C12119-4	RAR
SRT	G-A220	W

DCM	121207	H
SRT	G-D705	Vol
SRT	G-D785	Depth
[redacted]		Diam

LN

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	Aorta Sten A
MRUS	M12119-30	Aneurysm Length
MRUS	M12119-31	Aneurysm Hight
MRUS	M12119-32	Aneurysm Width
LN	18037-2	Mitral Valve E-Wave Peak Velocity
LN	17978-8	Mitral Valve A-Wave Peak Velocity
LN	18038-0	Mitral Valve E to A Ratio
LN	18031-5	Tricuspid Valve E Wave Peak Velocity
LN	18030-7	Tricuspid Valve A Wave Peak Velocity
LN	18039-8	Tricuspid Valve E to A Ratio
LN	79964-3	Aortic valve Vmax
MRUS	T-35410-1	Aortic Valve Time to Peak
LN	79965-0	Aortic valve VTI
LN	79920-5	Pulmonic valve Vmax
MRUS	T-35200-1	Pulmonic valve Time to Peak
LN	79910-6	Pulmonic valve VTI
MRUS	T-F6845-1	Ductus arteriosus Vmax

MRUS	T-F6845-2	Ductus arteriosus Time to Peak
MRUS	T-F6845-3	Ductus arteriosus VTI
MRUS	T-35300	

MRUS	M12204-11	Right Ventricular Length
MRUS	M12205-03	Left Atrium Width
MRUS	M12206-03	Right Atrium Width
MRUS	M12240-05	Left Ventricular Wall at end diastole
MRUS	M12240-06	Left Ventricular Wall at end systole
MRUS	M12204-12	Right Ventricular Wall at end diastole
MRUS	M12204-13	Right Ventricular Wall at end systole
SRT	T-35410	Aortic Valve Ring

A.48. CID (12140) Pelvic Vasculature Anatomical Location

CSD	**CV**	**Code Meaning**
SRT	T-46980	Ovarian Artery
SRT	T-46820	Uterine Artery
SRT	T-F1810	Umbilical Artery
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	

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	CV	Code Meaning
LN	18015-8	Aortic Root Diameter
LN	18012-5	Ascending Aortic Diameter
LN	18013-3	Descending Aortic Diameter
LN	18019-0	Left Pulmonary Artery Diameter
LN	18021-6	Right Pulmonary Artery Diameter
LN	18020-8	Main Pulmonary Artery Diameter
LN	18154-5	Interventricular Septum Diastolic Thickness
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

MODALITY Label	*DICOM Mapping*
FL	11963-6,LN,Femur Length
HC	11984-2,LN,Head Circumference
OFD	11851-3,LN,Occipital-Frontal Diameter
APAD	11818-2,LN,Anterior-Posterior Abdominal Diameter
TC	11988-3,LN,Thoracic Circumference
TAD	11862-0,LN,Tranverse Abdominal Diameter
TTD	11864-6,LN,Transverse Thoracic Diameter
APTD	11819-0,LN,Anterior-Posterior Trunk Diameter
FTA	33068-8,LN,Thoracic Area
TCD	11863-8,LN,Trans Cerebellar Diameter
Foot	11965-1,LN,Foot length
Cist Magna	11860-4,LN,Cisterna Magna
AXT	33191-8,LN,APAD * TAD
F-kidney	M12005-05, MRUS, Fetal Kidney length
NBL	M12005-06 MRUS Nose Bone Length
THD	M12005-01,MRUS,Thoracic Diameter
HrtC	M12005-02,MRUS,Heart Circumference
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
NF	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
HW	12170-7,LN,Width of Hemisphere
Ear	M12007-01,MRUS,Ear Length
MP	M12007-02,MRUS,Middle Phalanx Length
Orbit	M12007-03,MRUS,Orbit
OFD(HC)	M12007-04,MRUS,OFDHC

MODALITY Label	*DICOM Mapping*
HC(c)	C12007-01,MRUS,HCc
IT	M12007-05,MRUS,intracranial translucency
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
AF	M12008-01,MRUS,Amniotic Fluid
CRL	11957-8,LN,Crown Rump Length
GS	11850-5,LN,Gestational Sac Diameter
Vertebrae	33071-2,LN,Spine Length
YS	11816-6,LN,Yolk Sac length
NT	33069-6,LN,Nuchal Translucency
Mean Sac Diam	C12009-01,MRUS,Mean Gestational Sac Diameter
Cervix L	11961-0,LN,Cervix Length
Cervix L	11961-0,LN,Cervix Length
Endo	12145-9,LN,Endometrium Thickness
Cervix H	M12011-01,MRUS,Cervix Height
Cervix W	M12011-02,MRUS,Cervix Width
Uterus Body	C12011-03,MRUS,Uterus Body
UT-L/CX-L	C12011-04,MRUS,UT_L/CX_L
Mat Kidney	M12011-03,MRUS,Matrix Kindney Length
Fibroid1 d1	M12011-04,MRUS,Fibroid1 Length
Fibroid1 d2	M12011-05,MRUS,Fibroid1 Width
Fibroid1 d3	M12011-06,MRUS,Fibroid1 Height
Fibroid2 d1	M12011-07,MRUS,Fibroid2 Length
Fibroid2 d2	M12011-08,MRUS,Fibroid2 Width
Fibroid2 d3	M12011-09,MRUS,Fibroid2 Height
Fibroid3 d1	M12011-10,MRUS,Fibroid3 Length
Fibroid3 d2	M12011-11,MRUS,Fibroid3 Width
Fibroid3 d3	M12011-12,MRUS,Fibroid3 Height
UT.AW	M12011-13,MRUS, UT Anterior wall thickness
UT.PW	M12011-14,MRUS, UT Posterior wall thickness
Lesion1.L	M12011-09,MRUS, Lesion1 Length
Lesion1.W	M12011-10,MRUS,Lesion1 Width

MODALITY Label	*DICOM Mapping*
Lesion1.H	M12011-11,MRUS,Lesion1 Height
Lesion2.L	M12011-12,MRUS,Lesion2 Length
Lesion2.W	M12011-13,MRUS,Lesion2 Width
Lesion2.H	M12011-14,MRUS,Lesion2 Height
Lesion3.L	M12011-15,MRUS,Lesion3 Length
Lesion3.W	M12011-16,MRUS,Lesion3 Width
Lesion3.H	M12011-17,MRUS,Lesion3 Height
AFI	11627-7,LN,Amniotic Fluid Index
Ovary W	11829-9, LN, Left Ovary Width;11830-7, LN, Right Ovary Width
Ovary L	11840-6, LN, Left Ovary Length;11841-4, LN, Right Ovary Length
Ovary H	11857-0, LN, Left Ovary Height;11858-8, LN, Right Ovary Height
Ovary Vol	12164-0, LN, Left Ovary Volume;12165-7, LN, Right Ovary Volume
Ovarian.Cyst1.L	T-87000-1,MRUS,Ovarian Cyst1 Length
Ovarian.Cyst1.W	T-87000-2,MRUS,Ovarian Cyst1 Width
Ovarian.Cyst1.H	T-87000-3,MRUS,Ovarian Cyst1 Height
Ovarian.Cyst2.L	T-87000-4,MRUS,Ovarian Cyst2 Length
Ovarian.Cyst2.W	T-87000-5,MRUS,Ovarian Cyst2 Width
Ovarian.Cyst2.H	T-87000-6,MRUS,Ovarian Cyst2 Height
Ovarian.Cyst3.L	T-87000-7,MRUS,Ovarian Cyst3 Length
Ovarian.Cyst3.W	T-87000-8,MRUS,Ovarian Cyst3 Width
Ovarian.Cyst3.H	T-87000-9,MRUS,Ovarian Cyst3 Height
Follicle d1	M11793-01, MRUS, Follicle d1

22(l)-5<refa209o4 Tf1 0 0 1 92.904

MODALITY Label	*DICOM Mapping*
Smart Follicle ->Follicle MD	11793-7,LN,Smart Follicle MeanDiam
EFW1	11727-5,LN,Estimated Weight
EFW2	11727-5,LN,Estimated Weight
CP	11767-1,LN EFW percentile rank
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
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

MODALITY Label	*DICOM Mapping*
AD	M12005-14 MRUS Abdominal Diameter
Lliac.Wing.Angle	M12005-15 MRUS Lliac Wing Angle
FAGL	M12005-16 MRUS Fetal adrenal gland length
FAGA	M12005-17 MRUS,Fetal adrenal gland area
FAGC	M12005-18 MRUS Fetal adrenal gland circumference
Intestinum.Crassum	M12005-19 MRUS Intestinum Crassum
Liver.Length	M12005-20 MRUS Liver Length
Rib.Length	M12005-21 MRUS Rib Length
Shoulder.Blade	M12005-22 MRUS Shoulder Blade
MAD	C12005-7 MRUS Mean Abdominal Diameter

A.51.2. Vasculature Anatomic Location

MODALITY Vasculature Anatomic Location	*DICOM Mapping*
Ovarian A	T-46980, SRT, Ovarian Artery
Ut A	T-46820, SRT, Uterine Artery
Fetal Ao	T-42000, SRT, Aorta
Desc Aorta	T-D0765, SRT, Descending Aorta
Asc Aorta	T-42100,SRT,Ascending Aorta
RVOT	T-32550,SRT,Right ventricle outflow tract
LVOT	T-32650,SRT,Left ventricle outflow tract
MCA	T-45600, SRT, Middle Cerebral Artery
Duct Veno	V1158.335(d)7(d)-6TQQ6F6 8.04 T* n 0 1 386. ref*2

MODALITY Label	*DICOM Mapping*
<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	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
Rectocele Depth	M99901-22,MRUS,Rectocele Depth
Intus. Depth	M99901-23,MRUS,Intus. Depth
ARA(R)	M99901-24,MRUS,Anorectal Angle (Rest)
ARA(S)	M99901-25,MRUS,Anorectal Angle (Stress)
ARA(C)	M99901-26,MRUS,Anorectal Angle (Contraction)
LH AP Diam(R)	M99901-27,MRUS,Levator Hiatal Anteroposterior Diameter (Rest)
LH AP Diam(S)	M99901-28,MRUS,Levator Hiatus Anteroposterior Diameter (Stress)
LH AP Diam(C)	M99901-29,MRUS,Levator Hiatus Anteroposterior Diameter (Contraction)
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 Hiatus Lateral Diameter (Contraction)
LH Angle(R)	M99901-33,MRUS,Levator Hiatus Area (Rest)
LH Circ(R)	M99901-34,MRUS,Levator Hiatus Circumference (Rest)
LH Angle(S)	M99901-35,MRUS,Levator Hiatus Area (Stress)
LH Circ(S)	M99901-36,MRUS,Levator Hiatus Circumference (Stress)
LH Angle(C)	M99901-37,MRUS,Levator Hiatus Area (Contraction)

LH Circ(C)	M99901-38,MRUS,Levator Hiatus Circumference (Contraction)
LA Thickness (R)	M99901-39,MRUS,Levator Ani Thickness (Rest)
LA Thickness (S)	M99901-40,MRUS,Levator Ani Thickness (Stress)
LA Thickness (C)	M99901-41,MRUS,Levator Ani Thickness (Contraction)
LA Angle(R)	M99901-42,MRUS,Levator Ani Angle (Rest)
LA Angle(S)	M99901-43,MRUS,Levator Ani Angle (Stress)
LA Angle(C)	M99901-44,MRUS,Levator Ani Angle (Contraction)
LUG(R)	M99901-45,MRUS,Levator Urethra Gap (Rest)
LUG(S)	M99901-46,MRUS,Levator Urethra Gap (Stress)
LUG(C)	M99901-47,MRUS,Levator Urethra Gap (Contraction)
ResUr (Dietz)	C99901-01,MRUS,Residual Urine (Dietz)
ResUr (Haylen)	C99901-02,MRUS,Residual Urine (Haylen)
ResUr (Dicuio)	C99901-03,MRUS,Residual Urine (Dicuio)
Mean DWT	C99901-04,MRUS,Detrusor Wall Thickness (C)
BND	C99901-05,MRUS,Bladder Neck Descent
IAS Damage	C99901-07,MRUS,IAS Damage
EAS Damage	C99901-08,MRUS,EAS Damage
DWT1	M99901-48,MRUS,Detrusor Wall Thickness1
DWT2	M99901-49,MRUS,Detrusor Wall Thickness2
DWT3	M99901-50,MRUS,Detrusor Wall Thickness3
IAS D1	M99901-51,MRUS,IAS Damage1
IAS D2	M99901-52,MRUS,IAS Damage2
EAS D1	M99901-53,MRUS,EAS Damage1
EAS D2	M99901-54,MRUS,EAS Damage2

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)

B. Appendix : Cardiac structured reporting template

This appendix lists the DICOM Structured Report (SR) mappings used in the Cardiac 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 Cardiac Report mappings follow the DICOM SR Template TID 5200: Cardiac Ultrasound Procedure Report, except where noted.

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

B.1. TID (5200) Echocardiography Procedure Report

This template forms the top of a content tree that allows an ultrasound system to describe the results of an adult echocardiography imaging procedure.

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (125200, DCM,			
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 (5201) Echocardiography Patient Characteristics			
5	>	CONTAINS	CONTAINER				
6	>>	CONTAINS	IMAGE	No purpose of reference			
7	>	CONTAINS	INCLUDE	DTID(SELFTEM-2)Echo Procedure Summary Section			
8	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T- $MeasType = DCID

							(12200) Echocardiography Left Ventricle
9	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T- Ven $MeasType = DCID (12204) Echocardiography Right Ventricle
10	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T- $MeasType = DCID (12205) Echocardiography Left Atrium
11	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T- $MeasType = DCID (12206) Echocardiography Right Atrium
12	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-35400, SRT, $MeasType = DCID (12211) Echocardiography Aortic Valve
13	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-35300, SRT, $MeasType = DCID (12207) Echocardiography Mitral Valve
14	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-35200, SRT, $MeasType = DCID

							(12209) Echocardiography Pulmonic Valve
15	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-35100, SRT, $MeasType = DCID (12208) Echocardiography Tricuspid Valve
16	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-42000, SRT, $MeasType= DCID (12212) Echocardiography Aorta
17	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-44000, SRT, $MeasType DCID (12210) = Echocardiography Pulmonary Artery
18	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T- $MeasType = DCID (12215) Echocardiography Vena Cavae
19	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (T-48581, SRT, $MeasType = DCID (12214) Echocardiography Pulmonary Veins
20	>	CONTAINS	INCLUDE	DTID (5202) Echo Section			$SectionSubject = EV (P5-30031, SRT,

							DCID (12217) 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, ericardial disease") $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 (8867- $MeasType = DCID (12220) Echocardiography Common Measurements
26	>	CONTAINS	TEXT	(20121120,MRUS, self-defined-Measurementfile)			

B.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.

	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,		DCID (7455) Sex	from worklist or Info
4	>	CONTAINS	NUM	EV (8867-			from Info
5	>	CONTAINS	NUM	EV (F-008EC, SRT,			from Info
6	>	CONTAINS	NUM	EV (F-008ED, SRT, "Diastolic Blood Pressure")			from Info
7	>	CONTAINS	NUM	EV(18070-3,LN,"Right Atrium Systolic Pressure")			from Info

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	)		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
LN	29436-3	Left Ventricle Internal End Diastolic Dimension
LN	29438-9	Left Ventricle Internal Systolic Dimension
LN	18154-5	Interventricular Septum Diastolic Thickness
LN	18152-9	Left Ventricle Posterior Wall Diastolic Thickness

B.9. CID (12202) Left Ventricle Volume

CSD	CV	Code Meaning
LN	18026-5	Left Ventricular End Diastolic Volume
LN	18148-7	Left Ventricular End Systolic Volume
LN	18043-0	Left Ventricular Ejection Fraction
MRUS	C12202-01	Left Ventricular EDV index
MRUS	C12202-02	Left Ventricular ESV index

B.10. CID (12203) Left Ventricle Other

CSD	CV	Code Meaning
LN	18087-7	Left Ventricle Mass
LN	18071-1	Left Ventricular Isovolumic Relaxation Time
SRT	G-037E	Left Ventricular Isovolumic Contraction Time
SRT	G-037F	Left Ventricular Index of Myocardial Performance
MRUS	M12203-01	Left Ventricle Pre-Ejection Period
MRUS	M12203-02	Left Ventricle Ejection Time
MRUS	C12203-01	Left ventricular Mass Weight Index
MRUS	C12203-02	Left Ventricle Pre-Ejection Period to Ejection Time Ratio

B.11. CID (12204) Echocardiography Right Ventricle

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
INCLUDE CID 12222 Orifice Flow Properties		
INCLUDE CID 12239 Cardiac Output Properties		
LN	20304-2	Right Ventricular Internal Diastolic Dimension
LN	20305-9	Right Ventricular Internal Systolic Dimension

CSD	CV	Code Meaning
SRT	G-0381	Right Ventricular Index of Myocardial Performance
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	

CSD **CV**

CSD	CV	Code Meaning
MRUS	M12207-38	Mitral Valve A-C Interval
MRUS	M12207-39	Mitral Annular Plane Systolic Excursion

B.15. CID (12208) Echocardiography Tricuspid Valve

CSD	CV	Code Meaning
INCLUDE CID 12220 Echocardiography Common Measurements		
INCLUDE CID 12222 Orifice Flow Properties		
LN	18031-5	Tricuspid Valve E Wave Peak Velocity
LN	18030-7	Tricuspid Valve A Wave Peak Velocity
LN	18039-8	Tricuspid Valve E to A Ratio
LN	20296-0	Time from Q wave to Tricuspid Valve Opens
SRT	G-0389	

CSD	CV	Code Meaning
LN	18019-0	Left Pulmonary Artery Diameter

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 LC

CSD	CV	Code Meaning
LN	29474-4	Hepatic Vein Atrial Contraction Reversal Peak Velocity
MRUS	29473-0	Hepatic Vein Systolic Pressure Gradient
MRUS	29473-1	Hepatic Vein Diastolic Pressure 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	Regurgitant Fraction
LN	11726-7	Peak Velocity
LN	20352-1	Mean Velocity
LN	20247-3	Peak Gradient
LN	20256-4	Mean Gradient
LN	20354-7	Velocity Time Integral
LN	20168-1	Acceleration Time
LN	11653-3	End Diastolic Velocity

CSD	CV	Code Meaning
MRUS	M12222-06	Flow Radius
MRUS	M12222-01	Angle
MRUS	M12222-08	Presure Gradient at end-Diastole
MRUS	M12222-07	Acceleration Time/Deceleration Time
SRT	G-038F	Cardiovascular Orifice Diameter

B.28. CID (12224) Ultrasound Image Modes

CSD	CV	Code Meaning
SRT	G-03A2	2D mode
SRT	G-0394	M mode
SRT	R-409E2	Doppler Color Flow
SRT	G-0394	M mode
SRT	R-409E4	Doppler Pulsed
SRT	R-409E3	Doppler Continuous Wave
DCM	125230	Power Doppler

DCM

CSD	CV	Code Meaning
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

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

B.38. CID (12239) Cardiac Output Properties

CSD	CV	Code Meaning

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
SRT	G-0374	Left Ventricular Systolic Area
SRT	G-0375	Left Ventricular Diastolic Area

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)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
EDV(Cube-M)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-0394,SRT,M Mode; Method =125206,DCM,Cube Method
EDV(Teich-M)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-0394,SRT,M Mode; Method =125209,DCM,Teichholz
EDV(Gibson-M)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-0394,SRT,M Mode; Method =VM12228-03,MRUS,Gibson
EDV(Cube-2D)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125206,DCM,Cube Method
EDV(Teich-2D)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125209,DCM,Teichholz
EDV(Gibson-2D)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-03,MRUS,Gibson

EDV(Simp SP-A4C)	18026-5,LN,Left Ventricular End Diastolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125208,DCM,Method of Disks, Single Plane
ESV(SP Ellipse)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
ESV(BP Ellipse)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
ESV(Bullet)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
ESV(Mod.Simpson)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson
ESV(Simp SP-A2C)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125208,DCM,Method of Disks, Single Plane
ESV(Simpson BP)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; Method =125207,DCM,Method of Disks, Biplane
ESV(Simp BP-A2C)	18148-7,LN,Left Ventricular End Systolic Volume	ImageMode =G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
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 Area	G-038E,SRT,Cardiovascular Orifice Area	ImageMode =G-03A2,SRT,2D mode;
LVOT Diam(2D)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-03A2,SRT,2D mode;
LVOT Diam(M)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-0394,SRT,M Mode;
LVOT Diam(MVA VTI)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-03A2,SRT,2D mode;
LVOT Diam(AVA VTI)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-03A2,SRT,2D mode;
LVOT Diam(AVA Vmax)	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-03A2,SRT,2D mode;
LVOT Vmax	11726-7,LN,Peak Velocity	
LVOT Vmax(LVOT VTI)	11726-7,LN,Peak Velocity	
LVOT Vmean	20352-1,LN,Mean Velocity	
LVOT PGmax	20247-3,LN,Peak Gradient	
LVOT PGmax(LVOT VTI)	20247-3,LN,Peak Gradient	
LVOT PGmean	20256-4,LN,Mean Gradient	
LVOT VTI	20354-7,LN,Velocity Time Integral	
LVOT VTI(MVA VTI)	20354-7,LN,Velocity Time Integral	
LVOT VTI(AVA VTI)	20354-7,LN,Velocity Time Integral	
LVOT AccT	20168-1,LN,Acceleration Time	
LVOT	M12222-01,MRUS, Angle	
LVOT Acc Slope	M12222-02,MRUS, Acceleration Slope	
LV Mass(Cube-M)	18087-7,LN,Left Ventricle Mass	ImageMode =G-0394,SRT,M Mode; Method =125221,DCM,Left Ventricle Mass by M-mode
LV Mass(T-E)	18087-7,LN,Left Ventricle Mass	ImageMode =G-03A2,SRT,2D mode; Method =125222,DCM,Left Ventricle Mass by Truncated Ellipse

LVOT SV	F-32120,SRT,Stroke Volume	
SV(SP Ellipse)	F-32120,SRT,Stroke Volume	ImageMode =G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
SV(BP Ellipse)	F-32120,SRT,Stroke Volume	ImageMode =G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
SV(Bullet)	F-32120,SRT,Stroke Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
SV(Mod.Simpson)	F-32120,SRT,Stroke Volume	ImageMode =G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson

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)		

LVOT CI	F-32110,SRT,Cardiac Index	
CI(SP Ellipse)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =125226,DCM,Single Plane Ellipse
CI(BP Ellipse)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =125211,DCM,Biplane Ellipse
CI(Bullet)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-01,MRUS,Bullet
CI(Mod.Simpson)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =VM12228-02,MRUS,Method of Disks,Simpson
CI(A2C)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =125208,DCM,Method of Disks, Single Plane
CI(Simpson BP)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; Method =125207,DCM,Method of Disks, Biplane
CI2(Simpson BP)	F-32110,SRT,Cardiac Index	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
CI4(Simpson BP)	F-32110,SRT,Cardiac Index	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 =VM12228-02,MRUS,Method of Disks,Simpson
SI(A2C)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =125208,DCM,Method of Disks, Single Plane
SI(Simpson BP)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; Method =125207,DCM,Method of Disks, Biplane
SI2(Simpson BP)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19B,SRT,Apical two chamber; Method =125207,DCM,Method of Disks, Biplane
SI4(Simpson BP)	F-00078,SRT,Stroke Index	ImageMode = G-03A2,SRT,2D mode; ImageView = G-A19C,SRT,Apical four chamber; Method =125207,DCM,Method of Disks, Biplane
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)

B.41.2. Right Ventricle M

RVPEP/ET(M)	C12204-01,MRUS,Right Ventricle Pre-Ejection Period to Ejection Time Ratio	ImageMode = G-0394,SRT,M 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

Diagnostic Ultrasound System

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	Image Mode = G-0394,SRT,M Mode
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	

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 AV	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	
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	C12207-01,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;
MR Vmax	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow; ImageMode = G-03A2,SRT,2D mode;
MV Vmax(MV PHT)	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
MV Vmax(MV VTI)	11726-7,LN,Peak Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;

MR Vmax(MR VTI)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MR Vmax(PISA MR)	11726-7,LN,Peak Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MV Vmean	20352-1,LN,Mean Velocity	Flow Direction =R-42047,SRT, Antegrade Flow;
MR Vmean	20352-1,LN,Mean Velocity	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MV Pgmax	20247-3,LN,Peak Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
MR Pgmax	20247-3,LN,Peak Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MV Pgmean	20256-4,LN,Mean Gradient	Flow Direction =R-42047,SRT, Antegrade Flow;
MR Pgmean	20256-4,LN,Mean Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MV VTI	20354-7,LN,Velocity Time Integral	Flow Direction =R-42047,SRT, Antegrade Flow;
MR VTI	20354-7,LN,Velocity Time Integral	Flow Direction =R-42E61,SRT,Regurgitant Flow;
MV VTI(MVA VTI)	20354-7,LN,Velocity Time Integral	Flow Direction =R-42047,SRT, Antegrade Flow;
MR VTI(PISA MR)	20354-7,LN,Velocity Time Integral	Flow Direction =R-42E61,SRT,Regurgitant Flow; Method = 125216,DCM,Proximal Isovelocity Surface Area
MV PHT	20280-4,LN,Pressure Half-Time	Flow Direction =R-42047,SRT, Antegrade Flow;
MV AccT	20168-1,LN,Acceleration Time	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	
E/Ea	M12207-35,MRUS,MV E/Ea	
PISA	M12222-09,MRUS, Effective Regurgitant Orifice 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 PGmean	20256-4,LN,Mean Gradient	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV VTI	20354-7,LN,Velocity Time Integral	Flow Direction =R-42047,SRT,Antegrade Flow;
PR VTI	20354-7,LN,Velocity Time Integral	Flow Direction =R-42E61,SRT,Regurgitant Flow;
PV VTI(Qp/Qs)	20354-7,LN,Velocity Time Integral	Flow Direction =R-42047,SRT,Antegrade 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	
PISA	M12222-09,MRUS, Effective Regurgitant Orifice Area	

B.41.8. Tricuspid Valve Measurements

MODALITY Label	***DICOM Mapping***	***Optional Modifiers***
TV E Vel	18031-5,LN,Tricuspid Valve E Wave Peak Velocity	
TV E Vel(TV E/A)	18031-5,LN,Tricuspid Valve E Wave Peak Velocity	
TV A Vel	18030-7,LN,Tricuspid Valve A Wave Peak Velocity	
TV A Vel(TV E/A)	18030-7,LN,Tricuspid Valve A Wave Peak Velocity	
TV E/A	18039-8,LN,Tricuspid Valve E to A Ratio	
TV E/A(TV E/A)	18039-8,LN,Tricuspid Valve E to A Ratio	
TV C-O dur	G-0389,SRT,Tricuspid Valve Closure to Opening Time	
TV	M12222-01,MRUS,Angle	Flow Direction =R-42047,SRT,Antegrade Flow;
TR	M12222-01,MRUS,Angle	Flow Direction =R-42E61,SRT,Regurgitant Flow;
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

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	M12222-02,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	
PISA	M12222-09,MRUS, Effective Regurgitant Orifice Area	

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;
Ao Arch Diam(2D)	18011-7,LN,Aortic Arch Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao Arch Diam(M)	18011-7,LN,Aortic Arch Diameter	ImageMode = G-0394,SRT,M Mode;
Ao Asc Diam(2D)	18012-5,LN,Ascending Aortic Diameter	ImageMode = G-03A2,SRT,2D mode;

Ao Asc Diam(M)	18012-5,LN,Ascending Aortic Diameter	ImageMode = G-0394,SRT,M Mode;
Ao Isthmus(2D)	18014-1,LN,Aortic Isthmus Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao Isthmus(M)	18014-1,LN,Aortic Isthmus Diameter	ImageMode = G-0394,SRT,M Mode;
Ao Desc Diam(2D)	18013-3,LN,Descending Aortic Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao Desc Diam(M)	18013-3,LN,Descending Aortic Diameter	ImageMode = G-0394,SRT,M Mode;
Ao st junct(2D)	M12212-01,MRUS,Aortic Sinotubular junction Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao st junct(M)	M12212-01,MRUS,Aortic Sinotubular junction Diameter	ImageMode = G-0394,SRT,M Mode;
Ao Sinus Diam(2D)	M12212-02,MRUS,Aortic Sinus Diameter	ImageMode = G-03A2,SRT,2D mode;
Ao Sinus Diam(M)	M12212-02,MRUS,Aortic Sinus Diameter	ImageMode = G-0394,SRT,M Mode;
Duct Art Diam	M12212-03,MRUS,Ductus Artery Diameter	ImageMode = G-03A2,SRT,2D mode;
Pre Ductal	M12212-04,MRUS,Previous Ductal Diameter	ImageMode = G-03A2,SRT,2D mode;
LCA	M12212-05,MRUS,Left Coronary Artery Diameter	ImageMode = G-03A2,SRT,2D mode;
RCA	M12212-06,MRUS,Right Coronary Artery Diameter	ImageMode = G-03A2,SRT,2D mode;
AAo Vmax	11726-7,LN,Peak Velocity	
DAo Vmax	11726-7,LN,Peak Velocity	
AAo PGmax	20247-3,LN,Peak Gradient	
DAo PGmax	20247-3,LN,Peak Gradient	

B.41.10. Pulmonary Artery Measurements

MODALITY Label	***DICOM Mapping***	***Optional Modifiers***
MPA Diam(2D)	18020-8,LN,Main Pulmonary Artery Diameter	ImageMode =G-03A2,SRT,2D mode;
MPA Diam(M)	18020-8,LN,Main Pulmonary Artery Diameter	ImageMode =G-0394,SRT,M Mode;
RPA Diam(2D)	18021-6,LN,Right Pulmonary Artery Diameter	ImageMode =G-03A2,SRT,2D mode;
RPA Diam(M)	18021-6,LN,Right Pulmonary Artery Diameter	ImageMode =G-0394,SRT,M Mode;
LPA Diam(2D)	18019-0,LN,Left Pulmonary Artery Diameter	ImageMode =G-03A2,SRT,2D mode;
LPA Diam(M)	18019-0,LN,Left Pulmonary Artery Diameter	ImageMode =G-0394,SRT,M Mode;
MPA Vmax	G-038A,SRT,Main Pulmonary Artery Peak Velocity	
Post Ductal	M12210-01,MRUS,Posterior ductal Diameter	ImageMode =G-03A2,SRT,2D 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	RespiratoryCyclePoint=F-20020,SRT, Expiration; ImageMode =G-03A2,SRT,2D mode;
SVC Diam(Insp)	M12215-01,MRUS,Superior Vena Cava Diameter	RespiratoryCyclePoint=F-20010,SRT, Inspiration; ImageMode =G-03A2,SRT,2D mode;
SVC Diam(Expir)	M12215-01,MRUS,Superior Vena Cava Diameter	RespiratoryCyclePoint=F-20020,SRT, Expiration; ImageMode =G-03A2,SRT,2D mode;
IVC Vel(Insp)	M12215-02,MRUS,Inferior Vena Cava Velocity	RespiratoryCyclePoint=F-20010,SRT, Inspiration;
IVC Vel(Expir)	M12215-02,MRUS,Inferior Vena Cava Velocity	RespiratoryCyclePoint=F-20020,SRT, Expiration;
SVC Vel(Insp)	M12215-03,MRUS,Superior Vena Cava Velocity	RespiratoryCyclePoint=F-20010,SRT, Inspiration;
SVC Vel(Expir)	M12215-03,MRUS,Superior Vena Cava Velocity	RespiratoryCyclePoint=F-20020,SRT, Expiration;
IVC Inspiration PG	C12215-01,MRUS,Inferior Vena Cava Pressure Gradient	RespiratoryCyclePoint=F-20010,SRT, Inspiration;
IVC Expiration PG	C12215-01,MRUS,Inferior Vena Cava Pressure Gradient	RespiratoryCyclePoint=F-20020,SRT, Expiration;
SVC Inspiration PG	C12215-02,MRUS,Superior Vena Cava Pressure Gradient	RespiratoryCyclePoint=F-20010,SRT, Inspiration;
SVC Expiration PG	C12215-02,MRUS,Superior Vena Cava Pressure Gradient	RespiratoryCyclePoint=F-20020,SRT, Expiration;
IVC-CI	C12215-03,MRUS ,Collapsible index of inferior vena cava	ImageMode =G-03A2,SRT,2D mode;
IVC-DI	C12215-04,MRUS ,Distensibility index of inferior vena cava	ImageMode =G-03A2,SRT,2D mode;

SVC-CI	C12215-05, MRUS,Collapsible index of superior vena cava	ImageMode =G-03A2,SRT,2D mode;
SVC-DI	C12215-06,MRUS ,Distensibility index of superior vena cava	ImageMode =G-03A2,SRT,2D mode;
IVC Depth(Insp)	M12215-04,MRUS,Inferior Vena Cava Depth	RespiratoryCyclePoint=F-20010,SRT, Inspiration; ImageMode =G-03A2,SRT,2D mode;
IVC Depth(Expir)	M12215-04,MRUS,Inferior Vena Cava Depth	RespiratoryCyclePoint=F-20020,SRT, Expiration; ImageMode =G-03A2,SRT,2D mode;
SVC Depth(Insp)	M12215-05,MRUS,Superior Vena Cava Depth	RespiratoryCyclePoint=F-20010,SRT, Inspiration; ImageMode =G-03A2,SRT,2D mode;
SVC Depth(Expir)	M12215-05,MRUS,Superior Vena Cava Depth	RespiratoryCyclePoint=F-20020,SRT, Expiration; ImageMode =G-03A2,SRT,2D mode;

B.41.12. Pulmonary Venous Structure Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
PVein A Dur	G-038B,SRT,Pulmonary Vein A-Wave Duration	
PVein D VTI	G-038D,SRT,Pulmonary Vein D-Wave Velocity Time Integral	
PVein S VTI	G-038C,SRT,Pulmonary Vein S-Wave Velocity Time Integral	
PVein S Vel	M12214-01,MRUS,Pulmonary Vein S wave flow Velocity	
PVein D Vel	M12214-02,MRUS,Pulmonary Vein D-wave flow Velocity	
PVein A Vel	M12214-03,MRUS,Pulmonary Vein A-wave flow Velocity	
PVein DecT	M12214-04,MRUS,Pulmonary Vein Deceleration Time	
PVein S/D	M12214-05,MRUS,Pulmonary Vein Ratio of S-Wave velocity to D-wave velocity	
PVein SF	M12214-06,MRUS,Pulmonary Vein Systolic fraction	

B.41.13. Cardiac Shunt Study Measurements

MODALITY Label	*DICOM Mapping*	*Optional Modifiers*
Qp/Qs	29462-9,LN,Pulmonary	

PV HR(Qp/Qs)	8867-4,LN,Heart rate	
AV HR(Qp/Qs)	8867-4,LN,Heart rate	
PV SV(Qp/Qs)	F-32120,SRT,Stroke Volume	
PV CO(Qp/Qs)	F-32100,SRT,Cardiac Output	
AV SV(Qp/Qs)	F-32120,SRT,Stroke Volume	
AV CO(Qp/Qs)	F-32100,SRT,Cardiac Output	

B.41.14. Congenital Anomaly of Cardiovascular System Measurements

MODALITY Label	***DICOM Mapping***	***Optional Modifiers***
PDA Diam	M12218-01,MRUS,Patent Ductus Arteriosus Diameter	ImageMode =G-03A2,SRT,2D mode;
PFO Diam	M12218-02,MRUS,Patent Foramen Ovale Diameter	ImageMode =G-03A2,SRT,2D mode;
PDA Vel(d)	M12218-03,MRUS,Patent Ductus Arteriosus Diastolic Velocity	
PDA Vel(s)	M12218-04,MRUS,Patent Ductus Arteriosus Systolic Velocity	
Coarc Pre-Duct	M12218-05,MRUS,Coarctation of Pre-Ductus Velocity	
Coarc Post-Duct	M12218-06,MRUS,Coarctation of Post-Ductus Velocity	
PDA Dias PG	M12218-07,MRUS,Patent Ductus Arteriosus Diastolic Pressure Gradient	
PDA Sys PG	M12218-08,MRUS,Patent Ductus Arteriosus Systolic Pressure Gradient	
Coarc Pre-Duct PG	M12218-09,MRUS,Coarctation of Pre-Ductus Pressure Gradient	
Coarc Post-Duc PG	M12218-10,MRUS,Coarctation of Post-Ductus Pressure Gradient	
VSD Diam	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-03A2,SRT,2D mode;
ASD Diam	G-038F,SRT,Cardiovascular Orifice Diameter	ImageMode =G-03A2,SRT,2D mode;
VSD Vmax	11726-7,LN,Peak Velocity	
ASD Vmax	11726-7,LN,Peak Velocity	
VSD PGmax	20247-3,LN,Peak Gradient	
ASD PGmax	20247-3,LN,Peak Gradient	

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.2D	8867-4 LN Heart rate	Method= 125209,DCM,Teichholz
HRTeich.M	8867-4 LN Heart rate	Method= 125209,DCM,Teichholz
HRCube.2D	8867-4 LN Heart rate	Method= 125206,DCM,Cube Metho
HRCube.M	8867-4 LN Heart rate	Method= 125206,DCM,Cube Method
HRGibson.2D	8867-4 LN Heart rate	Method= VM12228-03,MRUS,Gibson

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.

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	EV (125100, DCM,			
2	>	HAS OBS CONTEXT	CODE	EV (R-40FB8, SRT, Temporal periods		DCID (12102) Temporal Periods Relating To Procedure or Therapy	
3	>	HAS CONCEPT MOD	INCL UDE	DTID (1204) Language of Content Item and Descendants			
4	>	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context			
5	>	CONTAINS	INCLUDE	DTID (5101) Vascular Patient Characteristics			
6	>	CONTAINS	CONTAINER	EV (111028, DCM,			
7	>>	CONTAINS	IMAGE	No purpose of reference			
8	>	CONTAINS	INCLUDE	DTID (5102) Vascular Procedure Summary Section			

9	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12105) Intracranial Cerebral Vessels	
10	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12105) Intracranial Cerebral Vessels	
11	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G-A103, $Anatomy = DCID (12106) Intracranial Cerebral Vessels (unilateral)	
12	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section		$SectionScope = DT (T- $SectionLaterality = EV (G- $Anatomy = DCID (12104) Extracranial Arteries $AnatomyRatio = DCID (12123) Carotid Ratios	

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-47040, SR	

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- tery $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.

NL	Rel with Parent	VT	Concept Name	Used	inn

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)			
16	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
17	>	CONTAINS	CONTAINER	(T-45160,SRT,Carotid Bifurcation)			
18	>>	CONTAINS	CONTAINER	(FG3495-01, MRUS, Plaque Description)			
19	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
20	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
21	>>	CONTAINS	CONTAINER	(FG3495-02, MRUS, Plaque Area)			
22	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			
23	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
24	>	CONTAINS	CONTAINER	(T-45300, SRT, Internal Carotid Artery)			ICA
25	>>	CONTAINS	CONTAINER	(FG3495-01, MRUS, Plaque Description)			
26	>>>	CONTAINS	TEXT	(G-A100,SNM3,Right)			

27	>>>	CONTAINS	TEXT	(G-A101,SNM3,Left)			
28	>>	CONTAINS	CONTAINER	(FG3495-02, MRUS, Plaque Area)			
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)			

C.5. TID (5103) Vascular Ultrasound Section

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	DT (121070, DCM, □ □			
2	>	HAS CONCEPT	CODE	EV (G-C0E3, SRT, □ □		$SectionScope	

C.7. TID (5104) Vascular Ultrasound Measurement Group

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	$AnatomyGroup			

CSD	CV	Code Meaning
MRUS	A12104-7	Carotid Graft 3 Graft
MRUS	A12104-8	Carotid Stent 1
MRUS	A12104-9	Carotid Stent 2
MRUS	A12104-10	Carotid Stent 3
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

CSD	CV	Code Meaning

CSD	CV	Code Meaning
SRT	T-46100	Subclavian Artery
SRT	T-47200	Ulnar Artery
MRUS	A12107-1	Mammary Artery
MRUS	A12107-2	Upper External Arterial Graft 1 Native Inflow
MRUS	A12107-3	Upper External Arterial Graft 1 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

CSD	CV	Code Meaning
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 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	T-48052	Basilic vein
SRT	T-49350	Brachial vein
SRT	T-49240	Cephalic vein
SRT	T-49340	Radial vein
SRT	T-48330	Subclavian vein
SRT	T-49330	Ulnar vein
SRT	T-48620	Innominate vein
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

CSD	CV	Code Meaning
		Fistula-Outflow Vein Level 3
MRUS	V12108-15	Arteriovenous Fistula-Outflow Vein Level 4
MRUS	V12108-16	Arteriovenous Fistula-Outflow Vein Level 5
MRUS	V12108-17	Arteriovenous Fistula-Outflow Vein Level 6

CSD	CV	Code Meaning
MRUS	V12108-30	Arteriovenous Graft-Outflow Vein Level 3
MRUS	V12108-31	Arteriovenous Graft-Outflow Vein Level 4
MRUS	V12108-32	Arteriovenous Graft-Outflow Vein Level 5
MRUS	V12108-33	Arteriovenous Graft-Outflow Vein Level 6
MRUS	V12108-34	Volar Vein
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

CSD	CV	Code Meaning
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 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
MRUS	A12109-47	Superficial Femoral Artery Stenosis
MRUS	A12109-48	Popliteal Artery Stenosis
MRUS	A12109-49	Tibial Peroneal Trunk Artery Stenosis
MRUS	A12109-50	Anterior Tibial Artery Stenosis
MRUS	A12109-51	Peroneal Artery Stenosis

CSD	CV	Code Meaning
MRUS	A12109-52	Posterior Tibial Artery Stenosis
MRUS	A12109-53	Dorsalis Pedis Artery Stenosis
MRUS	A12109-54	Lower External Arterial Stenosis 1
MRUS	A12109-55	Lower External Arterial Stenosis 2
MRUS	A12109-56	Lower External Arterial Stenosis 3
MRUS	A12109-57	Lower External Arterial Stenosis 4
MRUS	A12109-58	Internal Iliac Arterial Aneurysm
MRUS	A12109-59	Internal Iliac Artery Stenosis
MRUS	A12109-60	Lower Artery

C.15. CID (12110) Lower Extremity Veins

CSD	CV	Code Meaning
SRT	T-49630	Anterior Tibial Vein
SRT	G-035B	Common Femoral Vein
SRT	T-48920	Common Iliac Vein
SRT	T-48930	External Iliac Vein
SRT	T-4942D	Gastrocnemius vein
SRT	T-49530	Great Saphenous Vein
SRT	T-49550	Lesser Saphenous Vein
SRT	T-49650	Peroneal Vein
SRT	T-49640	Popliteal Vein
SRT	T-49620	Posterior Tibial Vein
SRT	T-49660	Profunda Femoris Vein
SRT	G-036B	Soleal vein
SRT	G-035A	Superficial Femoral Vein
SRT	T-48940	Internal iliac vein
SRT	T-49410	Femoral vein
MRUS	V12110-01	TP Trunk Vein
SRT	R-10259	Great Saphenous Vein of Thigh
SRT	R-1025A	Great Saphenous Vein of Calf
SRT	T-D930A	Saphenofemoral Junction
SRT	T-4941A	Saphenopopliteal junction
MRUS	V12110-02	Great Saphenous Vein Knee
MRUS	V12110-03	Small Saphenous Vein Thigh Extension

	CSD	CV	Code Meaning	

CSD	CV	Code Meaning
SRT	T-48720	Hepatic Vein
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
MRUS	A12115-05	Renal A Aneurysm
MRUS	A12115-21	Artery Anast 2 Transplant 1

CSD	CV	Code Meaning
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
MRUS	A12120-2	Aortic Endograft Residual Aneurysm Sac

MRUS

CSD	CV	Code Meaning
MRUS	A12120-19	Gastroduodenal Arterial Aneurysm
MRUS	A12120-20	Inferior Mesenteric Arterial Aneurysm
MRUS	A12120-21	Arterial Post Abdominal Aorta
MRUS	A12120-22	Arterial Post Celiac Axis
MRUS	A12120-23	Hepatic Artery
MRUS	A12120-24	Arterial Post SMA
MRUS	A12120-25	Arterial Post Com Hepatic A
MRUS	A12120-26	Arterial Post Proper Hepatic A
MRUS	A12120-27	Arterial Post Hepatic A
MRUS	A12120-28	Arterial Post Splenic Artery
MRUS	A12120-29	Arterial Post GDA
MRUS	A12120-30	Arterial Post IMA
MRUS	A12120-31	EVAR Residual Aneurysm Sac
MRUS	A12120-32	EVAR Inflow
MRUS	A12120-33	EVAR Graft Body
MRUS	A12120-35	EVAR Outflow
MRUS	A12120-41	Aortic Bypass Graft Anast
MRUS	A12120-42	Aortic Bypass Graft Graft
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> 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	

MODALITY Label	*DICOM Mapping*	*Contain Content*
<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	8867-4, LN, 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)	
<Vasculature Anatomic Location> VolFlow.TAMEAN	M12119-07, MRUS,Vol Flow(TAMEAN)	
<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

MODALITY Label	*DICOM Mapping*	*Contain Content*
<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
<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

MODALITY Label	*DICOM Mapping*	*Contain Content*
<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

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
Dist.CCA.IMT	A12104-44,MRUS,Common Carotid Artery Intima Media Thickness
Bulb.IMT	A12104-45,MRUS,Carotid Bulb Intima Media Thickness
ICA.IMT	A12104-46,MRUS,Internal Carotid Artery Intima Media Thickness
ECA.IMT	A12104-47,MRUS,External Carotid Artery Intima Media Thickness

C.22.3. Intracranial Cerebral Vessels

MODALITY Label	***DICOM Mapping***
ACA	T-45540,SRT,Anterior Cerebral Artery
MCA	T-45600,SRT,Middle Cerebral Artery
PCA	T-45900,SRT,Posterior Cerebral Artery
PComA	T-45320,SRT,Posterior Communicating Artery
AComA	T-45530,SRT,Anterior Communicating Artery
MCA	T-45600, SRT,Middle Cerebral Artery

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
Ulnar V	T-49330,SRT,Ulnar vein
Innom.V	T-48620,SRT,Innominate 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.9(.)-3(9(.)-3(

LE.A.Graft.3.Anast.2D	A12109-11,MRUS,Lower External Arterial Graft 3 Anastomosis
LE.A.Graft.3.Graft.2D	A12109-12,MRUS,Lower External Arterial Graft 3 Graft
LE.A.Graft.3.Native.Outflow.2D	A12109-13,MRUS,Lower External Arterial Graft 3 Native Outflow
LE.A.Stent.1.2D	A12109-14,MRUS,Lower External Arterial Stent 1
LE.A.Stent.2.2D	A12109-15,MRUS,Lower External Arterial Stent 2
LE.A.Stent.3.2D	A12109-16,MRUS,Lower External Arterial Stent 3
LE.A.Finding.1.2D	A12109-17,MRUS,Lower External Arterial Finding 1
LE.A.Finding.2.2D	A12109-18,MRUS,Lower External Arterial Finding 2
LE.A.Finding.3.2D	A12109-19,MRUS,Lower External Arterial Finding 3
LE.A.Finding.4.2D	A12109-20,MRUS,Lower External Arterial Finding 4
LE.A.Finding.5.2D	A12109-21,MRUS,Lower External Arterial Finding 5
LE.A.Finding.6.2D	A12109-22,MRUS,Lower External Arterial Finding 6
C.Iliac.A.Aneurysm.2D	A12109-23,MRUS,Common Iliac Arterial Aneurysm
Ex.Iliac.A.Aneurysm.2D	A12109-24,MRUS,External Iliac Arterial Aneurysm
CFA.Aneurysm.2D	A12109-25,MRUS,Common Femoral Arterial Aneurysm
PFA.Aneurysm.2D	A12109-26,MRUS,Profunda Femoral Arterial Aneurysm
SFA.Aneurysm.2D	A12109-27,MRUS,Superficial Femoral Arterial Aneurysm
Pop.A.Aneurysm.2D	A12109-28,MRUS,Popliteal Arterial Aneurysm
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-4942D,SRT,Gastrocnemius vein
Saph V	T-49530,SRT,Great Saphenous Vein
SSV	T-49550,SRT,Lesser Saphenous Vein
Peroneal V	T-49650,SRT,Peroneal Vein
Pop V	T-49640,SRT,Popliteal Vein
P.Tib V	T-49620,SRT,Posterior Tibial Vein
PFV	T-49660,SRT,Profunda Femoris Vein
Soleal V	G-036B,SRT,Soleal vein
SFV	G-035A,SRT,Superficial Femoral Vein
IIV	T-48940,SRT,Internal iliac vein
Femoral V	T-49410,SRT,Femoral vein
TP Trunk V	V12110-01,MRUS,TP Trunk Vein
GSV.Thigh	R-10259,SRT,Great Saphenous Vein of Thigh
GSV.Calf	R-1025A,SRT,Great Saphenous Vein of Calf
SF.Junction	T-D930A,SRT,Saphenofemoral Junction
SP.Junction	T-4941A,SRT,Saphenopopliteal junction
GSV.Knee	V12110-02,MRUS,Great Saphenous Vein Knee
SSV.Thigh.Extension	V12110-03,MRUS,Small Saphenous Vein Thigh Extension
AASV	V12110-04,MRUS,AASV
PASV	V12110-05,MRUS,PASV
Prox.Calf.Perf	V12110-06,MRUS,Prox Calf Perf
Mid.Calf.Perf	V12110-07,MRUS,Mid Calf Perf
Dist.Calf.Perf	V12110-08,MRUS,Dist Calf Perf
GSV.Thigh	R-10259,SRT,Great Saphenous Vein of Thigh
GSV.Calf	R-1025A,SRT,Great Saphenous Vein of Calf

SSV.Thigh.Extension	V12110-03,MRUS,Small Saphenous Vein Thigh Extension
AASV	V12110-04,MRUS,AASV
PASV	V12110-05,MRUS,PASV

C.22.10. Abdominal Arteries (unilateral)

MODALITY Label	***DICOM Mapping***
Abdominal Aorta	T-42000,SRT,Aorta
Celiac Axis	T-46400,SRT,Celiac Axis
C Hepatic A	T-46421,SRT,Common Hepatic Artery
Hepatic A	T-46422,SRT,Proper Hepatic Artery
Splenic A	T-46460,SRT,Splenic Artery
SMA	T-46510,SRT,Superior Mesenteric Artery
IMA	T-46520,SRT,Inferior Mesenteric Artery
Aorta	T-42000,SRT,Aorta
Celiac Axis	T-46400,SRT,Celiac Axis
Com Hepatic A	T-46421,SRT,Common Hepatic Artery
GDA	T-46440,SRT,Gastroduodenal Artery
IMA	T-46520,SRT,Inferior Mesenteric Artery
Hepatic A	T-46422,SRT,Proper Hepatic Artery
Splenic A	T-46460,SRT,Splenic Artery
SMA	T-46510,SRT,Superior Mesenteric Artery
EVAR Residual Aneurysm Sac	A12120-2,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	A12120-32,MRUS,EVAR Inflow
EVAR Graft Body	A12120-33,MRUS,EVAR Graft Body
EVAR Limb	A12120-34,MRUS,EVAR Limb
EVAR Outflow	A12120-35,MRUS,EVAR Outflow
Aortic Bypass Graft Anast	A12120-41,MRUS,Aortic Bypass Graft Anast
Aortic Bypass Graft Graft	A12120-42,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

Hepatic.V.2D	Hepatic Vein
Lt.Hepatic.V.2D	Left Hepatic Vein
M.Hepatic.V.2D	Middle Hepatic Vein
Rt.Hepatic.V.2D	Right Hepatic Vein
IVC.2D	T-48710,SRT,Inferior Vena Cava

C.22.12. Renal Vessels

MODALITY Label	***DICOM Mapping***
Ren A Org	T-46600,SRT,Renal Artery
Renal A	T-46600,SRT,Renal Artery
Renal V	T-48740,SRT,Renal Vein
Segment A	T-46659, SRT, Segmental Artery
Arcuate A	T-4668A, SRT, Arcuate Artery of the Kidney
Interlobar A	T-4667D, SRT, Interlobar Artery of Kidney
M Renal A	V12115-01, MRUS, Main Renal Artery
Ren.A.Org	A12115-01,MRUS,Ren A Org
Renal.A1	A12115-02,MRUS,Renal A1
Renal.A2	A12115-03,MRUS,Renal A2
Hilum	A12115-04,MRUS,Hilum
Artery.Anast.2.Transplant.1	A12115-21,MRUS,Artery Anast 2 Transplant 1
Vein.Anast.Transplant.1	V12115-06,MRUS,Vein Anast Transplant 1
Vein.Anast.2.Transplant.1	V12115-07,MRUS,Vein Anast 2 Transplant 1
Artery.Anast.Transplant.2	A12115-22,MRUS,Artery Anast Transplant 2
Artery.Anast.2.Transplant.2	A12115-23,MRUS,Artery Anast 2 Transplant 2
Vein.Anast.Transplant.2	V12115-08,MRUS,Vein Anast Transplant 2
Vein.Anast.2.Transplant.2	V12115-09,MRUS,Vein Anast 2 Transplant 2
Renal.A.Aneurys	A12115-05,MRUS,Renal A Aneurysm
Renal.A.2D	T-46600,SRT,Renal Artery

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	D			UNITS = DCID(7460)
2	>	INFERRED FROM	SCOORD	EV (121055,DCM,			
3	>>	R-SELECTED FROM	IMAGE				
4	>>	SELECTED FROM	IMAGE				
5	>	INFERRED FROM	SCOORD	EV (121230, DCM,			
6	>>	R-SELECTED FROM	IMAGE				

[redacted]

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Used in MODALITY	Condition	Value Set Constra

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
2	>	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants			

3

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
		S					
6	>	CONTAINS	TEXT	EV (I12101-04 □			
7	>	CONTAINS	NUM	EV (8302- □			
8	>	CONTAINS	NUM	EV (29463-7, LN, "Patient Weight")			
9	>	CONTAINS	TEXT	□			
10	>	CONTAINS	TEXT	EV (I12101-			
11	>	CONTAINS	TEXT	□ □			

D.6. TID (4206) BREAST IMAGING REPORT FINDING SECTION

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (121070, □ □			
2	>	HAS OBS CONTEXT	INCLUDE	DTID (1002) Observer Context			
3	>	CONTAINS	INCLUDE	DTID (4201) Breast Ultrasound Procedure Reported			
4	>	CONTAINS	CODE	DTID (SELFTMP-4) Breast Ultrasound MASS FINDING	**(10 findings)**		

	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							

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
		T					
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. TID (SELFTMP-5) BREAST MASS MEASUREMENT

This is a private template referenced by TID (SELFTMP-4).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (125007 Measurement Group			
2	>	CONTAINS	INCLUDE	DTID (1400) Linear Measurement Template			"$Measurement = G-A22A, SRT, ""Length"";$Laterality = $Laterality;$Section = 6019"
3	>	CONTAINS	INCLUDE	DTID (1400) Linear Measurement Template			"$Measurement = G-A220, SRT, ""Width"";$Laterality = $Laterality;$Section = 6019"
4	>	CONTAINS	INCLUDE	DTID (1400) Linear Measurement Template			"$Measurement = 121207, DCM, ""Height"";$Laterality = $Laterality;$Section = 6019"
5	>	CONTAINS	INCLUDE	DTID (1400) Linear Measurement Template			"$Measurement = 121242, DCM, ""Distance from nipple"";$Laterality = $Laterality;$Section = 6019"
6	>	CONTAINS	INCLUDE	DTID (1400) Linear Measurement Template			"$Measurement = 121243, DCM, ""Distance from skin"";$Laterality = $Laterality;$Section = 6019"

D.10. TID (SELFTMP-6) BREAST MASS ANALYSIS

This is a private template referenced by TID (SELFTMP-4).

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1	>	CONTAINS	TEXT	EV (T6006-41,MRUS,Shape)			
2	>	CONTAINS	TEXT	EV (T6006-42,MRUS,Orientation)			
3	>	CONTAINS	TEXT	EV (T6006-			
4	>	CONTAINS	TEXT	EV (T6006-43,MRUS,Margin)			
5	>	CONTAINS	TEXT	EV(T6006-44,MRUS,Echo pattern)			
6	>	CONTAINS	TEXT	EV(T6006-45,MRUS,Posterior features)			
7	>	CONTAINS	TEXT	EV (T6006-46,MRUS,Calcifications)			
8	>	CONTAINS	TEXT	EV (T6006-47,MRUS,Associated fetures)			
9	>	CONTAINS	TEXT	EV (T6006-48,MRUS,Skin changes)			
10	>	CONTAINS	TEXT	EV (T6006-49,MRUS,Vascularity)			
11	>	CONTAINS	TEXT	EV (T6006-50,MRUS,Elasticity assessment)			
12	>	CONTAINS	TEXT	EV (T6006-51,MRUS,Assessment categories)			

D.11. TID (SELFTMP-7) TiSSUE.COMPOSITION ANALYSIS

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	□ □			
2	>	CONTAINS	TEXT	EV (T6006-16,MRUS,Tissue composition)			

D.12. TID (SELFTMP-8) SPECIAL CASES ANALYSIS

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

2	>	CONTAINS	TEXT	EV (T6006-17,MRUS,Special cases)			
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***

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			

	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

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
							SRT,Left
14	>	CONTAINS	INCLUDE	DTID (0108) Abdomen Ultrasound Section			$SectionScope=T-73000,SRT,Ureter;$SectionLaterality = G-A100, SRT,Right
15	>	CONTAINS	INCLUDE	DTID (0109) Abdomen Ultrasound Section			$SectionScope=T-47040,SRT,Bladder;$SectionLaterality = G-A103, SRT,Unilateral
16	>	CONTAINS	INCLUDE	DTID (SELFTMP_5103_9) Vascular Ultrasound Section			$SectionScope=T-71019,SRT,Vascular Structure Of Kidney;$SectionLaterality = G-A101, SRT,Left;$AnatomyRatio = 12124
17	>	CONTAINS	INCLUDE	DTID (SELFTMP_5103_9) Vascular Ultrasound Section			$SectionScope=T-71019,SRT,Vascular Structure Of Kidney;$SectionLaterality = G-A100, SRT,Right;$AnatomyRatio = 12124
18	>	CONTAINS	INCLUDE	DTID (SELFTMP_5103_7) Vascular Ultrasound Section			$SectionScope=T-46002,SRT,Artery of Abdomen
19	>	CONTAINS	INCLUDE	DTID			$SectionScop

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

(SELFTMP_5103_8)

1			CONTAINER	EV (121118, DCM, □			
2	>	CONTAINS	NUM	EV (121033, DCM,		Units = DCID (7456) Units of Measure for Age	
3	>	CONTAINS	CODE	EV (121032, DCM,		DCID (7455) Sex	

				Code")			
6	>	CONTAINS	TEXT	(I12101-04,MRUS,"CPT4 Description")			from Info
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	
7	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV	
8	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV	
9	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV	

E.7. TID (0106) 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			

E.8. TID (0107) 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 = 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	

E.10.TID (0109) 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

5	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (T-59200,SRT,Appendix);	
6	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (MT-59600-1,MRUS Appendix Wall ;	
7	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (MT-59600-2,MRUS Pylorus ;	
8	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (MT-59600-3,MRUS Pylorus Wall ;	

E.12.TID (0111) 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 = $SectionLaterality = EV (G-A103, □	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = $AnatomyRatio	
5	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (MT-D0070-1,MRUS,Free Fluid)	

E.13.TID (SELFTMP_5103_7) 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 (12112) Abdominal Arteries (unilateral); $Modifier =DCID(12116)	
5	>	CONTAINS	INCLUDE	EV (T-46002,		$Measurement = EV (T- Abdomen); $Modifier = DCID(12116)	
6	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12119-2 ;	
7	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12119-1 ;	
8	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-14, ;	
9	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-15, ;	
10	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-16, ;	

11	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-19, □ ;	
12	>>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-20, □ Diame ;	
13	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-13, □ ;	
14	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-21, □ ;	
15	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12120-1, Mesenteric Artery Peak Systolic Velocity/Abdominal Aorta ;	
16	>	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 (M12119-12, □ ;	
8	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (M12119-22, ;	

E.15.TID (SELFTMP_5103_9) 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,			

3	>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT,		$SectionLaterality	
4	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= DCID (12115) Abdominal Arteries (unilateral); $Modifier =DCID(12116)	
5	>	CONTAINS	INCLUDE	DTID (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= EV (T-46600 □ ; $Modifier = (G-03 □)	
6	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = EV (C12119-3 Renal Aortic Ratio ; $Laterality=$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 Mea

Spleen H	MT-C3000-02 MRUS Spleen Height
Spleen W	MT-C3000-03 MRUS Spleen Width
Spleen Area	MT-C3000-04 MRUS Spleen Area
Spleen Vol	CT-C3000-02

	Pre-BL Vol	CT-74000-01,MRUS,Previous-Bladder Volume	
	Pre-BL Vol(072)	CT-74000	

E.17.2. Abdominal Arteries

MODALITY Label	*DICOM Mapping*
Abdominal Aorta	T-42000,SRT,Aorta
Celiac Axis	T-46400,SRT,Celiac Axis
C Hepatic A	T-46421,SRT,Common Hepatic Artery
Hepatic A	T-46422,SRT,Proper Hepatic Artery
Splenic A	T-46460,SRT,Splenic Artery
SMA	T-46510,SRT,Superior Mesenteric Artery
IMA	T-46520,SRT,Inferior Mesenteric Artery
Aorta Sten D	C12119-1,MRUS,Aorta Sten D
Aorta Sten A	C12119-2,MRUS,Aorta Sten A
Splenic A Diam	M12119-13,MRUS,Splenic A Diam
Aorta Aneurysm L	M12119-14,MRUS,Abdominal Aorta Aneurysm Length
Aorta Aneurysm H	M12119-15,MRUS,Abdominal Aorta Aneurysm Height
Aorta Aneurysm W	M12119-16,MRUS,Abdominal Aorta Aneurysm Width)
Aorta Diam H	M12119-19,MRUS,Abdominal Aorta Diameter Height
Aorta Diam W	M12119-20,MRUS,Abdominal Aorta Diameter Width
Aorta Bif	M12119-21,MRUS,Abdominal Aorta Bifurcate
Iliac Diam	M12119-23,MRUS,Iliac Diameter
SMA/Ao	C12120-1,MRUS,Superior Mesenteric Artery Peak Systolic Velocity/Abdominal Aorta Peak Systolic Velocity

CA/Ao	**C12120-2,MRUS,Celiac Axis Peak Systolic Velocity/Abdominal Aorta Peak Systolic Velocity**
Free.Fluid.Checklist	MT-D0070-1,MRUS,Free Fluid

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
IMV	T-48910,SRT,Inferior Mesenteric Vein
Splenic V Diam	M12119-12,MRUS,Splenic V Diam
Portal V Diam	M12119-22,MRUS,Portal V Diam

E.17.4. Renal Vessels

MODALITY Label	***DICOM Mapping***
Ren A Org	T-46600,SRT,Renal Artery
Renal A	T-46600,SRT,Renal Artery
Renal V	T-48740,SRT,Renal Vein
Segment A	T-46659, SRT, Segmental Artery
Arcuate A	T-4668A, SRT, Arcuate Artery of the Kidney
Interlobar A	T-4667D, SRT, Interlobar Artery of Kidney
M Renal A	V12115-01, MRUS, Main Renal Artery
RAR	C12119-3,MRUS,Renal Aortic Ratio

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			CONTAINER	EV (MR0100-02, MRUS, □			
2	>	HAS CONCEPT MOD	INCL UDE	DTID (1204) Language of Content Item and Descendants			
3	>	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context			
4	>	CONTAINS	INCLUDE	DTID (0101) Small Part Patient Characteristics			
5	>	CONTAINS	CONTAINER				
6	>>	CONTAINS	IMAGE	No purpose of reference			
7	>	CONTAINS	INCLUDE	DTID (0102) Small Part Procedure Summary Section			
8	>	CONTAINS	INCLUDE	DTID (0103) Small Part Ultrasound Section			$SectionScope = DT (T-62000, ; $SectionLate

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
							rality = EV (G-A101, ; $SectionLaterality = EV (G-A100,)
9	>	CONTAINS	INCLUDE	DTID (0104) Small Part Ultrasound Section			$SectionScope = DT (T-94000, ; $SectionLaterality = EV (G-A101, ; $SectionLaterality = EV (G-A100,)
10	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section			$SectionScope = DT (T-71019, lar Structure Of ; $SectionLaterality = EV (G-A101, ; $Anatomy = DCID (12115) Renal Vessels; $AnatomyRatio = DCID (12124)

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

F.2. TID (1001) Small Part SERVATION CONTEXT

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
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, □ □ □ □		(121093,DCM, "Sonographer")	

7	>	CONTAINS	TEXT	EV (121106, DCM, "Comment")			

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,	$Section =EV EV	Laterality (G-A101, (G-A100,

CSD	CV	Code Meaning
DCM	122445	Wall Thickness
SRT	G-D705	Volume
MRUS	MT-B6000-10	Thyroid Isthmus Height
MRUS	MT-B6000-71	Thyroid Depth

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,	

CSD **CV**

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
Thyroid.Nodule.4	MT-B6000-93 MRUS Thyroid.Nodule.4
Thyroid.Nodule.5	MT-B6000-94 MRUS Thyroid.Nodule.5
Thyroid.Nodule.6	MT-B6000-95 MRUS Thyroid.Nodule.6
Thyroid.Nodule.7	MT-B6000-96 MRUS Thyroid.Nodule.7
Thyroid.Nodule.8	MT-B6000-97 MRUS Thyroid.Nodule.8
Thyroid.Nodule.9	MT-B6000-98 MRUS Thyroid.Nodule.9
Thyroid.Nodule.10	MT-B6000-99 MRUS Thyroid.Nodule.10
Position	M12119-34, MRUS Position
Anterior-Posterior diameter	M12119-17, MRUS Anterior-Posterior diameter
Trans diameter	M12119-29, MRUS Trans diameter
Longitudinal	G-A143, SRT Longitudinal
Volume	G-D705, SRT Volume
Thy.Depth	MT-B6000-71 MRUS Thyroid Depth
Composition	MT-B6000-80,MRUS,Composition
Echogenicity	MT-B6000-81,MRUS,Echogenicity
Shape	MT-B6000-82,MRUS,Shape
Margin	MT-B6000-83,MRUS,Margin
Echogenic.Foci	MT-B6000-84,MRUS,Echogenic.Foci

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

G. Appendix : URO Imaging structured reporting template

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

G.1. TID (0300) URO ULTRASOUND REPORT

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

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Condition	Value Set Constraint
1			CONTAINER	EV (MR0100-02, MRUS, Ultrasound			
2	>	HAS CONCEPT MOD	INCL UDE	DTID (1204) Language of Content Item and Descendants			
3	>	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context			
4	>	CONTAINS	INCLUDE	DTID (0101) URO Patient Characteristics			
5	>	CONTAINS	CONTAINER				
6	>>	CONTAINS	IMAGE	No purpose of reference			
7	>	CONTAINS	INCLUDE	DTID (0103) Ultrasound Section			
8	>	CONTAINS	INCLUDE	DTID (5103) Vascular Ultrasound Section			

G.2. TID (1001) URO SERVATION CONTEXT

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
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, □ Organ □		Institution Name (0008,0080) of the General Equipment Module	
4	>	HAS OBS CONTEXT	CODE	EV(121010,DCM, □ □ □ □		(121093,DCM, "Sonographer")	
5	>	HAS OBS CONTEXT	CODE	EV(121024, DCM, "Subject Class		(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	

G.3. TID (0101) URO Patient Characteristics

	NL	Rel with Parent	VT	Concept Name	Used in MODALITY	Value Set Constraint	Comment
1			CONTAINER	EV (121118, DCM, □			
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,			

G.4. TID (0103) 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,	
4	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = $AnatomyRatio	

G.5. TID (5103) VASCULAR 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 (5104) Vascular Measurement Group		$AnatomyGroup = $Anatomy= DCID (12111) Thyroid Arteries (lateral)	
5	>	CONTAINS	INCLUDE	DTID (300) Measurement		$Measurement = $AnatomyRatio	

G.6. Mapping between Modality measurements and DICOM Concepts.

G.6.1. URO Vascular

Measurement	DICOM Mapping
URO.Artery.Anast.2.Transplant.1	A12120-10，MRUS，Artery Anastomosis2
URO.Artery.Anast.Transplant.1	A12120-9
URO.Renal.A.Transplant.1	A12115-6
URO.Renal.A1.Transplant.1	A12115-7
URO.Renal.A2.Transplant.1	A12115-8
URO.Hilum.Transplant.1	A12115-9
URO.Interlobar.A.Transplant.1	A12115-10
URO.Arcuate.A.Transplant.1	A12115-11
URO.Segmental.A.Transplant.1	A12115-12
URO.Renal.Vein.1.Transplant.1	V12115-02
URO.Renal.Vein.2.Transplant.1	V12115-03
URO.Renal.A.Transplant.2	A12115-13

URO.Renal.A2.Transplant.2	A12115-15
URO.Hilum.Transplant.2	A12115-16
URO.Interlobar.A.Transplant.2	A12115-17
URO.Arcuate.A.Transplant.2	A12115-18
URO.Segmental.A.Transplant.2	A12115-19
URO.Renal.Vein.1.Transplant.2	V12115-04
URO.Renal.Vein.2.Transplant.2	V12115-05
URO.Testis.V	MT-45210-05
URO.Testis.A	MT-45210-06
URO.Epididymis.V	MT-45210-07
URO.Epididymis.A	MT-45210-08
URO.Testis.V.Valsalva	MT-45210-09

G.6.2. Vascular Properties

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

MODALITY Label	*DICOM Mapping*
<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

G.6.3. URO Other Measurements

Measurement	*DICOM Mapping*
URO.Adrenal.H	MT-71000-01,MRUS,Adrenal Height
URO.Adrenal.L	MT-71000-02,MRUS,Adrenal Length
URO.Adrenal.W	MT-71000-03,MRUS,Adrenal Width
URO.Adrenal.Renal.Transplant.1.H	121207,DCM,Height
URO.Adrenal.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Adrenal.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Adrenal.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Adrenal.Renal.Transplant.2.H	121207,DCM,Height
URO.Adrenal.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Adrenal.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Adrenal.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Epididymal.Body.H	121207,DCM,Height
URO.Epididymal.Body.L	G-D7FE,SRT,Length
URO.Epididymal.Body.Vol	G-D705,SRT,Volume
URO.Epididymal.Body.W	G-A220,SRT,Width
URO.Epididymal.Head.H	121207,DCM,Height
URO.Epididymal.Head.L	G-D7FE,SRT,Length
URO.Epididymal.Head.Vol	G-D705,SRT,Volume
URO.Epididymal.Head.W	G-A220,SRT,Width
URO.Epididymal.Tail.H	121207,DCM,Height
URO.Epididymal.Tail.L	G-D7FE,SRT,Length
URO.Epididymal.Tail.Vol	G-D705,SRT,Volume
URO.Epididymal.Tail.W	G-A220,SRT,Width
URO.Epididymis.H	121207,DCM,Height
URO.Epididymis.L	G-D7FE,SRT,Length
URO.Epididymis.W	G-A220,SRT,Width
URO.Finding.1.Renal.Transplant.1.H	121207,DCM,Height
URO.Finding.1.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Finding.1.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Finding.1.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Finding.1.Renal.Transplant.2.H	121207,DCM,Height
URO.Finding.1.Renal.Transplant.2.L	G-D7FE,SRT,Length

Measurement	*DICOM Mapping*
URO.Finding.1.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Finding.1.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Finding.2.Renal.Transplant.1.H	121207,DCM,Height
URO.Finding.2.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Finding.2.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Finding.2.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Finding.2.Renal.Transplant.2.H	121207,DCM,Height
URO.Finding.2.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Finding.2.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Finding.2.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Finding.3.Renal.Transplant.1.H	121207,DCM,Height
URO.Finding.3.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Finding.3.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Finding.3.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Finding.3.Renal.Transplant.2.H	121207,DCM,Height
URO.Finding.3.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Finding.3.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Finding.3.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Finding.4.Renal.Transplant.1.H	121207,DCM,Height
URO.Finding.4.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Finding.4.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Finding.4.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Finding.4.Renal.Transplant.2.H	121207,DCM,Height
URO.Finding.4.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Finding.4.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Finding.4.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Finding.5.Renal.Transplant.1.H	121207,DCM,Height
URO.Finding.5.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Finding.5.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Finding.5.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Finding.5.Renal.Transplant.2.H	121207,DCM,Height
URO.Finding.5.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Finding.5.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Finding.5.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Finding.6.Renal.Transplant.1.H	121207,DCM,Height
URO.Finding.6.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Finding.6.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Finding.6.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Finding.6.Renal.Transplant.2.H	121207,DCM,Height
URO.Finding.6.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Finding.6.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Finding.6.Renal.Transplant.2.W	G-A220,SRT,Width

Measurement	*DICOM Mapping*
URO.Kidney.Inferior.H	121207,DCM,Height
URO.Kidney.Inferior.W	G-A220,SRT,Width
URO.Kidney.Mid.H	121207,DCM,Height
URO.Kidney.Mid.W	G-A220,SRT,Width
URO.Kidney.Renal.Transplant.1.H	121207,DCM,Height
URO.Kidney.Renal.Transplant.1.L	G-D7FE,SRT,Length
URO.Kidney.Renal.Transplant.1.Vol	G-D705,SRT,Volume
URO.Kidney.Renal.Transplant.1.W	G-A220,SRT,Width
URO.Kidney.Renal.Transplant.2.H	121207,DCM,Height
URO.Kidney.Renal.Transplant.2.L	G-D7FE,SRT,Length
URO.Kidney.Renal.Transplant.2.Vol	G-D705,SRT,Volume
URO.Kidney.Renal.Transplant.2.W	G-A220,SRT,Width
URO.Kidney.Superior.H	121207,DCM,Height
URO.Kidney.Superior.W	G-A220,SRT,Width
URO.Mictur.Vol	CT-74000-03,MRUS,Micturated Volume
URO.PPSA	CT-74000-04,MRUS,PPSA
URO.PSAD	CT-74000-05,MRUS,PSAD
URO.Post.BL.H	121207,DCM,Height
URO.Post.BL.L	G-D7FE,SRT,Length
URO.Post.BL.Vol	G-D705,SRT,Volume
URO.Post.BL.W	G-A220,SRT,Width
URO.Pre.BL.H	121207,DCM,Height
URO.Pre.BL.L	G-D7FE,SRT,Length
URO.Pre.BL.Vol	G-D705,SRT,Volume
URO.Post.BL.W	G-A220,SRT,Width
URO.Prostate.H	121207,DCM,Height
URO.Prostate.L	G-D7FE,SRT,Length
URO.Prostate.Mass.1.Volume	CT-94000-11,MRUS,Prostate Mass1 Volume
URO.Prostate.Mass.1.d1	MT-94000-11,MRUS,Prostate Mass1 d1
URO.Prostate.Mass.1.d2	MT-94000-12,MRUS,Prostate Mass1 d2
URO.Prostate.Mass.1.d3	MT-94000-13,MRUS,Prostate Mass1 d3
URO.Prostate.Mass.2.Volume	CT-94000-12,MRUS,Prostate Mass2 Volume
URO.Prostate.Mass.2.d1	MT-94000-14,MRUS,Prostate Mass2 d1
URO.Prostate.Mass.2.d2	MT-94000-15,MRUS,Prostate Mass2 d2
URO.Prostate.Mass.2.d3	MT-94000-16,MRUS,Prostate Mass2 d3
URO.Prostate.Mass.3.Volume	CT-94000-13,MRUS,Prostate Mass3 Volume
URO.Prostate.Mass.3.d1	MT-94000-17,MRUS,Prostate Mass3 d1
URO.Prostate.Mass.3.d2	MT-94000-18,MRUS,Prostate Mass3 d2
URO.Prostate.Mass.3.d3	MT-94000-19,MRUS,Prostate Mass3 d3
URO.Prostate.Vol	G-D705,SRT,Volume

Measurement	*DICOM Mapping*
URO.Prostate.W	G-A220,SRT,Width
URO.Prostate2.AP	MT-94000-20,MRUS,Prostate 2 AP
URO.Prostate2.Coronal	MT-94000-21,MRUS,Prostate 2 Coronal
URO.Prostate2.Long	MT-94000-22,MRUS,Prostate 2 Long
URO.Prostate2.Volume	CT-94000-23,MRUS,Prostate 2 Volume
URO.RCT	MT-71000-04,MRUS,Renal Cortical Thickness
URO.Renal.Cyst.1.Volume	MT-71000-26,MRUS,Renal Cyst1 Volume
URO.Renal.Cyst.1.d1	MT-71000-17,MRUS,Renal Cyst1 d1
URO.Renal.Cyst.1.d2	MT-71000-18,MRUS,Renal Cyst1 d2
URO.Renal.Cyst.1.d3	MT-71000-19,MRUS,Renal Cyst1 d3
URO.Renal.Cyst.2.Volume	MT-71000-27,MRUS,Renal Cyst2 Volume
URO.Renal.Cyst.2.d1	MT-71000-20,MRUS,Renal Cyst2 d1
URO.Renal.Cyst.2.d2	MT-71000-21,MRUS,Renal Cyst2 d2
URO.Renal.Cyst.2.d3	MT-71000-22,MRUS,Renal Cyst2 d3
URO.Renal.Cyst.3.Volume	MT-71000-28,MRUS,Renal Cyst3 Volume
URO.Renal.Cyst.3.d1	MT-71000-23,MRUS,Renal Cyst3 d1
URO.Renal.Cyst.3.d2	MT-71000-24,MRUS,Renal Cyst3 d2
URO.Renal.Cyst.3.d3	MT-71000-25,MRUS,Renal Cyst3 d3
URO.Renal.H	MT-71000-05,MRUS,Renal Height
URO.Renal.L	MT-71000-06,MRUS,Renal Length
URO.Renal.Lesion.1.Volume	MT-71000-29,MRUS,Renal Lesion1 Volume
URO.Renal.Lesion.1.d1	MT-71000-08,MRUS,Renal Lesion1 d1
URO.Renal.Lesion.1.d2	MT-71000-09,MRUS,Renal Lesion1 d2
URO.Renal.Lesion.1.d3	MT-71000-10,MRUS,Renal Lesion1 d3
URO.Renal.Lesion.2.Volume	MT-71000-30,MRUS,Renal Lesion2 Volume
URO.Renal.Lesion.2.d1	MT-71000-11,MRUS,Renal Lesion2 d1
URO.Renal.Lesion.2.d2	MT-71000-12,MRUS,Renal Lesion2 d2
URO.Renal.Lesion.2.d3	MT-71000-13,MRUS,Renal Lesion2 d3
URO.Renal.Lesion.3.Volume	MT-71000-31,MRUS,Renal Lesion3 Volume
URO.Renal.Lesion.3.d1	MT-71000-14,MRUS,Renal Lesion3 d1
URO.Renal.Lesion.3.d2	MT-71000-15,MRUS,Renal Lesion3 d2
URO.Renal.Lesion.3.d3	MT-71000-16,MRUS,Renal Lesion3 d3
URO.Renal.V.Diam.Renal.Transplant.1	MT-73000-07,MRUS,Renal V Diam Renal Transplant 1

Measurement	*DICOM Mapping*
URO.Renal.Vol0.523	CT-71000-02,MRUS,Renal Volume1
URO.Renal.W	MT-71000-07,MRUS,Renal Width
URO.Seminal.H	121207,DCM,Height
URO.Seminal.L	G-D7FE,SRT,Length
URO.Seminal.W	G-A220,SRT,Width
URO.Testicle.InRO	feesticleROURO.Te2:1 693

D

I. Appendix : OB Measurements supporting Viewpoint

I.1. Vascular

Measurement	DICOM Mapping
Ut A	SRT ,T-46820 ,Uterine Artery
MCA	SRT ,T-45600 ,Middle Cerebral Artery
Ductus Veno	99VP ,VP-0001 ,Ductus Venosus
Ductus Art	99VP ,VP-0004 ,Ductus Arteriosus
ICA	SRT ,T-46400 ,Celiac artery
Celiac A	SRT ,T-46400 ,Celiac artery

I.2. Vascular Properties

Measurement	***DICOM Mapping***
ED	LN,11653-3,End Diastolic Velocity
MD	LN,11665-7 ,Minimum Diastolic Velocity
PS	11726-7 ,Peak Systolic Velocity
TAMEAN	LN,20352-1,Time averaged mean velocity
TAMAX	LN ,11692-1,Time averaged peak velocity
PI	LN,12008-9,Pulsatility Index
RI	LN,12023-8,Resistivity Index
S/D	LN,12144-2,Systolic to Diastolic Velocity Ratio
VTI	20354-7, LN, Velocity Time Integral
HR	LN,8867-4,Heart Rate

I.3. Fetal Cardiac

Measurement	Finding Site	DICOM Mapping
MV E	GEK ,99909-1, Mitral Valve	99909-2 ,GEK, E-Wave
MV A	GEK, 99909-1 ,Mitral Valve	99909-3 ,GEK, A-Wave
MV E/A	GEK, 99909-1 ,Mitral Valve	99909-4 ,GEK, E/A

TV E	GEK ,99908-1 ,Tricuspid Valve	99908-2 ,GEK ,E-Wave
TV A	GEK, 99908-1 ,Tricuspid Valve	99908-3 ,GEK, A-Wave
TV E/A	GEK, 99908-1 ,Tricuspid Valve	99908-4 ,GEK, E/A
AV PV	GEK ,99914-1 ,Aortic Valve	99914-2 ,GEK, V max
AV TPV	GEK ,99914-1 ,Aortic Valve	99914-5 GEK,TPV
LVOT Diam	GEK ,99915-1, LVOT	99915-2, GEK ,LVOT Diam
LVOT Area	GEK ,99915-1, LVOT	99915-3, GEK ,LVOT Area

I.4. Other Fetal Cardiac Measurements

Measurement	*DICOM Mapping*	*Measurement Method*
MVE	99906-14, GEK ,Mitral Valve open exc.	GEK ,99906-1, 4-Chamber-view M-Mode
TVE	99906-15, GEK ,Tricuspid Valve open exc.	GEK ,99906-1, 4-Chamber-view M-Mode

I.5. Other Measurements

Measurement
UT L
UT H
UT W
Endo
Umb A
Cervix L
Ovary L
Ovary H
Ovary W
Follicle1 d1

Cervix L
FHR
LVW
IOD
Foot
TC
AF1
AF2
AF3
AF4
AFI
EFW
EFW12
FL/AC
FL/BPD
FL/HC
HC(c)
HrtC/TC
TCD/AC
LVW/HW