FUJIFILM

DICOM Conformance Statement for

ARIETTA 65

Company Name: FUJIFILM Healthcare Corporation

Product Name: Diagnostic Ultrasound System ARIETTA 65

Version: Version 4.0

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1. CONFORMANCE STATEMENT OVERVIEW

This product ARIETTA 65 implements the necessary DICOM services to download worklists from an information system, save acquired Ultrasound and Ultrasound Multi-frame images to a network storage device or storage media, print Ultrasound images to a networked hardcopy device and inform the information system about the work actually done.

Table1-1 provides an overview of the network services supported by ARIETTA 65.

Table 1-1 NETWORK SERVICES [1]

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
Transfer		
Ultrasound Image Storage	Yes	No
Ultrasound Multi-frame Image Storage	Yes	No
Comprehensive SR [2]	Yes	No
Workflow Management		
Modality Worklist	Yes	No
Modality Performed Procedure Step	Yes	No
Storage Commitment Push Model	Yes	No
Verification	Yes	Yes
Print Management		
Basic Grayscale Print Management Meta	Yes	No
Basic Color Print Management Meta	Yes	No
Query/Retrieve [3]		
Study Root Information Model FIND	Yes	No
Study Root Information Model MOVE	Yes	No
Ultrasound Image Storage	No	Yes
Ultrasound Multi-frame Image Storage	No	Yes

Note: 1. SOP-ARIETTA65-10 is necessary.
Note: 2. SOP-ARIETTA65-21 is necessary.
Note: 3. SOP-ARIETTA65-59 is necessary.

Table 1-2 provides an overview of the Media Storage Application Profiles supported by ARIETTA 65.

Table 1-2 Media Services

Media Storage Application Profile	Write Files (FSC or FSU)	Read Files (FSR) [1]
DVD-RAM & Compact Disk – Recordable		
Ultrasound Image Display	Yes	Yes
Ultrasound Image Spatial Calibration	Yes	Yes[2]

Ultrasound Image Combined Calibration	No	No
Ultrasound Multi-frame Image Display	Yes	Yes
Ultrasound Multi-frame Image Spatial Calibration	Yes	Yes
Ultrasound Multi-frame Image Combined Calibration	No	No

Note: 1. Structured Reports cannot be imported.

Note: 2. Not support Ultrasound images from other products.

2. TABLE OF CONTENTS

3. INTRODUCTION

3.1 REVISION HISTORY

Document Version	Date of Issue
1.0	2018.05.16
2.0	2019.09.17
3.0	2020.01.30
3.0.2	2021.04.01
4.0.1	2021.04.01

3.2 AUDIENCE

This document is intended for hospital staff, health system integrators, software designers or implementers. It is assumed that the reader has a working understanding of DICOM.

3.3 REMARKS

DICOM, by itself, does not guarantee interoperability. However, the Conformance Statement facilitates a first-level validation for interoperability between different applications supporting the same DICOM functionality.

This Conformance Statement is not intended to replace validation with other DICOM equipment to ensure proper exchange of information intended.

The scope of this Conformance Statement is to facilitate communication with ARIETTA 65 and other vendors' Medical equipment. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [DICOM]. However, by itself it is not guaranteed to ensure the desired interoperability and a successful interconnectivity.

The user should be aware of the following important issues:

— The comparison of different conformance statements is the first step towards assessing interconnectivity between the equipments produced by different manufacturers.
— Test procedures should be defined to validate the desired level of connectivity.
— The DICOM standard will evolve to meet the users' future requirements. FUJIFILM Healthcare Corporation reserves the right to make changes to its products or to discontinue its delivery.

3.4 DEFINITIONS, TERMS AND ABBREVIATIONS

Definitions, terms and abbreviations used in this document are defined within the different parts of the DICOM standard.

Abbreviations and terms are as follows:

AE	DICOM Application Entity
AET	Application Entity Title

ACSE	Association Control Service Element
CD-R	Compact Disk Recordable
CID	Context Identifier
CM	Code Meaning
CSD	Coding Scheme Designator
CSE	Customer Service Engineer
CV	Code Value
DVD	A trademark of the DVD Forum that is not an abbreviation
DVD-RAM	DVD Random Access Memory
FSC	File-Set Creator
FSU	File-Set Updater
FSR	File-Set Reader
GUI	Graphical User Interface
HDD	Hard Disk Drive
IHE	Integrating the Healthcare Enterprise
IOD	(DICOM) Information Object Definition
ISO	International Standard Organization
LCD	Liquid Crystal Display
MPPS	Modality Performed Procedure Step
MSPS	Modality Scheduled Procedure Step
NEMA	National Electrical Manufacturers Association
R	Required Key Attribute
O	Optional Key Attribute
PDU	DICOM Protocol Data Unit
PHI	Protected Health Information
SCU	DICOM Service Class User (DICOM client)
SCP	DICOM Service Class Provider (DICOM server)
SOP	DICOM Service-Object Pair
SR	Structured Reporting
TID	Template Identifier
U	Unique Key Attribute
UID	Unique Identifier
USB	Universal Serial Bus
VR	Value Representation

3.5 REFERENCES

[DICOM]Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-3.18, 2017b

4. NETWORKING

4.1 IMPLEMENTATION MODEL

4.1.1 Application Data Flow

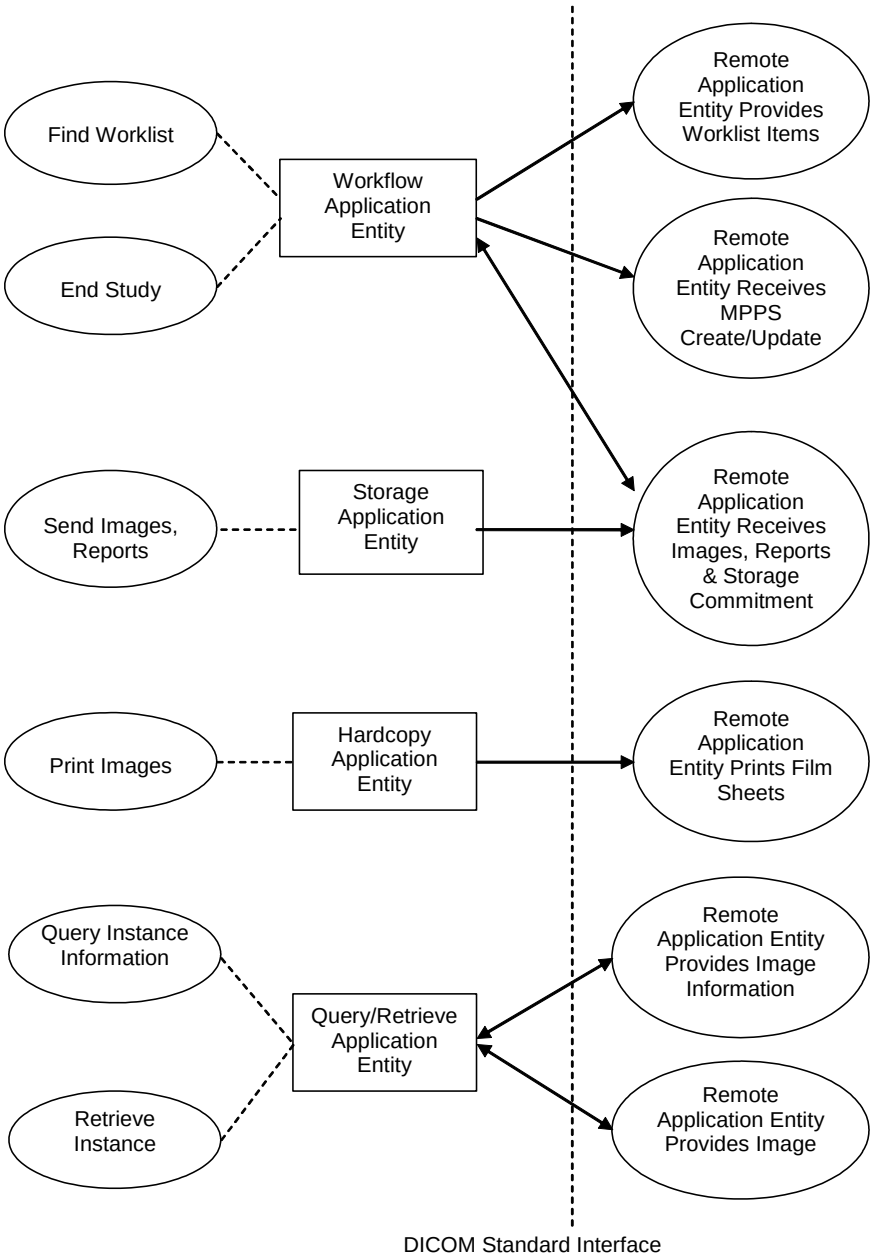

Figure 4.1-1 APPLICATION DATA FLOW DIAGRAM

— The Workflow Application Entity receives Worklist information from and sends MPPS information to a remote AE. It is associated with the local real-world activities “Find Worklist” and “End Exam”. When the “Find Worklist” local real-world activity is requested by an operator the Workflow Application Entity queries a remote AE for worklist items and provides the set of worklist items matching the query request. When "Acquire Images" local real-world activity is performed on the selected patient for the first time, the Workflow Application Entity automatically creates Modality Performed Procedure Step instance managed by a remote AE. When "End Exam" local real-world activity is requested by the operator, the MPPS Completed or Discontinued updates the MPPS instance managed by the remote AE. If the remote AE is configured as an archive device the Workflow AE will request Storage Commitment and if a commitment is successfully obtained the Workflow AE will record this information in the local database.

— The Storage Application Entity stores Ultrasound and/or Ultrasound Multi-frames images, and Structured Reports to a remote AE. It is associated with the local real-world activity “Send Images” and “Send Structured Reports”, respectively. An ultrasound modality displays image in real-time, and the operator acquires it by pressing the freeze button. A "Frozen" image may be sent to a remote AE or may be stored in the local HDD, DVD-RAM, CD-R Buffer, DVD-R Buffer or USB Media for review and batch send. “Send Images” is performed upon user request for each study completed or for specific images selected. Sending Structured Reports is performed automatically at "End Exam" local real-world activity.

— The Hardcopy Application Entity prints images on a remote AE (Printer). It is associated with the local real-world activity “Print Images”. “Print Images” creates a print-session within the print queue containing one or more virtual film sheets composed from images selected by the user.

— The Query/Retrieve Application Entity queries instances information of Ultrasound and/or Ultrasound Multi-frame images, and retrieves the instances from a Remote AE. It is associated with local real-world activity “Query Instance Information” and “Retrieve Instance”. When the “Query Instance Information” local real-world activity is requested by an operator, the Query/Retrieve Application Entity queries a remote AE for image information and provides the information list matching the query request. When “Retrieve Instance” local real-world activity is requested by an operator, the Query/Retrieve Application Entity requests a remote AE to transfer the instances.

4.1.2 Functional Definition of AEs

4.1.2.1 Functional Definition of Workflow Application Entity

The "Search Worklist" local activity is provided in the New Patient Registration GUI initiated by pressing the "NEW PATIENT" button on the console. The Patient ID, Patient Name, Accession Number, Scheduled Procedure Step Start Date, Scheduled Performing Physicians Name, and/or Requested Procedure ID may optionally be supplied before clicking the "Search" button in the GUI. Other default keys are the Modality (US), Scheduled Station AE Title (local AET), and Scheduled Procedure Step Start Date (Date of the day). When the "Search" button is clicked, the Workflow AE tries to open an association to a remote AE. If the Workflow AE establishes an association to a remote AE, it will transfer all worklist items via the open Association. During receiving the worklist response, the Workflow AE counts items and cancels the query processing, if the built-in limit of items (500) is reached. The results will be displayed in a list, which will be cleared with the next "Search Worklist" activity.

The Workflow AE automatically creates MPPS Instance when an image is sent to remote AE or stored in local drive for the first time in an examination. Further updates on the MPPS data can be performed from the "End Exam" user interface. The MPPS “Completed” or “Discontinued” states can only be set by the operator interaction. After a successful update of the MPPS Completed, the Workflow AE will issue a Storage Commitment request on images and Structured Reports already sent in the examination.

4.1.2.2 Functional Definition of Storage Application Entity

The Storage Application Entity can be requested in two modes. After the proper Worklist Item is selected or the patient identification is supplied by the operator, pressing the "STORE" button will directly send an

image to the remote storage AE when it is configured to send to network. Or when it is configured to store the image in the local drive, the image is written in the drive for later reference. The images selected by the operator will be sent to the remote storage AE. A storage association will be initiated by clicking the "Send" button on the screen. or touching the "Send" button on the LCD touch panel.

A storage association for sending Structured Reports will be automatically initiated at the end of an examination if reports have been created in the examination. When measurements are performed under specific applications, Structured Reports will be created automatically at the end of the examination. Structured Reports can also be created manually by the operator.

The color of I-mark and R-mark overlaid on an image icon or the color of SR-mark overlaid on a report icon indicates the status of the image or report, respectively: **Green** - original, **Light Blue** - stored to media, **Orange** - sent to an Image Archive, and **Blue** - storage committed.

4.1.2.3 Functional Definition of Hardcopy Application Entity

The Hardcopy Application Entity locates in the "Print" button. By clicking the thumbnail the operator may select or deselect images to be printed by the remote AE. A print association will be initiated by clicking the "Print" button on the screen or touching the "Print(DICOM)" button on the LCD touch panel. After an association is established with the printer, its status is determined. If the printer is operating normally, the film sheets composed of selected images will be printed. If the printer is not operating normally, or the print returns a failure status during the association, the error is reported to the user.

4.1.2.4 Functional Definition of Query/Retrieve Application Entity

The Query/Retrieve Application Entity is provided in the Import GUI initialized by clicking the “Import” button on the “Find” Window. The Patient ID, Patient’s Name, Accession Number, and/or Study Date may optionally be supplied before clicking the “Search” button. Other default key is Modality (US). When the “Search” button is clicked, the Query/Retrieve AE will try to open an association to a remote AE. If the Query/Retrieve AE establishes an association to the remote AE, it will transfer all instance information items via the open Association. During receiving the response, the Query/Retrieve AE cancels the query processing, if the “Cancel” button is clicked by the operator. The results will be displayed in a separate list, which will be cleared with the next “Query Instance Information" activity.

When the operator selects instance information items in the list and clicks “Preview” or “Import” button, the Query/Retrieve AE will try to open an association to the remote AE for “Retrieve instance” activity. If the Query/Retrieve AE establishes an association to the remote AE, the Query/Retrieve AE opens a TCP/IP port and waits for another association requesting for the instance transfer from the remote AE. If the Remote AE establishes an association to the Query/Retrieve AE, it will transfer all instances via the Open Association from the remote AE. During receiving the response, the Query/Retrieve AE cancels the processing, if the “Cancel” button is clicking by the operator.

4.1.3 Sequencing of Real-World Activities

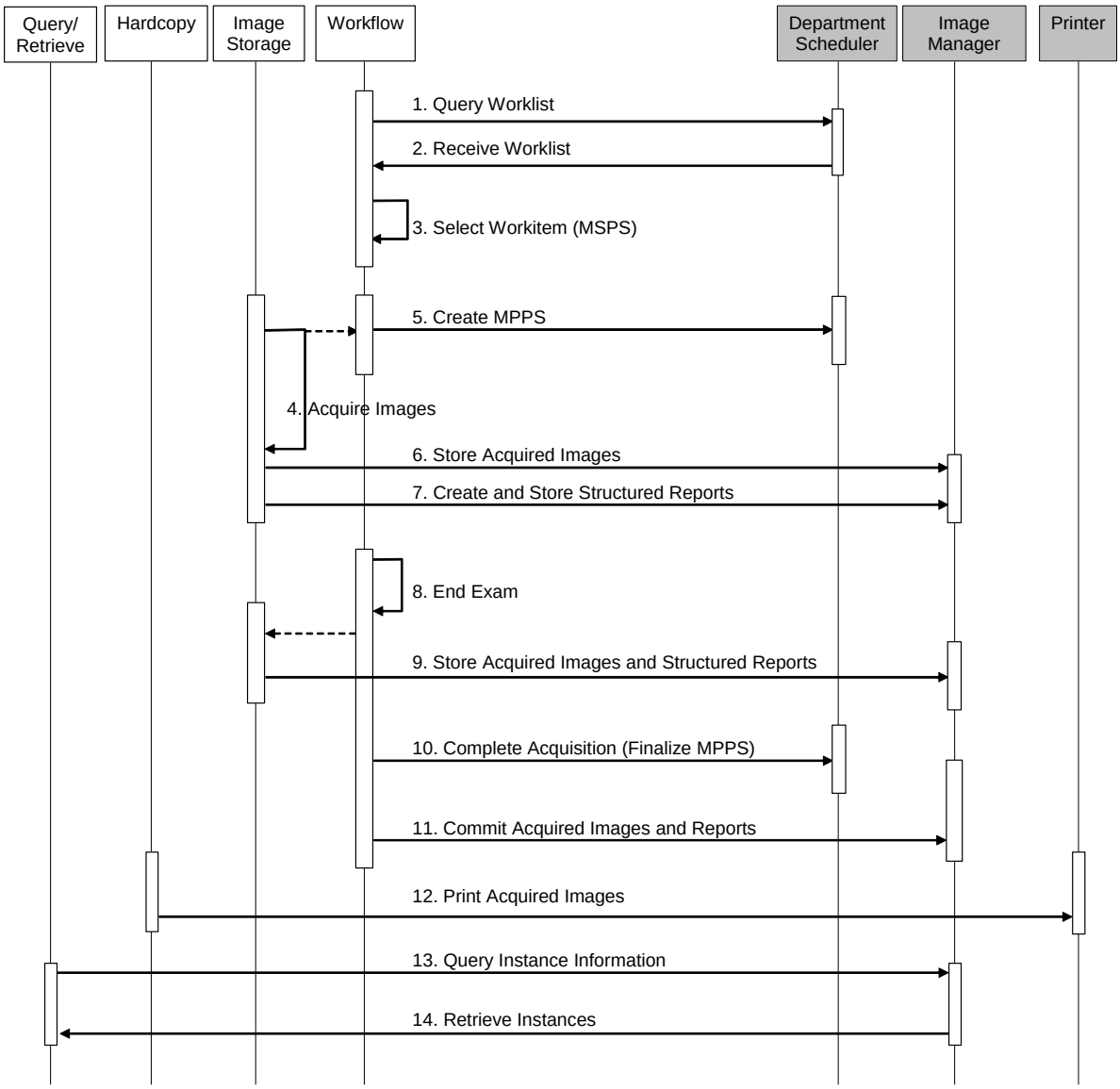

Figure 4.1-2 SEQUENCING CONSTRAINTS

Under normal scheduled workflow conditions the sequencing constraints illustrated in Figure 4.1-2 apply:

1. Query Worklist
2. Receive Worklist of Modality Scheduled Procedure Steps (MSPS)
3. Select Workitem (MSPS) from Worklist
4. Acquire Images

5. Create MPPS at the first Acquisition of Image or Structured Report
6. Store acquired image instances
7. Create and store Structured Reports by "Send SR" user interface (optional step)
8. Select Complete or Discontinue in "End Exam" user interface
9. Store unset image instances and store Structured Report instances (depends on conditions). Images are sent to remote storage AE over a separate association from Structured Report storage.
10. Complete acquisition and finalize MPPS
11. The Workflow AE will request Storage Commitment for the image and report instances, if the Image Manager is configured as an archive device.
12. Print acquired images (optional step)
13. Query Instance(Image or Document) Information (optional step)
14. Retrieve Instances (optional step)

Other workflow situations (e.g. unscheduled procedure steps) will have other sequencing constraints. Printing could equally take place after the acquired images have been stored. Printing could be omitted completely if no printer is connected or hardcopies are not required.

4.2 AE SPECIFICATIONS

4.2.1 Workflow Application Entity Specification

4.2.1.1 SOP Classes

This product provides Standard Conformance to the following SOP Classes:

Table 4.2-1 SOP CLASSES FOR AE WORKFLOW

SOP Class Name	SOP Class UID	SCU	SCP
Modality Worklist Information Model – FIND	1.2.840.10008.5.1.4.31	Yes	No
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Yes	No
Storage Commitment Push Model	1.2.840.10008.1.20.1	Yes	No
Verification	1.2.840.10008.1.1	Yes	Yes

4.2.1.2 Association Policies

4.2.1.2.1 General

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

Table 4.2-2 DICOM APPLICATION CONTEXT FOR AE WORKFLOW

Application Context Name	1.2.840.10008.3.1.1.1

4.2.1.2.2 Number of Associations

This product initiates one Association at a time for a Workflow requests.

Table 4.2-3 NUMBER OF ASSOCIATIONS INITIATED FOR AE WORKFLOW

Maximum number of simultaneous Associations	1

4.2.1.2.3 Asynchronous Nature

This product does not support asynchronous communication (multiple outstanding transactions over a single Association).

Table 4.2-4 ASYNCHRONOUS NATURE AS A SCU FOR AE WORKFLOW

Maximum number of outstanding asynchronous transactions	1

4.2.1.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-5 DICOM IMPLEMENTATION CLASS AND VERSION FOR AE WORKFLOW

Implementation Class UID	1.2.392.200036.9123.100.50.121
Implementation Version Name	20170525 (subject to change without notice)

4.2.1.3 Association Initiation Policy

4.2.1.3.1 Activity – Find Worklist

4.2.1.3.1.1 Description and Sequencing of Activities

An interactive query for Worklist is initiated by pressing the "Find" button in the "NEW PATIENT" Registration GUI. The built-in query keys are the Modality (US), Scheduled Procedure Step Start Date (actual date). The Scheduled Station AE Title may be excluded by the configuration. Additional "Patient-based" query keys, Patient's ID, Patient Name, Accession Number, and/or Requested Procedure ID, may be supplied in the dialog by the operator.

Upon initiation of the request, this product will build an Identifier for the C-FIND request, will initiate an Association to send the request and will wait for Worklist responses. After retrieval of all responses, this product will access the local database to update patient demographic data. To protect the system from overflow, this product will limit the number of processed worklist responses to 500. During receiving the worklist response items are counted and the query processing is canceled by issuing a C-FIND-CANCEL if the limit of items is reached. The results will be displayed in a separate list.

The retrieved Worklist items are stored locally during the day, which will be cleared with the next worklist update. If the list is a latest and additional examination is to be performed on a patient, or the equipment is disconnected for mobile examination, the stored worklist items may be referenced by pressing "Worklist" button in the "NEW PATIENT" Registration GUI. The additional examination using the same MSPS generates a second series of images coping with the Append Case among the IHE use cases.

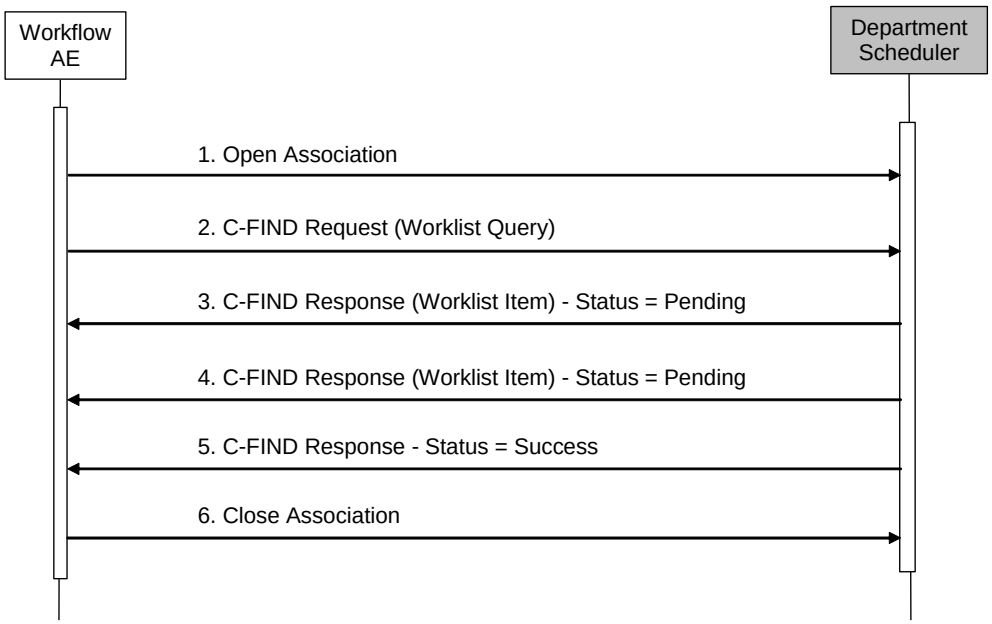

Figure 4.2-1 SEQUENCING OF ACTIVITY – WORKLIST QUERY

A possible sequence of interactions between the Workflow AE and a Departmental Scheduler (e.g. a device such as a RIS or HIS which supports the Modality Worklist SOP Class as an SCP) is illustrated in the Figure above:

1. The Workflow AE opens an association with the Department Scheduler.
2. The Workflow AE sends a C-FIND request to the Department Scheduler containing the Worklist Query attributes.
3. The Department Scheduler returns a C-FIND response containing the requested attributes of the first matching Worklist Item.
4. The Department Scheduler returns another C-FIND response containing the requested attributes of the second matching Worklist Item.
5. The Department Scheduler returns another C-FIND response with status Success indicating that no further matching Worklist Items exist. This example assumes that only 2 Worklist items match the Worklist Query.
6. The Workflow AE closes the association with the Department Scheduler.
7. The user selects a Worklist Item from the Worklist database and prepares to acquire images.

4.2.1.3.1.2 Proposed Presentation Contexts

This product will propose Presentation Contexts as shown in the following table:

Table 4.2-6 PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY WORKLIST QUERY

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Modality Worklist Information Model – FIND	1.2.840.10008.5.1.4.31	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None
Verification	1.2.840.10008.1.1	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None

4.2.1.3.1.3 SOP Specific Conformance for Modality Worklist

The behavior of this product when encountering status codes in a Modality Worklist C-FIND response is summarized in the Table below. If any other SCP response status than "Success" or "Pending" is received by this product, a Worklist Error Message will appear on the user interface.

Table 4.2-7 MODALITY WORKLIST C-FIND RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Matching is complete	0000	The SCP has completed the matches. Worklist items are available for display or further processing.
Refused	Out of Resources	A700	The Association is closed using A-RELEASE and the worklist query is failed.
Failed	Identifier does not match SOP Class	A900	The Association is closed using A-RELEASE and the worklist query is failed.
Failed	Unable to Process	C000 – CFFF	The Association is closed using A-RELEASE and the worklist query is failed.
Cancel	Matching terminated due to Cancel request	FE00	If the query was cancelled due to too may worklist items then the SCP has completed the matches. Worklist items are available for display or further processing. Otherwise, the Association is aborted using A-ABORT and the worklist query is failed.
Pending	Matches are continuing	FF00	The worklist item contained in the Identifier is collected for later display or further processing.
Pending	Matches are continuing – Warning that one or more Optional Keys were not supported	FF01	The worklist item contained in the Identifier is collected for later display or further processing.
*	*	Any other status code.	The Association is closed using A-RELEASE and the worklist is failed.

The behavior of this product during communication failure is summarized in the Table below.

Table 4.2-8 MODALITY WORKLIST COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the worklist query is failed. A Worklist Error is reported to the user.
Association aborted by the SCP or network layers	The worklist query is failed. A Worklist Error is reported to the user.

Acquired images will always use the Study Instance UID specified for the Scheduled Procedure Step (if available). If an acquisition is unscheduled, a Study Instance UID will be generated locally.

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

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

Table 4.2-9 WORKLIST REQUEST IDENTIFIERS

Module Name Attribute Name	Tag	VR	M	R	Q	D	IOD
SOP Common							
Specific Character Set	(0008,0005)	CS		x			x
Scheduled Procedure Step							
Scheduled Procedure Step Sequence	(0040,0100)	SQ		x			
> Modality	(0008,0060)	CS	(S)	x		x	x
> Requested Contrast Agent	(0032,1070)	LO		x		x	
> Scheduled Station AET	(0040,0001)	AE	(S)	x		x	
> Scheduled Procedure Step Start Date	(0040,0002)	DA	R	x	x	x	x
> Scheduled Procedure Step Start Time	(0040,0003)	TM		x		x	x
> Scheduled Performing Physician's Name	(0040,0006)	PN		x	x	x	
> Scheduled Procedure Step Description	(0040,0007)	LO		x		x	x
> Scheduled Protocol Code Sequence	(0040,0008)	SQ		x		x	x
> Scheduled Procedure Step ID	(0040,0009)	SH		x		x	x
> Scheduled Station Name	(0040,0010)	SH		x		x	
> Scheduled Procedure Step Location	(0040,0011)	SH		x		x	
> Pre-Medication	(0040,0012)	LO		x		x	
Requested Procedure							
Referenced Study Sequence	(0008,1110)	SQ		x			x
Referenced Patient Sequence	(0008,1120)	SQ		x			
Study Instance UID	(0020,000D)	UI		x		x	x
Requested Procedure Description	(0032,1060)	LO		x		x	x
Requested Procedure Code Sequence	(0032,1064)	SQ		x		x	x
Requested Procedure ID	(0040,1001)	SH		x	x	x	x
Requested Procedure Priority	(0040,1003)	SH		x		x	
Patient Transport Arrangements	(0040,1004)	LO		x		x	

Imaging Service Request							
Accession Number	(0008,0050)	SH		x	x	x	x
Referring Physician's Name	(0008,0090)	PN		x		x	x
Requesting Physician	(0032,1032)	PN		x		x	x
Requesting Service	(0032,1033)	LO		x		x	
Admission ID	(0038,0010)	LO		x		x	
Patient Identification							
Patient Name	(0010,0010)	PN		x	x	x	x
Patient ID	(0010,0020)	LO		x	x	x	x
Patient Demographic							
Patient's Birth Date	(0010,0030)	DA		x		x	x
Patient's Sex	(0010,0040)	CS		x		x	x
Patient's Size	(0010,1020)	DS		x		x	x
Patient's Weight	(0010,1030)	DS		x		x	x
Ethnic Group	(0010,2160)	SH		x		x	
Occupation	(0010,2180)	SH		x		x	x
Patient Comments	(0010,4000)	LT		x		x	
Confidentiality Constraint on Patient Data Description	(0040,3001)	LO		x		x	
Patient Medical							
Medical Alerts	(0010,2000)	LO		x		x	x
Contrast Allergies	(0010,2110)	LO		x		x	x
Pregnancy Status	(0010,21C0)	US		x		x	
Last Menstrual Date	(0010,21D0)	DA		x		x	x
Special Needs	(0038,0050)	LO		x		x	
Patient State	(0038,0500)	LO		x		x	
Visit Status							
Current Patient Location	(0038,0300)	LO		x		x	

The above table should be read as follows:

Module Name: The name of the associated module for supported worklist attributes.

Attribute Name: Attributes supported to build a Worklist Request Identifier of this product.

Tag: DICOM tag for this attribute.

VR: DICOM VR for this attribute.

M: Matching keys for Worklist Query. An "S" will indicate that this product will supply an attribute value for Single Value Matching, an "R" will indicate Range Matching and a "*" will denote wildcard matching. An "(S)" will indicate that keys are configurable either Single Value Matching or Universal Matching.

R: Return keys. An "x" will indicate that this product will supply this attribute as Return Key with zero length for Universal Matching.

Q: Interactive Query Key. An "x" will indicate that this product will supply this attribute as matching key, if entered in the New Patient dialog. For example, the Patient Name can be entered thereby restricting Worklist responses to Procedure Steps scheduled for the patient.

D: Displayed keys. An "x" indicates that this worklist attribute is displayed to the user during a patient registration dialog. For example, Patient Name will be displayed when registering the patient prior to an examination.

IOD: An "x" indicates that this Worklist attribute is included into all Object Instances created during performance of the related Procedure Step.

The Modality (0008,0060) matching key is configurable to "US" or zero length (Universal matching), the Scheduled Station AET (0040,0001) key is configurable to the local AET (ex. ARIETTA65) or zero length, and the Scheduled Procedure Start Date (0040,0002) key is configurable to a date, date range, or zero length.

4.2.1.3.2 Activity – End Exam

4.2.1.3.2.1 Description and Sequencing of Activities

After the "NEW PATIENT" Registration, this product is awaiting local image storage or image transmission to remote Archive. The trigger to create a MPPS SOP Instance is derived from this event. An Association to the configured MPPS SCP system is established immediately and the related MPPS SOP Instance will be created.

The MPPS user interface is initiated by pressing the "END EXAM" button on the console. Only a manual update can be performed by the operator where is it possible to set the final state of the MPPS to “COMPLETED” or “DISCONTINUED”. In the “Discontinued” case the user can also select the discontinuation reason from a pick list corresponding to Context Group 9300. An MPPS Instance that has been sent with a state of “COMPLETED” or “DISCONTINUED” can no longer be updated.

This product will support creation of “unscheduled cases” by allowing MPPS Instances to be communicated for locally registered Patients. This product only supports a 0-to-1 relationship between Scheduled and Performed Procedure Steps.

This product will initiate an Association to issue an:

— N-CREATE request according to the CREATE Modality Performed Procedure Step SOP Instance operation or a
— N-SET request to update the contents and state of the MPPS according to the SET Modality Performed Procedure Step Information operation.

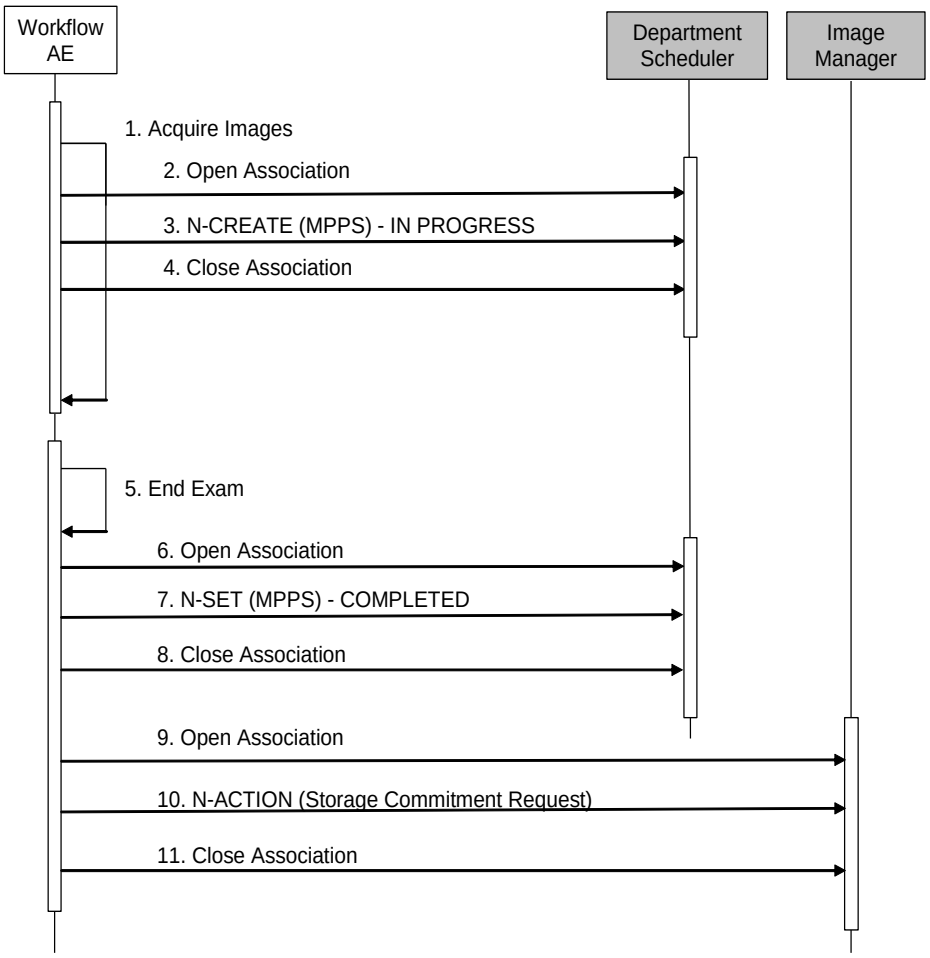

Figure 4.2-2 SEQUENCING OF ACTIVITY – ACQUIRE IMAGES AND END EXAM

A possible sequence of interactions between the Workflow AE and a Department Scheduler (e.g. a device such as a RIS or HIS which supports the MPPS SOP Class as an SCP) is illustrated in Figure 4.2-2:

1. First image is acquired for the MSPS.

2. The Workflow AE opens an association with the Department Scheduler.

3. The Workflow AE sends an N-CREATE request to the Department Scheduler to create an MPPS instance with status of “IN PROGRESS” and create all necessary attributes. The Department Scheduler acknowledges the MPPS creation with an N-CREATE response (status success).

4. The Workflow AE closes the association with the Department Scheduler.

5. After all images are sent to Image Archive or stored in the local database, the operator requests "End Exam" and closes database the examination. At this time Structured Reports, if created, are sent to Image Archive automatically.

6. The Workflow AE opens a second association with the Department Scheduler.

7. The Workflow AE sends an N-SET request to the Department Scheduler to update the MPPS instance with status of “COMPLETED” and set all necessary attributes. The Department Scheduler acknowledges the MPPS update with an N-SET response (status success).

8. The Workflow AE closes the association with the Department Scheduler.

9. If the images/reports associated with the examination have been sent to the Image Manager, the Workflow AE opens independent association with the Image Manager.

10. The Workflow AE sends an N-ACTION request to the Image Manager to request the Images/ reports are storage-committed. The Image Manager acknowledges the Storage Commitment Request with an N-ACTION response (status success).

11. The Workflow AE closes the association with the Image Manager.

4.2.1.3.2.2 Proposed Presentation Contexts

This product will propose Presentation Contexts as shown in the following table:

Table 4.2-10
PROPOSED PRESENTATION CONTEXTS FOR REAL-WORLD ACTIVITY

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None
Verification	1.2.840.10008.1.1	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None

4.2.1.3.2.3 SOP Specific Conformance for MPPS

The behavior of this product when encountering status codes in an MPPS N-CREATE or N–SET response is summarized in Table 4.2-11. If any other SCP response status than "Success" is received by this product, a message “Network communication error" will appear on the user interface.

Table 4.2-11 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 Association is closed using A-RELEASE. The error status is reported to the user.
Warning	Attribute Value Out of Range	0116H	The Association is closed using A-RELEASE. The error status is reported to the user.
*	*	Any other status code.	The Association is closed using A-RELEASE. The error status is reported to the user.

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

Table 4.2-12 MPPS COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the timeout status is reported to the user.
Association aborted by the SCP or network layers	The MPPS is failed and the status is reported to the user.

Table 4.2-13 provides a description of the MPPS N-CREATE and N-SET request identifiers sent by this product. Empty cells in the N-CREATE and N-SET columns indicate that the attribute is not sent. An “x” indicates that an appropriate value will be sent. A “Zero length” attribute will be sent with zero length.

Table 4.2-13 MPPS N-CREATE / N-SET REQUEST IDENTIFIER

Attribute Name	Tag	VR	N-CREATE	N-SET
Specific Character Set	(0008,0005)	CS	See chapter 6	-
Referenced Patient Sequence	(0008,1120)	SQ	Zero length	-
Patient’s Name	(0010,0010)	PN	From Modality Worklist or user input. The user can modify values provided via Modality Worklist.	-
Patient ID	(0010,0020)	LO	From Modality Worklist or user input. The user can modify values provided via Modality Worklist.	-
Patient’s Birth Date	(0010,0030)	DA	From Modality Worklist or user input. The user can modify values provided via Modality Worklist.	-
Patient’s Sex	(0010,0040)	CS	From Modality Worklist or user input. The user can modify values provided via Modality Worklist.	-
Scheduled Step Attributes Sequence	(0040,0270)	SQ	If the procedure step creates an SOP Instance	-
> Accession Number	(0008,0050)	SH	From Modality Worklist or user input. The user can modify values provided via Modality Worklist.	-
>Referenced Study Sequence	(0008,1110)	SQ	From Modality Worklist	-
>>Referenced SOP Class UID	(0008,1150)	UI	From Modality Worklist	-
>>Referenced SOP Instance UID	(0008,1155)	UI	From Modality Worklist	-
>Study Instance UID	(0020,000D)	UI	From Modality Worklist or internally generated	-
>Requested Procedure Description	(0032,1060)	LO	From Modality Worklist	-

>Scheduled Procedure Step Description	(0040,0007)	LO	From Modality Worklist	-
>Scheduled Protocol Code Sequence	(0040,0008)	SQ	From Modality Worklist	-
>Scheduled Procedure Step ID	(0040,0009)	SH	From Modality Worklist	-
>Requested Procedure ID	(0040,1001)	SH	From Modality Worklist or user input. The user can modify values provided via Modality Worklist.	-
Procedure Code Sequence	(0008,1032)	SQ	From Modality Worklist, mapped from Requested Procedure Code Sequence (0032,1064)	-
Performed Station AE Title	(0040,0241)	AE	AE Title of the Equipment	-
Performed Station Name	(0040,0242)	SH	Station Name of the Equipment	-
Performed Location	(0040,0243)	SH	Zero length	-
Performed Procedure Step Start Date	(0040,0244)	DA	Actual start date	-
Performed Procedure Step Start Time	(0040,0245)	TM	Actual start time	-
Performed Procedure Step End Date	(0040,0250)	DA	Zero length	Actual end date
Performed Procedure Step End Time	(0040,0251)	TM	Zero length	Actual end time
Performed Procedure Step Status	(0040,0252)	CS	IN PROGRESS	COMPLETED or DISCONTINUED
Performed Procedure Step ID	(0040,0253)	SH	Automatically created.	-
Performed Procedure Step Description	(0040,0254)	LO	Input by the user at "Study Description" in New Patient Registration.	-
Performed Procedure Type Description	(0040,0255)	LO	Zero length	-
Performed Procedure Step Discontinuation Reason Code Sequence	(0040,0281)	SQ	Zero length	If Performed Procedure Step Status (0040,0252) is “DISCONTINUED” and a discontinuation reason is selected by the user, then a single item will be present containing a user-selected entry drawn from Context Group 9300.
Modality	(0008,0060)	CS	US	-
Study ID	(0020,0010)	SH	Copied from Requested Procedure ID (0040,1001) in	-

			MWL. The user can modify values provided via Modality Worklist.	
Performed Protocol Code Sequence	(0040,0260)	SQ	Zero length	Zero or more items
Performed Series Sequence	(0040,0340)	SQ	Zero length	One or more items
>Retrieve AE Title	(0008,0054)	AE		Zero length
>Series Description	(0008,103E)	LO		x
>Performing Physician's Name	(0008,1050)	PN		x
>Operator's Name	(0008,1070)	PN		x
>Referenced Image Sequence	(0008,1140)	SQ		Zero or more items
>>Referenced SOP Class UID	(0008,1150)	UI		x
>>Referenced SOP Instance UID	(0008,1155)	UI		x
>Protocol Name	(0018,1030)	LO		x
>Series Instance UID	(0020,000E)	UI		x
>Referenced Non-image Composite SOP Instance Sequence	(0040,0220)	SQ		Zero or more items
>>Referenced SOP Class UID	(0008,1150)	UI		x
>>Referenced SOP Instance UID	(0008,1155)	UI		x

4.2.1.3.2.4 SOP Specific Conformance for Storage Commitment SOP Class

4.2.1.3.2.4.1 Storage Commitment Operations (N-ACTION)

The Workflow AE will request storage commitment for instances of the Ultrasound Image, Ultrasound Multi-frame Image and Structured Report Storage Classes, if the remote AE is configured as an Archive Device and a presentation context for the Storage Commitment Push Model has been accepted.

The Workflow AE will consider Storage Commitment failed if no N-EVENT-REPORT is received for a Transaction UID within a configurable time period after receiving a successful N-ACTION response (duration of applicability for a Transaction UID).

The Workflow AE does not send the optional Storage Media File Set ID & UID Attributes or the Referenced Performed Procedure Step Sequence Attribute in the N-ACTION.

The behavior of Storage AE when encountering status codes in an N-ACTION response is summarized in the Table below:

Table 4.2-14
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. A timer is started which will expire if no N-EVENT-REPORT for the Transaction UID is received within a configurable timeout period.
*	*	Any other status code.	The Association is closed using A-RELEASE and the failure is reported to the user.

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

Table 4.2-15 STORAGE COMMITMENT COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the timeout error is reported to the user.
Association aborted by the SCP or network layers	The association failure is reported to the user.

4.2.1.3.2.4.2 Storage Commitment Notifications (N-EVENT-REPORT)

The Workflow AE is capable of receiving an N-EVENT-REPORT notification if it has successfully negotiated a Presentation Context for the Storage Commitment Push Model (i.e. only associations established with archive devices).

Upon receipt of an N-EVENT-REPORT the timer associated with the Transaction UID will be canceled.

The behavior of Workflow AE when receiving Event Types within the N-EVENT-REPORT is summarized in the Table below.

Table 4.2-16 STORAGE COMMITMENT N-EVENT-REPORT BEHAVIOUR

Event Type Name	Event Type ID	Behavior
Storage Commitment Request Successful	1	The Referenced SOP Instances under Referenced SOP Sequence (0008,1199) are marked within the database as committed. Successfully committed SOP Instances are candidates for deletion from the local database. The least recently accessed SOP Instances are deleted first.
Storage Commitment Request Complete – Failures Exist	2	The Referenced SOP Instances under Referenced SOP Sequence (0008,1199) are treated in the same way as in the success case (Event Type 1). The Referenced SOP Instances under Failed SOP Sequence (0008,1198) are not marked as committed within the database.

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

Table 4.2-17 STORAGE COMMITMENT N-EVENT-REPORT RESPONSE STATUS REASONS

Service Status	Further Meaning	Error Code	Reasons
Success	Success	0000	The storage commitment result has been successfully received.
Failure	Unrecognized Operation	0211H	The Transaction UID in the N-EVENT-REPORT request is not recognized (was never issued within an N-ACTION request).
Failure	Resource Limitation	0213H	The Transaction UID in the N-EVENT-REPORT request has expired (no N-EVENT-REPORT was received within a configurable time limit).
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).
Failure	Invalid Argument Value	0115H	One or more SOP Instance UIDs with the Referenced SOP Sequence (0008,1199) or Failed SOP Sequence (0008,1198) was not included in the Storage Commitment Request associated with this Transaction UID. The unrecognized SOP Instance UIDs will be returned within the Event Information of the N-EVENT-REPORT response.

4.2.1.4 Association Acceptance Policy

This product accepts Associations to receive N-EVENT-REPORT notifications for the Storage Commitment Push Model SOP Class.

Table 4.2-18 NUMBER OF ASSOCIATIONS ACCEPTED FOR WORKFLOW AE

Maximum number of simultaneous Associations accepted	1

4.2.1.4.1 Activity – Receive Storage Commitment Response

4.2.1.4.1.1 Description and Sequencing of Activities

The Workflow AE will accept associations in order to receive responses to a Storage Commitment N-EVENT-REPORT Request.

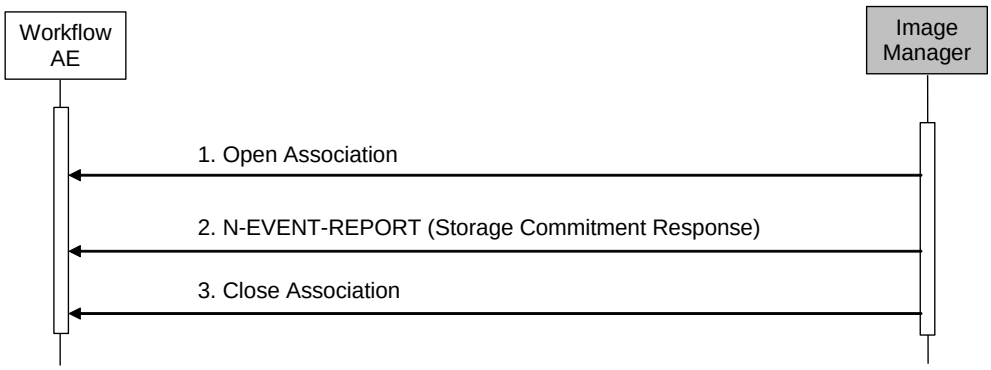

Figure 4.2-3 SEQUENCING OF ACTIVITY - RECEIVE STORAGE COMMITMENT RESPONSE

A possible sequence of interactions between the Workflow AE and an Image Manager (e.g. a storage or archive device supporting Storage Commitment SOP Classes as an SCP) is illustrated in the Figure above:

1. The Image Manager opens a new association with the Workflow AE.

2. The Image Manager sends an N-EVENT-REPORT request notifying the Workflow AE of the status of a previous Storage Commitment Request. The Workflow AE replies with an N-EVENT-REPORT response confirming receipt.

3. The Image Manager closes the association with the Workflow AE.

The Workflow AE may reject association attempts as shown in the Table below. The Result, Source and Reason/Diag columns represent the values returned in the appropriate fields of an ASSOCIATE-RJ PDU (see PS 3.8, Section 9.3.4). The contents of the Source column is abbreviated to save space and the meaning of the abbreviations are:

a) 1 – DICOM UL service-user

b) 2 – DICOM UL service-provider (ASCE related function)

c) 3 – DICOM UL service-provider (Presentation related function)

Table 4.2-19 ASSOCIATION REJECTION REASONS

Result	Source	Reason/Diag	Explanation
2 – rejected-transient	c	2 – local-limit-exceeded	The maximum number of simultaneous associations has been reached. An association request with the same parameters may succeed at a later time.
2 – rejected-transient	c	1 – temporary-congestion	No associations can be accepted at this time because insufficient resources are available (e.g. memory, processes, or threads). An association request with the same parameters may succeed at a later time.
1 – rejected-permanent	a	2 – application-context-name-not-supported	The association request contained an unsupported Application Context Name. An association request with the same parameters will not succeed at a later time.
1 – rejected-permanent	a	7 – called-AE-title-not-recognized	The association request contained an unrecognized Called AE Title. An association request with the same parameters will not succeed at a later time unless configuration changes are made. This rejection reason normally occurs when the

			association initiator is incorrectly configured and attempts to address the association acceptor using the wrong AE Title.
1 – rejected-permanent	a	3 – calling-AE-title-not-recognized	The association request contained an unrecognized Calling AE Title. An association request with the same parameters will not succeed at a later time unless configuration changes are made. This rejection reason normally occurs when the association acceptor has not been configured to recognize the AE Title of the association initiator.
1 – rejected-permanent	b	1 – no-reason-given	The association request could not be parsed. An association request with the same format will not succeed at a later time.

4.2.1.4.1.2 Accepted Presentation Contexts

The Workflow AE will accept Presentation Contexts as shown in the Table below:

Table 4.2-20 ACCEPTABLE PRESENTATION CONTEXTS FOR ACTIVITY RECEIVE STORAGE COMMITMENT RESPONSE

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 Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None
Verification	1.2.840.10008.1.1	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCP	None

The Workflow AE will prefer to select the Explicit VR Little Endian Transfer Syntax if multiple transfer syntaxes are offered. The Workflow AE will only accept the SCU role (which must be proposed via SCP/SCU Role Selection Negotiation) within a Presentation Context for the Storage Commitment Push Model SOP Class.

4.2.1.4.1.3 SOP Specific Conformance for Storage Commitment SOP Class

4.2.1.4.1.3.1 Storage Commitment Notifications (N-EVENT-REPORT)

Upon receipt of an N-EVENT-REPORT the timer associated with the Transaction UID will be canceled.

The behavior of Workflow AE when receiving Event Types within the N-EVENT-REPORT is summarized in Table 4.2-16.

The reasons for returning specific status codes in an N-EVENT-REPORT response are summarized in Table 4.2-17.

4.2.1.4.1.4 SOP Specific Conformance for Verification SOP Class

The Workflow AE provides standard conformance to the Verification SOP Class as an SCP. If the C-ECHO request was successfully received, a 0000 (Success) status code will be returned in the C-ECHO response. Otherwise, the Association is aborted by A-ABORT by the Verification SCP.

4.2.2 Storage Application Entity Specification

4.2.2.1 SOP Classes

This product provides the following Conformance to the SOP Classes listed below:

Table 4.2-21 SOP CLASSES FOR AE STORAGE

SOP Class Name	SOP Class UID	Conformance	SCU	SCP
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Standard Extended	Yes	No
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Standard Extended	Yes	No
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33	Standard	Yes	No
Verification	1.2.840.10008.1.1	Standard	Yes	No

4.2.2.2 Association Policies

4.2.2.2.1 General

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

Table 4.2-22 DICOM APPLICATION CONTEXT FOR AE STORAGE

Application Context Name	1.2.840.10008.3.1.1.1

4.2.2.2.2 Number of Associations

This product initiates one Association at a time for the destination to which a transfer request is being processed. It does not automatically request associations to multiple destinations.

Table 4.2-23 NUMBER OF ASSOCIATIONS INITIATED FOR AE STORAGE

Maximum number of simultaneous Associations initiated	1

Note: However, each AE for image storage and Structured Report storage is independent. Therefore, two associations for image storage and report storage may be initiated simultaneously.

4.2.2.2.3 Asynchronous Nature

This product does not support asynchronous communication (multiple outstanding transactions over a single Association).

Table 4.2-24 ASYNCHRONOUS NATURE AS A SCU FOR AE STORAGE

Maximum number of outstanding asynchronous transactions	1

4.2.2.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-25 DICOM IMPLEMENTATION CLASS AND VERSION FOR AE STORAGE

Implementation Class UID	1.2.392.200036.9123.100.50.121
Implementation Version Name	20170525 (subject to change without notice)

4.2.2.3 Association Initiation Policy

4.2.2.3.1 Activity – Send Images and Structured Reports

4.2.2.3.1.1 Description and Sequencing of Activities

The Storage AE for sending images may be invoked in two ways. After the New Patient registration is completed selecting the worklist MSPS or by manual entry, ultrasound image is displayed in real-time. When the operator presses the "FREEZE" button on the console, the image is frozen and ready to send the image to remote storage AE or to store in a local drive. If the operator presses the "STORE" button in real-time, a multi-frame image may be acquired to send. The "STORE" button may be configured for either NET (DICOM), HDD, DVD-RAM, CD-R Buffer or USB Media.

When it is configured for "NET (DICOM)" storage, pressing the "STORE" button will open an association to the remote Storage SCP. If the association is accepted by the SCP, local Storage AE will send an ultrasound Image Instance or a multi-frame image instance to the SCP, and if the SCP responds with a success status the association is closed normally. If the association is rejected or it is not responded within the configured time interval, or the Storage AE receives failure status, the association is aborted, and the failure is reported to the user. The Storage AE will retain a copy of the Image Instance sent directly from the "STORE" button.

When the "STORE" button is configured for HDD storage, an Image Instance will be stored in the local HDD each time it is pressed. The Image Instances are reviewed on the "Tile" screen page or "Full screen" screen page. After the user selects one or more images, clicking the "Send" button on the screen or pressing the "Send" button on the LCD touch panel will open a storage association to the remote Archive. If the association is accepted, the Storage AE will send the all instances of the selected images to the remote Storage SCP within the single association. Each Instance successfully stored is indicated by an **orange** mark on the icon, and the storage-committed Instance is indicated by a **blue** mark. If an Image Instance is not responded by the successful status, or the Storage SCP does not respond within the configured interval, the association is aborted, and the status is reported to the user. The Storage AE can be configured to retry automatically.

Images and Structured Reports are sent to remote storage AE over a separate association with each other.

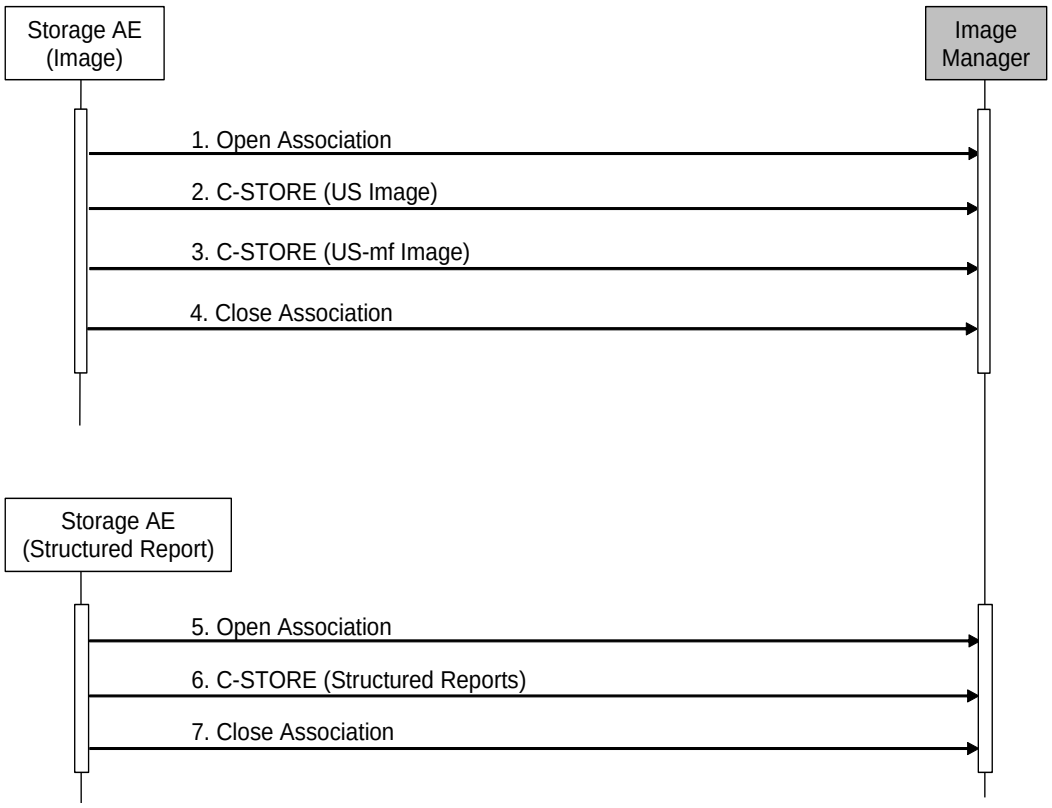

Figure 4.2-4 SEQUENCING OF ACTIVITY – SEND IMAGES AND REPORTS

A possible sequence of interactions between the Storage AE and an Image Manager (e.g. a storage or archive device supporting the Storage SOP Classes as an SCP) is illustrated in Figure 4.2-4:

1. The Storage AE opens an association with the Image Manager
2. An acquired US image is transmitted to the Image Manager using a C-STORE request and the Image Manager replies with a C-STORE response (status success).
3. Another acquired US Multi-frame image is transmitted to the Image Manager using a C-STORE request and the Image Manager replies with a C-STORE response (status success).
4. The Storage AE closes the association with the Image Manager.
5. The Storage AE opens another association with the Image Manager.
6. Structured Reports are transmitted to the Image Manager using C-STORE request and the Image Manager replies with a C-STORE response (status success).
7. The Storage AE closes the association with the Image Manager.

4.2.2.3.1.2 Proposed Presentation Contexts

This product is capable of proposing the Presentation Contexts shown in the following table:

Table 4.2-26 PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY SEND IMAGES / REPORTS

Send Ultrasound Image Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Implicit VR Little Endian Explicit VR Little Endian JPEG Baseline Compression RLE Compression	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.5	SCU	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Implicit VR Little Endian Explicit VR Little Endian JPEG Baseline Compression RLE Compression	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.5	SCU	None
Send Structured Report Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None
Enhanced SR	1.2.840.10008.5.1.4.1.1.88.22	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None

Presentation Contexts for Ultrasound Image Storage and Ultrasound Multi-frame Image Storage will always be proposed. An error message will be issued at sending the SOP Instance of the Presentation Context of which Abstract Syntax has been rejected by the remote AE.

Presentation Contexts for Comprehensive SR Storage and Enhanced SR Storage will always be proposed. When the remote AE accepts Comprehensive SR the reports will be sent as Comprehensive SR, or if the remote AE rejects Comprehensive SR the reports may be sent as Enhanced SR.

4.2.2.3.1.3 SOP Specific Conformance for Image and Report Storage SOP Classes

All Image and Structured Report Storage SOP Classes supported by the Storage AE exhibit the same behavior, except where stated, and are described together in this section.

If Ultrasound Multi-frame Image Storage SOP Instances are included in the Send Job and a corresponding Presentation Context is not accepted then the Association is aborted using A-ABORT and the send job is marked as failed. The job failure is reported to the user via the dialog window. The remaining Ultrasound (single frame) Image Storage SOP Instances should be selected and retried by the operator.

Table 4.2-27 STORAGE C-STORE RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has successfully stored the SOP Instance.
Refused	Out of Resources	A700-A7FF	The Association is aborted using A-ABORT and the failure is reported to the user. This is a transient failure.

Error	Data Set does not match SOP Class	A900-A9FF	The Association is aborted using A-ABORT and the failure is reported to the user.
Error	Cannot Understand	C000-CFFF	The Association is aborted using A-ABORT and the failure is reported to the user.
Warning	Coercion of Data Elements	B000	Image transmission is considered successful therefore the warning is not reported to the user.
Warning	Data Set does not match SOP Class	B007	Image transmission is considered successful therefore the warning is not reported to the user.
Warning	Elements Discarded	B006	Image transmission is considered successful therefore the warning is not reported to the user.
Warning [1]	Attribute list error	0107	Object instance transmission is considered successful therefore the warning is not reported to the user.
Warning [1]	Attribute Value Out of Range	0116	Object instance transmission is considered successful therefore the warning is not reported to the user.
*	*	Any other status code.	The Association is aborted using A-ABORT and the failure is reported to the user.

Note: 1. Image storage excepted.

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

Table 4.2-28 STORAGE COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the timeout error is reported to the user.
Association aborted by the SCP or network layers	The association failure is reported to the user.

A failed storage association may automatically be restarted if so configured.

4.2.3 Hardcopy Application Entity Specification

4.2.3.1 SOP Classes

This product provides Standard Conformance to the following SOP Classes:

Table 4.2-29 SOP CLASSES FOR AE HARDCOPY

SOP Class Name	SOP Class UID	SCU	SCP
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Yes	No
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	Yes	No
Verification	1.2.840.10008.1.1	Yes	No

4.2.3.2 Association Policies

4.2.3.2.1 General

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

Table 4.2-30 DICOM APPLICATION CONTEXT FOR AE HARDCOPY

Application Context Name	1.2.840.10008.3.1.1.1

4.2.3.2.2 Number of Associations

This product initiates one Association at a time for each configured hardcopy device.

Table 4.2-31 NUMBER OF ASSOCIATIONS INITIATED FOR AE HARDCOPY

Maximum number of simultaneous Associations	1

4.2.3.2.3 Asynchronous Nature

This product does not support asynchronous communication (multiple outstanding transactions over a single Association).

Table 4.2-32
ASYNCHRONOUS NATURE AS A SCU FOR AE HARDCOPY

Maximum number of outstanding asynchronous transactions	1

4.2.3.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-33 DICOM IMPLEMENTATION CLASS AND VERSION FOR AE HARDCOPY

Implementation Class UID	1.2.392.200036.9123.100.50.121
Implementation Version Name	20170525 (subject to change without notice)

4.2.3.3 Association Initiation Policy

4.2.3.3.1 Activity – Print Images

4.2.3.3.1.1 Description and Sequencing of Activities

When a user selects images and requests to print them, the images are sent to the PRINTER_QUEUE folder. The virtual film sheets are composed according to the pre-defined film format. The film sheets are requests to be sent to a specific hardcopy device. The user can select the desired film format, number of copies, and other printing conditions in the Print Property GUI.

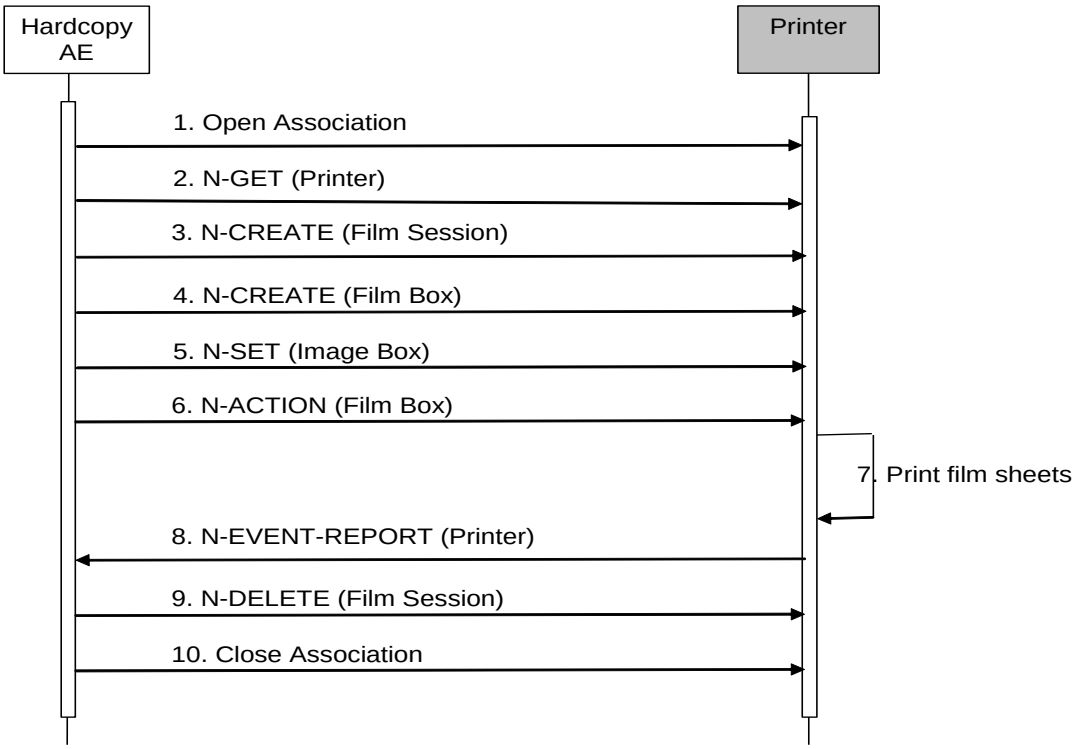

Figure 4.2-5
SEQUENCING OF ACTIVITY – FILM IMAGES

A typical sequence of DIMSE messages sent over an association between Hardcopy AE and a Printer is illustrated in Figure 4.2-5:

1. Hardcopy AE opens an association with the Printer
2. N-GET on the Printer SOP Class is used to obtain current printer status information. If the Printer reports a status of FAILURE, the print-job is switched to a failed state and the user informed.
3. N-CREATE on the Film Session SOP Class creates a Film Session.
4. N-CREATE on the Film Box SOP Class creates a Film Box linked to the Film Session. Pre-configured number of Image Boxes will be created as the result of this operation.
5. Each N-SET on Image Box SOP Class transfers the requested image to the printer at the successive position on the film sheet. The Hardcopy does not support the Presentation LUT SOP Class.

6. N-ACTION on the Film Box SOP Class instructs the printer to print the Film Box

7. The printer prints the requested number of film sheets. The sequence 4 through 6 may be repeated when the single film sheet is not enough to contain the requested images.

8. The Printer asynchronously reports its status via N-EVENT-REPORT notification (Printer SOP Class). The printer can send this message at any time. Hardcopy AE does not require the N-EVENT-REPORT to be sent. Hardcopy AE is capable of receiving an N-EVENT-REPORT notification at any time during an association. If the Printer reports a status of FAILURE, the Print Session is terminated and the user informed.

9. N-DELETE on the Film Session SOP Class deletes the complete Film Session SOP Instance hierarchy.

10. Hardcopy AE closes the association with the Printer.

If any Response from the remote Application contains a status other than Success or Warning, the Association is aborted and the related Film Session is terminated and the status is user informed.

4.2.3.3.1.2 Proposed Presentation Contexts

This product is capable of proposing the Presentation Contexts shown in the Table below:

Table 4.2-34 PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY PRINT IMAGES

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 Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None
Basic Color Print Management Meta	1.2.840.10008.5.1.1.18	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None
Verification	1.2.840.10008.1.1	Implicit VR Little Endian Explicit VR Little Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1	SCU	None

4.2.3.3.1.3 Common SOP Specific Conformance for all Print SOP Classes

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

Table 4.2-35
HARDCOPY COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the print-job is terminated. The reason is reported to the user.
Association aborted by the SCP or network layers	The print-job is terminated and the print-job is terminated. The reason is reported to the user.

4.2.3.3.1.4 SOP Specific Conformance for the Printer SOP Class

Hardcopy 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.

4.2.3.3.1.4.1 Printer SOP Class Operations (N-GET)

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

Table 4.2-36
PRINTER SOP CLASS N-GET REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Manufacturer	(0008,0070)	LO	Provided by Printer	ANAP	Printer
Manufacturer's Model Name	(0008,1090)	LO	Provided by Printer	ANAP	Printer
Device Serial Number	(0018,1000)	LO	Provided by Printer	ANAP	Printer
Software Versions	(0018,1020)	LO	Provided by Printer	ANAP	Printer
Printer Status	(2110,0010)	CS	Provided by Printer	ALWAYS	Printer
Printer Status Info	(2110,0020)	CS	Provided by Printer	ALWAYS	Printer
Printer Name	(2110,0030)	LO	Provided by Printer	ANAP	Printer

The Printer Status information is evaluated as follows:

1. If Printer status (2110,0010) is FAILURE, the Hardcopy AE is terminated and status is user informed.

2. If Printer status (2110,0010) is NORMAL or WARNING, the Hardcopy AE continues to print.

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

Table 4.2-37
PRINTER SOP CLASS N-GET RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The request to get printer status information was success.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is terminated. The status is reported to the user.

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

Hardcopy AE is capable of receiving an N-EVENT-REPORT request at any time during an association.

The behavior of Hardcopy AE when receiving Event Types within the N-EVENT-REPORT is summarized in the Table below:

Table 4.2-38 PRINTER SOP CLASS N-EVENT-REPORT BEHAVIOUR

Event Type Name	Event Type ID	Behavior
Normal	1	The print session continues to be printed.
Warning	2	The print session continues to be printed. The Warning status is not reported to user.
Failure	3	The print session is terminated. The Failure is reported to user.
*	*	The print session is terminated. The Failure is reported to user.

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

Table 4.2-39
PRINTER SOP CLASS N-EVENT-REPORT RESPONSE STATUS REASONS

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

4.2.3.3.1.5 SOP Specific Conformance for the Film Session SOP Class

Hardcopy 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.

4.2.3.3.1.5.1 Film Session SOP Class Operations (N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the Table below. The values are typical and may be configured by the CSE:

Table 4.2-40 FILM SESSION SOP CLASS N-CREATE REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Number of Copies	(2000,0010)	IS	1 .. 9	ALWAYS	CONFIG
Print Priority	(2000,0020)	CS	HIGH, MED, or LOW	ALWAYS	CONFIG
Medium Type	(2000,0030)	CS	BLUE FILM, CLEAR FILM, or PAPER	ALWAYS	CONFIG
Film Destination	(2000,0040)	CS	MAGAZINE or PROCESSOR	ALWAYS	CONFIG
Memory Allocation	(2000,0060)	IS		ANAP	CONFIG

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

Table 4.2-41
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	Attribute Value Out of Range	0116H	The N-CREATE operation is considered successful and the status is not reported to the user.
Warning	Attribute List Error	0107H	The N-CREATE operation is considered successful and the status is not reported to the user.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print session is terminated. The status is reported to the user.

4.2.3.3.1.5.2 Film Session SOP Class Operations (N-DELETE)

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

Table 4.2-42
FILM SESSION 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.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print session is terminated.

4.2.3.3.1.6 SOP Specific Conformance for the Film Box SOP Class

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

— N-CREATE
— N-ACTION

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

4.2.3.3.1.6.1 Film Box SOP Class Operations (N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the Table below. The values are typical and may be configured by the CSE:

Table 4.2-43 FILM BOX SOP CLASS N-CREATE REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Display Format	(2010,0010)	ST	STANDARD\m,n	ALWAYS	CONFIG
Film Orientation	(2010,0040)	CS	PORTRAIT or LANDSCAPE	ALWAYS	CONFIG
Film Size ID	(2010,0050)	CS	14INX17IN,14INX14IN, 11INX14IN,11INX11IN, 85INX11IN, 8INX10IN	ALWAYS	CONFIG

Magnification Type	(2010,0060)	CS	REPLICATE, BILINEAR, CUBIC or NONE	ALWAYS	CONFIG
Smoothing Type	(2010,0080)	CS		ANAP	CONFIG
Border Density	(2010,0100)	CS	BLACK or WHITE	ALWAYS	CONFIG
Empty Image Density	(2010,0110)	CS	BLACK or WHITE	ALWAYS	CONFIG
Min Density	(2010,0120)	US	0 .. 329	ALWAYS	CONFIG
Max Density	(2010,0130)	US	1 .. 330	ALWAYS	CONFIG
Trim	(2010,0140)	CS	YES or NO	ANAP	CONFIG
Configuration Information	(2010,0150)	ST	Set if requested by Printer	ANAP	CONFIG
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

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

Table 4.44 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 Density outside of printer's operating range	B605H	The N-CREATE operation is considered successful l and the status is not reported to the user.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is terminated. The status is reported to the user.

4.2.3.3.1.6.2 Film Box SOP Class Operations (N-ACTION)

An N-ACTION Request is issued to instruct the Print SCP to print the contents of the Film Box. The Action Reply argument in an N-ACTION response is not evaluated.

The behavior of Hardcopy AE when encountering status codes in an N-ACTION response is summarized in the Table below:

Table 4.2-45
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	B603H	The Association is aborted using A-ABORT and the print-job is

	page)		terminated. The status is reported to the user.
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	The N-ACTION operation is considered successful and the status is not reported to the user.
Warning	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	The N-ACTION operation is considered successful and the status is not reported to the user.
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 and the status is not reported to the user.
Failure	Unable to create Print Job SOP Instance; print queue is full.	C602	The Association is aborted using A-ABORT and the status is reported to the user.
Failure	Image size is larger than Image Box size.	C603	The Association is aborted using A-ABORT and the status is 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 status is reported to the user.
*	*	Any other status code.	The Association is aborted using A-ABORT and the status is reported to the user.

4.2.3.3.1.7 SOP Specific Conformance for the Image Box SOP Class

Hardcopy AE supports the following DIMSE operations for the Basic Grayscale and Basic Color Image Box SOP Classes:

— N-SET

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

4.2.3.3.1.7.1 Basic Grayscale Image Box SOP Class Operations (N-SET)

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

Table 4.2-46 BASIC GRAYSCALE IMAGE BOX SOP CLASS N-SET REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Position	(2020,0010)	US	1 to maximum image position allowed for the Image Display Format (2010, 0010)	ALWAYS	AUTO
Polarity	(2020,0020)	CS	NORMAL or REVERSE	ALWAYS	CONFIG
Basic Grayscale Image Sequence	(2020,0110)	SQ		ALWAYS	AUTO
>Samples Per Pixel	(0028,0002)	US	1	ALWAYS	AUTO

>Photometric Interpretation	(0028,0004)	CS	MONOCHROME2	ALWAYS	AUTO
>Rows	(0028,0010)	US	Copied from source image	ALWAYS	AUTO
>Columns	(0028,0011)	US	Copied from source image	ALWAYS	AUTO
>Pixel Aspect Ratio	(0028,0034)	IS	Copied from source image	ANAP	AUTO
>Bits Allocated	(0028,0100)	US	8	ALWAYS	AUTO
>Bits Stored	(0028,0101)	US	8	ALWAYS	AUTO
>High Bit	(0028,0102)	US	7	ALWAYS	AUTO
>Pixel Representation	(0028,0103)	US	0	ALWAYS	AUTO
>Pixel Data	(7FE0,0010)	OW	Pixels from source image	ALWAYS	AUTO

The behavior of Hardcopy AE when encountering status codes in an N-SET response is summarized in Table 4.2-48.

4.2.3.3.1.7.2 Basic Color Image Box SOP Class Operations (N-SET)

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

Table 4.2-47 BASIC COLOR IMAGE BOX SOP CLASS N-SET REQUEST ATTRIBUTES

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Position	(2020,0010)	US	1 to maximum image position allowed for the Image Display Format (2010, 0010)	ALWAYS	AUTO
Polarity	(2020,0020)	CS	Printer may ignore the value	ALWAYS	AUTO
Preformatted Color Image Sequence	(2020,0111)	SQ		ALWAYS	AUTO
>Samples Per Pixel	(0028,0002)	US	3	ALWAYS	AUTO
>Photometric Interpretation	(0028,0004)	CS	RGB	ALWAYS	AUTO
>Planar Configuration	(0028,0006)	US	0 or 1 (default is 1)	ALWAYS	*CONFIG*[*]
>Rows	(0028,0010)	US	Copied from source image	ALWAYS	AUTO
>Columns	(0028,0011)	US	Copied from source image	ALWAYS	AUTO
>Pixel Aspect Ratio	(0028,0034)	IS	Copied from source image	ANAP	AUTO
>Bits Allocated	(0028,0100)	US	8	ALWAYS	AUTO
>Bits Stored	(0028,0101)	US	8	ALWAYS	AUTO
>High Bit	(0028,0102)	US	7	ALWAYS	AUTO
>Pixel Representation	(0028,0103)	US	0	ALWAYS	AUTO
>Pixel Data	(7FE0,0010)	OW	Pixels from source image	ALWAYS	AUTO

[*] The Planar Configuration could be configured by the CSE referencing the DICOM Conformance Statement of the remote printer.

The behavior of Hardcopy AE when encountering status codes in an N-SET response is summarized in Table 4.2-48.

Table 4.2-48 IMAGE BOX SOP CLASSES N-SET RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully. Image successfully stored in Image Box.
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604	The N-SET operation is considered successful and the status is not reported.
Warning	Requested Min Density or Max Density outside of printer's operating range.	B605	The N-SET operation is considered successful and the status is not reported.
Warning	Image size is larger than Image Box size. The image has been cropped to fit.	B609	The N-SET operation is considered successful and the status is not reported.
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.	B60A	The N-SET operation is considered successful and the status is not reported.
Failure	Image size is larger than Image Box size.	C603	The Association is aborted using A-ABORT and the status is reported to the user.
Failure	Insufficient memory in printer to store the image.	C605	The Association is aborted using A-ABORT and the status is 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 status is reported to the user.
*	*	Any other status code.	The Association is aborted using A-ABORT and the status is reported to the user.

4.2.3.4 Association Acceptance Policy

The Hardcopy Application Entity does not accept Associations.

4.2.4 Query/Retrieve Application Entity Specification

4.2.4.1 SOP Classes

This product provides Standard Conformance to the following SOP Classes:

Table 4.2-49 SOP CLASSES FOR AE QUERY/RETRIEVE

SOP Class Name	SOP Class UID	SCU	SCP
Study Root Query/Retrieve Information Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	Yes	No
Study Root Query/Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	Yes	No
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	No	Yes
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	No	Yes

4.2.4.2 Association Policies

4.2.4.2.1 General

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

Table 4.2-50 DICOM APPLICATION CONTEXT FOR AE QUERY/RETRIEVE

Application Context Name	1.2.840.10008.3.1.1.1

4.2.4.2.2 Number of Associations

This product initiates one Association at a time for a Workflow requests.

Table 4.2-51 NUMBER OF ASSOCIATIONS INITIATED FOR AE QUERY/RETRIEVE

Maximum number of simultaneous Associations	1

4.2.4.2.3 Asynchronous Nature

This product does not support asynchronous communication (multiple outstanding transactions over a single Association).

Table 4.2-52 ASYNCHRONOUS NATURE AS A SCU FOR AE QUERY/RETRIEVE

Maximum number of outstanding asynchronous transactions	1

4.2.4.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

Table 4.2-53 DICOM IMPLEMENTATION CLASS AND VERSION FOR AE QUERY/RETRIEVE

Implementation Class UID	1.2.276.0.7230010.3.0.3.5.4
Implementation Version Name	OFFIS_DCMTK_354

	(subject to change without notice)

4.2.4.3 Association Initiation Policy

4.2.4.3.1 Activity – Query Image Information and Retrieve Images

4.2.4.3.1.1 Description and Sequencing of Activities

An interactive query for Image Information is initiated by clicking the "Search" button in the "Import" Registration GUI. In the window, Patient ID, Patient's Name, Accession Number, Study Date, and/or Modalities in Study (US) may be supplied by the operator as the query keys.

When the "Search" button is clicked by the operator, this product sends the C-FIND request several times with changing Query/Retrieve Level to "STUDY", "SERIES" or "IMAGE". After retrieval of all responses, this product displays the result in a separate list. During receiving the response, the query processing is canceled by issuing a C-FIND-CANCEL if the operator clicks the "Cancel" button.

When the operator selects the instance information items in the list and clicks "Preview" or "Import" button, this product sends the C-MOVE requests and waits for receiving C-Store requests from the image manager. After retrieval of all C-MOVE responses, this product displays the received instances and copies them to local HDD. During receiving the C-MOVE response, the processing is canceled by issuing a C-MOVE-CANCEL if the operator clicks the "Cancel" button.

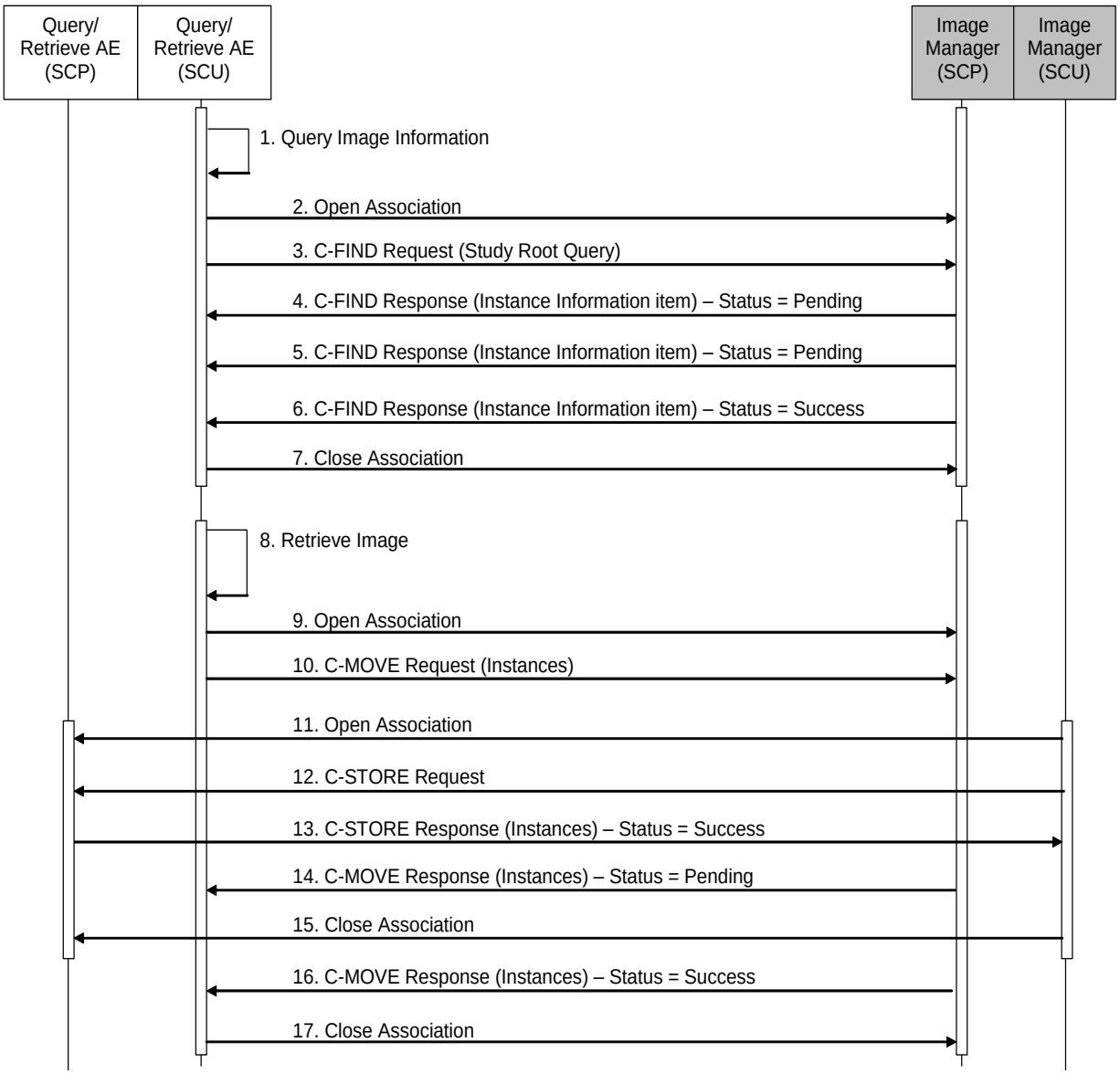

Figure 4.2-5
SEQUENCING OF ACTIVITY – QUERY INSTANCE INFORMATION AND RETRIEVE INSTANCE

A possible sequence of interactions between the Query/Retrieve AE and an Image Manager is illustrated in Figure 4.2-5:

1. The operator requests “Query Instance Information”.

2. The Query/Retrieve AE (SCU) opens the association with the Image Manager (SCP).

3. The Query/Retrieve AE (SCU) sends a C-FIND request to the Image Manager (SCP) containing the Instance Information Query attributes.

4. The Image Manager (SCP) returns a C-FIND response containing the requested attributes of the first matching Instance Information Item.

5. The Image Manager (SCP) returns a C-FIND response containing the requested attributes of the second matching Instance Information Item.

6. The Image Manager (SCP) returns another C-FIND response with status Success indicating that no further matching Instance Information Items exist. This example assumes that only 2 Instance Information items match the Query.
7. The Query/Retrieve AE (SCU) closes the association with the Image Manager.
8. The operator requests “Retrieve Image”.
9. The Query/Retrieve AE (SCU) opens the association with the Image Manager (SCP).
10. The Query/Retrieve AE (SCU) sends a C-MOVE request to the Image Manager (SCP).
11. The Image Manager (SCU) opens the association with the Query/Retrieve AE (SCP).
12. The Image Manager (SCU) transfers instance to the Query/Retrieve AE (SCP) using a C-STORE request.
13. The Query/Retrieve AE (SCP) replies with a C-STORE response (status success).
14. The Image Manager (SCP) sends C-MOVE response to the Query/Retrieve AE (SCU) with status Pending.
15. The Image Manager (SCP) closes the association with the Query/Retrieve AE (SCU).
16. The Image Manager (SCP) sends C-MOVE response to the Query/Retrieve AE (SCU) with status Success indicating that no further instances should be transferred.
17. The Query/Retrieve AE (SCU) closes the association with the Image Manager (SCP).

4.2.4.3.1.2 Proposed Presentation Contexts

This product will propose Presentation Contexts as shown in the following table:

Table 4.2-54
PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY QUERY IMAGE INFORMATION

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Study Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	None
Study Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	None

Table 4.2-55
PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY RETRIEVE IMAGES

Presentation Context Table					
Abstract Syntax		**Transfer Syntax**		**Role**	**Ext. Neg.**
Name	**UID**	**Name List**	**UID List**		
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Implicit VR Little Endian Explicit VR Little Endian JPEG Baseline Compression RLE Compression	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.5	SCP	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Implicit VR Little Endian Explicit VR Little Endian JPEG Baseline Compression[1] RLE Compression	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.5	SCP	None

4.2.4.3.1.3 SOP Specific Conformance for Query/Retrieve SOP Classes

The behavior of Query/Retrieve AE when encountering status codes in C-FIND response is summarized in the table below.

Table 4.2-56 QUERY INSTANCE INFORMATION C-FIND RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Matching is complete	0000	The SCP has completed the matches. Instance Information items are available for display or further processing.
Cancel	Matching terminated due to Cancel request	FE00	If the query was cancelled due to user's operation then the SCP has completed the matches. Instance Information items are available for display or further processing. Otherwise, the Association is aborted using A-ABORT and the Image Information query is failed.
Failed	Out of Resources	A700	The Association is aborted using A-ABORT and the Query Instance Information is failed.
Failed	Identifier does not match SOP Class	A900	The Association is aborted using A-ABORT and the Query Instance Information is failed.
Failed	Unable to Process	C000 – CFFF	The Association is aborted using A-ABORT and the Query Instance Information is failed.
Pending	Matches are continuing	FF00	The Instance Information item contained in the Identifier is collected for later display or further processing.
Pending	Matches are continuing – Warning that one or more Optional Keys were not supported	FF01	The Instance Information item contained in the Identifier is collected for later display or further processing.
Failed	*	Any other	The Association is aborted using A-ABORT and the Query

		status code.	Instance Information is failed.

The behavior of Query/Retrieve AE when encountering status codes in C-MOVE response is summarized in the table below.

Table 4.2-57 RETRIEVE INSTANCE INFORMATION C-MOVE RESPONSE STATUS HANDLING BEHAVIOR

Service Status	Further Meaning	Error Code	Behavior
Success	Sub-operations Complete – No Failures	0000	The SCP has completed the sub-operations. All requested instances are available for display or further processing.
Warning	Sub-operations Complete – One or more Failures	B000	The Association is aborted using A-ABORT and Retrieve Instances is failed.
Cancel	Sub-operations terminated due to Cancel Indication	FE00	The Association is aborted using A-ABORT and Retrieve Instances is failed.
Failed	Unable to calculate number of matches	A701	The Association is aborted using A-ABORT and Retrieve Instances is failed.
Failed	Move Destination unknown	A801	The Association is aborted using A-ABORT and Retrieve Instances is failed.
Failed	Unable to perform sub-operations	A702	The Association is aborted using A-ABORT and Retrieve Instances is failed.
Failed	Unable to Process	C000 – CFFF	The Association is aborted using A-ABORT and Retrieve Instances is failed.
Pending	Sub-operations are continuing	FF00	It succeeded to receive an instances and the retrieve process is continuing.
Failed	*	Any other status code.	The Association is aborted using A-ABORT and Retrieve Instances is failed.

The behavior of this product during communication failure is summarized in the Table below.

Table 4.2-58 QUERY/RETRIEVE COMMUNICATION FAILURE BEHAVIOR

Exception	Behavior
Timeout	The Association is aborted using A-ABORT and the process is failed. An error is reported to the user.
Association aborted by the SCP or network layers	The process is failed. An error is reported to the user.

The table below provides a description of the Study Root Query/Retrieve Information Model. Unexpected attributes returned in a C-FIND response are ignored.

Table 4.2-59 STUDY ROOT QUERY/RETRIEVE INFORMATION MODEL

Attribute Name	Tag	VR	M	R	Q	D
Study Level Keys						
Specific Character Set	(0008,0005)	CS		x		
Study Date	(0008,0020)	DA	R	x	x	x
Study Time	(0008,0030)	TM		x	x	x
Accession Number	(0008,0050)	SH	*	x	x	x
Modalities In Study	(0008,0061)	CS		x		
Referring Physicians Name	(0008,0090)	PN		x		x
Study Description	(0008,1030)	LO		x		x
Patient’s Name	(0010,0010)	PN	*	x	x	x
Patient ID	(0010,0020)	LO	*	x	x	x
Patient’s Birth Date	(0010,0030)	DA		x		x
Patient’s Sex	(0010,0040)	CS		x		x
Study ID	(0020,0010)	SH		x		x
Study Instance UID	(0020,000D)	UI		x	x	
Requesting Service	(0032,1033)	LO		x		
Series Level Keys						
Series Date	(0008,0021)	DA		x		
Series Time	(0008,0031)	TM		x		x
Modality	(0008,0060)	SH	S	x	x	x
Series Description	(0008,103E)	LO		x		x
Body Part Examined	(0018,0015)	CS		x		x
Series Instance UID	(0020,000E)	UI		x	x	
Series Number	(0020,0011)	IS		x		x
Image Level Keys						
SOP Instance UID	(0008,0018)	CS		x	x	
Instance Number	(0020,0013)	IS		x		x

The above table should be read as follows:

Attribute Name: Attributes supported to build an Instance Information Request Identifier of this product.

Tag: DICOM tag for this attribute.

VR: DICOM VR for this attribute.

M: Matching keys for Query Instance Information. An "S" will indicate that this product will supply an attribute value for Single Value Matching, an “R” will indicate Range Matching and a “*” will denote wildcard matching.

R: Return keys. An "x" will indicate that this product will supply this attribute as Return Key with zero length for Universal Matching.

Q: Interactive Query Key. An “x” will indicate that this product will supply this attribute as matching key, if entered in the Search item or selected item on a Import window.

D: Displayed keys. An “x” indicates that this attribute is displayed to the user during a Import window.

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4.3 NETWORK INTERFACES

4.3.1 Physical Network Interface

This product supports both wired and wireless network interface. The wired network interface is always used if wired and wireless network interfaces are connected at the same time. It is necessary to assign IP Address on each network interface.

Table 4.3-1
SUPPORTED PHYSICAL NETWORK INTERFACES

Ethernet 1000baseT or 100baseTX or 10baseT is automatically detected
Wireless 802.11ac/a/n/g/b

4.3.2 Additional Protocols

This product may be configured to get the local configuration via the DHCP and to synchronize the system time with the NTP server. However it does not conforms to other System Management Profiles as DNS nor LDAP.

4.3.3 IPv4 and IPv6 Support

This product supports both IPv4 and IPv6 connections.

4.4 CONFIGURATION

4.4.1 AE Title/Presentation Address Mapping

4.4.1.1 Local AE Titles

All local applications share the same AE Titles and TCP/IP Address configured at the Local AET registry in the Network Setting and DICOM-Common GUI. The AE Title, Station Name, IP Address, and Port Number must be configured during installation, since no default values are provided and not automatically configured.

Table 4.4-1 AE TITLE CONFIGURATION TABLE

Application Entity	Default AE Title	Default TCP/IP Port
Storage	No Default	104
Workflow	same as Storage	104
Hardcopy	same as Storage	104
Query/Retrieve	same as Storage	2350

4.4.1.2 Remote AE Title/Presentation Address Mapping

The AE Titles, Station Names, IP Addresses, and Port numbers of remote applications are configured through the DICOM-Server/Worklist, DICOM-QR, DICOM-MPPS/Commitment, DICOM-SR, and DICOM-Printer GUI.

Some characters allowed for VR AE may not be used to represent the local and remote AE Titles as shown in the table below:

Table 4.4-2 FORBIDDEN CHARACTERS FOR AE TITLE

Forbidden characters for AE Title	; : " < > * \ | ? ,

4.4.1.2.1 Workflow

The Application Entity Title, Station Name, IP Address, and the Port Number of the remote Modality Worklist SCP are registered at the Worklist row of DICOM-Server/Worklist GUI. Optionally the Application Entity Titles, Station Names, IP Addresses, and the Port numbers of remote MPPS server and Storage Commitment (Image Manager) should be registered in the DICOM-MPPS/Commitment GUI before each service is used.

Only one Storage Commitment server can be activated although the destinations of image storage and SR storage may be registered separately.

4.4.1.2.2 Storage

The Application Entity Titles, Station Names, IP Addresses, and the Port Numbers of the remote Storage SCPs receiving images are registered at DICOM-Server/Worklist GUI. The remote Storage SCPs are able to register to five. Multiple storage destinations for single frame and/or multi-frame images can be activated by selecting the check box in the GUI.

The Application Entity Titles, Station Names, IP Addresses, and the Port Numbers of the remote Storage SCPs receiving Structured Reports are registered at DICOM-SR GUI. The destinations of Structured Report storage may not be same as the destinations of other storage.

4.4.1.2.3 Hardcopy

The Application Entity Titles, Station Names, IP Addresses, and the Port Numbers of the remote Hardcopy SCPs are registered in the DICOM-Printer GUI. Although the Multiple Hardcopy destinations may be registered, only one destination must be activated by selected the radio button in the GUI. The same Application Entity may be registered to configure different Hardcopy settings for selections by the user's preference.

4.4.1.2.4 Query/Retrieve

The Application Entity Titles, Station Names, IP Addresses, and the Port Numbers of the remote Query/Retrieve SCPs receiving images are registered at DICOM-QR GUI. The remote Query/Retrieve SCPs are able to register to five. The local Port Number of receiving instances from the Image Manager(SCU) is also registered in the GUI

4.4.2 Parameters

A large number of parameters related to acquisition and general operation can be configured using the DICOM configuration user interface. The Table below shows those configuration parameters relevant to DICOM communication.

Table 4.4-3 CONFIGURATION PARAMETERS TABLE

Parameter	Configurable (Yes/No)	Default Value
General Parameters		
Max PDU Receive Size	No	16K bytes
Max PDU Send Size (larger PDUs will never be sent, even if the receiver supports a larger Max PDU Receive Size. If the receiver supports a smaller Max PDU Receive Size then the Max PDU Send Size will be reduced accordingly for the duration of the Association. Max PDU Receive Size information is exchanged during DICOM Association Negotiation in the Maximum Length Sub-Item of the A-ASSOCIATION-RQ and A-ASSOCIATE-AC)	No	16K Bytes
Time-out waiting for an acceptance or rejection response to an Association Request (Application Level Timeout)	No	INFINITE
Time-out waiting for a response to an Association release request (Application Level Timeout)	No	INFINITE
Time-out waiting for completion of a TCP/IP connect request (Low-level timeout)	No	20 s
Time-out waiting a Response to a DIMSE Request (Low-Level Timeout)	Yes	30 s
Time-out for waiting for data between TCP/IP-packets (Low Level Timeout)	Yes	30 s
Modality Worklist Parameters		
Modality Worklist SCU time-out waiting for the final response to a C-FIND-RQ	Yes	30 s
Maximum number of Worklist Items	No	500
Supported Transfer Syntaxes for Modality Worklist	Yes	Implicit VR Little Endian Explicit VR Little Endian

Parameter	Configurable (Yes/No)	Default Value
Query Worklist for specific Scheduled Station AE Title	Yes	No default
Query Worklist for specific Modality Value	No	US
MPPS Parameters		
MPPS SCU time-out waiting for a response to a N-CREATE-RQ	Yes	30 s
MPPS SCU time-out waiting for a response to a N-SET-RQ	Yes	30 s
Supported Transfer Syntaxes for MPPS	Yes	Implicit VR Little Endian Explicit VR Little Endian
Storage Commitment Parameters		
Timeout waiting for a Storage Commitment Notification (maximum duration of applicability for a Storage Commitment Transaction UID).	Yes	1 hours
Maximum number of simultaneously accepted Associations by the Storage AE	No	1
Delay association release after sending a Storage Commitment Request (wait for a Storage Commitment Notification over the same association).	Yes	5 s
Storage Parameters		
Storage SCU time-out waiting for a response to a C-STORE-RQ	Yes	30 s
Maximum number of simultaneously initiated Associations by the Storage AE	Yes	1
Supported Transfer Syntaxes (separately configurable for each Presentation Context)	Yes	Implicit VR Little Endian Explicit VR Little Endian RLE Lossless [1] JPEG Baseline [1]
Print Parameters		
Print SCU time-out waiting for a response to a N-CREATE-RQ	Yes	30 s
Print SCU time-out waiting for a response to a N-SET-RQ	Yes	30 s
Print SCU time-out waiting for a response to a N-ACTION-RQ	Yes	30 s
Supported Transfer Syntaxes	Yes	Implicit VR Little Endian Explicit VR Little Endian
Query/Retrieve Parameters		
Time-out waiting for an acceptance or rejection response to an Association Request	Yes	4s

Parameter	Configurable (Yes/No)	Default Value
Query/Retrieve SCU time-out waiting for a response to a C-FIND-RQ	Yes	150s
Query/Retrieve SCU time-out waiting for a response to a C-MOVE-RQ	Yes	150s
Query/Retrieve SCU time-out waiting for a response to a C-FIND-CANCEL-RQ	Yes	1s
Query/Retrieve SCU time-out waiting for a response to a C-MOVE-CANCEL-RQ	Yes	1s
Time-out waiting for a response to an Association release request	Yes	30s

Note: 1. RLE or JPEG is not used for Structured Report storage.

5. MEDIA INTERCHANGE

5.1 IMPLEMENTATION MODEL

5.1.1 Application Data Flow

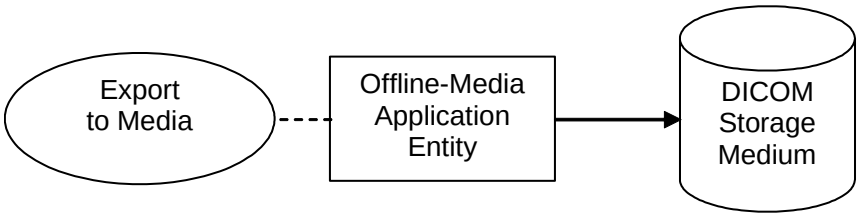

Figure 5.1-1 APPLICATION DATA FLOW DIAGRAM FOR MEDIA STORAGE

— The Offline-Media Application Entity exports Ultrasound and Ultrasound Multi-frame images, and Structured Reports to some kinds of media. It is associated with the local real-world activity "STORE" button or "Copy" button.

5.1.2 Functional Definition of AEs

5.1.2.1 Functional Definition of Offline-Media Application Entity

The Media Application Entity can be requested in two modes. After the patient identification is supplied by the operator, pressing the "STORE" button will directly pass an image to the Offline-Media Application Entity. Or when it is configured to store the image in the local drive, the image is buffered in the drive for later reference. By pressing the "Copy" button, the images selected by the operator will be sent to the Offline-Media Application Entity. A storage association will be initiated by clicking the "Copy" button on the screen or pressing the "Copy" button on the LCD touch panel.
"Burning CD" button will export the images to the CD-R media from CD-R Buffer.
"Burning DVD" button will export the images to the DVD-R media from DVD-R Buffer.

5.1.3 Sequencing of Real-World Activities

At least one object instance must exist and be selected before the Offline-Media Application Entity can be invoked. The operator can insert DVD-RAM, new CD-R, or new DVD-R media at any time before or after invocation of the Offline-Media Application Entity. The Offline-Media Application Entity will wait indefinitely for a media to be inserted before starting to write to the DVD/CD device. If no CD-R or DVD-R media is available, the export job can be canceled from the job queue.
"STORE" button will export the acquired image. "Copy" button will export the images selected by the operator. Storage device can be selected at menu setting(DVD/USB). "Burning CD" button will export the images to the CD-R media from CD-R Buffer. "Burning DVD" button will export the images to the DVD-R media from DVD-R Buffer.

5.1.4 File Meta Information Options

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

Table 5.1-1 DICOM IMPLEMENTATION CLASS AND VERSION FOR MEDIA STORAGE

Implementation Class UID	1.2.392.200036.9123.100.50.121

Implementation Version Name	HITACHI20180104 (subject to change without notice)

5.2 AE SPECIFICATIONS

5.2.1 Offline-Media Application Entity Specification

The Offline-Media Application Entity provides standard conformance to the DICOM Interchange Option of the Media Storage Service Class. The Application Profiles and roles are listed below:

Table 5.2-1 APPLICATION PROFILES, ACTIVITIES AND ROLES FOR OFFLINE-MEDIA

Application Profiles Supported	Single Frame	Multi-Frame	Real World Activity	Role
Image Display	STD-US-ID-SF-xxxx	STD-US-ID-MF-xxxx	"Store (USB)" "Store(CD-R buffer)", "STORE(DVD)", "Copy(USB)", "Copy(CD-R buffer)", "Copy(DVD)", "Burning CD"	FSC
Spatial Calibration	STD-US-SC-SF-xxxx	STD-US-SC-MF-xxxx		

5.2.1.1 File Meta Information for the Application Entity

The Source Application Entity Title included in the File Meta Header is same that of local Storage AET.

5.2.1.2 Real-World Activities

5.2.1.2.1 Activity – Export to Media

The Offline-Media Application Entity acts as an FSC using the interchange option when requested to export SOP Instances from the local database to a removable storage medium, DVD-RAMs, CD-Rs, or USBs.

Object Instances can be added to a storage medium and if it reaches full, the user will be prompted to replace to an empty medium. The DICOMDIR will be updated each time an object instance is successfully written to it.

When the object instance is exported to CD-R, the user will be prompted to insert an empty CD-R for each export. The contents of the export job will be written together with a corresponding DICOMDIR to a single-session CD-R. Writing in multi-session mode is not supported.

5.2.1.2.1.1 Media Storage Application Profiles

The supported Offline-Media Application Profiles are listed in Table 5.2-1.

5.2.1.2.1.1.1 Options

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

Table 5.2-2 IODS, SOP CLASSES AND TRANSFER SYNTAXES FOR OFFLINE MEDIA

Information Object Definition	SOP Class UID	Transfer Syntax	Transfer Syntax UID
Media Storage Directory Storage	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 Implicit VR Little Endian JPEG Baseline Compression RLE Lossless Compression	1.2.840.10008.1.2.1 1.2.840.10008.1.2 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.5
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	JPEG Baseline Compression	1.2.840.10008.1.2.4.50
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33	Explicit VR Little Endian	1.2.840.10008.1.2.1

5.3 AUGMENTED AND PRIVATE APPLICATION PROFILES

This product does not support any augmented or private Application Profiles.

5.4 MEDIA CONFIGURATION

The Application Entity Title for Media Services is same that is configured for Storage Service:

Table 5.4-1 AE TITLE CONFIGURATION TABLE

Application Entity	Default AE Title
Offline-Media	No default

6. SUPPORT OF CHARACTER SETS

All DICOM applications of this product support the character sets below:

- ISO_IR 144 (ISO 8859-5:Cyrillic) for Russian language configuration.
- ISO_IR 100 (ISO 8859-1:1987 Latin Alphabet No.1 supplementary set) for other language configuration.

7. SECURTIY

The product supports security measures described below in section 7.1.

In addition to the section, this product supports below.

a. Incoming TCP packets to ports other than configured by Storage AE and Query/Retrieve AE listed in Table 4.4-1 are blocked.

It is recommended that any communication with external hosts and services outside the locally secured environment use appropriate secure network channels (e.g. such as a Virtual Private Network (VPN))

Other network security procedures such as automated intrusion detection may be appropriate in some environments. Additional security features may be established by the local security policy and are beyond the scope of this conformance statement.

7.1 SECURITY PROFILES [1]

This product conforms to the AES TLS Secure Transport Connection Profile using Transport Layer Security protocol. The protocol has features listed in the Table below:

Table 7.1-1 SECURITY PROFILES FEATURES

Supported TLS Feature	Mechanism
Entity Authentication	RSA based certificates
Exchange of Master Secrets	RSA
Data Integrity	SHA
Cipher Suites	TLS_RSA_WITH_AES_128_CBC_SHA (preferred) TLS_RSA_WITH_3DES_EDE_CBC_SHA

When an integrity check fails, the connection will be dropped per the TLS protocol, causing both the sender and the receiver to issue an A-P-ABORT indication to the upper layers with an implementation-specific provider reason. This product does not define the reason.

Note: 1. Only products for USA.

8. ANNEXES

8.1 IOD CONTENTS

8.1.1 Created SOP Instances

Table 8.1-1 specifies the attributes of an Ultrasound and Ultrasound Multi-frame Image transmitted by the storage application of this product.

Table 8.1-2 specifies the attributes of a Structured Report transmitted by the storage application of this product.

The following tables use a number of abbreviations. The abbreviations used in the “Presence of …” column are:

ALWAYS	Always Present
ANAP	Attribute Not Always Present
VNAP	Value Not Always Present (attribute sent zero length if no value is present)
EMPTY	Attribute is sent without a value

The abbreviations used in the “Source” column:

MWL	the attribute value source Modality Worklist
USER	the attribute value source is from User input
AUTO	the attribute value is generated automatically
MPPS	the attribute value is the same as that use for Modality Performed Procedure Step
CONFIG	the attribute value source is a configurable parameter

Attributes in *Italic* are additions to the Standard Information Entity Modules.

The values of private attributes may be removed if the Teaching File option is set.

8.1.1.1 Ultrasound and Ultrasound Multi-frame Image IODs

Table 8.1-1 IOD OF ULTRASOUND AND ULTRASOUND MULTI-FRAME IMAGE SOP INSTANCES

IE	Module	Reference	Presence of Module	
			US	US-mf
Patient	Patient	Table 8.1-3	ALWAYS	ALWAYS
	Clinical Trial Subject	-	Not used	Not used
Study	General Study	Table 8.1-4	ALWAYS	ALWAYS
	Patient Study	Table 8.1-5	ALWAYS	ALWAYS
	Clinical Trial Study	-	Not used	Not used
Series	General Series	Table 8.1-6	ALWAYS	ALWAYS

	Clinical Trial Series	-	Not used	Not used
Frame of Reference	Frame of Reference	-	Not used	Not used
	Synchronization	-	Not used	Not used
Equipment	General Equipment	Table 8.1-7	ALWAYS	ALWAYS
Image	General Image	Table 8.1-8	ALWAYS	ALWAYS
	General Reference	-	Not used	Not used
	Image Pixel	Table 8.1-13	ALWAYS	ALWAYS
	Contrast/bolus	Table 8.1-9	ANAP	ANAP
	Cine	Table 8.1-10	Not used	ALWAYS
	Multi-Frame	Table 8.1-12	Not used	ALWAYS
	Frame Pointers	Table 8.1-11	Not used	ALWAYS
	Palette Color Lookup Table	-	Not used	Not used
	Device	-	Not used	Not used
	Specimen	-	Not used	Not used
	US Region Calibration	Table 8.1-16	ALWAYS	ALWAYS
	US Image	Table 8.1-17	ALWAYS	ALWAYS
	Overlay Plane	-	Not used	Not used
	VOI LUT	Table 8.1-14	Only if (0028,0004) equals to "MONOCHROME2"	Only if (0028,0004) equals to "MONOCHROME2"
	ICC Profile	-	Not used	Not used
	SOP Common	Table 8.1-15	ALWAYS	ALWAYS
	Common Instance Reference	-	Not used	Not used
	Frame Extraction	-	Not used	Not used

8.1.1.2 Comprehensive SR IOD

Table 8.1-2 IOD OF CREATED COMPREHENSIVE SR SOP INSTANCES

IE	Module	Reference	Presence of Module
Patient	Patient	Table 8.1-3	ALWAYS
	Clinical Trial Subject	-	Not used
Study	General Study	Table 8.1-4	ALWAYS
	Patient Study	Table 8.1-5	ALWAYS
	Clinical Trial Study	-	Not used
Series	SR Document Series	Table 8.1-18	ALWAYS
	Clinical Trial Series	-	Not used
Frame of Reference	Synchronization	-	Not used
Equipment	General Equipment	Table 8.1-7	ALWAYS
Document	SR Document General	Table 8.1-19	ALWAYS

SR Document Content	Table 8.1-20	ALWAYS
SOP Common	Table 8.1-15	ALWAYS

8.1.1.4 Common Modules

Table 8.1-3 PATIENT MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0010,0010)	PN	Patient's Name	From Modality Worklist or input by user. Values supplied via Modality Worklist will be entered as received. Values supplied via user input will contain all 5 components (some possibly empty). Maximum 64 characters. [1]	VNAP	MWL/ USER
(0010,0020)	LO	Patient ID	From Modality Worklist or input by user. Maximum 64 characters. [2]	ALWAYS	MWL/ USER
(0010,0030)	DA	Patient's Birth Date	From Modality Worklist or input by user [1]	VNAP	MWL/ USER
(0010,0040)	CS	Patient's Sex	From Modality Worklist or input by user [1]	VNAP	MWL/ USER
(0012,0062)	CS	Patient Identity Removed	YES = Teaching File option NO = Otherwise	ANAP [3]	AUTO
(0012,0063)	LO	De-identification Method	Set "Dummy\Removed\Zero Length" if the Teaching File option is set.	ANAP [3]	AUTO

Note: 1. The value may be replaced with a zero length if the Teaching File option is set.

Note: 2. The value may be replaced with a non-zero length value that may be a dummy value and consistent with the VR if the Teaching File option is set.

Note: 3. Attribute present only in image.

Table 8.1-4 GENERAL STUDY MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0020)	DA	Study Date	"yyyymmdd"	ALWAYS	AUTO
(0008,0030)	TM	Study Time	"hhmmss"	ALWAYS	AUTO
(0008,0050)	SH	Accession Number	From Modality Worklist or input by user [2]	VNAP	MWL/ USER
(0008,0090)	PN	Referring Physician's Name	From Modality Worklist or Input by user [2]	VNAP	MWL/ USER

(0008,1030)	LO	Study Description	From Modality Worklist or input by user at Comment text box in study list. Maximum 64 bytes. Configurable in "ID Option" to be copied from Requested Procedure Description (0032,1060) or from Scheduled Procedure Step Description (0040,0007). [3]	ANAP	MWL/ USER
(0008,1032)	SQ	Procedure Code Sequence	From Modality Worklist, mapped from Requested Procedure Code Sequence (0032,1064) [3]	ANAP [1]	MWL
>Include "Code Sequence Macro"					
(0008,1110)	SQ	Referenced Study Sequence	From Modality Worklist	ANAP [1]	MWL
>(0008,1150)	UI	Referenced SOP Class UID	From Modality Worklist	VNAP	MWL
>(0008,1155)	UI	Referenced SOP Instance UID	From Modality Worklist	VNAP	MWL
(0008,1060)	PN	Name of Physician(s) reading Study.	Entered as "Reporting Phys" in the New Patient Registration [3]	ANAP	USER
(0020,000D)	UI	Study Instance UID	From Modality Worklist or generated by device	ALWAYS	MWL/ AUTO
(0020,0010)	SH	Study ID	Copied from Requested Procedure ID (0040,1001) in Worklist or generated by device. User may modify the value. [4]	ALWAYS	MWL/ AUTO/ USER
(0032,1060)	*LO*	*Requested Procedure Description*	*From Modality Worklist [2]*	*VNAP [1]*	*MWL*

Note: 1. Attribute Not Present in Structured Report.

Note: 2. The value may be replaced with a zero length if the Teaching File option is set for image.

Note: 3. The attribute may be removed if the Teaching File option is set for image.

Note: 4. The value may be replaced with a non-zero length value that may be a dummy value and consistent with the VR if the Teaching File option is set for image.

Table 8.1-5 PATIENT STUDY MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0010,1010)	AS	Patient's Age	Calculated from DoB input on base of actual Date [3]	ANAP	AUTO
(0010,1020)	DS	Patient's Size	From Modality Worklist or user input [3]	ANAP	MWL/ USER

(0010,1030)	DS	Patient's Weight	From Modality Worklist or user input [3]	ANAP	MWL/ USER
(0010,2000)	*LO*	*Medical Alerts*	*From Modality Worklist [2]*	*VNAP [1]*	*MWL*
(0010,2110)	*LO*	*Contrast Allergies*	*From Modality Worklist [2]*	*VNAP [1]*	*MWL*
(0010,2180)	SH	Occupation	From Modality Worklist or User input [3]	ANAP	MWL/ USER
(0010,21D0)	*DA*	*Last Menstrual Date*	*From Modality Worklist or User input [3]*	*ANAP [1]*	*MWL/ USER*
(0038,0050)	*LO*	*Special Needs*	*From Modality Worklist [2]*	*VNAP [1]*	*MWL*

Note: 1. Attribute Not Present in Structured Report.

Note: 2. The value may be replaced with a zero length if the Teaching File option is set for image.

Note: 3. The attribute may be removed if the Teaching File option is set for image.

Table 8.1-6 GENERAL SERIES MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0021)	DA	Series Date	"yyyymmdd"	ALWAYS	AUTO
(0008,0031)	TM	Series Time	"hhmmss"	ALWAYS	AUTO
(0008,0060)	CS	Modality	"US"	ALWAYS	AUTO
(0008,103E)	LO	Series Description	From Modality Worklist or input by user: Maximum 64 bytes. Configurable in "ID Option" to be copied from Scheduled Procedure Step Description (0040,0007) or from Requested Procedure Description (0032,1060). [2]	ANAP	MWL/ USER
(0008,1070)	PN	Operator's Name	Sonographer field in Study list. Maximum 64 characters. [2]	ANAP	USER
(0008,1111)	SQ	Referenced Performed Procedure Step Sequence	Identifies the MPPS SOP Instance to which this image is related [2]	ANAP	MPPS
>(0008,1150)	UI	Referenced SOP Class UID	MPPS SOP Class UID	ALWAYS	MPPS
>(0008,1155)	UI	Referenced SOP Instance UID	MPPS SOP Instance UID	ALWAYS	MPPS
(0018,0015)	CS	Body Part Examined	Set by user from a pick list	ANAP	USER
(0018,1030)	LO	Protocol Name	Application type selected by user or Stress Echo Protocol Name.	ALWAYS	AUTO
(0020,000E)	UI	Series Instance UID	Generated by device	ALWAYS	AUTO
(0020,0011)	IS	Series Number	Generated by device [3]	ALWAYS	AUTO
(0020,0060)	CS	Laterality	Set by user from a pick list	ANAP	USER
(0032,1032)	*PN*	*Requesting Physician*	*From Modality Worklist [1]*	*VNAP*	*MWL*

(0040,0244)	DA	Performed Procedure Step Start Date	Same as Series Date (0008,0021) [2]	ALWAYS	MPPS
(0040,0245)	TM	Performed Procedure Step Start Time	Same as Series Time (0008,0031) [2]	ALWAYS	MPPS
(0040,0253)	SH	Performed Procedure Step ID	Sequence Number [2]	ALWAYS	AUTO
(0040,0254)	LO	Performed Procedure Step Description	Input by user Same as MPPS. From user input as Study Description. Maximum 64 characters. [2]	ANAP	USER
(0040,0260)	SQ	Performed Protocol Code Sequence	Derived from Scheduled Protocol Code Sequence or overridden by Ultrasound Protocol Types (CID 12001) when Stress Echo Mode is requested. May be modified by user. [2]	ANAP	AUTO/ USER
>Include "Code Sequence Macro"					
(0040,0275)	SQ	Request Attributes Sequence	Zero or 1 item will be present [2]	ANAP	AUTO
>(0032,1060)	LO	Requested Procedure Description	From Modality Worklist	ANAP	MWL
>(0040,0007)	LO	Scheduled Procedure Step Description	From Modality Worklist	ANAP	MWL
>(0040,0008)	SQ	Scheduled Protocol Code Sequence	From Modality Worklist	ANAP	MWL
>>Include "Code Sequence Macro"					
>(0040,0009)	SH	Scheduled Procedure Step ID	From Modality Worklist	ANAP	MWL
>(0040,1001)	SH	Requested Procedure ID	From Modality Worklist or Input by user.	ANAP	MWL/ USER

Note: 1. The value may be replaced with a zero length if the Teaching File option is set for image.

Note: 2. The attribute may be removed if the Teaching File option is set for image.

Note: 3. The value may be replaced with a non-zero length value that may be a dummy value and consistent with the VR if the Teaching File option is set for image.

Table 8.1-7 GENERAL EQUIPMENT MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0070)	LO	Manufacturer	"FUJIFILM Healthcare Corporation"	ALWAYS	AUTO
(0008,0080)	LO	Institution Name	From Configuration [1]	VNAP	CONFIG
(0008,0081)	ST	Institution Address	From Configuration [1, 2]	ANAP	CONFIG
(0008,1010)	SH	Station Name	From Configuration [1]	ANAP	CONFIG
(0008,1040)	LO	Institutional Department Name	From Configuration [1, 2]	ANAP	CONFIG

(0008,1090)	LO	Manufacturer's Model Name	"ARIETTA 65" [1]	ALWAYS	AUTO
(0018,1000)	LO	Device Serial Number	Built-in	ANAP	AUTO
(0018,1020)	LO	Software Version(s)	Built-in	ALWAYS	AUTO

Note: 1. The value may be replaced with a zero length if the Teaching File option is set for image.

Note: 2. Attribute Not Present in Structured Report.

Table 8.1-8 GENERAL IMAGE MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0008)	CS	Image Type	ORIGINAL or DERIVED for value 1, PRIMARY or SECONDARY for value 2. See Table 8.1-17 for value 3 and 4.	ALWAYS	AUTO
(0008,0023)	DA	Content Date	"yyyymmdd"	ALWAYS	AUTO
(0008,0033)	TM	Content Time	"hhmmss"	ALWAYS	AUTO
(0020,0013)	IS	Instance Number	Generated by device [1]	ALWAYS	AUTO
(0020,0020)	CS	Patient Orientation	From Pull Down Menu or Input by user.	ANAP	USER
(0028,2110)	CS	Lossy Image Compression	Generated by device	ANAP	AUTO
(0028,0301)	CS	Burned In Annotation	YES = Image may contain sufficient burned in annotation to identify the patient. NO = Image does not contain sufficient burned in annotation to identify the patient.	ANAP	AUTO

Note: 1. The value may be replaced with a non-zero length value that may be a dummy value and consistent with the VR if the Teaching File option is set for image.

Table 8.1-9 CONTRAST/BOLUS MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0018,0010)	LO	Contrast/Bolus Agent	From MWL or Input by user [1]	ANAP	MWL/ USER
(0018,1040)	LO	Contrast/Bolus Route	May be input by user	ANAP	USER
(0018,1041)	DS	Contrast/Bolus Volume	May be input by user	ANAP	USER
(0018,1042)	TM	Contrast/Bolus Start Time	Generated by device	ANAP	AUTO
(0018,1044)	DS	Contrast/Bolus Total Dose	May be input by user	ANAP	USER

Note: 1. The value may be replaced with a zero length if the Teaching File option is set for image.

Table 8.1-10 CINE MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,2142)	IS	Start Trim	1	ALWAYS	AUTO
(0008,2143)	IS	Stop Trim	Last frame in Multi-frame IOD	ALWAYS	AUTO
(0008,2144)	IS	Recommended Display Frame Rate	frames per second [fps]	ALWAYS	AUTO
(0009,0010)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
(0009,1004)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1006)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0018,0040)	IS	Cine Rate	frames per second [fps]	ALWAYS	AUTO
(0018,0072)	DS	Effective Duration	0	ALWAYS	AUTO
(0018,1063)	DS	Frame Time	If Frame Increment Pointer (0028,0009) is Frame Time	ANAP	AUTO
(0018,1065)	DS	Frame Time Vector	If Frame Increment Pointer (0028,0009) is Frame Time Vector	ANAP	AUTO
(0018,1066)	DS	Frame Delay	0	ALWAYS	AUTO
(0018,1242)	IS	Actual Frame Duration		ALWAYS	AUTO
(0018,1244)	US	Preferred Playback Sequence	0=Looping	ALWAYS	AUTO
(0028,6040)	US	R Wave Pointer		ANAP	AUTO

Table 8.1-11 FRAME POINTERS MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0028,6010)	US	Representative Frame Number	May be used in multi-frame image	ANAP	AUTO
(0028,6020)	US	Frame Number of Interest (FOI)		ANAP	AUTO
(0028,6022)	LO	Frame(s) of Interest Description		ANAP	AUTO
(0028,6023)	CS	Frame of Interest Type		ANAP	AUTO

Table 8.1-12 MULTI-FRAME MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0028,0008)	IS	Number of Frames		ALWAYS	AUTO
(0028,0009)	AT	Frame Increment Pointer	(0018,1063) or (0018,1065)	ALWAYS	AUTO

Table 8.1-13 IMAGE PIXEL MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0028,0002)	US	Samples per Pixel	1=MONOCHROME2, 3=RGB, YBR_FULL_422	ALWAYS	AUTO
(0028,0004)	CS	Photometric Interpretation	"RGB", "YBR_FULL_422", "MONOCHROME2" (MONOCHROME2 is not applicable to media storage.)	ALWAYS	AUTO/ CONFIG
(0028,0006)	US	Planar Configuration	0=color-by-pixel for YBR_FULL_422, RGB 1=color-by-plane for RGB (0=color-by-pixel for RGB is not applicable to compression transfer syntax or media storage.)	ANAP	AUTO/ CONFIG
(0028,0010)	US	Rows	832, 768, 600, or 480 for single frame. 768 for multi-frame.	ALWAYS	AUTO
(0028,0011)	US	Columns	1152, 1024, 800 or 640 for single frame. 1024 for multi-frame.	ALWAYS	AUTO
(0028,0034)	IS	Pixel Aspect Ratio	Only if pixel aspect ratio is not 1:1.	ANAP	AUTO
(0028,0100)	US	Bits Allocated	8 for RGB, YBR_FULL_422, MONOCHROME2	ALWAYS	AUTO
(0028,0101)	US	Bits Stored	8 for RGB, YBR_FULL_422, MONOCHROME2	ALWAYS	AUTO
(0028,0102)	US	High Bit	7 for RGB, YBR_FULL_422, MONOCHROME2	ALWAYS	AUTO
(0028,0103)	US	Pixel Representation	0	ALWAYS	AUTO
(7FE0,0010)	OW /OB	Pixel Data	The Pixel Data contains burned-in annotation (Patient ID, Patient's Name, Scale Mark etc.)	ALWAYS	AUTO

Table 8.1-14 VOI LUT MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0028,3010)	SQ	VOI LUT Sequence	One item	ANAP	AUTO
>(0028,3002)	US	LUT Descriptor	<256,0,8>	ALWAYS	AUTO
>(0028,3006)	US	LUT Data	LUT	ALWAYS	AUTO

(0028,1050)	DS	Window Center	0-255	ANAP	USER
(0028,1051)	DS	Window Width	1-256	ANAP	USER

Table 8.1-15 SOP COMMON MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0005)	CS	Specific Character Set	See chapter 6	ANAP	MWL/ AUTO
(0008,0012)	DA	Instance Creation Date	Instance Date	ANAP	AUTO
(0008,0013)	TM	Instance Creation Time	Instance Time	ANAP	AUTO
(0008,0014)	UI	Instance Creator UID	Built-in	ANAP	AUTO
(0008,0016)	UI	SOP Class UID	1.2.840.10008.5.1.4.1.1.6.1 1.2.840.10008.5.1.4.1.1.3.1 1.2.840.10008.5.1.4.1.1.88.33	ALWAYS	AUTO
(0008,0018)	UI	SOP Instance UID	Generated by device	ALWAYS	AUTO

8.1.1.5 Ultrasound Modules

Table 8.1-16 US REGION CALIBRATOIN MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0018,6011)	SQ	Sequence of Ultrasound Regions	If Region Calibration is turned on	ANAP	CONFIG
>(0018,6012)	US	Region Spatial Format	0=none, 1=cross section, 2=M-mode, 3=spectral	ALWAYS	AUTO
>(0018,6014)	US	Region Data Type	0=none, 1=tissue, 2=color flow velocity, 3=PW, 4=CW, D=Gray Scale, E=Color Scale	ALWAYS	AUTO
>(0018,6016)	UL	Region Flag	1=transparent, 2=scale protected, 4=Doppler represented in frequency.	ALWAYS	AUTO
>(0018,6018)	UL	Region Location Min. x0	X and Y coordinates of upper left corner of the region	ALWAYS	AUTO
>(0018,601A)	UL	Region Location Min. y0		ALWAYS	AUTO
>(0018,601C)	UL	Region Location Max. x1	X and Y coordinates of lower right corner of the region	ALWAYS	AUTO
>(0018,601E)	UL	Region Location Max. y1		ALWAYS	AUTO
>(0018,6020)	SL	Referenced Pixel X0	B: Transducer surface center, M: Transducer surface left, and D: Baseline left	ANAP	AUTO
>(0018,6022)	SL	Referenced Pixel Y0		ANAP	AUTO
>(0018,6024)	US	Physical Unit X Direction	Physical units for X and Y directions	ALWAYS	AUTO
>(0018,6026)	US	Physical Unit Y Direction		ALWAYS	AUTO
>(0018,6028)	FD	Referenced Pixel Physical Value X	Reference pixel physical values in X and Y direction	ANAP	AUTO

>(0018,602A)	FD	Referenced Pixel Physical Value Y	physical units, respectively	ANAP	AUTO
>(0018,602C)	FD	Physical Delta X	Physical values in X and Y direction physical units, respectively	ALWAYS	AUTO
>(0018,602E)	FD	Physical Delta Y		ALWAYS	AUTO
>(0018,6030)	UL	Transducer Frequency	In [kHz]	ANAP	AUTO
>(0018,6032)	UL	Pulse Repetition Frequency	PRF in [kHz]	ANAP	AUTO
>(0018,6034)	FD	Doppler Correction Angle	Used if Doppler image [deg]	ANAP	AUTO
>(0018,6036)	FD	Steering Angle	Used if Color Flow image [deg]	ANAP	AUTO
>(0019,0010)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
>(0019,1008)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,100C)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,100E)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1018)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,101A)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1040)	*SS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1046)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1050)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1052)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1054)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1056)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1060)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(0019,1061)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*

Table 8.1-17 US IMAGE MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0008)	CS	Image Type	Value 3 is picked by the user from the Pull Down List, and Value 4 is set automatically.	VNAP	AUTO
(0008,2120)	SH	Stage Name	If Stress Echo protocol used	ANAP	AUTO
(0008,2122)	IS	Stage Number	If Stress Echo protocol used	ANAP	AUTO
(0008,2124)	IS	Number of Stages	If Stress Echo protocol used	ANAP	AUTO
(0008,2127)	SH	View Name	If Stress Echo protocol used	ANAP	AUTO

(0008,2128)	IS	View Number	If Stress Echo protocol used	ANAP	AUTO
(0008,2129)	IS	Number of Event Timers	If multi-frame and ECG Sync	ANAP	AUTO
(0008,212A)	IS	Number of Views in Stage	If Stress Echo protocol used	ANAP	AUTO
(0008,2130)	DS	Event Elapsed Time(s)		ANAP	AUTO
(0008,2132)	LO	Event Timer Name(s)		ANAP	AUTO
(0009,0010)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
(0009,1000)	*SH*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1004)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1006)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,100A)	*SH*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1012)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1014)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1016)	*DA*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1018)	*TM*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,101A)	*LO*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1020)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1022)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1024)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1026)	*IS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1028)	*IS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,102A)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1030)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1032)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1034)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1056)	*IS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1058)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,105A)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,105C)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,105E)	*DA*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1060)	*TM*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0009,1062)	*CS*		*Private attribute without PHI*	*ANAP*	*AUTO*
(0018,1060)	DS	Trigger Time	If ECG is connected	ANAP	AUTO
(0018,1062)	IS	Nominal Interval	If ECG is connected	ANAP	AUTO
(0018,1088)	IS	Heart Rate	If ECG signal is input	ANAP	AUTO
(0018,5000)	SH	Output Power		ANAP	AUTO
(0018,5010)	LO	Transducer Data		ALWAYS	AUTO

(0018,5022)	DS	Mechanical Index		ANAP	AUTO
(0018,5024)	DS	Bone Thermal Index		ANAP	AUTO
(0018,5026)	DS	Cranial Thermal Index		ANAP	AUTO
(0018,5027)	DS	Soft Tissue Thermal Index		ANAP	AUTO
(0018,5050)	IS	Depth of Scan Field		ANAP	AUTO
(0018,6031)	CS	Transducer Type		ALWAYS	AUTO
(0028,0002)	US	Samples per Pixel	3= RGB, YBR_FULL_422 1= MONOCHROME2	ALWAYS	AUTO
(0028,0004)	CS	Photometric Interpretation	RGB, YBR_FULL_422, MONOCHROME2 (MONOCHROME2 is not applicable to media storage.)	ALWAYS	AUTO/ CONFIG
(0028,0014)	US	Ultrasound Color Data Present	Only if color image acquired	ANAP	AUTO
(0028,0100)	US	Bits Allocated	8= RGB, YBR_FULL_422, MONOCHROME2, 16= PALETTE COLOR	ALWAYS	AUTO
(0028,0101)	US	Bits Stored	8= RGB, YBR_FULL_422, MONOCHROME2, 16= PALETTE COLOR	ALWAYS	AUTO
(0028,0102)	US	High Bit	7= RGB, YBR_FULL_422, MONOCHROME2, 15= PALETTE COLOR	ALWAYS	AUTO
(0028,0103)	US	Pixel Representation	0000H	ALWAYS	AUTO
(0028,2110)	CS	Lossy Image Compression	If lossy image compression applied	ANAP	AUTO
(0028,6040)	US	R Wave Pointer	Only if multi-frame	ANAP	AUTO
(0040,000A)	SQ	Stage Code Sequence	If Stress Echo protocol used	ANAP	AUTO
(0054,0220)	SQ	View Code Sequence	If Stress Echo protocol used	ANAP	AUTO
(830F,0010)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
(830F,1000)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(830F,10FF)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,0010)	*LO*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,105F)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,106F)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,1070)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,107F)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,108F)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(833D,109F)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*

(833D,10AF)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,0010)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
(83FF,0020)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
(83FF,0021)	*LO*	*Private Identification Code*	*HITACHI:1.2.392.200036.9123.100.50.121.2*	*ANAP*	*AUTO*
(83FF,1000)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1002)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1004)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1006)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1008)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,100A)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1050)	*SH*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1060)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,1061)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,1062)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2000)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2002)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2004)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2006)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2008)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,200A)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,200C)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,200E)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2010)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2012)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2014)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2016)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2018)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,201A)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,201C)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2020)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2022)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2024)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2026)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2028)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*

>(83FF,202A)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,202C)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,202E)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2030)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2032)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2034)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2036)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2038)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,203A)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,203C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,203E)	*SS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2040)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2042)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2044)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2046)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2048)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,204A)	*SS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,204C)	*SS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,204E)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2050)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2052)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2054)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2056)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2058)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,205A)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,205C)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,205E)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2060)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2062)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2064)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2066)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2068)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,206A)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,206C)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,206E)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2070)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2072)	*DS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2074)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*

>(83FF,2076)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2078)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,207A)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,207C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,207E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2080)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2082)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2084)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2086)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2088)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,208A)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,208C)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,208E)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2090)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2092)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2094)	*SS*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2096)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2098)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,209A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,209C)	*SL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,209E)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20A0)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20A2)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20A4)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20A6)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20A8)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20AA)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20AC)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20AE)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20B0)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20B2)	*FL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20B4)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20B6)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20B8)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20B9)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,20BA)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2100)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2102)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2104)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2106)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*

>(83FF,2108)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,210A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,210C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,210E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2110)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2112)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2114)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2116)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2118)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,211A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,211C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,211E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2120)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2122)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2124)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2126)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2128)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,212A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,212C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,212E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2130)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2132)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2134)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2136)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2138)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,213A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,213C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,213E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2140)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2142)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2144)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2146)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2148)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,214A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,214C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,214E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2150)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2152)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2154)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2156)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2158)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*

>(83FF,215A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,215C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,215E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2160)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2162)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2164)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2166)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,2168)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,216A)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,216C)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,216E)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1070)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1072)	*UL*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1074)	*FD*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1076)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,1078)	*US*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10A0)	*SH*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10B1)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10B2)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10B3)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10B4)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10C0)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
(83FF,10C1)	*SQ*		*Private attribute without PHI*	*ANAP*	*AUTO*
>(83FF,10FF)	*OB*		*Private attribute without PHI*	*ANAP*	*AUTO*

8.1.1.6 SR Document Modules

Table 8.1-18 SR DOCUMENT SERIES MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0060)	CS	Modality	"SR"	ALWAYS	AUTO
(0008,1111)	SQ	Referenced Performed Procedure Step Sequence	Identifies the MPPS SOP Instance to which this SOP instance is related	VNAP	MPPS
>(0008,1150)	UI	Referenced SOP Class UID	MPPS SOP Class UID	ALWAYS	MPPS
>(0008,1155)	UI	Referenced SOP Instance UID	MPPS SOP Instance UID	ALWAYS	MPPS
(0020,000E)	UI	Series Instance UID	Generated by device	ALWAYS	AUTO
(0020,0011)	IS	Series Number	Generated by device	ALWAYS	AUTO

Table 8.1-19 SR DOCUMENT GENERAL MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0008,0023)	DA	Content Date	"yyyymmdd"	ALWAYS	AUTO
(0008,0033)	TM	Content Time	"hhmmss"	ALWAYS	AUTO
(0020,0013)	IS	Instance Number	Generated by device	ALWAYS	AUTO
(0040,A370)	SQ	Referenced Request Sequence	From Modality Worklist, or absent if unscheduled case	ANAP	AUTO
>(0008,0050)	SH	Accession Number	From Modality Worklist	VNAP	MWL
>(0008,1110)	SQ	Referenced Study Sequence	From Modality Worklist	VNAP	MWL
>>(0008,1150)	UI	Referenced SOP Class UID	From Modality Worklist	ALWAYS	MWL
>>(0008,1155)	UI	Referenced SOP Instance UID	From Modality Worklist	ALWAYS	MWL
>(0020,000D)	UI	Study Instance UID	From Modality Worklist	ALWAYS	MWL
>(0032,1060)	LO	Requested Procedure Description	From Modality Worklist	VNAP	MWL
>(0032,1064)	SQ	Requested Procedure Code Sequence	From Modality Worklist	VNAP	MWL
>(0040,1001)	SH	Requested Procedure ID	From Modality Worklist	VNAP	MWL
>(0040,2016)	LO	Placer Order Number / Imaging Service Request	Zero length	EMPTY	AUTO
>(0040,2017)	LO	Filler Order Number / Imaging Service Request	Zero length	EMPTY	AUTO
(0040,A372)	SQ	Performed Procedure Code Sequence	From Modality Worklist, mapped from Requested Procedure Code Sequence (0032,1064)	VNAP	MWL
(0040,A491)	CS	Completion Flag	PARTIAL	ALWAYS	AUTO
(0040,A493)	CS	Verification Flag	UNVERIFIED	ALWAYS	AUTO

Table 8.1-20 SR DOCUMENT CONTENT MODULE OF CREATED SOP INSTANCES

Tag	VR	Attribute Name	Value	Presence of Value	Source
(0040,A040)	CS	Value Type	CONTAINER	ALWAYS	AUTO
(0040,A043)	SQ	Concept Name Code Sequence	Document Title	ALWAYS	AUTO
>(0008,0100)	SH	Code Value	125000, 125100 or 125200	ALWAYS	AUTO
>(0008,0102)	SH	Coding Scheme Designator	DCM	ALWAYS	AUTO
>(0008,0104)	LO	Code Meaning	"OB-GYN Ultrasound Procedure Report", "Vascular Ultrasound Procedure Report" or "Adult Echocardiography Procedure Report"	ALWAYS	AUTO
(0040,A050)	CS	Continuity of Content	SEPARATE	ALWAYS	AUTO
(0040,A504)	SQ	Content Template Sequence		ALWAYS	AUTO
>(0008,0105)	CS	Mapping Resource	DCMR	ALWAYS	AUTO
>(0040,DB00)	CS	Template Identifier	5000, 5100 or 5200	ALWAYS	AUTO
(0040,A032)	DT	Observation Date Time	"yyyymmddhhmmss" Same as Study Date, Study Time	ALWAYS	AUTO
(0040,A730)	SQ	Content Sequence		ALWAYS	AUTO
>(0040,A010)	CS	Relationship Type	See TID 5000 OB-GYN Ultrasound Procedure Report, TID 5100 Vascular Ultrasound Report and TID 5200 Echocardiography Procedure Report	ALWAYS	AUTO
> ...		Document Relationship Macro	See TID 5000 OB-GYN Ultrasound Procedure Report, TID 5100 Vascular Ultrasound Report and TID 5200 Echocardiography Procedure Report	ALWAYS	AUTO
> ...		Document Content Macro	See TID 5000 OB-GYN Ultrasound Procedure Report, TID 5100 Vascular Ultrasound Report and TID 5200 Echocardiography Procedure Report	ALWAYS	AUTO
>(0040,DB73)	UL	Referenced Content Item Identifier	Not used	-	-

8.1.2 Used Fields in received IOD by application

The Query/Retrieve application of this product may receive SOP Instances described in section 4.2.4.1. To "Import" the received SOP Instance, value of Patient ID (0010, 0020), Study ID (0020,0010), Series

Number (0020,0011), and Instance Number (0020,0013) are necessary in it. The patient identification in the local database is done by Patient ID (0010,0020).

The usage of attributes received via Modality Worklist is described in section 4.2.1.3.1.3.

8.1.3 Attribute mapping

The relationships between attributes received via Modality Worklist, stored in acquired images and communicated via MPPS are summarized in Table 8.1-21.

Table 8.1-21 ATTRIBUTE MAPPING BETWEEN MODALITY WORKLIST, IMAGE AND MPPS

Modality Worklist	Image IOD	MPPS IOD
Patient Name	Patient Name	Patient Name
Patient ID	Patient ID	Patient ID
Patient's Birth Date	Patient's Birth Date	Patient's Birth Date
Patient's Sex	Patient's Sex	Patient's Sex
Patient's Size	Patient's Size	----
Patient's Weight	Patient's Weight	----
Referring Physician's Name	Referring Physician's Name	
----	----	Scheduled Step Attributes Sequence
Study Instance UID	Study Instance UID	>Study Instance UID
Referenced Study Sequence	Referenced Study Sequence	>Referenced Study Sequence
Accession Number	Accession Number	>Accession Number
----	Request Attributes Sequence	----
Requesting Physician	Requesting Physician	----
Requested Procedure ID	>Requested Procedure ID	>Requested Procedure ID
Requested Procedure Description	>Requested Procedure Description	>Requested Procedure Description
Scheduled Procedure Step ID	>Scheduled Procedure Step ID	>Scheduled Procedure Step ID
Scheduled Procedure Step Description	>Scheduled Procedure Step Description	>Scheduled Procedure Step Description
Scheduled Protocol Code Sequence	>Scheduled Protocol Code Sequence	>Scheduled Protocol Code Sequence
----	Performed Protocol Code Sequence	Performed Protocol Code Sequence
Requested Procedure ID	Study ID	Study ID
----	Performed Procedure Step ID	Performed Procedure Step ID
----	Performed Procedure Step Start Date	Performed Procedure Step Start Date
----	Performed Procedure Step Start Time	Performed Procedure Step Start Time
----	Performed Procedure Step Description	Performed Procedure Step Description
----	----	Performed Series Sequence
----	Name of Physician's Reading	>Performing Physician's Name

Modality Worklist	Image IOD	MPPS IOD
	Study	
Requested Procedure Code Sequence	Procedure Code Sequence	Procedure Code Sequence
----	Referenced Performed Procedure Step Sequence	----
----	>Referenced SOP Class UID	SOP Class UID
----	>Referenced SOP Instance UID	SOP Instance UID
----	Protocol Name	Protocol Name
Medical Alerts	Medical Alerts	----
Contrast Allergies	Contrast Allergies	----
Occupation	Occupation	----

8.1.4 Coerced/Modified Fields

The Modality Worklist AE will truncate attribute values received in the response to a Modality Worklist Query if the value length is longer than the maximum length permitted by the attribute's VR.

8.2 DATA DICTIONARY OF PRIVATE ATTRIBUTES

The Private Attributes added to create SOP Instances are listed in the Table below. This product reserves blocks of private attributes in groups 0009, 0019, 830F, and 83FF. Further details on usage of these private attributes are contained in Section 8.1. Groups 830F and 83FF are used in DICOM+Raw file.

This product does not support reading SOP instance that the group of Private Attributes has been relocated

Table 8.2-1 DATA DICTIONARY OF PRIVATE ATTRIBUTES

Tag	VR	VM	Attribute Name
(0009,0010)	*LO*	*1*	
(0009,1000)	*SH*	*1*	
(0009,1004)	*US*	*1-n*	
(0009,1006)	*US*	*1-n*	
(0009,100A)	*SH*	*1*	
(0009,1012)	*US*	*1*	
(0009,1014)	*FD*	*1*	
(0009,1016)	*DA*	*1*	
(0009,1018)	*TM*	*1*	
(0009,101A)	*LO*	*1*	
(0009,1020)	*CS*	*1*	
(0009,1022)	*CS*	*1*	
(0009,1024)	*CS*	*1*	
(0009,1026)	*IS*	*1*	
(0009,1028)	*IS*	*1*	

Tag	VR	VM	Attribute Name
(0009,102A)	*DS*	*1*	
(0009,1030)	*FD*	*1*	
(0009,1032)	*DS*	*1*	
(0009,1034)	*CS*	*1*	
(0009,1056)	*IS*	*1-n*	
(0009,1058)	*CS*	*1*	
(0009,105A)	*UL*	*1*	
(0009,105C)	*CS*	*1*	
(0009,105E)	*DA*	*1*	
(0009,1060)	*TM*	*1*	
(0009,1062)	*CS*	*1*	
(0019,0010)	*LO*	*1*	
(0019,1008)	*FD*	*1*	
(0019,100C)	*CS*	*1*	
(0019,100E)	*DS*	*1*	
(0019,1018)	*SL*	*1*	
(0019,101A)	*SL*	*1*	
(0019,1040)	*SS*	*1*	
(0019,1046)	*US*	*1*	
(0019,1050)	*SL*	*1*	
(0019,1052)	*DS*	*1*	
(0019,1054)	*DS*	*1*	
(0019,1056)	*FD*	*1*	
(0019,1060)	*US*	*1*	
(0019,1061)	*UL*	*1*	
(830F,0010)	*LO*	*1*	
(830F,1000)	*US*	*1*	
(830F,10FF)	*OB*	*1*	
(833D,0010)	*LO*	*1*	
(833D,105F)	*OB*	*1*	
(833D,106F)	*OB*	*1*	
(833D,1070)	*SQ*	*1*	
(833D,107F)	*OB*	*1*	
(833D,108F)	*OB*	*1*	
(833D,109F)	*OB*	*1*	
(833D,10AF)	*OB*	*1*	
(83FF,0010)	*LO*	*1*	
(83FF,0020)	*LO*	*1*	

Tag	VR	VM	Attribute Name
(83FF,0021)	*LO*	*1*	
(83FF,1000)	*US*	*1*	
(83FF,1002)	*UL*	*1*	
(83FF,1004)	*US*	*1*	
(83FF,1006)	*UL*	*1*	
(83FF,1008)	*UL*	*4*	
(83FF,100A)	*UL*	*1*	
(83FF,1050)	*SH*	*1*	
(83FF,1060)	*SQ*	*1*	
(83FF,1061)	*US*	*1*	
(83FF,1062)	*OB*	*1*	
(83FF,1070)	*OB*	*1*	
(83FF,1072)	*UL*	*1*	
(83FF,1074)	*FD*	*1*	
(83FF,1076)	*US*	*1*	
(83FF,1078)	*OB*	*1*	
(83FF,10A0)	*SH*	*1*	
(83FF,10B1)	*SQ*	*1*	
(83FF,10B2)	*SQ*	*1*	
(83FF,10B3)	*SQ*	*1*	
(83FF,10B4)	*SQ*	*1*	
(83FF,10C0)	*SQ*	*1*	
(83FF,10C1)	*SQ*	*1*	
(83FF,10FF)	*OB*	*1*	
(83FF,2000)	*DS*	*1*	
(83FF,2002)	*DS*	*1*	
(83FF,2004)	*UL*	*1*	
(83FF,2006)	*UL*	*1*	
(83FF,2008)	*OB*	*1*	
(83FF,200A)	*US*	*1*	
(83FF,200C)	*US*	*1*	
(83FF,200E)	*US*	*1*	
(83FF,2010)	*US*	*1*	
(83FF,2012)	*US*	*1*	
(83FF,2014)	*US*	*1*	
(83FF,2016)	*DS*	*1*	
(83FF,2018)	*US*	*1*	
(83FF,201A)	*FD*	*1*	

Tag	VR	VM	Attribute Name
(83FF,201C)	*FD*	*1*	
(83FF,2020)	*FD*	*1*	
(83FF,2022)	*FD*	*1*	
(83FF,2024)	*FD*	*1*	
(83FF,2026)	*FD*	*1*	
(83FF,2028)	*FD*	*7*	
(83FF,202A)	*FD*	*7*	
(83FF,202C)	*FD*	*7*	
(83FF,202E)	*FD*	*7*	
(83FF,2030)	*FD*	*7*	
(83FF,2032)	*FD*	*7*	
(83FF,2034)	*FD*	*7*	
(83FF,2036)	*FD*	*7*	
(83FF,2038)	*FL*	*1*	
(83FF,203A)	*FL*	*256*	
(83FF,203C)	*OB*	*1*	
(83FF,203E)	*SS*	*1*	
(83FF,2040)	*FL*	*1*	
(83FF,2042)	*US*	*1*	
(83FF,2044)	*US*	*1*	
(83FF,2046)	*US*	*1*	
(83FF,2048)	*US*	*1*	
(83FF,204A)	*SS*	*1*	
(83FF,204C)	*SS*	*1*	
(83FF,204E)	*FD*	*1*	
(83FF,2050)	*FD*	*1*	
(83FF,2052)	*US*	*4*	
(83FF,2054)	*US*	*4*	
(83FF,2056)	*US*	*4*	
(83FF,2058)	*US*	*4*	
(83FF,205A)	*FL*	*1*	
(83FF,205C)	*US*	*1*	
(83FF,205E)	*FL*	*1-n*	
(83FF,2060)	*US*	*1-n*	
(83FF,2062)	*US*	*1-n*	
(83FF,2064)	*US*	*1-n*	
(83FF,2066)	*US*	*1*	
(83FF,2068)	*US*	*1-n*	

Tag	VR	VM	Attribute Name
(83FF,206A)	*DS*	*1*	
(83FF,206C)	*DS*	*1*	
(83FF,206E)	*US*	*1*	
(83FF,2070)	*DS*	*1*	
(83FF,2072)	*DS*	*1*	
(83FF,2074)	*US*	*1*	
(83FF,2076)	*OB*	*1*	
(83FF,2078)	*FL*	*16*	
(83FF,207A)	*FL*	*16*	
(83FF,207C)	*OB*	*1*	
(83FF,207E)	*OB*	*1*	
(83FF,2080)	*OB*	*1*	
(83FF,2082)	*OB*	*1*	
(83FF,2084)	*OB*	*1*	
(83FF,2086)	*SL*	*1*	
(83FF,2088)	*SL*	*1*	
(83FF,208A)	*FL*	*1*	
(83FF,208C)	*FL*	*1*	
(83FF,208E)	*FL*	*7*	
(83FF,2090)	*FL*	*7*	
(83FF,2092)	*US*	*9*	
(83FF,2094)	*SS*	*9*	
(83FF,2096)	*SL*	*1*	
(83FF,2098)	*FL*	*1*	
(83FF,209A)	*OB*	*1*	
(83FF,209C)	*SL*	*1*	
(83FF,209E)	*UL*	*3*	
(83FF,20A0)	*OB*	*1*	
(83FF,20A2)	*OB*	*1*	
(83FF,20A4)	*US*	*1*	
(83FF,20A6)	*FD*	*1*	
(83FF,20A8)	*FD*	*1*	
(83FF,20AA)	*FD*	*1*	
(83FF,20AC)	*US*	*1*	
(83FF,20AE)	*US*	*2*	
(83FF,20B0)	*UL*	*4*	
(83FF,20B2)	*FL*	*1*	
(83FF,20B4)	*OB*	*1*	

Tag	VR	VM	Attribute Name
(83FF,20B6)	*OB*	*1*	
(83FF,20B8)	*US*	*1*	
(83FF,20B9)	*UL*	*1*	
(83FF,20BA)	*FD*	*16*	
(83FF,2100)	*OB*	*1*	
(83FF,2102)	*OB*	*1*	
(83FF,2104)	*OB*	*1*	
(83FF,2106)	*OB*	*1*	
(83FF,2108)	*OB*	*1*	
(83FF,210A)	*OB*	*1*	
(83FF,210C)	*OB*	*1*	
(83FF,210E)	*OB*	*1*	
(83FF,2110)	*OB*	*1*	
(83FF,2112)	*OB*	*1*	
(83FF,2114)	*OB*	*1*	
(83FF,2116)	*OB*	*1*	
(83FF,2118)	*OB*	*1*	
(83FF,211A)	*OB*	*1*	
(83FF,211C)	*OB*	*1*	
(83FF,211E)	*OB*	*1*	
(83FF,2120)	*OB*	*1*	
(83FF,2122)	*OB*	*1*	
(83FF,2124)	*OB*	*1*	
(83FF,2126)	*OB*	*1*	
(83FF,2128)	*OB*	*1*	
(83FF,212A)	*OB*	*1*	
(83FF,212C)	*OB*	*1*	
(83FF,212E)	*OB*	*1*	
(83FF,2130)	*OB*	*1*	
(83FF,2132)	*OB*	*1*	
(83FF,2134)	*OB*	*1*	
(83FF,2136)	*OB*	*1*	
(83FF,2138)	*OB*	*1*	
(83FF,213A)	*OB*	*1*	
(83FF,213C)	*OB*	*1*	
(83FF,213E)	*OB*	*1*	
(83FF,2140)	*OB*	*1*	
(83FF,2142)	*OB*	*1*	

Tag	VR	VM	Attribute Name
(83FF,2144)	*OB*	*1*	
(83FF,2146)	*OB*	*1*	
(83FF,2148)	*OB*	*1*	
(83FF,214A)	*OB*	*1*	
(83FF,214C)	*OB*	*1*	
(83FF,214E)	*OB*	*1*	
(83FF,2150)	*OB*	*1*	
(83FF,2152)	*OB*	*1*	
(83FF,2154)	*OB*	*1*	
(83FF,2156)	*OB*	*1*	
(83FF,2158)	*OB*	*1*	
(83FF,215A)	*OB*	*1*	
(83FF,215C)	*OB*	*1*	
(83FF,215E)	*OB*	*1*	
(83FF,2160)	*OB*	*1*	
(83FF,2162)	*OB*	*1*	
(83FF,2164)	*OB*	*1*	
(83FF,2166)	*OB*	*1*	
(83FF,2168)	*OB*	*1*	
(83FF,216A)	*OB*	*1*	
(83FF,216C)	*OB*	*1*	
(83FF,216E)	*OB*	*1*	

8.3 CODED TERMINOLOGY AND TEMPLATES

The contents of Performed Procedure Step Discontinuation Reason Code Sequence (0040,0281) for a discontinued MPPS will be filled with a code selected by the user from a fixed list corresponding to Context Group 9300.

The Structured Reports use the Standard Templates and Context Groups supplied by DCMR (DICOM Content Mapping Resource), LOINC, and SRT. As a private definition, "99HITACHI" is used. See section 8.6 for details.

8.4 STANDARD EXTENDED / SPECIALIZED / PRIVATE SOP CLASSES

8.4.1 Ultrasound and Ultrasound Multi-frame Image Storage SOP Class

The Ultrasound and Ultrasound Multi-frame Image Storage SOP Classes are extended to create a Standard Extended SOP Classes by addition of standard and private attributes to the created SOP Instances as documented in section 8.1.

8.5 PRIVATE TRANSFER SYNTAXES

No Private Transfer Syntaxes are supported.

8.6 STRUCTURED REPORTS

The equipment supports Standard Templates TID 5000 OB-GYN, TID 5100 Vascular and TID 5200 Echocardiography. TIDs are described in DICOM Part 16.

There is no attempt to provide all tags that will be sent in the SR object. For those specifics, please refer to DICOM PS3.3, PS3.16 and PS3.17 for complete discussion on Enhanced and/or Comprehensive SR Storage SOP Classes support and the Templates described here.

DICOM PS 3.17 of the DICOM Standard includes tree diagrams showing graphic examples of the structure of each template.

8.6.1 Applications and Generated Templates

Application	Template ID	Template Name
OB	5000	OB-GYN Ultrasound Procedure Report
GYN	5000	OB-GYN Ultrasound Procedure Report
Vascular	5100	Vascular Ultrasound Report
Abdomen	5100	Vascular Ultrasound Report
Cardio	5200	Echocardiography Procedure Report
other applications	SR is not generated.	-

OB application generates an OB-GYN Ultrasound Procedure Report for OB measurements, GYN application generates an OB-GYN Ultrasound Procedure Report for GYN measurements. Vascular application generates a Vascular Ultrasound Report for peripheral vascular measurements, Abdomen application generates a Vascular Ultrasound Report for abdominal vascular measurements. Cardio application generates an Echocardiography Procedure Report. No SR is generated for any other applications.

Note that DICOM Standard provides TID 5200 for an "Adult" Echocardiography Procedure Report, however Cardio application will generate TID 5200 Adult Echocardiography Procedure Report regardless of patient's age or the Preset Application like "Pediatric Heart".

Some user-defined measurement items or user-defined tables/equations are not included in SR.

8.6.2 Templates

8.6.2.1 TID 5000 OB-GYN Ultrasound Procedure Report

TID 5000 row 3 - TID 1001 Observation Context

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Patient Name	DCM	121029	Subject Name	TID 1001 row 3 - TID 1006 row 2 - TID 1007 row 2

TID 5000 row 4 - TID 5001 OB-GYN Patient Characteristics

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Height	LN	8302-2	Patient Height	TID 5001 row 3
Weight	LN	29463-7	Patient Weight	TID 5001 row 4
GRAV	LN	11996-6	Gravida	TID 5001 row 5
PARA	LN	11977-6	Para	TID 5001 row 6
AB	LN	11612-9	Aborta	TID 5001 row 7
ECTO	LN	33065-4	Ectopic Pregnancies	TID 5001 row 8

TID 5000 row 7 - TID 5002 OB-GYN Procedure Summary Section

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
LMP	LN	11955-2	LMP	TID 5002 row 2
BBT	LN	11976-8	Ovulation date	TID 5002 row 2
LMP-EDC	LN	11779-6	EDD from LMP	TID 5002 row 2
BBT-EDC	LN	11780-4	EDD from ovulation date	TID 5002 row 2
Composite US-EDC [1]	LN	11781-2	EDD from average ultrasound age	TID 5002 row 2
-	LN	11878-6	Number of Fetuses	TID 5002 row 3
Comments	DCM	121106	Comment	TID 5002 row 4
LMP-GA	LN	11885-1	Gestational Age by LMP	TID 5002 row 6 - TID 5003 row 5
Composite US-GA	LN	11888-5	Composite Ultrasound Age	TID 5002 row 6 - TID 5003 row 5

Note: 1. The earliest Composite US-EDC is included when more than one fetus are observed.

OB measurements :

TID 5000 row 7 - TID 5002 row 6 - TID 5003 OB-GYN Fetus Summary
TID 5000 row 8 - TID 5004 Fetal Biometry Ratio Section
TID 5000 row 9 - TID 5005 Fetal Biometry Section
TID 5000 row 10 - TID 5006 Fetal Long Bones Section
TID 5000 row 11 - TID 5007 Fetal Cranium Section
TID 5000 row 12 - TID 5009 Fetal Biophysical Profile Section
TID 5000 row 13 - TID 5011 Early Gestation Section
TID 5000 row 14 - TID 5010 Amniotic Sac Section

TID 5000 row 15 - TID 5015 Pelvis and Uterus Section
TID 5000 row 21 - TID 5025 OB-GYN Fetal Vascular Ultrasound Measurement Group
TID 5000 row 24 - TID 5026 OB-GYN Pelvic Vascular Ultrasound Measurement Group

TID 5000 row 25(Extension) - TID HITACHI_5001 OB-GYN Original Measurement Section
TID 5000 row 26(Extension) - TID HITACHI_5000 OB Original Fetal Measurement Section
TID 5000 row 27(Extension) - TID HITACHI_5000 OB Original Fetal Measurement Section
TID 5000 row 28(Extension) - TID HITACHI_5002 OB-GYN User Defined Equation Section

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
FHR	LN	11948-7	Fetal Heart Rate	TID 5003 row 5
PreHR(Amnio)	99HITACHI	H12019-001	Fetal Heart Rate before Biopsy	TID 5003 row 5
PstHR(Amnio)	99HITACHI	H12019-002	Fetal Heart Rate after Biopsy	TID 5003 row 5
FW (up to 5 items)	LN	11727-5	Estimated Weight	TID 5003 row 5
EFW Ratio (up to 5 items)	99HITACHI	H12019-004	Estimated Fetal Weight Ratio	TID 5003 row 5
- (FW %ile rank by Doubilet)	LN	11767-1	EFW percentile rank	TID 5003 row 5
CI (BPD/OFD)	LN	11823-2	Cephalic Index	TID 5004 row 3
CI (BPDo/OFDo)	99HITACHI	H12004-001	Cephalic Index(BPDo/OFDo)	TID 5004 row 3
FL/AC	LN	11871-1	FL/AC	TID 5004 row 3
FL/BPD	LN	11872-9	FL/BPD	TID 5004 row 3
FL/HC	LN	11873-7	FL/HC	TID 5004 row 3
HC/AC	LN	11947-9	HC/AC	TID 5004 row 3
LVW/HW	99HITACHI	H12004-002	LVW/HW	TID 5004 row 3
AC	LN	11979-2	Abdominal Circumference	TID 5005 row 3
AC2	99HITACHI	H12005-011	Abdominal Circumference for BMUS	TID 5005 row 3
AD	99HITACHI	H12005-006	Abdominal Diameter	TID 5005 row 3
AF Pocket	99HITACHI	H12005-009	Amniotic Fluid Volume	TID 5005 row 3
AFV	99HITACHI	H12005-009	Amniotic Fluid Volume	TID 5005 row 3
MVP	99HITACHI	H12005-012	Maximum Vertical Pocket	TID 5005 row 3
APD	LN	11818-2	Anterior-Posterior Abdominal Diameter	TID 5005 row 3
APTD	LN	11818-2	Anterior-Posterior Abdominal Diameter	TID 5005 row 3

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
AXT	LN	33191-8	APAD * TAD	TID 5005 row 3
BD	99HITACHI	H12005-001	Binocular Distance	TID 5005 row 3
BPD	LN	11820-8	Biparietal Diameter	TID 5005 row 3
BPDo	99HITACHI	H12005-002	Biparietal Diameter outer-to-outer	TID 5005 row 3
CD	LN	11863-8	Trans Cerebellar Diameter	TID 5007 row 3
CRL	LN	11957-8	Crown Rump Length	TID 5011 row 3
EES	99HITACHI	H12009-001	Early Embryonic Size	TID 5011 row 3
FIB	LN	11964-4	Fibula length	TID 5006 row 3
FL	LN	11963-6	Femur Length	TID 5006 row 3
FTA	99HITACHI	H12005-003	Fetal Trunk Cross Sectional Area	TID 5005 row 3
GS	LN	11850-5	Gestational Sac Diameter	TID 5011 row 3
HC	LN	11984-2	Head Circumference	TID 5005 row 3
HC2	99HITACHI	H12005-008	Head Circumference for Merz, Hansmann	TID 5005 row 3
HC3	99HITACHI	H12005-010	Head Circumference for BMUS	TID 5005 row 3
HL	LN	11966-9	Humerus length	TID 5006 row 3
HW	LN	12170-7	Width of Hemisphere	TID 5007 row 3
IOD	LN	33070-4	Inner Orbital Diameter	TID 5007 row 3
LV	99HITACHI	H12005-004	Length of Vertebrae	TID 5005 row 3
LVW	LN	12171-5	Lateral Ventrical width	TID 5007 row 3
mGS, D1	99HITACHI	H12009-002	Gestational Sac Diameter 1	TID 5011 row 3
mGS, D2	99HITACHI	H12009-003	Gestational Sac Diameter 2	TID 5011 row 3
mGS, D3	99HITACHI	H12009-004	Gestational Sac Diameter 3	TID 5011 row 3
mGS, mGS	99HITACHI	H12009-005	Mean Gestational Sac Diameter	TID 5011 row 3
NBL	99HITACHI	H12006-001	Nasal Bone Length	TID 5006 row 3
NT	LN	33069-6	Nuchal Translucency	TID 5011 row 3
OFD	LN	11851-3	Occipital-Frontal Diameter	TID 5005 row 3
OFDo	99HITACHI	H12005-005	Occipital-Frontal Diameter outer-to-outer	TID 5005 row 3
OOD	LN	11629-3	Outer Orbital Diameter	TID 5007 row 3
RAD	LN	11967-7	Radius length	TID 5006 row 3

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
TAD	LN	11862-0	Tranverse Abdominal Diameter	TID 5005 row 3
TC	LN	11988-3	Thoracic Circumference	TID 5005 row 3
TIB	LN	11968-5	Tibia length	TID 5006 row 3
TL	99HITACHI	H12005-007	Thoracic Length	TID 5005 row 3
TTD	LN	11862-0	Tranverse Abdominal Diameter	TID 5005 row 3
ULNA	LN	11969-3	Ulna length	TID 5006 row 3
BPP, Breathing	LN	11632-7	Fetal Breathing	TID 5009 row 4
BPP, Movement	LN	11631-9	Gross Body Movement	TID 5009 row 3
BPP, Tone	LN	11635-0	Fetal Tone	TID 5009 row 5
BPP, Fluid	LN	11630-1	Amniotic Fluid Volume	TID 5009 row 7
BPP, Non-Stress Test	LN	11635-5	Fetal Heart Reactivity	TID 5009 row 6
BPP, Total Score	LN	11634-3	Biophysical Profile Sum Score	TID 5009 row 8
AFI, AFI [1]	LN	11627-7	Amniotic Fluid Index	TID 5010 row 3
AFI, Q1	LN	11624-4	First Quadrant Diameter	TID 5010 row 4
AFI, Q2	LN	11626-9	Second Quadrant Diameter	TID 5010 row 4
AFI, Q3	LN	11625-1	Third Quadrant Diameter	TID 5010 row 4
AFI, Q4	LN	11623-6	Fourth Quadrant Diameter	TID 5010 row 4
Cervix	LN	11961-0	Cervix Length	TID 5015 row 3
MCA	SRT	T-45600	Middle Cerebral Artery	TID 5025 row 1
MCA, PI	LN	12008-9	Pulsatility Index	TID 5025 row 4
MCA, RI	LN	12023-8	Resistivity Index	TID 5025 row 4
MCA, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID 5025 row 4
MCA, PSV	LN	11726-7	Peak Systolic Velocity	TID 5025 row 4
MCA, EDV	LN	11653-3	End Diastolic Velocity	TID 5025 row 4
MCA, MnV	LN	11692-1	Time averaged peak velocity	TID 5025 row 4

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
UmA [1]	SRT	T-F1810	Umbilical Artery	TID 5026 row 1, TID HITACHI_5000 row3 - TID HITACHI_300 row1
UmA, PI	LN	12008-9	Pulsatility Index	TID 5026 row 4, TID HITACHI_300 row3
UmA, RI	LN	12023-8	Resistivity Index	TID 5026 row 4, TID HITACHI_300 row3
UmA, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID 5026 row 4, TID HITACHI_300 row3
UmA, PSV	LN	11726-7	Peak Systolic Velocity	TID 5026 row 4, TID HITACHI_300 row3
UmA, EDV	LN	11653-3	End Diastolic Velocity	TID 5026 row 4, TID HITACHI_300 row3
UmA, MnV	LN	11692-1	Time averaged peak velocity	TID 5026 row 4, TID HITACHI_300 row3
Rt.UtA	SRT	T-46820	Uterine Artery	TID HITACHI_5001 row2 -TID HITACHI_300 row1
Rt.UtA, PI	LN	12008-9	Pulsatility Index	TID HITACHI_300 row3
Rt.UtA, RI	LN	12023-8	Resistivity Index	TID HITACHI_300 row3
Rt.UtA, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID HITACHI_300 row3
Rt.UtA, PSV	LN	11726-7	Peak Systolic Velocity	TID HITACHI_300 row3
Rt.UtA, EDV	LN	11653-3	End Diastolic Velocity	TID HITACHI_300 row3
Rt.UtA, MnV	LN	11692-1	Time averaged peak velocity	TID HITACHI_300 row3
Lt.UtA	SRT	T-46820	Uterine Artery	TID HITACHI_5001 row2 -TID HITACHI_300 row1
Lt.UtA, PI	LN	12008-9	Pulsatility Index	TID HITACHI_300 row3

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Lt.UtA, RI	LN	12023-8	Resistivity Index	TID HITACHI_300 row3
Lt.UtA, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID HITACHI_300 row3
Lt.UtA, PSV	LN	11726-7	Peak Systolic Velocity	TID HITACHI_300 row3
Lt.UtA, EDV	LN	11653-3	End Diastolic Velocity	TID HITACHI_300 row3
Lt.UtA, MnV	LN	11692-1	Time averaged peak velocity	TID HITACHI_300 row3
D-Ao	SRT	T-D0765	Descending Aorta	TID 5025 row 1
D-Ao, PI	LN	12008-9	Pulsatility Index	TID 5025 row 4
D-Ao, RI	LN	12023-8	Resistivity Index	TID 5025 row 4
D-Ao, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID 5025 row 4
D-Ao, PSV	LN	11726-7	Peak Systolic Velocity	TID 5025 row 4
D-Ao, EDV	LN	11653-3	End Diastolic Velocity	TID 5025 row 4
D-Ao, MnV	LN	11692-1	Time averaged peak velocity	TID 5025 row 4
OB Dop1	99HITACHI	HITACHI_001-001	OB User Definition Doppler1	TID HITACHI_5000 row3 -TID HITACHI_300 row1
OB Dop1, PI	LN	12008-9	Pulsatility Index	TID HITACHI_300 row3
OB Dop1, RI	LN	12023-8	Resistivity Index	TID HITACHI_300 row3
OB Dop1, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID HITACHI_300 row3
OB Dop1, PSV	LN	11726-7	Peak Systolic Velocity	TID HITACHI_300 row3
OB Dop1, EDV	LN	11653-3	End Diastolic Velocity	TID HITACHI_300 row3
OB Dop1, MnV	LN	11692-1	Time averaged peak velocity	TID HITACHI_300 row3
OB Dop2	99HITACHI	HITACHI_001-002	OB User Definition Doppler2	TID HITACHI_5000 row3 -TID HITACHI_300 row1
OB Dop2, PI	LN	12008-9	Pulsatility Index	TID HITACHI_300 row3
OB Dop2, RI	LN	12023-8	Resistivity Index	TID HITACHI_300 row3

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
OB Dop2, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID HITACHI_300 row3
OB Dop2, PSV	LN	11726-7	Peak Systolic Velocity	TID HITACHI_300 row3
OB Dop2, EDV	LN	11653-3	End Diastolic Velocity	TID HITACHI_300 row3
OB Dop2, MnV	LN	11692-1	Time averaged peak velocity	TID HITACHI_300 row3
OB Dop3	99HITACHI	HITACHI_001 -003	OB User Definition Doppler3	TID HITACHI_5000 row3 -TID HITACHI_300 row1
OB Dop3, PI	LN	12008-9	Pulsatility Index	TID HITACHI_300 row3
OB Dop3, RI	LN	12023-8	Resistivity Index	TID HITACHI_300 row3
OB Dop3, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID HITACHI_300 row3
OB Dop3, PSV	LN	11726-7	Peak Systolic Velocity	TID HITACHI_300 row3
OB Dop3, EDV	LN	11653-3	End Diastolic Velocity	TID HITACHI_300 row3
OB Dop3, MnV	LN	11692-1	Time averaged peak velocity	TID HITACHI_300 row3
DV(Ductus Venosus)	99HITACHI	H12141-001	Ductus Venosus	TID 5025 row 1
DV(Ductus Venosus), PI	LN	12008-9	Pulsatility Index	TID 5025 row 4
DV(Ductus Venosus), a/S	99HITACHI	H12121-002	atrial contraction to Systolic peak Velocity Ratio	TID 5025 row 4
DV(Ductus Venosus), S	LN	11726-7	Peak Systolic Velocity	TID 5025 row 4
DV(Ductus Venosus), a	99HITACHI	H12120-001	atrial contraction	TID 5025 row 4
DV(Ductus Venosus), MnV	LN	11692-1	Time averaged peak velocity	TID 5025 row 4
DV(Ductus Venosus), D	99HITACHI	H12120-002	Peak Diastolic Velocity	TID 5025 row 4
DV(Ductus Venosus), S/a	99HITACHI	H12121-003	Systolic peak to atrial contraction Velocity Ratio	TID 5025 row 4
DV(Ductus Venosus), PVIV	99HITACHI	H12121-004	Peak velocity index for veins	TID 5025 row 4

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
User-defined Equation Result Parameter	99HITACHI	HITACHI_002 -001	Calculated result.	TID HITACHI_5002 row2 -TID HITACHI_301 row4 - TID HITACHI_302 row1
User-defined Equation Parameter	99HITACHI	HITACHI_002 -002	Equation parameter	TID HITACHI_5002 row2 -TID HITACHI_301 row4 - TID HITACHI_302 row1

Note: 1. UmA is included in both TID 5026(not TID 5025) and TID HITACHI_5000.
When UmA is measured on multiple fetuses, the precedence to be included in TID 5026 is Fetus a, b, then c. TID HITACHI_5000 includes UmA measured on each fetus.

TID 1008 Subject Context, Fetus

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Fetus a/b/c	LN	11951-1	Fetus ID	TID 1008 row 4

Note: Fetus ID is included in Structured Report as "A", "B", "C". When singleton fetus, Fetus ID is always "A".

GYN measurements :

TID 5000 row 15 - TID 5015 Pelvis and Uterus Section
TID 5000 row 16 - TID 5012 Ovaries Section
TID 5000 row 17 - TID 5013 Follicles Section
TID 5000 row 18 - TID 5013 Follicles Section
TID 5000 row 29(Extension) - TID HITACHI_301 User Defined Equation Section

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Uterus, Length	LN	11842-2	Uterus Length	TID 5015 row 2 - TID 5016 row 3
Uterus, AP	LN	11859-6	Uterus Height	TID 5015 row 2 - TID 5016 row 5

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Uterus, Width	LN	11865-3	Uterus Width	TID 5015 row 2 - TID 5016 row 4
Uterus, Volume	LN	33192-6	Uterus Volume	TID 5015 row 2 - TID 5016 row 2
Cervix, Length	LN	11961-0	Cervix Length	TID 5015 row 3
Cervix, AP	99HITACHI	H12011-002	Cervix Antero-Posterior Diameter	TID 5015 row 3
Cervix, Width	99HITACHI	H12011-001	Cervix Width	TID 5015 row 3
Endom-T	LN	12145-9	Endometrium Thickness	TID 5015 row 3
Pre Bldrvol, Length	99HITACHI	H12011-003	Pre Void Bladder Length	TID 5015 row 3
Pre Bldrvol, AP	99HITACHI	H12011-004	Pre Void Bladder Antero-Posterior Diameter	TID 5015 row 3
Pre Bldrvol, Width	99HITACHI	H12011-005	Pre Void Bladder Width	TID 5015 row 3
Pre Bldrvol, Volume	99HITACHI	H12011-006	Pre Void Bladder Volume	TID 5015 row 3
Pst Bldrvol, Length	99HITACHI	H12011-007	Post Void Bladder Length	TID 5015 row 3
Pst Bldrvol, AP	99HITACHI	H12011-008	Post Void Bladder Antero-Posterior Diameter	TID 5015 row 3
Pst Bldrvol, Width	99HITACHI	H12011-009	Post Void Bladder Width	TID 5015 row 3
Pst Bldrvol, Volume	99HITACHI	H12011-010	Post Void Bladder Volume	TID 5015 row 3
Void Volume	99HITACHI	H12011-011	Bladder Void Volume	TID 5015 row 3
Left Ovary, Length	LN	11840-6	Left Ovary Length	TID 5012 row 3 - TID 5016 row 3
Left Ovary, AP	LN	11857-0	Left Ovary Height	TID 5012 row 3 - TID 5016 row 5
Left Ovary, Width	LN	11829-9	Left Ovary Width	TID 5012 row 3 - TID 5016 row 4
Left Ovary, Volume	LN	12164-0	Left Ovary Volume	TID 5012 row 3 - TID 5016 row 2
Right Ovary, Length	LN	11841-4	Right Ovary Length	TID 5012 row 4 - TID 5016 row 3
Right Ovary, AP	LN	11858-8	Right Ovary Height	TID 5012 row 4 - TID 5016 row 5
Right Ovary, Width	LN	11830-7	Right Ovary Width	TID 5012 row 4 - TID 5016 row 4
Right Ovary, Volume	LN	12165-7	Right Ovary Volume	TID 5012 row 4 - TID 5016 row 2
Follicles (up to 10 items)	-	-	-	-

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Left Follicles, D1	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, D2	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, Average	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, Volume	SRT	G-D705	Volume	TID 5013 row 5 - TID 5014 row 3
Right Follicles, D1	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, D2	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, Average	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, Volume	SRT	G-D705	Volume	TID 5013 row 5 - TID 5014 row 3
Follicles Volume (up to 10 items)	-	-	-	-
Left Follicles, D1	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, D2	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, D3	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, Average	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Left Follicles, Volume	SRT	G-D705	Volume	TID 5013 row 5 - TID 5014 row 3
Right Follicles, D1	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, D2	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, D3	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, Average	LN	11793-7	Follicle Diameter	TID 5013 row 5 - TID 5014 row 4
Right Follicles, Volume	SRT	G-D705	Volume	TID 5013 row 5 - TID 5014 row 3
Rt.Uterine Artery	SRT	T-46820	Uterine Artery	TID HITACHI_5001 row2 -TID HITACHI_300 row1

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Rt.Uterine Artery, PI	LN	12008-9	Pulsatility Index	TID HITACHI_300 row3
Rt.Uterine Artery, RI	LN	12023-8	Resistivity Index	TID HITACHI_300 row3
Rt.Uterine Artery, S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID HITACHI_300 row3
Rt.Uterine Artery, PSV	LN	11726-7	Peak Systolic Velocity	TID HITACHI_300 row3
Rt.Uterine Artery, EDV	LN	11653-3	End Diastolic Velocity	TID HITACHI_300 row3
Rt.Uterine Artery, MnV	LN	11692-1	Time averaged peak velocity	TID HITACHI_300 row3
User-defined Equation Result Parameter	99HITACHI	HITACHI_002 -001	Calculated result.	TID HITACHI_301 row4 -TID HITACHI_302 row1
User-defined Equation Parameter	99HITACHI	HITACHI_002 -002	Equation parameter	TID HITACHI_301 row4 -TID HITACHI_302 row1

8.6.2.2 TID 5100 Vascular Ultrasound Report

TID 5100 row 4 - TID 1001 Observation Context

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Patient Name	DCM	121029	Subject Name	TID 1001 row 3 - TID 1006 row 2 - TID 1007 row 2

TID 5100 row 5 - TID 5101 Vascular Patient Characteristics

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Age	DCM	121033	Subject Age	TID 5101 row 2
Sex	DCM	121032	Subject Sex	TID 5101 row 3
Blood Pressure (Systolic)	SRT	F-008EC	Systolic Blood Pressure	TID 5101 row 5

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Blood Pressure (Diastolic)	SRT	F-008ED	Diastolic Blood Pressure	TID 5101 row 6

TID 5100 row 8 - TID 5102 Vascular Procedure Summary Section

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Comments	DCM	121106	Comment	TID 5102 row 2

Vascular measurements :

TID 5100 row 9 - TID 5103 Vascular Ultrasound Section (Blood Vessel of Head, Left)
TID 5100 row 10 - TID 5103 Vascular Ultrasound Section (Blood Vessel of Head, Right)
TID 5100 row 11 - TID 5103 Vascular Ultrasound Section (Blood Vessel of Head, Unilateral)
TID 5100 row 12 - TID 5103 Vascular Ultrasound Section (Artery of neck, Left)
TID 5100 row 13 - TID 5103 Vascular Ultrasound Section (Artery of neck, Right)
TID 5100 row 14 - TID 5103 Vascular Ultrasound Section (Artery of Lower Extremity, Left)
TID 5100 row 15 - TID 5103 Vascular Ultrasound Section (Artery of Lower Extremity, Right)
TID 5100 row 16 - TID 5103 Vascular Ultrasound Section (Vein of Lower Extremity, Left)
TID 5100 row 17 - TID 5103 Vascular Ultrasound Section (Vein of Lower Extremity, Right)
TID 5100 row 18 - TID 5103 Vascular Ultrasound Section (Artery Of Upper Extremity, Left)
TID 5100 row 19 - TID 5103 Vascular Ultrasound Section (Artery Of Upper Extremity, Right)
TID 5100 row 20 - TID 5103 Vascular Ultrasound Section (Vein Of Upper Extremity, Left)
TID 5100 row 21 - TID 5103 Vascular Ultrasound Section (Vein Of Upper Extremity, Right)
TID 5100 row 31(Extension) - TID HITACHI_301 User Defined Equation Section

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
(Modifier) [1]				
Left	SRT	G-A101	Left	TID 5103 row 3
Right	SRT	G-A100	Right	TID 5103 row 3
-	SRT	G-A103	Unilateral	TID 5103 row 3
- (prox)	SRT	G-A118	Proximal	TID 5103 row 4 - TID 5104 row 2
- (mid)	SRT	G-A188	Mid-longitudinal	TID 5103 row 4 - TID 5104 row 2
- (distal)	SRT	G-A119	Distal	TID 5103 row 4 - TID 5104 row 2

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
(Measurements) [2]				
PSV pV	LN	11726-7	Peak Systolic Velocity	TID 5103 row 4 - TID 5104 row 4
EDV	LN	11653-3	End Diastolic Velocity	TID 5103 row 4 - TID 5104 row 4
MnV	LN	11692-1	Time averaged peak velocity	TID 5103 row 4 - TID 5104 row 4
PI	LN	12008-9	Pulsatility Index	TID 5103 row 4 - TID 5104 row 4
RI	LN	12023-8	Resistivity Index	TID 5103 row 4 - TID 5104 row 4
S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID 5103 row 4 - TID 5104 row 4
(Vessels)				
(row 9, 10)				
ACA	SRT	T-45540	Anterior Cerebral Artery	TID 5103 row 4 - TID 5104 row 1
MCA	SRT	T-45600	Middle Cerebral Artery	TID 5103 row 4 - TID 5104 row 1
PCA	SRT	T-45900	Posterior Cerebral Artery	TID 5103 row 4 - TID 5104 row 1
PCoA	SRT	T-45320	Posterior Communicating Artery	TID 5103 row 4 - TID 5104 row 1
TICA	SRT	R-102BD	Terminal internal carotid artery	TID 5103 row 4 - TID 5104 row 1
(row 11)				
ACoA [3]	SRT	T-45530	Anterior Communicating Artery	TID 5103 row 4 - TID 5104 row 1
BA	SRT	T-45800	Basilar Artery	TID 5103 row 4 - TID 5104 row 1
(row 12, 13)				
BIFUR	SRT	T-45160	Carotid Bifurcation	TID 5103 row 4 - TID 5104 row 1
CCA prox CCA mid CCA distal	SRT	T-45100	Common Carotid Artery	TID 5103 row 4 - TID 5104 row 1
ECA	SRT	T-45200	External Carotid Artery	TID 5103 row 4 - TID 5104 row 1

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
ICA ICA prox ICA mid ICA distal	SRT	T-45300	Internal Carotid Artery	TID 5103 row 4 - TID 5104 row 1
VA [4] VERT	SRT	T-45700	Vertebral Artery	TID 5103 row 4 - TID 5104 row 1
(row 14, 15)				
ATA	SRT	T-47700	Anterior Tibial Artery	TID 5103 row 4 - TID 5104 row 1
CFA	SRT	T-47400	Common Femoral Artery	TID 5103 row 4 - TID 5104 row 1
CIA	SRT	T-46710	Common Iliac Artery	TID 5103 row 4 - TID 5104 row 1
DFA (Deep Femoral Artery)	SRT	T-47440	Profunda Femoris Artery	TID 5103 row 4 - TID 5104 row 1
DPA	SRT	T-47741	Dorsalis Pedis Artery	TID 5103 row 4 - TID 5104 row 1
EIA	SRT	T-46910	External Iliac Artery	TID 5103 row 4 - TID 5104 row 1
IIA	SRT	T-46740	Internal Iliac Artery	TID 5103 row 4 - TID 5104 row 1
PerA	SRT	T-47630	Peroneal Artery	TID 5103 row 4 - TID 5104 row 1
PopA	SRT	T-47500	Popliteal Artery	TID 5103 row 4 - TID 5104 row 1
PTA	SRT	T-47600	Posterior Tibial Artery	TID 5103 row 4 - TID 5104 row 1
SFA	SRT	T-47403	Superficial Femoral Artery	TID 5103 row 4 - TID 5104 row 1
Lwr Art.1	99HITACHI	H12109-001	User Definition Artery1	TID 5103 row 4 - TID 5104 row 1
Lwr Art.2	99HITACHI	H12109-002	User Definition Artery2	TID 5103 row 4 - TID 5104 row 1
Lwr Art.3	99HITACHI	H12109-003	User Definition Artery3	TID 5103 row 4 - TID 5104 row 1
Lwr Art.4	99HITACHI	H12109-004	User Definition Artery4	TID 5103 row 4 - TID 5104 row 1
Lwr Art.5	99HITACHI	H12109-005	User Definition Artery5	TID 5103 row 4 - TID 5104 row 1
Lwr Art.6	99HITACHI	H12109-006	User Definition Artery6	TID 5103 row 4 - TID 5104 row 1

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Lwr Art.7	99HITACHI	H12109-007	User Definition Artery7	TID 5103 row 4 - TID 5104 row 1
Lwr Art.8	99HITACHI	H12109-008	User Definition Artery8	TID 5103 row 4 - TID 5104 row 1
(row 16, 17)				
ATV	SRT	T-49630	Anterior Tibial Vein	TID 5103 row 4 - TID 5104 row 1
CFV	SRT	G-035B	Common Femoral Vein	TID 5103 row 4 - TID 5104 row 1
CIV	SRT	T-48920	Common Iliac Vein	TID 5103 row 4 - TID 5104 row 1
DFV (Deep Femoral Vein)	SRT	T-49660	Profunda Femoris Vein	TID 5103 row 4 - TID 5104 row 1
EIV	SRT	T-48930	External Iliac Vein	TID 5103 row 4 - TID 5104 row 1
GSV	SRT	T-49530	Great Saphenous Vein	TID 5103 row 4 - TID 5104 row 1
IIV	SRT	T-48940	Internal iliac vein	TID 5103 row 4 - TID 5104 row 1
LSV	SRT	T-49550	Lesser Saphenous Vein	TID 5103 row 4 - TID 5104 row 1
PerV	SRT	T-49650	Peroneal Vein	TID 5103 row 4 - TID 5104 row 1
PopV	SRT	T-49640	Popliteal Vein	TID 5103 row 4 - TID 5104 row 1
PTV	SRT	T-49620	Posterior Tibial Vein	TID 5103 row 4 - TID 5104 row 1
SFV	SRT	G-035A	Superficial Femoral Vein	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.1	99HITACHI	H12110-001	User Definition Vein1	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.2	99HITACHI	H12110-002	User Definition Vein2	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.3	99HITACHI	H12110-003	User Definition Vein3	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.4	99HITACHI	H12110-004	User Definition Vein4	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.5	99HITACHI	H12110-005	User Definition Vein5	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.6	99HITACHI	H12110-006	User Definition Vein6	TID 5103 row 4 - TID 5104 row 1

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Lwr Vein.7	99HITACHI	H12110-007	User Definition Vein7	TID 5103 row 4 - TID 5104 row 1
Lwr Vein.8	99HITACHI	H12110-008	User Definition Vein8	TID 5103 row 4 - TID 5104 row 1
(row 18, 19)				
AA	SRT	T-47100	Axillary Artery	TID 5103 row 4 - TID 5104 row 1
BA	SRT	T-47160	Brachial Artery	TID 5103 row 4 - TID 5104 row 1
BasA	99HITACHI	H12107-002	Basilic Artery	TID 5103 row 4 - TID 5104 row 1
DBA	99HITACHI	H12107-001	Deep Brachial Artery	TID 5103 row 4 - TID 5104 row 1
RA	SRT	T-47300	Radial Artery	TID 5103 row 4 - TID 5104 row 1
ScA	SRT	T-46100	Subclavian Artery	TID 5103 row 4 - TID 5104 row 1
SPA	SRT	T-47240	Superficial Palmar Arch	TID 5103 row 4 - TID 5104 row 1
UA	SRT	T-47200	Ulnar Artery	TID 5103 row 4 - TID 5104 row 1
Upr Art.1	99HITACHI	H12107-003	User Definition Artery1	TID 5103 row 4 - TID 5104 row 1
Upr Art.2	99HITACHI	H12107-004	User Definition Artery2	TID 5103 row 4 - TID 5104 row 1
Upr Art.3	99HITACHI	H12107-005	User Definition Artery3	TID 5103 row 4 - TID 5104 row 1
Upr Art.4	99HITACHI	H12107-006	User Definition Artery4	TID 5103 row 4 - TID 5104 row 1
Upr Art.5	99HITACHI	H12107-007	User Definition Artery5	TID 5103 row 4 - TID 5104 row 1
Upr Art.6	99HITACHI	H12107-008	User Definition Artery6	TID 5103 row 4 - TID 5104 row 1
Upr Art.7	99HITACHI	H12107-009	User Definition Artery7	TID 5103 row 4 - TID 5104 row 1
Upr Art.8	99HITACHI	H12107-010	User Definition Artery8	TID 5103 row 4 - TID 5104 row 1
(row 20, 21)				
AV	SRT	T-49110	Axillary vein	TID 5103 row 4 - TID 5104 row 1
BasV	SRT	T-48052	Basilic vein	TID 5103 row 4 - TID 5104 row 1

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
BV	SRT	T-49350	Brachial vein	TID 5103 row 4 - TID 5104 row 1
CV	SRT	T-49240	Cephalic vein	TID 5103 row 4 - TID 5104 row 1
DBV	99HITACHI	H12108-001	Deep Brachial vein	TID 5103 row 4 - TID 5104 row 1
IJV	SRT	T-48170	Internal Jugular vein	TID 5103 row 4 - TID 5104 row 1
RV	SRT	T-49340	Radial vein	TID 5103 row 4 - TID 5104 row 1
ScV	SRT	T-48330	Subclavian vein	TID 5103 row 4 - TID 5104 row 1
UV	SRT	T-49330	Ulnar vein	TID 5103 row 4 - TID 5104 row 1
Upr Vein.1	99HITACHI	H12108-002	User Definition Vein1	TID 5103 row 4 - TID 5104 row 1
Upr Vein.2	99HITACHI	H12108-003	User Definition Vein2	TID 5103 row 4 - TID 5104 row 1
Upr Vein.3	99HITACHI	H12108-004	User Definition Vein3	TID 5103 row 4 - TID 5104 row 1
Upr Vein.4	99HITACHI	H12108-005	User Definition Vein4	TID 5103 row 4 - TID 5104 row 1
Upr Vein.5	99HITACHI	H12108-006	User Definition Vein5	TID 5103 row 4 - TID 5104 row 1
Upr Vein.6	99HITACHI	H12108-007	User Definition Vein6	TID 5103 row 4 - TID 5104 row 1
Upr Vein.7	99HITACHI	H12108-008	User Definition Vein7	TID 5103 row 4 - TID 5104 row 1
Upr Vein.8	99HITACHI	H12108-009	User Definition Vein8	TID 5103 row 4 - TID 5104 row 1
(row 31)				
User-defined Equation Result Parameter	99HITACHI	HITACHI_002 -001	Calculated result.	TID HITACHI_301 row4 -TID HITACHI_302 row1
User-defined Equation Parameter	99HITACHI	HITACHI_002 -002	Equation parameter	TID HITACHI_301 row4 -TID HITACHI_302 row1

Note: 1. Prox / mid / distal is included in Structured Report only for the measurements of CCA prox, CCA mid, CCA distal, ICA prox, ICA mid and ICA distal. Otherwise not included.

2. PSV, EDV, MnV, PI, RI and S/D are included in Structured Report for the measurements of artery, pV for the measurements of vein.

3. Although DICOM Standard defines ACoA (Anterior Communicating Artery) in CID 12105, it has no laterality and is included in row 11 "Unilateral" section of TID 5100.

4. When both VA and VERT are measured, only VERT is included in Structured Report, not VA.

Abdomen measurements :

TID 5100 row 22 - TID 5103 Vascular Ultrasound Section (Vascular Structure Of Kidney, Left)
TID 5100 row 23 - TID 5103 Vascular Ultrasound Section (Vascular Structure Of Kidney, Right)
TID 5100 row 24 - TID 5103 Vascular Ultrasound Section (Artery of Abdomen, Left)
TID 5100 row 25 - TID 5103 Vascular Ultrasound Section (Artery of Abdomen, Right)
TID 5100 row 26 - TID 5103 Vascular Ultrasound Section (Artery of Abdomen, Unilateral)
TID 5100 row 29 - TID 5103 Vascular Ultrasound Section (Vein of Abdomen, Unilateral)
TID 5100 row 31(Extension) - TID HITACHI_301 User Defined Equation Section

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
(Modifier) [1]				
Left	SRT	G-A101	Left	TID 5103 row 3
Right	SRT	G-A100	Right	TID 5103 row 3
-	SRT	G-A103	Unilateral	TID 5103 row 3
- (prox)	SRT	G-A118	Proximal	TID 5103 row 4 - TID 5104 row 2
- (mid)	SRT	G-A188	Mid-longitudinal	TID 5103 row 4 - TID 5104 row 2
- (distal)	SRT	G-A119	Distal	TID 5103 row 4 - TID 5104 row 2
Pre Prandial	99HITACHI	H-001	Pre-prandial	TID 5103 row 4 - TID 5104 row 6
Post Prandial	SRT	G-A491	Post-prandial	TID 5103 row 4 - TID 5104 row 6
Upper	SRT	G-A116	Superior	TID 5104 Row 3
Mid	SRT	G-A109	Medial	TID 5104 Row 3
Lower	SRT	G-A115	Inferior	TID 5104 Row 3
(Measurements) [2]				
PSV pV	LN	11726-7	Peak Systolic Velocity	TID 5103 row 4 - TID 5104 row 4
EDV	LN	11653-3	End Diastolic Velocity	TID 5103 row 4 - TID 5104 row 4
MnV	LN	11692-1	Time averaged peak velocity	TID 5103 row 4 - TID 5104 row 4
PI	LN	12008-9	Pulsatility Index	TID 5103 row 4 - TID 5104 row 4
RI	LN	12023-8	Resistivity Index	TID 5103 row 4 - TID 5104 row 4

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio	TID 5103 row 4 - TID 5104 row 4
AccT	LN	20168-1	Acceleration Time	TID 5103 row 4 - TID 5104 row 4
ACC	LN	20167-3	Acceleration Index	TID 5103 row 4 - TID 5104 row 4
FlowT	99HITACHI	H12122-001	Flow Time	TID 5103 row 4 - TID 5104 row 4
AccT/FlowT	99HITACHI	H12121-001	Acceleration Time to Flow Time Ratio	TID 5103 row 4 - TID 5104 row 4
RAR	LN	33869-9	Renal Artery/Aorta velocity ratio	TID 5103 row 5
(Vessels)				
(row 22, 23)				
Renal-A	SRT	T-46600	Renal Artery	TID 5103 row 4 - TID 5104 row 1
Renal-A hilum	SRT	G-035C	Hilar Artery	TID 5103 row 4 - TID 5104 row 1
Seg-A	SRT	T-46659	Segmental Artery	TID 5103 row 4 - TID 5104 row 1
(row 24, 25)				
CIA [3]	SRT	T-46710	Common Iliac Artery	TID 5103 row 4 - TID 5104 row 1
(row 26)				
A-Ao	SRT	T-42000	Aorta	TID 5103 row 4 - TID 5104 row 1
CA	SRT	T-46400	Celiac Axis	TID 5103 row 4 - TID 5104 row 1
CHA	SRT	T-46421	Common Hepatic Artery	TID 5103 row 4 - TID 5104 row 1
SA	SRT	T-46460	Splenic Artery	TID 5103 row 4 - TID 5104 row 1
SMA Prandial SMA	SRT	T-46510	Superior Mesenteric Artery	TID 5103 row 4 - TID 5104 row 1
IMA	SRT	T-46520	Inferior Mesenteric Artery	TID 5103 row 4 - TID 5104 row 1
HA, Left	SRT	T-46427	Left Branch of Hepatic Artery	TID 5103 row 4 - TID 5104 row 1
HA, Right	SRT	T-46423	Right Branch of Hepatic Artery	TID 5103 row 4 - TID 5104 row 1

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Artery1	99HITACHI	H12112-001	User Definition Artery1	TID 5103 row 4 - TID 5104 row 1
Artery2	99HITACHI	H12112-002	User Definition Artery2	TID 5103 row 4 - TID 5104 row 1
Artery3	99HITACHI	H12112-003	User Definition Artery3	TID 5103 row 4 - TID 5104 row 1
(row 29)				
Main PV	SRT	T-48810	Portal Vein	TID 5103 row 4 - TID 5104 row 1
Lt.PV	SRT	T-4881F	Left Main Branch of Portal Vein	TID 5103 row 4 - TID 5104 row 1
Rt.PV	SRT	T-4882A	Right Main Branch of Portal Vein	TID 5103 row 4 - TID 5104 row 1
Prox Shunt Mid Shunt Distal Shunt	SRT	G-036C	Transjugular Intrahepatic Portosystemic Shunt	TID 5103 row 4 - TID 5104 row 1
(row 31)				
User-defined Equation Result Parameter	99HITACHI	HITACHI_002 -001	Calculated result.	TID HITACHI_301 row4 -TID HITACHI_302 row1
User-defined Equation Parameter	99HITACHI	HITACHI_002 -002	Equation parameter	TID HITACHI_301 row4 -TID HITACHI_302 row1

Note: 1. Prox / mid / distal is included in Structured Report only for the measurements of Prox Shunt, Mid Shunt and Distal Shunt. Otherwise not included.
Pre Prandial / Post Prandial is included only for the measurement of Prandial SMA. Otherwise not included.

2. PSV, EDV, MnV, PI, RI, S/D, AccT, ACC, FlowT and AccT/FlowT are included in Structured Report for the measurements of Renal-A, Renal-A hilum and Seg-A (TID 5100 row 22, 23).
RAR is included for the measurements of Renal-A (TID 5100 row 22, 23).
PSV, EDV, MnV, PI, RI, S/D, AccT and ACC are included for the measurements of Artery of Abdomen (TID 5100 row 24, 25, 26).
pV is included for the measurements of Vein of Abdomen (TID 5100 row 29).

3. Although DICOM Standard defines CIA (Common Iliac Artery) in CID 12112 (unilateral), it has laterality and is included in row 24 "Left" and row 25 "Right" sections of TID 5100.

8.6.2.3 TID 5200 Echocardiography Procedure Report

TID 5200 row 3 - TID 1001 Observation Context

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Patient Name	DCM	121029	Subject Name	TID 1001 row 3 - TID 1006 row 2 - TID 1007 row 2

TID 5200 row 4 - TID 5201 Echocardiography Patient Characteristics

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)	Mapping
Age	DCM	121033	Subject Age	TID 5201 row 2
Sex	DCM	121032	Subject Sex	TID 5201 row 3
Blood Pressure (Systolic)	SRT	F-008EC	Systolic Blood Pressure	TID 5201 row 5
Blood Pressure (Diastolic)	SRT	F-008ED	Diastolic Blood Pressure	TID 5201 row 6
BSA	LN	8277-6	Body Surface Area	TID 5201 row 7
BSA Equation, DuBois	DCM	122241	BSA = 0.007184*WT^0.425*HT^0.725	TID 5201 row 8
BSA Equation, Boyd	99HITACHI	H3663-001	BSA = 0.0003207*WT^(0.7285-0.0188 log (WT))*HT^0.3	TID 5201 row 8
BSA Equation, Shintani	99HITACHI	H3663-002	BSA = 0.007358*HT^0.725*WT^0.425	TID 5201 row 8

Cardio measurements :

TID 5200 row 9 - TID 5202 Echo Section (Echocardiography Left Ventricle)
TID 5200 row 10 - TID 5202 Echo Section (Echocardiography Right Ventricle)
TID 5200 row 11 - TID 5202 Echo Section (Echocardiography Left Atrium)
TID 5200 row 12 - TID 5202 Echo Section (Echocardiography Right Atrium)
TID 5200 row 13 - TID 5202 Echo Section (Echocardiography Aortic Valve)
TID 5200 row 14 - TID 5202 Echo Section (Echocardiography Mitral Valve)
TID 5200 row 15 - TID 5202 Echo Section (Echocardiography Pulmonic Valve)
TID 5200 row 16 - TID 5202 Echo Section (Echocardiography Tricuspid Valve)

TID 5200 row 17 - TID 5202 Echo Section (Echocardiography Aorta)
TID 5200 row 18 - TID 5202 Echo Section (Echocardiography Pulmonary Artery)
TID 5200 row 19 - TID 5202 Echo Section (Echocardiography Vena Cavae)
TID 5200 row 20 - TID 5202 Echo Section (Echocardiography Pulmonary Veins)
TID 5200 row 22 - TID 5202 Echo Section (Echocardiography Cardiac Shunt)
TID 5200 row 25(Extension) - TID HITACHI_301 User Defined Equation Section

The rightmost column "row" denotes the row number of TID 5200. In the "Modifier" column, "Image Mode(Group)" means TID 5202 row 4, "Image Mode" means TID 5203 row 5.

Label	Concept Name	Modifier	row
(Area-Length, BP-Ellipse, Bullet, Simpson)			
LVLd	(18077-8, LN, "Left Ventricle diastolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode")	9
LVLs	(18076-0, LN, "Left Ventricle systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode")	9
(Simpson(Disc))			
LVL2d	(18077-8, LN, "Left Ventricle diastolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	9
LVL2s	(18076-0, LN, "Left Ventricle systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	9
LVL4d	(18077-8, LN, "Left Ventricle diastolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	9
LVL4s	(18076-0, LN, "Left Ventricle systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	9
(LV Volume (Pombo, Teichholz, Gibson))			

Label	Concept Name	Modifier	row
LVIDd	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode")	9
LVIDs	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode")	9
(LV Function (Pombo, Teichholz, Gibson))			
LVIDd [2]	(29436-3, LN, "Left Ventricle Internal End Diastolic Dimension")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-0394, SRT, "M mode")	9
LVIDs [2]	(29438-9, LN, "Left Ventricle Internal Systolic Dimension")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-0394, SRT, "M mode")	9
(BP-Ellipse)			
LVSLMVd	(H12201-001, 99HITACHI, "Left Ventricular Short Axis Length at Mitral Valve")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039A, SRT, "Parasternal short axis at the Mitral Valve level")	9
LVSLMVs	(H12201-001, 99HITACHI, "Left Ventricular Short Axis Length at Mitral Valve")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039A, SRT, "Parasternal short axis at the Mitral Valve level")	9
(Area-Length, BP-Ellipse)			
LVLAd	(G-0375, SRT, "Left Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode")	9
LVLAs	(G-0374, SRT, "Left Ventricular Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode")	9
(Simpson(Disc))			

Label	Concept Name	Modifier	row
LVLA2d	(G-0375, SRT, "Left Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	9
LVLA2s	(G-0374, SRT, "Left Ventricular Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	9
LVLA4d	(G-0375, SRT, "Left Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	9
LVLA4s	(G-0374, SRT, "Left Ventricular Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	9
(BP-Ellipse, Simpson)			
LVSAMVd	(G-0375, SRT, "Left Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039A, SRT, "Parasternal short axis at the Mitral Valve level")	9
LVSAMVs	(G-0374, SRT, "Left Ventricular Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039A, SRT, "Parasternal short axis at the Mitral Valve level")	9
(Bullet, Simpson)			
LVSAPMd	(G-0375, SRT, "Left Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039B, SRT, "Parasternal short axis at the Papillary Muscle level")	9

Label	Concept Name	Modifier	row
LVSAPMs	(G-0374, SRT, "Left Ventricular Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039B, SRT, "Parasternal short axis at the Papillary Muscle level")	9
(LV Mass (AL))			
Aepi	(G-0379, SRT, "Left Ventricle Epicardial Diastolic Area, psax pap view")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039B, SRT, "Parasternal short axis at the Papillary Muscle level")	9
Aend	(G-0375, SRT, "Left Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039B, SRT, "Parasternal short axis at the Papillary Muscle level")	9
thick	(H12201-002, 99HITACHI, "Mean Wall Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	9
LVM(AL)	(18087-7, LN, "Left Ventricle Mass")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12232-001, 99HITACHI, "Left Ventricle Mass by Area Length")	9
LVM(AL)/BSA	(H12203-001, 99HITACHI, "Left Ventricular Mass Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12232-001, 99HITACHI, "Left Ventricle Mass by Area Length")	9
(B - LV Mass (Devereux))			
LVM(Devereux) [3]	(18087-7, LN, "Left Ventricle Mass")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12232-002, 99HITACHI, "Left Ventricle Mass by Penn")	9
LVM(Devereux)/BSA [3]	(H12203-001, 99HITACHI, "Left Ventricular Mass Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12232-002, 99HITACHI, "Left Ventricle Mass by Penn")	9
(M - LV Mass (Devereux))			
LVM(Devereux) [3]	(18087-7, LN, "Left Ventricle Mass")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12232-002, 99HITACHI, "Left Ventricle Mass by Penn")	9

Label	Concept Name	Modifier	row
LVM(Devereux)/BSA ^{3}	(H12203-001, 99HITACHI, "Left Ventricular Mass Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12232-002, 99HITACHI, "Left Ventricle Mass by Penn")	9
(B - LV Mass (ASE))			
LVM(ASE)	(18087-7, LN, "Left Ventricle Mass")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125221, DCM, "Left Ventricle Mass by M-mode")	9
LVM(ASE)/BSA ^{3}	(H12203-001, 99HITACHI, "Left Ventricular Mass Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125221, DCM, "Left Ventricle Mass by M-mode")	9
(M - LV Mass (ASE))			
LVM(ASE)	(18087-7, LN, "Left Ventricle Mass")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125221, DCM, "Left Ventricle Mass by M-mode"), Image Mode=(G-0394, SRT, "M mode")	9
LVM(ASE)/BSA ^{3}	(H12203-001, 99HITACHI, "Left Ventricular Mass Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125221, DCM, "Left Ventricle Mass by M-mode"), Image Mode=(G-0394, SRT, "M mode")	9
(Simpson(Disc))			
EDV	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane")	9
SVI	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane")	9
CO	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane")	9
COI	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane")	9
EF	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane")	9

Label	Concept Name	Modifier	row
GLS	(H12203-013, 99HITACHI, "Global Longitudinal Strain")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125207, DCM, "Method of Disks, Biplane")	9
EDV(ap4C)	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image View=(G-A19C, SRT, "Apical four chamber")	9
ESV(ap4C)	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image View=(G-A19C, SRT, "Apical four chamber")	9
EDV(ap2C)	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole"), Image View=(G-A19B, SRT, "Apical two chamber")	9
ESV(ap2C)	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image View=(G-A19B, SRT, "Apical two chamber")	9
SV(ap4C)	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9
SVI(ap4C)	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9
CO(ap4C)	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9
COI(ap4C)	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9

Label	Concept Name	Modifier	row
EF(ap4C)	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9
areaEF4	(G-0376, SRT, "Left Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9
SV(ap2C)	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
SVI(ap2C)	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
CO(ap2C)	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
COI(ap2C)	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
EF(ap2C)	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
areaEF2	(G-0376, SRT, "Left Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
%difD	(H12203-003, 99HITACHI, "Long Axis(at End Diastole or End Systole) Length % Difference")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
%difS	(H12203-003, 99HITACHI, "Long Axis(at End Diastole or End Systole) Length % Difference")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9

Label	Concept Name	Modifier	row
GLS(ap4C)	(H12203-013, 99HITACHI, "Global Longitudinal Strain")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125208, DCM, "Method of Disks, Single Plane"), Image View=(G-A19C, SRT, "Apical four chamber")	9
GLS(ap2C)	(H12203-013, 99HITACHI, "Global Longitudinal Strain")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-001, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber"), Image View=(G-A19B, SRT, "Apical two chamber")	9
(LV Volume (Teichholz))			
EDV [2]	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV [2]	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV [2]	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz")	9
SVI [2]	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz")	9
CO [2]	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz")	9
COI [2]	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz")	9
EF [2]	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125209, DCM, "Teichholz")	9
(LV Volume (Pombo, Teichholz, Gibson))			
FS [2]	(18051-3, LN, "Left Ventricular Fractional Shortening")	Image Mode(Group)=(G-03A2, SRT, "2D mode"),	9
mFS [2]	(H12203-004, 99HITACHI, "Midwall Fractional Shortening")	Image Mode(Group)=(G-03A2, SRT, "2D mode"),	9
(LV Function (Teichholz))			

Label	Concept Name	Modifier	row
EDV [2]	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV [2]	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV [2]	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz")	9
SVI [2]	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz")	9
CO [2]	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz")	9
COI [2]	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz")	9
EF [2]	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125209, DCM, "Teichholz")	9
(LV Function (Pombo, Teichholz, Gibson))			
FS [2]	(18051-3, LN, "Left Ventricular Fractional Shortening")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
mFS [2]	(H12203-004, 99HITACHI, "Midwall Fractional Shortening")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
(LV Volume (Pombo))			
EDV [2]	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV [2]	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV [2]	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method")	9
SVI [2]	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method")	9

Label	Concept Name	Modifier	row
CO [2]	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method")	9
COI [2]	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method")	9
EF [2]	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125206, DCM, "Cube Method")	9
(LV Function (Pombo))			
EDV [2]	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV [2]	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV [2]	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method")	9
SVI [2]	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method")	9
CO [2]	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method")	9
COI [2]	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method")	9
EF [2]	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(125206, DCM, "Cube Method")	9
(LV Volume (Gibson))			
EDV [2]	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV [2]	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV [2]	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9

Label	Concept Name	Modifier	row
SVI [2]	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
CO [2]	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
COI [2]	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
EF [2]	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
(LV Function (Gibson))			
EDV [2]	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV [2]	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV [2]	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
SVI [2]	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
CO [2]	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
COI [2]	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
EF [2]	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-0394, SRT, "M mode"), Measurement Method=(H12228-002, 99HITACHI, "Gibson")	9
(Area-Length)			
EDV	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9

Label	Concept Name	Modifier	row
SV	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane")	9
SVI	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane")	9
CO	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane")	9
COI	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane")	9
EF	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane")	9
areaEF	(G-0376, SRT, "Left Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125205, DCM, "Area-Length Single Plane")	9
(BP-Ellipse)			
EDV	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9
SVI	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9
CO	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9
COI	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9
EF	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9
areaEFlx	(H12203-005, 99HITACHI, "Area Ejection Fraction at Long Axis View")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9
areaEFsx	(H12203-006, 99HITACHI, "Area Ejection Fraction at Short Axis View")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125204, DCM, "Area-Length Biplane")	9

Label	Concept Name	Modifier	row
(Simpson)			
EDV	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's")	9
SVI	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's")	9
CO	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's")	9
COI	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's")	9
EF	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's")	9
areaEFmv	(G-0376, SRT, "Left Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's"), Image View=(G-039A, SRT, "Parasternal short axis at the Mitral Valve level")	9
areaEFpm	(G-0376, SRT, "Left Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-003, 99HITACHI, "Modified Simpson's"), Image View=(G-039B, SRT, "Parasternal short axis at the Papillary Muscle level")	9
(Bullet)			
EDV	(18026-5, LN, "Left Ventricular End Diastolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
ESV	(18148-7, LN, "Left Ventricular End Systolic Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
SV	(F-32120, SRT, "Stroke Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet")	9

Label	Concept Name	Modifier	row
SVI	(F-00078, SRT, "Stroke Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet")	9
CO	(F-32100, SRT, "Cardiac Output")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet")	9
COI	(F-32110, SRT, "Cardiac Index")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet")	9
EF	(18043-0, LN, "Left Ventricular Ejection Fraction")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet")	9
areaEF	(G-0376, SRT, "Left Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-004, 99HITACHI, "Bullet")	9
(LV Volume, LV Function)			
HR (LV Volume (Simpson(Disc))) [1]	(8867-4, LN, "Heart rate")		9
HR (LV Volume) [1] [2]	(8867-4, LN, "Heart rate")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	9
HR (LV Function) [1] [2]	(8867-4, LN, "Heart rate")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
(LV Function (Pombo, Teichholz, Gibson))			
ET	(18041-4, LN, "Aortic Valve Ejection Time")	Image Mode(Group)=(G-0394, SRT, "M mode")	13
MVCF	(H12203-009, 99HITACHI, "Mean Velocity of Circumferential Fiber Shortening")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
(MVA)			
MVA	(G-038E, SRT, "Cardiovascular Orifice Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Flow Direction=(R-42047, SRT, "Antegrade Flow"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-039A, SRT, "Parasternal short axis at the Mitral Valve level")	14
(AVA)			
AVA	(G-038E, SRT, "Cardiovascular Orifice Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, "Planimetry"), Flow Direction=(R-42047, SRT, "Antegrade Flow"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-0398, SRT, "Parasternal short axis at the aortic valve level")	13

Label	Concept Name	Modifier	row
(RVD, LV Volume (Pombo, Teichholz, Gibson))			
RVDd [2]	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	10
RVDs [2]	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	10
(LV Function (Pombo, Teichholz, Gibson))			
RVDd [2]	(20304-2, LN, "Right Ventricular Internal Diastolic Dimension")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	10
RVDs [2]	(20305-9, LN, "Right Ventricular Internal Systolic Dimension")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	10
(Ratio, LV Volume (Pombo, Teichholz, Gibson))			
IVSd [2]	(18154-5, LN, "Interventricular Septum Diastolic Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
IVSs [2]	(18158-6, LN, "Interventricular Septum Systolic Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
%IVSTF [2]	(18054-7, LN, "Interventricular Septum % Thickening")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	9
LVPWd [2]	(18152-9, LN, "Left Ventricle Posterior Wall Diastolic Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
LVPWs [2]	(18156-0, LN, "Left Ventricle Posterior Wall Systolic Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
%PWTF [2]	(18053-9, LN, "Left Ventricle Posterior Wall % Thickening")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	9
IVS/LVPW [2]	(18155-2, LN, "Interventricular Septum to Posterior Wall Thickness Ratio")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	9
(LV Function (Pombo, Teichholz, Gibson))			
IVSd [2]	(18154-5, LN, "Interventricular Septum Diastolic Thickness")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9

Label	Concept Name	Modifier	row
IVSs [2]	(18158-6, LN, "Interventricular Septum Systolic Thickness")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
%IVSTF [2]	(18054-7, LN, "Interventricular Septum % Thickening")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
LVPWd [2]	(18152-9, LN, "Left Ventricle Posterior Wall Diastolic Thickness")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	9
LVPWs [2]	(18156-0, LN, "Left Ventricle Posterior Wall Systolic Thickness")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	9
%PWTF [2]	(18053-9, LN, "Left Ventricle Posterior Wall % Thickening")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
IVS/LVPW [2]	(18155-2, LN, "Interventricular Septum to Posterior Wall Thickness Ratio")	Image Mode(Group)=(G-0394, SRT, "M mode")	9
(LVOT Flow)			
LVOT	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
CSA(LVOT)	(G-038E, SRT, "Cardiovascular Orifice Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
(RVOT Flow)			
RVOT	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract"), Image Mode=(G-03A2, SRT, "2D mode")	10
CSA(RVOT)	(G-038E, SRT, "Cardiovascular Orifice Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
(RVD)			
RVAWd	(18153-7, LN, "Right Ventricular Anterior Wall Diastolic Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	10
RVAWs	(18157-8, LN, "Right Ventricular Anterior Wall Systolic Thickness")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	10
(B - IVC)			
Insp [2]	(18006-7, LN, "Inferior Vena Cava Diameter")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Respiratory Cycle Point=(F-20010, SRT, "During Inspiration")	19
Exp [2]	(18006-7, LN, "Inferior Vena Cava Diameter")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Respiratory Cycle Point=(F-20020, SRT, "During Expiration")	19

Label	Concept Name	Modifier	row
%Collapse [2]	(18050-5, LN, "Inferior Vena Cava % Collapse")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	19
(M - IVC)			
Insp [2]	(18006-7, LN, "Inferior Vena Cava Diameter")	Image Mode(Group)=(G-0394, SRT, "M mode"), Respiratory Cycle Point=(F-20010, SRT, "During Inspiration")	19
Exp [2]	(18006-7, LN, "Inferior Vena Cava Diameter")	Image Mode(Group)=(G-0394, SRT, "M mode"), Respiratory Cycle Point=(F-20020, SRT, "During Expiration")	19
%Collapse [2]	(18050-5, LN, "Inferior Vena Cava % Collapse")	Image Mode(Group)=(G-0394, SRT, "M mode")	19
(B - LA/AO)			
LADd [2]	(H12205-001, 99HITACHI, "Left Atrium Antero-posterior Diastolic Dimension")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	11
LADs [2]	(29469-4, LN, "Left Atrium Antero-posterior Systolic Dimension")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
AODd [2]	(18015-8, LN, "Aortic Root Diameter")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	17
AODs [2]	(18015-8, LN, "Aortic Root Diameter")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	17
LADs/AODd [2]	(17985-3, LN, "Left Atrium to Aortic Root Ratio")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	11
(M - LA/AO)			
LADd [2]	(H12205-001, 99HITACHI, "Left Atrium Antero-posterior Diastolic Dimension")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	11
LADs [2]	(29469-4, LN, "Left Atrium Antero-posterior Systolic Dimension")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
AODd [2]	(18015-8, LN, "Aortic Root Diameter")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(F-32011, SRT, "End Diastole")	17
AODs [2]	(18015-8, LN, "Aortic Root Diameter")	Image Mode(Group)=(G-0394, SRT, "M mode"), Cardiac Cycle Point=(109070, DCM, "End Systole")	17
AVDs [2]	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Image Mode(Group)=(G-0394, SRT, "M mode"), Finding Site=(T-35410, SRT, "Aortic Valve Ring"), Flow Direction=(R-42047, SRT, "Antegrade Flow"), Cardiac Cycle Point=(F-32020, SRT, "Systole")	13
LADs/AODd	(17985-3, LN, "Left Atrium to Aortic Root Ratio")	Image Mode(Group)=(G-0394, SRT, "M mode")	11

Label	Concept Name	Modifier	row
(Mitral V)			
C-Eamp	(H12207-001, 99HITACHI, "Mitral Valve Dimension of C point to E point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	14
C-Aamp	(H12207-002, 99HITACHI, "Mitral Valve Dimension of C point to A point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	14
EPSS	(18036-4, LN, "Mitral Valve EPSS, E wave")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	14
E-Fslop	(18040-6, LN, "Mitral Valve E-F Slope by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	14
A/E	(H12207-003, 99HITACHI, "Mitral Valve C-A Dimension to C-E Dimension Ratio by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode")	14
E/A	(H12207-004, 99HITACHI, "Mitral Valve C-E Dimension to C-A Dimension Ratio by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode")	14
(Tricuspid V)			
C-Eamp	(H12208-001, 99HITACHI, "Tricuspid Valve Dimension of C point to E point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	16
C-Aamp	(H12208-002, 99HITACHI, "Tricuspid Valve Dimension of C point to A point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	16
D-Eamp	(H12208-003, 99HITACHI, "Tricuspid Valve Dimension of D point to E point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	16
E-Fslop	(H12208-004, 99HITACHI, "Tricuspid Valve Velocity from E point to F point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	16
D-Eslop	(H12208-005, 99HITACHI, "Tricuspid Valve Velocity from D point to E point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	16
A/E	(H12208-006, 99HITACHI, "Tricuspid Valve C-A Dimension to C-E Dimension Ratio by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode")	16
E/A	(H12208-007, 99HITACHI, "Tricuspid Valve C-E Dimension to C-A Dimension Ratio by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode")	16
(Pulmonary V)			

Label	Concept Name	Modifier	row
A wave amp	(H12209-001, 99HITACHI, "Pulmonic Valve Dimension of F point to A point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	15
B-Camp	(H12209-002, 99HITACHI, "Pulmonic Valve Dimension of B point to C point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	15
E-Fslop	(H12209-003, 99HITACHI, "Pulmonic Valve Velocity from E point to F point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	15
B-Cslop	(H12209-004, 99HITACHI, "Pulmonic Valve Velocity from B point to C point by M-Mode")	Image Mode(Group)=(G-0394, SRT, "M mode"), Image Mode=(G-0394, SRT, "M mode")	15
(LVOT Flow)			
pV	(11726-7, LN, "Peak Velocity")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
MnV	(20352-1, LN, "Mean Velocity")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
VTI	(20354-7, LN, "Velocity Time Integral")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
AccT	(20168-1, LN, "Acceleration Time")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
PEP	(H12222-001, 99HITACHI, "Pre-Ejection Period")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
ET	(18041-4, LN, "Aortic Valve Ejection Time")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	13
HR	(8867-4, LN, "Heart rate")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
AccT/ET	(G-0382, SRT, "Ratio of Aortic Valve Acceleration Time to Ejection Time")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	13
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
SV(LVOT)	(F-32120, SRT, "Stroke Volume")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
CO(LVOT)	(F-32100, SRT, "Cardiac Output")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
PEP/ET	(H12222-002, 99HITACHI, "PEP/ET")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
SVI(LVOT)	(F-00078, SRT, "Stroke Index")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9
COI(LVOT)	(F-32110, SRT, "Cardiac Index")	Finding Site=(T-32650, SRT, "Left Ventricle Outflow Tract")	9

Label	Concept Name	Modifier	row
(RVOT Flow)			
pV	(11726-7, LN, "Peak Velocity")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
MnV	(20352-1, LN, "Mean Velocity")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
VTI	(20354-7, LN, "Velocity Time Integral")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
AccT	(20168-1, LN, "Acceleration Time")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
PEP	(H12222-001, 99HITACHI, "Pre-Ejection Period")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
ET	(18042-2, LN, "Pulmonic Valve Ejection Time")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	15
HR	(8867-4, LN, "Heart rate")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
AccT/ET	(G-0388, SRT, "Ratio of Pulmonic Valve Acceleration Time to Ejection Time")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	15
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
SV(RVOT)	(F-32120, SRT, "Stroke Volume")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
CO(RVOT)	(F-32100, SRT, "Cardiac Output")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
PEP/ET	(H12222-002, 99HITACHI, "PEP/ET")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
Qp/Qs	(29462-9, LN, "Pulmonary-to-Systemic Shunt Flow Ratio")		22
SVI(RVOT)	(F-00078, SRT, "Stroke Index")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
COI(RVOT)	(F-32110, SRT, "Cardiac Index")	Finding Site=(T-32550, SNM3, "Right Ventricle Outflow Tract")	10
(Trans M Flow)			
eV	(18037-2, LN, "Mitral Valve E-Wave Peak Velocity")		14
aV	(17978-8, LN, "Mitral Valve A-Wave Peak Velocity")		14

Label	Concept Name	Modifier	row
MnV	(20352-1, LN, "Mean Velocity")	Image Mode(Group)=(R-409E4, SRT, "Doppler Pulsed"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
MPG	(20256-4, LN, "Mean Gradient")	Image Mode(Group)=(R-409E4, SRT, "Doppler Pulsed"), Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
AccT	(20168-1, LN, "Acceleration Time")		14
P1/2T	(20280-4, LN, "Pressure Half-Time")	Image Mode(Group)=(R-409E4, SRT, "Doppler Pulsed"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
IRT	(18071-1, LN, "Left Ventricular Isovolumic Relaxation Time")		9
DecT	(G-0384, SRT, "Mitral Valve E-Wave Deceleration Time")		14
Edur	(H12207-005, 99HITACHI, "Mitral Valve E-Wave Duration")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
Adur	(G-0385, SRT, "Mitral Valve A-Wave Duration")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
VTI	(20354-7, LN, "Velocity Time Integral")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
LVDFT	(H12203-010, 99HITACHI, "Left Ventricle Diastole Filling Time")		9
RR	(122182, DCM, "R-R interval")		9
MVA(P1/2T)	(G-038E, SRT, "Cardiovascular Orifice Area")	Image Mode(Group)=(R-409E4, SRT, "Doppler Pulsed"), Measurement Method=(125210, DCM, "Area by Pressure Half-Time"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
E/A	(18038-0, LN, "Mitral Valve E to A Ratio")		14
A/E	(H12207-006, 99HITACHI, "Mitral Valve A to E Ratio")		14
EPG	(H12207-007, 99HITACHI, "Mitral Valve E-wave Peak Pressure Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli")	14
APG	(H12207-008, 99HITACHI, "Mitral Valve A-wave Peak Pressure Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli")	14
E/Em	(H12203-011, 99HITACHI, "Ratio of MV E-Wave Peak Vel. to Early Diastolic Myocardium Vel.")		9

Label	Concept Name	Modifier	row
PVAdur-Adur	(H12207-009, 99HITACHI, "Subtraction of A-wave Duration from PVA-wave Duration")		14
LVDFT/RR	(H12203-012, 99HITACHI, "Ratio of Left Ventricle Diastole Filling Time to R-R interval")		9
(AS Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
VTI	(20354-7, LN, "Velocity Time Integral")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
AVA	(G-038E, SRT, "Cardiovascular Orifice Area")	Measurement Method=(125215, DCM, "Continuity Equation by Velocity Time Integral"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
AVA/BSA	(79959-3, LN, "Aortic valve area (Continuity VTI) / BSA")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	13
(PS Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	15
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	15
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	15
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	15
(MS Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
MnV	(20352-1, LN, "Mean Velocity")	Image Mode(Group)=(R-409E3, SRT, "Doppler Continuous Wave"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14

Label	Concept Name	Modifier	row
MPG	(20256-4, LN, "Mean Gradient")	Image Mode(Group)=(R-409E3, SRT, "Doppler Continuous Wave"), Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
FlowT	(H12222-003, 99HITACHI, "Flow Time")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
P1/2T	(20280-4, LN, "Pressure Half-Time")	Image Mode(Group)=(R-409E3, SRT, "Doppler Continuous Wave"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
MVA(P1/2T)	(G-038E, SRT, "Cardiovascular Orifice Area")	Image Mode(Group)=(R-409E3, SRT, "Doppler Continuous Wave"), Measurement Method=(125210, DCM, "Area by Pressure Half-Time"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
MVA(VTI)	(G-038E, SRT, "Cardiovascular Orifice Area")	Measurement Method= (125215, DCM, "Continuity Equation by Velocity Time Integral"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
VTI	(20354-7, LN, "Velocity Time Integral")	Image Mode(Group)=(R-409E3, SRT, "Doppler Continuous Wave"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
(TS Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
FlowT	(H12222-003, 99HITACHI, "Flow Time")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
P1/2T	(20280-4, LN, "Pressure Half-Time")	Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
(AR Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13

Label	Concept Name	Modifier	row
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
P1/2T	(20280-4, LN, "Pressure Half-Time")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
(MR Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
FlowT	(H12222-003, 99HITACHI, "Flow Time")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
dP/dt	(18035-6, LN, "Mitral Regurgitation dP/dt derived from Mitral Reg. velocity")		14
Reg. Volume	(H12207-014, 99HITACHI, "Mitral valve Regurgitant volume")	Flow Direction=(R-42E61, SRT, "Retrograde Flow")	14
Reg. Frac	(G-0390, SRT, "Regurgitant Fraction")	Flow Direction=(R-42E61, SRT, "Retrograde Flow")	14
EROA	(G-038E, SRT, "Cardiovascular Orifice Area")	Flow Direction=(R-42E61, SRT, "Retrograde Flow")	14
(TR Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
FlowT	(H12222-003, 99HITACHI, "Flow Time")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
RAP	(18070-3, LN, "Right Atrium Systolic Pressure")		12
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16

Label	Concept Name	Modifier	row
RVSP	(G-0380, SRT, "Right Ventricular Peak Systolic Pressure")	Cardiac Cycle Point=(F-32020, SRT, "Systole")	10
dP/dt	(18034-9, LN, "Tricuspid Regurgitation dP/dt")		16
(PR Flow)			
pV	(11726-7, LN, "Peak Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
MnV	(20352-1, LN, "Mean Velocity")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
MPG	(20256-4, LN, "Mean Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
PG	(20247-3, LN, "Peak Gradient")	Measurement Method=(125218, DCM, "Simplified Bernoulli"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
(PV Flow)			
PVS	(29450-4, LN, "Pulmonary Vein Systolic Peak Velocity")		20
PVD	(29451-2, LN, "Pulmonary Vein Diastolic Peak Velocity")		20
PVA	(29453-8, LN, "Pulmonary Vein Atrial Contraction Reversal Peak Velocity")		20
S-VTI	(G-038C, SRT, "Pulmonary Vein S-Wave Velocity Time Integral")		20
D-VTI	(G-038D, SRT, "Pulmonary Vein D-Wave Velocity Time Integral")		20
PVAdur	(G-038B, SRT, "Pulmonary Vein A-Wave Duration")		20
DecT	(H12214-001, 99HITACHI, "Deceleration Time of D-Wave Flow")		20
S/D	(29452-0, LN, "Pulmonary Vein Systolic to Diastolic Ratio")		20
SF	(H12214-002, 99HITACHI, "Systolic Fraction")		20
(AR Vol. PISA)			
PISA Radius	(H12222-004, 99HITACHI, "Radius of Flow Convergence")		13
AR Alias V (Vr)	(H12222-005, 99HITACHI, "Aliasing Velocity")		13

Label	Concept Name	Modifier	row
Angle (PISA)	(H12222-006, 99HITACHI, "Proximal Isovelocity Surface Area Angle")		13
VTI(AR)	(H12211-001, 99HITACHI, "Velocity Time Integral of Aortic Regurgitant Flow")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
AR Vol	(33878-0, LN, "Volume Flow")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Finding Site=(T-35410, SRT, "Aortic Valve Ring"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
AR EROA	(G-038E, SRT, "Cardiovascular Orifice Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
AR Flow Rt	(34141-2, LN, "Peak Instantaneous Flow Rate")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
AR PISA	(H12211-003, 99HITACHI, "Aortic Regurgitant Proximal Isovelocity Surface Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
AR RF	(G-0390, SRT, "Regurgitant Fraction")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	13
(MR Vol. PISA)			
PISA Radius	(H12222-004, 99HITACHI, "Radius of Flow Convergence")		14
MR Alias V (Vr)	(H12222-005, 99HITACHI, "Aliasing Velocity")		14
Angle (PISA)	(H12222-006, 99HITACHI, "Proximal Isovelocity Surface Area Angle")		14
VTI(MR)	(H12207-010, 99HITACHI, "Velocity Time Integral of Mitral Regurgitant Flow")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MV Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Finding Site=(T-35313, SRT, "Mitral Annulus"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14
VTI(MVannu)	(20354-7, LN, "Velocity Time Integral")	Finding Site=(T-35313, SRT, "Mitral Annulus"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	14

Label	Concept Name	Modifier	row
MV DiamA4C	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Finding Site=(T-35313, SRT, "Mitral Annulus"), Flow Direction=(R-42047, SRT, "Antegrade Flow"), Image View=(G-A19C, SRT, "Apical four chamber")	14
MV DiamA2C	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Finding Site=(T-35313, SRT, "Mitral Annulus"), Flow Direction=(R-42047, SRT, "Antegrade Flow"), Image View=(G-A19B, SRT, "Apical two chamber")	14
MR Vol	(33878-0, LN, "Volume Flow")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Finding Site=(T-35313, SRT, "Mitral Annulus"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MR EROA	(G-038E, SRT, "Cardiovascular Orifice Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MR Flow Rt	(34141-2, LN, "Peak Instantaneous Flow Rate")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MR PISA	(H12207-012, 99HITACHI, "Mitral Regurgitant Proximal Isovelocity Surface Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
MR RF	(G-0390, SRT, "Regurgitant Fraction")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	14
SV(MV)	(H12207-013, 99HITACHI, "Flow Volume of Mitral Valve Annulus in Flow")	Measurement Method=(125219, DCM, "Doppler Volume Flow")	14
(TR Vol. PISA)			
PISA Radius	(H12222-004, 99HITACHI, "Radius of Flow Convergence")		16
TR Alias V (Vr)	(H12222-005, 99HITACHI, "Aliasing Velocity")		16
Angle (PISA)	(H12222-006, 99HITACHI, "Proximal Isovelocity Surface Area Angle")		16
VTI(TR)	(H12208-008, 99HITACHI, "Velocity Time Integral of Tricuspid Regurgitant Flow")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
TV Diam	(G-038F, SRT, "Cardiovascular Orifice Diameter")	Finding Site=(T-35111, SRT, "Tricuspid Annulus"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	16

Label	Concept Name	Modifier	row
VTI(TVannu)	(20354-7, LN, "Velocity Time Integral")	Finding Site=(T-35111, SRT, "Tricuspid Annulus"), Flow Direction=(R-42047, SRT, "Antegrade Flow")	16
TR Vol	(33878-0, LN, "Volume Flow")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Finding Site=(T-35111, SRT, "Tricuspid Annulus"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
TR EROA	(G-038E, SRT, "Cardiovascular Orifice Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
TR Flow Rt	(34141-2, LN, "Peak Instantaneous Flow Rate")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
TR PISA	(H12208-010, 99HITACHI, "Tricuspid Regurgitant Proximal Isovelocity Surface Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
TR RF	(G-0390, SRT, "Regurgitant Fraction")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	16
SV(TV)	(H12208-011, 99HITACHI, "Flow Volume of Tricuspid Valve Annulus in Flow")	Measurement Method=(125219, DCM, "Doppler Volume Flow")	16
(PR Vol. PISA)			
PISA Radius	(H12222-004, 99HITACHI, "Radius of Flow Convergence")		15
PR Alias V (Vr)	(H12222-005, 99HITACHI, "Aliasing Velocity")		15
Angle (PISA)	(H12222-006, 99HITACHI, "Proximal Isovelocity Surface Area Angle")		15
VTI(PR)	(H12209-005, 99HITACHI, "Velocity Time Integral of Pulmonic Regurgitant Flow")	Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
PR Vol	(33878-0, LN, "Volume Flow")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
PR EROA	(G-038E, SRT, "Cardiovascular Orifice Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15

Label	Concept Name	Modifier	row
PR Flow Rt	(34141-2, LN, "Peak Instantaneous Flow Rate")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
PR PISA	(H12209-007, 99HITACHI, "Pulmonic Regurgitant Proximal Isovelocity Surface Area")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
PR RF	(G-0390, SRT, "Regurgitant Fraction")	Measurement Method=(125216, DCM, "Proximal Isovelocity Surface Area"), Flow Direction=(R-42E61, SRT, “Retrograde Flow”)	15
(LA Volume Simpson(Disc))			
LAL4s	(H12205-002, 99HITACHI, "Left Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	11
LALA4s	(17977-0, LN, "Left Atrium Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	11
LAL2s	(H12205-002, 99HITACHI, "Left Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LALA2s	(H12205-003, 99HITACHI, "Left Atrium Systolic Area by Apical two chamber")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LAS4s	(H12205-007, 99HITACHI, "Left Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	11

Label	Concept Name	Modifier	row
LAS2s	(H12205-007, 99HITACHI, "Left Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LA Volume(Bi-plane)	(H12205-004, 99HITACHI, "Left Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
LA Volume/BSA(Bi-plane)	(H12205-005, 99HITACHI, "Left Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
LA Volume(ap4C)	(H12205-004, 99HITACHI, "Left Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-006, 99HITACHI, "Method of Disks, Single Plane with Apical four chamber of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image View=(G-A19C, SRT, "Apical four chamber")	11
LA Volume/BSA(ap4C)	(H12205-005, 99HITACHI, "Left Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-006, 99HITACHI, "Method of Disks, Single Plane with Apical four chamber of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
LA Volume(ap2C)	(H12205-004, 99HITACHI, "Left Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-007, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LA Volume/BSA(ap2C)	(H12205-005, 99HITACHI, "Left Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-007, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
%difS	(H12205-006, 99HITACHI, "Long Axis at End Systole Length % Difference of Left Atrium")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-005, 99HITACHI, "Method of Disks, Biplane of LA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
(RA Volume Simpson(Disc))			

Label	Concept Name	Modifier	row
RAL4s	(H12206-001, 99HITACHI, "Right Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RALA4s	(17988-7, LN, "Right Atrium Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RAL2s	(H12206-001, 99HITACHI, "Right Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RALA2s	(H12206-002, 99HITACHI, "Right Atrium Systolic Area by Apical two chamber")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RAS4s	(H12206-006, 99HITACHI, "Right Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RAS2s	(H12206-006, 99HITACHI, "Right Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RA Volume(Bi-plane)	(H12206-003, 99HITACHI, "Right Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12

Label	Concept Name	Modifier	row
RA Volume/BSA(Bi-plane)	(H12206-004, 99HITACHI, "Right Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12
RA Volume(ap4C)	(H12206-003, 99HITACHI, "Right Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-009, 99HITACHI, "Method of Disks, Single Plane with Apical four chamber of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RA Volume/BSA(ap4C)	(H12206-004, 99HITACHI, "Right Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-009, 99HITACHI, "Method of Disks, Single Plane with Apical four chamber of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12
RA Volume(ap2C)	(H12206-003, 99HITACHI, "Right Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-010, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RA Volume/BSA(ap2C)	(H12206-004, 99HITACHI, "Right Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-010, 99HITACHI, "Method of Disks, Single Plane with Apical two chamber of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12
%difS	(H12206-005, 99HITACHI, "Long Axis at End Systole Length % Difference of Right Atrium")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-008, 99HITACHI, "Method of Disks, Biplane of RA"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12
(LA Volume Area-Length)			
LAL4s	(H12205-002, 99HITACHI, "Left Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	11

Label	Concept Name	Modifier	row
LALA4s	(17977-0, LN, "Left Atrium Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	11
LAL2s	(H12205-002, 99HITACHI, "Left Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LALA2s	(H12205-003, 99HITACHI, "Left Atrium Systolic Area by Apical two chamber")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LAS4s	(H12205-007, 99HITACHI, "Left Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	11
LAS2s	(H12205-007, 99HITACHI, "Left Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	11
LA Volume	(H12205-004, 99HITACHI, "Left Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
LA Volume/BSA	(H12205-005, 99HITACHI, "Left Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11
%difS	(H12205-006, 99HITACHI, "Long Axis at End Systole Length % Difference of Left Atrium")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-011, 99HITACHI, "Area-Length Biplane of Left Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole")	11

Label	Concept Name	Modifier	row
(RA Volume Area-Length)			
RAL4s	(H12206-001, 99HITACHI, "Right Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RALA4s	(17988-7, LN, "Right Atrium Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RAL2s	(H12206-001, 99HITACHI, "Right Atrium systolic major axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RALA2s	(H12206-002, 99HITACHI, "Right Atrium Systolic Area by Apical two chamber")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RAS4s	(H12206-006, 99HITACHI, "Right Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19C, SRT, "Apical four chamber")	12
RAS2s	(H12206-006, 99HITACHI, "Right Atrium systolic minor axis")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole"), Image Mode=(G-03A2, SRT, "2D mode"), Image View=(G-A19B, SRT, "Apical two chamber")	12
RA Volume	(H12206-003, 99HITACHI, "Right Atrial Volume")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12

Label	Concept Name	Modifier	row
RA Volume/BSA	(H12206-004, 99HITACHI, "Right Atrial Volume divided by Body Surface Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12
%difS	(H12206-005, 99HITACHI, "Long Axis at End Systole Length % Difference of Right Atrium")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(H12228-012, 99HITACHI, "Area-Length Biplane of Right Atrium"), Cardiac Cycle Point=(109070, DCM, "End Systole")	12
(TAPSE)			
TAPSE	(H12208-012, 99HITACHI, "Tricuspid Annular Plane Systolic Excursion")	Image Mode(Group)=(G-0394, SRT, "M mode")	16
(FAC)			
RV Area ED	(H12204-001, 99HITACHI, "Right Ventricular Diastolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, “Planimetry”), Cardiac Cycle Point=(F-32011, SRT, “End Diastole”)	10
RV Area ES	(H12204-002, 99HITACHI, "Right Ventricular Systolic Area")	Image Mode(Group)=(G-03A2, SRT, "2D mode"), Measurement Method=(125220, DCM, “Planimetry”), Cardiac Cycle Point=(R-FAB5B, SRT, “End Systole”)	10
RV FAC	(H12204-003, 99HITACHI, "Right Ventricular Fractional Area Change")	Image Mode(Group)=(G-03A2, SRT, "2D mode")	10

Note: 1. When these HRs are measured at a time, only one HR is included in Structured Report. The precedence is LV Volume(Simpson(Disc)), LV Volume, then LV Function.

2. It is configurable not to include Image Mode(Group) and/or Image Mode modifiers. In this case, only a value of either B mode or M mode is included by priority.

3. It is configurable to include a value of either B mode or M mode by priority.

8.6.3 Context Groups

The Context Groups used in Structured Reports are shown below.

Terms in *Italic* are extensions to the Standard Context Groups. In the Context Group extension, the next attributes are always included besides CV/CSD/CM. (Attributes are not included for a term which is not an extension.)

Attributes used in Context Group Extension

Tag	VR	Attribute Name	Value
(0008,0105)	CS	Mapping Resource	"DCMR"
(0008,0106)	DT	Context Group Version	Described in PS 3.16
(0008,0107)	DT	Context Group Local Version	"YYYYMMDD" Described in each of Context Groups below

Tag	VR	Attribute Name	Value
(0008,010B)	CS	Context Group Extension Flag	"Y"
(0008,010D)	UI	Context Group Extension Creator UID	1.2.392.200036.9123.100.50.106
(0008,010F)	CS	Context Identifier	Identifies Context Group to which a term is added

CID 42 Numeric Value Qualifier

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	114007	Measurement not attempted
-	DCM	114009	Value out of range

CID 223 Normal Range Values

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	R-0038B	Normal Range Upper Limit
-	SRT	R-10041	Normal Range Lower Limit

CID 227 Sample Statistical Descriptors

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	121416	Z-Score of measurement

CID 228 Equation or Table

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	121421	Equation Citation
-	DCM	121422	Table of Values Citation

CID 244 Laterality

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Right	SRT	G-A100	Right
Left	SRT	G-A101	Left

CID 271 Observation Subject Class

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	121025	Patient

CID 3627 Measurement Type

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	R-00317	Mean
-	SRT	R-41D2D	Calculated
-	*SRT*	*G-A437*	*Maximum*

CID 3663 Body Surface Area Equations (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
BSA Equation, DuBois	DCM	122241	BSA = 0.007184*WT^0.425*HT^0.725
BSA Equation, Boyd	*99HITACHI*	*H3663-001*	*BSA = 0.0003207*WT^(0.7285-0.0188 log (WT))*HT^0.3*
BSA Equation, Shintani	*99HITACHI*	*H3663-002*	*BSA = 0.007358*HT^0.725*WT^0.425*

CID 7455 Sex

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Male	DCM	M	Male
Female	DCM	F	Female

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Other	DCM	121103	Undetermined sex

CID 7456 Units of Measure for Age

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
- (Y)	UCUM	a	year
- (M)	UCUM	mo	month
- (W)	UCUM	wk	week
- (D)	UCUM	d	day

CID 12003 OB-GYN Dates

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LMP-EDC	LN	11779-6	EDD from LMP
Composite US-EDC	LN	11781-2	EDD from average ultrasound age
BBT-EDC	LN	11780-4	EDD from ovulation date
LMP	LN	11955-2	LMP
BBT	LN	11976-8	Ovulation date

CID 12004 Fetal Biometry Ratios (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
HC/AC	LN	11947-9	HC/AC
FL/AC	LN	11871-1	FL/AC
FL/BPD	LN	11872-9	FL/BPD
CI (BPD/OFD)	LN	11823-2	Cephalic Index
FL/HC	LN	11873-7	FL/HC
CI (BPDo/OFDo)	*99HITACHI*	*H12004-001*	*Cephalic Index(BPDo/OFDo)*
LVW/HW	*99HITACHI*	*H12004-002*	*LVW/HW*

CID 12005 Fetal Biometry Measurements (Local Version: 20170707, 20180907)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AC	LN	11979-2	Abdominal Circumference
APD	LN	11818-2	Anterior-Posterior Abdominal Diameter
APTD	LN	11818-2	Anterior-Posterior Abdominal Diameter
BPD	LN	11820-8	Biparietal Diameter
HC	LN	11984-2	Head Circumference
OFD	LN	11851-3	Occipital-Frontal Diameter
TC	LN	11988-3	Thoracic Circumference
TAD	LN	11862-0	Tranverse Abdominal Diameter
TTD	LN	11862-0	Tranverse Abdominal Diameter
AXT	LN	33191-8	APAD * TAD
BD	*99HITACHI*	*H12005-001*	*Binocular Distance*
BPDo	*99HITACHI*	*H12005-002*	*Biparietal Diameter outer-to-outer*
FTA	*99HITACHI*	*H12005-003*	*Fetal Trunk Cross Sectional Area*
LV	*99HITACHI*	*H12005-004*	*Length of Vertebrae*
OFDo	*99HITACHI*	*H12005-005*	*Occipital-Frontal Diameter outer-to-outer*
AD	*99HITACHI*	*H12005-006*	*Abdominal Diameter*
TL	*99HITACHI*	*H12005-007*	*Thoracic Length*
HC2	*99HITACHI*	*H12005-008*	*Head Circumference for Merz, Hansmann*
AF Pocket	*99HITACHI*	*H12005-009*	*Amniotic Fluid Volume*
AFV	*99HITACHI*	*H12005-009*	*Amniotic Fluid Volume*
HC3	*99HITACHI*	*H12005-010*	*Head Circumference for BMUS*
AC2	*99HITACHI*	*H12005-011*	*Abdominal Circumference for BMUS*
MVP	*99HITACHI*	*H12005-012*	*Maximum Vertical Pocket*

CID 12006 Fetal Long Bones Biometry Measurements (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
HL	LN	11966-9	Humerus length
RAD	LN	11967-7	Radius length
ULNA	LN	11969-3	Ulna length
TIB	LN	11968-5	Tibia length
FIB	LN	11964-4	Fibula length
FL	LN	11963-6	Femur Length

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
NBL	*99HITACHI*	*H12006-001*	*Nasal Bone Length*

CID 12007 Fetal Cranium

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LVW	LN	12171-5	Lateral Ventrical width
IOD	LN	33070-4	Inner Orbital Diameter
OOD	LN	11629-3	Outer Orbital Diameter
CD	LN	11863-8	Trans Cerebellar Diameter
HW	LN	12170-7	Width of Hemisphere

CID 12008 OB-GYN Amniotic Sac

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AFI, Q1	LN	11624-4	First Quadrant Diameter
AFI, Q2	LN	11626-9	Second Quadrant Diameter
AFI, Q3	LN	11625-1	Third Quadrant Diameter
AFI, Q4	LN	11623-6	Fourth Quadrant Diameter

CID 12009 Early Gestation Biometry Measurements (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
CRL	LN	11957-8	Crown Rump Length
GS	LN	11850-5	Gestational Sac Diameter
NT	LN	33069-6	Nuchal Translucency
EES	*99HITACHI*	*H12009-001*	*Early Embryonic Size*
mGS, D1	*99HITACHI*	*H12009-002*	*Gestational Sac Diameter 1*
mGS, D2	*99HITACHI*	*H12009-003*	*Gestational Sac Diameter 2*
mGS, D3	*99HITACHI*	*H12009-004*	*Gestational Sac Diameter 3*
mGS, mGS	*99HITACHI*	*H12009-005*	*Mean Gestational Sac Diameter*

CID 12011 Ultrasound Pelvis and Uterus (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Cervix	LN	11961-0	Cervix Length
Cervix, Length	LN	11961-0	Cervix Length
Endom-T	LN	12145-9	Endometrium Thickness
Cervix, Width	*99HITACHI*	*H12011-001*	*Cervix Width*
Cervix, AP	*99HITACHI*	*H12011-002*	*Cervix Antero-Posterior Diameter*
Pre Bldrvol, Length	*99HITACHI*	*H12011-003*	*Pre Void Bladder Length*
Pre Bldrvol, AP	*99HITACHI*	*H12011-004*	*Pre Void Bladder Antero-Posterior Diameter*
Pre Bldrvol, Width	*99HITACHI*	*H12011-005*	*Pre Void Bladder Width*
Pre Bldrvol, Volume	*99HITACHI*	*H12011-006*	*Pre Void Bladder Volume*
Pst Bldrvol, Length	*99HITACHI*	*H12011-007*	*Post Void Bladder Length*
Pst Bldrvol, AP	*99HITACHI*	*H12011-008*	*Post Void Bladder Antero-Posterior Diameter*
Pst Bldrvol, Width	*99HITACHI*	*H12011-009*	*Post Void Bladder Width*
Pst Bldrvol, Volume	*99HITACHI*	*H12011-010*	*Post Void Bladder Volume*
Void Volume	*99HITACHI*	*H12011-011*	*Bladder Void Volume*

CID 12013 Gestational Age Equations and Tables (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AC (Had-90%)	LN	11892-7	AC, Hadlock 1984
AC (Hadlock84)	LN	11892-7	AC, Hadlock 1984
AC (Hansmann)	LN	33073-8	AC, Hansmann1985
AC (Shinozuka)	LN	33076-1	AC, Shinozuka 1996
AXT (Shinozuka)	LN	33078-7	AxT, Shinozuka 1996
BPD (Hadlock84)	LN	11902-4	BPD, Hadlock 1984
BPD (Hansmann)	LN	11903-2	BPD, Hansmann 1985
BPD (Kurtz)	LN	11906-5	BPD, Kurtz 1980
BPD (Rempen)	LN	33083-7	BPD, Rempen 1991

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
BPD (Shinozuka)	LN	33084-5	BPD, Shinozuka 1996
BPD (Tokyo U)	LN	33085-2	BPD, Tokyo 1986
CRL (Daya)	LN	33091-0	CRL, Daya 1993
CRL (Hadlock)	LN	11910-7	CRL, Hadlock 1992
CRL (Hansmann)	LN	11911-5	CRL, Hansmann 1985
CRL (Nelson)	LN	11913-1	CRL, Nelson 1981
CRL (Rempen)	LN	33094-4	CRL, Rempen 1991
CRL (Robinson)	LN	11914-9	CRL, Robinson 1975
FL (Had-90%)	LN	11920-6	FL, Hadlock 1984
FL (Hadlock84)	LN	11920-6	FL, Hadlock 1984
FL (Hansmann)	LN	11921-4	FL, Hansmann 1985
FL (Hohler)	LN	11922-2	FL, Hohler 1982
FL (Jeanty)	LN	11923-0	FL, Jeanty 1984
FL (Shinozuka)	LN	33102-5	FL, Shinozuka 1996
FL (Tokyo U)	LN	33103-3	FL, Tokyo 1986
mGS (Hellman)	LN	11928-9	GS, Hellman 1969
mGS (Rempen)	LN	11929-7	GS, Rempen 1991
HC (Had-90%)	LN	11932-1	HC, Hadlock 1984
HC (Hadlock84)	LN	11932-1	HC, Hadlock 1984
HC2 (Hansmann)	LN	33112-4	HC, Hansmann 1985
HL (Jeanty)	LN	11936-2	Humerus, Jeanty 1984
LV (Tokyo U)	LN	33118-1	Length of Vertebra, Tokyo 1986
OFD (Hansmann)	LN	33544-8	OFD, Hansmann 1985
RAD (Jea-95%)	LN	33126-4	Radius, Jeanty 1983
TIB (Jeanty)	LN	11941-2	Tibia, Jeanty 1984
TC (Chitkara U)	LN	33131-4	ThC, Chitkara 1987
CD (Goldstein)	LN	33133-0	TCD, Goldstein 1987
CD (Hill)	LN	33134-8	TCD, Hill 1990
ULNA (Jeanty)	LN	11944-6	Ulna, Jeanty 1984
AC (Campbell)	*99HITACHI*	*H12013-001*	*AC, Campbell*
AC (Chitty)	*99HITACHI*	*H12013-002*	*AC, Chitty 1994*
AC (Hadlock)	*99HITACHI*	*H12013-003*	*AC, Hadlock 1982*
AC (Merz)	*99HITACHI*	*H12013-005*	*AC, Merz 1996*
APTD (Merz)	*99HITACHI*	*H12013-006*	*APAD, Merz 1996*

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AXT (Tokyo U)	*99HITACHI*	*H12013-007*	*AxT, Tokyo*
BD (Jeanty)	*99HITACHI*	*H12013-008*	*BD, Jeanty 1984*
BPD (Campbell)	*99HITACHI*	*H12013-009*	*BPD, Campbell*
BPD (Chitty)	*99HITACHI*	*H12013-010*	*BPD-oi, Chitty 1994*
BPD (Hadlock)	*99HITACHI*	*H12013-011*	*BPD, Hadlock 1982*
BPD (Merz)	*99HITACHI*	*H12013-012*	*BPD, Merz 1996*
BPD (Sabbagha)	*99HITACHI*	*H12013-013*	*BPD, Sabbagha 1976*
CRL (JSUM'03)	*99HITACHI*	*H12013-016*	*CRL, JSUM 2003*
CRL (Tokyo U)	*99HITACHI*	*H12013-017*	*CRL, Tokyo*
EES (Goldstein)	*99HITACHI*	*H12013-018*	*EES, Goldstein 1994*
FIB (Merz)	*99HITACHI*	*H12013-019*	*FIB, Merz 1996*
FL (Campbell)	*99HITACHI*	*H12013-020*	*FL, Campbell*
FL (Chitty)	*99HITACHI*	*H12013-021*	*FL, Chitty 1994*
FL (Hadlock)	*99HITACHI*	*H12013-022*	*FL, Hadlock 1982*
FL (Jea-95%)	*99HITACHI*	*H12013-025*	*FL, Jeanty 95% 1983*
FL (Merz)	*99HITACHI*	*H12013-026*	*FL, Merz 1996*
FL (Warda)	*99HITACHI*	*H12013-027*	*FL, Warda 1985*
GS (Tokyo U)	*99HITACHI*	*H12013-028*	*GS, Tokyo*
HC (Campbell)	*99HITACHI*	*H12013-029*	*HC, Campbell*
HC (Chitty)	*99HITACHI*	*H12013-030*	*HC, Chitty 1994*
HC (Hadlock)	*99HITACHI*	*H12013-031*	*HC, Hadlock 1982*
HC2 (Merz)	*99HITACHI*	*H12013-033*	*HC, Merz 1996*
HL (Hansmann)	*99HITACHI*	*H12013-034*	*Humerus, Hansmann 1985*
HL (Jea-95%)	*99HITACHI*	*H12013-035*	*Humerus, Jeanty 95% 1983*
HL (Merz)	*99HITACHI*	*H12013-036*	*Humerus, Merz 1996*
NBL (Sonek)	*99HITACHI*	*H12013-037*	*NBL, Sonek 2003*
OFD (Merz)	*99HITACHI*	*H12013-038*	*OFD, Merz 1996*
RAD (Merz)	*99HITACHI*	*H12013-039*	*Radius, Merz 1996*
TIB (Jea-95%)	*99HITACHI*	*H12013-040*	*Tibia, Jeanty 95% 1983*
TIB (Merz)	*99HITACHI*	*H12013-041*	*Tibia, Merz 1996*
TL (Chitkara U)	*99HITACHI*	*H12013-042*	*TL, Chitkara 1987*
TTD (Hansmann)	*99HITACHI*	*H12013-043*	*TAD, Hansmann 1985*
TTD (Merz)	*99HITACHI*	*H12013-044*	*TAD, Merz 1996*
ULNA (Jea-95%)	*99HITACHI*	*H12013-045*	*Ulna, Jeanty 95% 1983*
ULNA (Merz)	*99HITACHI*	*H12013-046*	*Ulna, Merz 1996*
AC (JSUM'03)	*99HITACHI*	*H12013-047*	*AC, JSUM 2003*

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
BPD (JSUM'03)	*99HITACHI*	*H12013-048*	*BPD, JSUM 2003*
BPD (Osaka U)	*99HITACHI*	*H12013-049*	*BPD, Osaka*
CRL (Osaka U)	*99HITACHI*	*H12013-050*	*CRL, Osaka*
FL (JSUM'03)	*99HITACHI*	*H12013-051*	*FL, JSUM 2003*
FL (O'Brien)	*99HITACHI*	*H12013-052*	*FL, O'Brien 1981*
FL (Osaka U)	*99HITACHI*	*H12013-053*	*FL, Osaka*
FTA (Osaka U)	*99HITACHI*	*H12013-054*	*FTA, Osaka*
HL (Osaka U)	*99HITACHI*	*H12013-055*	*Humerus, Osaka*
CRL (BMUS 2009)	*99HITACHI*	*H12013-056*	*CRL, BMUS 2009*
HC3 (BMUS 2009)	*99HITACHI*	*H12013-057*	*HC, BMUS 2009*
FL (BMUS 2009)	*99HITACHI*	*H12013-058*	*FL, BMUS 2009*
HC3 (BMUS-95% 2009)	*99HITACHI*	*H12013-059*	*HC, BMUS-95% 2009*
AC2 (BMUS-95% 2009)	*99HITACHI*	*H12013-060*	*AC, BMUS-95% 2009*
FL (BMUS-95% 2009)	*99HITACHI*	*H12013-061*	*FL, BMUS-95% 2009*
BPD (CFEF-97% 2006)	*99HITACHI*	*H12013-062*	*BPD, CFEF-97% 2006*
HC3 (CFEF-97% 2006)	*99HITACHI*	*H12013-063*	*HC, CFEF-97% 2006*
AC2 (CFEF-97% 2006)	*99HITACHI*	*H12013-064*	*AC, CFEF-97% 2006*
FL (CFEF-97% 2006)	*99HITACHI*	*H12013-066*	*FL, CFEF-97% 2006*
BPD (CFEF-90% 2006)	*99HITACHI*	*H12013-067*	*BPD, CFEF-90% 2006*
HC3 (CFEF-90% 2006)	*99HITACHI*	*H12013-068*	*HC, CFEF-90% 2006*
AC2 (CFEF-90% 2006)	*99HITACHI*	*H12013-069*	*AC, CFEF-90% 2006*
FL (CFEF-90% 2006)	*99HITACHI*	*H12013-071*	*FL, CFEF-90% 2006*

CID 12014 OB Fetal Body Weight Equations and Tables (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
FW Equation (Campbell)	LN	11756-4	EFW by AC, Campbell 1975
FW Equation (Hadlock5)	LN	11732-5	EFW by AC, BPD, FL, HC, Hadlock 1985
FW Equation (Hadlock1)	LN	11751-5	EFW by AC, FL, Hadlock 1985
FW Equation (Hadlock2)	LN	11746-5	EFW by AC, FL, HC, Hadlock 1985
FW Equation (Hadlock4)	LN	11754-9	EFW by AC, HC Hadlock 1984
FW Equation (Hansmann)	LN	33139-7	EFW by BPD, TTD, Hansmann 1986
FW Equation (Shepard)	LN	11739-0	EFW by AC and BPD, Shepard 1982
FW Equation (Shinozuka)	LN	33142-1	EFW2 by Shinozuka 1996
FW Equation (Tokyo U)	LN	33144-7	EFW by BPD, APAD, TAD, FL, Tokyo 1987
FW Equation (Hadlock3)	*99HITACHI*	*H12014-001*	*EFW by BPD, AC, FL, Hadlock*
FW Equation (JSUM'03)	*99HITACHI*	*H12014-002*	*EFW by BPD, AC, FL, JSUM 2003*
FW Equation (Osaka U)	*99HITACHI*	*H12014-003*	*EFW by BPD, FTA, FL, Osaka*
FW Equation (Warsof)	*99HITACHI*	*H12014-004*	*EFW by BPD, AC, Warsof 1977*

CID 12015 Fetal Growth Equations and Tables (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
CI (BPDo/OFDo) (Hadlock)	LN	33158-7	Cephalic Index by GA, Hadlock 1981
HC/AC (Campbell)	LN	33182-7	HC/AC by GA, Campbell 1977
FL/AC (Hadlock)	*99HITACHI*	*H12015-001*	*FL/AC by GA, Hadlock 1983*
FL/HC (Hadlock)	*99HITACHI*	*H12015-002*	*FL/HC by GA, Hadlock 1984*
FL/BPD (Hohler)	*99HITACHI*	*H12015-003*	*FL/BPD by GA, Hohler 1981*
AFI (Jeng)	*99HITACHI*	*H12015-004*	*AFI by GA, Jeng et al.*
AFI (Moore)	*99HITACHI*	*H12015-005*	*AFI by GA, Moore et al.*

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AFI (Phelan)	*99HITACHI*	*H12015-006*	*AFI by GA, Phelan et al.*
AC (JSUM'03)	*99HITACHI*	*H12015-007*	*AC by GA, JSUM 2003*
BPD (JSUM'03)	*99HITACHI*	*H12015-008*	*BPD by GA, JSUM 2003*
BPD (Osaka U)	*99HITACHI*	*H12015-009*	*BPD by GA, Osaka*
CRL (Osaka U)	*99HITACHI*	*H12015-010*	*CRL by GA, Osaka*
FL (JSUM'03)	*99HITACHI*	*H12015-011*	*FL by GA, JSUM 2003*
FL (O'Brien)	*99HITACHI*	*H12015-012*	*FL by GA, O'Brien 1981*
FL (Osaka U)	*99HITACHI*	*H12015-013*	*FL by GA, Osaka*
FTA (Osaka U)	*99HITACHI*	*H12015-014*	*FTA by GA, Osaka*
HL (Osaka U)	*99HITACHI*	*H12015-015*	*Humerus by GA, Osaka*
BPD (CFEF-97% 2006)	*99HITACHI*	*H12015-016*	*BPD by GA, CFEF-97% 2006*
HC3 (CFEF-97% 2006)	*99HITACHI*	*H12015-017*	*HC by GA, CFEF-97% 2006*
AC2 (CFEF-97% 2006)	*99HITACHI*	*H12015-018*	*AC by GA, CFEF-97% 2006*
FL (CFEF-97% 2006)	*99HITACHI*	*H12015-020*	*FL by GA, CFEF-97% 2006*
BPD (CFEF-90% 2006)	*99HITACHI*	*H12015-021*	*BPD by GA, CFEF-90% 2006*
HC3 (CFEF-90% 2006)	*99HITACHI*	*H12015-022*	*HC by GA, CFEF-90% 2006*
AC2 (CFEF-90% 2006)	*99HITACHI*	*H12015-023*	*AC by GA, CFEF-90% 2006*
FL (CFEF-90% 2006)	*99HITACHI*	*H12015-025*	*FL by GA, CFEF-90% 2006*
BPD (Had 84_90%)	*LN*	*33198-3*	*BPD by GA, Hadlock 1984*
HC (Had 84_90%)	*LN*	*33173-6*	*HC by GA, Hadlock 1984*
AC (Had 84_90%)	*LN*	*33146-2*	*AC by GA, Hadlock 1984*
FL (Had 84_90%)	*LN*	*33166-0*	*FL by GA, Hadlock 1984*
BPD (Had 84_97%)	*LN*	*33166-0*	*BPD by GA, Hadlock 1984*
HC(Had 84_97%)	*LN*	*33173-6*	*HC by GA, Hadlock 1984*
AC (Had 84_97%)	*LN*	*33146-2*	*AC by GA, Hadlock 1984*
FL (Had 84_97%)	*LN*	*33166-0*	*FL by GA, Hadlock 1984*

CID 12016 Estimated Fetal Weight Percentile Equations and Tables (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
FW Growth (Hadlock)	LN	33183-5	FWP by GA, Hadlock 1991
FW Growth (Brenner)	LN	33189-2	FWP by GA, Brenner 1976
FW Growth (Doubilet)	*99HITACHI*	*H12016-001*	*FW, Doubilet 1997*
FW Growth (Yarkoni(Twins))	*99HITACHI*	*H12016-005*	*Twins FW, Yarkoni 1987*
CFEF_97%	*99HITACHI*	*H12016-006*	*FW, CFEF-97% 2014*
CFEF_90%	*99HITACHI*	*H12016-007*	*FW, CFEF-90% 2014*

CID 12017 Growth Distribution Rank

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	125013	Growth Z-score

CID 12018 OB-GYN Summary

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	LN	11878-6	Number of Fetuses

CID 12019 OB-GYN Fetus Summary (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Composite US-GA	LN	11888-5	Composite Ultrasound Age
LMP-GA	LN	11885-1	Gestational Age by LMP
FW	LN	11727-5	Estimated Weight
- (FW %ile rank by Doubilet)	LN	11767-1	EFW percentile rank
FHR	LN	11948-7	Fetal Heart Rate
PreHR(Amnio)	*99HITACHI*	*H12019-001*	*Fetal Heart Rate before Biopsy*

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
PstHR(Amnio)	*99HITACHI*	*H12019-002*	*Fetal Heart Rate after Biopsy*
EFW Ratio (up to 5 items)	*99HITACHI*	*H12019-004*	*Estimated Fetal Weight Ratio*

CID 12101 Vascular Summary

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Comments	DCM	121106	Comment

CID 12104 Extracranial Arteries

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
BIFUR	SRT	T-45160	Carotid Bifurcation
CCA prox CCA mid CCA distal	SRT	T-45100	Common Carotid Artery
ECA	SRT	T-45200	External Carotid Artery
ICA ICA prox ICA mid ICA distal	SRT	T-45300	Internal Carotid Artery
VA VERT	SRT	T-45700	Vertebral Artery

CID 12105 Intracranial Cerebral Vessels

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
ACA	SRT	T-45540	Anterior Cerebral Artery
TICA	SRT	R-102BD	Terminal internal carotid artery
MCA	SRT	T-45600	Middle Cerebral Artery
PCA	SRT	T-45900	Posterior Cerebral Artery
PCoA	SRT	T-45320	Posterior Communicating Artery

CID 12106 Intracranial Cerebral Vessels (unilateral) (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
BA	SRT	T-45800	Basilar Artery
ACoA	*SRT*	*T-45530*	*Anterior Communicating Artery*

CID 12107 Upper Extremity Arteries (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AA	SRT	T-47100	Axillary Artery
BA	SRT	T-47160	Brachial Artery
RA	SRT	T-47300	Radial Artery
ScA	SRT	T-46100	Subclavian Artery
SPA	SRT	T-47240	Superficial Palmar Arch
UA	SRT	T-47200	Ulnar Artery
DBA	*99HITACHI*	*H12107-001*	*Deep Brachial Artery*
BasA	*99HITACHI*	*H12107-002*	*Basilic Artery*
Upr Art.1	*99HITACHI*	*H12107-003*	*User Definition Artery1*
Upr Art.2	*99HITACHI*	*H12107-004*	*User Definition Artery2*
Upr Art.3	*99HITACHI*	*H12107-005*	*User Definition Artery3*
Upr Art.4	*99HITACHI*	*H12107-006*	*User Definition Artery4*
Upr Art.5	*99HITACHI*	*H12107-007*	*User Definition Artery5*
Upr Art.6	*99HITACHI*	*H12107-008*	*User Definition Artery6*
Upr Art.7	*99HITACHI*	*H12107-009*	*User Definition Artery7*
Upr Art.8	*99HITACHI*	*H12107-010*	*User Definition Artery8*

CID 12108 Upper Extremity Veins (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AV	SRT	T-49110	Axillary vein
BasV	SRT	T-48052	Basilic vein
BV	SRT	T-49350	Brachial vein
CV	SRT	T-49240	Cephalic vein
IJV	SRT	T-48170	Internal Jugular vein
RV	SRT	T-49340	Radial vein
ScV	SRT	T-48330	Subclavian vein
UV	SRT	T-49330	Ulnar vein

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DBV	*99HITACHI*	*H12108-001*	*Deep Brachial vein*
Upr Vein.1	*99HITACHI*	*H12108-002*	*User Definition Vein1*
Upr Vein.2	*99HITACHI*	*H12108-003*	*User Definition Vein2*
Upr Vein.3	*99HITACHI*	*H12108-004*	*User Definition Vein3*
Upr Vein.4	*99HITACHI*	*H12108-005*	*User Definition Vein4*
Upr Vein.5	*99HITACHI*	*H12108-006*	*User Definition Vein5*
Upr Vein.6	*99HITACHI*	*H12108-007*	*User Definition Vein6*
Upr Vein..7	*99HITACHI*	*H12108-008*	*User Definition Vein7*
Upr Vein.8	*99HITACHI*	*H12108-009*	*User Definition Vein8*

CID 12109 Lower Extremity Arteries

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
CIA	SRT	T-46710	Common Iliac Artery
ATA	SRT	T-47700	Anterior Tibial Artery
CFA	SRT	T-47400	Common Femoral Artery
DPA	SRT	T-47741	Dorsalis Pedis Artery
EIA	SRT	T-46910	External Iliac Artery
IIA	SRT	T-46740	Internal Iliac Artery
PerA	SRT	T-47630	Peroneal Artery
PopA	SRT	T-47500	Popliteal Artery
PTA	SRT	T-47600	Posterior Tibial Artery
DFA (Deep Femoral Artery)	SRT	T-47440	Profunda Femoris Artery
SFA	SRT	T-47403	Superficial Femoral Artery
Lwr Art.1	*99HITACHI*	*H12109-001*	*User Definition Artery1*
Lwr Art.2	*99HITACHI*	*H12109-002*	*User Definition Artery2*
Lwr Art.3	*99HITACHI*	*H12109-003*	*User Definition Artery3*
Lwr Art.4	*99HITACHI*	*H12109-004*	*User Definition Artery4*
Lwr Art.5	*99HITACHI*	*H12109-005*	*User Definition Artery5*
Lwr Art.6	*99HITACHI*	*H12109-006*	*User Definition Artery6*
Lwr Art.7	*99HITACHI*	*H12109-007*	*User Definition Artery7*
Lwr Art.8	*99HITACHI*	*H12109-008*	*User Definition Artery8*

CID 12110 Lower Extremity Veins

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
ATV	SRT	T-49630	Anterior Tibial Vein
CFV	SRT	G-035B	Common Femoral Vein
CIV	SRT	T-48920	Common Iliac Vein
EIV	SRT	T-48930	External Iliac Vein
GSV	SRT	T-49530	Great Saphenous Vein
LSV	SRT	T-49550	Lesser Saphenous Vein
PerV	SRT	T-49650	Peroneal Vein
PopV	SRT	T-49640	Popliteal Vein
PTV	SRT	T-49620	Posterior Tibial Vein
DFV (Deep Femoral Vein)	SRT	T-49660	Profunda Femoris Vein
SFV	SRT	G-035A	Superficial Femoral Vein
IIV	SRT	T-48940	Internal iliac vein
Lwr Vein.1	*99HITACHI*	*H12110-001*	*User Definition Vein1*
Lwr Vein.2	*99HITACHI*	*H12110-002*	*User Definition Vein2*
Lwr Vein.3	*99HITACHI*	*H12110-003*	*User Definition Vein3*
Lwr Vein.4	*99HITACHI*	*H12110-004*	*User Definition Vein4*
Lwr Vein.5	*99HITACHI*	*H12110-005*	*User Definition Vein5*
Lwr Vein.6	*99HITACHI*	*H12110-006*	*User Definition Vein6*
Lwr Vein.7	*99HITACHI*	*H12110-007*	*User Definition Vein7*
Lwr Vein.8	*99HITACHI*	*H12110-008*	*User Definition Vein8*

CID 12111 Abdominal Arteries (lateral) (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
CIA	*SRT*	*T-46710*	*Common Iliac Artery*

CID 12112 Abdominal Arteries (unilateral)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
A-Ao	SRT	T-42000	Aorta
CA	SRT	T-46400	Celiac Axis
CHA	SRT	T-46421	Common Hepatic Artery

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
IMA	SRT	T-46520	Inferior Mesenteric Artery
HA, Right	SRT	T-46423	Right Branch of Hepatic Artery
HA, Left	SRT	T-46427	Left Branch of Hepatic Artery
SA	SRT	T-46460	Splenic Artery
SMA Prandial SMA	SRT	T-46510	Superior Mesenteric Artery
Artery1	*99HITACHI*	*H12112-001*	*User Definition Artery1*
Artery2	*99HITACHI*	*H12112-002*	*User Definition Artery2*
Artery3	*99HITACHI*	*H12112-003*	*User Definition Artery3*

CID 12114 Abdominal Veins (unilateral)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Main PV	SRT	T-48810	Portal Vein
Lt.PV	SRT	T-4881F	Left Main Branch of Portal Vein
Rt.PV	SRT	T-4882A	Right Main Branch of Portal Vein
Prox Shunt Mid Shunt Distal Shunt	SRT	G-036C	Transjugular Intrahepatic Portosystemic Shunt

CID 12115 Renal Vessels

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Renal-A	SRT	T-46600	Renal Artery

CID 12116 Vessel Segment Modifiers

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
- (distal)	SRT	G-A119	Distal
- (mid)	SRT	G-A188	Mid-longitudinal
- (prox)	SRT	G-A118	Proximal

CID 12120 Blood Velocity Measurements (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
EDV	LN	11653-3	End Diastolic Velocity
PSV pV	LN	11726-7	Peak Systolic Velocity
MnV	LN	11692-1	Time averaged peak velocity
DV(Ductus Venosus), a	*99HITACHI*	*H12120-001*	*atrial contraction*

CID 12121 Vascular Indices and Ratios (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
ACC	LN	20167-3	Acceleration Index
PI	LN	12008-9	Pulsatility Index
RI	LN	12023-8	Resistivity Index
S/D	LN	12144-2	Systolic to Diastolic Velocity Ratio
AccT/FlowT	*99HITACHI*	*H12121-001*	*Acceleration Time to Flow Time Ratio*
DV(Ductus Venosus), a/S	*99HITACHI*	*H12121-002*	*atrial contraction to Systolic peak Velocity Ratio*
DV(Ductus Venosus), S/a	*99HITACHI*	*H12121-003*	*Systolic peak to atrial contraction Velocity Ratio*

CID 12122 Other Vascular Properties (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AccT	LN	20168-1	Acceleration Time
FlowT	*99HITACHI*	*H12122-001*	*Flow Time*

CID 12124 Renal Ratios

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
RAR	LN	33869-9	Renal Artery/Aorta velocity ratio

CID 12140 Pelvic Vasculature Anatomical Location

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
UmA	SRT	T-F1810	Umbilical Artery
UtA	SRT	T-46820	Uterine Artery

CID 12141 Fetal Vasculature Anatomical Location (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
MCA	SRT	T-45600	Middle Cerebral Artery
D-Ao	SRT	T-D0765	Descending Aorta
DV(Ductus Venosus)	*99HITACHI*	*H12141-001*	*Ductus Venosus*

CID 12201 Left Ventricle Linear (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LVIDd	LN	29436-3	Left Ventricle Internal End Diastolic Dimension
LVIDs	LN	29438-9	Left Ventricle Internal Systolic Dimension
FS	LN	18051-3	Left Ventricular Fractional Shortening
IVSd	LN	18154-5	Interventricular Septum Diastolic Thickness
IVS/LVPW	LN	18155-2	Interventricular Septum to Posterior Wall Thickness Ratio
%IVSTF	LN	18054-7	Interventricular Septum % Thickening
IVSs	LN	18158-6	Interventricular Septum Systolic Thickness
%PWTF	LN	18053-9	Left Ventricle Posterior Wall % Thickening
LVLd LVL4d LVL2d	LN	18077-8	Left Ventricle diastolic major axis
LVLs LVL4s LVL2s	LN	18076-0	Left Ventricle systolic major axis
LVPWs	LN	18156-0	Left Ventricle Posterior Wall Systolic Thickness
LVPWd	LN	18152-9	Left Ventricle Posterior Wall Diastolic Thickness

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LVSLMVd *LVSLMVs*	*99HITACHI*	*H12201-001*	*Left Ventricular Short Axis Length at Mitral Valve*
thick	*99HITACHI*	*H12201-002*	*Mean Wall Thickness*

CID 12202 Left Ventricle Volume

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
EDV	LN	18026-5	Left Ventricular End Diastolic Volume
ESV	LN	18148-7	Left Ventricular End Systolic Volume
EF	LN	18043-0	Left Ventricular Ejection Fraction

CID 12203 Left Ventricle Other (Local Version: 20170707, 20180907)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LVM	LN	18087-7	Left Ventricle Mass
IRT	LN	18071-1	Left Ventricular Isovolumic Relaxation Time
LVM/BSA	*99HITACHI*	*H12203-001*	*Left Ventricular Mass Index*
%difD *%difS*	*99HITACHI*	*H12203-003*	*Long Axis(at End Diastole or End Systole) Length % Difference*
mFS	*99HITACHI*	*H12203-004*	*Midwall Fractional Shortening*
areaEFlx	*99HITACHI*	*H12203-005*	*Area Ejection Fraction at Long Axis View*
areaEFsx	*99HITACHI*	*H12203-006*	*Area Ejection Fraction at Short Axis View*
MVCF	*99HITACHI*	*H12203-009*	*Mean Velocity of Circumferential Fiber Shortening*
LVDFT	*99HITACHI*	*H12203-010*	*Left Ventricle Diastole Filling Time*
E/Em	*99HITACHI*	*H12203-011*	*Ratio of MV E-Wave Peak Vel. to Early Diastolic Myocardium Vel.*
LVDFT/RR	*99HITACHI*	*H12203-012*	*Ratio of Left Ventricle Diastole Filling Time to R-R interval*
GLS *GLS(ap4C)* *GLS(ap2C)*	*99HITACHI*	*H12203-013*	*Global Longitudinal Strain*

CID 12204 Echocardiography Right Ventricle (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
RVDd	LN	20304-2	Right Ventricular Internal Diastolic Dimension
RVDs	LN	20305-9	Right Ventricular Internal Systolic Dimension
RVSP	SRT	G-0380	Right Ventricular Peak Systolic Pressure
RVAWd	LN	18153-7	Right Ventricular Anterior Wall Diastolic Thickness
RVAWs	LN	18157-8	Right Ventricular Anterior Wall Systolic Thickness
RV Area ED	*99HITACHI*	*H12204-001*	*Right Ventricular Diastolic Area*
RV Area ES	*99HITACHI*	*H12204-002*	*Right Ventricular Systolic Area*
RV FAC	*99HITACHI*	*H12204-003*	*Right Ventricular Fractional Area Change*

CID 12205 Echocardiography Left Atrium (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LADs	LN	29469-4	Left Atrium Antero-posterior Systolic Dimension
LADs/AODd	LN	17985-3	Left Atrium to Aortic Root Ratio
LALA4s	LN	17977-0	Left Atrium Systolic Area
LADd	*99HITACHI*	*H12205-001*	*Left Atrium Antero-posterior Diastolic Dimension*
LAL4s *LAL2s*	*99HITACHI*	*H12205-002*	*Left Atrium systolic major axis*
LALA2s	*99HITACHI*	*H12205-003*	*Left Atrium Systolic Area by Apical two chamber*
LA Volume	*99HITACHI*	*H12205-004*	*Left Atrial Volume*
LA Volume/BSA	*99HITACHI*	*H12205-005*	*Left Atrial Volume divided by Body Surface Area*
%difS	*99HITACHI*	*H12205-006*	*Long Axis at End Systole Length % Difference of Left Atrium*
LAS4s *LAS2s*	*99HITACHI*	*H12205-007*	*Left Atrium systolic minor axis*

CID 12206 Echocardiography Right Atrium (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
RAP	LN	18070-3	Right Atrium Systolic Pressure
RALA4s	LN	17988-7	Right Atrium Systolic Area
RAL4s *RAL2s*	*99HITACHI*	*H12206-001*	*Right Atrium systolic major axis*
RALA2s	*99HITACHI*	*H12206-002*	*Right Atrium Systolic Area by Apical two chamber*
RA Volume	*99HITACHI*	*H12206-003*	*Right Atrial Volume*
RA Volume/BSA	*99HITACHI*	*H12206-004*	*Right Atrial Volume divided by Body Surface Area*
%difS	*99HITACHI*	*H12206-005*	*Long Axis at End Systole Length % Difference of Right Atrium*
RAS4s *RAS2s*	*99HITACHI*	*H12206-006*	*Right Atrium systolic minor axis*

CID 12207 Echocardiography Mitral Valve (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
aV	LN	17978-8	Mitral Valve A-Wave Peak Velocity
eV	LN	18037-2	Mitral Valve E-Wave Peak Velocity
E/A (Doppler)	LN	18038-0	Mitral Valve E to A Ratio
DecT	SRT	G-0384	Mitral Valve E-Wave Deceleration Time
E-Fslop	LN	18040-6	Mitral Valve E-F Slope by M-Mode
EPSS	LN	18036-4	Mitral Valve EPSS, E wave
Adur	SRT	G-0385	Mitral Valve A-Wave Duration
dP/dt	LN	18035-6	Mitral Regurgitation dP/dt derived from Mitral Reg. velocity
C-Eamp	*99HITACHI*	*H12207-001*	*Mitral Valve Dimension of C point to E point by M-Mode*
C-Aamp	*99HITACHI*	*H12207-002*	*Mitral Valve Dimension of C point to A point by M-Mode*
A/E	*99HITACHI*	*H12207-003*	*Mitral Valve C-A Dimension to C-E Dimension Ratio by M-Mode*
E/A	*99HITACHI*	*H12207-004*	*Mitral Valve C-E Dimension to C-A Dimension Ratio by M-Mode*
Edur	*99HITACHI*	*H12207-005*	*Mitral Valve E-Wave Duration*
A/E (Doppler)	*99HITACHI*	*H12207-006*	*Mitral Valve A to E Ratio*
EPG	*99HITACHI*	*H12207-007*	*Mitral Valve E-wave Peak Pressure Gradient*

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
APG	*99HITACHI*	*H12207-008*	*Mitral Valve A-wave Peak Pressure Gradient*
PVAdur-Adur	*99HITACHI*	*H12207-009*	*Subtraction of A-wave Duration from PVA-wave Duration*
VTI(MR)	*99HITACHI*	*H12207-010*	*Velocity Time Integral of Mitral Regurgitant Flow*
MR PISA	*99HITACHI*	*H12207-012*	*Mitral Regurgitant Proximal Isovelocity Surface Area*
SV(MV)	*99HITACHI*	*H12207-013*	*Flow Volume of Mitral Valve Annulus in Flow*
Reg. Volume	*99HITACHI*	*H12207-014*	*Mitral valve Regurgitant volume*

CID 12208 Echocardiography Tricuspid Valve (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
dP/dt	LN	18034-9	Tricuspid Regurgitation dP/dt
C-Eamp	*99HITACHI*	*H12208-001*	*Tricuspid Valve Dimension of C point to E point by M-Mode*
C-Aamp	*99HITACHI*	*H12208-002*	*Tricuspid Valve Dimension of C point to A point by M-Mode*
D-Eamp	*99HITACHI*	*H12208-003*	*Tricuspid Valve Dimension of D point to E point by M-Mode*
E-Fslop	*99HITACHI*	*H12208-004*	*Tricuspid Valve Velocity from E point to F point by M-Mode*
D-Eslop	*99HITACHI*	*H12208-005*	*Tricuspid Valve Velocity from D point to E point by M-Mode*
A/E	*99HITACHI*	*H12208-006*	*Tricuspid Valve C-A Dimension to C-E Dimension Ratio by M-Mode*
E/A	*99HITACHI*	*H12208-007*	*Tricuspid Valve C-E Dimension to C-A Dimension Ratio by M-Mode*
VTI(TR)	*99HITACHI*	*H12208-008*	*Velocity Time Integral of Tricuspid Regurgitant Flow*
TR PISA	*99HITACHI*	*H12208-010*	*Tricuspid Regurgitant Proximal Isovelocity Surface Area*
SV(TV)	*99HITACHI*	*H12208-011*	*Flow Volume of Tricuspid Valve Annulus in Flow*
TAPSE	*99HITACHI*	*H12208-012*	*Tricuspid Annular Plane Systolic Excursion*

CID 12209 Echocardiography Pulmonic Valve (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
ET	LN	18042-2	Pulmonic Valve Ejection Time
AccT/ET	SRT	G-0388	Ratio of Pulmonic Valve Acceleration Time to Ejection Time
A wave amp	*99HITACHI*	*H12209-001*	*Pulmonic Valve Dimension of F point to A point by M-Mode*
B-Camp	*99HITACHI*	*H12209-002*	*Pulmonic Valve Dimension of B point to C point by M-Mode*
E-Fslop	*99HITACHI*	*H12209-003*	*Pulmonic Valve Velocity from E point to F point by M-Mode*
B-Cslop	*99HITACHI*	*H12209-004*	*Pulmonic Valve Velocity from B point to C point by M-Mode*
VTI(PR)	*99HITACHI*	*H12209-005*	*Velocity Time Integral of Pulmonic Regurgitant Flow*
PR PISA	*99HITACHI*	*H12209-007*	*Pulmonic Regurgitant Proximal Isovelocity Surface Area*

CID 12211 Echocardiography Aortic Valve (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
ET	LN	18041-4	Aortic Valve Ejection Time
AccT/ET	SRT	G-0382	Ratio of Aortic Valve Acceleration Time to Ejection Time
VTI(AR)	*99HITACHI*	*H12211-001*	*Velocity Time Integral of Aortic Regurgitant Flow*
AR PISA	*99HITACHI*	*H12211-003*	*Aortic Regurgitant Proximal Isovelocity Surface Area*

CID 12212 Echocardiography Aorta

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
AODd AODs	LN	18015-8	Aortic Root Diameter

CID 12214 Echocardiography Pulmonary Veins (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
PVS	LN	29450-4	Pulmonary Vein Systolic Peak Velocity
PVD	LN	29451-2	Pulmonary Vein Diastolic Peak Velocity
S/D	LN	29452-0	Pulmonary Vein Systolic to Diastolic Ratio
PVA	LN	29453-8	Pulmonary Vein Atrial Contraction Reversal Peak Velocity
PVAdur	SRT	G-038B	Pulmonary Vein A-Wave Duration
D-VTI	SRT	G-038D	Pulmonary Vein D-Wave Velocity Time Integral
S-VTI	SRT	G-038C	Pulmonary Vein S-Wave Velocity Time Integral
DecT	*99HITACHI*	*H12214-001*	*Deceleration Time of D-Wave Flow*
SF	*99HITACHI*	*H12214-002*	*Systolic Fraction*

CID 12215 Echocardiography Vena Cavae

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Insp Exp	LN	18006-7	Inferior Vena Cava Diameter
%Collapse	LN	18050-5	Inferior Vena Cava % Collapse

CID 12217 Echocardiography Cardiac Shunt

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
Qp/Qs	LN	29462-9	Pulmonary-to-Systemic Shunt Flow Ratio

CID 12220 Echocardiography Common Measurements (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
HR	LN	8867-4	Heart rate
RR	*DCM*	*122182*	*R-R interval*

CID 12221 Flow Direction

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	R-42047	Antegrade Flow
-	SRT	R-42E61	Retrograde Flow

CID 12222 Orifice Flow Properties (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
MR Vol TR Vol PR Vol AR Vol	LN	33878-0	Volume Flow
MR Flow Rt TR Flow Rt PR Flow Rt AR Flow Rt	LN	34141-2	Peak Instantaneous Flow Rate
CSA(LVOT) CSA(RVOT) MVA MVA(P1/2T) AVA MR EROA TR EROA PR EROA AR EROA	SRT	G-038E	Cardiovascular Orifice Area
LVOT RVOT MV Diam TV Diam AVDs	SRT	G-038F	Cardiovascular Orifice Diameter
MR RF TR RF PR RF AR RF	SRT	G-0390	Regurgitant Fraction
pV	LN	11726-7	Peak Velocity
MnV	LN	20352-1	Mean Velocity
PG	LN	20247-3	Peak Gradient

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
MPG	LN	20256-4	Mean Gradient
VTI VTI(MVannu) VTI(TVannu)	LN	20354-7	Velocity Time Integral
P1/2T	LN	20280-4	Pressure Half-Time
AccT	LN	20168-1	Acceleration Time
PEP	*99HITACHI*	*H12222-001*	*Pre-Ejection Period*
PEP/ET	*99HITACHI*	*H12222-002*	*PEP/ET*
FlowT	*99HITACHI*	*H12222-003*	*Flow Time*
PISA Radius	*99HITACHI*	*H12222-004*	*Radius of Flow Convergence*
MR Alias V (Vr) *TR Alias V (Vr)* *PR Alias V (Vr)* *AR Alias V (Vr)*	*99HITACHI*	*H12222-005*	*Aliasing Velocity*
Angle (PISA)	*99HITACHI*	*H12222-006*	*Proximal Isovelocity Surface Area Angle*

CID 12223 Echocardiography Stroke Volume Origin

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SNM3 [1]	T-32650	Left Ventricle Outflow Tract
-	SNM3	T-32550	Right Ventricle Outflow Tract

Note: 1. Actually "SRT" described in CID 12243 is included in Structured Report, not "SNM3".

CID 12224 Ultrasound Image Modes

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	G-03A2	2D mode
-	SRT	G-0394	M mode
-	SRT	R-409E4	Doppler Pulsed
-	SRT	R-409E3	Doppler Continuous Wave

CID 12226 Echocardiography Image View

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	G-A19B	Apical two chamber
-	SRT	G-A19C	Apical four chamber
-	SRT	G-0398	Parasternal short axis at the aortic valve level
-	SRT	G-039A	Parasternal short axis at the Mitral Valve level
-	SRT	G-039B	Parasternal short axis at the Papillary Muscle level

CID 12228 Volume Methods (Local Version: 20170707, 20190123)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	125204	Area-Length Biplane
-	DCM	125205	Area-Length Single Plane
-	DCM	125206	Cube Method
-	DCM	125207	Method of Disks, Biplane
-	DCM	125208	Method of Disks, Single Plane
-	DCM	125209	Teichholz
-	*99HITACHI*	*H12228-001*	*Method of Disks, Single Plane with Apical two chamber*
-	*99HITACHI*	*H12228-002*	*Gibson*
-	*99HITACHI*	*H12228-003*	*Modified Simpson's*
-	*99HITACHI*	*H12228-004*	*Bullet*
-	*99HITACHI*	*H12228-005*	*Method of Disks, Biplane of LA*
-	*99HITACHI*	*H12228-006*	*Method of Disks, Single Plane with Apical four chamber of LA*
-	*99HITACHI*	*H12228-007*	*Method of Disks, Single Plane with Apical two chamber of LA*
-	*99HITACHI*	*H12228-008*	*Method of Disks, Biplane of RA*
-	*99HITACHI*	*H12228-009*	*Method of Disks, Single Plane with Apical four chamber of RA*
-	*99HITACHI*	*H12228-010*	*Method of Disks, Single Plane with Apical two chamber of RA*
-	*99HITACHI*	*H12228-011*	*Area-Length Biplane of Left Atrium*
-	*99HITACHI*	*H12228-012*	*Area-Length Biplane of Right Atrium*

CID 12229 Area Methods

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	125210	Area by Pressure Half-Time
-	DCM	125215	Continuity Equation by Velocity Time Integral
-	DCM	125216	Proximal Isovelocity Surface Area
-	DCM	125220	Planimetry

CID 12230 Gradient Methods

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	125218	Simplified Bernoulli

CID 12231 Volume Flow Methods

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	125219	Doppler Volume Flow
-	DCM	125216	Proximal Isovelocity Surface Area

CID 12232 Myocardium Mass Methods (Local Version: 20170707)

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	DCM	125221	Left Ventricle Mass by M-mode
-	*99HITACHI*	*H12232-001*	*Left Ventricle Mass by Area Length*
-	*99HITACHI*	*H12232-002*	*Left Ventricle Mass by Penn*

CID 12233 Cardiac Phase

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	F-32020	Systole
-	SRT	F-32011	End Diastole
-	DCM	109070	End Systole

CID 12234 Respiration State

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	F-20010	During Inspiration
-	SRT	F-20020	During Expiration

CID 12235 Mitral Valve Anatomic Sites

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	T-35313	Mitral Annulus

CID 12239 Cardiac Output Properties

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SV SV(LVOT) SV(RVOT)	SRT	F-32120	Stroke Volume
CO CO(LVOT) CO(RVOT)	SRT	F-32100	Cardiac Output
COI COI(LVOT) COI(RVOT)	SRT	F-32110	Cardiac Index
SVI SVI(LVOT) SVI(RVOT)	SRT	F-00078	Stroke Index

CID 12240 Left Ventricle Area

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LVLAs LVLA4s LVLA2s LVSAMVs LVSAPMs	SRT	G-0374	Left Ventricular Systolic Area
LVLAd LVLA4d LVLA2d LVSAMVd LVSAPMd Aend	SRT	G-0375	Left Ventricular Diastolic Area
areaEF areaEF4 areaEF2 areaEFmv areaEFpm	SRT	G-0376	Left Ventricular Fractional Area Change
Aepi	SRT	G-0379	Left Ventricle Epicardial Diastolic Area, psax pap view

CID 12241 Tricuspid Valve Finding Sites

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	T-35111	Tricuspid Annulus

CID 12242 Aortic Valve Finding Sites

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	T-35410	Aortic Valve Ring

CID 12243 Left Ventricle Finding Sites

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
-	SRT	T-32650	Left Ventricle Outflow Tract

CID HITACHI_001 OB Original Vascular Measurement Group

This Context Group is private definition.

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
OB Dop1	*99HITACHI*	*HITACHI_001-001*	*OB User Definition Doppler1*
OB Dop2	*99HITACHI*	*HITACHI_001-002*	*OB User Definition Doppler2*
OB Dop3	*99HITACHI*	*HITACHI_001-003*	*OB User Definition Doppler3*

CID HITACHI_002 User Defined Equation Group

This Context Group is private definition.

Label	Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
User defined equation result parameter	*99HITACHI*	*HITACHI_002-001*	*Calculated result*
User defined equation parameter	*99HITACHI*	*HITACHI_002-002*	*Equation parameter*

8.6.4 Private Code Definitions

This section specifies the meanings of private codes used in Structured Reports.

Private Code Definitions (Coding Scheme Designator: "99HITACHI", Coding Scheme Version: not specified)

Code Value	Code Meaning	Definition
H-001	Pre-prandial	Pre-prandial
H-002	OB Original Fetal Measurement Group	Concept Name of TID HITACHI_5000 row1.
H-003	OB-GYN Original Measurement Group	Concept Name of TID HITACHI_5001 row1.
H-004	User Defined Equation	Concept Name of TID HITACHI_301 row1.
H-005	User Defined Equation Group Number	Concept Name of TID HITACHI_301 row2.
H-006	User Defined Equation Group Name	Concept Name of TID HITACHI_301 row3.
H-007	User Defined Parameter Number	Concept Name of TID HITACHI_302 row2.

Code Value	Code Meaning	Definition
H-008	User Defined Parameter Name	Concept Name of TID HITACHI_302 row3.
H-009	User Defined Equation	Concept Name of TID HITACHI_302 row4.
H-010	OB-GYN User Defined Measurement Group	Concept Name of TID HITACHI_5002 row1
H3663-001	BSA = 0.0003207*WT^(0.7285-0.0188 log (WT))*HT^0.3	BSA = 0.0003207*WT^(0.7285-0.0188 log (WT))*HT^0.3 Body Surface Area computed from patient height(HT) and weight(WT). The formula is derived by Boyd : BSA = 0.0003207*WT[g]^(0.7285-0.0188 log (WT[g]))*HT[cm]^0.3 Reference : Boyd E. The growth of the surface area of the human body. Minneapolis:university of Minnesota Press, 1935.
H3663-002	BSA = 0.007358*HT^0.725*WT^0.425	BSA = 0.007358*HT^0.725*WT^0.425 Body Surface Area computed from patient height(HT) and weight(WT). The formula is derived by Shintani : BSA = 0.007358*HT[cm]^0.725*WT[kg]^0.425 Reference : 臨床検査法概要 29版, 金井泉 著, 金原出版
H12004-001	Cephalic Index(BPDo/OFDo)	Cephalic Index = BPDo/OFDo
H12004-002	LVW/HW	LVW/HW
H12005-001	Binocular Distance	Binocular Distance
H12005-002	Biparietal Diameter outer-to-outer	Biparietal Diameter outer-to-outer
H12005-003	Fetal Trunk Cross Sectional Area	Fetal Trunk Cross Sectional Area
H12005-004	Length of Vertebrae	Length of Vertebrae
H12005-005	Occipital-Frontal Diameter outer-to-outer	Occipital-Frontal Diameter outer-to-outer
H12005-006	Abdominal Diameter	Abdominal Diameter
H12005-007	Thoracic Length	Thoracic Length
H12005-008	Head Circumference for Merz, Hansmann	Head Circumference for Merz, Hansmann
H12005-009	Amniotic Fluid Volume	Amniotic Fluid Volume
H12005-010	Head Circumference for BMUS	Head Circumference for BMUS
H12005-011	Abdominal Circumference for BMUS	Abdominal Circumference for BMUS
H12005-012	Maximum Vertical Pocket	"Ultrasonography in Obstetrics and Gynecology 5th Edition" Peter Callen November 28, 2007. pp.760-767

Code Value	Code Meaning	Definition
H12006-001	Nasal Bone Length	Nasal Bone Length
H12009-001	Early Embryonic Size	Early Embryonic Size
H12009-002	Gestational Sac Diameter 1	Gestational Sac Diameter 1
H12009-003	Gestational Sac Diameter 2	Gestational Sac Diameter 2
H12009-004	Gestational Sac Diameter 3	Gestational Sac Diameter 3
H12009-005	Mean Gestational Sac Diameter	Mean Gestational Sac Diameter
H12011-001	Cervix Width	Cervix Width
H12011-002	Cervix Antero-Posterior Diameter	Cervix Antero-Posterior Diameter
H12011-003	Pre Void Bladder Length	Pre Void Bladder Length
H12011-004	Pre Void Bladder Antero-Posterior Diameter	Pre Void Bladder Antero-Posterior Diameter
H12011-005	Pre Void Bladder Width	Pre Void Bladder Width
H12011-006	Pre Void Bladder Volume	Pre Void Bladder Volume
H12011-007	Post Void Bladder Length	Post Void Bladder Length
H12011-008	Post Void Bladder Antero-Posterior Diameter	Post Void Bladder Antero-Posterior Diameter
H12011-009	Post Void Bladder Width	Post Void Bladder Width
H12011-010	Post Void Bladder Volume	Post Void Bladder Volume
H12011-011	Bladder Void Volume	Bladder Void Volume
H12013-001	AC, Campbell	Materials provided: Professor Campbell's Group at Harris Birthright Centre, King's College Hospital
H12013-002	AC, Chitty 1994	Charts of fetal size：3. Abdominal measurements Lyn S Chitty. British Journal of Obstetrics and Gynaecology February 1994, Vol.101, pp.125-131 <Table 4>
H12013-003	AC, Hadlock 1982	Fetal Abdominal Circumference as a Predictor of Menstrual Age. Hadlock FP, Deter RL, Harrist RB, Park SK. AJR 139:367-370, August 1982
H12013-005	AC, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-006	APAD, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-007	AxT, Tokyo	胎児生理の総合的解析による新しい周産期管理へのアプローチ．東京大学　岡井　崇他．日本産婦人科学会雑誌　第38巻　第8号　別冊

Code Value	Code Meaning	Definition
H12013-008	BD, Jeanty 1984	Estimation of Gestational Age from Measurements of Fetal Long Bones. Jeanty P, Rodesch F, Delbeke D, Dumont JE. Journal of Ultrasound in Medicine 3:75-79, February 1984
H12013-009	BPD, Campbell	Materials provided: Professor Campbell's Group at Harris Birthright Centre, King's College Hospital
H12013-010	BPD-oi, Chitty 1994	Charts of fetal size：2. Head measurements. Lyn S Chitty. British Journal of Obstetrics and Gynaecology February 1994, Vol.101, pp.35-43 <Table 4,7>
H12013-011	BPD, Hadlock 1982	Fetal Biparietal Diameter : A Critical Re-evaluation of the Relation to Menstrual Age by means of Real-time Ultrasound. Hadlock FP, Deter RL, Harrist RB, Park SK : Journal of Ultrasound in Medicine 1:97, 97-104
H12013-012	BPD, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-013	BPD, Sabbagha 1976	Sonar Biparietal Diameter : I. Analysis of Percentile Growth Differences in Two Normal Populations Using Same Methodology. Sabbagha RE, Barton FB, Barton BA. American Journal of Obstetrics and Gynecology 126:479-484, October 1976
H12013-016	CRL, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12013-017	CRL, Tokyo	胎児生理の総合的解析による新しい周産期管理へのアプローチ．東京大学　岡井　崇他．日本産婦人科学会雑誌　第38巻　第8号　別冊
H12013-018	EES, Goldstein 1994	Endovaginal Ultrasonographic Measurement of Early Embryonic Size as a Means of Assessing Gestational Age. Steven R. Goldstein, MD, Robert Wolfson, MD, PhD. J. Ultrasound Med. 13:27-31, 1994. <Figure 3>
H12013-019	FIB, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-020	FL, Campbell	Materials provided: Professor Campbell's Group at Harris Birthright Centre, King's College Hospital
H12013-021	FL, Chitty 1994	Charts of fetal size：4. Femur length. Lyn S Chitty. British Journal of Obstetrics and Gynaecology February 1994, Vol.101, pp.132-135 <Table 2>
H12013-022	FL, Hadlock 1982	Fetal Femur Length as a Predictor of Menstrual Age : Sonographically Measured. Hadlock FP, Deter RL, Harrist RB, Park SK. AJR 138:875-878, May 1982

Code Value	Code Meaning	Definition
H12013-025	FL, Jeanty 95% 1983	『Fetal limb biometry』 Radiology 1983 ; 147 : 602. Table Data : 95 percentile data form《Growth format》
H12013-026	FL, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-027	FL, Warda 1985	Fetal Femur Length : A Critical Reevaluation of the Relationship to Menstrual Age. Warda AH, Deter RL, Rossavik IK, Carpenter RJ, Hadlock FP. American Journal of Obstetrics and Gynecology 66(1):69-75, July 1985
H12013-028	GS, Tokyo	胎児生理の総合的解析による新しい周産期管理へのアプローチ．東京大学　岡井　崇他．日本産婦人科学会雑誌　第38巻　第8号　別冊
H12013-029	HC, Campbell	Materials provided: Professor Campbell's Group at Harris Birthright Centre, King's College Hospital
H12013-030	HC, Chitty 1994	Charts of fetal size：2. Head measurements. Lyn S Chitty. British Journal of Obstetrics and Gynaecology February 1994, Vol.101, pp.35-43 <Table 4,7>
H12013-031	HC, Hadlock 1982	Fetal Head Circumference : Relation to Menstrual Age. Hadlock FP, Deter RL, Harrist RB, Park SK. AJR 138:649-653, April 1982
H12013-033	HC, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-034	Humerus, Hansmann 1985	Ultrasound Diagnosis in Obstetrics and Gynecology. Hansmann M., Hackeloer B.J. and Staudach A. Springer-Verlag, Berlin, Heidelberg, New York, Tokyo 1985
H12013-035	Humerus, Jeanty 95% 1983	『Fetal limb biometry』 Radiology 1983 ; 147 : 602. Table Data : 95 percentile data form《Growth format》
H12013-036	Humerus, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-037	NBL, Sonek 2003	Nasal bone length throughout gestation : normal ranges based on 3537 fetal ultrasound measurements. J. D. SONEK. Ultrasound Obstet Gynecol 2003 ; 21 ; 152-155

Code Value	Code Meaning	Definition
H12013-038	OFD, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-039	Radius, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-040	Tibia, Jeanty 95% 1983	『Fetal limb biometry』 Radiology 1983 ; 147 : 602. Table Data : 95 percentile data form《Growth format》
H12013-041	Tibia, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-042	TL, Chitkara 1987	Prenatal sonographic assessment of the fetal thorax: Normal values. Usha Chitkara, M.D., Joanne Rosenberg, R.D.M.S., Frank A. Chervenak, M.D., Gertrud S. Berkowitz, Ph.D., Rebecca Levine, M.A., Richard M. Fagerstrom, Ph.D., Barbara Walker, R.D.M.S., and Richard L. Berkowitz, M.D. American Journal of Obstetrics and Gynecology, Volume 156, Number 5, May 1987, pp.1069-1074. <Table 2>
H12013-043	TAD, Hansmann 1985	Ultrasound Diagnosis in Obstetrics and Gynecology. Hansmann M., Hackeloer B.J. and Staudach A. Springer-Verlag, Berlin, Heidelberg, New York, Tokyo 1985
H12013-044	TAD, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-045	Ulna, Jeanty 95% 1983	『Fetal limb biometry』 Radiology 1983 ; 147 : 602. Table Data : 95 percentile data form《Growth format》
H12013-046	Ulna, Merz 1996	Das normale fetale Wachstumsprofil - ein einheitliches Modell zur Berechnung von Normkurven für die gängigen Kopf-und Abdomenparameter sowie die großen Extremitätenknochen. Ultraschall in Med. 17(1996),153 - 162 Table Data : 95 percentile data form《Growth format》
H12013-047	AC, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003

Code Value	Code Meaning	Definition
H12013-048	BPD, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12013-049	BPD, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12013-050	CRL, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12013-051	FL, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12013-052	FL, O'Brien 1981	Assessment of Gestational Age in the Second Trimester by Real-Time Ultrasound Measurement of the Femur Length. O'Brien GD, Queenan JT, Campbell S (American Journal of Obstetrics & Gynecology 139:540-545, Mar. 1981)　Table Data :《Growth format》
H12013-053	FL, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12013-054	FTA, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12013-055	Humerus, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12013-056	CRL, BMUS 2009	[Fetal Size and Dating: Charts Recommended for Clinical Obstetric Practice] Pam Lougha, Lyn Chitty, Tony Evans & Trish Chudleigh Ultrasound 2009;17(3):160-166 British Medical Ultrasound Society:2009
H12013-057	HC, BMUS 2009	[Fetal Size and Dating: Charts Recommended for Clinical Obstetric Practice] Pam Lougha, Lyn Chitty, Tony Evans & Trish Chudleigh Ultrasound 2009;17(3):160-166 British Medical Ultrasound Society:2009
H12013-058	FL, BMUS 2009	[Fetal Size and Dating: Charts Recommended for Clinical Obstetric Practice] Pam Lougha, Lyn Chitty, Tony Evans & Trish Chudleigh Ultrasound 2009;17(3):160-166 British Medical Ultrasound Society:2009
H12013-059	HC, BMUS-95% 2009	[Fetal Size and Dating: Charts Recommended for Clinical Obstetric Practice] Pam Lougha, Lyn Chitty, Tony Evans & Trish Chudleigh Ultrasound 2009;17(3):160-166 British Medical Ultrasound Society:2009

Code Value	Code Meaning	Definition
H12013-060	AC, BMUS-95% 2009	[Fetal Size and Dating: Charts Recommended for Clinical Obstetric Practice] Pam Lougha, Lyn Chitty, Tony Evans & Trish Chudleigh Ultrasound 2009;17(3):160-166 British Medical Ultrasound Society:2009
H12013-061	FL, BMUS-95% 2009	[Fetal Size and Dating: Charts Recommended for Clinical Obstetric Practice] Pam Lougha, Lyn Chitty, Tony Evans & Trish Chudleigh Ultrasound 2009;17(3):160-166 British Medical Ultrasound Society:2009
H12013-062	BPD, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12013-063	HC, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12013-064	AC, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12013-066	FL, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12013-067	BPD, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12013-068	HC, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8

Code Value	Code Meaning	Definition
H12013-069	AC, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12013-071	FL, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12014-001	EFW by BPD, AC, FL, Hadlock	Estimation of fetal weight with the use of head,body,and femur measurement - A prospective study. Frank P. Hadlock, R.B.Harrist, Ralph S.Sharman, Russel L Deter, and Seung K.Park. Am J Obstet Gynecol :Volume151 Number3: 333-337, Febrary1,1985. Sonographic Estimation of Fetal weight. Frank P. Hadlock, R.B.Harrist, Robert J.Carpenter, Russel L Deter, Seung K.Park. Radiology Volume150 Number2:535-540
H12014-002	EFW by BPD, AC, FL, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12014-003	EFW by BPD, FTA, FL, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12014-004	EFW by BPD, AC, Warsof 1977	The estimation of fetal weight by computer-assisted analysis. Steven L.Warsof, Parviz Gohari, Richard L. Berkowitz, John C.Hobbins. Am J Obstet Gynecol :Volume 128 Number 8：881-892, August 15, 1977
H12015-001	FL/AC by GA, Hadlock 1983	A Date-Independent Predictor of Intrauterine Growth Retardation : Femur Length/Abdominal Circumference Ratio. Hadlock FP, Deter RL, Harrist RB, Roecker E, Park SK. American Journal of Roentgenology 141:979-984, November 1983
H12015-002	FL/HC by GA, Hadlock 1984	The Femur Length/Head Circumference Relation in Obstetric Sonography. Frank P. Hadlock, MD, Ronald B. Harrist, PhD, Yogesh Shah, MD, Seung K. Park, MD. Journal of Ultrasound in Medicine, Volume 3, October 1984, pp.439-442. <Table 1>
H12015-003	FL/BPD by GA, Hohler 1981	Comparison of Ultrasound Femur Length and Biparietal Diameter in Late Pregnancy. Hohler CW, Quetel TA. American Journal of Obstetrics and Gynecology 141:759-762, December 1981
H12015-004	AFI by GA, Jeng et al.	Amniotic Fluid Index Measurement with the Four-Quadrant Technique During Pregnancy. Cherng-Jye Jeng, M.D., Tian-Jii Jou, M.D., Kuo-Gon Wang, M.D., Yuh-Cheng Yang, M.D., Yi-Nan Lee, M.D., Chung-Chi Lan, M.D. The Journal of Reproductive Medicine, Volume 35, Number 7, July 1990, pp.674-677. <Table 1>

Code Value	Code Meaning	Definition
H12015-005	AFI by GA, Moore et al.	The amniotic fluid index in normal human pregnancy. Thomas R. Moore, MD, and Jonathan E. Cayle, MD. American Journal of Obstetrics and Gynecology, Volume 162, Number 5, May 1990, pp.1168-1173. <Table 6>
H12015-006	AFI by GA, Phelan et al.	Amniotic Fluid Volume Assessment with the Four-Quadrant Technique at 36-42 Weeks' Gestation. Jeffrey P. Phelan, M.D., Carl Vernon Smith, M.D., Paula Broussard, R.N., Mary Small, M.D. The Journal of Reproductive Medicine, Volume 32, Number 7, July 1987, pp.540-542. <Table 1>
H12015-007	AC by GA, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12015-008	BPD by GA, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12015-009	BPD by GA, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12015-010	CRL by GA, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12015-011	FL by GA, JSUM 2003	超音波胎児計測の標準化と日本人の基準値の公示について．J Med Ultrasonics Vol.30 No.3 2003
H12015-012	FL by GA, O'Brien 1981	Assessment of Gestational Age in the Second Trimester by Real-Time Ultrasound Measurement of the Femur Length. O'Brien GD, Queenan JT, Campbell S (American Journal of Obstetrics & Gynecology 139:540-545, Mar. 1981)　Table Data :《Growth format》
H12015-013	FL by GA, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12015-014	FTA by GA, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12015-015	Humerus by GA, Osaka	超音波胎児体格計測によるIUGR診断．青木　嶺夫. Perinatal Care Vol.9 No.5,(407-422)
H12015-016	BPD by GA, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12015-017	HC by GA, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8

Code Value	Code Meaning	Definition
H12015-018	AC by GA, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12015-020	FL by GA, CFEF-97% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12015-021	BPD by GA, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12015-022	HC by GA, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12015-023	AC by GA, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12015-025	FL by GA, CFEF-90% 2006	[French fetal biometry: reference equations and comparison with other charts.] Salomon LJ, Duyme M, Crequat J, Brodaty G, Talmant C, Fries N, Althuser M Ultrasound Obstet Gynecol. 2006 Aug;28(2):193-8
H12016-001	FW, Doubilet 1997	Improved Birth Weight Table for Neonates Developed from Gestations Dated by Early Ultrasonography: Doubilet PM et al; J Ultrasound Med 16;241-249, 1997
H12016-005	Twins FW, Yarkoni 1987	Estimated Fetal Weight in the Evaluation of Growth in Twin Gestations: A Prospective Longitudinal Study. Shaul Yarkoni, MD, E. Albert Reece, MD, Theodore Holford, PhD, Theresa Z. O'Connor, MPH, And John C. Hobbins, MD. Obstetrics & Gynecology, Volume 69, Number 4, April 1987, pp.636-639.
H12016-006	FW, CFEF-97% 2014	Courbe d'estimation de poids fœtal 2014 par le Collège français d'échographie fœtale (CFEF) M. Massoud, M. Duyme, M. Fontanges, D. Combourieu, Collège franc¸ais d'échographie foetale (CFEF) Journal de Gynécologie Obstétrique et Biologie de la Reproduction - accepté le 15 janvier 2015.

Code Value	Code Meaning	Definition
H12016-007	FW, CFEF-90% 2014	Courbe d'estimation de poids fœtal 2014 par le Collège français d'échographie fœtale (CFEF) M. Massoud, M. Duyme, M. Fontanges, D. Combourieu, Collège franc¸ais d'échographie foetale (CFEF) Journal de Gynécologie Obstétrique et Biologie de la Reproduction - accepté le 15 janvier 2015.
H12019-001	Fetal Heart Rate before Biopsy	Fetal Heart Rate before Biopsy
H12019-002	Fetal Heart Rate after Biopsy	Fetal Heart Rate after Biopsy
H12019-004	Estimated Fetal Weight Ratio	EFW Ratio = (Estimated Fetal Weight / Weightest Fetal Weight) * 100 [%]
H12107-001	Deep Brachial Artery	Deep Brachial Artery
H12107-002	Basilic Artery	Basilic Artery
H12107-003	User Definition Artery1	Upr Art.1（User Definition Artery）
H12107-004	User Definition Artery2	Upr Art.2（User Definition Artery）
H12107-005	User Definition Artery3	Upr Art.3（User Definition Artery）
H12107-006	User Definition Artery4	Upr Art.4（User Definition Artery）
H12107-007	User Definition Artery5	Upr Art.5（User Definition Artery）
H12107-008	User Definition Artery6	Upr Art.6（User Definition Artery）
H12107-009	User Definition Artery7	Upr Art.7（User Definition Artery）
H12107-010	User Definition Artery8	Upr Art.8（User Definition Artery）
H12108-001	Deep Brachial vein	Deep Brachial Vein
H12108-002	User Definition Vein1	Upr Vein.1（User Definition Vein）
H12108-003	User Definition Vein2	Upr Vein.2（User Definition Vein）
H12108-004	User Definition Vein3	Upr Vein.3（User Definition Vein）
H12108-005	User Definition Vein4	Upr Vein.4（User Definition Vein）
H12108-006	User Definition Vein5	Upr Vein.5（User Definition Vein）
H12108-007	User Definition Vein6	Upr Vein.6（User Definition Vein）
H12108-008	User Definition Vein7	Upr Vein.7（User Definition Vein）
H12108-009	User Definition Vein8	Upr Vein.8（User Definition Vein）
H12109-001	User Definition Artery1	Lwr Art.1（User Definition Artery）
H12109-002	User Definition Artery2	Lwr Art.2（User Definition Artery）
H12109-003	User Definition Artery3	Lwr Art.3（User Definition Artery）
H12109-004	User Definition Artery4	Lwr Art.4（User Definition Artery）
H12109-005	User Definition Artery5	Lwr Art.5（User Definition Artery）
H12109-006	User Definition Artery6	Lwr Art.6（User Definition Artery）
H12109-007	User Definition Artery7	Lwr Art.7（User Definition Artery）

Code Value	Code Meaning	Definition
H12109-008	User Definition Artery8	Lwr Art.8（User Definition Artery）
H12110-001	User Definition Vein1	Lwr Vein.1（User Definition Vein）
H12110-002	User Definition Vein2	Lwr Vein.2（User Definition Vein）
H12110-003	User Definition Vein3	Lwr Vein.3（User Definition Vein）
H12110-004	User Definition Vein4	Lwr Vein.4（User Definition Vein）
H12110-005	User Definition Vein5	Lwr Vein.5（User Definition Vein）
H12110-006	User Definition Vein6	Lwr Vein.6（User Definition Vein）
H12110-007	User Definition Vein7	Lwr Vein.7（User Definition Vein）
H12110-008	User Definition Vein8	Lwr Vein.8（User Definition Vein）
H12112-001	User Definition Artery1	Artery1（User Definition Artery (Abdom)）
H12112-002	User Definition Artery2	Artery2（User Definition Artery (Abdom)）
H12112-003	User Definition Artery3	Artery3（User Definition Artery (Abdom)）
H12120-001	atrial contraction	日本超音波医学会用語・診断基準委員会 “胎児静脈血流波形基準値(2013) 胎児静脈管(ductus venosus:DV) PI, a/Sおよび胎児下大静脈(inferior vena cava:IVC) PLI(preload index), a/Sの計測法と週数毎の基準値” In Europe: K. Hecher, S. Campbell, R. Snijders and K. Nicolaides Ultrasound Obstet. Gynecol. 4 (1994) 381-390 http://onlinelibrary.wiley.com/doi/10.1046/j.1469-0705.1994.04050381.x/pdf
H12120-002	Peak Diastolic Velocity	[Reference ranges for fetal venous and atrioventricular blood flow parameters] K. Hecher, S. Campbell, R. Snijders and K. Nicolaides Ultrasound Obstet. Gynecol. 4 (1994) 381-390
H12121-001	Acceleration Time to Flow Time Ratio	Acceleration Time to Flow Time Ratio

Code Value	Code Meaning	Definition
H12121-002	atrial contraction to Systolic peak Velocity Ratio	日本超音波医学会用語・診断基準委員会 “胎児静脈血流波形基準値(2013) 胎児静脈管(ductus venosus:DV) PI, a/Sおよび胎児下大静脈(inferior vena cava:IVC) PLI(preload index), a/Sの計測法と週数毎の基準値” In Europe: “Reference ranges for fetal venous and atrioventricular blood flow parameters” K. Hecher, S. Campbell, R. Snijders and K. Nicolaides Ultrasound Obstet. Gynecol. 4 (1994) 381-390 http://onlinelibrary.wiley.com/doi/10.1046/j.1469-0705.1994.04050381.x/pdf
H12121-003	Systolic peak to atrial contraction Velocity Ratio	日本超音波医学会用語・診断基準委員会 “胎児静脈血流波形基準値(2013) 胎児静脈管(ductus venosus:DV) PI, a/Sおよび胎児下大静脈(inferior vena cava:IVC) PLI(preload index), a/Sの計測法と週数毎の基準値” In Europe: “Reference ranges for fetal venous and atrioventricular blood flow parameters” K. Hecher, S. Campbell, R. Snijders and K. Nicolaides Ultrasound Obstet. Gynecol. 4 (1994) 381-390 http://onlinelibrary.wiley.com/doi/10.1046/j.1469-0705.1994.04050381.x/pdf
H12121-004	Peak velocity index for veins	[Reference ranges for fetal venous and atrioventricular blood flow parameters] K. Hecher, S. Campbell, R. Snijders and K. Nicolaides Ultrasound Obstet. Gynecol. 4 (1994) 381-390
H12122-001	Flow Time	Flow Time

Code Value	Code Meaning	Definition
H12141-001	Ductus Venosus	日本超音波医学会用語・診断基準委員会 “胎児静脈血流波形基準値(2013) 胎児静脈管(ductus venosus:DV) PI, a/Sおよび胎児下大静脈(inferior vena cava:IVC) PLI(preload index), a/Sの計測法と週数毎の基準値” In Europe: “Reference ranges for fetal venous and atrioventricular blood flow parameters” K. Hecher, S. Campbell, R. Snijders and K. Nicolaides Ultrasound Obstet. Gynecol. 4 (1994) 381-390 http://onlinelibrary.wiley.com/doi/10.1046/j.1469-0705.1994.04050381.x/pdf
H12201-001	Left Ventricular Short Axis Length at Mitral Valve	Left Ventricular Short Axis Length at Mitral Valve
H12201-002	Mean Wall Thickness	Mean Wall Thickness
H12203-001	Left Ventricular Mass Index	Left Ventricular Mass Index (LVMI). LVMI = LVM / BSA LVMI unit is g/m^2, mass unit in gram and BSA unit in m^2.
H12203-003	Long Axis(at End Diastole or End Systole) Length % Difference	Long Axis(at End Diastole or End Systole) Length Percentage Difference. Length Percentage Difference unit is %.
H12203-004	Midwall Fractional Shortening	Midwall Fractional Shortening (mFS)
H12203-005	Area Ejection Fraction at Long Axis View	Area Ejection Fraction at Long Axis View
H12203-006	Area Ejection Fraction at Short Axis View	Area Ejection Fraction at Short Axis View
H12203-009	Mean Velocity of Circumferential Fiber Shortening	Mean Velocity of Circumferential Fiber Shortening
H12203-010	Left Ventricle Diastole Filling Time	Left Ventricle Diastole Filling Time
H12203-011	Ratio of MV E-Wave Peak Vel. to Early Diastolic Myocardium Vel.	Ratio of Mitral Valve E-Wave Peak Velocity to Early Diastolic Myocardium Velocity
H12203-012	Ratio of Left Ventricle Diastole Filling Time to R-R interval	Ratio of Left Ventricle Diastole Filling Time to R-R interval

Code Value	Code Meaning	Definition
H12203-013	Global Longitudinal Strain	Global Longitudinal Strain Bi-Plane GLS = {[(A4C ES Circum-length - A4C ED Circum-length） / A4C ED Circum-length] + [(A2C ES Circum-length - A2C ED Circum-length） / A2C ED Circum-length]} * 50 4ch GLS = { (A4C ES Circum-length - A4C ED Circum-length) / A4C ED Circum-length } * 100 2ch GLS = { (A2C ES Circum-length - A2C ED Circum-length) / A2C ED Circum-length } * 100
H12204-001	Right Ventricular Diastolic Area	Right Ventricular Diastolic Area
H12204-002	Right Ventricular Systolic Area	Right Ventricular Systolic Area
H12204-003	Right Ventricular Fractional Area Change	RV FAC = 100 * (RV Area ED - RV Area ES) / RV Area ED. Unit is %.
H12205-001	Left Atrium Antero-posterior Diastolic Dimension	Left Atrium Antero-posterior Diastolic Dimension
H12205-002	Left Atrium systolic major axis	Left Atrium systolic major axis
H12205-003	Left Atrium Systolic Area by Apical two chamber	Left Atrium Systolic Area by Apical two chamber
H12205-004	Left Atrial Volume	Left Atrial Volume
H12205-005	Left Atrial Volume divided by Body Surface Area	Left Atrial Volume divided by Body Surface Area
H12205-006	Long Axis at End Systole Length % Difference of Left Atrium	Long Axis at End Systole Length Percentage Difference of Left Atrium
H12205-007	Left Atrium systolic minor axis	Left Atrium systolic minor axis
H12206-001	Right Atrium systolic major axis	Right Atrium systolic major axis
H12206-002	Right Atrium Systolic Area by Apical two chamber	Right Atrium Systolic Area by Apical two chamber
H12206-003	Right Atrial Volume	Right Atrial Volume
H12206-004	Right Atrial Volume divided by Body Surface Area	Right Atrial Volume divided by Body Surface Area
H12206-005	Long Axis at End Systole Length % Difference of Right Atrium	Long Axis at End Systole Length Percentage Difference of Right Atrium
H12206-006	Right Atrium systolic minor axis	Right Atrium systolic minor axis
H12207-001	Mitral Valve Dimension of C point to E point by M-Mode	Mitral Valve Dimension of C point to E point by M-Mode
H12207-002	Mitral Valve Dimension of C point to A point by M-Mode	Mitral Valve Dimension of C point to A point by M-Mode

Code Value	Code Meaning	Definition
H12207-003	Mitral Valve C-A Dimension to C-E Dimension Ratio by M-Mode	Mitral Valve C-A Dimension to C-E Dimension Ratio by M-Mode
H12207-004	Mitral Valve C-E Dimension to C-A Dimension Ratio by M-Mode	Mitral Valve C-E Dimension to C-A Dimension Ratio by M-Mode
H12207-005	Mitral Valve E-Wave Duration	Mitral Valve E-Wave Duration
H12207-006	Mitral Valve A to E Ratio	Mitral Valve A to E Ratio
H12207-007	Mitral Valve E-wave Peak Pressure Gradient	Mitral Valve E-wave Peak Pressure Gradient
H12207-008	Mitral Valve A-wave Peak Pressure Gradient	Mitral Valve A-wave Peak Pressure Gradient
H12207-009	Subtraction of A-wave Duration from PVA-wave Duration	Subtraction of Mitral A-wave Duration from Pulmonary Vein Atrial Reversal Duration
H12207-010	Velocity Time Integral of Mitral Regurgitant Flow	Velocity Time Integral of Mitral Regurgitant Flow
H12207-012	Mitral Regurgitant Proximal Isovelocity Surface Area	Mitral Regurgitant Proximal Isovelocity Surface Area
H12207-013	Flow Volume of Mitral Valve Annulus in Flow	Flow Volume of Mitral Valve Annulus in Flow
H12207-014	Mitral valve Regurgitant volume	Mitral valve Regurgitant volume
H12208-001	Tricuspid Valve Dimension of C point to E point by M-Mode	Tricuspid Valve Dimension of C point to E point by M-Mode
H12208-002	Tricuspid Valve Dimension of C point to A point by M-Mode	Tricuspid Valve Dimension of C point to A point by M-Mode
H12208-003	Tricuspid Valve Dimension of D point to E point by M-Mode	Tricuspid Valve Dimension of D point to E point by M-Mode
H12208-004	Tricuspid Valve Velocity from E point to F point by M-Mode	Tricuspid Valve Velocity from E point to F point by M-Mode
H12208-005	Tricuspid Valve Velocity from D point to E point by M-Mode	Tricuspid Valve Velocity from D point to E point by M-Mode
H12208-006	Tricuspid Valve C-A Dimension to C-E Dimension Ratio by M-Mode	Tricuspid Valve C-A Dimension to C-E Dimension Ratio by M-Mode
H12208-007	Tricuspid Valve C-E Dimension to C-A Dimension Ratio by M-Mode	Tricuspid Valve C-E Dimension to C-A Dimension Ratio by M-Mode

Code Value	Code Meaning	Definition
H12208-008	Velocity Time Integral of Tricuspid Regurgitant Flow	Velocity Time Integral of Tricuspid Regurgitant Flow
H12208-010	Tricuspid Regurgitant Proximal Isovelocity Surface Area	Tricuspid Regurgitant Proximal Isovelocity Surface Area
H12208-011	Flow Volume of Tricuspid Valve Annulus in Flow	Flow Volume of Tricuspid Valve Annulus in Flow
H12208-012	Tricuspid Annular Plane Systolic Excursion	Tricuspid Annular Plane Systolic Excursion
H12209-001	Pulmonic Valve Dimension of F point to A point by M-Mode	Pulmonic Valve Dimension of F point to A point by M-Mode
H12209-002	Pulmonic Valve Dimension of B point to C point by M-Mode	Pulmonic Valve Dimension of B point to C point by M-Mode
H12209-003	Pulmonic Valve Velocity from E point to F point by M-Mode	Pulmonic Valve Velocity from E point to F point by M-Mode
H12209-004	Pulmonic Valve Velocity from B point to C point by M-Mode	Pulmonic Valve Velocity from B point to C point by M-Mode
H12209-005	Velocity Time Integral of Pulmonic Regurgitant Flow	Velocity Time Integral of Pulmonic Regurgitant Flow
H12209-007	Pulmonic Regurgitant Proximal Isovelocity Surface Area	Pulmonic Regurgitant Proximal Isovelocity Surface Area
H12211-001	Velocity Time Integral of Aortic Regurgitant Flow	Velocity Time Integral of Aortic Regurgitant Flow
H12211-003	Aortic Regurgitant Proximal Isovelocity Surface Area	Aortic Regurgitant Proximal Isovelocity Surface Area
H12214-001	Deceleration Time of D-Wave Flow	Deceleration Time of D-Wave Flow
H12214-002	Systolic Fraction	Systolic Fraction = [S-VTI / (S-VTI + D-VTI)] * 100. Unit is %.
H12222-001	Pre-Ejection Period	Pre-Ejection Period
H12222-002	PEP/ET	Ratio of Pre-Ejection Period to Ejection Time
H12222-003	Flow Time	Flow Time
H12222-004	Radius of Flow Convergence	Radius of Flow Convergence
H12222-005	Aliasing Velocity	Aliasing Velocity
H12222-006	Proximal Isovelocity Surface Area Angle	Proximal Isovelocity Surface Area Angle
H12228-001	Method of Disks, Single Plane with Apical two chamber	Method of Disks, Single Plane with Apical two chamber

Code Value	Code Meaning	Definition
H12228-002	Gibson	EDV and ESV are calculated as follows. EDV = Π / 6 * LVIDd^2 * (0.98 * LVIDd + 5.90) ESV = Π / 6 * LVIDs^2 * (1.14 * LVIDs + 4.18) Volume unit is milliliter and length in cm. Reference : Gibson, D. G. Measurement of left ventricular volumes in man by echocardiography – comparison with biplane angiographs. Br.Heart J. 1971;33:614.
H12228-003	Modified Simpson's	Volume = (LVL / 9) * (4 * LVSAMV + 2 * LVSAPM + (LVSAMV * LVSAPM)^(1 / 2)) Volume unit is milliliter, length in cm and area in cm^2. References : Folland, ED, et al. Assessment of Left Ventricular Ejection Fraction and Volumes by Real-Time, Two-Dimensional Echocardiography. Circulation,1979;60:760-766. A. F. Parisi, MD et al. Approaches to Determination of Left Ventricular Volume and Ejection Fraction by Real-Time Two-Dimensional Echocardiography. Clin.Cardiol.2,257-263(1979).
H12228-004	Bullet	Volume = (5 * LVSAPM * LVL) / 6 Volume unit is milliliter, length in cm and area in cm^2.
H12228-005	Method of Disks, Biplane of LA	Method of Disks, Biplane of Left Atrium
H12228-006	Method of Disks, Single Plane with Apical four chamber of LA	Method of Disks, Single Plane with Apical four chamber of Left Atrium
H12228-007	Method of Disks, Single Plane with Apical two chamber of LA	Method of Disks, Single Plane with Apical two chamber of Left Atrium
H12228-008	Method of Disks, Biplane of RA	Method of Disks, Biplane of Right Atrium
H12228-009	Method of Disks, Single Plane with Apical four chamber of RA	Method of Disks, Single Plane with Apical four chamber of Right Atrium
H12228-010	Method of Disks, Single Plane with Apical two chamber of RA	Method of Disks, Single Plane with Apical two chamber of Right Atrium
H12228-011	Area-Length Biplane of Left Atrium	Area-Length Biplane of Left Atrium
H12228-012	Area-Length Biplane of Right Atrium	Area-Length Biplane of Right Atrium

Code Value	Code Meaning	Definition
H12232-001	Left Ventricle Mass by Area Length	Mass = 1.05 * ((5 * Aepi * (LVLd + thick) / 6) - (5 * Aend * LVLd / 6)) thick = (Aepi / Π)^(1 / 2) - (Aend / Π)^(1 / 2) References : Nelson B. Schiller, MD, et al. Recommendations for Quantitation of the Left Ventricle by Two-Dimensional Echocardiography. American Society of Echocardiography Committee on Standards, Subcommittee on Quantitation of Two-Dimensional Echocardiograms. Journal of the American Society of Echocardiography Vol.2, No.5 September-October 1989.358-367. Nelson B. Schiller, MD, et al. Two-Dimensional Echocardiographic Determination of Left Ventricular Volume, Systolic Function, and Mass: Summary and Discussion of the 1989 Recommendations of the American Society of Echocardiography. Circulation Vol.84, No.3 1991;84 [Suppl I]: I -280- I -287.
H12232-002	Left Ventricle Mass by Penn	Mass = 1.04 * ((IVSd + LVIDd + LVPWd)^3 - LVIDd^3) - 13.6 Mass unit is grams and length in cm. References : Richard B. Devereux. Detection of Left Ventricular Hypertrophy by M-Mode Echocardiography. Anatomic Validation, Standardization, and Comparison to Other Methods. Hypertension 9 [Suppl II]; II - 19 - 26, 1987. Donald C. Wallerson and Richard B. Devereux. Reproducibility of Echocardiographic Left Ventricular Measurements. Hypertension 9 [Suppl II]; II - 6 - 18, 1987. American Society of Echocardiography Committee on Standards, Subcommittee on Quantitation of Two-Dimansional Echocardiograms. Recommendations for Quantitation of the Left Ventricle by Two-Dimansional Echocardiography. Journal of the American Society of Echocardiography Volume 2 Number 5 September-October 1989.
HITACHI_001-001	OB User Definition Doppler1	User Definition Doppler Measurement for OB Application.
HITACHI_001-002	OB User Definition Doppler2	User Definition Doppler Measurement for OB Application.
HITACHI_001-003	OB User Definition Doppler3	User Definition Doppler Measurement for OB Application.
HITACHI_001-005	Ductus Venosus	Ductus Venosus

Code Value	Code Meaning	Definition
HITACHI_002-001	Calculated result	Result Parameter of User Definition Equation Measurement for “User’s calculation function”.
HITACHI_002-002	Equation parameter	Parameter of User Definition Equation Measurement for “User’s calculation function”.

8.6.5 Standard Extended and Private Template Definitions

This section defines the Standard Extended template and Private templates.

Extended Template Definitions
TID 5000 OB-GYN Ultrasound Procedure Report

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV(12500,DCM, ”OB-GYN Ultrasound Procedure Report”)	1	M		
2	>	HAS CONCEPT MOD	INCLUDE	DTID(1204)	1	U		
3	>	HAS OBS CONTEXT	INCLUDE	DTID(1001)	1	M		
4	>	CONTAINS	INCLUDE	DTID(5001)	1	U		
5	>	CONTAINS	CONTAINER	DT(111028, DCM, ”Image Library”)	1	U		
6	>>	CONTAINS	IMAGE	No purpose of reference	1-n	M		
7	>	CONTAINS	INCLUDE	DTID(5002)	1	U		
8	>	CONTAINS	INCLUDE	DTID(5004)	1-n	U		
9	>	CONTAINS	INCLUDE	DTID(5005)	1-n	U		
10	>	CONTAINS	INCLUDE	DTID(5006)	1-n	U		
11	>	CONTAINS	INCLUDE	DTID(5007)	1-n	U		
12	>	CONTAINS	INCLUDE	DTID(5009)	1-n	U		
13	>	CONTAINS	INCLUDE	DTID(5011)	1-n	U		
14	>	CONTAINS	INCLUDE	DTID(5010)	1	U		
15	>	CONTAINS	INCLUDE	DTID(5015)	1	U		
16	>	CONTAINS	INCLUDE	DTID(5012)	1	U		
17	>	CONTAINS	INCLUDE	DTID(5013)	1	U		$Laterality = EV (G-A101,SRT,”Left”) $Number = EV (11879-4, LN, ”Number of follicles in left ovary”)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
18	>	CONTAINS	INCLUDE	DTID(5013)	1	U		$Laterality = EV (G-A100, SRT, ”Right”) $Number = EV (11880-2, LN, ”Number of follicles in right ovary”)
19	>	CONTAINS	CONTAINER	EV(121070, DCM, ”Finding Site”)	1-n	U		
20	>>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, “Finding Site”)	1	M		EV(T-F6800, SRT,”Embryonic Vascular Structure”)
21	>>	CONTAINS	INCLUDE	DTID(5025)	1	M		$AnatomyGroup= DCID(12141)
22	>	CONTAINS	CONTAINER	EV(121070, DCM,”Findings”)	1-n	U		
23	>>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, ”Finding Site”)	1	M		EV(T-D6007, SRT, ”Pelvic Vascular Structure”)
24	>>	CONTAINS	INCLUDE	DTID(5026)	1	M		$AnatomyGroup= DCID(12140)
25	>	CONTAINS	INCLUDE	DTID(HITACHI_5001)	1	U		$Anatomy = DCID(12140) $Meas = DCID(12119)
26	>	CONTAINS	INCLUDE	DTID(HITACHI_5000)	1-n	U		$Anatomy = DCID(12140) $Meas = DCID(12119)
27	>	CONTAINS	INCLUDE	DTID(HITACHI_5000)	1-n	U		$Anatomy = DCID(HITACHI_001) $Meas = DCID(12119)
28	>	CONTAINS	INCLUDE	DTID(HITACHI_5002) OB-GYN User Defined Equation Section	1-n	U		
29	>	CONTAINS	INCLUDE	DTID(HITACHI_301) User Defined Equation Section	1-n	U		

Extended Template Definitions
TID 5100 Vascular Ultrasound Procedure Report

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV(12510,DCM, ”Vascular Ultrasound Procedure Report”)	1	M		
2	>	HAS OBS CONTEXT	CODE	EV(R-40FB8, SRT, ”Temporal periods Relating to Procedure”)	1	U		DCID(12102) Temporal Periods Relating To Procedure or Therapy
3	>	HAS CONCEPT MOD	INCLUDE	DTID(1204) Language of Content Item and Descendants	1	U		
4	>	HAS OBS CONTEXT	INCLUDE	DTID(1001)Observation Context	1	M		
5	>	CONTAINS	INCLUDE	DTID(5101) Vascular Patient Characteristics	1	U		
6	>	CONTAINS		EV(111028, DCM, “Image Library”)	1	U		
7	>>	CONTAINS		No purpose of reference	1-n	M		
8	>	CONTAINS	INCLUDE	DTID(5102) Vascular Procedure Summary Section	1	U		
9	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-40501, SRT, ”Blood Vessel of Head”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12105) Intracranial Cerebral Vessels

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
10	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-40501, SRT, ”Blood Vessel of Head”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12105) Intracranial Cerebral Vessels
11	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-40501, SRT, ”Blood Vessel of Head”) $SectionLaterality = EV (G-A103, SRT, ”Unilateral”) $Anatomy = DCID (12106) Intracranial Cerebral Vessels (unilateral)
12	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-45005, SRT, ”Artery of neck”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12104)Extracranial Arteries $AnatomyRatio = DCID (12123) Carotid Ratios

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
13	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-45005, SRT, ”Artery of neck”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12104) xtracranial Arteries $AnatomyRatio = DCID(12123) Carotid Ratios
14	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-47040, SRT, ”Artery of Lower Extremity”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12109) Lower Extremity Arteries
15	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-47040, SRT, ”Artery of Lower Extremity”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12109) Lower Extremity Arteries
16	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-49403, SRT, ”Vein of Lower Extremity”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12110) Lower Extremity Veins

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
17	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-49403, SRT, ”Vein of Lower Extremity”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12110) Lower Extremity Veins
18	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-47020, SRT, ”Artery Of Upper Extremity”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12107) Upper Extremity Arteries
19	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-47020, SRT, ”Artery Of Upper Extremity”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12107) Upper Extremity Arteries
20	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-49103, SRT, ”Vein Of Upper Extremity”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12108) Upper Extremity Veins

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
21	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-49103, SRT, ”Vein Of Upper Extremity”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12108) Upper Extremity Veins
22	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-71019, SRT, ”Vascular Structure Of Kidney”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12115) Renal Vessels $AnatomyRatio = DCID (12124) Renal Ratios
23	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-71019, SRT, ”Vascular Structure Of Kidney”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12115) Renal Vessels $AnatomyRatio = DCID (12124) Renal Ratios

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
24	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-46002, SRT, ”Artery of Abdomen”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12111) Abdominal Arteries (lateral)
25	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-46002, SRT, ”Artery of Abdomen”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12111) Abdominal Arteries (lateral)
26	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-46002, SRT, ”Artery of Abdomen”) $SectionLaterality = EV (G-A103, SRT, ”Unilateral”) $Anatomy = DCID (12112) Abdominal Arteries (unilateral)
27	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-487A0, SRT, ”Vein of Abdomen”) $SectionLaterality = EV (G-A101, SRT, ”Left”) $Anatomy = DCID (12113) Abdominal Veins(lateral)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
28	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-487A0, SRT, ”Vein of Abdomen”) $SectionLaterality = EV (G-A100, SRT, ”Right”) $Anatomy = DCID (12113) Abdominal Veins(lateral)
29	>	CONTAINS	INCLUDE	DTID(5103) Vascular Ultrasound Section	1	U		$SectionScope = DT (T-487A0, SRT, ” Vein of Abdomen”) $SectionLaterality = EV (G-A103, SRT, ”Unilateral”) $Anatomy = DCID (12114) Abdominal Veins(unilateral)
30	>	CONTAINS	INCLUDE	DTID(5105) Ultrasound Graft Section	1	U		
31	>	CONTAINS	INCLUDE	DTID(HITACHI_301) User Defined Equation Section	1-n	U		

Extended Template Definitions
TID 5200 Echocardiography Ultrasound Procedure Report

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV (125200, DCM, “Adult Echocardiography Procedure Report”)	1	M		
2	>	HAS CONCEPT MOD	INCLUDE	DTID (1204) Language of Content Item and Descendants	1	U		
3	>	HAS OBS CONTEXT	INCLUDE	DTID (1001) Observation Context	1	M		
4	>	CONTAINS	CONTAINER	DT (121064, DCM, “Current Procedure Descriptions”)	1	U		
5	>>	CONTAINS	CODE	DT (125203, DCM, “Acquisition Protocol”)	1-n	M		BCID (12001) Ultrasound Protocol Types
6	>	CONTAINS	INCLUDE	DTID (5201) Echocardiography Patient Characteristics	1	U		
7	>	CONTAINS	CONTAINER	(111028, DCM, “Image Library”)	1	U		
8	>>	CONTAINS	IMAGE	No purpose of reference	1-n	M		
9	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-32600, SRT, “Left Ventricle”) $MeasType = DCID (12200) Echocardiography Left Ventricle
10	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-32500, SRT, “Right Ventricle”) $MeasType = DCID (12204) Echocardiography Right Ventricle

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
11	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-32300, SRT, "Left Atrium") $MeasType = DCID (12205) Echocardiography Left Atrium
12	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-32200, SRT, "Right Atrium") $MeasType = DCID (12206) Echocardiography Right Atrium
13	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-35400, SRT, "Aortic Valve") $MeasType = DCID (12211) Echocardiography Aortic Valve
14	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-35300, SRT, "Mitral Valve") $MeasType = DCID (12207) Echocardiography Mitral Valve
15	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-35200, SRT, "Pulmonic Valve") $MeasType = DCID (12209) Echocardiography Pulmonic Valve
16	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-35100, SRT, "Tricuspid Valve") $MeasType = DCID (12208) Echocardiography Tricuspid Valve

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
17	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-42000, SRT, "Aorta") $MeasType= DCID (12212) Echocardiography Aorta
18	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-44000, SRT, "Pulmonary artery") $MeasType DCID (12210) = Echocardiography Pulmonary Artery
19	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-48600, SRT, "Vena Cava" $MeasType = DCID (12215) Echocardiography Vena Cavae
20	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-48581, SRT, "Pulmonary Venous Structure") $MeasType = DCID (12214) Echocardiography Pulmonary Veins
21	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (T-39050,SRT, "Pericardial cavity") $MeasType = DCID 12250 "CardiacUltrasound Common LinearMeasurements"
22	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (P5-30031, SRT, "Cardiac Shunt Study") $MeasType = DCID (12217) Echocardiography Cardiac Shunt

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
23	>	CONTAINS	INCLUDE	DTID(5202) Echo Section	1	U		$SectionSubject = EV (D4-30000, SRT, “Congenital Anomaly of Cardiovascular System”) $MeasType = DCID (12218) Echocardiography Congenital
24	>	CONTAINS	INCLUDE	DTID(5204) Wall Motion Analysis	1-n	U		$Procedure = DT (P5-B3121, SRT, "Echocardiography for Determining Ventricular Contraction")
25	>	CONTAINS	INCLUDE	DTID(HITACHI_301) User Defined Equation Section	1-n	U		

Private Template Definitions
TID HITACHI_300 Common Original Measurement Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	$AnatomyGroup	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT,“Laterality”)	1	U		$SectionLaterality
3	>	CONTAINS	INCLUDE	DTID(300)	1-n	M		$Measurement = $ MeasType $Derivation = DCID(3627)

Private Template Definitions
TID HITACHI_301 User Defined Equation Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV (H-004, 99HITACHI, “User Defined Equation”)	1	M		
2	>	CONTAINS	TEXT	EV (H-005, 99HITACHI, “User Defined Equation Group Number”)	1	U		
3	>	CONTAINS	TEXT	EV (H-006, 99HITACHI, “User Defined Equation Group Name”)	1	M		
4	>>	HAS PROPERTIES	INCLUDE	DTID(HITACHI_302) User Defined Equation Items Section	1-n	M		

Private Template Definitions
TID HITACHI_302 User Defined Equation Items Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			INCLUDE	DTID(300) Measurement	1	M		$Measurement = DCID(HITACHI_002) User Defined Equation Group $Derivation = DCID(3627) Measurement Type
2	>	INFERRED FROM	TEXT	EV(H-007, 99HITACHI, “User Defined Parameter Number”)	1	U		
3	>	INFERRED FROM	TEXT	EV (H-008, 99HITACHI, “User Defined Parameter Name”)	1	U		

4	>	INFERRED FROM	TEXT	EV (H-009, 99HITACHI, “User Defined Equation”)	1	U		

Private Template Definitions
TID HITACHI_5000 OB Original Fetal Measurement Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV(H-002, 99HITACHI, “OB Original Fetal Measurement Group”)	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID(1008)	1	MC	If this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	INCLUDE	DTID(HITACHI_300)	1-n	M		$AnatomyGroup = $Anatomy $MeasType = $Meas $SectionLaterality = DCID(244)

Private Template Definitions
TID HITACHI_5001 OB-GYN Original Measurement Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV(H-003, 99HITACHI, “OB-GYN Original Measurement Group”)	1	M		

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
2	>	CONTAINS	INCLUDE	DTID(HITACHI_300)	1-n	M		$AnatomyGroup = $Anatomy $MeasType = $Meas $SectionLaterality = DCID(244)

Private Template Definitions
TID HITACHI_5002 OB-GYN User Defined Equation Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value set Constraint
1			CONTAINER	EV(H-010, 99HITACHI, "OB-GYN User Defined Measurement Group")	1			
2	>	HAS OBS CONTEXT	INCLUDE	DTID(1008) Subject Context, Fetus	1	MC	IFF this template is invoked to describe fetus	
3	>	CONTAINS	INCLUDE	DTID(HITACHI_301) User Defined Equation Section	1-n	M		