



GE Healthcare Austria

# DICOM<sup>®</sup> Conformance Statement

**DOC1992311**

Revision 2

**VOLUSON<sup>™</sup> E10 EC330**

**VOLUSON<sup>™</sup> E8 EC330**

**VOLUSON<sup>™</sup> E6 EC330**

**CE<sub>0123</sub>**

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## **Conformance Statement Overview**

The Voluson E6/E8/E10 is a self-contained networked computer system used for acquiring ultrasound diagnostic medical images. The system implements the necessary DICOM services to download work list from an information system, save acquired US images to a network storage device or media, print to a networked hardcopy device, query and move US images from a networked storage and inform the information system about the work actually done. The system conforms to the DICOM standard to allow the sharing of medical information with other digital imaging systems.

Table 0.0–1: Provides an overview of the network services supported by Voluson E6/E8/E10.

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
<b>Transfer</b>		
Verification	Yes	Yes
US Image Storage	Yes	Yes (only in context of Q/R)
US Multi-frame Storage	Yes	Yes (only in context of Q/R)
Enhanced US Volume Storage	Yes	No
Secondary Capture Image Storage	Yes	Yes (only in context of Q/R)
<b>Query/Retrieve</b>		
Study Root Q/R - Find	Yes	No
Study Root Q/R - Move	Yes	No
<b>Print Management</b>		
Basic Grayscale Print Management	Yes	No
Basic Color Print Management	Yes	No
<b>Workflow Management</b>		
Modality Worklist	Yes	No
Modality Performed Procedure	Yes	No
Storage Commitment Push Model	Yes	No
<b>Notes, Report, Measurements, Transfer</b>		
Comprehensive SR Storage	Yes	No

Table 0.0–2: Provides an overview of the Media Storage Application Profile supported by Voluson E6/E8/E10.

Media Storage Application Profile	Write Files (FSC or FSU)	Read Files (FSR)
<b>CD-R</b>		
AUG-US-SC-SF-CDR, AUG-US-SC-MF-CDR	Yes	No
<b>DVD</b>		
AUG-US-SC-SF-DVD, AUG-US-SC-MF-DVD	Yes	No

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# 1 Introduction

## 1.1 Overview

This DICOM Conformance Statement is divided into Sections as described below:

**Section 1 (Introduction)**, which describes the overall structure, intent, and references for this Conformance Statement

**Section 2 (Network Conformance Statement)**, which specifies the Voluson E6/E8/E10 equipment compliance to the DICOM requirements for the implementation of Networking features.

**Section 3 (Media Storage Conformance Statement)**, which specifies the Voluson E6/E8/E10 equipment compliance to the DICOM requirements for the implementation of Media Storage features.

**Section 4 (Ultrasound Information Object Implementation)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of an Ultrasound Medicine Information Object.

**Section 5 (Ultrasound Multi-Frame Information Object Implementation)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of an Ultrasound Multi-Frame Information Object.

**Section 6 (Enhanced Ultrasound Volume Object Implementation)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of an Enhanced Ultrasound Volume Information Object. ( $\geq 10.x.x$ )

**Section 7 (SC Information Object Implementation)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of a Secondary Capture Information Object.

**Section 8 (SR Information Object Implementation)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of a Comprehensive Structured Reporting Information Object.

**Section 9 (Modality Worklist Information Model)**, which specifies the Voluson E6/E8/E10 equipment compliance to DICOM requirements for the implementation of the Modality Worklist service.

**Section 10 (Modality Performed Procedure Step SOP Class Definition)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of Modality Performed Procedure Step Service.

**Section 11 (Storage Commitment Push Model SOP Class Definition)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of the Storage Commitment Push Model Service.

**Section 12 (Basic Print Meta SOP Class Information Object Implementation)**, which specifies the Voluson E6/E8/E10 compliance to DICOM requirements for the implementation of Basic Print Meta SOP Classes (Gray and Color).

**section 13 (study root query/retrieve information model)**, which specifies the Voluson E6/E8/E10 compliance to dicom requirements for the study root query/retrieve information model.

**section 14 (audit trail message format profile)**, which specifies the Voluson E6/E8/E10 compliance to dicom requirements for the audit trail message format profile.

## 1.2 Overall DICOM Conformance Statement Document Structure

The Documentation Structure of the GE Healthcare Conformance Statements and their relationship with the DICOM Conformance Statements is shown below.

This document specifies the DICOM implementation. It is entitled:

Voluson E6/E8/E10 Version EC330 Conformance Statement Part Number  
DOC1992311

This DICOM Conformance Statement documents the DICOM Conformance Statement and Technical Specification required to inter-operate with the Voluson E6/E8/E10 network interface. Introductory information, which is applicable to all GE Healthcare Conformance Statements, is described in the document:

Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement  
Direction: 2118780.

This Introduction familiarizes the reader with DICOM terminology and general concepts. It should be read prior to reading the individual products' GE Healthcare Conformance Statements.

The Voluson E6/E8/E10 Conformance Statement, contained in this document, also specifies the Lower Layer communications, which it supports (e.g. TCP/IP). However, the Technical Specifications are defined in the DICOM Part 8 standard.

For more information including Network Architecture and basic DICOM concepts, please refer to the Introduction.

For more information regarding DICOM, copies of the Standard may be obtained on the Internet at <http://medical.nema.org>. Comments on the standard may be addressed to:

DICOM Secretariat NEMA 1300 N. 17th Street, Suite 1847 Rosslyn, VA 22209 USA

## 1.3 Intended Audience

The reader of this document is concerned with software design and/or system integration issues. It is assumed that the reader of this document is familiar with the DICOM Standards and with the terminology and concepts, which are used in those Standards. If readers are unfamiliar with DICOM terminology they should first refer to the document listed below, then read the DICOM Standard itself, prior to reading this DICOM Conformance Statement document.

Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance  
Statement Direction: 2118780

## 1.4 Scope and Field of Application

It is the intent of this document, in conjunction with the Introduction to the Integrated DICOM/Network v3.0 (ID/Net v3.0) Conformance Statement, Direction: 2118780, to provide an unambiguous specification for GE Healthcare implementations. This specification, called a Conformance Statement, includes a DICOM Conformance Statement and is necessary to ensure proper processing and interpretation of GE Healthcare medical data exchanged using DICOM. The Voluson E6/E8/E10 Conformance Statements are available to the public.

Included in this DICOM Conformance Statement are the Module Definitions, which define all data elements, used by the Voluson E6/E8/E10 implementation. If the user encounters unspecified private data elements while parsing a Voluson E6/E8/E10 Data Set, the user is well advised to ignore those data elements (per the DICOM standard). Unspecified private data element information is subject to change without notice. If, however, the device is acting as a "full fidelity storage device", it should retain and re-transmit all of the private data elements which are sent by the Voluson E6/E8/E10.

## 1.5 Important Remarks

The use of these DICOM Conformance Statements, in conjunction with the DICOM Standards, is intended to facilitate communication with the Voluson E6/E8/E10 equipment. However, **by itself, it is not sufficient to ensure that inter-operation will be successful**. The user (or user's agent) needs to proceed with caution and address at least four issues:

**Integration** - The integration of any device into an overall system of interconnected devices goes beyond the scope of standards (DICOM), and of this introduction and associated DICOM Conformance Statements when interoperability with non-GE equipment is desired. The responsibility to analyze the applications requirements and to design a solution that integrates GE imaging equipment with non-GE systems is the user's responsibility and should not be underestimated. The user is strongly advised to ensure that such an integration analysis is correctly performed.

**Validation** - Testing the complete range of possible interactions between any GE device and non-GE devices, before the connection is declared operational, should not be overlooked. Therefore, the user should ensure that any non-GE provider accepts full responsibility for all validation required for their connection with GE devices. This includes the accuracy of the image data once it has crossed the interface between the GE imaging equipment and the non-GE device and the stability of the image data for the intended applications.

Such a validation is required before any clinical use (diagnosis and/or treatment) is performed. It applies when images acquired on GE imaging equipment are processed/displayed on a non-GE device, as well as when images acquired on non-GE equipment is processed/displayed on a GE console or workstation.

**Future Evolution** - GE understands that the DICOM Standard will evolve to meet the user's growing requirements. GE is actively involved in the development of the DICOM Standard. DICOM will incorporate new features and technologies and GE may follow the evolution of the Standard. The GE Healthcare protocol is based on DICOM as specified in each DICOM Conformance Statement. Evolution of the Standard may require

changes to devices, which have implemented DICOM. In addition, GE reserves the right to discontinue or make changes to the support of communications features (on its products) reflected on by these DICOM Conformance Statements. The user should ensure that any non-GE provider, which connects with GE devices, also plans for the future evolution of the DICOM Standard. Failure to do so will likely result in the loss of function and/or connectivity as the DICOM Standard changes and GE Products are enhanced to support these changes.

**Interaction** - It is the sole responsibility of the non-GE provider to ensure that communication with the interfaced equipment does not cause degradation of GE imaging equipment performance and/or function.

## 2 Network Conformance Statement

### 2.1 Introduction

This section of the DICOM Conformance Statement specifies the compliance to DICOM conformance requirements for the relevant Networking features for the Voluson E6/E8/E10. Note that the format of this section strictly follows the format defined in DICOM Standard PS 3.2 (Conformance). Please refer to that part of the standard while reading this section. Voluson E6/E8/E10 is an Ultrasound scanner running on a commercial computer. It allows for the following DICOM functionality:

- Sending and receiving Echo messages to and from DICOM Verification SCP and client.
- Exporting DICOM images and SR documents to a DICOM SCP.
- Querying and retrieving DICOM Modality Worklist from a Worklist SCP.
- Sending start and end of examination to a DICOM Modality Performed Procedure Step SCP.
- Sending storage commitment requests to and receiving replies from a DICOM Storage Commitment SCP.
- Printing images to a DICOM Printer.
- Querying and retrieving examinations from the DICOM Query/Retrieve SCP.

### 2.2 Implementation Model

#### 2.2.1 Application Data Flow Diagram

The Basic and Specific Application models for this device are shown in Figure 1.

There are seven local real-world activities that occur in Voluson E6/E8/E10 - **Image Send, Verify, Query Worklist, Start/End Exam, Print Image, Query/Retrieve and Receive Image.**

- **Image Send** spools images or SR documents into a send queue. The queue manager then initiates a connection with the DICOM SCP and transmits the images and SR documents to the DICOM SCP. If Storage Commitment is configured, a commitment request will be sent for the images and SR documents. The resulting N-Event-Report from the SCP will be processed by the queue manager.
- **Verify** initiates a connection with the DICOM SCP, posts a Verification request and closes the connection. It also responds to incoming Verification requests.
- **Query Worklist** initiates a connection with the DICOM SCP, performs a query and retrieves the matching entries to the product.
- **Start/End exam:** If Modality Performed Procedure Step is configured N-CREATE and N-SET messages will be sent for the exam.

# Dicom Standard Interface

The arrows indicate the direction of association initiation

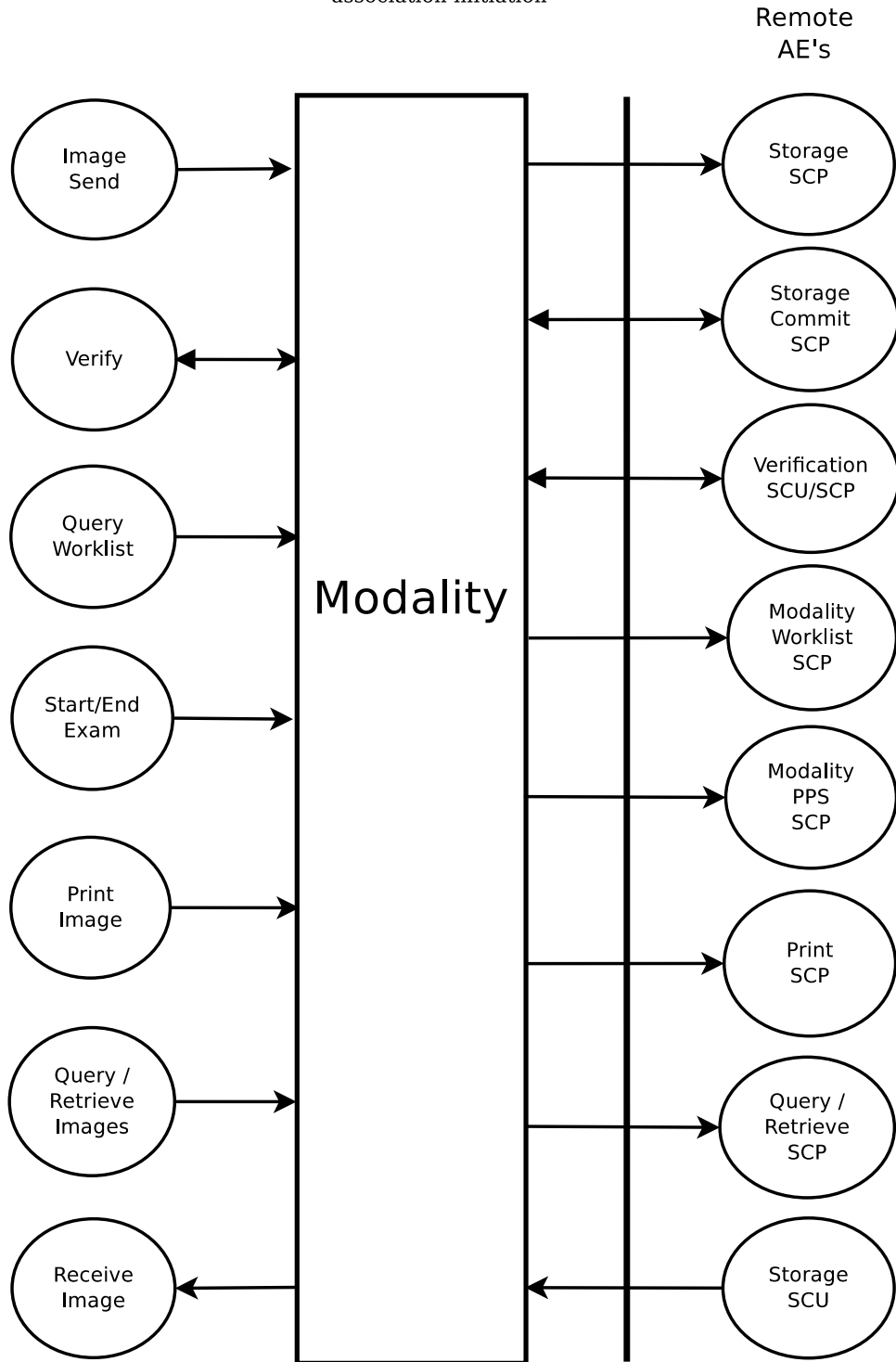


Figure 1: Application Data Flow Diagram

- **Print Image** will send images to a DICOM Print SCP. It uses the same spooling mechanism as Image Send.
- **Query/Retrieve** will send queries to a DICOM Query/Retrieve SCP and retrieve images.
- **Receive Image:** The modality will accept requests for DICOM image storage and store the received images into a local database.

### 2.2.2 Functional Definition of AE's

Application Entity Voluson E6/E8/E10 supports the following functions:

- Initiates a DICOM association to send images and SR documents.
- Initiates a DICOM verification to assist in network diagnostics.
- Responds to DICOM verification requests from other devices.
- Initiates a DICOM worklist query to receive worklist information.
- Initiates a DICOM association to notify start of examination.
- Initiates a DICOM association to notify end of examination.
- Initiates a DICOM association to request storage commitment of images and SR documents.
- Responds to replies from DICOM Storage Commitment SCPs, for storage commitment requests of images and SR documents sent by Voluson E6/E8/E10.
- Initiates a DICOM association to print images.
- Initiates a DICOM association to query for and retrieve images.
- Responds to Image Storage requests from Storage SCU.

### 2.2.3 Sequencing of Real-World Activities

Not applicable.



## 2.3 AE Specifications

### 2.3.1 Voluson E6/E8/E10 AE Specification

This Application Entity provides Standard Conformance to the following DICOM SOP Classes as an SCU:

Table 2.3-1: SCU SOP Classes

SOP Class Name	SOP Class UID
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1
Enhanced Ultrasound Volume Storage ( $\geq 10.x.x$ )	1.2.840.10008.5.1.4.1.1.6.2
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7
Verification SOP Class	1.2.840.10008.1.1
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31
Modality Performed Procedure Step SOP Class	1.2.840.10008.3.1.2.3.3
Storage Commitment Push Model SOP Class	1.2.840.10008.1.20.1
Basic Grayscale Print Management Meta SOP Class	1.2.840.10008.5.1.1.9
Basic Color Print Management Meta SOP Class	1.2.840.10008.5.1.1.18
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33
Study Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1
Study Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2

This Application Entity provides Standard Conformance to the following DICOM SOP Classes as an SCP:

Table 2.3-2: SCP SOP Classes

SOP Class Name	SOP Class UID
Verification SOP Class	1.2.840.10008.1.1
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1
Enhanced Ultrasound Volume Storage ( $\geq 10.x.x$ )	1.2.840.10008.5.1.4.1.1.6.2
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7

#### 2.3.1.1 Association Establishment Policies

##### 2.3.1.1.1 General

The DICOM Application Context Name (ACN), which is always proposed, is:

Table 2.3-3: Application Context Name

Name	UID
Application Context Name	1.2.840.10008.3.1.1.1

The Maximum Length PDU negotiation is included in all association establishment requests. The maximum length PDU for an association initiated by the equipment is:

Table 2.3-4: **PDU Size**

<b>Name</b>	<b>Length</b>
Maximum PDU Size Offered (not configurable)	28872 bytes

The SOP Class Extended Negotiation is not supported.

The user information Items sent by this product are:

- Maximum PDU Length
- Implementation UID Implementation
- Version Name

#### **2.3.1.1.2 Number of Associations**

The Voluson E6/E8/E10 AE will initiate multiple DICOM associations.

#### **2.3.1.1.3 Asynchronous Nature**

Asynchronous mode is not supported. All operations will be performed synchronously.

#### **2.3.1.1.4 Implementation Identifying Information**

The Implementation UID for this DICOM Implementation is:

”1.2.276.0.26.20010718.240”

The Implementation Version Name for this DICOM Implementation is:

”KRETZDICOM.240”

Note: The Implementation Version Name may change in the future without modification of this document.

#### **2.3.1.2 Association Initiation Policy**

The Voluson E6/E8/E10 AE attempts to establish a new association with a remote device due to the following Real-World Activities:

- Image Send initiated by the operator for images and SR documents and sending requests for Storage Commitment.

- Verification, which verifies application level communication between peer DICOM AE's for service purposes.
- Worklist initiated by the operator for receiving worklist information.
- Start/End Exam sending messages to Modality Performed Procedure Step.
- Print initiated by the operator for a specific image or group of images.
- Query/Retrieve initiated by the operator for querying and receiving images.

### 2.3.1.2.1 Real-World Activity ('Image Send' Operation)

#### 2.3.1.2.1.1 Associated Real-World Activity

Upon a request by the operator (manual or automatic), images or SR documents will be sent to a DICOM Storage SCP.

#### 2.3.1.2.1.2 Proposed Presentation Context Tables

The Proposed Presentation Context Table depends on compression according to the following tables:

Table 2.3-5: Presentation Context Table - Proposed (No Compression)

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

Table 2.3-6: Presentation Context Table - Proposed (JPEG Compression)

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	JPEG Baseline JPEG Lossless Non-Hier. (Process 14)	1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None.
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	JPEG Baseline JPEG Lossless Non-Hier. (Process 14)	1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None.
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	JPEG Baseline JPEG Lossless Non-Hier. (Process 14)	1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None.
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	JPEG Baseline JPEG Lossless Non-Hier. (Process 14)	1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70	SCU	None.

Table 2.3-7: Presentation Context Table - Proposed

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Comprehensive Structured Report	1.2.840.10008.5.1.4.1 .1.88.33	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

Table 2.3-8: Presentation Context Table - Proposed - Storage Commitment

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Storage Commitment Push Model SOP Class	1.2.840.10008.1.20.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

### 2.3.1.2.1.2.1 SOP Specific DICOM Conformance for all Storage SOP Classes

The Voluson E6/E8/E10 also sends a Storage Commitment Request, with the above proposed presentation context. The result from the SCP is expected on another association for the Storage Commitment result.

### 2.3.1.2.1.2.2 SOP Specific DICOM Statement for all Storage SOP Classes and Storage Commitment SOP Class

For this SOP class, all status codes with status Refused or Error are treated as failures and will terminate the association and operation. On a failure, the request will remain in the sending queue and will be retried a configurable amount of times. If the failure persists the job will be marked as permanently failed. Jobs with status permanently failed can be retried manually. Warning or Success are treated as successes. There is no fallback procedure available if the SCP does not support the Enhanced US Volume Storage SOP Class.

The Storage Commitment SCP AE Title and the Storage SCP AE Title are free configurable and can be different.

### 2.3.1.2.2 Real-World Activity ('Verify' Operation)

#### 2.3.1.2.2.1 Associated Real-World Activity

The user may initiate a DICOM Verification Request in the Config screen. Associations will be released upon the receipt of each C-ECHO confirmation. In the event that the SCP does not respond for some reason, the operation will time out and the Voluson E6/E8/E10 will close the association.

#### 2.3.1.2.2.2 Proposed Presentation Context Table

Table 2.3-9: Presentation Context Table - Proposed

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Verification SOP Class	1.2.840.10008.1.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

### 2.3.1.2.3 Real-World Activity ('Query Worklist' Operation)

#### 2.3.1.2.3.1 Associated Real-World Activity

The user may initiate a DICOM Worklist Query in Search screen, which will send a C-FIND-RQ to the Worklist SCP.

Associations will be released upon the receipt of C-FIND-RSP confirmation.  
C-FIND-CANCEL-RQ is not supported.

### 2.3.1.2.3.2 Proposed Presentation Context Table

Table 2.3–10: Presentation Context Table - Proposed

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

#### 2.3.1.2.3.2.1 SOP Specific DICOM Conformance Statement for Worklist SOP Classes

The Voluson E6/E8/E10 includes matching keys in the Modality Worklist queries as described in Section 9.5. Status codes Refused, Error and Warning are treated as failures and will terminate the association and operation. On a failure, the user will be informed. On status code Success the worklist will be displayed and the operation will be terminated. On Status code Pending the system will continue receiving C-FIND-RSP's.

#### 2.3.1.2.4 Real-World Activity ('Start/End Exam' Operation)

##### 2.3.1.2.4.1 Associated Real-World Activity

The Modality Performed Procedure Step message is sent when the exam is started by the user after a worklist entry has been selected or patient data have been entered on the patient data entry screen. Also different procedure steps can be selected at the patient data entry screen. At this time the N-CREATE message is sent.

The N-SET will be sent when 'End Exam' is being pressed. The status is set to COMPLETED by default. However the operator may choose to manually set the status to DISCONTINUED and select the discontinuation reason from a predefined list.

The sequences and codes for N-CREATE and N-SET are described in Tables 10.2–2, 10.2–3 and 10.2–4.

##### 2.3.1.2.4.2 Proposed Presentation Context Table

Table 2.3–11: Presentation Context Table - Proposed

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Modality Performed Procedure Step SOP Class	1.2.840.10008.3.1.2.3.3	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

#### 2.3.1.2.4.2.1 SOP Specific DICOM Conformance Statement for Modality Performed Procedure Step SOP Class

The Voluson E6/E8/E10 includes Attributes in the Modality Performed Procedure Step N-CREATE as described in Section 10.2.1.

The Voluson E6/E8/E10 includes Attributes in the Modality Performed Procedure Step N-SET as described in Section 10.2.1.

The mapping from Worklist attributes is described in Section 9.5.

Voluson E6/E8/E10 sends N-SET after the exam is ended. The N-SET will include all acquired images SOP Instance UIDs and the status of COMPLETED or DISCONTINUED.

For this SOP class, all status codes with status Refused or Error are treated as failures and terminate the association and operation. All status codes with status Warning or Success are treated as successes.

#### 2.3.1.2.5 Real-World Activity ('Image Print' Operation)

##### 2.3.1.2.5.1 Associated Real-World Activity

Upon a request by the operator, print jobs will be sent to a DICOM Print SCP. The jobs are entered into a send queue and processed by the spool manager. If an error occurs during the transmission the operation may be retried automatically. The number of automatic retries is configurable. After the automatic retries the operation can be manually retried.

##### 2.3.1.2.5.2 Proposed Presentation Context Table

Table 2.3–12: Presentation Context Table - Proposed

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Basic Grayscale Print Management Meta SOP Class	1.2.840.10008.5.1.1.9	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

Table 2.3–12: Presentation Context Table - Proposed (continued)

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Basic Color Print Management Meta SOP Class	1.2.840.10008.5.1.1.18	Explicit VR	1.2.840.10008.1.2.1	SCU	None.
		Little Endian			
		Explicit VR	1.2.840.10008.1.2.2		
		Big Endian			
		Implicit VR	1.2.840.10008.1.2		
		Little Endian			

### 2.3.1.2.5.2.1 SOP Specific DICOM Conformance Statement for Print Management SOP Classes

The Voluson E6/E8/E10 treats all status codes with status Refused or Error as failures and the spool manager retries the operation. After the configurable number of retries has been exceeded the spooler's job status is set to FAILED and the print job may be retried manually. Detailed information is described in Section 12. All status codes with status Warning or Success are treated as success.

### 2.3.1.2.6 Real-World Activity ('Query/Retrieve Images' Operation)

#### 2.3.1.2.6.1 Associated Real-World Activity

The user may initiate a DICOM Query in Search screen, which will send a C-FIND-RQ to the Query/Retrieve SCP.

Associations will be released upon the receipt of C-FIND-RSP confirmation.

The user may then select an examination to be retrieved, using the C-MOVE-RQ command to the Query/Retrieve SCP. The result from the SCP is expected on another association for the retrieved examinations.

#### 2.3.1.2.6.2 Proposed Presentation Context Table

Table 2.3–13: Presentation Context Table - Proposed

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



### 2.3.1.2.6.2.1 SOP Specific DICOM Conformance Statement for Query/Retrieve SOP Class

Only a single information model, Study Root is supported.

All queries are initiated at the highest level of the information model (the STUDY level), and then for each response received, recursively repeated at the next lower level (SERIES). The user then can select one "Exam" (Series) and retrieve it. Retrieving is being done at the SERIES level.

The Voluson E6/E8/E10 treats all status codes with status Refused or Error as failures and terminate the association and operation. All status codes with status Warning or Success are treated as success.

Table 2.3–14: Study Root Request Identifier for Query

Attribute Name	Tag	Types of Matching	Filtering is supported
STUDY Level			
Study Date	(0008,0020)	S,U,R	Yes
Study Time	(0008,0030)	U	
Referring Physicians Name	(0008,1090)	U	
Accession Number	(0008,0050)	S,*,U	Yes
Patient Name	(0010,0010)	S,*,U	Yes
Patient ID	(0010,0020)	S,*,U	Yes
Patient Birth Date	(0010,0030)	S,U	Yes
Patient Sex	(0010,0040)	S,U	Yes
Study Instance UID	(0020,000D)	UNIQUE	
Number of Patient Related Studies	(0020,1200)	U	
Number of Study Related Series	(0020,1206)	U	
Study Description	(0008,1030)	S,*,U	Yes
OperatorsName	(0008,1070)	U	
AdmittingDiagnosesDescription	(0008,1080)	U	
PerformingPhysiciansName	(0008,1050)	U	
IssuerofPatientID	(0010,0021)	U	
PatientsSize	(0010,1020)	U	
PatientsWeight	(0010,1030)	U	
SERIES Level			
Modality	(0008,0060)	S	always "US"
Series Date	(0008,0021)	S,U,R	
Series Time	(0008,0031)	U	
Series Instance UID	(0020,000E)	UNIQUE	
Number of Series Related Instances	(0020,1209)	U	
SeriesDescription	(0008,103E)	U	

Types of Matching:

- Single Value Matching (S)
- Universal Matching (U)

- Wildcard Matching (\*)
- Date,Time Range Matching (R)

The types of Matching supported by the C-FIND SCU are: ‘S’ indicates the identifier attribute uses Single Value Matching, an ‘R’ indicates Range Matching, a ”\*” indicates wildcard matching, a ‘U’ indicates Universal Matching, and ‘UNIQUE’ indicates that this is the Unique Key for that query level, in which case Universal Matching or Single Value Matching is used depending on the query level.

”Filtering is supported” means that matching strings can be controlled from the Search screen. C-CANCEL-FIND-RQ and C-CANCEL-MOVE-RQ are not supported.

### 2.3.1.2.6.2.2 SOP Specific DICOM Conformance Statement for Study Root Query/Retrieve Information SOP Class

The Voluson E6/E8/E10 treats all status codes with status Refused or Error as failures. All status codes with status Warning or Success are treated as successes. On Status Code Pending the system will continue receiving C-FIND-RSP’s. The C-MOVE time-out is not configureable.

### 2.3.1.3 Association Acceptance Policy

The Voluson E6/E8/E10 AE accepts an association when it receives a Verification Request from another network device, an image storage request from an SCU or a Storage Commitment result from a Storage Commitment SCP.

#### 2.3.1.3.1 Real-World Activity (‘Verify’ Operation)

##### 2.3.1.3.1.1 Associated Real-World Activity

An incoming Verification Request will cause the AE to accept the association and respond with a Verification Response.

##### 2.3.1.3.1.2 Accepted Presentation Context Table

Table 2.3–15: Presentation Context Table - Accepted

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Verification SOP Class	1.2.840.10008.1.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCP	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

### 2.3.1.3.1.2.1 SOP Specific DICOM Conformance Statement for Verify SOP Class

The AE provides standard conformance to the Verification SOP Class as an SCP. The port number used is configured in Config screen, default is 104.

### 2.3.1.3.1.3 Presentation Context Acceptance Criterion

No criterion.

### 2.3.1.3.1.4 Transfer Syntax Selection Policies

The selected transfer syntax is based on the proposed transfer syntax list. The priority order is Explicit VR Little Endian, Explicit VR Big Endian and Implicit VR Little Endian.

### 2.3.1.3.2 Real-World Activity ('Image Send' Operation)

#### 2.3.1.3.2.1 Associated Real-World Activity

Voluson E6/E8/E10 will only listen for an N-EVENT-REPORT (Storage Commitment Result) from a Storage Commitment SCP in a new association.

#### 2.3.1.3.2.2 Accepted Presentation Context Table

Table 2.3–16: Presentation Context Table - Accepted - Storage Commitment

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Storage Commitment Push Model SOP Class	1.2.840.10008.1.20.1	Explicit VR Little Endian	1.2.840.10008.1.2.1	SCU	None.
		Explicit VR Big Endian	1.2.840.10008.1.2.2		
		Implicit VR Little Endian	1.2.840.10008.1.2		

#### 2.3.1.3.2.2.1 SOP Specific DICOM Conformance Statement for the Storage Commitment Push Model SOP Class SCU

The Voluson E6/E8/E10 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. The result from the SCP is expected on another association for the Storage Commitment result.

The Voluson E6/E8/E10 behavior after receiving an N-EVENT-REPORT-RQ (Storage Commitment Result) is described in Section 11.2.3.2.

### 2.3.1.3.3 Real-World Activity (Receive Image Operation)

#### 2.3.1.3.3.1 Associated Real-World Activity

Voluson E6/E8/E10 will accept associations for C-STORE-RQs. The received images will be stored into a local database.

#### 2.3.1.3.3.2 Accepted Presentation Context Table

Table 2.3-17: Presentation Context Table - Accepted

Abstract Syntax Name	Abstract Syntax UID	Transfer Syntax Name	Transfer Syntax UID	Role	Ext. Neg.
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Explicit VR	1.2.840.10008.1.2.1	SCP	None.
		Little Endian			
		Explicit VR	1.2.840.10008.1.2.2		
		Big Endian			
		Implicit VR	1.2.840.10008.1.2		
		Little Endian			
		JPEG Baseline	1.2.840.10008.1.2.4.50		
JPEG Lossless	1.2.840.10008.1.2.4.70				
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Explicit VR	1.2.840.10008.1.2.1	SCP	None.
		Little Endian			
		Explicit VR	1.2.840.10008.1.2.2		
		Big Endian			
		Implicit VR	1.2.840.10008.1.2		
		Little Endian			
		JPEG Baseline	1.2.840.10008.1.2.4.50		
JPEG Lossless	1.2.840.10008.1.2.4.70				
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	Explicit VR	1.2.840.10008.1.2.1	SCP	None.
		Little Endian			
		Explicit VR	1.2.840.10008.1.2.2		
		Big Endian			
		Implicit VR	1.2.840.10008.1.2		
		Little Endian			
		JPEG Baseline	1.2.840.10008.1.2.4.50		
JPEG Lossless	1.2.840.10008.1.2.4.70				
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR	1.2.840.10008.1.2.1	SCP	None.
		Little Endian			
		Explicit VR	1.2.840.10008.1.2.2		
		Big Endian			
		Implicit VR	1.2.840.10008.1.2		
		Little Endian			
		JPEG Baseline	1.2.840.10008.1.2.4.50		
JPEG Lossless	1.2.840.10008.1.2.4.70				
		Non-Hier. (Process 14)			

### 2.3.1.3.3.2.1 SOP Specific DICOM Conformance Statement for the Storage SOP Classes

The AE provides standard conformance to the Storage SOP Classes as an SCP. The port number used is not configurable and is set to 104.

The SOP Class Extended Negotiation is not supported.

The Storage SOP Class as an SCP is classified as Level 1 (Base).

The following C-Store Response Status values can be returned from the Voluson E6/E8/E10:

Table 2.3–18: C-Store-RSP Status Codes

Status Name	Status Code	Description of Field
Success	0000h	successfully transferred
Refused	A700h	no space left on device
Event Processing Failure	0110h	item can not be imported correctly

### 2.3.1.3.3.2.2 Presentation Context Acceptance Criterion

No criterion.

### 2.3.1.3.3.2.3 Transfer Syntax Selection Policies

The accepted transfer syntaxes are based on the proposed transfer syntax list. The defined priority order is listed in Table 2.3–19. The first supported transfer syntaxes from Table 2.3–19 will be accepted.

Table 2.3–19: Transfer Syntax Priority

Priority	Transfer Syntax
SYNTAX_1	EXPLICIT_LITTLE_ENDIAN
SYNTAX_2	EXPLICIT_BIG_ENDIAN
SYNTAX_3	IMPLICIT_LITTLE_ENDIAN
SYNTAX_4	JPEG_BASELINE
SYNTAX_5	JPEG_LOSSLESS_HIER.14

## 2.4 Communication Profiles

### 2.4.1 Supported Communication Stacks (PS 3.8)

DICOM Upper Layer (PS 3.8) is supported using TCP/IP.

### 2.4.2 TCP/IP Stack

The TCP/IP stack is inherited from the product's operating system. Please refer to product documentation for more information.

### **2.4.2.1 API**

Not applicable to this product.

### **2.4.3 Additional Protocols**

The Voluson E6/E8/E10 supports DHCP from the product's operating system. Please refer to product documentation for more information.

### **2.4.4 IPv4 and IPv6 Support**

The Voluson E6/E8/E10 supports only IPv4.

## **2.5 Extensions / Specialisations / Privatizations**

The product will send additional private patient and physician data in private data elements designated by the private tag 6101,00xx VR LO, VM 1, and 6301, 00xx VR LO, VM 1. Ultrasound raw volume data information will be sent in private data elements designated by the private tag 7FE1,00xx VR LO, VM 1 and ultrasound raw data information in private data elements designated by the private tag 8001,00xx VR LO, VM 1.

## **2.6 Configuration**

### **2.6.1 AE Title/Presentation Address Mapping**

The Local AE title is configurable through the Config screen, see below.

### **2.6.2 Configurable Parameters**

#### **Network:**

- Local IP address
- Local IP netmask
- Local routing table information

#### **Local:**

- Local AE Title
- Local TCP Port Number

#### **Verification:**

- The AE Title, IP Address and Port number of the SCP.

#### **Remote Storage:**

- The AE Title, IP Address and Port number of the SCP.
- Max retries, Retry interval.

**Query/ Retrieve:**

- The AE Title, IP Address and Port number of the SCP.
- Default Application.

**Modality Worklist:**

- The AE Title, IP Address and Port number of the SCP.

**Modality Performed Procedure Step:**

- The AE Title, IP Address and Port number of the SCP.

**Storage Commitment:**

- The AE Title, IP Address and Port number of the SCP.
- Max retries, Retry interval.

**Print:**

- The AE Title, IP Address and Port number of the SCP.
- Max retries, Retry interval.
- Configuration for each print job in setup dialog.

## 2.7 Support of Extended Character Sets

Voluson E6/E8/E10 supports the ISO\_IR 100 (ISO 8859-1:1987 Latin character set). Other character sets will be displayed as if they were encoded in ISO\_IR 100.

## 2.8 Codes and Controlled Terminology

The product uses the fixed (non-configurable, non-extensible) coded terminology in SR Document attributes, as described in Section 8 SR Information Object Implementation and also in Annexes B and A

## 2.9 Security Profiles

The product supports the Audit Trail Message Format Profile. See section 14 for detailed description. It does not support any other DICOM Security Profiles.

It is assumed that the product is used within a secured environment. It is assumed that a secured environment includes at a minimum:

- Firewall or router protections to ensure that only approved external hosts have network access to the product.
- Firewall or router protections to ensure that the product only has network access to approved external hosts and services.
- Any communications with external hosts and services outside the locally secured environment use appropriate secure network channels (such as a Virtual Private Network(VPN))

### 2.9.1 Application Level Security

Voluson E6/E8/E10 can be configured to require a password in order to access to the user interface functionalities.

### 2.9.2 Secure Transport Connection

Since ( $\geq$  **EC310**) Voluson E6/E8/E10 supports secure DICOM communication in conformance with the Basic TLS Secure Transport Connection Profile. At default configuration the TLS option is deactivated.

Table 2.9-1: Mechanism for TLS Feature

Supported TLS Feature	Minimum Mechanism
Entity Authentication	RSA based certificates
Exchange of Master Secrets	RSA
Data Integrity	SHA
Privacy	Triple DES EDE, DBC

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. Currently there are no userdefined provider reasons implemented.



## 3 Media Storage Conformance

### 3.1 Introduction

This section of the DICOM Conformance Statement specifies the compliance to DICOM Media Interchange for the Voluson E6/E8/E10.

Voluson E6/E8/E10 supports the following DICOM functionality:

Voluson E6/E8/E10 is able to export images and structured reports to DICOM media. Browsing media and reading images or structured reports from DICOM media is not supported.

- Create a new DICOM File-set on media.

### 3.2 Implementation Model

#### 3.2.1 Application Data Flow Diagram

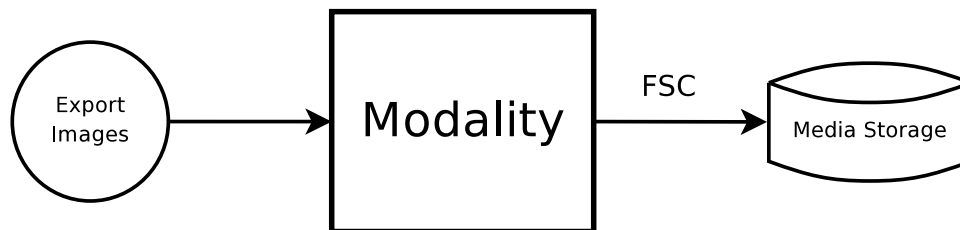


Figure 2: AE Data Flow Diagram

There is one local real-world activity that occurs in Voluson E6/E8/E10 - **Export**.

- **Export** creates a new DICOM File-set on CD-R or DVD-R.

#### 3.2.2 Functional Definition of AE's

Application Entity Voluson E6/E8/E10 supports the following functions:

- Create a new DICOM File-set on CD-R or DVD-R.

#### 3.2.3 Sequencing of Real-World Activities

Not applicable.

### 3.3 File Meta Information Options (See PS3.10)

Table 3.3–1: File Meta-Information for this implementation

Meta Informartion	Value
File Meta-Information Version	1
Implementation UID	1.2.840.113619.6.115
Implementation Version Name	KRETZDICOM_240

Note: The Implementation Version Name may change in the future without modification of this document.

### 3.4 AE Specifications

#### 3.4.1 Voluson E6/E8/E10 AE Specification

The Voluson E6/E8/E10 Application Entity provides standard conformance to DICOM Interchange Option of the Media Storage Service Class. The Application Profiles and roles are listed below, the standard profiles are augmented with Secondary Capture images.

Table 3.4–1: Application Profiles and roles

Profile	Real World Activity	Role	Description
AUG-US-SC-SF-CDR AUG-US-SC-MF-CDR AUG-US-SC-SF-DVD AUG-US-SC-MF-DVD	Export	FSC	Interchange

##### 3.4.1.1 File Meta Information for the Voluson E6/E8/E10 Application Entity

The Source Application Entity is set from the Voluson E6/E8/E10 local AE title. The local AE title is configurable.

##### 3.4.1.2 Real-World Activities for the Voluson E6/E8/E10 Application Entity

###### 3.4.1.2.1 Real-World Activity ‘Export’

‘Export’ saves selected DICOM SOP instances to media and creates a DICOM File Set.

###### 3.4.1.2.1.1 Media Storage Application Profile for Real-World Activity ‘Export’:

For the list of Application Profiles that invoke this AE for ‘Export’ Real-World Activity, see the Table in Section 3.4.1 where the table describing the profiles and real-world activities is defined.

### 3.4.1.2.1.2 Options

Table 3.4–2: Supported SOP Classes for ‘Export’

Information Object Definition	SOP Class UID	Transfer Syntax	Transfer Syntax UID
DICOM Media Storage Directory	1.2.840.10008.1.3.10	Explicit VR Little Endian	1.2.840.10008.1.2.1
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Explicit VR Little Endian	1.2.840.10008.1.2.1
		JPEG Baseline	1.2.840.10008.1.2.4.50
Enhanced Ultrasound Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	Explicit VR Little Endian	1.2.840.10008.1.2.1
		JPEG Baseline	1.2.840.10008.1.2.4.50
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Explicit VR Little Endian	1.2.840.10008.1.2.1
		JPEG Baseline	1.2.840.10008.1.2.4.50
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Explicit VR Little Endian	1.2.840.10008.1.2.1
		JPEG Baseline	1.2.840.10008.1.2.4.50
Comprehensive Structured Report Storage	1.2.840.10008.5.1.4.1.1.88.33	Explicit VR Little Endian	1.2.840.10008.1.2.1

### 3.4.1.2.1.3 AUGMENTED AND PRIVATE APPLICATION PROFILES

Voluson E6/E8/E10 creates Secondary Capture Image and Structured Report objects in addition to the objects defined in the application profiles.

## 4 Ultrasound (US) Information Object Implementation

### 4.1 Introduction

This section specifies the use of the DICOM US Image IOD to represent the information included in US images produced by this implementation. Corresponding attributes are conveyed using the module construct. The contents of this section are:

- IOD Implementation
- IOD Module Table
- IOD Module Definitions

### 4.2 US IOD Implementation

This section defines the implementation of US image information object.

### 4.3 US Entity-Relationship Model

#### 4.3.1 Entity Description

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the US Information Object.

#### 4.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 4.3–1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
Patient	Patient
Study	Exam
Series	Exam
Image	Image
Curve	not used

### 4.4 IOD Module Table

Within an entity of the DICOM US IOD, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into data sets.

The table below identifies the defined modules within the entities, which comprise the DICOM US IOD. Modules are identified by Module Name.

See DICOM Part 3 for a complete definition of the entities, modules, and attributes.

Only the single frame US Image IOD is described here.

Table 4.4-1: US Image IOD Modules

Entity Name	Module Name	Reference
Patient	Patient	4.5.1.1
Study	General Study	4.5.2.1
Study	Patient Study	4.5.2.2
Series	General Series	4.5.3.1
Frame of Reference	Frame of Reference	Not used
Frame of Reference	US Frame of Reference	Not used
Equipment	General Equipment	4.5.4.1
Image	General Image	4.5.5.1
Image	Image Pixel	4.5.5.2
Image	Contrast / Bolus	Not used
Image	Palette Color Lookup Table	Not used
Image	US Region Calibration	4.5.7.1
Image	US Image	4.5.7.2
Image	Overlay Plane	Not used
Image	VOI LUT	Not used
Image	SOP Common	4.5.6.1
Curve		Not used

## 4.5 Information Module Definitions

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules contained within the US Information Object.

The following modules are included to convey Enumerated Values, Defined Terms, and Optional Attributes supported. Type 1 & Type 2 Attributes are also included for completeness and to define what values they may take and where these values are obtained. It should be noted that they are the same ones as defined in the DICOM Standard Part 3 (Information Object Definitions). The attribute "Not used" is equal to "Not present". Not listed elements are not supported. For detailed information please also refer to DICOM Standard Part 3 (Information Object Definitions) Annex C (COMMON COMPOSITE IMAGE IOD MODULES).

### 4.5.1 Common Patient Entity Modules

#### 4.5.1.1 Patient Module

Please also refer to DICOM Standard Part 3 (Information Object Definitions) Annex C (INFORMATION MODULE DEFINITIONS).

Table 4.5-1: Patient Module Attributes

Attribute Name	Tag	Type	Attribute Description
Patient's Name	0010, 0010	2	Patient name with ^ delimiters. May be entered from user interface. Taken from the worklist if present.
Patient ID	0010, 0020	2	64 char max. May be entered from user interface. Taken from the worklist if present. If empty it will be generated.

Table 4.5–1: Patient Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Issuer of Patient ID	0010, 0021	3	( $\geq$ <b>10.x.x</b> ) included only if present in worklist
Birth Date	0010, 0030	2	May be entered from user interface. Taken from the worklist if present.
Patient Sex	0010, 0040	2	May be entered from user interface. Taken from the worklist if present.
Referenced Patient SQ	0008, 1120	3	Not used
Patient's Birth Time	0010, 0032	3	Not used
Other Patient Ids	0010, 1000	3	( $\geq$ <b>10.x.x</b> ) May be entered from user interface. Taken from the worklist if present.
Other Patient Names	0010, 1001	3	Not used
PatientsTelephoneNumbers	0010, 2154	3	( $\geq$ <b>EC300</b> ) May be entered from user interface. Taken from the worklist if present.
Ethnic Group	0010, 2160	3	Not used
Patient Comments	0010, 2201	3	Not used

## 4.5.2 Common Study Entity Modules

### 4.5.2.1 General Study Module

Table 4.5–2: General Study Module Attributes

Attribute Name	Tag	Type	Attribute Description
Study Instance UID	0020, 000D	1	Uniquely generated by the equipment. Taken from worklist if it is there.
Study Date	0008, 0020	2	Set to exam date.
Study Time	0008, 0030	2	Set to exam time.
Referring Physicians Name	0008, 0090	2	May be entered from user interface. Taken from the worklist if present.
Referring Physicians Telephone Numbers	0008, 0094	3	( $\geq$ <b>EC300</b> ) May be entered from user interface. Taken from the worklist if present.
Study ID	0020, 0010	2	Taken from the worklist if present. (From Requested Procedure ID)
Accession Number	0008, 0050	2	May be entered from user interface. Taken from the worklist if present.
Study Description	0008, 1030	3	Taken from the worklist if present. (From Requested Procedure Description)
Name of Reading Physician(s)	0008, 1060	3	May be entered from user interface.
Referenced Study Sequence	0008, 1110	3	Taken from the worklist if present.
>Referenced SOP Class UID	0008, 1150	3	Taken from the worklist if present.
>Referenced SOP Instance UID	0008, 1155	3	Taken from the worklist if present.

### 4.5.2.2 Patient Study Module

No attributes from this module are used.

### 4.5.3 Common Series Entity Modules

#### 4.5.3.1 General Series Module

Table 4.5-3: General Series Module Attributes

Attribute Name	Tag	Type	Attribute Description
Modality	0008, 0060	1	Defined Term "US" used.
Series Instance UID	0020, 000E	1	Uniquely generated by the equipment.
Series Number	0020, 0011	2	Internal number which is incremented for each new series.
Laterality	0020, 0060	2C	Not used
Series Date	0008, 0021	3	Set to series date.
Series Time	0008, 0031	3	Set to series time.
Performing Physician's Name	0008, 1050	3	May be entered from user interface. Taken from worklist if present. (from Scheduled Performing Physician's Name)
Series Description	0008, 103E	3	Not used
Operator's Name	0008, 1070	3	May be entered from user interface.
Referenced Performed Procedure Step Sequence	0008, 1111	3	Used if Modality Performed Procedure Step is enabled.
>Referenced SOP Class UID	0008, 1150	3	Used if Modality Performed Procedure Step is enabled.
>Referenced SOP Instance UID	0008, 1155	3	Used if Modality Performed Procedure Step is enabled.
Body Part Examined	0018, 0015	3	Not used
Patient Position	0018, 5100	2C	Not used
Smallest Pixel Value in Series	0028, 0108	3	Not used
Largest Pixel Value in Series	0028, 0109	3	Not used
Request Attribute Sequence	0040, 0275	3	Used if Modality Worklist and/or Modality Performed Procedure Step is enabled.
>Requested Procedure ID	0028, 1001	1C	Taken from worklist if present.
>Scheduled Procedure Step ID	0040, 0009	1C	Taken from worklist if present.
>Scheduled Procedure Step Description	0040, 0007	3	Taken from worklist if present.
>Scheduled Protocol Code SQ	0040, 0008	3	Taken from worklist if present.
>>Include "Code SQ Macro			
Performed Procedure Step ID	0040, 0253	3	Used if Modality Performed Procedure Step is enabled.
Performed Procedure Step Start Date	0040, 0244	3	Used if Modality Performed Procedure Step is enabled.
Performed Procedure Step Time	0040, 0245	3	Used if Modality Performed Procedure Step is enabled.
Performed Procedure Step Description	0040, 0254	3	Used if Modality Performed Procedure Step is enabled.
Performed Protocol Code SQ	0040, 0260	3	Taken from worklist if present. (from Scheduled Protocol Code Sequence)

## 4.5.4 Common Equipment Entity Modules

### 4.5.4.1 General Equipment Module

Table 4.5-4: General Equipment Module Attributes

Attribute Name	Tag	Type	Attribute Description
Manufacturer	0008, 0070	2	"GE Medical Systems Kretztechnik GmbH & Co OHG" or "GE Healthcare Austria GmbH & Co OG"
Institution Name	0008, 0080	3	Used
Institution Address	0008, 0081	3	Not used
Station Name	0008, 1010	3	Used
Institutional Department Name	0008, 1040	3	Not used
Manufacturer's Model Name	0008, 1090	3	"V830"
Device Serial Number	0018, 1000	3	Used e.g. "D12345"
Software Version	0018, 1020	3	Used
Spatial Resolution	0018, 1050	3	Not used
Date of Last Calibration	0018, 1200	3	Not used
Time of Last Calibration	0018, 1201	3	Not used
Pixel Padding Value	0028, 0120	3	Not used

## 4.5.5 Common Image Entity Modules

### 4.5.5.1 General Image Module

Table 4.5-5: General Image Module Attributes

Attribute Name	Tag	Type	Attribute Description
Image Number	0020, 0013	2	Image number in exam
Patient Orientation	0020, 0020	2C	Zero length
Acquisition Date	0008, 0022	3	Not used
Acquisition Time	0008, 0032	3	Not used
Image Type	0008, 0008	3	Pixel Data Characteristics set to ORIGINAL Patient Examination Characteristics set to PRIMARY Modality Specific Characteristics set to device application
Acquisition Number	0020, 0012	3	Not used
Content Date	0008, 0023	2C	Used
Content Time	0008, 0033	2C	Used
Referenced Image Sequence	0008, 1140	3	Not used
Derivation Description	0028, 2111	3	Not used
Source Image Sequence	0008, 2112	3	Not used
Images in Acquisition	0020, 1002	3	Not used
Image Comments	0020, 4000	3	Used
Lossy Image Compression	0028, 2110	3	for lossy compressed image



### 4.5.5.2 Image Pixel Module

Table 4.5-6: Image Pixel Module Attributes

Attribute Name	Tag	Type	Attribute Description
Samples Per Pixel	0028, 0002	1	RGB: 3 YBR_FULL_422: 3 MONOCHROME2: 1
Photometric Interpretation	0028, 0004	1	Defined Values used: "MONOCHROME2", "RGB", "YBR_FULL_422"
Rows	0028, 0010	1	Expert Models: configurable per DICOM destination (800x600 or 640x480) Pro Models: SC Images: configurable per DICOM destination, US Images: always 640x480
Columns	0028, 0011	1	Expert Models: configurable per DICOM destination (800x600 or 640x480) Pro Models :SC Images: configurable per DICOM destination, US Images: always 640x480
Bits Allocated	0028, 0100	1	Always 0008H
Bits Stored	0028, 0101	1	Always 0008H
High Bit	0028, 0102	1	Always 0007H
Pixel Representation	0028, 0103	1	Defined Value "0" (Unsigned int)
Pixel Data	7FE0, 0010	1	Pixel Data of Image
Planar Configuration	0028, 0006	1C	Value set to "0" if MONOCHROME2 the tag will not be transferred
Aspect Ratio	0028, 0034	1C	Not used
Smallest Image Pixel Value	0028, 0106	3	Not used
Largest Image Pixel Value	0028, 0107	3	Not used

### 4.5.5.3 Contrast/Bolus Module

This module is not being used.

### 4.5.5.4 Palette Color Lookup Module

This module is not being used.

### 4.5.5.5 VOI LUT Module

Table 4.5-7: VOI LUT Module Attributes

Attribute Name	Tag	Type	Attribute Description
VOI LUT Sequence	0028, 3010	3	Not used
>LUT Descriptor	0028, 3002	3	Not used

Table 4.5-7: VOI LUT Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
> LUT Explanation	0028, 3003	3	Not used
>LUT Data	0028, 3006	3	Not used
Window Center	0028, 1050	3	Value set to 127 if MONOCHROME2
Window Width	0028, 1051	3	Value set to 256 if MONOCHROME2
Window Center and Width Explanation	0028, 1055	3	Not used

#### 4.5.6 General Modules

The SOP Common Module is mandatory for all DICOM IODs.

##### 4.5.6.1 SOP Common Module

Table 4.5-8: SOP Common Module Attributes

Attribute Name	Tag	Type	Attribute Description
SOP Class UID	0008, 0016	1	Set to: "1.2.840.10008.5.1.4.1.1.3.1", "1.2.840.10008.5.1.4.1.1.6.1" or "1.2.840.10008.5.1.4.1.1.7"
SOP Instance UID	0008, 0018	1	Uniquely generated by the equipment
Specific Character Set	0008, 0005	1C	Set to "ISO_IR 100"
Instance Creation Date	0008, 0012	3	Not used
Instance Creation Time	0008, 0013	3	Not used
Instance Creator ID	0008, 0014	3	Not used
Instance Number	0020, 0013	3	Not used

#### 4.5.7 General Modules

This Section describes US Series, Equipment, and Image Modules. These Modules contain attributes that are specific to US Image IOD.

##### 4.5.7.1 US Region Calibration Module

The US Region Calibration Module is used to describe multiple regions.

Table 4.5-9: US Region Calibration Module elements

Attribute Name	Tag	Type	Attribute Description
Sequence of Ultrasound Regions	0018,6011	1	Used Range from 1 -16 Items
>Region Spatial Format	0018,6012	1	1,2,3
>Region Data Type	0018,6014	1	1
>Region Flags	0018,6016	1	0

Table 4.5-9: US Region Calibration Module elements (continued)

Attribute Name	Tag	Type	Attribute Description
>Region Location MinX0	0018,6018	1	0..959
>Region Location MinY0	0018,601a	1	0..661
>Region Location Max X1	0018,601c	1	0..959
>Region Location Max Y1	0018,601e	1	0..661
>Reference Pixel X0	0018,6020	3	0
>Reference Pixel Y0	0018,6022	3	0..xxx
>Physical Units X Direction	0018,6024	1	3,4
>Physical Units Y Direction	0018,6026	1	3,4
>Reference Pixel Physical Value X	0018,6028	3	0
>Reference Pixel Physical Value Y	0018,602a	3	0
>Physical Delta X	0018,602c	1	Used
>Physical Delta Y	0018,602e	1	Used

### 4.5.7.2 US Image Module

This section specifies the attributes that describe ultrasound images.

Table 4.5-10: US Image Module Elements

Attribute Name	Tag	Type	Attribute Description
Samples Per Pixel	0028,0002	1	RGB: 3 YBR_FULL_422: 3 MONOCHROME2: 1"
Photometric Interpretation	0028, 0004	1	Value set to: "MONOCHROME2", "YBR_FULL_422" or "RGB"
Bits Allocated	0028,0100	1	Always 0008H
Bits Stored	0028,0101	1	Always 0008H
High Bit	0028,0102	1	Always 0007H
Planar Configuration	0028, 0006	1C	Value set to "0" if MONOCHROME2 the tag will not be transferred
Pixel Representation	0028, 0103	1	Unsigned int
Frame Increment Pointer	0028,0009	1C	Not used
Image Type	0008,0008	2	Pixel Data Characteristics set to ORIGINAL Patient Examination Characteristics set to PRIMARY Modality Specific Characteristics set to device application
Lossy Image Compression	0028, 2110	1C	for lossy compressed image
Ultrasound color data present	0028,0014	3	Not used
Referenced Overlay Sequence	0008,1130	3	Not used
>Referenced SOP Class UID	0008,1150	1C	Not used
>Referenced SOP Instance UID	0008,1150	1C	Not used
Referenced Curve Sequence	0008,1155	3	Not used
>Referenced SOP Class UID	0008,1150	1C	Not used
>Referenced SOP Instance UID	0008,1150	1C	Not used
View Name	0008,2127	3	text ( $\geq$ EC320)
View Number	0008,2128	3	Unsigned int ( $\geq$ EC320)
Number of Event Timers	0008,2129	3	Not used
Event Elapsed Times	0008,2130	3	Not used
Event Timer Name	0008,2132	3	Not used
Anatomic Region Sequence	0008,2218	3	Not used
>Include 'Code Sequence Macro'			
>Anatomic Region Modifier Sequence	0008,2220	3	Not used
>>Include 'Code Sequence Macro'			
Primary Anatomic Structure Sequence	0008,2228	3	Not used
>Include 'Code Sequence Macro'			
>>Include 'Code Sequence Macro'			
>Primary Anatomic Structure Modifier Sequence	0008,2230	3	Not used
Transducer Position Sequence	0008,2240	3	Not used
>Include 'Code Sequence Macro'			

Table 4.5-10: US Image Module Elements (continued)

Attribute Name	Tag	Type	Attribute Description
>Transducer Position ModifierSequence	0008,2242	3	Not used
>>Include 'Code Sequence Macro'			
Transducer Orientation Sequence	0008,2244	3	Not used
>Include 'Code Sequence Macro'			
>Transducer Orientation Sequence	0008,2246	3	Not used
>>Include 'Code Sequence Macro'			
Trigger Time	0018,1060	3	Not used
Nominal Interval	0018,1062	3	Not used
Beat Rejection Flag	0018,1080	3	Not used
Low R-R Value	0018,1081	3	Not used
High R-R Value	0018,1082	3	Not used
Heart Rate	0018,1088	3	Not used
Output Power	0018,5000	3	Not used
Transducer Data	0018,5010	3	Not used
Transducer Type	0018,6031	3	Not used
Focus Depth	0018,5012	3	Not used
Preprocessing Function	0018,5020	3	Not used
Mechanical Index	0018,5022	3	Not used
Bone Thermal Index	0018,5024	3	Not used
Cranial Thermal Index	0018,5026	3	Not used
Soft Tissue Thermal Index	0018,5027	3	Not used
Soft Tissue-focus Thermal Index	0018,5028	3	Not used
Soft Tissue-surface Thermal Index	0018,5029	3	Not used
Depth of Scan Field	0018,5050	3	Not used
Image Transformation Matrix	0018,5210	3	Not used
Image Translation Vector	0018,5212	3	Not used
Overlay Subtype	60xx,0045	3	Not used

## 5 Ultrasound Multi-Frame (US-MF) Information Object Implementation

### 5.1 Introduction

This section specifies the use of the DICOM US Multi-frame Image IOD to represent the information included in US images produced by this implementation. Corresponding attributes are conveyed using the module construct. The contents of this section are:

- IOD Implementation
- IOD Module Table
- IOD Module Definitions

### 5.2 US MF IOD Implementation

This section defines the implementation of US Multi-Frame image information object.

### 5.3 US Entity-Relationship Model

#### 5.3.1 Entity Description

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the US Multi-Frame Information Object.

#### 5.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 5.3–1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
Patient	Patient
Study	Exam
Series	Exam
Image	Image
Curve	not used

### 5.4 IOD Module Table

Within an entity of the DICOM US Multi-Frame IOD, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into data sets. The table below identifies the defined modules within the entities, which comprise the DICOM US Multi-Frame IOD. Modules are identified by Module Name.

See DICOM Part 3 for a complete definition of the entities, modules, and attributes.

Table 5.4–1: US Multi-Frame Image IOD Modules

Entity Name	Module Name	Reference
Patient	Patient	4.5.1.1
Study	General Study	4.5.2.1
Study	Patient Study	4.5.2.2
Series	General Series	4.5.3.1
Frame of Reference	Frame of Reference	Not used
Frame of Reference	US Frame of Reference	Not used
Equipment	General Equipment	4.5.4.1
Image	General Image	4.5.5.1
Image	Image Pixel	4.5.5.2
Image	Contrast / Bolus	Not used
Image	Cine	5.5.1.1
Image	Multi-Frame	5.5.1.2
Image	Palette Color Lookup Table	not used
Image	US Region Calibration	4.5.7.1
Image	US Image	4.5.7.2
Image	Overlay Plane	Not used
Image	VOI LUT	Not used
Image	SOP Common	4.5.6.1
Curve		Not used

## 5.5 Information Module Definitions

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules contained within the US Multi-Frame Information Object.

The following modules are included to convey Enumerated Values, Defined Terms, and Optional Attributes supported. Type 1 & Type 2 Attributes are also included for completeness and to define what values they may take and where these values are obtained. It should be noted that they are the same ones as defined in the DICOM Standard Part 3 (Information Object Definitions). The attribute "Not used" is equal to "Not present". Not listed elements are not supported.

### 5.5.1 Common Image Modules

#### 5.5.1.1 Cine Module

Table 5.5–1: Cine Module Elements

Attribute Name	Tag	Type	Attribute Description
Frame Time	0018,1063	1C	Set to interframe time
Frame Time Vector	0018,1065	1C	Not Used
Start Trim	0008,2142	3	Not used
Stop Trim	0008,2143	3	Not used
Recommended Display Frame Rate	0008,2144	3	Not used
Cine Rate	0018,0040	3	Not used

Table 5.5-1: Cine Module Elements (continued)

Attribute Name	Tag	Type	Attribute Description
Frame Delay	0018,1066	3	Not used
Effective Duration	0018,1072	3	Not used
Actual Frame Duration	0018,1242	3	Not used
Preferred Playback Sequencing	0018,1244	3	Not used

### 5.5.1.2 Multi-Frame Module

Table 5.5-2: Multi Frame Module Elements

Attribute Name	Tag	Type	Attribute Description
Number of Frames	0028,0008	1	Set to number of frames in image.
Frame Increment Pointer	0028,0009	1	Set o Frame Time (0018,0063)



## 6 Enhanced Ultrasound (US) Volume Information Object Implementation ( $\geq 10.x.x$ )

### 6.1 Introduction

This section specifies the use of the DICOM Enhanced US Volume IOD to represent the information included in Enhanced US Volumes produced by this implementation. Corresponding attributes are conveyed using the module construct. The contents of this section are:

- IOD Implementation
- IOD Module Table
- IOD Module Definitions

### 6.2 Enhanced US Volume IOD Implementation

This section defines the implementation of Enhanced US Volume information object.

### 6.3 Enhanced US Volume Entity-Relationship Model

#### 6.3.1 Entity Description

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the Enhanced US Volume Information Object.

#### 6.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 6.3–1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
Patient	Patient
Study	Exam
Series	Exam
Image	Image
Curve	not used

### 6.4 IOD Module Table

Within an entity of the DICOM Enhanced US Volume IOD, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into data sets. The attribute "not used" is equal to "not present".

The table below identifies the defined modules within the entities, which comprise the DICOM Enhanced US Volume IOD. Modules are identified by Module Name.

See DICOM Part 3 for a complete definition of the entities, modules, and attributes.

Only the Enhanced US Volume IOD is described here.

Some references in the following table may also refer to information contained in the US image IOD if the contents is identical.

Table 6.4-1: **Enhanced US Volume IOD Modules**

Entity Name	Module Name	Reference
Patient	Patient	4.5.1.1
Patient	Clinical Trial Subject	Not used
Study	General Study	4.5.2.1
Study	Patient Study	4.5.2.2
Study	Clinical Trial Study	Not used
Series	General Series	4.5.3.1
Series	Enhanced US Series	6.5.3.2
Series	Clinical Trial Series	Not used
Frame of Reference	Frame of Reference	6.5.4.1
Frame of Reference	US Frame of Reference	6.5.4.2
Frame of Reference	Synchronization	6.5.4.3
Equipment	General Equipment	4.5.4.1
Equipment	Enhanced General Equipment	6.5.5.2
Image	General Image	4.5.5.1
Image	Image Pixel	4.5.5.2
Image	Enhanced Contrast / Bolus	Not used
Image	Multi-frame Functional Groups	6.5.6.3
Image	Multi-frame Dimension	6.5.6.4
Image	Cardiac Synchronization	Not used
Image	Respiratory Synchronization	Not used
Image	Device	Not used
Image	Acquisition Context	6.5.6.5
Image	Specimen	Not used
Image	Enhanced Palette Color Lookup Table	6.5.6.6
Image	Enhanced US Image	6.5.6.7
Image	IVUS Image	Not used
Image	Excluded Intervals	Not used
Image	SOP Common	4.5.6.1
Image	Frame Extraction	Not used

## 6.5 Information Module Definitions

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules contained within the Enhanced US Volume Information Object. The attribute "Not used" is equal to "Not present". Not listed elements are not supported.

### 6.5.1 Patient Entity Module

This module is defined in section 4.5.1.1.

## 6.5.2 Study Entity Modules

These modules are defined in section 4.5.2.1 and 4.5.2.2.

## 6.5.3 Series Entity Modules

### 6.5.3.1 General Series Module

This module is defined in section 4.5.3.1.

### 6.5.3.2 Enhanced US Series Module

Table 6.5-1: Enhanced US Series Module Attributes

Attribute Name	Tag	Type	Attribute Description
Modality	0008, 0060	1	Defined Term "US" used.
Referenced Performed Procedure Step Sequence	0008, 1111	3	Used if Modality Performed Procedure Step is enabled.
>Referenced SOP Class UID	0008, 1150	3	Used if Modality Performed Procedure Step is enabled.
>Referenced SOP Instance UID	0008, 1155	3	Used if Modality Performed Procedure Step is enabled.
Performed Protocol Code SQ	0040, 0260	3	Taken from worklist if present. (from Scheduled Protocol Code Sequence)
>Include "Code SQ Macro"			

## 6.5.4 Frame of Reference Modules

### 6.5.4.1 Frame of Reference

Table 6.5-2: Frame Of Reference Module Attributes

Attribute Name	Tag	Type	Attribute Description
Frame of Reference UID	0020,0052	1	used
Position Reference Indicator	0020,1040	2	empty

### 6.5.4.2 US Frame of Reference

Table 6.5-3: US Frame Of Reference Module Attributes

Attribute Name	Tag	Type	Attribute Description
Volume Frame of Reference UID	0020,9312	1	used
Ultrasound Acquisition Geometry	0020,9307	1	Defined Term "APEX" used
Apex Position	0020,9308	1C	used
Volume To Transducer Mapping Matrix	0020,9309	1	used

Table 6.5-3: US Frame Of Reference Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Patient Frame of Reference Source	0020,930C	1C	not used
Table Frame of Reference UID	0020,9313	1C	not used
Volume to Table Mapping Matrix	0020,930A	1C	not used

### 6.5.4.3 Synchronization Module

Table 6.5-4: Synchronization Module Attributes

Attribute Name	Tag	Type	Attribute Description
Synchronization Frame of Reference UID	0020,0200	1	used
Synchronization Trigger	0018,106A	1	Enumerated Value "NO TRIGGER" used
Synchronization Channel	0018,106C	1C	not used
Acquisition Time Synchronized	0018,1800	1	Enumerated Value "Y" used
Time Source	0018,1801	3	not used
Time Distribution Protocol	0018,1802	3	not used
NTP Source Address	0018,1803	3	not used

### 6.5.5 Equipment Entity Modules

#### 6.5.5.1 General Equipment Module

This module is defined in section 4.5.4.1.

#### 6.5.5.2 Enhanced General Equipment Module

Table 6.5-5: Enhanced General Equipment Module Attributes

Attribute Name	Tag	Type	Attribute Description
Manufacturer	0008,0070	1	"GE Medical Systems Kretztechnik GmbH & Co OHG"
Manufacturer's Model Name	0008,1090	1	"V830"
Device Serial Number	0018,1000	1	Example: "D012345"
Software Versions	0018,1020	1	used

### 6.5.6 Image Entity Modules

#### 6.5.6.1 General Image Module

This module is defined in section 4.5.5.1.

### 6.5.6.2 Image Pixel Module

This module is defined in section 4.5.5.2.

### 6.5.6.3 Multi-frame Functional Groups

Table 6.5-6: Multi Frame Functional Groups Module Attributes

Attribute Name	Tag	Type	Attribute Description
Shared Functional Groups Sequence	5200,9229	2	used
>US Image Description Sequence	0018,9806	1	used
>>Frame Type	0008,9007	1	Defined Terms "Original" "Primary" used
>>Volumetric Properties	0008,9206	1	Defined Term "Volume" used
>>Volume Based Calculation Technique	0008,9207	1	Defined Term "NONE" used
>Plane Position (Volume) Sequence	0020,930E	1	used
>>Image Position (Volume)	0020,9301	1	used
>Temporal Position Sequence	0020,9310	1	used
>>>Temporal Position Time Offset	0020,930D	1	used
Per-frame Functional Groups Sequence	5200,9230	1	used
>Image Data Type Sequence	0018,9807	1	used
>>Data Type	0018,9808	1	used
>>>Aliased Data Type	0018,980B	1	Enumerated Value "NO"
>Frame Content Sequence	0020,9111	1	used
>>Frame Acquisition Number	0020,9156	3	not used
>>Frame Acquisition Datetime	0018,9074	1C	used
>>Frame Reference Datetime	0018,9151	1C	used
>>Frame Acquisition Duration	0018,9220	1C	used
>>Cardiac Cycle Position	0018,9236	3	not used
>>Respiratory Cycle Position	0018,9214	3	not used
>>Dimension Index Values	0020,9157	1C	used
>>Temporal Position Index	0020,9128	1C	not used
>>Stack ID	0020,9056	1C	not used
>>In-Stack Position Number	0020,9057	1C	not used
>>Frame Comments	0020,9158	3	not used
>>Frame Label	0020,9453	3	not used
>Plane Position Volume Sequence	0020,930e	1	used
>>Image Position (Volume)	0020,9301	1	used

### 6.5.6.4 Multi-frame Dimension

Table 6.5-7: Multi-frame Dimension Module Attributes

Attribute Name	Tag	Type	Attribute Description
Dimension Organization Sequence	0020,9221	1	used
>Dimension Organization UID	0020,9164	1	used
Dimension Organization Type	0020,9311	3	not used

Table 6.5-7: Multi-frame Dimension Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Dimension Index Sequence	0020,9222	1	used
>Dimension Index Pointer	0020,9165	1	used
>Dimension Index Private Creator	0020,9213	1C	not used
>Functional Group Pointer	0020,9167	1C	used if Dimension Index Pointer is set
>Functional Group Private Creator	0020,9238	1C	not used
>Dimension Organization UID	0020,9164	1C	used if Dimension Organisation Sequence is set
>Dimension Description Label	0020,9421	3	not used

### 6.5.6.5 Acquisition Context

Table 6.5-8: Acquisition Context Module Attributes

Attribute Name	Tag	Type	Attribute Description
Acquisition Context Sequence	0050,0555	2	not used

### 6.5.6.6 Enhanced Palette Color Lookup Table

Table 6.5-9: Enhanced Palette Color Lookup Table Module Attributes

Attribute Name	Tag	Type	Attribute Description
Data Frame Assignment Sequence	0028,1401	1	Used Range from 1 - 3 Items
>Data Type	0018,9808	1	Used
>Data Path Assignment	0028,1402	1	"PRIMARY_SINGLE", "SECONDARY_SINGLE", "SECONDARY_LOW", "SECONDARY_HIGH"
>Bits Mapped to Color Lookup Table	0028,1403	3	Not used
Blending LUT1 Sequence	0028,1404	1C	Used
>Blending LUT1 Transfer Function	0028,1405	1	"CONSTANT", "TABLE"
>Blending Weight Constant	0028,1406	1C	
>Blending Lookup Table Descriptor	0028,1407	1C	Used if (0028,1405) is "TABLE"
>Blending Lookup Table Data	0028,1408	1C	Used if (0028,1405) is "TABLE"
Blending LUT2 Sequence	0028,140C	1C	Used
>Blending Weight Constant	0028,1406	1C	Used if (0028,140D) is "CONSTANT"
>Blending LUT2 Transfer Function	0028,140D	1	"CONSTANT", "ONE_MINUS"
>Blending Lookup Table Descriptor	0028,1407	1C	Not used
>Blending Lookup Table Data	0028,1408	1C	Not used
Enhanced Palette Color Lookup Table Sequence	0028,140B	1C	Used

Table 6.5–9: Enhanced Palette Color Lookup Table Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
>Red Palette Color Lookup Table Descriptor	0028,1101	1C	Used
>Green Palette Color Lookup Table Descriptor	0028,1102	1C	Used
>Blue Palette Color Lookup Table Descriptor	0028,1103	1C	Used
>Red Palette Color Lookup Table Data	0028,1201	1C	Used
>Green Palette Color Lookup Table Data	0028,1202	1C	Used
>Blue Palette Color Lookup Table Data	0028,1203	1C	Used
>Data Path ID	0028,140E	1	"PRIMARY", "SECONDARY"
>RGB LUT Transfer Function	0028,140F	1	"TABLE"
>Alpha LUT Transfer Function	0028,1410	1	"NONE", "TABLE"
ICC Profile	0028,2000	1C	fixed neutral profile

### 6.5.6.7 Enhanced US Image

Table 6.5–10: Enhanced US Image Module Attributes

Attribute Name	Tag	Type	Attribute Description
Image Type	0008,0008	1	Pixel Data Characteristics set to ORIGINAL Patient Examination Characteristics set to PRIMARY Modality Specific Characteristics set to device application
Samples Per Pixel	0028,0002	1	1
Photometric Interpretation	0028, 0004	1	"MONOCHROME2"
Bits Allocated	0028,0100	1	Always 0008H
Bits Stored	0028,0101	1	Always 0008H
High Bit	0028,0102	1	Always 0007H
Planar Configuration	0028, 0006	1C	not used
Pixel Representation	0028, 0103	1	set to zero
Dimension Organization type	0020,9311	1	"3D"
Acquisition Datetime	0008,002A	1	used
Acquisition Duration	0018,9073	1	set to zero
Pixel Spacing	0028,0030	1	used
Position Measuring Device Used	0018,980C	1C	"RIGID"
Lossy Image Compression	0028,2110	1C	Not used
Lossy Image Compression Ratio	0028,2112	1C	Not used
Lossy Image Compression Method	0028,2114	1C	Not used
Presentation LUT Shape	2050,0020	1	Not used
Rescale Intercept	0028,1052	1	set to zero
Rescale Slope	0028,1053	1	set to 1
Source Image Sequence	0008,2112	1C	not used

Table 6.5–10: Enhanced US Image Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Referenced Image Sequence	0008,1140	3	not used
Referenced Raw Data Sequence	0008,9121	3	not used
Referenced Instance Sequence	0008,114A	1C	not used
Number of Stages	0008,2124	1C	not used
Stage Number	0008,2122	1C	not used
Stage Code Sequence	0040,000A	1C	not used
View Code Sequence	0054,0220	1	used
>Code Value	0008,0100	1	"G-A112"
>Coding Scheme Designator	0008,0102	1	"SRT"
>Code Meaning	0008,0104	1	"External"
Event Timer Sequence	0008,2133	3	not used
Burned In Annotation	0028,0301	1	"NO"
Icon Image Sequence	0088,0200	3	not used
Transducer Data	0018,5010	3	not used
Transducer Scan Pattern Code Sequence	0018,9809	1	used
>Code Value	0008,0100	1	"125242"
>Coding Scheme Designator	0008,0102	1	"DCM"
>Code Meaning	0008,0104	1	"Volume scan pattern"
Transducer Geometry Code Sequence	0018,980D	1	used
>Code Value	0008,0100	1	"125254"
>Coding Scheme Designator	0008,0102	1	"DCM"
>Code Meaning	0008,0104	1	"Sector ultrasound transducer geometry"
Transducer Beam Steering Code Sequence	0018,980E	1	used
>Code Value	0008,0100	1	"125259"
>Coding Scheme Designator	0008,0102	1	"DCM"
>Code Meaning	0008,0104	1	"Phased beam steering"
Transducer Application Code Sequence	0018,980F	1	used
>Code Value	0008,0100	1	"125263"
>Coding Scheme Designator	0008,0102	1	"DCM"
>Code Meaning	0008,0104	1	"Endovaginal Transducer"
Preprocessing Function	0018,5020	3	not used
Mechanical Index	0018,5022	1	used
Bone Thermal Index	0018,5024	1	used
Cranial Thermal Index	0018,5026	1	used
Soft Tissue Thermal Index	0018,5027	1	used
Depths Of Focus	0018,9801	1	used
Depth Of Scan Field	0018,5050	1	used

### 6.5.6.8 SOP Common

This module is defined in section 4.5.6.1.



## 7 SC Information Object Implementation

### 7.1 Introduction

This section specifies the use of the DICOM SC Image IOD to represent the information included in SC images produced by this implementation. Corresponding attributes are conveyed using the module construct. The contents of this section are:

- IOD Implementation
- IOD Module Table
- IOD Module Definitions

### 7.2 SC IOD Implementation

This section defines the implementation of SC image information object.

### 7.3 SC Entity-Relationship Model

#### 7.3.1 Entity Description

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the SC Information Object.

#### 7.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 7.3–1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
Patient	Patient
Study	Exam
Series	Exam
Image	Image
Curve	not used

### 7.4 IOD Module Table

Within an entity of the DICOM SC IOD, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into data sets.

The table below identifies the defined modules within the entities, which comprise the DICOM SC IOD. Modules are identified by Module Name.

See DICOM Part 3 for a complete definition of the entities, modules, and attributes.

Table 7.4-1: SC Image IOD Modules

Entity Name	Module Name	Reference
Patient	Patient	4.5.1.1
Patient	Clinical Trial Subject	Not used
Study	General Study	4.5.2.1
Study	Patient Study	4.5.2.2
Study	Clinical Trial Subject	Not used
Series	General Series	4.5.3.1
Series	Clinical Trial Subject	Not used
Equipment	General Equipment	4.5.4.1
Equipment	SC Equipment	7.5.1.1
Image	General Image	4.5.5.1
Image	Image Pixel	4.5.5.2
Image	Device	Not used
Image	Specimen	Not used
Image	SC Image	7.5.1.2
Image	Overlay Plane	Not used
Image	Modality LUT	Not used
Image	VOI LUT	4.5.5.5
Image	ICC Profile	Not used
Image	SOP Common	4.5.6.1

## 7.5 Information Module Definitions

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules contained within the SC Information Object.

The following modules are included to convey Enumerated Values, Defined Terms, and Optional Attributes supported. Type 1 & Type 2 Attributes are also included for completeness and to define what values they may take and where these values are obtained. It should be noted that they are the same ones as defined in the DICOM Standard Part 3 (Information Object Definitions). The attribute "Not used" is equal to "Not present". Not listed elements are not supported.

### 7.5.1 SC Modules

#### 7.5.1.1 SC Equipment Module

This Module describes equipment used to convert images into a DICOM format.

Table 7.5-1: Secondary Capture Equipment Module Attributes

Attribute Name	Tag	Type	Attribute Description
Conversion Type	0008, 0064	1	Set to: WSD
Modality	0008, 0060	3	Defined Term "US" used
Secondary Capture Device ID	0018, 1010	3	Not used
Secondary Capture Device Manufacturer	0008, 1016	3	Not used

Table 7.5-1: Secondary Capture Equipment Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Secondary Capture Device Manufacturer's Model Name	0008, 1018	3	Not used
Secondary Capture Device Software Version	0018, 1019	3	Not used
Video Image Format Acquired	0018, 1022	3	Not used
Digital Image Format Acquired	0018, 1023	3	Not used

### 7.5.1.2 SC Image Module

The table in this Section contains IOD attributes that describe SC images.

Table 7.5-2: Secondary Capture Image Module Elements

Attribute Name	Tag	Type	Attribute Description
Date of Secondary Capture	0018, 1012	3	Not used
Time of Secondary Capture	0018, 1014	3	Not used

## 8 SR Information Object Implementation

### 8.1 Introduction

This section specifies the use of the DICOM Comprehensive SR IOD to represent the information included in SC images produced by this implementation. Corresponding attributes are conveyed using the module construct. The contents of this section are:

- IOD Implementation
- IOD Module Table
- IOD Module Definitions

### 8.2 Comprehensive SR IOD Implementation

This section defines the implementation of Comprehensive SR information object.

### 8.3 Comprehensive SR Entity-Relationship Model

#### 8.3.1 Entity Description

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the Comprehensive SR Information Object.

#### 8.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 8.3–1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
Patient	Patient
Study	Exam
Series	Exam
SR Document	Results

### 8.4 IOD Module Table

Within an entity of the DICOM Comprehensive SR IOD, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into data sets. Not listed modules are not supported.

The table below identifies the defined modules within the entities, which comprise the DICOM Comprehensive SR IOD. Modules are identified by Module Name.

See DICOM Part 3 for a complete definition of the entities, modules, and attributes.

Table 8.4–1: SR IOD Modules

Entity Name	Module Name	Reference
Patient	Patient	4.5.1.1
Study	General Study	4.5.2.1
Study	Patient Study	4.5.2.2
Series	SR Document Series	8.5.1
Equipment	General Equipment	4.5.4.1
Document	SR Document General	8.5.2
Document	SR Document Content	8.5.3
Document	SOP Common	4.5.6.1

## 8.5 Information Module Definitions

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules contained within the Comprehensive SR Information Object.

The following modules are included to convey Enumerated Values, Defined Terms, and Optional Attributes supported. Type 1 & Type 2 Attributes are also included for completeness and to define what values they may take and where these values are obtained. It should be noted that they are the same ones as defined in the DICOM Standard Part 3 (Information Object Definitions).

Not listed elements are not supported.

### 8.5.1 SR Document Series Module

Table 8.5–1: SR Document Series Module Attributes

Attribute Name	Tag	Type	Attribute Description
Modality	0008, 0060	1	Defined Term "SR" used.
Series Instance UID	0020, 000E	1	Uniquely generated by the equipment.
Series Number	0020, 0011	2	Internal number which is incremented for each new series.
Referenced Performed Procedure Step Sequence	0008, 1111	3	Used if Modality Performed Procedure Step is enabled.
>Referenced SOP Class UID	0008, 1150	3	Used if Modality Performed Procedure Step is enabled.
>Referenced SOP Instance UID	0008, 1155	3	Used if Modality Performed Procedure Step is enabled.

### 8.5.2 SR Document General Module

Table 8.5–2: SR Document General Module Attributes

Attribute Name	Tag	Type	Attribute Description
Instance Number	0020,0013	1	Internal number which is incremented for each new SR document

Table 8.5-2: SR Document General Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Completion Flag	0040,A491	1	Defined Term "PARTIAL" used
Completion Flag Description	0040,A492	3	Not used
Verification Flag	0040,A493	1	Defined Term "UNVERIFIED" used
Content Date	0008,0023	1	Used
Content Time	0008,0032	1	Used
Verifying Observer Sequence	0040,A073	1C	Not used
>Verifying Observer Name	0040,A075	1	
>Verifying Observer Identification Code Sequence	0040,A088	2	
>>Include 'Code Sequence Maco'			
>Verifying Organization	0040,A027	1	
>Verifying DateTime	0040,A030	1	
Predecessor Documents Sequence	0040,A360	1C	Not used
>Include 'SOP Instance Reference Macro'			
Identical Documents Sequence	0040,A525	1C	Not used
>Include 'SOP Instance Reference Macro'			
Referenced Request Sequence	0040,A370	1C	Filled if the exam is based on a Worklist entry
>Study Instance UID	0020,000D	1	Taken from Study Instance UID in General Study Module
>Referenced Study Sequence	0008,1110	2	Taken from Worklist, Sent if MPPS is being used otherwise not sent
>>Referenced SOP Class UID	0008,1150	1	Taken from Worklist, Sent if MPPS is being used otherwise not sent
>>Referenced SOP Instance UID	0008,1155	1	Taken from Worklist, Sent if MPPS is being used otherwise not sent
>Accession Number	0008,0050	2	Taken from Patientdialog or Worklist
>Placer Order Number/Imaging Service Request	0040,2016	2	Empty
>Filler Order Number/Imaging Service Request	0040,2017	2	Empty
>Requested Procedure ID	0040,1001	2	Taken from Worklist if present
>Requested Procedure Description	0032,1060	2	Taken from Worklist if present
>Requested Procedure Code Sequence	0032,1064	2	Taken from Worklist if present
>Include 'Code Sequence Macro'			
Current Requested Procedure Evidence Sequence	0040,A375	1C	Not used
>Study Instance UID	0020,000D	1	
>Referenced Series Sequence	0008,1115	1	
>>Series Instance UID	0020,000E	1	
>>Retrieve AE Title	0008,0054	3	
>>Storage Media File-Set ID	0088,0130	3	
>>Storage Media File-Set UID	0088,0140	3	
>>Referenced SOP Sequence	0008,1199	1	
>>>Referenced SOP Class UID	0008,1150	1	
>>>Referenced SOP Instance UID	0008,1155	1	

Table 8.5-2: SR Document General Module Attributes (continued)

Attribute Name	Tag	Type	Attribute Description
Pertinent Other Evidence Sequence	0040,A385	1C	Not used
>Include 'SOP Instance Reference Macro'			
Referenced Instance Sequence	0008,114A	1C	Not used

### 8.5.3 SR Document Content Module

Table 8.5-3: SR Document Content Module Attributes

Attribute Name	Tag	Type	Attribute Description
Observation DateTime	0040,A032	1C	Not used
Content Template Sequence	0040,A504	1C	Used
> Mapping Resource	0008,0105	1	Value = DCMR
> Template Identifier	0040,DB00	1	Value = (5000, 5100, 5200)
Value Type	0040,A040	1	CONTAINER
Continuity of Content	0040,A050	1C	SEPARATE
Concept Name Code Sequence	0040,A043	1C	
>Include "Code SequenceMacro"			
Concept Value Attribute(s)			Not used for CONTAINER
Content Sequence	0040,A730	1C	See Template "OB-GYN Ultrasound Procedure Report" (TID 5000)
>Relationship Type	0040,A010	1	See Template "OB-GYN Ultrasound Procedure Report" (TID 5000)
>Referenced Content Item Identifier	0040,DB73	1C	Not used
>Include Document Content Macro			
>Include Document Relationship Macro			

#### 8.5.3.1 SR Document Content Descriptions

##### 8.5.3.1.1 Content Template

The equipment supports the following root Templates for SR SOP Instances created, processed, or displayed by the equipment.

Table 8.5-4: SR Root Templates

SOP Class	Template ID	Template Name	Use
Comprehensive SR	5000	"OB-GYN Ultrasound Procedure Report"	Create
Comprehensive SR	5100	"Vascular Ultrasound Report"	Create (≥ 12.x.x)
Comprehensive SR	5200	"Echocardiography Ultrasound Report"	Create (≥ EC200)

## **8.6 Standard Extended and Private Context Groups and Templates**

Due to compatibility reasons some codes in the following tables still using Coding Scheme Designator "GEK". Via application user interface the Coding Scheme Designator "GEK" can be changed to the DICOM compliant Coding Scheme Designator "99GEK".

### **8.6.1 Standard Extended and Private Context Groups**

All needed context items which are not defined in the DICOM Standard are privately defined and listed in [appendix A](#).

### **8.6.2 Standard Extended and Private Templates**

All needed templates which are not defined in the DICOM Standard are privately defined and listed in [appendix B](#).



## **9 Modality Worklist Information Model Definition**

### **9.1 Introduction**

This section specifies the use of the DICOM Modality Worklist Information Model used to organize data and against which a Modality Worklist Query will be performed. The contents of this section are:

- Information Model Description
- Information Model Entity-Relationship Model
- Information Model Module Table
- Information Model Keys

### **9.2 Modality Worklist Information Model Description**

This section defines the implementation of the Modality Worklist Information Model.

### **9.3 Modality Worklist Information Model Entity-Relationship Model**

#### **9.3.1 Entity Description**

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the Modality Worklist Information Model .

##### **9.3.1.1 Scheduled Procedure Step**

Schedule Procedure Step is implemented in a basic form to allow the user to retrieve a subset of attributes.

##### **9.3.1.2 Requested Procedure Entity Description**

Requested Procedure is implemented in a basic form to allow the user to retrieve a subset of attributes.

##### **9.3.1.3 Imaging Service Request Entity Description**

Imaging Service Request is implemented in a basic form to allow the user to retrieve a subset of attributes.

##### **9.3.1.4 Visit Entity Description**

Visit Entity is implemented in a basic form to allow the user to retrieve a subset of attributes.

### 9.3.1.5 Patient Entity Description

Patient Entity is implemented in a basic form to allow the user to retrieve a subset of attributes.

### 9.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 9.3-1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
Scheduled Procedure Step	Not Applicable
Requested Procedure	Exam
Imaging Service Request	Exam
Visit	Not Applicable
Patient	Patient

## 9.4 Information Model Module Table

Within an entity of the DICOM Modality Worklist IOD, attributes are grouped into related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into data sets.

The table below identifies the defined modules within the entities, which comprise the DICOM Modality Worklist IOD. Modules are identified by Module Name.

See DICOM Part 3 for a complete definition of the entities, modules, and attributes.

Table 9.4-1: Modality Worklist Information Model Modules

Entity Name	Module Name	Reference
Scheduled Procedure Step	SOP Common	9.5.2.1
Scheduled Procedure Step	Scheduled Procedure Step	9.5.2.2
Requested Procedure	Requested Procedure	9.5.3.1
Imaging Service Request	Imaging Service Request	9.5.4.1
Visit	Visit Identification	9.5.5.1
Visit	Visit Status	9.5.5.2
Visit	Visit Relationship	9.5.5.3
Visit	Visit Admission	Not used
Patient	Patient Relationship	Not used
Patient	Patient Identification	9.5.6.1
Patient	Patient Demographic	9.5.6.2
Patient	Patient Medical	9.5.6.3

## 9.5 Information Model Keys

Please refer to DICOM Standard PS 3.3. (Information Object Definitions) and PS 3.4 (Service Class Specifications) for a description of each of the Entities contained within the Modality Worklist Information Model.

The following Module descriptions are included to specify what data elements are supported and what type of matching can be applied. It should be noted that they are the same ones as defined in the DICOM Standard PS 3.4 (Service Class Specifications).

The term Instance is used for Images and Reports in examinations, that are based on Worklist entries.

Not listed elements are not supported.

### 9.5.1 Supported Matching Attributes and Filtering

Following are the types of matching that can be requested by the implementation:

- Single Value Matching.
- Wild Card Matching.
- Range of date.

Fields with "Filtering supported" in the Matching column can be controlled from the Search screen.

Fields with "Matching supported" in the Matching column can be filled in by the Worklist.

### 9.5.2 Scheduled Procedure Step Entity

#### 9.5.2.1 SOP Common Module

Table 9.5-1: SOP Common Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Specific Character Set	0008,0005	O	1C	Yes/Yes	Matching supported

### 9.5.2.2 Scheduled Procedure Step Module

Table 9.5-2: Scheduled Procedure Step Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Scheduled Procedure Step Sequence	0040,0100	R	1	No/No	Matching supported
>Scheduled Station AE Title	0040,0001	R	1	No/No	Matching supported Filtering supported
>Scheduled Procedure Step Start Date	0040,0002	R	1	No/No	Matching supported Filtering supported
>Scheduled Procedure Step Start Time	0040,0003	R	1	No/No	Matching supported
>Modality	0008,0060	R	1	Yes/Yes (Modality = "US" or Modality = "empty" == "ALL" )	Matching supported Filtering supported
>Scheduled Performing Physician's Name	0040,0006	R	2	Yes(mapped into 0008,1050)/ No	Matching supported
>Scheduled Procedure Step Description	0040,0007	O	1C	Yes/Yes	Matching supported
>Scheduled Station Name	0040,0010	O	2	No/No	Filtering supported
>Scheduled Procedure Step Location	0040,0010	O	2	No/No	Matching supported
>Scheduled Procedure Step ID	0040,0009	O	1	Yes/Yes	Matching supported
>Scheduled Protocol Code Sequence	0040,0008	O	1C	Yes/Yes (depends on the data from the worklist)	Matching supported
>>Code Value	0008,0100	O	1	Yes/Yes	Matching supported

Table 9.5-2: Scheduled Procedure Step Module Attributes (continued)

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/MPPS	Matching
>>Code Scheme Designator	0008,0102	O	1	Yes/Yes	Matching supported
>>Code Meaning	0008,0104	O	1	Yes/Yes	Matching supported

### 9.5.3 Requested Procedure Entity

#### 9.5.3.1 Requested Procedure Module

Table 9.5-3: Requested Procedure Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Requested Procedure ID	0040,1001	O	1	Yes/Yes	Matching supported
Requested Procedure Description	0032,1060	O	1C	Yes(mapped into 0040,0275)/ No	Matching supported
Requested Procedure Code Sequence	0032,1064	O	1C	Yes(mapped into 0040,0275)/ No	Matching supported
Requested Procedure Comments	0040,1400	I	3	No/No	Matching supported
Study Instance UID	0020,000D	O	1	Yes/Yes	Matching supported
Referenced Study Sequence	0008,1110	O	1C	Yes/Yes	Matching supported
>Referenced SOP Class UID	0008,1150	O	1C	Yes/Yes	Matching supported
>Referenced SOP Instance UID	0008,1155	O	1C	Yes/Yes	Matching supported
>Names of Intended Recipients of Results	0040,1010	O	3	No/No	Matching supported

### 9.5.4 Imaging Service Request Entity

#### 9.5.4.1 Imaging Service Request Module

Table 9.5-4: Imaging Service Request Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Accession Number	0008,1050	O	2	Yes/Yes	Matching supported Filtering supported

Table 9.5-4: Imaging Service Request Module Attributes (continued)

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/MPPS	Matching
Referring Physician's Name	0008,0090	O	2	Yes/No	Matching supported
Requesting Physician	0032,1032	O	2	No/No	Matching supported
Requesting Service	0032,1033	O	3	No/No	Matching supported
Imaging Service Request Comments	0040,2400	O	3	No/No	Matching supported

## 9.5.5 Visit Entity

### 9.5.5.1 Visit Identification

Table 9.5-5: Visit Identification Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/MPPS	Matching
Admission ID	0038,0010	O	2	No/No	Matching supported

### 9.5.5.2 Visit Status

Table 9.5-6: Visit Status Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/MPPS	Matching
Current Patient Location	0038,0300	O	2	No/No	Matching supported

### 9.5.5.3 Visit Relationship

Table 9.5-7: Visit Relationship Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Referenced Patient Sequence	0008,1120	O	2	No/Yes	Matching supported always empty

### 9.5.6 Patient Entity

#### 9.5.6.1 Patient Identification

Table 9.5-8: Patient Identification Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Patient's Name	0010,0010	R	1	Yes/Yes	Matching supported Filtering supported
Patient ID	0010,0020	R	1	Yes/Yes	Matching supported Filtering supported
Issuer of Patient ID	0010,0021	O	3	Yes/Yes	( $\geq 10.x.x$ ) Matching supported
Other Patient Ids	0010,1000	O	3	Yes/Yes	Matching supported

#### 9.5.6.2 Patient Demographic

Table 9.5-9: Patient Demographic Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Patient's Birth Date	0010,0030	O	2	Yes/Yes	Matching supported
Patient's Birth Time	0010,0032	O	2	No/No	Not supported
Patient's Sex	0010,0040	O	2	Yes/Yes	Matching supported
Patient's Size	0010,1020	O	3	No/No	Not supported
Patient's Weight	0010,1030	O	2	No/No	Not supported
Ethnic Group	0010,2160	O	3	No/No	Not supported



Table 9.5-9: Patient Demographic Module Attributes (continued)

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Patient Comments	0010,4000	O	3	No/No	Not supported

### 9.5.6.3 Patient Medical

Table 9.5-10: Patient Medical Module Attributes

Attribute Name	Tag	Expected Matching Key Type	Expected Returned Key Type	Mapped into Instance/ MPPS	Matching
Additional Patient History	0010,21B0	O	3	No/No	Not supported
Contrast Allergies	0010,2210	O	2	No/No	Not supported
Medical Alerts	0010,2000	O	2	No/No	Not supported
Pregnancy Status	0010,21C0	O	2	No/No	Not supported
Last Menstrual Date	0010, 21D0	O	3	Yes/Yes	

## 10 Modality Performed Procedure Step SOP Class Definition

### 10.1 Introduction

This section of the DICOM Conformance Statement specifies the Modality Performed Procedure Step SOP Class, the optional attributes and service elements supported, the valid range of values for mandatory and optional attributes, and the status code behavior.

### 10.2 Modality Performed Procedure Step SOP Class Definition

In this section, supported means that tag is sent with value if entered by user or from worklist.

#### 10.2.1 IOD Description

This is the description of the DICOM tags to be sent for Modality Performed Procedure Step SOP class.

The following tables describe the Modality Performed Procedure Step Sop Class N-CREATE, N-SET and Final State Attributes.

Table 10.2-1: SOP Common Module

Attribute Name	Tag	Req.Type N-CREATE	Req, Type N-SET
Specific Character Set	0008,0005	Y	N

Table 10.2-2: Performed Procedure Step Relationship

Attribute Name	Tag	Req.Type N-CREATE	Req, Type N-SET
Scheduled Step Attribute Sequence	0040,0270	Y (set)	N
>Study Instance UID	0020,000D	Y (set)	N
>Referenced Study Sequence	0008,1110	Y (set if scheduled otherwise NULL)	N
>>Referenced SOP Class UID	0008,1150	Y (set if SQ not NULL)	N
>>Referenced SOP Instance UID	0008,1155	Y (set if SQ not NULL)	N
>Accession Number	0008,0050	Y (set if entered in UI or from Worklist)	N
>Placer Order Number/ Imaging Service Request	0040,2016	N	N
>Filler Order Number/ Imaging Service Request	0040,2017	N	N
>Requested Procedure ID	0040,1001	Y (set if entered in UI or from Worklist otherwise NULL)	N
>Reason for the requested Procedure	0040,1002	N	N
>Requested Procedure Description	0032,1060	Y (set if entered in UI or from Worklist)	N

Table 10.2-2: Performed Procedure Step Relationship (continued)

Attribute Name	Tag	Req.Type N-CREATE	Req, Type N-SET
>Scheduled Procedure Step ID	0040,0009	Y (set if entered in UI or from Worklist)	N
>Scheduled Procedure Step Description	0040,0007	Y (set if entered in UI or from Worklist)	N
>Scheduled Protocol Code Sequence	0040,0008	Y (set if from Worklist otherwise NULL)	N
>>Code Value	0008,0100	Y (set if SQ not NULL)	N
>>Code Scheme Designator	0008,0102	Y (set if SQ not NULL)	N
>>Code Meaning	0008,0104	Y (set if SQ not NULL)	N
Patient's Name	0010,0010	Y (set if entered in UI or from Worklist)	N
Patient ID	0010,0020	Y (set if entered in UI or from Worklist otherwise it will be generated)	N
Issuer of Patient ID	0010,0021	Y (set if entered in UI or from Worklist)	
Other Patient Ids	0010,1000	Y (set if entered in UI or from Worklist)	N
Patient's Birth Date	0010,0032	Y (set if entered in UI or from Worklist)	N
Patient's Sex	0010,0040	Y (set if entered in UI or from Worklist)	N
Referenced Patient Sequence	0008,1120	Y (NULL)	N
>Referenced SOP Class UID	0008,1150	N	N
>Referenced SOP Instance UID	0008,1155	N	N

Table 10.2-3: Performed Procedure Step Information

Attribute Name	Tag	Req.Type N-CREATE	Req, Type N-SET
Performed Procedure Step ID	0040,0253	Y (set if entered in UI or from Worklist)	N
Performed Station AE Title	0040,0241	Y (empty if not set in UI)	N
Performed Station Name	0040,0242	Y (set if entered in UI otherwise NULL)	N
Performed Location	0040,0243	Y (set if entered in UI otherwise NULL)	N
Performed Procedure Step Start Date	0040,0244	Y (set to current date)	N
Performed Procedure Step Start Time	0040,0245	Y (set to current time)	N
Performed Procedure Step Status	0040,0252	Y (set to "IN PROGRESS")	Y (set to "COMPLETED or DISCONTINUED")
Performed Procedure Step Description	0040,0254	Y (set if entered in UI or from Worklist)	Y (set if entered in UI or from Worklist)
Performed Procedure Type Description	0040,0254	Y (NULL)	Y (NULL)

Table 10.2-3: Performed Procedure Step Information (continued)

Attribute Name	Tag	Req.Type N-CREATE	Req, Type N-SET
Procedure Code Sequence	0008,1032	Y (set if scheduled otherwise NULL)	Y (set if entered in UI or from Worklist otherwise NULL)
>Code Value	0008,0100	Y (set if SQ not NULL)	Y (set if SQ not NULL)
>Coding Scheme Designator	0008,0102	Y (set if SQ not NULL)	Y (set if SQ not NULL)
>Code Meaning	0008,0104	Y (set if SQ not NULL)	Y (set if SQ not NULL)
Performed Procedure Step End Date	0040,0250	Y (NULL)	Y (set to current date)
Performed Procedure Step End Time	0040,0251	Y (NULL)	Y (set to current time)
Performed Procedure/ Step Discontinuation/ Reason Code Sequence	0040,0281	Y (empty)	Y (set if entered in UI or from Worklist otherwise NULL)
>Code Value	0008,0100	N	Y (set if SQ not NULL)
>Code Scheme Designator	0008,0102	N	Y (set if SQ not NULL)
>Code Meaning	0008,0104	N	Y (set if SQ not NULL)

Table 10.2-4: Image Acquisition Results

Attribute Name	Tag	Req.Type N-CREATE	Req, Type N-SET
Modality	0008,0060	Y (set to "US")	N
Study ID	0020,0010	Y (set if entered in UI or from Worklist)	N
Performed Protocol Code Sequence	0040,0260	Y (NULL)	Y (NULL)
>Code Value	0008,0100	N	N
>Coding Scheme Designator	0008,0102	N	N
>Code Meaning	0008,0104	N	N
Performed Series Sequence	0040,0340	Y (NULL)	Y
>Performing Physician's Name	0008,1050	N	Y (NULL)
>Protocol Name	0018,1030	N	Y (Value == Regular)
>Operator's Name	0008,1070	N	Y (NULL)
>Series Instance UID	0020,000E	N	Y
>Series Description	0008,103E	N	Y (NULL)
>Retrieve AE Title	0008,0054	N	Y (NULL)
>Referenced Image Sequence	0008,1140	N	Y (only for Images)
>>Referenced SOP Class UID	0008,1150	N	Y (only for Images)
>>Referenced SOP Instance UID	0008,1155	N	Y (only for Images)
>Referenced Standalone SOP Instance Sequence	0040,0220	N	Y (only for Structured Report)
>>Referenced SOP Class UID	0008,1150	N	Y (only for Structured Report)
>>Referenced SOP Instance UID	0008,1155	N	Y (only for Structured Report)

## **10.2.2 Operations**

### **10.2.2.1 Service Class User Behavior**

The equipment sends N-CREATE when the exam is being started by pressing "Start Exam".

The equipment sends N-SET after the exam is ended. The N-SET will include all acquired images and structured reports' UIDs and the status of COMPLETED or DISCONTINUED.

## 11 Storage Commitment Push Model SOP Class Definition

### 11.1 Introduction

This section of the DICOM Conformance Statement specifies the Storage Commitment Push Model SOP Class, the optional attributes and service elements supported, the valid range of values for mandatory and optional attributes, and the status code behavior.

### 11.2 Storage Commitment Push Model SOP Class Definition

#### 11.2.1 DIMSE Service Group

Table 11.2-1: DIMSE Service Group

DIMSE Service Element	Usage SCU/SCP
N-EVENT-REPORT	M/M
N-ACTION	M/M

#### 11.2.2 Operations

##### 11.2.2.1 N-Action Information

Table 11.2-2: Storage Commitment Result - N-Action Information

Event Type Name	Event Type ID	Attribute	Tag	Requirement Type SCU/SCP
Request Storage Commitment	1	Transaction UID	0008,1195	1/-
		Retrieve AE Title	0008,0054	Not used
		Storage Media File-Set ID	0008,0130	Not used
		Storage Media File-Set UID	0008,0140	Not used
		Referenced SOP Sequence	0008,1199	1/-
		>Referenced SOP Class UID	0008,1150	1/-
		>Referenced SOP Instance UID	0008,1155	1/-
		>Retrieve AE Title	0008,0054	Not used
		>Storage Media File-Set ID	0008,0130	Not used
		>Storage Media File-Set UID	0008,0140	Not used

##### 11.2.2.2 Service Class User Behavior

The equipment sends the N-ACTION primitive (Storage Commitment Request) after successful exam save to a DICOM Storage SCP.

The equipment may request Storage Commitment for the following SOP Class UIDs:

Table 11.2-3: **SOP Class Table**

<b>Name</b>	<b>UID</b>
Ultrasound Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2

The association for the N-ACTION is disconnected after processing the response. Thus, the N-EVENT-REPORT must be sent on a separate association.

The Referenced Study Component Sequence Attribute is not supported.

The Transaction UID is valid until the request is confirmed, manually retried or manually deleted.

The optional Storage Media File-Set ID and UID Attributes in the N-ACTION are not supported.

On receipt of an unsuccessful N-ACTION Response Status Code from the SCP, the request will remain in the queue for the user to manually retry the request.

### 11.2.3 Notifications

The equipment will only listen for an N-EVENT-REPORT from the SCP in a new association on the listen port for Verification and Storage Commitment.

#### 11.2.3.1 Event Information

Table 11.2-4: Storage Commitment Result - N-Event Information

Event Type Name	Event Type ID	Attribute	Tag	Requirement Type SCU/SCP
Storage Commitment Request Successful	1	Transaction UID	0008,1195	-/1
		Retrieved AE Title	0008,0054	Not used
		Storage Media File-Set ID	0008,0130	Not used
		Storage Media File-Set UID	0008,0140	Not used
		Referenced SOP Sequence	0008,1199	-/1
		>Referenced SOP Class UID	0008,1150	-/1
		>Referenced SOP Instance UID	0008,1155	-/1
		>Storage Media File-Set ID	0008,0130	Not used
		>Storage Media File-Set UID	0008,0140	Not used
Storage Commitment Request Complete - Failures Exist	2	Transaction UID	0008,1195	-/1
		Retrieved AE Title	0008,0054	Not used
		Storage Media File-Set ID	0008,0130	Not used
		Storage Media File-Set UID	0008,0140	Not used
		Referenced SOP Sequence	0008,1199	-/1C
		>Referenced SOP Class UID	0008,1150	-/1
		>Referenced SOP Instance UID	0008,1155	-/1
		>Retrieve AE Title	0008,0054	Not used
		>Storage Media File-Set ID	0008,0130	Not used
		>Storage Media File-Set UID	0008,0140	Not used
		Failed SOP Sequence	0008,1198	-/1
		>Referenced SOP Class UID	0008,1150	-/1
		>Referenced SOP Instance UID	0008,1155	-/1
		>Failure Reason	0008,1197	-/1

#### 11.2.3.2 Service Class User Behavior

If no answer is received, the request will remain in the send queue for manual retry or manual deletion.

If a successful answer is received, the request will be removed from the send queue without messages.

If a non-successful answer is received, the request will be left in the send queue and will be marked as failed.



In case of a received N-EVENT-REPORT-RQ a N-EVENT-REPORT-RSP message will be sent to the SCP. The sent status values are described in the following tables.

Table 11.2-5: **Storage Commitment N-EVENT-REPORT-RSP Status**

<b>Status Name</b>	<b>Status Code</b>	<b>Description of Field</b>
Success	0000h	No error in the N-EVENT-REPORT_RQ.
Event Processing Failure	0110h	On any detected failure.

## 12 Print Management SOP Class Definition

### 12.1 Introduction

This section of the DICOM Conformance Statement specifies the supported Print Management SOP and Meta SOP Classes, the optional attributes and service elements supported, the valid range of values for mandatory and optional attributes, and the status code behavior.

- 12.2 - Basic Print Management Meta SOP Classes
- 12.3 - Print Management SOP Class Definitions
- 12.4 - Print Management IODs
- 12.5.1 - IOD Module Definition

### 12.2 Basic Print Management Meta SOP Classes

The Basic Print Management Meta SOP Classes correspond with the minimum functionality that an implementation of the Print Management Service Class shall support. The equipment supports the Basic Grayscale Print Management Meta SOP Class and the Basic Color Print Management Meta SOP Class. These are defined in Table 12.2-1 and 12.2-2.

#### 12.2.1 Basic Grayscale Print Management Meta SOP Classes

The Basic Grayscale Print Management Meta SOP Class is defined by the following set of supported SOP Classes.

Table 12.2-1: Basic Grayscale Print Management Meta SOP Class

SOP Class Name	Usage SCU	Reference
Basic Film Session SOP Class	M	see 12.3.1
Basic Film Box SOP Class	M	see 12.3.2
Basic Grayscale Image Box SOP Class	M	see 12.3.3.1
Printer SOP Class	M	see 12.3.4

#### 12.2.2 Basic Color Print Management Meta SOP Classes

The Basic Color Print Management Meta SOP Class is defined by the following set of supported SOP Classes.

Table 12.2-2: Basic Color Print Management Meta SOP Class

SOP Class Name	Usage SCU	Reference
Basic Film Session SOP Class	M	see 12.3.1
Basic Film Box SOP Class	M	see 12.3.2
Basic Color Image Box SOP Class	M	see 12.3.3.2
Printer SOP Class	M	see 12.3.4

## 12.3 Print Management SOP Class Definitions

### 12.3.1 Basic Film Session SOP Class

The Basic Color Print Management Meta SOP Class is defined by the following set of supported SOP Classes

Table 12.3-1: DIMSE Service Group

DIMSE Service Element	Usage SCU	Reference
N-Create	M	see 12.3.1.1.1
N-Set	U	see 12.3.1.1.2
N-Delete	U	see 12.3.1.1.3
N-Action	U	see 12.3.1.1.4

#### 12.3.1.1 DIMSE Service Group

##### 12.3.1.1.1 N-CREATE

The N-CREATE DIMSE Service is used by equipment to request that the SCP create a Film Session SOP Instance see Table 12.4-1.

##### 12.3.1.1.2 N-SET

Not used in this implementation.

##### 12.3.1.1.3 N-DELETE

Not used in this implementation.

##### 12.3.1.1.4 N-ACTION

Not used in this implementation.

### 12.3.2 Basic Film Box SOP Class

The Basic Film Box IOD is an abstraction of the presentation of one film of the film session. The DIMSE services that are applicable to the IOD are shown in the following Table.

Table 12.3-2: DIMSE Service Group

DIMSE Service Element	Usage SCU	Reference
N-Create	M	see 12.3.2.1.1
N-Action	M	see 12.3.2.1.2
N-Set	U	see 12.3.2.1.3
N-Delete	U	see 12.3.2.1.4

### 12.3.2.1 DIMSE Service Group

#### 12.3.2.1.1 N-CREATE

The N-CREATE DIMSE Service is used by equipment to request that the SCP create a Film Box SOP Instance. Table 12.4–2 defines the Basic Film Box Presentation Module attributes used in this request.

#### 12.3.2.1.2 N-ACTION

The N-ACTION DIMSE Service is used by the equipment to request the SCP (printer) to print the number of copies configured by the user to a film of the film session.

#### 12.3.2.1.3 N-SET

Not used in this implementation.

#### 12.3.2.1.4 N-DELETE

The N-DELETE DIMSE Service is used by the equipment to request the SCP (printer) to delete the complete Film Box. The root Film Box Instance UID is sent to the SCP to accomplish this.

### 12.3.3 Image Box SOP Class

#### 12.3.3.1 Basic Grayscale Image Box SOP Class

The Basic Grayscale Image Box IOD is an abstraction of the presentation of an image and image related data in the image area of a film. The DIMSE services that are applicable to the IOD are shown in Table 12.3–3.

Table 12.3–3: DIMSE Service Group

DIMSE Service Element	Usage SCU	Reference
N-Set	M	see 12.3.3.1.1

#### 12.3.3.1.1 DIMSE Service Group (N-SET)

The N-SET DIMSE Service is used by the equipment to update the Basic Grayscale Image Box SOP Instance. Table 12.4–3 defines the Basic Image Box Presentation Module attributes used.

#### 12.3.3.2 Basic Color Image Box SOP Class

The Basic Color Image Box IOD is an abstraction of the presentation of an image and image related data in the image area of a film. The DIMSE services that are applicable to the IOD are shown in Table 12.3–4.

Table 12.3-4: DIMSE Service Group

DIMSE Service Element	Usage SCU	Reference
N-SET	M	see 12.3.3.2.1

### 12.3.3.2.1 DIMSE Service Group (N-SET)

The N-SET DIMSE Service is used by the equipment to update the Basic Color Image Box SOP Instance. Table 12.4-3 defines the Basic Image Box Presentation Module attributes used.

### 12.3.4 Printer SOP Class

The Printer IOD is an abstraction of the hard copy printer and is the basic Information Entity to monitor the status of the printer. The DIMSE services that are applicable to the IOD are shown in Table 12.3-5.

#### 12.3.4.1 DIMSE Service Group

Table 12.3-5: DIMSE Service Group

DIMSE Service Element	Usage SCU	Reference
N-Event-Report	M	see 12.3.4.1.1
N-Get	U	see 12.3.4.1.2

#### 12.3.4.1.1 N-EVENT-REPORT

The equipment ignores the content of any N-EVENT-REPORT initiated by the SCP (Printer).

#### 12.3.4.1.2 N-GET

Used by the equipment to request the SCP to get a Printer SOP Instance. Table 12.4-4 defines the Printer Module attributes.

## 12.4 Print Management IODs

### 12.4.1 Print Management IODs

Within an entity of a DICOM Print Management, attributes are grouped into a related set of attributes. A set of related attributes is termed a module. A module facilitates the understanding of the semantics concerning the attributes and how the attributes are related with each other. A module grouping does not infer any encoding of information into datasets.

Table 12.4-1, Table 12.4-2, Table 12.4-3 and Table 12.4-4 identify the defined modules within the entities which comprise the DICOM Print Management Service IODs. Modules are identified by Module Name. See DICOM for a complete definition of the entities, modules and attributes.

### 12.4.1.1 Film Session IOD Module

Table 12.4-1: Film Session IOD Modules

Module Name	Reference	Module Description
SOP Common Module	see 12.5.1.1.1	Contains SOP Common information
Basic Film Session Presentation Module	see 12.5.1.2.1	Contains Film Session presentation information
Basic Film Session Relationship Module	see 12.5.1.2.2	References to related SOPs

### 12.4.1.2 Basic Film Box IOD Module Table

Table 12.4-2: Basic Film Box IOD Modules

Module Name	Reference
SOP Common Module	see 12.5.1.1.1
Basic Film Box Presentation Module	see 12.5.1.2.3
Basic Film Box Relationship Module	see 12.5.1.2.4

### 12.4.1.3 Basic Image Box IOD Module Table

Table 12.4-3: Basic Image Box IOD Modules

Module Name	Reference
SOP Common Module	see 12.5.1.1.1
Image Box Pixel Presentation Module	see 12.5.1.2.5

### 12.4.1.4 Printer IOD Module Table

Table 12.4-4: Printer IOD Modules

Module Name	Reference
SOP Common Module	see 12.5.1.1.1
Printer Module	see 12.5.1.2.6

## 12.5 Information Module Definitions

### 12.5.1 Information Module Definitions

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities and modules that comprise the Print Management. The following modules are included to convey Enumerated Values, Defined Terms, and Optional Attributes supported.

## 12.5.1.1 General Modules

### 12.5.1.1.1 SOP Common Module

This section defines the attributes that are required for proper functioning and identification of the associated SOP Instances. They do not specify any semantics about the Real-World Object represented by the IOD.

Table 12.5–1: SOP Common Module Attributes

Attribute Name	Tag	Type	Attribute Description
SOP Class UID	(0008,0016)	1	Varies with Module Instance and DIMSE Service being used. 1.2.840.10008.5.1.1.1 (Basic Film Session) 1.2.840.10008.5.1.1.2 (Basic Film Box) 1.2.840.10008.5.1.1.4 (Basic Grayscale Image Box) 1.2.840.10008.5.1.1.16 (Printer)
SOP Instance UID	(0008,0018)	1	Provided by SCP(printer).
Specific Character Set	(0008,0005)	1C	Not used as expanded or replacement character sets not used.
Instance Creation Date	(0008,0012)	3	Not used.
Instance Creation Time	(0008,0013)	3	Not used.
Instance Creator UID	(0008,0014)	3	Not used.

### 12.5.1.2 Print Management Modules

For all user configurable tags with no default, no value will be sent if the tag is not configured.

#### 12.5.1.2.1 Basic Film Session Presentation Module

This section defines the attributes that are common for all films of a film session. The attributes described in table 12.5–2 apply when the N-CREATE DIMSE service is used.

Table 12.5–2: Basic Film Session Presentation Module Attributes

Attribute Name	Tag	Usage (SCU)	Attribute Description
Number of Copies	(2000,0010)	U	Defined Terms used (user configurable): 1 to 99.
Print Priority	(2000,0020)	U	Defined Terms used (user configurable): HIGH, MED, LOW.
Medium Type	(2000,0030)	U	Defined Terms used (user configurable): PAPER, BLUE FILM, CLEAR FILM.
Film Destination	(2000,0040)	U	Defined Terms used (user configurable): MAGAZINE, PROCESSOR.
Film Session Label	(2000,0050)	U	Not used
Memory Allocation	(2000,0060)	U	Not used
Owner ID	(2100,0160)	U	Not used

### 12.5.1.2.2 Basic Film Session Relationship Module

Table 12.5-3: Basic Film Session Relationship Module Attributes

Attribute Name	Tag	Usage (SCU)	Attribute Description
Referenced Film Box Sequence	(2000,0050)	U	Not used.
>Referenced SOP Class UID	(0008,1150)	U	
>Referenced SOP Instance UID	(0008,1155)	U	

### 12.5.1.2.3 Basic Film Box Presentation Module

The attributes described in Table 12.5-4 apply when the N-CREATE DIMSE service is used.

Table 12.5-4: Basic Film Box Presentation Module Attributes

Attribute Name	Tag	Usage (SCU)	Attribute Description
Image Display Format	(2010,0010)	M	STANDARD\1,1 STANDARD\1,2 STANDARD\2,2 STANDARD\2,3 STANDARD\3,3 STANDARD\3,4 STANDARD\3,5 STANDARD\4,4 STANDARD\4,5 STANDARD\4,6
Annotation Display Format ID	(2010,0030)	U	Not used.
Film Orientation	(2010,0040)	U	Defined Terms used (user configurable): PORTRAIT, LANDSCAPE
Film Size ID	(2000,0050)	U	Defined Terms used (user configurable): 8INX10IN, 10INX12IN, 10INX14IN, 11INX14IN, 14INX14IN, 14INX17IN, 24CMX24CM, 24CMX30CM
Magnification Type	(2010,0060)	U	Defined Terms used (user configurable): REPLICATE,BILINEAR, CUBIC, NONE
Smoothing Type	(2010,0080)	U	Not used.
Border Density	(2010,0100)	U	Defined Terms used (user configurable): BLACK, WHITE
Empty Image Density	(2010,0110)	U	Defined Terms used (user configurable): BLACK, WHITE
Min Density	(2010,0120)	U	configurable in the DICOM Printer configuration page
Max Density	(2010,0130)	U	configurable in the DICOM Printer configuration page
Trim	(2010,0140)	U	Not used.
Configuration Information	(2010,0150)	U	User configurable

The system can be configured to not send the Magnification Type (2010,0060) ( $\geq 10.x.x$ ).



#### 12.5.1.2.4 Basic Film Box Relationship Module

This section defines the attributes that describe the common parameters, which apply for all images on a given sheet of film.

Table 12.5-5: Basic Film Box Relationship Module Attributes

Attribute Name	Tag	Usage (SCU)	Attribute Description
Referenced Film Session Sequence	(2010,0500)	M	Used
>Referenced SOP Class UID	(0008,1150)	M	Film Session SOP Class UID
>Referenced SOP Instance UID	(0008,1155)	M	Referenced Film Session SOP Class UID
Referenced Image Box Sequence	(2010,0510)	U	Used
>Referenced SOP Class UID	(0008,1150)	U	Not used
>Referenced SOP Instance UID	(0008,1150)	U	Referenced Image Box SOP Class UID
Referenced Basic Annotation Sequence	(2010,0520)	U	Not used
>Referenced SOP Class UID	(0008,1150)	U	Not used
>Referenced SOP Instance UID	(0008,1150)	U	Not used

#### 12.5.1.2.5 Image Box Pixel Presentation Module

The attributes described in Table 12.5-6 apply when the DIMSE Service N-SET is used.

Table 12.5-6: Image Box Pixel Presentation Module Attributes

Attribute Name	Tag	Usage (SCU)	Attribute Description
Image Position	(2020,0010)	M	1-n (Used for grayscale and color images)
Polarity	(2020,0020)	U	Not used
Requested Image Size	(2020,0030)	U	Not used
Basic Grayscale Image Sequence	(2020,0110)	M	(Used for grayscale images)
>Samples Per Pixel	(0028,0002)	M	Value = '1'
>Photometric Interpretation	(0028,0004)	M	MONOCHROM2, 0 = Black, 255 = White
>Rows	(0028,0010)	M	600 pixels
>Columns	(0028,0011)	M	800 pixels
>Pixel Aspect Ratio	(0028,0034)	MC	Not used
>Bits Allocated	(0028,0100)	M	Value always = 0008H
>Bits Stored	(0028,0101)	M	Value always = 0008H
>High Bit	(0028,0102)	M	Value always = 0007H
>Pixel Representation	(0028,0103)	M	Defined Value '0' - unsigned integer
>Pixel Data	(7FE0,0010)	M	Gray pixel data
Basic Color Image Sequence	(2020,0111)	M	(Used for color images)
>Samples Per Pixel	(0028,0002)	M	Value = '3'
>Photometric Interpretation	(0028,0004)	M	RGB
>Planar Configuration	(0028,0006)	M	0001H, Planar. Red plane first, then green, and blue
>Rows	(0028,0010)	M	600 pixels

Table 12.5-6: Image Box Pixel Presentation Module Attributes (continued)

Attribute Name	Tag	Usage (SCU)	Attribute Description
>Columns	(0028,0011)	M	800 pixels
>Pixel Aspect Ratio	(0028,0034)	MC	1\1
>Bits Allocated	(0028,0100)	M	Value always = 0008H
>Bits Stored	(0028,0101)	M	Value always = 0008H
>High Bit	(0028,0102)	M	Value always = 0007H
>Pixel Representation	(0028,0103)	M	Defined Value '0' - unsigned integer
>Pixel Data	(7FE0,0010)	M	Color pixel planes data

### 12.5.1.2.6 Printer Module

This section defines the attributes that are used to monitor the status of the printer. The attributes described in Table 12.5-7 apply when the DIMSE Service N-GET is used. Only Failures will be displayed to the customer in the send queue. The reason for a possible failure will not be displayed.

Table 12.5-7: Printer Module Attributes

Attribute Name	Tag	Usage (SCU)	Attribute Description
Printer Status	(2110,0010)	U	Defined Values: NORMAL, WARNING and FAILURE are reported to user.
Printer Status Info	(2110,0020)	U	Reported to user.
Printer Name	(2110,0030)	U	Ignored, will not be displayed
Manufacturer	(0008,0070)	U	Ignored, will not be displayed
Manufacturer Model Name	(0008,1090)	U	Ignored, will not be displayed
Device Serial Number	(0018,1000)	U	Ignored, will not be displayed
Software Versions	(0018,1020)	U	Ignored, will not be displayed
Date Last Calibration	(0018,1200)	U	Ignored, will not be displayed
Last Calibration	(0018,1201)	U	Ignored, will not be displayed

## 13 Study Root Query/Retrieve Information Model Definition

### 13.1 Introduction

This section specifies the use of the DICOM Study Root Query/Retrieve Model used to organize data and against which a Query/Retrieve will be performed. The contents of this section are:

- Information Model Description
- Information Model Entity-Relationship Model
- Information Model Keys

### 13.2 Study Root Information Model Description

This section defines the implementation of the Study Root Query/Retrieve Information Model.

### 13.3 Study Root Information Model Entity-Relationship Model

#### 13.3.1 Entity Description

Please refer to DICOM Standard Part 3 (Information Object Definitions) for a description of each of the entities contained within the Study Root Information Model.

#### 13.3.2 Voluson E6/E8/E10 Mapping of DICOM Entities

Table 13.3-1: Mapping of DICOM Entities to Equipment Entities

DICOM	Equipment
STUDY	Patient
SERIES	Exam
IMAGE	Image

### 13.4 Information Model Keys

Please refer to DICOM Standard PS 3.4 (Service Class Specifications) for a description of each of the levels contained within the Study Root Query/Retrieve Information Model. The following Level descriptions are included to specify what data elements are supported and what type of matching can be applied. It should be noted that they are the same ones as defined in the DICOM Standard PS 3.4 (Service Class Specifications).

#### 13.4.1 Study Level

This section defines the keys at the Study Level of the Study Root Query/Retrieve Information Model that are supported by this implementation. See Table 2.3-14.

The following conventions are used to defined they of keys used in Query/Retrieve Information Models. Please refer to DICOM Standard part 4 for details on what Unique, Optional and Required attribute means.

Table 13.4-1: Conventions

Symbol	Description
U	Unique Key Attribute
O	Optional Key Attribute
R	Unique Key Attribute

Table 13.4-2: Q/R Study Level and Location for Retrieve Attributes

Attribute Name	Tag	Type	Attribute Description
Query Retrieve Level	(0008,0052)	–	Value=STUDY

Table 13.4-3: Q/R Specific Character Set Attributes

Attribute Name	Tag	Type	Attribute Description
Specific Character Set	(0008,0005)	–	Set to ISO IR 100 if extended characters are used in query. ISO IR 100 is supported in responses.

### 13.4.2 Series Level

This section defines the keys at the Series Level of the Study Root Query/Retrieve Information Model that are supported by this implementation.

The Modality is always set to the value US.

Table 13.4-4: Series Level Attributes - Study Root Q/R Information Model

Attribute Name	Tag	Type
Series Date	(0008,0021)	O
Series Time	(0008,0031)	O
Modality	(0008,0060)	R
SeriesInstanceUID	(0020,000E)	U
NumberOfSeriesRelatedInstances	(0020,1209)	O
Series Description	(0008,103E)	O

The following conventions are used to defined they of keys used in Query/Retrieve Information Models. Please refer to DICOM Standard part 4 for details on what Unique, Optional and

Required attribute means.

Table 13.4-5: **Q/R Study Level and Location for Retrieve Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>	<b>Attribute Description</b>
Query Retrieve Level	(0008,0052)	–	Value=STUDY

Table 13.4-6: **Q/R Specific Character Set Attributes**

<b>Attribute Name</b>	<b>Tag</b>	<b>Type</b>	<b>Attribute Description</b>
Specific Character Set	(0008,0005)	–	Set to ISO IR 100 if extended characters are used in query. ISO IR 100 is supported in responses.

## 14 Audit Trail Message Format Profile

### 14.1 Supported Audit Message list

This section described the list of Audit Messages implemented by this product to conform to the DICOM Audit Profile.

Audit Message	Usage	Reference
Application Activity	Used	14.2.1
Audit Lof Used	Not Used	
Begin Transferring DICOM Instances	Used	14.2.2
Data Export	Used	14.2.3
Data Import	Used	14.2.4
DICOM Instances Accessed	Used	14.2.5
DICOM Instances Transferred	Used	14.2.6
DICOM Study Deleted	Used	14.2.7
Network Entry	Not Used	
Query	Used	14.2.8
Security Alert	Not Used	
User Authentication	Used	14.2.9

### 14.2 Audit Message Description

The following subsections define message details and specializations used by this product as part of the DICOM Audit Trail Profile.

#### 14.2.1 Application Activity

This audit message describes the event of an application starting or stopping.

Table 14.2-1: Application Activity Message

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110100, DCM, "Application Activity")
	EventActionCode	M	Enumerated Value E = Execute
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
	EventTypeCode	M	DT (110120, DCM, "Application Start") DT (110121, DCM, "Application Stop")
Active Participant: Application started (1)	UserID	M	Process ID or user defined value

Table 14.2–1: **Application Activity Message (continued)**

Real World Entities	Field Name	Opt.	Value Constraints
	AlternativeUserID	MC	System AE Title (default = Voluson
	UserIsRequestor	M	true
	RoleIDCode	M	EV (110150, DCM, "Application")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address

### 14.2.2 Begin Transferring DICOM Instances

This message describes the event of a system beginning to transfer a set of DICOM instances from one node to another node within control of the system's security domain. This message only includes information about a single patient.

Table 14.2–2: **Audit Message for Begin Transferring DICOM Instances**

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110102, DCM, "Begin Transferring DICOM Instances")
	EventActionCode	M	Enumerated Value: E = Execute
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
Active Participant: Process Sending the Data (1)	UserID	M	Process ID or user defined value
	AlternativeUserID	U	System AE Title
	UserIsRequestor	M	false
	RoleIDCode	M	EV (110153, DCM, "Source Role ID")
	NetworkAccessPointTypeCode	U	"2"
	NetworkAccessPointID	U	Local IP Address
Active Participant: Process receiving the data (1)	UserID	M	Process ID or user defined value
	AlternativeUserID	U	Destination AE Title
	UserIsRequestor	M	false
	RoleIDCode	M	EV (110152, DCM, "Destination Role ID")

Table 14.2-2: Audit Message for Begin Transferring DICOM Instances (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	NetworkAccessPointTypeCode	U	"2"
	NetworkAccessPointID	U	Destination IP Address
Active Participant: Other Participants (0..N)	UserID	M	Username
	UserIsRequestor	M	true
	NetworkAccessPointTypeCode	U	"2"
	NetworkAccessPointID	U	Local IP Address
Participating Object: Studies being transferred (1..N)	ParticipantObjectTypeCode	M	Enumerated Value: 2 = system
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 3 = report
	ParticipantObjectIDTypeCode	M	EV (110180, DCM, "Study Instance UID")
	ParticipantObjectID	M	Filled with Study Instance UID

### 14.2.3 Data Export

This message describes the event of exporting data from the system, meaning that the data is leaving control of the system's security domain. Example of exporting includes printing to paper, conversion to another format of storage in an EHR, writing to removeable media or sending via e-mail. A single patient is described in one event message.

Table 14.2-3: Audit Message for Data Export

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110106, DCM, "Export")
	EventActionCode	M	Enumerated Value: R = Read
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
Active Participant: User or Process Exporting the data(1..2)	UserID	M	User name



Table 14.2-3: Audit Message for Data Export (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	UserIsRequestor	M	true
	RoleIDCode	M	EV (110153, DCM, "Source Role ID")
	NetworkAccessPointTypeCode	U	"2"
	NetworkAccessPointID	U	Local IP Address
Active Participant: Media (1)	UserID	M	Filled with identity of the local user or process exporting the data. E.g. File Name, Printer name, email address
	UserIsRequestor	M	false
	RoleIDCode	M	EV (110154, DCM, "Destination Media")
	MediaIdentifier	M	MediaType
	MediaType	M	EV (110030, DCM, "USB Disk Emulation") EV (110031, DCM, "Email") EV (110033, DCM, "DVD") EV (110038, DCM, "Paper Document")
Participating Object: Studies (0..N)	ParticipantObjectTypeCode	M	Enumerated Value: 2 = system
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 3 = report
	ParticipantObjectIDTypeCode	M	EV (110180, DCM, "Study Instance UID")
	ParticipantObjectID	M	The Study Instance UID
Participating Object: Patients (1..N)	ParticipantObjectTypeCode	M	Enumerated Value: 1 = person
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 1 = patient
	ParticipantObjectIDTypeCode	M	Enumerated Value: 2 = patient ID
	ParticipantObjectID	M	Set to patient ID

#### 14.2.4 Data Import

This message describes the event of importing data into an organization, implying that the data now entering the system was not under the control of the security domain of this organization. An example of importing is creating new local instances from data on removable media. A single patient is described in one event message. A single user (either local or remote) shall be identified as the requestor, i.e., UserIsRequestor with a value of TRUE. This accommodates both push and pull transfer models for media.

Table 14.2-4: Audit Message for Data Import

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110107, DCM, "Import")

Table 14.2-4: Audit Message for Data Import (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	EventActionCode	M	Enumerated Value: C = Create
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
Active Participant: User or Process Importing the data (1..n)	UserID	M	User name
	UserIsRequestor	M	true
	RoleIDCode	M	EV (110152, DCM, "Destination Role ID")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address

### 14.2.5 DICOM Instances Accessed

This message describes the event of DICOM SOP Instances being viewed, utilized, updated, or deleted. This message includes information about a single patient and `EventID` can be used to summarize all activity for several studies for that patient or `StudyID` summarize all activity for a single Study. This message records `EventID` the studies within the Study to which the instances belong, not the individual instances. If all instances within a study are deleted, then the EV(110105, DCM, "DICOM Study Deleted") event is used, see Section 27.2.8.

Table 14.2-5: Audit Message for DICOM Instances Accessed

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110103, DCM, "DICOM Instances Accessed")
	EventActionCode	M	Enumerated value: C = create R = read U = update D = delete
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure

Table 14.2-5: Audit Message for DICOM Instances Accessed (continued)

Real World Entities	Field Name	Opt.	Value Constraints
Active Participant: Person and or Process manipulating the data (1..2)	UserID	M	User Name
	UserIsRequestor	M	true
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address
Participating Object: Studies (1..N)	ParticipantObjectTypeCode	M	Enumerated Value: 2 = system
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 3 = report
	ParticipantObjectTypeCode	M	EV (110180, DCM, "Study Instance UID")
	ParticipantObjectID	M	Filled with Study Instance UID
Participating Object: Patient (1)	ParticipantObjectTypeCode	M	Enumerated Value: 1 = person
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 1 = patient
	ParticipantObjectTypeCode	M	Enumerated Value: 2 = patient ID
	ParticipantObjectID	M	Filled with patient ID

### 14.2.6 DICOM Instances Transferred

This message describes the event of the completion of transferring DICOM SOP Instances between two Application Entities. This message only includes information about a single patient.

Table 14.2-6: Audit Message for DICOM Instance Transferred

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110104, DCM, "DICOM Instances Transferred")

Table 14.2-6: Audit Message for DICOM Instance Transferred (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	EventActionCode	M	Enumerated Value: C = (create) if the receiver did not hold copies of the instances transferred R = (read) if the receiver already holds copies of the SOP Instances transferred, and has determined that no changes are needed to the copies held. U = (update) if the receiver is altering its held copies to reconcile differences between the held copies and the received copies. If the Audit Source is either not the receiver, or otherwise does not know whether or not the instances previously were held by the receiving node, then use "R" = (Read).
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
Active Participant: Process that sent the data (1)	UserID	M	Process ID or user defined value
	AlternativeUserID	U	System AE Title
	UserIsRequestor	M	true
	RoleIDCode	M	EV (110153, DCM, "Source Role ID")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address
Active Participant: The process that received the data. (1)	UserID	M	Process ID or user defined value
	AlternativeUserID	U	Destination AE Title
	UserIsRequestor	M	false
	RoleIDCode	M	EV (110152, DCM, "Destination Role ID")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Destination IP Address
Participating Object: Studies being transferred (1..N)	ParticipantObjectTypeCode	M	Enumerated Value: 2 = system
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 3 = report
	ParticipantObjectIDTypeCode	M	EV (110180, DCM, "Study Instance UID")

Table 14.2-6: Audit Message for DICOM Instance Transferred (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	ParticipantObjectID	M	Filled with Study Instance UID
Participating Object: Patient (1)	ParticipantObjectTypeCode	M	Enumerated Value: 1 = person
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 1 = patient
	ParticipantObjectIDTypeCode	M	Enumerated Value: 2 = patient ID
	ParticipantObjectID	M	Filled with patient ID

### 14.2.7 DICOM Study Deleted

This message describes the event of deletion of  $\geq$  one or more studies and all associated SOP Instances  $\geq$  a single Study and its associated SOP Instances in a single action. This message only includes information about a single patient

Table 14.2-7: Audit Message for DICOM Study Deleted

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110105, DCM, "DICOM Study Deleted")
	EventActionCode	M	Enumerated Value: D = delete
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
Active Participant: the person or process deleting the study (1..2)	UserID	M	User name
	UserIsRequestor	M	true
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address
Participating Object: Studies being transferred (1..N)	ParticipantObjectTypeCode	M	Enumerated Value: 2 = system
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 3 = report
	ParticipantObjectIDTypeCode	M	EV (110180, DCM, "Study Instance UID")

Table 14.2-7: Audit Message for DICOM Study Deleted (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	ParticipantObjectID	M	Filled with Study Instance UID
Participating Object: Patient (1)	ParticipantObjectTypeCode	M	Enumerated Value: 1 = person
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 1 = patient
	ParticipantObjectIDTypeCode	M	Enumerated Value: 2 = patient ID
	ParticipantObjectID	M	Filled with patient ID

### 14.2.8 Query

This message describes the event of a Query being issued or received. The message does not record the response to the query, but merely records the fact that a query was issued:

1. Modality Worklist
2. UPS Pull
3. UPS Watch
4. Composite Instance Query

Table 14.2-8: Audit Message for Query

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110112, DCM, "Query")
	EventActionCode	M	Enumerated Value: E = Execute
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
Active Participant: Process Issuing the Query (1)	UserID	M	Process ID or user defined value
	AlternativeUserID	U	System AE Title
	UserIsRequestor	M	false
	RoleIDCode	M	EV (110153, DCM, "Source Role ID")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address

Table 14.2-8: Audit Message for Query (continued)

Real World Entities	Field Name	Opt.	Value Constraints
Active Participant: The process that will respond to the query (1)	UserID	M	Process ID or user defined value
	AlternativeUserID	U	Destination AE Title
	UserIsRequestor	M	false
	RoleIDCode	M	EV (110152, DCM, "Destination Role ID")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Destination IP Address
Active Participant: Other Participants that are known, especially third parties that requested the query (0..N)	UserID	M	User Name
	UserIsRequestor	M	true
	RoleIDCode	U	EV (110153, DCM, "Source Role ID")
	NetworkAccessPointTypeCode	U	2
	NetworkAccessPointID	U	Local IP Address
Participating Object: SOP Queried and the Query (1)	ParticipantObjectTypeCode	M	Enumerated Value: 2 = system
	ParticipantObjectTypeCodeRole	M	Enumerated Value: 3 = report
	ParticipantIDTypeCode	M	DT (110181, DCM, "SOP Class UID")
	ParticipantObjectID	M	If the ParticipantIDTypeCode is (110181, DCM, "SOP Class UID"), then this field holds the UID of the SOP Class being queried
	ParticipantObjectQuery	M	If the ParticipantIDTypeCode is (110181, DCM, "SOP Class UID"), then this field holds the Dataset of the DICOM query, xs:base64Binary encoded. Otherwise, it is the query in the format of the protocol used.

Table 14.2-8: Audit Message for Query (continued)

Real World Entities	Field Name	Opt.	Value Constraints
	ParticipantObjectDetail	MC	Used if the ParticipantObjectIDTypeCode is (110181, DCM, "SOP Class UID") A ParticipantObjectDetail element with the XML attribute "TransferSyntax" is always present. In this case, the value of the Transfer Syntax attribute is the UID of the transfer syntax of the query and therefore is a DICOM Transfer Syntax. The element content is an xs:base64Binary encoding.

### 14.2.9 User Authentication

This message describes the event that a user has attempted to log on or log off. This report is made regardless of whether the attempt was successful or not. Note The user usually has UserIsRequestor TRUE, but in the case of a logout timer, the Node can be the UserIsRequestor.

Table 14.2-9: Audit Message for User Authentication

Real World Entities	Field Name	Opt.	Value Constraints
Event	EventID	M	EV (110114, DCM, "User Authentication")
	EventActionCode	M	Enumerated Value: E = Execute
	EventDateTime	M	System Date/Time, e.g. 2017-03-31T08:58:24.945Z
	EventOutcomeIndicator	M	"0" Nominal Success "4" Minor failure "8" Serious failure
	EventTypeCode	M	Defined Terms: EV (110122, DCM, "Login") EV (110123, DCM, "Logout")
Active Participant: Person Authenticated or claimed (1)	UserID	M	User Name
	UserIsRequestor	M	true
Active Participant: Node or System performing authentication (0..1)	UserID	M	Process ID or user defined value
	UserIsRequestor	M	true
	RoleIDCode	U	EV (110150, DCM, "Application")



Table 14.2-9: **Audit Message for User Authentication (continued)**

Real World Entities	Field Name	Opt.	Value Constraints
	NetworkAccessPointTypeCode	U	"2"
	NetworkAccessPointID	U	Local IP Address

## 15 Known Limitations

We are aware of the following limitations in our DICOM implementation. Each of these limitations may be overcome in future versions. Please see the detailed description below:

- The Voluson E6/E8/E10 does not offer Implicit VR Little Endian for JPEG Lossless compressed images. Please refer to Table 12.5–7.
- The mandatory functional groups "Frame VOI LUT" and "Plane Orientation (Volume)" are currently not implemented in the Multi-frame Functional Groups Section 6.5.6.3.
- The "Plane Position Functional Group" is currently located in the "Shared Functional Groups Sequence" and should be moved to the "Per-frame Functional Groups Sequence". See Section 6.5.6.3.
- Currently the "Acquisition Context Sequence" will not be transferred. See Section 6.5.6.5.
- The "VOI LUT MACRO ATTRIBUTES" is missing in the Enhanced Palette Color Lookup Table. See Section 6.5.6.6.
- "Lossy Image Compression", "Lossy Image Compression Ratio" and "Lossy Image Compression Method" are not used if JPEG will be sent. See Section 6.5.6.7.
- "Presentation LUT Shape" will not be transferred in the current version. See Section 6.5.6.7.
- "General Anatomy Mandatory Macro" should be included to the "Enhanced US Image Module Attributes" 6.5.6.7 Section.
- The BSN support for the dutch requirement is currently handled via the Tags (0010,0020), (0010,0021) and (0010,1000). In future versions also the Tag (0010, 1002) has to be supported.
- Add "Accession Number", "Study Instance UID", "Referenced Study Sequence" and "Scheduled Protocol Code Sequence" to the "General Series Module Attributes" Table 4.5–3 if copied from MWL.
- "Referenced Study Sequence" should also be added without using MPPS.
- "Current Requested Procedure Evidence Sequence" should be sent. See Section 8.5.2.
- If "Scheduled Protocol Code Sequence" will not be sent from the Worklist the sequence should be empty for MPPS and should not be sent for Images. If the sequence will be received from the Worklist but without the "Code Meaning" the tag will be set equal to the "Code Value" 9.5–2.
- If an asynchron N-Event-Report will be received from a printer a N-Event-Report response has to be sent.
- To avoid compatibility issues the Finding Site listed in the SonoVCAD-Labor Section will be sent although this tag do not convey a anatomical location.

## A Standard Extended and Private Context Groups - EC330

Table A.0-10: Context ID 4 Anatomic Region

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SNM3		T-04000	Breast, NOS
SNM3		T-04002	Upper inner quadrant of breast, NOS
SNM3		T-04003	Lower inner quadrant of breast, NOS
SNM3		T-04004	Upper outer quadrant of breast, NOS
SNM3		T-04005	Lower outer quadrant of breast, NOS
SNM3		T-11218	Suprasternal notch
SNM3		T-15200	Fontanel of skull, NOS
SNM3		T-15460	Wrist joint, NOS
SNM3		T-15750	Ankle joint, NOS
SNM3		T-21000	Nose, NOS
SNM3		T-23000	Nasopharynx, NOS
SNM3		T-24100	Larynx, NOS
SNM3		T-25000	Trachea, NOS
SNM3		T-26000	Bronchus, NOS
SNM3		T-28000	Lung, NOS
SNM3		T-32000	Heart, NOS
SNM3		T-32100	Atrium, NOS
SNM3		T-32400	Ventricle, NOS
SNM3		T-51000	Mouth, NOS
SNM3		T-53000	Tongue, NOS
SNM3		T-55000	Pharynx, NOS
SNM3		T-55300	Hypopharynx, NOS
SNM3		T-56000	Esophagus, NOS
SNM3		T-57000	Stomach, NOS
SNM3		T-58200	Duodenum, NOS
SNM3		T-58400	Jejunum, NOS
SNM3		T-58600	Ileum, NOS
SNM3		T-59300	Colon, NOS
SNM3		T-59600	Rectum, NOS
SNM3		T-60610	Bile duct, NOS
SNM3		T-62000	Liver, NOS
SNM3		T-63000	Gallbladder, NOS
SNM3		T-65000	Pancreas, NOS
SNM3		T-65010	Pancreatic duct, NOS
SNM3		T-71000	Kidney, NOS
SNM3		T-72000	Renal pelvis, NOS
SNM3		T-72100	Calyx, NOS
SNM3		T-73000	Ureter, NOS
SNM3		T-74000	Bladder, NOS
SNM3		T-75000	Urethra, NOS
SNM3		T-81000	Vulva, NOS
SNM3		T-82000	Vagina, NOS
SNM3		T-83000	Uterus, NOS
SNM3		T-87000	Ovary, NOS
SNM3		T-91000	Penis, NOS
SNM3		T-94000	Testis, NOS
SNM3		T-98000	Scrotum, NOS

Table A.0-10: Context ID 4 Anatomic Region (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SNM3		T-A0100	Brain, NOS
SNM3		T-A7010	Spinal cord, NOS
SNM3		T-AA110	Sclera, NOS
SNM3		T-AA200	Cornea, NOS
SNM3		T-AA810	Eyelid, NOS
SNM3		T-AB000	Ear, NOS
SNM3		T-AB200	External auditory canal, NOS
SNM3		T-B3000	Adrenal gland, NOS
SNM3		T-B6000	Thyroid, NOS
SNM3		T-B7000	Parathyroid, NOS
SNM3		T-C3000	Spleen, NOS
SNM3		T-D1100	Head, NOS
SNM3		T-D1160	Scalp, NOS
SNM3		T-D1200	Face, NOS
SNM3		T-D1206	Buccal region of face
SNM3		T-D1206	Cheek, NOS
SNM3		T-D1212	Hypoglossal
SNM3		T-D1600	Neck, NOS
SNM3		T-D1603	Submandibular area
SNM3		T-D1620	Supraclavicular region of neck
SNM3		T-D2100	Back, NOS
SNM3		T-D2220	Shoulder, NOS
SNM3		T-D2310	Flank, NOS
SNM3		T-D2500	Hip, NOS
SNM3		T-D2600	Buttock, NOS
SNM3		T-D2600	Gluteal region
SNM3		T-D2700	Perineum, NOS
SNM3		T-D3000	Thorax, NOS
SNM3		T-D3300	Mediastinum, NOS
SNM3		T-D4000	Abdomen, NOS
SNM3		T-D4110	Right upper quadrant of abdomen
SNM3		T-D4120	Right lower quadrant of abdomen
SNM3		T-D4130	Left upper quadrant of abdomen
SNM3		T-D4140	Left lower quadrant of abdomen
SNM3		T-D4200	Epigastric region
SNM3		T-D4240	Hypogastric region
SNM3		T-D4240	Suprapubic region
SNM3		T-D4450	Omental bursa
SNM3		T-D4450	Omentum, NOS
SNM3		T-D4450	Retroperitoneum, NOS
SNM3		T-D4450	Pelvis, NOS
SNM3		T-D6500	Broad ligament, NOS
SNM3		T-D8100	Axilla, NOS
SNM3		T-D8200	Arm, NOS
SNM3		T-D8300	Elbow, NOS
SNM3		T-D8700	Hand, NOS
SNM3		T-D9100	Thigh, NOS
SNM3		T-D9200	Knee, NOS
SNM3		T-D9310	Popliteal fossa
SNM3		T-D9400	Leg, NOS

Table A.0–10: Context ID 4 Anatomic Region (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SNM3		T-D9700	Foot, NOS
SNM3		A-04140	Vascular graft
SNM3		G-A15A	Intra-articular
SNM3		T-21300	Endo-nasal
SNM3		T-23050	Endo-nasopharyngeal
SNM3		T-32000	Endo-cardiac
SNM3		T-40000	Endo-vascular
SNM3		T-41000	Endo-arterial
SNM3		T-48000	Endo-venous
SNM3		T-56000	Endo-esophageal
SNM3		T-56000	Intra-esophageal
SNM3		T-59600	Endo-rectal
SNM3		T-71000	Endo-renal
SNM3		T-73000	Endo-ureteric
SNM3		T-74250	Endo-vesical
SNM3		T-75000	Endo-urethral
SNM3		T-82000	Endo-vaginal
SNM3		T-D14000	Intracranial
SNM3		T-D3000	Intra-thoracic
SNM3		T-D3136	Parasternal
SNM3		T-D3213	Subxiphoid
SNM3		T-D4010	Intra-abdominal
SNM3		T-D4210	Subcostal
SNM3		T-D6221	Intra-pelvic
SNM3		T-D4212	Right hypochondriac region
SNM3		T-D4211	Left hypochondriac region
SNM3		T-D2300	Lumbar region
SNM3		T-D2342	Right lumbar region
SNM3		T-D2340	Left lumbar region
SNM3		T-D7000	Inguinal region
SNM3		T-D7010	Right inguinal region
SNM3		T-D7020	Left inguinal region
SNM3		T-D4230	Umbilical region

Table A.0–11: Context ID 220 Measurement Range Concepts

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
INCLUDE CID 226 Population Statistical Descriptors			
INCLUDE CID 227 Sample Statistical Descriptors			

Table A.0-12: Context ID 221 Measurement Range Concepts

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
INCLUDE CID 226 Population Statistical Descriptors			
INCLUDE CID 227 Sample Statistical Descriptors			

Table A.0-13: Context ID 223 Normal Range Values

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SRT		R-0038B	Normal Range Upper Limit
SRT		R-10041	Normal Range Lower Limit

Table A.0-14: Context ID 225 Measurement Uncertainty Concepts

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SRT		R-00363	+/- , range of measurement uncertainty
SRT		R-00364	+ , range of upper measurement uncertainty
SRT		R-00362	- , range of lower measurement uncertainty

Table A.0-15: Context ID 226 Population Statistical Descriptors

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SRT		R-00337	95th Percentile Value of population
SRT		R-00338	90th Percentile Value of population
SRT		R-00346	1 Sigma Upper Value of population
SRT		R-00387	2 Sigma Upper Value of population
SRT		R-00317	Mean Value of population
SRT		R-00319	Median Value of population
SRT		R-00377	10th Percentile Value of population
SRT		R-00397	5th Percentile Value of population
SRT		R-00347	1 Sigma Lower Value of population
SRT		R-00388	2 Sigma Lower Value of population
DCM		121414	Standard deviation of population
DCM		121417	2 Sigma deviation of population

Table A.0-16: Context ID 227 Sample Statistical Descriptors

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121415	Percentile Ranking of measurement
DCM		121416	Z-Score of measurement

Table A.0-17: Context ID 228 Equation or Table

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121420	Equation
DCM		121421	Equation Citation
DCM		121424	Table of Values
DCM		121422	Table of Values Citation
DCM		121423	Method Citation

Table A.0-18: Context ID 244 Laterality

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SRT		G-A100	Right
SRT		G-A101	Left
SRT		G-A102	Right and left
SRT		G-A103	Unilateral

Table A.0-19: Context ID 270 Observer Type

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121006	Person
DCM		121007	Device

Table A.0-20: Context ID 271 Observation Subject Class

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121025	Patient
DCM		121026	Fetus

Table A.0-20: Context ID 271 Observation Subject Class (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121027	Specimen

Table A.0-21: Context ID 3627 Measurement Type

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SRT		G-A437	Maximum
SRT		R-404FB	Minimum
SRT		R-00317	Mean
GEK		99006-0	last

Table A.0-22: Context ID 3627 Measurement Type

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
SRT		R-002E1	Best value
SRT		R-00317	Mean
SRT		R-00319	Median
SRT		R-0032E	Mode
SRT		R-00355	Point source measurement
SRT		R-00353	Peak to peak
SRT		R-41D27	Visual estimation
DCM		121427	Estimated
DCM		121428	Calculated
GEK		99006-0	last
SRT		G-A437	Maximum
SRT		R-404FB	Minimum

Table A.0-23: Context ID 3745 Calculation Method

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121427	Estimated
DCM		121428	Calculated



Table A.0-24: Context ID 6140 Calculation Methods

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121427	Estimated
DCM		112187	Unspecified method of calculation
DCM		112055	Agatston scoring method

Table A.0-25: Context ID 7452 Organizational Roles

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121081	Physician
DCM		121082	Nurse
DCM		121083	Technologist
DCM		121084	Radiographer
DCM		121085	Intern
DCM		121086	Resident
DCM		121087	Registrar
DCM		121088	Fellow
DCM		121089	Attending [Consultant]
DCM		121090	Scrub nurse
DCM		121091	Surgeon
DCM		121092	Sonologist
DCM		121093	Sonographer
DCM		121105	Radiation Physicist

Table A.0-26: Context ID 7453 Performing Roles

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		121094	Performing
DCM		121095	Referring
DCM		121096	Requesting
DCM		121097	Recording
DCM		121098	Verifying
DCM		121099	Assisting
DCM		121100	Circulating
DCM		121101	Standby

Table A.0-27: Context ID 7454 Species

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SNM3		L-85B00	homo sapiens

Table A.0-28: Context ID 7455 Sex

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		M	Male
DCM		F	Female
DCM		U	Unknown sex
DCM		MP	Male Pseudohermaphrodite
DCM		FP	Female Pseudohermaphrodite
DCM		H	Hermaphrodite
DCM		MC	Male changed to Female
DCM		FC	Female changed to Male
DCM		121104	Ambiguous sex
DCM		121102	Other sex
DCM		121103	Undetermined sex

Table A.0-29: Context ID 7456 Units of Measure for Age

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
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Table A.0-30: Context ID 12003 OB-GYN DATES

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		11778-8	EDD
LN		11779-6	EDD from LMP
LN		11781-2	EDD from average ultrasound age
LN		11780-4	EDD from ovulation date
LN		11955-2	LMP
LN		33066-2	Estimated LMP by EDD
LN		11976-8	Ovulation date
LN		33067-0	Conception Date
GEK		99001-0	Conception Date by GA
GEK		99001-1	Conception Date from EDD
GEK		99002-0	Day of Cycle
GEK		99002-1	Day of Stimulation

Table A.0-30: Context ID 12003 OB-GYN DATES (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99003-0	EDD by GA
GEK		99003-1	EDD from Conception Date
GEK		99004-0	Expected Ovulation
GEK		99005-0	Gestational Age
GEK		99005-1	Gestational Age by Conception Date
GEK		99005-2	Gestational Age by EDD
GEK		99005-3	Gestational Age by LMP
GEK		99005-4	Gestational Age by EFW
GEK		99007-0	EDD from composite ultrasound age

Table A.0-31: Context ID 12004 Fetal Biometry Ratios

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11947-9	HC/AC
LN		11871-1	FL/AC
LN		11872-9	FL/BPD
LN		11823-2	Cephalic Index
LN		11873-7	FL/HC
GEK		99401-0	V <sub>a</sub> /HEM
GEK		99402-0	V <sub>p</sub> /HEM
GEK		99403-0	CC/TC
GEK		99404-0	LHR LT
GEK		99405-0	LHR RT
GEK		99406-0	CVR LT
GEK		99407-0	CVR RT
GEK		99408-0	LTR

Table A.0-32: Context ID 12005 Fetal Biometry Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11979-2	Abdominal Circumference
LN		11818-2	Anterior-Posterior Abdominal Diameter
LN		11819-0	Anterior-Posterior Trunk Diameter
LN		11820-8	Biparietal Diameter
LN		11824-0	BPD area corrected
LN		11860-4	Cisterna Magna
LN		11963-6	Femur Length
LN		11965-1	Foot length
LN		11984-2	Head Circumference
LN		11851-3	Occipital-Frontal Diameter
LN		11988-3	Thoracic Circumference

Table A.0-32: Context ID 12005 Fetal Biometry Measurements (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		33068-8	Thoracic Area
LN		11862-0	Tranverse Abdominal Diameter
LN		11863-8	Trans Cerebellar Diameter
LN		11862-0	Tranverse Abdominal Diameter
LN		11864-6	Transverse Thoracic Diameter
LN		11853-9	Left Kidney thickness
LN		11834-9	Left Kidney length
LN		11825-7	Left Kidney width
LN		11855-4	Right Kidney thickness
LN		11836-4	Right Kidney length
LN		11827-3	Right Kidney width
GEK		99031-1	Right Kidney Vol
GEK		99031-2	Left Kidney Vol
SRT		GD705	Volume
LN		33191-8	APAD * TAD
GEK		99502-0	Abdominal Diameter
GEK		99503-0	Binocular Distance
99VP		990202-1	EAR
GEK		99505-0	Fetal Trunk Area
GEK		99506-0	Min Abdominal Diameter
GEK		99507-0	AxT (APTD * TTD)
GEK		99508-0	nasal bone length
GEK		99509-0	Fractional Limb Arm Volume
GEK		99510-0	Fractional Limb Thigh Volume
GEK		99010-0	Cardiac Circumference
GEK		99008-0	Cavum Septum Pellucidum
LN		11792-7	Follicle Diameter
GEK		99706-0	Fibroid Diameter
GEK		99022-0	Anterior-Posterior Thoracic Diameter
GEK		99023-0	Transverse Cardiac Diameter
GEK		99024-0	Max Vertical Pocket
GEK		99025-0	Lt. Lung Area
GEK		99025-1	Lt. Lung Area Trace
GEK		99025-2	Lt. Lung Area Long Diameter
GEK		99025-5	Lt. Lung Area UCSF
GEK		99026-0	Lt. Lung CCAM D1
GEK		99026-1	Lt. Lung CCAM D2
GEK		99026-2	Lt. Lung CCAM D3
GEK		99026-3	Lt. Lung CCAM Vol
GEK		99027-0	Rt. Lung Area
GEK		99027-1	Rt. Lung Area Trace
GEK		99027-2	Rt. Lung Area Long Diameter
GEK		99027-5	Rt. Lung Area UCSF
GEK		99028-0	Rt. Lung CCAM D1
GEK		99028-1	Rt. Lung CCAM D2
GEK		99028-2	Rt. Lung CCAM D3
GEK		99028-3	Rt. Lung CCAM Vol
GEK		99029-0	Thorax Transverse Area
GEK		99033-0	Cerebellar vermis sagittal AP Diam
GEK		99033-1	Cerebellar vermis sagittal CC Diam

Table A.0-32: Context ID 12005 Fetal Biometry Measurements (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99033-2	Cerebellar vermis circumference
GEK		99033-3	Cerebellar vermis area
GEK		99034-0	Frontomaxillary facial angle
GEK		99035-0	Mandibulomaxillary facial angle

Table A.0-33: Context ID 12006 Fetal Long Bones Biometry Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11966-9	Humerus length
LN		11967-7	Radius length
LN		11969-3	Ulna length
LN		11968-5	Tibia length
LN		11964-4	Fibula length
LN		11962-8	Clavicle length

Table A.0-34: Context ID 12007 Fetal Cranium

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
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Table A.0-35: Context ID 12008 OB-GYN Amniotic Sac

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11624-4	First Quadrant Diameter
LN		11626-9	Second Quadrant Diameter
LN		11625-1	Third Quadrant Diameter
LN		11623-6	Fourth Quadrant Diameter
SRT		M-02550	Diameter
LN		11627-7	Amniotic Fluid Index

Table A.0-36: Context ID 12009 Early Gestation Biometry Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11957-8	Crown Rump Length
LN		11850-5	Gestational Sac Diameter
LN		33071-2	Spine Length
LN		11816-6	Yolk Sac length
LN		33069-6	Nuchal Translucency
99GEK		99036-1	Gestational Sac Diameter 3Dist D1
99GEK		99036-2	Gestational Sac Diameter 3Dist D2
99GEK		99036-3	Gestational Sac Diameter 3Dist D3

Table A.0-37: Context ID 12011 Ultrasound Pelvis and Uterus

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11961-0	Cervix Length
LN		12145-9	Endometrium Thickness
LN		11842-2	Uterus Length
LN		11865-3	Uterus Width
LN		11859-6	Uterus Height
LN		33192-6	Uterus Volume
LN		11840-6	Left Ovary Length
LN		11829-9	Left Ovary Width
LN		11857-0	Left Ovary Height
LN		12164-0	Left Ovary Volume
LN		11841-4	Right Ovary Length
LN		11830-7	Right Ovary Width
LN		11858-8	Right Ovary Height
LN		12165-7	Right Ovary Volume
GEK		99017-1	Uterus Trace
GEK		99017-2	Endometrium Trace
99GEK		99017-3	Wall Thickness
99GEK		99017-4	Int. Midline Ind.
99GEK		99017-5	Fund. Ind. Angle

Table A.0-38: Context ID 12013 Gestational Age Equations and Tables

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11885-1	Gestational Age by LMP
LN		11884-4	Average Ultrasound Age
LN		11889-3	AC, Campbell 1975
LN		33537-2	AC, Jeanty 1982
LN		33077-9	Abdominal Diameter, Lessoway 1998
LN		11901-6	BPDa, Hadlock 1982

Table A.0-38: Context ID 12013 Gestational Age Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		33086-0	BPD-oi, Chitty 1997
LN		33087-8	BPD-oo, Chitty 1997
LN		11918-0	Fibula, Merz 1987
GEK		99300-0	AD, Marsal
LN		33072-0	AC, ASUM 2000
LN		11892-7	AC, Hadlock 1984
LN		33073-8	AC, Hansmann1985
LN		11893-5	AC, Jeanty 1984
LN		33075-3	AC, Mertz 1988
LN		33076-1	AC, Shinozuka 1996
GEK		99301-0	AC, Tokyo
GEK		99301-1	AC, JSUM 2001
GEK		99301-2	AC, Kurmanavicius
GEK		99301-3	AC, Chitty
GEK		99301-4	AC, Nicolaides
GEK		99301-5	AC, Hobbins
GEK		99301-6	AC, CFEF
GEK		99301-7	AC, Lessoway
GEK		99301-8	AC, Siriraj
GEK		99301-9	AC, Leung
GEK		99302-0	APAD, Merz
GEK		99303-0	APTD, Hansmann
LN		33078-7	AxT, Shinozuka 1996
GEK		99323-0	AxT, Tokyo
GEK		99304-0	BOD, Jeanty
LN		33079-5	BPD, ASUM 1989
LN		11902-4	BPD, Hadlock 1984
LN		33538-0	BPD, Hansmann 1986
LN		11905-7	BPD, Jeanty 1984
LN		11906-5	BPD, Kurtz 1980
LN		33081-1	BPD, Merz 1988
LN		33082-9	BPD, Osaka 1989
LN		33083-7	BPD, Rempen 1991
LN		11907-3	BPD, Sabbagha 1978
LN		33084-5	BPD, Shinozuka 1996
LN		33085-2	BPD, Tokyo 1986
GEK		99305-0	BPD, JSUM 2001
GEK		99305-1	BPD, Kurmanavicius
GEK		99305-2	BPD, Chitty
GEK		99305-3	BPD, Nicolaides
GEK		99305-4	BPD, Hobbins
GEK		99305-5	BPD, Campbell
GEK		99305-6	BPD, CFEF
GEK		99305-7	BPD, Johnsen
GEK		99305-8	BPD, Marsal
GEK		99305-9	BPD, ASUM-Old
GEK		99305-9	BPD, Chitty_OI
GEK		99305-10	BPD, Lessoway
GEK		99305-11	BPD, Siriraj
GEK		99305-12	BPD, Verburg

Table A.0-38: Context ID 12013 Gestational Age Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99305-13	BPD, McLennan
GEK		99305-14	BPD, Eik-Nes
GEK		99305-15	BPD, Leung
GEK		99306-0	Cerebellum, Hill
GEK		99306-1	Cerebellum, Chitty
GEK		99306-2	Cerebellum, Goldstein
GEK		99306-3	Cerebellum, Nicolaides
GEK		99306-4	Cerebellum, Hobbins
LN		33089-4	CRL, ASUM 1991
LN		33090-2	CRL, ASUM 2000
LN		33091-0	CRL, Daya 1993
LN		11910-7	CRL, Hadlock 1992
LN		33540-6	CRL, Hansmann 1986
LN		11913-1	CRL, Nelson 1981
LN		33093-6	CRL, Osaka 1989
LN		33094-4	CRL, Rempen 1991
LN		11914-9	CRL, Robinson 1975
LN		33095-1	CRL, Shinozuka 1996
LN		33096-9	CRL, Tokyo 1986
GEK		99309-0	CRL, JSUM 2001
GEK		99309-1	CRL, Marsal
GEK		99309-2	CRL, Verburg
GEK		99309-3	CRL, McLennan
GEK		99309-4	CRL, Eik-Nes
GEK		99309-5	CRL, Robinson BMUS
GEK		99309-6	CRL, Sahota
GEK		99309-7	CRL, Intergrowth21
LN		33088-6	Clavical length, Yarkoni 1985
LN		33098-5	FL, Chitty 1997
LN		11920-6	FL, Hadlock 1984
LN		11921-4	FL, Hansmann 1985
LN		11922-2	FL, Hohler 1982
GEK		99310-0	FL, Jeanty
GEK		99310-1	FL, Merz
GEK		99310-2	FL, Tokyo
GEK		99310-3	FL, Warda
GEK		99310-4	FL, JSUM 2001
GEK		99310-5	FL, Shinozuka 1996
GEK		99310-6	FL, Osaka
GEK		99310-7	FL, Kurmanavicius
GEK		99310-8	FL, ASUM 2000
GEK		99310-9	FL, Nicolaides
GEK		99310-10	FL, Hobbins
GEK		99310-11	FL, ASUMOLD
GEK		99310-12	FL, CFEF
GEK		99310-13	FL, Marsal
GEK		99310-14	FL, OBRIEN
GEK		99310-15	FL, Lessoway
GEK		99310-16	FL, Siriraj
GEK		99310-17	FL, Leung



Table A.0-38: Context ID 12013 Gestational Age Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99311-0	FTA, Osaka
LN		33097-7	Fibula, Jeanty 1983
GEK		99312-0	GS, Rempen
GEK		99312-1	GS, Hansmann
GEK		99312-2	GS, Hollaender
GEK		99312-3	GS, Hellman
GEK		99312-4	GS, Tokyo
GEK		99313-0	HC, Hadlock
GEK		99313-1	HC, Hansmann
GEK		99313-2	HC, Merz
GEK		99313-3	HC, Jeanty
GEK		99313-4	HC, Kurmanavicius
GEK		99313-5	HC, ASUM
GEK		99313-6	HC, Chitty
GEK		99313-7	HC, Nicolaidis
GEK		99313-8	HC, CFEF
GEK		99313-9	HC, JOHNSEN
GEK		99313-10	HC, Lessoway
GEK		99313-11	HC, Leung
GEK		99314-0	HL, Jeanty
GEK		99314-1	HL, Osaka
GEK		99314-2	HL, ASUM
GEK		99314-3	HL, Hobbins
GEK		99314-4	HL, Merz
LN		33118-1	Length of Vertebra, Tokyo 1986
GEK		99316-0	OFD, Hansmann
GEK		99316-1	OFD, Jeanty
GEK		99316-2	OFD, Kurmanavicius
GEK		99316-3	OFD, ASUM
GEK		99316-4	OFD, Chitty
GEK		99316-5	OFD, Nicolaidis
GEK		99316-6	OFD, Merz
GEK		99317-0	RAD, Jeanty
GEK		99317-1	RAD, Merz
GEK		99318-0	TAD, Merz
GEK		99318-1	TAD, CFEF
GEK		99319-0	TIB, Merz
GEK		99319-1	TIB, Jeanty
GEK		99320-0	TTD, Hansmann
GEK		99321-0	ULNA, Jeanty
GEK		99321-1	ULNA, Merz
GEK		99322-0	MAD, Eik-Nes
GEK		99322-1	MAD, Kurmanavicius
GEK		99322-2	MAD, eSnurra
GEK		99323-0	EFW, Hadlock
GEK		99323-1	EFW, Tokyo
GEK		99323-2	EFW, JSUM (2001)
GEK		99323-3	EFW, Shinozuka
GEK		99323-4	EFW, Osaka
GEK		99324-0	HC/AC, Campbell 1977

Table A.0-38: Context ID 12013 Gestational Age Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99324-1	FL/HC, Hadlock 1984
GEK		99324-2	HSV <sub>a</sub> /HEM, Hansmann
GEK		99324-3	HSV <sub>a</sub> /HEM, Nicolaides
GEK		99324-4	HSV <sub>p</sub> /HEM, Nicolaides
GEK		99324-5	LHR LT, Peralta
GEK		99324-6	LHR RT, Peralta
GEK		99326-0	BPD, Eik-Nes 1st Tri.
GEK		99329-0	FL, Johnsen
GEK		99329-1	FL, Eik-Nes

Table A.0-39: Context ID 12014 OB Fetal Body Weight Equations and Tables

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11734-1	EFW by AC, BPD, FL, Hadlock 1984
LN		11750-7	EFW by AC, FL, Hadlock 1984
LN		11754-9	EFW by AC, HC Hadlock 1984
LN		33140-5	EFW by BPD, FTA, FL, Osaka 1990
LN		11756-4	EFW by AC, Campbell 1975
LN		11738-2	EFW by AC, BPD, Hadlock 1984
LN		11735-8	EFW by AC, BPD, FL, Hadlock 1985
LN		11732-5	EFW by AC, BPD, FL, HC, Hadlock 1985
LN		11751-5	EFW by AC, FL, Hadlock 1985
LN		11746-5	EFW by AC, FL, HC, Hadlock 1985
LN		33139-7	EFW by BPD, TTD, Hansmann 1986
LN		11739-0	EFW by AC and BPD, Shepard 1982
LN		33141-3	EFW <sub>1</sub> by Shinozuka 1996
LN		33142-1	EFW <sub>2</sub> by Shinozuka 1996
LN		33143-9	EFW <sub>3</sub> by Shinozuka 1996
LN		33144-7	EFW by BPD, APAD, TAD, FL, Tokyo 1987
GEK		99007-4	EFW by AC, BPD Merz
GEK		99007-1	EFW by BPD, FL, MAD by Persson
GEK		99007-2	EFW by BPD, MAD by Persson
GEK		99007-3	EFW by BPD, MAD by Schild
GEK		99007-5	EFW by AVol Lee
GEK		99007-6	EFW by AVol, AC Lee
GEK		99007-7	EFW by AVol, AC, BPD Lee
GEK		99007-8	EFW by TVol Lee
GEK		99007-9	EFW by TVol, AC Lee
GEK		99007-10	EFW by TVol, AC, BPD Lee
99GEK		99007-11	EFW by AC, HC Intergrowth21

Table A.0-40: Context ID 12015 Fetal Growth Equations and Tables

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		33546-3	AC (derived) by GA, Chitty 1994
LN		33556-2	BPD outer-inner by GA, Chitty 1994
LN		33152-0	BPD outer-outer by GA, Chitty 1994
LN		33157-9	Cephalic Index by GA, Chitty 1994
LN		33158-7	Cephalic Index by GA, Hadlock 1981
LN		33163-7	EFW by GA, Hansmann 1986
LN		33181-9	TCD by GA Goldstein 1987
GEK		99200-0	AD, Marsal
LN		33145-4	AC by GA, ASUM 2000
LN		33146-2	AC by GA, Hadlock 1984
LN		33147-0	AC (measured) by GA, Chitty 1994
LN		33148-8	AC by GA, Merz 1988
LN		33149-6	AC by GA, Shinozuka 1996
GEK		99201-0	AC by GA, Hansmann
GEK		99201-1	AC by GA, Tokyo
GEK		99201-2	AC by GA, JSUM 2001
GEK		99201-3	AC by GA, Jeanty
GEK		99201-4	AC by GA, Kurmanavicius
GEK		99201-5	AC by GA, Nicolaides
GEK		99201-6	AC by GA, CFEF
GEK		99201-7	AC by GA, Lessoway
GEK		99201-8	AC by GA, Verburg
GEK		99201-9	AC by GA, Jacot-Guillarmod
GEK		99201-10	AC by GA, Siriraj
GEK		99201-11	AC by GA, Lai
GEK		99201-12	AC by GA, Leung
GEK		99202-0	APAD by GA, Merz
GEK		99203-0	APTD by GA, Hansmann
GEK		99204-0	BOD by GA, Jeanty
LN		33151-2	BPD by GA, ASUM 2000
LN		33198-3	BPD by GA, Hadlock 1984
LN		33154-6	BPD by GA, Merz 1988
LN		33156-1	BPD by GA, Shinozuka 1996
LN		33153-8	BPD by GA, Jeanty 1982
LN		33155-3	BPD by GA, Rempen 1991
GEK		99205-0	BPD by GA, Hansmann
GEK		99205-1	BPD by GA, Sabbagha
GEK		99205-2	BPD by GA, Tokyo
GEK		99205-3	BPD by GA, JSUM 2001
GEK		99205-4	BPD by GA, Osaka
GEK		99205-5	BPD by GA, Kurmanavicius
GEK		99205-6	BPD by GA, Chitty
GEK		99205-7	BPD by GA, Nicolaides
GEK		99205-8	BPD by GA, Campbell
GEK		99205-9	BPD by GA, CFEF
GEK		99205-10	BPD by GA, Marsal
GEK		99205-11	BPD by GA, Chitty_OI
GEK		99205-12	BPD by GA, Lessoway
GEK		99205-13	BPD by GA, Jacot-Guillarmod
GEK		99205-14	BPD by GA, Siriraj

Table A.0-40: Context ID 12015 Fetal Growth Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99205-15	BPD by GA, Verburg
GEK		99205-16	BPD by GA, McLennan
GEK		99205-17	BPD by GA, Eik-Nes
GEK		99205-18	BPD by GA, Lai
GEK		99205-19	BPD by GA, Leung
GEK		99206-0	Cerebellum by GA, Hill
GEK		99206-1	Cerebellum by GA, Goldstein
GEK		99206-2	Cerebellum by GA, Nicolaides
GEK		99206-3	Cerebellum by GA, Jacot-Guillarmod
GEK		99206-4	Cerebellum by GA, Verburg
GEK		99207-0	Clavicle by GA, Yarkoni
GEK		99208-0	CM by GA, Nicolaides
LN		33159-5	CRL by GA ASUM 2000
LN		33161-1	CRL by GA, Shinozuka 1996
LN		33160-3	CRL by GA, Rempen1991
GEK		99209-0	CRL by GA, Hansmann
GEK		99209-1	CRL by GA, Hadlock
GEK		99209-2	CRL by GA, Robinson
GEK		99209-3	CRL by GA, Tokyo
GEK		99209-4	CRL by GA, JSUM 2001
GEK		99209-5	CRL by GA, Osaka
GEK		99209-6	CRL by GA, Marsal
GEK		99209-7	CRL by GA, McLennan
GEK		99209-8	CRL by GA, Robinson1993
GEK		99209-9	CRL by GA, Pexsters
LN		33165-2	FL by GA, ASUM 2000
LN		33166-0	FL by GA, Hadlock 1984
LN		33167-8	FL by GA, Chitty 1994
LN		33168-6	FL by GA, Jeanty 1982
LN		33169-4	FL by GA, Merz 1988
LN		33170-2	FL by GA, Shinozuka 1996
GEK		99210-0	FL by GA, Hansmann
GEK		99210-1	FL by GA, Tokyo
GEK		99210-2	FL by GA, Warda
GEK		99210-3	FL by GA, JSUM 2001
GEK		99210-4	FL by GA, Osaka
GEK		99210-5	FL by GA, Kurmanavicius
GEK		99210-6	FL by GA, Nicolaides
GEK		99210-7	FL by GA, CFEF
GEK		99210-8	FL by GA, Marsal
GEK		99210-9	FL by GA, OBRIEN
GEK		99210-10	FL by GA, Lessoway
GEK		99210-11	FL by GA, ASUMOLD
GEK		99210-12	FL by GA, Chitty 2002
GEK		99210-13	FL by GA, Jacot-Guillarmod
GEK		99210-14	FL by GA, Siriraj
GEK		99210-15	FL by GA, Verburg
GEK		99210-16	FL by GA, Lai
GEK		99210-17	FL by GA, Leung
GEK		99211-0	FTA by GA, Osaka

Table A.0-40: Context ID 12015 Fetal Growth Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		33171-0	GS by GA, Rempen 1991
GEK		99212-0	GS by GA, Hollaender
GEK		99212-1	GS by GA, Hellman
GEK		99212-2	GS by GA, Tokyo
GEK		99212-3	GS by GA, Nyberg
LN		33172-8	HC by GA, ASUM 2000
LN		33173-6	HC by GA, Hadlock 1984
LN		33174-4	HC derived by GA, Chitty 1994
LN		33175-1	HC by GA, Jeanty 1982
LN		33176-9	HC by GA, Merz 1988
GEK		99213-0	HC by GA, Hansmann
GEK		99213-1	HC by GA, Kurmanavicius
GEK		99213-2	HC by GA, Nicolaides
GEK		99213-3	HC by GA, CFEF
GEK		99213-4	HC by GA, Lessoway
GEK		99213-5	HC by GA, Jacot-Guillarmod
GEK		99213-6	HC by GA, Siriraj
GEK		99213-7	HC by GA, Verburg
GEK		99213-8	HC by GA, Lai
GEK		99213-9	HC by GA, Leung
LN		33177-7	Humerus Length by GA, ASUM 2000
GEK		99214-0	HL by GA, Jeanty
GEK		99214-1	HL by GA, Osaka
GEK		99214-2	HL by GA, Merz
GEK		99214-3	HL by GA, Chitty 2002
GEK		99214-4	HL by GA, Siriraj
GEK		99214-5	HL by GA, Lai
LN		33178-5	OFD by GA, ASUM 2000
LN		33179-3	OFD by GA, Chitty 1994
GEK		99216-0	OFD by GA, Hansmann
GEK		99216-1	OFD by GA, Jeanty
GEK		99216-2	OFD by GA, Kurmanavicius
GEK		99216-3	OFD by GA, Nicolaides
GEK		99216-4	OFD by GA, Merz
LN		33180-1	Radius by GA, Jeanty 1983
GEK		99217-0	RAD by GA, Merz
GEK		99217-1	RAD by GA, Chitty 2002
GEK		99217-2	RAD by GA, Siriraj
GEK		99218-0	TAD by GA Merz
GEK		99218-1	TAD by GA CFEF
GEK		99218-2	TAD by GA, Jacot-Guillarmod
GEK		99219-0	TIB by GA Jeanty
GEK		99219-1	TIB by GA Merz
GEK		99219-2	TIB by GA, Chitty 2002
GEK		99219-3	TIB by GA, Siriraj
GEK		99220-0	TTD by GA Hansmann
GEK		99221-0	ULNA by GA Jeanty
GEK		99221-1	ULNA by GA Merz
GEK		99221-2	ULNA by GA, Chitty 2002
GEK		99221-3	ULNA by GA, Siriraj

Table A.0-40: Context ID 12015 Fetal Growth Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99222-0	MAD by GA Eik-Nes
GEK		99222-1	MAD by GA Kurmanavicius
GEK		99222-2	MAD by GA eSnurra
LN		33150-4	AxT by GA, Shinozuka 1996
GEK		99223-0	AxT by GA, Tokyo
GEK		99224-0	NBL by GA, Sonek
GEK		99224-1	NBL by GA, Bunduki
GEK		99225-0	Length of Vertebra by GA, Tokyo
LN		33164-5	Fibula by GA, Jeanty 1983
GEK		99226-0	Fibula by GA, Chitty 2002
GEK		99226-1	Fibula by GA, Siriraj
GEK		99227-0	Foot by GA, Chitty 2002
GEK		99228-0	AVol by GA, Lee
GEK		99229-0	TVol by GA, Lee
GEK		99230-0	TC by GA, Chitkara
GEK		99231-0	AC by GA, Johnsen
GEK		99232-0	HC by GA, Johnsen
GEK		99233-0	FL by GA, Johnsen
GEK		99233-1	FL by GA, Eik-Nes
GEK		99234-0	Lungarea Lt. by GA, Peralta
GEK		99235-0	Lungarea Rt. by GA, Peralta
LN		33183-5	FWP by GA, Hadlock 1991
LN		33184-3	FWP by GA, Williams, 1982
LN		33185-0	FWP by GA, Alexander, 1996
LN		33189-2	FWP by GA, Brenner 1976
GEK		99601-0	FWP by GA, Hansmann, 1986
GEK		99602-0	FWP by GA, Hansmann, 1986
GEK		99603-0	FWP by GA, Tokyo
GEK		99604-0	FWP by GA, JSUM, 2001
GEK		99605-0	FWP by GA, Persson, 1996
GEK		99606-0	FWP by GA, Shinozuka, 1996
GEK		99606-1	FWP by GA, Shinozuka, 1996
GEK		99607-0	FWP by GA, Osaka, 1990
GEK		99608-0	FWP by GA, Persson, 1998
GEK		99609-0	FWP by GA, Persutte/Hobbins, 1998
GEK		99610-0	Twins monochorionic FWP by GA, YARKONI, 1987
GEK		99611-0	FWP by GA, DOUBILET, 1997
GEK		99612-0	Twins monochorionic FWP by GA, Ananth, 1998
GEK		99613-0	Twins dichorionic FWP by GA, Ananth Twins(D), 1998
GEK		99614-0	FWP by GA, Rousseau, 2008
GEK		99615-0	FWP by GA, Johnsen, 2006
GEK		99616-0	Male FWP by GA, Johnsen, 2006
GEK		99617-0	Female FWP by GA, Johnsen, 2006
GEK		99618-0	Male FWP by GA, Kramer, 2001
GEK		99619-0	Female FWP by GA, Kramer, 2001
GEK		99620-0	FWP by GA, Gjessing, 2007
GEK		99621-0	FWP by GA, CFEF, 2015
GEK		99622-0	Male FWP by GA, Ego, 2016
GEK		99622-1	Female FWP by GA, Ego, 2016

Table A.0-40: Context ID 12015 Fetal Growth Equations and Tables (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99622-2	FWP by GA, Ego, 2016
GEK		99622-3	FWP by GA, Intergrowth21, 2016
GEK		99622-4	FWP by GA, WHO, 2017

Table A.0-41: Context ID 12017 Growth Distribution Rank

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
DCM		125012	Growth Percentile Rank
DCM		125013	Growth Z-score

Table A.0-42: Context ID 12018 OB-GYN SUMMARY

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		11878-6	Number of Fetuses
LN		11886-9	Gestational Age by ovulation date

Table A.0-43: Context ID 12019 OB-GYN FETUS SUMMARY

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		18185-9	Gestational Age
LN		11888-5	Composite Ultrasound Age
LN		11885-1	Gestational Age by LMP
LN		11727-5	Estimated Weight
LN		11767-1	EFW percentile rank
LN		11948-7	Fetal Heart Rate
LN		11884-4	Average Ultrasound Age
LN		11781-2	EDD from average ultrasound age
GEK		99007-0	EDD from composite ultrasound age
GEK		99021-0	Atrial Fetal Heart Rate

Table A.0-44: Context ID 12101 Vascular Summary

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		121101	Comment

Table A.0-45: Context ID 12104 Extracranial Arteries

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-45170	Carotid Bulb
SRT		T-45100	Common Carotid Artery
SRT		T-45200	External Carotid Artery
SRT		T-45300	Internal Carotid Artery
SRT		T-46100	Subclavian Artery
SRT		T-45700	Vertebral Artery
GEK		99102	Carotid Vessel

Table A.0-46: Context ID 12105 Intracranial Cerebral Vessels

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-45540	Anterior Cerebral Artery
SRT		T-45530	Anterior Communicating Artery
SRT		T-45600	Middle Cerebral Artery
SRT		T-45900	Posterior Cerebral Artery
SRT		T-45320	Posterior Communicating Artery

Table A.0-47: Context ID 12106 Intracranial Cerebral Vessels (unilateral)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-45800	Basilar Artery

Table A.0-48: Context ID 12107 Upper Extremity Arteries

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-46010	Innominate Artery



Table A.0-48: Context ID 12107 Upper Extremity Arteries (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-47340	Deep Palmar Arch of Radial Artery
SRT		T-47200	Ulnar Artery
SRT		T-47300	Radial Artery
SRT		T-47160	Brachial Artery
SRT		T-47100	Axillary Artery
SRT		T-46100	Subclavian Artery
SRT		T-47240	Superficial Palmar Arch

Table A.0-49: Context ID 12108 Upper Extremity Veins

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-49250	Median Cubital vein
SRT		T-49350	Brachial vein
SRT		T-48052	Basilic vein
SRT		T-49240	Cephalic vein
SRT		T-49110	Axillary vein
SRT		T-48330	Subclavian vein
SRT		T-48620	Innominate vein
SRT		T-48170	Internal Jugular vein
SRT		T-49340	Radial vein
SRT		T-49330	Ulnar vein

Table A.0-50: Context ID 12109 Lower Extremity Arteries

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-46710	Common Iliac Artery
SRT		T-46910	External Iliac Artery
SRT		T-46740	Internal Iliac Artery
SRT		T-47400	Common Femoral Artery
SRT		T-47440	Profunda Femoris Artery
SRT		T-47403	Superficial Femoral Artery
SRT		T-47500	Popliteal Artery
SRT		T-47700	Anterior Tibial Artery
SRT		T-47600	Posterior Tibial Artery
SRT		T-47630	Peroneal Artery
SRT		T-47741	Dorsalis Pedis Artery

Table A.0-51: Context ID 12110 Lower Extremity Veins

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-49630	Anterior Tibial Vein
SRT		G-035B	Common Femoral Vein
SRT		T-48920	Common Iliac Vein
SRT		T-49660	Profunda Femoris Vein
SRT		T-48930	External Iliac Vein
SRT		G-035A	Superficial Femoral Vein
SRT		T-49530	Great Saphenous Vein
SRT		T-49550	Lesser Saphenous Vein
SRT		T-49650	Peroneal Vein
SRT		T-49640	Popliteal Vein
SRT		T-49620	Posterior Tibial Vein

Table A.0-52: Context ID 12111 Abdominal Arteries (lateral)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-46640	Accessory Renal Artery
SRT		T-46410	Gastric Artery
SRT		T-46421	Common Hepatic Artery
SRT		T-46980	Ovarian Artery
SRT		T-46970	Testicular Artery
SRT		T-88810	Umbilical Artery
SRT		T-46820	Uterine Artery
SNM3		T-F1810	Umbilical artery

Table A.0-53: Context ID 12112 Abdominal Arteries (unilateral)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-46400	Celiac Axis
SRT		T-46510	Superior Mesenteric Artery

Table A.0-54: Context ID 12114 Abdominal Veins (unilateral)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-48710	Inferior Vena Cava

Table A.0-55: Context ID 12115 Renal Vessels

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-46600	Renal Artery
SRT		T-48740	Renal Vein
SRT		T-46659	Segmental Artery
SRT		T-4667D	Interlobar Artery of Kidney
SRT		T-4668A	Arcuate Artery of the Kidney

Table A.0-56: Context ID 12119 Vascular Ultrasound Property

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
INCLUDE CID 12120 Blood Velocity Measurements			
INCLUDE CID 12121 Vascular Indices and Ratios			
INCLUDE CID 12122 Other Vascular Properties			

Table A.0-57: Context ID 12120 Blood Velocity Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		11653-3	End Diastolic Velocity
LN		11665-7	Minimum Diastolic Velocity
LN		11726-7	Peak Systolic Velocity
LN		20352-1	Time averaged mean velocity
LN		11692-1	Time averaged peak velocity

Table A.0-58: Context ID 12121 Vascular Indices and Ratios

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		20167-3	Acceleration Index
SRT		G-0371	% Area Reduction
SRT		G-0372	% Diameter Reduction
LN		12008-9	Pulsatility Index
LN		12023-8	Resistivity Index
LN		12144-2	Systolic to Diastolic Velocity Ratio
LN		33867-3	Velocity ratio
GEK		99500-0	Pressure Gradient mean
GEK		99013-0	Peak velocity index for veins

Table A.0-58: Context ID 12121 Vascular Indices and Ratios (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99013-1	Preload Index
GEK		99013-2	Diastolic to Systolic Velocity Ratio
GEK		99013-3	Pulsatility index for veins
SRT		R-101BA	Lumen Area Stenosis
SRT		R-101BB	Lumen Diameter Stenosis
GEK		99108	M-Mode Lumen Diameter Stenosis

Table A.0-59: Context ID 12122 Other Vascular Properties

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		20168-1	Acceleration Time
LN		20217-6	Deceleration Time
SRT		G-0364	Vessel lumen diameter
SRT		G-0365	Vessel outside diameter
LN		20354-7	Velocity Time Integral
LN		8867-4	Heart Rate
GEK		99501-0	Cycle Time
GEK		99012-0	Peak Diastolic Velocity
SNM3		M-02550	Diameter
LN		20352-1	Mean Velocity
GEK		99010-0	Venous Flow
GEK		99018-1	TPV
GEK		99103	Stenosis Lumen Area
GEK		99104	Stenosis Lumen Diameter
99GEMS		GEU-1004-49	Volume Flow Diameter
GEK		99105	M-Mode Cycle Time
GEK		99106	M-Mode Heart Rate
GEK		99107	M-Mode vessel lumen diameter
GEK		99109	M-Mode Stenosis Lumen Diameter
GEK		99110-0	Intima Media Thickness
GEK		99110-1	M-Mode Intima Media Thickness

Table A.0-60: Context ID 12123 Carotid Ratios

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		33868-1	ICA/CCA velocity ratio
GEK		99100-1	PS ICA/CCA velocity ratio
GEK		99100-2	ED ICA/CCA velocity ratio

Table A.0-61: Context ID 12140 Pelvic Vasculature Anatomical Location

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-F1810	Umbilical Artery
SRT		T-F1820	Umbilical Vein
SRT		T-46980	Ovarian Artery
SRT		T-48780	Ovarian Vein
SRT		T-46820	Uterine Artery
SRT		T-49010	Uterine Vein
SRT		T-F1412	Vitelline Artery of Placenta
SRT		T-F1413	Vitelline Vein of Placenta
SRT		T-46710	Common Iliac Artery
99VP		VP-0001	Ductus Venosus
SRT		T-40003	Entire Vessel
SNM3	3.4	T-45010	Carotid Artery
99VP		VP-0004	Ductus Arteriosus
GEK		99918-1	Umbilical Artery
GEK		99918-2	Inferior Vena Cava

Table A.0-62: Context ID 12141 Fetal Vasculature Anatomical Location

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-42000	Aorta
SRT		T-D0765	Descending Aorta
SRT		T-45600	Middle Cerebral Artery
SRT		T-48581	Pulmonary Vein
SRT		T-44000	Pulmonary Artery

Table A.0-63: Context ID 12200 Echocardiography Left Ventricle

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
			INCLUDE CID 12201 Left Ventricle Linear
			INCLUDE CID 12240 Left Ventricle Area
			INCLUDE CID 12202 Left Ventricle Volume
			INCLUDE CID 12222 Orifice Flow Properties
			INCLUDE CID 12203 Left Ventricle Other
			INCLUDE CID 12239 Cardiac Output Properties

Table A.0-64: Context ID 12201 Left Ventricle Linear

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		29436-3	Left Ventricle Internal End Diastolic Dimension
LN		29438-9	Left Ventricle Internal Systolic Dimension
LN		18051-3	Left Ventricular Fractional Shortening
LN		18154-5	Interventricular Septum Diastolic Thickness
LN		18155-2	Interventricular Septum to Posterior Wall Thickness Ratio
LN		18054-7	Interventricular Septum % Thickening
LN		18158-6	Interventricular Septum Systolic Thickness
LN		18053-9	Left Ventricle Posterior Wall % Thickening
LN		18077-8	Left Ventricle diastolic major axis
LN		18076-0	Left Ventricle systolic major axis
LN		18156-0	Left Ventricle Posterior Wall Systolic Thickness
LN		18152-9	Left Ventricle Posterior Wall Diastolic Thickness
SRT		G-0377	Left Ventricle Semi-major Axis Diastolic Dimension
SRT		G-0378	Left Ventricle Truncated Semi-major Axis Diastolic Dimension
GEK		.99157	Left Ventricle Endocardial Length

Table A.0-65: Context ID 12202 Left Ventricle Volume

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		18026-5	Left Ventricular End Diastolic Volume
LN		18148-7	Left Ventricular End Systolic Volume
LN		18043-0	Left Ventricular Ejection Fraction

Table A.0-66: Context ID 12203 Left Ventricle Other

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		18087-7	Left Ventricle Mass
LN		18071-1	Left Ventricular Isovolumic Relaxation Time
SRT		G-037E	Left Ventricular Isovolumic Contraction Time
SRT		G-037A	Left Ventricular Peak Early Diastolic Tissue Vel
SRT		G-037B	Ratio of MV Peak Velocity to LV Peak Tissue Velo
SRT		G-037C	LV Peak Diastolic Tissue Velocity During Atrial
SRT		G-037D	Left Ventricular Peak Systolic Tissue Velocity
SRT		G-037F	Left Ventricular Index of Myocardial Performance
GEK		99159	Left Ventricle Ejection Time
GEK		99165-1	Left Ventricle to Right Ventricular Internal Systolic Dimension Ratio
GEK		99165-2	Left Ventricle to Right Ventricular Internal Diastolic Dimension Ratio

Table A.0-67: Context ID 12204 Echocardiography Right Ventricle

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
			INCLUDE CID 12222 Orifice Flow Properties
SRT		F-04FD8	RV Stroke Volume
SRT		F-04FA5	RV Cardiac Output
SRT		F-04F84	RV Cardiac Index
SRT		F-04FE5	RV Stroke Index
LN		20304-2	Right Ventricular Internal Diastolic Dimension
LN		20305-9	Right Ventricular Internal Systolic Dimension
SRT		G-0381	Right Ventricular Index of Myocardial Performance
SRT		G-0380	Right Ventricular Peak Systolic Pressure
LN		18153-7	Right Ventricular Anterior Wall Diastolic Thickness
LN		18157-8	Right Ventricular Anterior Wall Systolic Thickness

Table A.0-68: Context ID 12205 Echocardiography Left Atrium

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		29469-4	Left Atrium Antero-posterior Systolic Dimension
LN		17985-3	Left Atrium to Aortic Root Ratio
LN		29486-8	Left Atrial Appendage Peak Velocity
LN		17977-0	Left Atrium Systolic Area
SRT		G-0383	Left Atrium Systolic Volume

Table A.0-69: Context ID 12206 Echocardiography Right Atrium

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		18070-3	Right Atrium Systolic Pressure
LN		17988-7	Right Atrium Systolic Area

Table A.0-70: Context ID 12207 Echocardiography Mitral Valve

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
			INCLUDE CID 12222 Orifice Flow Properties
			INCLUDE CID 12239 Cardiac Output Properties
LN		17978-8	Mitral Valve A-Wave Peak Velocity
LN		18037-2	Mitral Valve E-Wave Peak Velocity
LN		18038-0	Mitral Valve E to A Ratio
SRT		G-0386	Mitral Valve AT/DT Ratio
SRT		G-0384	Mitral Valve E-Wave Deceleration Time
LN		18040-6	Mitral Valve E-F Slope by M-Mode
LN		18036-4	Mitral Valve EPSS, E wave
SRT		G-0385	Mitral Valve A-Wave Duration
LN		18057-0	Mitral Valve Diastolic Peak Instantaneous Gradient
SRT		G-0387	Mitral Valve Closure to Opening Time
LN		18035-6	Mitral Regurgitation dP/dt derived from Mitral Reg. velocity
GEK		99153	Mitral Valve A-C
GEK		99154	Mitral Valve ES Distance

Table A.0-71: Context ID 12208 Echocardiography Tricuspid Valve

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
			INCLUDE CID 12222 Orifice Flow Properties
LN		18031-5	Tricuspid Valve E Wave Peak Velocity
LN		18030-7	Tricuspid Valve A Wave Peak Velocity
LN		18039-8	Tricuspid Valve E to A Ratio
LN		20296-0	Time from Q wave to Tricuspid Valve Opens
SRT		G-0389	Tricuspid Valve Closure to Opening Time
LN		18034-9	Tricuspid Regurgitation dP/dt
GEK		99155	Tricuspid Valve A-Wave Duration

Table A.0-72: Context ID 12209 Echocardiography Pulmonic Valve

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
			INCLUDE CID 12222 Orifice Flow Properties
LN		18096-8	Pulmonic Valve Area by continuity
LN		18042-2	Pulmonic Valve Ejection Time



Table A.0-72: Context ID 12209 Echocardiography Pulmonic Valve (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-0388	Ratio of Pulmonic Valve Acceleration Time to Ejection Time
LN		20295-2	Time from Q wave to Pulmonic Valve Closes

Table A.0-73: Context ID 12210 Echocardiography Pulmonary Artery

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		18020-8	Main Pulmonary Artery Diameter
LN		18021-6	Right Pulmonary Artery Diameter
LN		18019-0	Left Pulmonary Artery Diameter
SRT		G-038A	Main Pulmonary Artery Peak Velocity
GEK		99160	Pulmonary Artery VPD Velocity
GEK		99161	Pulmonary Artery Mean Pressure
GEK		99162	Pulmonary Artery VTD Velocity
GEK		99163	Pulmonary Artery Diastolic Pressure
GEK		99164	Pulmonary Artery Systolic Pressure

Table A.0-74: Context ID 12211 Echocardiography Aortic Valve

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
			INCLUDE CID 12222 Orifice Flow Properties
LN		17996-0	Aortic Valve Cusp Separation
LN		18041-4	Aortic Valve Ejection Time
SRT		G-0382	Ratio of Aortic Valve Acceleration Time to Ejection Time

Table A.0-75: Context ID 12212 Echocardiography Aorta

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		18015-8	Aortic Root Diameter
LN		18011-7	Aortic Arch Diameter

Table A.0-75: Context ID 12212 Echocardiography Aorta (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		18012-5	Ascending Aortic Diameter
LN		18014-1	Aortic Isthmus Diameter
LN		18013-3	Descending Aortic Diameter
LN		17995-2	Thoracic Aorta Coarctation Systolic Peak Instantaneous Gradient
LN		29460-3	Thoracic Aorta Coarctation Systolic Peak Velocity
GEK		99166	Aortic Root Amplitude

Table A.0-76: Context ID 12214 Echocardiography Pulmonary Veins

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		29450-4	Pulmonary Vein Systolic Peak Velocity
LN		29451-2	Pulmonary Vein Diastolic Peak Velocity
LN		29452-0	Pulmonary Vein Systolic to Diastolic Ratio
LN		29453-8	Pulmonary Vein Atrial Contraction Reversal Peak Velocity
SRT		G-038B	Pulmonary Vein A-Wave Duration
SRT		G-038D	Pulmonary Vein D-Wave Velocity Time Integral
SRT		G-038C	Pulmonary Vein S-Wave Velocity Time Integral

Table A.0-77: Context ID 12215 Echocardiography Vena Cavae

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		18006-7	Inferior Vena Cava Diameter
LN		18050-5	Inferior Vena Cava % Collapse

Table A.0-78: Context ID 12216 Echocardiography Hepatic Veins

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		29471-0	Hepatic Vein Systolic Peak Velocity
LN		29472-8	Hepatic Vein Diastolic Peak Velocity

Table A.0-78: Context ID 12216 Echocardiography Hepatic Veins (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		29473-6	Hepatic Vein Systolic to Diastolic Ratio
LN		29474-4	Hepatic Vein Atrial Contraction Reversal Peak Velocity

Table A.0-79: Context ID 12217 Echocardiography Cardiac Shunt

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12220 Echocardiography Common Measurements
LN		29462-9	Pulmonary-to-Systemic Shunt Flow Ratio

Table A.0-80: Context ID 12220 Echocardiography Common Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		8867-4	Heart rate
GEK		99150	Atrial Heart Rate

Table A.0-81: Context ID 12221 Flow Direction

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		R-42047	Antegrade Flow
SRT		R-42E61	Regurgitant Flow

Table A.0-82: Context ID 12222 Orifice Flow Properties

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		33878-0	Volume Flow
LN		34141-2	Peak Instantaneous Flow Rate
SRT		G-038E	Cardiovascular Orifice Area
SRT		G-038F	Cardiovascular Orifice Diameter
SRT		G-0390	Regurgitant Fraction
LN		11653-3	End Diastolic Velocity

Table A.0-82: Context ID 12222 Orifice Flow Properties (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		11726-7	Peak Velocity
LN		20352-1	Mean Velocity
LN		20247-3	Peak Gradient
LN		20256-4	Mean Gradient
LN		20354-7	Velocity Time Integral
LN		20280-4	Pressure Half-Time
LN		20168-1	Acceleration Time
LN		20217-6	Deceleration Time
LN		20216-8	Deceleration Slope
GEK		99151	Cardiovascular Orifice Diameter
GEK		99152	Deceleration Amplitude
SRT		F-02320	Mitral Valve Area

Table A.0-83: Context ID 12223 Echocardiography Stroke Volume Origin

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-32600	Left Ventricle
SRT		T-32650	Left Ventricle Outflow Tract
SRT		T-32550	Right Ventricle Outflow Tract
SRT		T-35300	Mitral Valve
SRT		T-42000	Aorta

Table A.0-84: Context ID 12224 Ultrasound Image Modes

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-03A2	2D mode
SRT		R-409E2	Doppler Color Flow
SRT		G-0394	M mode
SRT		R-409E4	Doppler Pulsed
SRT		R-409E3	Doppler Continuous Wave
SRT		P0-02241	Power Doppler
SRT		P0-02242	3D mode

Table A.0-85: Context ID 12226 Echocardiography Image View

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-A19B	Apical two chamber
SRT		G-A19C	Apical four chamber
SRT		G-0395	Apical long axis
SRT		G-0396	Parasternal long axis
SRT		G-0397	Parasternal short axis
SRT		G-0398	Parasternal short axis at the aortic valve level
SRT		G-0399	Parasternal short axis at the level of the mitral chords
SRT		G-039A	Parasternal short axis at the Mitral Valve level
SRT		G-039B	Parasternal short axis at the Papillary Muscle level
SRT		G-039C	Right Ventricular Inflow Tract View
SRT		G-039D	Right Ventricular Outflow Tract View
SRT		G-039E	Subcostal long axis
SRT		G-039F	Subcostal short axis
SRT		G-03A0	Suprasternal long axis
SRT		G-03A1	Suprasternal short axis

Table A.0-86: Context ID 12227 Echocardiography Measurement Method

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12228 Echocardiography Volume Methods
			INCLUDE CID 12229 Echocardiography Area Methods
			INCLUDE CID 12230 Gradient Methods
			INCLUDE CID 12231 Volume Flow Methods
			INCLUDE CID 12232 Myocardium Mass Methods

Table A.0-87: Context ID 12228 Echocardiography Volume Methods

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		125204	Area-Length Biplane
DCM		125205	Area-Length Single Plane
DCM		125211	Biplane Ellipse
DCM		125226	Single Plane Ellipse
DCM		125206	Cube Method
DCM		125207	Method of Disks, Biplane
DCM		125208	Method of Disks, Single Plane
DCM		125209	Teichholz

Table A.0-88: Context ID 12229 Echocardiography Area Methods

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		125210	Area by Pressure Half-Time
DCM		125212	ContinuityEquation
DCM		125213	Continuity Equation by Mean Velocity
DCM		125214	Continuity Equation by Peak Velocity
DCM		125215	Continuity Equation by Velocity Time Integral
DCM		125216	Proximal Isovelocity Surface Area
DCM		125220	Planimetry

Table A.0-89: Context ID 12231 Volume Flow Methods

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		125219	Doppler Volume Flow
DCM		125216	Proximal Isovelocity Surface Area

Table A.0-90: Context ID 12232 Myocardium Mass Methods

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM		125221	Left Ventricle Mass by M-mode
DCM		125222	Left Ventricle Mass by Truncated Ellipse
GEK		99158	Myocardial Thickness

Table A.0-91: Context ID 12233 Cardiac Phase

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		F-32020	Systole
SRT		F-32010	Diastole
SRT		F-32011	End Diastole
DCM		109070	End Systol

Table A.0-92: Context ID 12235 Mitral Valve Anatomic Sites

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-0391	Medial Mitral Annulus
SRT		G-0392	Lateral Mitral Annulus
SRT		T-35313	Mitral Annulus

Table A.0-93: Context ID 12236 Echo Anatomic Sites

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
			INCLUDE CID 12235 Mitral Valve Anatomic Sites
			INCLUDE CID 12223 Stroke Volume Origin
			INCLUDE CID 12241 Tricuspid Valve Finding Sites
			INCLUDE CID 12242 Aortic Valve Finding Sites
			INCLUDE CID 12243 Left Ventricle Finding Sites
			INCLUDE CID 12244 Congenital Finding Sites
SRT		D4-32030	Thoracic Aortic Coarctation

Table A.0-94: Context ID 12239 Cardiac Output Properties

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		F-32120	Stroke Volume
SRT		F-32100	Cardiac Output
SRT		F-32110	Cardiac Index
SRT		F-00078	Stroke Index

Table A.0-95: Context ID 12240 Left Ventricle Area

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		G-0374	Left Ventricular Systolic Area
SRT		G-0375	Left Ventricular Diastolic Area
SRT		G-0376	Left Ventricular Fractional Area Change
SRT		G-0379	Left Ventricle Epicardial Diastolic Area, psax pap view
GEK		99156	Left Ventricle Endocardial Diastolic Area, psax pap view

Table A.0-96: Context ID 12241 Tricuspid Valve Finding Sites

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-35111	Tricuspid Annulus

Table A.0-97: Context ID 12242 Aortic Valve Finding Sites

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-35410	Aortic Valve Ring

Table A.0-98: Context ID 12243 Left Ventricle Finding Sites

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		T-32650	Left Ventricle Outflow Tract

Table A.0-99: Context ID 12244 Congenital Finding Sites

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT		D4-31150	Ventricular Septal Defect
SRT		D4-31220	Atrial Septal Defect

Table A.0-100: Context ID 99101 OB-M-Generic

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99601-0	M-Distance
GEK		99602-0	M-Time
GEK		99603-0	M-Velocity
GEK		99604-0	Stenosis % Dist
GEK		99605-0	Heart Rate



Table A.0-101: Context ID 99102 OB-GYN Amniotic Sac OLD

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN		11627-7	Amniotic Fluid Index
GEK		99009-0	AMNIOTIC FLUID INDEX LEN q1
GEK		99009-1	AMNIOTIC FLUID INDEX LEN q2
GEK		99009-2	AMNIOTIC FLUID INDEX LEN q3
GEK		99009-3	AMNIOTIC FLUID INDEX LEN q4
GEK		99009-4	AMNIOTIC FLUID INDEX.SUM ;four quadrant index

Table A.0-102: Context ID 99103 SonoVCADLabor

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99016-0	SonoVCADLabor
GEK		99016-1	Aquisition Time
GEK		99016-2	Head Direction
GEK		99016-3	Midline Angle
GEK		99016-4	Head Progression
GEK		99016-5	Head Progression Angle
GEK		99016-6	Head Station
GEK		99016-7	Head Rotation
GEK		99016-8	Occiput Position
GEK		99016-9	Cervix Dilatation

Table A.0-103: Context ID 99104 Follicle SonoAVC

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99015-0	Follicle Diameter d
GEK		99015-1	Follicle Diameter dx
GEK		99015-2	Follicle Diameter dy
GEK		99015-3	Follicle Diameter dz
GEK		99015-4	Follicle Diameter dmean
GEK		99015-5	Volume
GEK		99015-6	RGB-Red
GEK		99015-7	RGB-Green
GEK		99015-8	RGB-Blue
GEK		99015-9	Ovarian Follicle SonoAVC

Table A.0-104: Context ID 99105 Fetal Echo Measurement

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99901-2	Ventricle Length Systolic
GEK		99901-3	Ventricle Length Diastolic
GEK		99901-4	Ventricle Width Systolic
GEK		99901-5	Ventricle Width Diastolic
GEK		99901-6	Atrial Length Systolic
GEK		99901-7	Atrial Length Diastolic
GEK		99901-8	Atrial Width Systolic
GEK		99901-9	Atrial Width Diastolic
GEK		99901-10	Ventricle Inlet Diameter
GEK		99901-11	Ventricle Area
GEK		99901-12	Wall Thickness
GEK		99901-13	Septum
GEK		99901-14	Tricuspid Valve Orifice
GEK		99901-15	Mitral Valve Orifice
GEK		99902-2	Heart Diagonally
GEK		99902-3	Thorax Diagonally
GEK		99902-4	CTR
GEK		99902-5	Cardiac Circumference
GEK		99902-6	Thorax Circumference
GEK		99902-7	CTCR
GEK		99902-8	Heart Area
GEK		99902-9	Thorax Area
GEK		99902-10	CTAR
GEK		99902-11	Cardiac Axis
GEK		99903-2	Pulmonary Artery
GEK		99903-3	Pulmonary Valve Width
GEK		99903-4	Main Pulmonary Artery
GEK		99903-5	Aortic Valve Width
GEK		99903-6	Aortic Root Diameter
GEK		99903-7	Aortic Trunk Dim.
GEK		99903-8	Ao/PA Ratio
GEK		99903-9	Arterial Duct Diameter
GEK		99904-2	Anulus
GEK		99904-3	Asc. Aortic Diameter
GEK		99904-4	Desc. Aortic Diameter
GEK		99904-5	Transv. Ao Arch
GEK		99905-2	Vena Cava Superior
GEK		99905-3	Vena Cava Inferior
GEK		99906-2	Ventricle Dim. Systolic
GEK		99906-3	Ventricle Dim. Diastolic
GEK		99906-4	Ventricle Wall Systolic
GEK		99906-5	Ventricle Wall Diastolic
GEK		99906-6	Atrium dim. Systolic
GEK		99906-7	Atrium dim. Diastolic
GEK		99906-8	Septum Systolic
GEK		99906-9	Septum Diastolic
GEK		99906-10	Biventricle inner dim. Systolic
GEK		99906-11	Biventricle inner dim. Diastolic
GEK		99906-12	Biventricle outer dim. Systolic
GEK		99906-13	Biventricle outer dim. Diastolic

Table A.0-104: Context ID 99105 Fetal Echo Measurement (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99906-14	Mitral Valve open exc.
GEK		99906-15	Tricuspid Valve open exc.
GEK		99907-2	Aortic Valve Diameter
GEK		99907-3	Pulm. Valve Diameter
GEK		99908-2	E-Wave
GEK		99908-3	A-Wave
GEK		99908-4	E/A
GEK		99908-5	VTI
GEK		99908-6	V max regurg
GEK		99909-2	E-Wave
GEK		99909-3	A-Wave
GEK		99909-4	E/A
GEK		99909-5	VTI
GEK		99909-6	V max regurg
GEK		99909-7	IVRT
GEK		99910-2	V max
GEK		99910-3	VTI
GEK		99910-4	RVCO
GEK		99910-5	TPV
GEK		99910-6	TAmox
GEK		99910-7	TAmox
GEK		99911-2	V max
GEK		99911-3	VTI
GEK		99911-4	LVCO
GEK		99911-5	TPV
GEK		99911-6	TAmox
GEK		99911-7	TAmox
GEK		99912-2	V max
GEK		99912-3	TAmox
GEK		99912-4	TAmox
GEK		99913-2	V max
GEK		99913-3	VTI
GEK		99913-4	RVCO
GEK		99913-5	TPV
GEK		99913-6	TAmox
GEK		99913-7	TAmox
GEK		99913-8	Acceleration Time
GEK		99913-9	Ejection Time
GEK		99914-2	V max
GEK		99914-3	VTI
GEK		99914-4	LVCO
GEK		99914-5	TPV
GEK		99914-6	TAmox
GEK		99914-7	TAmox
GEK		99914-8	Acceleration Time
GEK		99914-9	Ejection Time
GEK		99915-2	Diameter
GEK		99915-3	Area
GEK		99915-4	V max
GEK		99915-5	PeakPG

Table A.0-104: Context ID 99105 Fetal Echo Measurement (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99915-6	TAmx
GEK		99915-7	TAmx
GEK		99915-8	MnPG
GEK		99915-9	VTI
GEK		99915-10	FHR
GEK		99915-11	SV
GEK		99915-12	LVO
GEK		99915-13	ICT
GEK		99915-14	Ejection Time
GEK		99915-15	IRT
GEK		99915-16	Tei-Index
GEK		99916-2	Diameter
GEK		99916-3	Area
GEK		99916-4	V max
GEK		99916-5	PeakPG
GEK		99916-6	TAmx
GEK		99916-7	TAmx
GEK		99916-8	MnPG
GEK		99916-9	VTI
GEK		99916-10	FHR
GEK		99916-11	SV
GEK		99916-12	RVO
GEK		99916-13	ICT
GEK		99916-14	Ejection Time
GEK		99916-15	IRT
GEK		99916-16	Tei-Index
GEK		99917-2	Diastolic Velocity
GEK		99917-3	Systolic Velocity
GEK		99917-4	S/D
GEK		99917-5	A. Rev Velocity
GEK		99917-6	A. Rev Duration
GEK		99919-6	PR Interval
GEK		99919-8	V max regurg
GEK		99919-9	Peak PG regurg
GEK		99920-6	Ao Isthmus
GEK		99921-1	RVW systolic
GEK		99921-3	IVS systolic
GEK		99921-5	LVW systolic
GEK		99921-7	MV annulus
GEK		99921-8	TV annulus
GEK		99921-11	LA/Ao sys
GEK		99921-12	LA/Ao dia
GEK		99922-6	PR Interval
GEK		99922-7	TAPSE
GEK		99922-8	MAPSE
GEK		99922-15	Left Ventricle Fractional Shortening
GEK		99923-9	LVOT PR Interval
GEK		99923-18	RVOT PR Interval
GEK		99924-1	V max
GEK		99924-2	TPV

Table A.0–104: Context ID 99105 Fetal Echo Measurement (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99924-3	TAm <sub>ax</sub>
GEK		99924-4	TAm <sub>ean</sub>
GEK		99925-2	TEI a
GEK		99925-3	Tei-Index based on TEI a,b
GEK		99926-5	Peak PG regurg
GEK		99927-3	PV annulus
GEK		99927-8	Mod. McGoon Idx
GEK		99929-2	RVOT Diam.
GEK		99931-1	V max
GEK		99931-2	TPV
GEK		99931-3	TAm <sub>ax</sub>
GEK		99931-4	TAm <sub>ean</sub>
GEK		99932-2	TEI a
GEK		99932-3	Tei-Index based on TEI a,b
GEK		99934-5	Peak PG regurg
GEK		99935-2	LVOT Diam.
GEK		99936-1	PR Interval

Table A.0–105: Context ID 99106 Fetal Echo Measurement Method

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99901-1	4-Chamber-view
GEK		99903-1	Outflow Tract
GEK		99905-1	Venous
GEK		99906-1	4-Chamber-view M-Mode
GEK		99907-1	Outflow Tract M-Mode
GEK		99915-1	LVOT
GEK		99916-1	RVOT
GEK		99920-8	Ao, LVOT
GEK		99935-6	LVOT M-Mode
GEK		99921-13	Chambers
GEK		99922-9	Chambers M-Mode
GEK		99923-19	Cardiac Output
GEK		99927-9	PV, RVOT
GEK		99929-3	PV, RVOT M-Mode

Table A.0–106: Context ID 99107 Fetal Echo Finding Site

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99902-1	Thorax
GEK		99904-1	Aortic arch

Table A.0–106: Context ID 99107 Fetal Echo Finding Site (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99908-1	Tricuspid Valve
GEK		99909-1	Mitral Valve
GEK		99910-1	Main Pulmonary Artery
GEK		99911-1	Aorta
GEK		99912-1	Aorta Isthmus
GEK		99913-1	Pulmonary Valve
GEK		99914-1	Aortic Valve
GEK		99917-1	Pulmonary Veins
GEK		99919-10	Aortic
GEK		99924-5	LPA
GEK		99925-7	Left TEI
GEK		99926-7	Mitral Valve
GEK		99931-5	RPA
GEK		99932-7	Right TEI
GEK		99934-6	Tricuspid Valve
GEK		99936-2	PR Interval

Table A.0–107: Context ID 99108 Pelvic Floor

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99019-0	Pelvic Floor
GEK		99019-1	Pelvic Floor Measurements
GEK		99019-2	Bladder Height
GEK		99019-3	Bladder Depth
GEK		99019-4	Residual Urine
GEK		99019-5	Detr. Wall th.
GEK		99019-6	Bladder neck rest
GEK		99019-7	Bladder neck stress
GEK		99019-8	Bladder neck desc.
GEK		99019-9	Urethral rotation
GEK		99019-10	Bladder desc. Max
GEK		99019-11	Uterine desc. Max
GEK		99019-12	Rect. Amp. Desc. Max
GEK		99019-13	Depth of rectocele
GEK		99019-14	Levator hiat. Stress

Table A.0–108: Context ID 99109 Pelvic Floor Report

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99020-0	Pelvic Floor Finding
GEK		99020-1	Pelvic Floor Findings

Table A.0-108: Context ID 99109 Pelvic Floor Report (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
GEK		99020-2	funneling
GEK		99020-3	urethral kinking

Table A.0-109: Context ID 99110 GYN Kidney Section

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99030-0	GYN Kidney
GEK		99030-1	Left Kidney thickness
GEK		99030-2	Left Kidney length
GEK		99030-3	Left Kidney width
GEK		99030-4	Right Kidney thickness
GEK		99030-5	Right Kidney length
GEK		99030-6	Right Kidney width
GEK		99030-7	Right Kidney Vol
GEK		99030-8	Left Kidney Vol

Table A.0-110: Context ID 99111 Placenta Section

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
GEK		99032-0	Placenta
GEK		99032-1	Placenta Group
GEK		99032-2	Placenta thickness
GEK		99032-3	Placenta height
GEK		99032-4	Placenta width
GEK		99032-5	Placenta Vol

Table A.0-111: Context ID 99112 Mass and Cyst Location

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99812-1	Ovarian Cyst
99GEK		99812-2	Ovarian Mass
99GEK		99812-0	Generic Mass
99GEK		99812-6	Adnexal Mass
99GEK		99812-7	Adnexal Cyst
99GEK		99812-5	Generic Cyst

Table A.0-112: Context ID 99113 Mass and Cyst Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99812-3	Cyst Diameter
99GEK		99812-4	Mass Diameter

Table A.0-113: Context ID 99114 Bladder Section

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99813-0	Bladder
99GEK		99813-1	Bladder Volume
99GEK		99813-2	Bladder Length
99GEK		99813-3	Bladder Width
99GEK		99813-4	Bladder Height

Table A.0-114: Context ID 99115 Fetal Anatomy Item

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-1	Cranium
99GEK		99701-2	Head size
99GEK		99701-3	Head shape
99GEK		99701-4	Brain
99GEK		99701-5	Lateral ventricles
99GEK		99701-6	Rt lateral ventricle
99GEK		99701-7	Lt lateral ventricle
99GEK		99701-8	Third ventricle
99GEK		99701-9	Fourth ventricle
99GEK		99701-10	Cisterna magna
99GEK		99701-11	Choroid plexus
99GEK		99701-12	Lt choroid plexus
99GEK		99701-13	Rt choroid plexus
99GEK		99701-14	Parenchyma
99GEK		99701-15	Midline falx
99GEK		99701-16	Cavum septi pellucidi
99GEK		99701-17	Corpus callosum
99GEK		99701-18	Circle of Willis
99GEK		99701-19	Thalami
99GEK		99701-20	Posterior fossa
99GEK		99701-21	Cerebellum
99GEK		99701-22	Cerebrum
99GEK		99701-23	Vermis
99GEK		99701-24	Cerebellar lobes
99GEK		99701-25	Neck
99GEK		99701-26	Nuchal fold



Table A.0-114: Context ID 99115 Fetal Anatomy Item (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-27	Face
99GEK		99701-28	Orbits
99GEK		99701-29	Lens
99GEK		99701-30	Nose
99GEK		99701-31	Lips
99GEK		99701-32	Maxilla
99GEK		99701-33	Palate
99GEK		99701-34	Tongue
99GEK		99701-35	Mandible
99GEK		99701-36	Ears
99GEK		99701-37	Profile
99GEK		99701-38	Thorax
99GEK		99701-39	Rt lung
99GEK		99701-40	Lt lung
99GEK		99701-41	Diaphragm
99GEK		99701-42	Rt diaphragm
99GEK		99701-43	Lt diaphragm
99GEK		99701-44	Thymus
99GEK		99701-45	Trachea
99GEK		99701-46	Ribs
99GEK		99701-47	Heart
99GEK		99701-48	Situs
99GEK		99701-49	Cardiac position
99GEK		99701-50	Cardiac axis
99GEK		99701-51	Cardiac size
99GEK		99701-52	Cardiac proportions
99GEK		99701-53	Cardiac rhythm
99GEK		99701-54	Cardiac function
99GEK		99701-55	4-chamber view
99GEK		99701-56	LVOT-view
99GEK		99701-57	RVOT view
99GEK		99701-58	3-vessel-trachea view
99GEK		99701-59	3-vessel view
99GEK		99701-60	High short axis view
99GEK		99701-61	Low short axis view
99GEK		99701-62	Aortic arch view
99GEK		99701-63	Ductal arch view
99GEK		99701-64	Bicaval view
99GEK		99701-65	SVC
99GEK		99701-66	IVC
99GEK		99701-67	Great vessels
99GEK		99701-68	Abdom. wall
99GEK		99701-69	Abdom. cavity
99GEK		99701-70	Cord insertion
99GEK		99701-71	GI tract
99GEK		99701-72	Stomach
99GEK		99701-73	Liver
99GEK		99701-74	Gallbladder
99GEK		99701-75	Spleen
99GEK		99701-76	Bowel

Table A.0-114: Context ID 99115 Fetal Anatomy Item (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-77	Small bowel
99GEK		99701-78	Large bowel
99GEK		99701-79	Rectum
99GEK		99701-80	Urogenital tract
99GEK		99701-81	Kidneys
99GEK		99701-82	Rt kidney
99GEK		99701-83	Lt kidney
99GEK		99701-84	Rt ureter
99GEK		99701-85	Lt ureter
99GEK		99701-86	Bladder
99GEK		99701-87	Rt adrenal gland
99GEK		99701-88	Lt adrenal gland
99GEK		99701-89	Rt renal artery
99GEK		99701-90	Lt renal artery
99GEK		99701-91	Genitals
99GEK		99701-92	Spine
99GEK		99701-93	Cervical spine
99GEK		99701-94	Thoracic spine
99GEK		99701-95	Lumbar spine
99GEK		99701-96	Sacral spine
99GEK		99701-97	Skeleton
99GEK		99701-98	Rt upper arm
99GEK		99701-99	Lt upper arm
99GEK		99701-100	Rt forearm
99GEK		99701-101	Lt forearm
99GEK		99701-102	Rt hand
99GEK		99701-103	Lt hand
99GEK		99701-104	Rt fingers
99GEK		99701-105	Lt fingers
99GEK		99701-106	Rt upper leg
99GEK		99701-107	Lt upper leg
99GEK		99701-108	Rt lower leg
99GEK		99701-109	Lt lower leg
99GEK		99701-110	Rt foot
99GEK		99701-111	Lt foot
99GEK		99701-112	Rt toes
99GEK		99701-113	Lt toes
99GEK		99701-114	Position of hands
99GEK		99701-115	Position of feet
99GEK		99701-116	Position of joints
99GEK		99701-117	Legs
99GEK		99701-118	Rt leg
99GEK		99701-119	Lt leg
99GEK		99701-120	Arms
99GEK		99701-121	Rt arm
99GEK		99701-122	Lt arm
99GEK		99701-123	Long axis view
99GEK		99701-124	Placenta Location
99GEK		99701-125	Placenta Cord Insertion
99GEK		99701-126	Fetal Position

Table A.0-114: Context ID 99115 Fetal Anatomy Item (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-127	3 Vessel Cord
99GEK		99701-128	Amniotic Fluid
99GEK		99701-129	Fetal Head Position
99GEK		99701-130	Placenta Grade
99GEK		99701-131	Fetal Spine Position

Table A.0-115: Context ID 99116 Fetal Anatomy Normality Codes

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99700-1	normal
99GEK		99700-2	abnormal
99GEK		99700-3	suboptimal
99GEK		99700-4	visualized
99GEK		99700-5	not examined
99GEK		99700-6	not visualized
99GEK		99700-7	documented previously
99GEK		99700-8	details
99GEK		99700-9	stomach visualized
99GEK		99700-10	4-chamber-view and aeries normal
99GEK		99700-11	4-chamber-view normal
99GEK		99700-12	bladder normal
99GEK		99700-13	kidneys and bladder normal
99GEK		99700-14	mesocardia
99GEK		99700-15	dextrocardia
99GEK		99700-16	levocardia (normal)
99GEK		99700-17	shifted to the left
99GEK		99700-18	shifted to the right
99GEK		99700-19	decreased
99GEK		99700-20	increased
99GEK		99700-21	normal (approx. 1/3 of thoracic area)
99GEK		99700-22	disproportioned
99GEK		99700-23	proportioned (normal)
99GEK		99700-24	arrhythmic
99GEK		99700-25	regular (normal)
99GEK		99700-26	impaired contractility
99GEK		99700-27	good contractility (normal)
99GEK		99700-28	left ventricle
99GEK		99700-29	right ventricle
99GEK		99700-30	both ventricles
99GEK		99700-31	situs ambiguus
99GEK		99700-32	situs inversus totalis
99GEK		99700-33	situs solitus (normal)
99GEK		99700-34	mildly increased
99GEK		99700-35	moderately increased
99GEK		99700-36	severely increased
99GEK		99700-37	mildly decreased

Table A.0–115: Context ID 99116 Fetal Anatomy Normality Codes (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99700-38	moderately decreased
99GEK		99700-39	severely decreased
99GEK		99700-40	mildly impaired left ventricular contractility
99GEK		99700-41	moderately impaired left ventricular contractility
99GEK		99700-42	severely impaired left ventricular contractility
99GEK		99700-43	mildly impaired contractility of both ventricles
99GEK		99700-44	moderately impaired contractility of both ventricles
99GEK		99700-45	severely impaired contractility of both ventricles
99GEK		99700-46	mildly impaired right ventricular contractility
99GEK		99700-47	moderately impaired right ventricular contractility
99GEK		99700-48	severely impaired right ventricular contractility
99GEK		99700-49	right_abnormal
99GEK		99700-50	left_abnormal
99GEK		99700-51	cephalic
99GEK		99700-52	breech
99GEK		99700-53	oblique
99GEK		99700-54	transverse
99GEK		99700-55	anterior
99GEK		99700-56	posterior
99GEK		99700-57	superior
99GEK		99700-58	inferior
99GEK		99700-59	PlacentaGrade 0
99GEK		99700-60	PlacentaGrade 1
99GEK		99700-61	PlacentaGrade 2
99GEK		99700-62	PlacentaGrade 3
99GEK		99700-63	velamentous
99GEK		99700-64	marginal
99GEK		99700-65	vasa previa
99GEK		99700-66	midline
99GEK		99700-67	right lateral
99GEK		99700-68	left lateral
99GEK		99700-69	isthmic location
99GEK		99700-70	fundal
99GEK		99700-71	low lying
99GEK		99700-72	3 vessel cord
99GEK		99700-73	2 vessel cord
99GEK		99700-74	normal amount
99GEK		99700-75	oligohydramnios
99GEK		99700-76	polyhydramnios
99GEK		99700-77	right
99GEK		99700-78	left
99GEK		99700-79	complete previa
99GEK		99700-80	partial previa
99GEK		99700-81	marginal previa

Table A.0-116: Context ID 99117 Fetal Anatomy Item Details

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-1-D	Cranium Details
99GEK		99701-2-D	Head size Details
99GEK		99701-3-D	Head shape Details
99GEK		99701-4-D	Brain Details
99GEK		99701-5-D	Lateral ventricles Details
99GEK		99701-6-D	Rt lateral ventricle Details
99GEK		99701-7-D	Lt lateral ventricle Details
99GEK		99701-8-D	Third ventricle Details
99GEK		99701-9-D	Fourth ventricle Details
99GEK		99701-10-D	Cisterna magna Details
99GEK		99701-11-D	Choroid plexus Details
99GEK		99701-12-D	Lt choroid plexus Details
99GEK		99701-13-D	Rt choroid plexus Details
99GEK		99701-14-D	Parenchyma Details
99GEK		99701-15-D	Midline falx Details
99GEK		99701-16-D	Cavum septi pellucidi Details
99GEK		99701-17-D	Corpus callosum Details
99GEK		99701-18-D	Circle of Willis Details
99GEK		99701-19-D	Thalami Details
99GEK		99701-20-D	Posterior fossa Details
99GEK		99701-21-D	Cerebellum Details
99GEK		99701-22-D	Cerebrum Details
99GEK		99701-23-D	Vermis Details
99GEK		99701-24-D	Cerebellar lobes Details
99GEK		99701-25-D	Neck Details
99GEK		99701-26-D	Nuchal fold Details
99GEK		99701-27-D	Face Details
99GEK		99701-28-D	Orbits Details
99GEK		99701-29-D	Lens Details
99GEK		99701-30-D	Nose Details
99GEK		99701-31-D	Lips Details
99GEK		99701-32-D	Maxilla Details
99GEK		99701-33-D	Palate Details
99GEK		99701-34-D	Tongue Details
99GEK		99701-35-D	Mandible Details
99GEK		99701-36-D	Ears Details
99GEK		99701-37-D	Profile Details
99GEK		99701-38-D	Thorax Details
99GEK		99701-39-D	Rt lung Details
99GEK		99701-40-D	Lt lung Details
99GEK		99701-41-D	Diaphragm Details
99GEK		99701-42-D	Rt diaphragm Details
99GEK		99701-43-D	Lt diaphragm Details
99GEK		99701-44-D	Thymus Details
99GEK		99701-45-D	Trachea Details
99GEK		99701-46-D	Ribs Details
99GEK		99701-47-D	Heart Details
99GEK		99701-48-D	Situs Details
99GEK		99701-49-D	Cardiac position Details
99GEK		99701-50-D	Cardiac axis Details

Table A.0-116: Context ID 99117 Fetal Anatomy Item Details (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-51-D	Cardiac size Details
99GEK		99701-52-D	Cardiac proportions Details
99GEK		99701-53-D	Cardiac rhythm Details
99GEK		99701-54-D	Cardiac function Details
99GEK		99701-55-D	4-chamber view Details
99GEK		99701-56-D	LVOT-view Details
99GEK		99701-57-D	RVOT view Details
99GEK		99701-58-D	3-vessel-trachea view Details
99GEK		99701-59-D	3-vessel view Details
99GEK		99701-60-D	High short axis view Details
99GEK		99701-61-D	Low short axis view Details
99GEK		99701-62-D	Aortic arch view Details
99GEK		99701-63-D	Ductal arch view Details
99GEK		99701-64-D	Bicaval view Details
99GEK		99701-65-D	SVC Details
99GEK		99701-66-D	IVC Details
99GEK		99701-67-D	Great vessels Details
99GEK		99701-68-D	Abdom. wall Details
99GEK		99701-69-D	Abdom. cavity Details
99GEK		99701-70-D	Cord insertion Details
99GEK		99701-71-D	GI tract Details
99GEK		99701-72-D	Stomach Details
99GEK		99701-73-D	Liver Details
99GEK		99701-74-D	Gallbladder Details
99GEK		99701-75-D	Spleen Details
99GEK		99701-76-D	Bowel Details
99GEK		99701-77-D	Small bowel Details
99GEK		99701-78-D	Large bowel Details
99GEK		99701-79-D	Rectum Details
99GEK		99701-80-D	Urogenital tract Details
99GEK		99701-81-D	Kidneys Details
99GEK		99701-82-D	Rt kidney Details
99GEK		99701-83-D	Lt kidney Details
99GEK		99701-84-D	Rt ureter Details
99GEK		99701-85-D	Lt ureter Details
99GEK		99701-86-D	Bladder Details
99GEK		99701-87-D	Rt adrenal gland Details
99GEK		99701-88-D	Lt adrenal gland Details
99GEK		99701-89-D	Rt renal artery Details
99GEK		99701-90-D	Lt renal artery Details
99GEK		99701-91-D	Genitals Details
99GEK		99701-92-D	Spine Details
99GEK		99701-93-D	Cervical spine Details
99GEK		99701-94-D	Thoracic spine Details
99GEK		99701-95-D	Lumbar spine Details
99GEK		99701-96-D	Sacral spine Details
99GEK		99701-97-D	Skeleton Details
99GEK		99701-98-D	Rt upper arm Details
99GEK		99701-99-D	Lt upper arm Details
99GEK		99701-100-D	Rt forearm Details

Table A.0-116: Context ID 99117 Fetal Anatomy Item Details (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99701-101-D	Lt forearm Details
99GEK		99701-102-D	Rt hand Details
99GEK		99701-103-D	Lt hand Details
99GEK		99701-104-D	Rt fingers Details
99GEK		99701-105-D	Lt fingers Details
99GEK		99701-106-D	Rt upper leg Details
99GEK		99701-107-D	Lt upper leg Details
99GEK		99701-108-D	Rt lower leg Details
99GEK		99701-109-D	Lt lower leg Details
99GEK		99701-110-D	Rt foot Details
99GEK		99701-111-D	Lt foot Details
99GEK		99701-112-D	Rt toes Details
99GEK		99701-113-D	Lt toes Details
99GEK		99701-114-D	Position of hands Details
99GEK		99701-115-D	Position of feet Details
99GEK		99701-116-D	Position of joints Details
99GEK		99701-117-D	Legs Details
99GEK		99701-118-D	Rt leg Details
99GEK		99701-119-D	Lt leg Details
99GEK		99701-120-D	Arms Details
99GEK		99701-121-D	Rt arm Details
99GEK		99701-122-D	Lt arm Details
99GEK		99701-123-D	Long axis view Details
99GEK		99701-124-D	Placenta Location Details
99GEK		99701-125-D	Placenta Cord Insertion Details
99GEK		99701-126-D	Fetal Position Details
99GEK		99701-127-D	3 Vessel Cord Details
99GEK		99701-128-D	Amniotic Fluid Details
99GEK		99701-129-D	Fetal Head Position Details
99GEK		99701-130-D	Placenta Grade Details
99GEK		99701-131-D	Fetal Spine Position Details

Table A.0-117: Context ID 99118 IOTA SR Item

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99810-10	Irregular solid tumor
99GEK		99810-11	Presence of ascites
99GEK		99810-12	at least 4 papillary structures
99GEK		99810-13	irregular multilocular-solid tumor with largest diameter greater or equal 100 mm
99GEK		99810-14	very strong blood flow (color score 4)
99GEK		99810-15	Unilocular
99GEK		99810-16	Presence of solid components with largest diameter smaller 7 mm
99GEK		99810-17	Presence of acoustic shadows

Table A.0-117: Context ID 99118 IOTA SR Item (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99810-18	smooth multilocular tumor with largest diameter smaller 100 mm
99GEK		99810-19	no blood flow (color score 1)
99GEK		99810-21	Simple Rules risk calculation

Table A.0-118: Context ID 99119 IOTA SR Codes

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99810-8	No
99GEK		99810-9	Yes
99GEK		99810-23	IOTA SR Classification Very low risk
99GEK		99810-24	IOTA SR Classification Low risk
99GEK		99810-25	IOTA SR Classification Intermediate risk
99GEK		99810-26	IOTA SR Classification Elevated risk
99GEK		99810-27	IOTA SR Classification Very high risk
99GEK		99810-28	IOTA SR Classification Inconclusive

Table A.0-119: Context ID 99120 Fetus Z-Score Calculations

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
99GEK		99928-13	ZScore for AV annulus
99GEK		99928-14	ZScore for Ao ascending
99GEK		99928-15	ZScore for Ao Descending
99GEK		99928-16	ZScore for Ao Isthmus
99GEK		99928-17	ZScore for PV annulus
99GEK		99928-18	ZScore for MPA Diam.
99GEK		99928-19	ZScore for RPA Diam.
99GEK		99928-20	ZScore for LPA Diam.
99GEK		99928-21	ZScore for Duct.Art.Diam.
99GEK		99928-22	ZScore for IVC
99GEK		99928-23	ZScore for RVD dia
99GEK		99928-24	ZScore for LVD dia
99GEK		99928-25	ZScore for MV annulus
99GEK		99928-26	ZScore for TV annulus
99GEK		99928-27	ZScore for Cardiac circumfer.
99GEK		99928-28	ZScore for LV lenght
99GEK		99928-29	ZScore for RV lenght
99GEK		99928-30	ZScore for RV Area dia
99GEK		99928-31	ZScore for LV Area dia



Table A.0–120: Context ID 99121 Z-Score Equations

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
LN		11885-1	Gestational Age by LMP
LN		11884-4	Average Ultrasound Age
LN		11889-3	AC, Campbell 1975
LN		33537-2	AC, Jeanty 1982
LN		33077-9	Abdominal Diameter, Lessoway 1998
LN		11901-6	BPDa, Hadlock 1982
LN		33086-0	BPD-oi, Chitty 1997
LN		33087-8	BPD-oo, Chitty 1997
99GEK		99928-1	Z-Score by BPD Schneider
99GEK		99928-2	Z-Score by FL Schneider
99GEK		99928-3	Z-Score by GA Schneider
99GEK		99928-4	Z-Score by BPD Lee
99GEK		99928-5	Z-Score by FL Lee
99GEK		99928-6	Z-Score by GA Lee
99GEK		99928-7	Z-Score by FL Pasquini
99GEK		99928-8	Z-Score by GA Pasquini
99GEK		99928-9	Z-Score by BPD Krishnan
99GEK		99928-10	Z-Score by FL Krishnan
99GEK		99928-11	Z-Score by GA Krishnan
99GEK		99928-12	Z-Score by EFW Krishnan

Table A.0–121: Context ID 99122 User Defined Measurements

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0102)
99GEK		99999-x	User Defined

Table A.0–122: Context ID 99123 Gyn Findings Item

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99703-1	Device/Procedure
99GEK		99703-2	Uterine malformations (ESHRE)
99GEK		99703-3	Uterine malformations (ASRM)
99GEK		99703-4	Cervical malformations
99GEK		99703-5	Vaginal malformations
99GEK		99703-7	Uterus
99GEK		99703-8	Uterus Desc.
99GEK		99703-9	Position
99GEK		99703-10	Myometrium
99GEK		99703-11	Endometrium
99GEK		99703-12	Cervix
99GEK		99703-13	Uterine Doppler

Table A.0-122: Context ID 99123 Gyn Findings Item (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99703-14	Approach
99GEK		99703-15	Left Ovary
99GEK		99703-16	Left Ovary Desc.
99GEK		99703-17	Right Ovary
99GEK		99703-18	Right Ovary Desc.
99GEK		99703-19	Outline
99GEK		99703-20	Morphology
99GEK		99703-21	Corpus Luteum
99GEK		99703-22	Cyst(s)
99GEK		99703-23	Follicle(s)
99GEK		99703-24	Doppler
99GEK		99703-25	Right Tube
99GEK		99703-26	Right Tube Desc.
99GEK		99703-27	Outline
99GEK		99703-28	Morphology
99GEK		99703-29	Corpus Luteum
99GEK		99703-30	Cyst(s)
99GEK		99703-31	Follicle(s)
99GEK		99703-32	Doppler
99GEK		99703-33	Left Tube
99GEK		99703-34	Left Tube Desc.
99GEK		99703-35	Cul de Sac
99GEK		99703-36	Cul de Sac Desc.
99GEK		99703-37	Free fluid

Table A.0-123: Context ID 99124 Gyn Findings Normality Codes

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99702-1	normal
99GEK		99702-2	abnormal
99GEK		99702-3	optimal
99GEK		99702-4	suboptimal
99GEK		99702-5	visualized
99GEK		99702-6	not visualized
99GEK		99702-7	not examined
99GEK		99702-21	U0 (normal)
99GEK		99702-22	a: T-shaped
99GEK		99702-23	b: infantilis
99GEK		99702-24	c: others
99GEK		99702-25	a: partial
99GEK		99702-26	b: complete
99GEK		99702-27	a: partial
99GEK		99702-28	b: complete
99GEK		99702-29	c: bicorporeal septate
99GEK		99702-30	a: with rudimentary cavity
99GEK		99702-31	b: without rudimentary cavity

Table A.0-123: Context ID 99124 Gyn Findings Normality Codes (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99702-32	a: with rudimentary cavity
99GEK		99702-33	b: without rudimentary cavity
99GEK		99702-34	U6 (unclassified)
99GEK		99702-35	Vaginal
99GEK		99702-36	Cervical
99GEK		99702-37	Fundal
99GEK		99702-38	Combined
99GEK		99702-39	Tubal
99GEK		99702-40	Communicating
99GEK		99702-41	Non Communicating
99GEK		99702-42	anteverted
99GEK		99702-43	anteflexed
99GEK		99702-44	mid-position
99GEK		99702-45	retroverted
99GEK		99702-46	retroflexed
99GEK		99702-47	echogenic
99GEK		99702-48	asymmetrically thickened
99GEK		99702-49	suspicion of adenomyosis
99GEK		99702-50	three-layer pattern
99GEK		99702-51	hypoechoogenic
99GEK		99702-52	hyperechoogenic
99GEK		99702-53	isoechoogenic
99GEK		99702-54	without cystic areas
99GEK		99702-55	with regular cystic areas
99GEK		99702-56	with irregular cystic areas
99GEK		99702-57	with regular cystic areas
99GEK		99702-58	with irregular cystic areas
99GEK		99702-59	linear
99GEK		99702-60	non-linear
99GEK		99702-61	irregular
99GEK		99702-62	synechiae
99GEK		99702-63	'bright edge'
99GEK		99702-64	not defined
99GEK		99702-65	regular
99GEK		99702-66	irregular
99GEK		99702-67	interrupted
99GEK		99702-68	not defined
99GEK		99702-69	'mixed' echogenicity
99GEK		99702-70	'groundglass' appearance
99GEK		99702-71	'low level' echogenicity
99GEK		99702-72	colour score 1 (no colour)
99GEK		99702-73	colour score 2 (minimal colour)
99GEK		99702-74	colour score 3 (moderate colour)
99GEK		99702-75	colour score 4 (abundant colour)
99GEK		99702-76	with branching
99GEK		99702-77	without branching
99GEK		99702-78	focal origin
99GEK		99702-79	multifocal origin
99GEK		99702-80	scattered vessels
99GEK		99702-81	circular flow

Table A.0-123: Context ID 99124 Gyn Findings Normality Codes (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99702-82	vessels not visualized
99GEK		99702-83	cystic lesions (Nabothian cysts)
99GEK		99702-84	polyp noted
99GEK		99702-85	myoma noted
99GEK		99702-86	paracervical varicosis
99GEK		99702-87	enlarged
99GEK		99702-88	small (postmenopausal)
99GEK		99702-89	small (prepubertal)
99GEK		99702-90	midline echo intact
99GEK		99702-91	midline echo disrupted
99GEK		99702-92	IUCD placed correctly at the fundus of the uterus
99GEK		99702-93	IUCD placed incorrectly, too low in the cavity
99GEK		99702-94	IUCD seen within the myometrium
99GEK		99702-95	No IUCD seen in the endometrial cavity
99GEK		99702-96	subtotal hysterectomy noted
99GEK		99702-97	total hysterectomy noted
99GEK		99702-98	transvaginal
99GEK		99702-99	transabdominal
99GEK		99702-100	probably normal
99GEK		99702-101	slightly prominent
99GEK		99702-102	left oophorectomy noted
99GEK		99702-103	right oophorectomy noted
99GEK		99702-104	C0: normal cervix
99GEK		99702-105	C1: septate cervix
99GEK		99702-106	C2: double "normal" cervix
99GEK		99702-107	C3: unilateral cervical aplasia
99GEK		99702-108	C4: cervical aplasia
99GEK		99702-109	V0: normal vagina
99GEK		99702-110	V1: logitudinal non-obstructing vaginal septum
99GEK		99702-111	V2: logitudinal obstructing vaginal septum
99GEK		99702-112	V3: transverse vaginal septum and/or imperforate hymen
99GEK		99702-113	V4: vaginal aplasia
99GEK		99702-114	Transabdominal ultrasound examination
99GEK		99702-115	Transvaginal ultrasound examination
99GEK		99702-116	Transabdominal and transvaginal ultrasound examination
99GEK		99702-117	increased vascularity
99GEK		99702-118	poorly vascularized
99GEK		99702-119	shortened
99GEK		99702-120	yes
99GEK		99702-121	no
99GEK		99702-122	smooth
99GEK		99702-123	irregular
99GEK		99702-124	postmenopausal atrophic
99GEK		99702-125	premenopausal normal follicular
99GEK		99702-126	premenopausal polycystic
99GEK		99702-127	premenopausal with dominant follicle
99GEK		99702-128	purely cystic
99GEK		99702-129	cystic with fine diffuse internal echoes
99GEK		99702-130	hemorrhagic

Table A.0-123: Context ID 99124 Gyn Findings Normality Codes (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99702-131	Hydrosalpinx
99GEK		99702-132	Tubo-ovarian mass
99GEK		99702-133	Fimbrial cyst
99GEK		99702-134	Salpingectomy noted
99GEK		99702-135	Anechoic
99GEK		99702-136	Mixed echogenicity
99GEK		99702-137	Adhesions present
99GEK		99702-138	Obliterated
99GEK		99702-139	ascites
99GEK		99702-140	pelvic infection
99GEK		99702-141	haematoperitoneum
99GEK		99702-142	recent cyst rupture
99GEK		99702-143	mucinous fluid in the pelvis
99GEK		99702-144	physiologic changes (e.g. ovulation)
99GEK		99702-145	Free fluid visualized
99GEK		99702-146	No free fluid visualized
99GEK		99702-147	anechogenic
99GEK		99702-148	No Cavity
99GEK		99702-149	No horn
99GEK		99702-150	III Didelphus
99GEK		99702-151	Complete
99GEK		99702-152	Partial
99GEK		99702-153	VI Arcuate
99GEK		99702-154	VII DES drug related

Table A.0-124: Context ID 99125 Gyn Findings Item Details

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99703-1-D	Device/Procedure Details
99GEK		99703-2-D	Uterine malformations (ESHRE) Details
99GEK		99703-3-D	Uterine malformations (ASRM) Details
99GEK		99703-4-D	Cervical malformations Details
99GEK		99703-5-D	Vaginal malformations Details
99GEK		99703-6-D	Associated malformations Details
99GEK		99703-7-D	Uterus Details
99GEK		99703-8-D	Uterus Desc. Details
99GEK		99703-9-D	Position Details
99GEK		99703-10-D	Myometrium Details
99GEK		99703-11-D	Endometrium Details
99GEK		99703-12-D	Cervix Details
99GEK		99703-13-D	Uterine Doppler Details
99GEK		99703-14-D	Approach Details
99GEK		99703-15-D	Left Ovary Details
99GEK		99703-16-D	Left Ovary Desc. Details
99GEK		99703-17-D	Right Ovary Details
99GEK		99703-18-D	Right Ovary Desc. Details

Table A.0–124: Context ID 99125 Gyn Findings Item Details (continued)

Coding Scheme Designator (0008,0102)	Coding Scheme Version (0008,0103)	Code Value (0008,0100)	Code Meaning (0008,0104)
99GEK		99703-19-D	Outline Details
99GEK		99703-20-D	Morphology Details
99GEK		99703-21-D	Corpus Luteum Details
99GEK		99703-22-D	Cyst(s) Details
99GEK		99703-23-D	Follicle(s) Details
99GEK		99703-24-D	Doppler Details
99GEK		99703-25-D	Right Tube Details
99GEK		99703-26-D	Right Tube Desc. Details
99GEK		99703-27-D	Outline Details
99GEK		99703-28-D	Morphology Details
99GEK		99703-29-D	Corpus Luteum Details
99GEK		99703-30-D	Cyst(s) Details
99GEK		99703-31-D	Follicle(s) Details
99GEK		99703-32-D	Doppler Details
99GEK		99703-33-D	Left Tube Details
99GEK		99703-34-D	Left Tube Desc. Details
99GEK		99703-35-D	Cul de Sac Details
99GEK		99703-36-D	Cul de Sac Desc. Details
99GEK		99703-37-D	Free fluid Details
99GEK		99703-38-D	Pouch of Douglas Other Details

## B Standard Extended and Private Templates - EC330

Table B.0-125: TID 300 Measurement

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			NUM	\$Measurement	1	M		Units = \$Units
2	>	HAS CONCEPT MOD	CODE	\$ModType	1-n	U		\$ModValue
3	>	HAS CONCEPT MOD	CODE	EV(G-C036, SRT, "Measurement Method")	1	MC		\$Method
4	>	HAS CONCEPT MOD	CODE	EV(121401, SRT, "Derivation")	1	U		\$Derivation
5	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1-n	U		\$TargetSite
6	>>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1-n	U		DCID (244) Laterality
7	>>	HAS CONCEPT MOD	CODE	EV(G-A1F8, SRT, "Topographical modifier")	1	U		\$TargetSiteMod
8	>	HAS PROPERTIES	INCLUDE	DTID 310 "Measurement Properties"	1	U		\$RefAuthority = \$RefAuthority \$RangeAuthority = \$RangeAuthority
9	>	INFERRED FROM	NUM		1-n	U		
10	>	R-INFERRED FROM	NUM		1-n	U		
11	>	INFERRED FROM	INCLUDE	DTID 315 "Equation or Table"	1	UC	XOR Row 12	\$Equation = \$Equation
12	>	INFERRED FROM	TEXT	DCID 228 "Equation or Table"	1	UC	XOR Row 11	
13	>		INCLUDE	DTID 320 "Image or Spatial Coordinates"	1-n	U		\$Purpose = \$ImagePurpose
14	>		INCLUDE	DTID 321 "Waveform or Temporal Coordinates"	1-n	U		\$Purpose = \$WavePurpose
15	>		INCLUDE	DTID 1000 "Quotation"	1	U		

Table B.0-126: TID 310 Measurement

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CODE	EV(121402, DCM, "Normality")	1	U		DCID (222) Normality Codes
2			INCLUDE	DTID 311 "Measurement Statistical Properties"	1	U		\$RefAuthority = \$RefAuthority
3			INCLUDE	DTID 312 "Normal Range Properties"	1	U		\$RangeAuthority = \$RangeAuthority

Table B.0-126: TID 310 Measurement (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
4			CODE	EV(121403, DCM, "Level of Significance")	1	U		DCID (220) Level of Significance
5			NUM	DCID 225 "Measurement Uncertainty Concepts"	1-n	U		
6			CODE	EV(121404, DCM, "Selection Status")	1	U		DCID (244) Laterality

Table B.0-127: TID 311 Measurement Statistical Properties

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			NUM	DCID 221 "Measurement Range Concepts"	1	M		
2			TEXT	EV(121405, DCM, "Population description")	1	U		
3			TEXT	EV(121406, DCM, "Reference Authority")	1	UC	XOR row 3	
4			CODE	EV(121406, DCM, "Reference Authority")	1	UC	XOR row 4	\$RefAuthority

Table B.0-128: TID 312 Normal Range Properties

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			NUM	DCID 223 "Normal Range Values"	1-n	M		
2			TEXT	EV(121407, DCM, "Procedure Context")	1	U		
3			TEXT	EV(121408, DCM, "Subject Context")	1	UC	XOR row 4	
4			CODE	EV(121408, DCM, "Normal Range Authority")	1	UC	XOR row 3	

Table B.0-129: TID 315 Equation or Table

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CODE	DCID 228 "Equation or Table"	1-n	M		\$Equation
2	>	HAS PROPERTIES	NUM		1	U		
3	>	R-HAS PROPERTIES	NUM		1	U		



Table B.0-130: TID 320 Image or Spatial Coordinates

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		INFERRED FROM	IMAGE	\$Purpose	1	MC	XOR Rows 2,3	
2		R-INFERRED FROM	IMAGE	\$Purpose	1	MC	XOR Rows 1,3	
3		INFERRED FROM	SCCOORD	\$Purpose	1	MC	XOR Rows 1,2	
4	>	SELECTED FROM	IMAGE		1	MC	XOR Rows 5	
5	>	R-SELECTED FROM	IMAGE		1	MC	XOR Rows 4	

Table B.0-131: TID 321 Waveform or Temporal Coordinates

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		INFERRED FROM	WAVE-FORM	\$Purpose	1	MC	XOR Rows 2,3	
2		R-INFERRED FROM	WAVE-FORM	\$Purpose	1	MC	XOR Rows 1,3	
3		INFERRED FROM	TCOORD	\$Purpose	1	MC	XOR Rows 1,2	
4	>	SELECTED FROM	WAVE-FORM		1	MC	XOR Rows 5	
5	>	R-SELECTED FROM	WAVE-FORM		1	MC	XOR Rows 4	

Table B.0-132: TID 1000 QUOTATION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		HAS OBS CONTEXT	CODE	EV(121001, DCM, "Quotation Mode")	1	M		EV (121003, DCM, "Document") EV (121004, DCM, "Verbal")
2		HAS OBS CONTEXT	COMPOSITE	EV(121002, DCM, "Quoted Source")	1	MC	Required if quoted material source is a DICOM composite object	
3		HAS OBS CONTEXT	INCLUDE	DTID 1001 "Observation Context"	1	M		

Table B.0-133: TID 1001 OBSERVATION CONTEXT

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		HAS OBS CONTEXT	INCLUDE	DTID 1002 "Observer Context"	1-n	MC	Required if all aspects of observer context are not inherited.	
2		HAS OBS CONTEXT	INCLUDE	EV(1005, DCM, "Procedure Context")	1-n	MC	Required if all aspects of observer context are not inherited.	
3		HAS OBS CONTEXT	INCLUDE	EV(1006, DCM, "Subject Context")	1-n	MC	Required if all aspects of observer context are not inherited.	

Table B.0-134: TID 1002 OBSERVER CONTEXT

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		HAS OBS CONTEXT	CODE	EV(121005, DCM, "Observer Type")	1	MC	IF Observer type is device	DCID (270) Observer Type Defaults to (121006,DCM, "Person")
2		HAS OBS CONTEXT	INCLUDE	DTID 1003 "Person Observer identifying attributes"	1	MC	IFF Row 1 value = (121006,DCM, "Person") or Row 1 is absent	
3		HAS OBS CONTEXT	INCLUDE	DTID 1004 "Device observer identifying attributes"	1	MC	IFF Row 1 value = (121007,DCM, "Device")	

Table B.0-135: TID 1003 PERSON OBSERVER IDENTIFYING ATTRIBUTES

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			PNAME	EV(121008, DCM, "Person Observer Name")	1	M		
2			TEXT	EV(121009, DCM, "Person Observer's Organization Name")	1	U		Defaults to Institution Name (0008,0080) of the General Equipment Module
3			CODE	EV(121010, DCM, "Person Observer's Role in the Organization")	1	U		BCID(7452) Organizational Roles
4			CODE	EV(121011, DCM, "Person Observer's Role in this Procedure")	1	U		BCID(7453) Performing Roles

Table B.0-136: TID 1004 DEVICE OBSERVER IDENTIFYING ATTRIBUTES

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		UIDREF	EV(121012, DCM, "Device Observer UID")	1	M		
2		TEXT	EV(121013, DCM, "Device Observer Name")	1	U		Defaults to value of Station Name (0008,1010) in General Equipment Module
3		TEXT	EV(121014, DCM, "Device Observer Manufacturer")	1	U		Defaults to value of Manufacturer (0008,0070) in General Equipment Module
4		TEXT	EV(121015, DCM, "Device Observer Model Name")	1	U		Defaults to value of Manufacturer's Model Name (0008,1090) in General Equipment Module
5		TEXT	EV(121016, DCM, "Device Observer Serial Number")	1	U		Defaults to value of Device Serial Number (0018,1000) in General Equipment Module
6		TEXT	EV(121017, DCM, "Device Observer Physical Location during observation")	1	U		

Table B.0-137: TID 1005 PROCEDURE CONTEXT

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		UIDREF	EV(121018, DCM, "Procedure Study Instance UID")	1	M		Defaults to Study Instance UID (0020,000D) of General Study Module
2		TEXT	EV(121019, DCM, "Procedure Study Component UID")	1	U		Defaults to Referenced SOP Instance UID (0008,1155) in Referenced Performed Procedure Step Sequence (0008,1111) of General Series Module
3		TEXT	EV(121020, DCM, "Device Observer Manufacturer")	1	U		Defaults to (0040,2016)

Table B.0-137: TID 1005 PROCEDURE CONTEXT (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
4			TEXT	EV(121021, DCM, "Device Observer Model Name")	1	U		Defaults to (0040,2017)
5			TEXT	EV(121022, DCM, "Device Observer Serial Number")	1	U		Defaults to (0008,0050)
6			TEXT	EV(121023, DCM, "Device Observer Physical Location during observation")	1	U		Defaults to Procedure Code Sequence (0008,1032) of General Study Module

Table B.0-138: TID 1006 SUBJECT CONTEXT

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CODE	EV(121024, DCM, "Procedure Study Instance UID")	1	M	IF subject is not the Patient	DCID (271) Observation Subject Class Defaults to (121025, DCM, "Patient")
2			INCLUDE	DTID 1007 "Subject Context, Patient"	1	UC	IFF Row 1 value = (121025,DCM, "Patient") or Row 1 is absent	May be used for human or animal patients
3			INCLUDE	DTID 1008 "Subject Context, Fetus"	1	UC	IFF Row 1 value = (121026,DCM, "Fetus")	May be used for human or animal fetuses
4			INCLUDE	DTID 1009 "Subject Context, Specimen"	1	UC	IFF Row 1 value = (121027, DCM, "Specimen")	

Table B.0-139: TID 1007 SUBJECT CONTEXT, PATIENT

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			UIDREF	EV(121028, DCM, "Subject UID")	1	U		E.g. SOP Instance UID of Detached Patient Instance
2			PNAME	EV(121029, DCM, "Subject Name")	1	MC	Required if not inherited.	Defaults to value of Patient's Name (0010,0010) in Patient Module
3			CODE	EV(121030, DCM, "Subject ID")	1	MC	Required if not inherited.	Defaults to value of Patient ID (0010,0020) in Patient Module

Table B.0-139: TID 1007 SUBJECT CONTEXT, PATIENT (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
4		DATE	EV(121031, DCM, "Subject Birth Date")	1	U		Defaults to value of Patient's Birth Date (0010,0030) in Patient Module
5		CODE	EV(121032, DCM, "Subject Sex")		U		Defaults to value equivalent to Patient's Sex (0010,0040) in Patient Module DCID (7455) Sex
6		NUM	EV(121033, DCM, "Subject Age")		U		Defaults to value of Patient's Age (0010,1010) in Patient Study Module Units DCID (7456) Units of Measure for Age
7		CODE	EV(121034, DCM, "Subject Species")		MC		DCID (7454) Species to define various animals or plants, e.g. veterinary or research. Defaults to (L-85B00, SNM3, "homo sapiens").

Table B.0-140: TID 1008 SUBJECT CONTEXT, FETUS

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		PNAME	EV(121036, DCM, "Mother of fetus")	1	U		Defaults to an observation subject that is a patient prior to replacing the Observation Subject Class with Fetus.
2		UIDREF	EV(121028, DCM, "Subject UID")	1	U		For longitudinal tracking of individual fetuses
3		TEXT	EV(121030, DCM, "Subject ID")	1	MC	IF row 4 is absent	For longitudinal tracking of individual fetuses (human readable value e.g. "A" or "1")

Table B.0-140: TID 1008 SUBJECT CONTEXT, FETUS (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
4		TEXT	EV(11951-1, LN, "Fetus ID")	1	MC	IF row 3 is absent	For separation of multiple fetuses during this procedure e.g. fetus '1' of '2' ...not for longitudinal comparisons.; ie. the *m* of fetus *m* of *n*
5		NUM	EV(11878-6, LN, "Number of Fetuses")	1	U		i.e. the "n" of fetus "m" of "n" Units EV (1,UCUM,"no units")

Table B.0-141: TID 1009 SUBJECT CONTEXT, SPECIMEN

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		UIDREF	EV(121039, DCM, "Specimen UID")	1	U		
2		TEXT	EV(121040, DCM, "Specimen Accession Number")	1	U		Defaults to value of Specimen Accession Number (0040,050A ) in Specimen Identification Module
3		INCLUDE	DTID 1007 "patient subject context"	1	UC	IFF the source of the specimen is a human or animal patient	
4		TEXT	EV(121041, DCM, "Specimen Identifier")	1	U		Defaults to value of Specimen Identifier (0040,0551) if a single item of Specimen Sequence (0040,0550) is present in Specimen Identification Module

Table B.0-141: TID 1009 SUBJECT CONTEXT, SPECIMEN (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
5			CODE	EV(121042, DCM, "Specimen Type")	1	U		Defaults to value of Specimen Type Code Sequence (0040,059A) if a single item of Specimen Sequence (0040,0550) is present in Specimen Identification Module
6			TEXT	EV(121043, DCM, "Slide Identifier")	1	U		Defaults to value of Slide Identifier (0040,06FA) if a single item of Specimen Sequence (0040,0550) is present in Specimen Identification Module
7			UIDREF	EV(121044, DCM, "Slide UID")	1	U		

Table B.0-142: TID 5000 OB-GYN Ultrasound Procedure Report

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125000, DCM, "OB-GYN Ultrasound Procedure Report")	1	M	
2	>	HAS CONCEPT MOD	INCLUDE	DTID 1204 "Language of Content Item and Descendants"	1	U	not used
3	>	HAS OBS CONTEXT	INCLUDE	DTID 1001 "Observation Context"	1	U	
4	>	CONTAINS	INCLUDE	DTID 5001 "Patient Characteristics"	1	U	
5	>	CONTAINS	CONTAINER	DT(111028, DCM, "Image Library")	1	U	not used
6	>>	CONTAINS	IMAGE	No purpose of Reference	1-n	M	not used
7	>	CONTAINS	INCLUDE	DTID 5002 "OB-GYN Procedure Summary Section"	1	U	
8	>	CONTAINS	INCLUDE	DTID 5004 "Fetal Biometry Ratio Section"	1-n	U	
9	>	CONTAINS	INCLUDE	DTID 5005 "Fetal Biometry Section"	1-n	U	
10	>	CONTAINS	INCLUDE	DTID 5006 "Long Bones Section"	1-n	U	
11	>	CONTAINS	INCLUDE	DTID 5007 "Fetal Cranium Section"	1-n	U	
12	>	CONTAINS	INCLUDE	DTID 99004 "Fetal Anatomy"	1-n	U	
13	>	CONTAINS	INCLUDE	DTID 5009 "Fetal Biophysical Profile Section"	1-n	U	

Table B.0-142: TID 5000 OB-GYN Ultrasound Procedure Report (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
14	>	CONTAINS	INCLUDE	DTID 5011 "Early Gestation Section"	1-n	U	
15	>	CONTAINS	INCLUDE	DTID 5010 "Amniotic Sac Section"	1-n	U	
16	>	CONTAINS	INCLUDE	DTID 99005 "Amniotic Sac Section old"	1-n	U	
17	>	CONTAINS	INCLUDE	DTID 99006 "SonoVCADLabor"	1-n	U	
18	>	CONTAINS	INCLUDE	DTID 5015 "Pelvis and Uterus Section"	1	U	
19	>	CONTAINS	INCLUDE	DTID 5012 "Ovaries Section"	1	U	
20	>	CONTAINS	INCLUDE	DTID 5013 "Follicles Section"	1	U	\$Laterality = EV (G-A101, SRT, "Left") \$Number = EV (11879-4, LN, "Number of follicles in left ovary")
21	>	CONTAINS	INCLUDE	DTID 5013 "Follicles Section"	1	U	\$Laterality = EV (G-A100, SRT, "Right") \$Number = EV (11880-2, LN, "Number of follicles in right ovary")
22	>	CONTAINS	INCLUDE	DTID 99008 "Follicles SonoAVC Section"	1	U	\$Laterality = EV (G-A101, SRT, "Left") \$Number = EV (11879-4, LN, "Number of follicles in left ovary")
23	>	CONTAINS	INCLUDE	DTID 99008 "Follicles SonoAVC Section"	1	U	\$Laterality = EV (G-A100, SRT, "Right") \$Number = EV (11880-2, LN, "Number of follicles in right ovary")
24	>	CONTAINS	INCLUDE	EV(121070, DCM, "Findings")	1-n	U	not used
25	>>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M	not used EV (T-F6800, SRT, "Embryonic Vascular Structure")
26	>>	CONTAINS	INCLUDE	DTID 5025 "OB-GYN Fetal Vascular Measurement Group"	1	M	\$AnatomyGroup = DCID (12141) Fetal Vasculature
27	>	CONTAINS	INCLUDE	EV(121070, DCM, "Findings")	1-n	U	not used
28	>>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M	EV (T-D6007, SRT, "Pelvic Vascular Structure")



Table B.0-142: TID 5000 OB-GYN Ultrasound Procedure Report (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
29	>>	CONTAINS	INCLUDE	DTID 5026 "OB-GYN Pelvic Vascular Measurement Group"	1	M		\$AnatomyGroup = DCID (12140) Pelvic Vasculature Anatomical Location
30	>	CONTAINS	INCLUDE	DTID 99000 "Fetus Doppler Measurements"	1-n	U		\$Laterality \$FindingSite
31	>	CONTAINS	INCLUDE	DTID 99001 "Maternal Doppler Measurement"	1-n	U		\$Laterality \$FindingSite
32	>	CONTAINS	INCLUDE	DTID 99002 "Fibroid Section"	1	U		\$Laterality = EV (G-A101, SRT, "Left") \$Number = EV (99703-0, GEK, "Number of fibroids in left ovary")
33	>	CONTAINS	INCLUDE	DTID 99002 "Fibroid Section"	1	U		\$Laterality = EV (G-A100, SRT, "Right") \$Number = EV (99704-0, GEK, "Number of fibroids in right ovary")
34	>	CONTAINS	INCLUDE	DTID 99010 "Fetal Echo Section"	1	U		
35	>	CONTAINS	INCLUDE	DTID 99012 "Pelvic Floor Section"	1	U		
36	>	CONTAINS	INCLUDE	DTID 99013 "Pelvic Floor Finding Section"	1	U		
37	>	CONTAINS	INCLUDE	DTID 99014 "Cardiovascular Profile Score Section"	1	U		
38	>	CONTAINS	INCLUDE	DTID 99015 "GYN Kidney Section"	1	U		
39	>	CONTAINS	INCLUDE	DTID 99016 "Fetal Placenta Section"	1	U		
40	>	CONTAINS	INCLUDE	DTID 99018 "GYN Onco Section"	1	U		
41	>	CONTAINS	INCLUDE	DTID 99019 "MVP Section"	1	U		
42	>	CONTAINS	INCLUDE	DTID 99020 "Ovarian Cyst section"	1	U		\$Laterality = EV (G-A101, SRT, "Left")
43	>	CONTAINS	INCLUDE	DTID 99020 "Ovarian Cyst section"	1	U		\$Laterality = EV (G-A100, SRT, "Right")
44	>	CONTAINS	INCLUDE	DTID 99021 "Adnexal Cyst section"	1	U		\$Laterality = EV (G-A101, SRT, "Left")
45	>	CONTAINS	INCLUDE	DTID 99021 "Adnexal Cyst section"	1	U		\$Laterality = EV (G-A100, SRT, "Right")
46	>	CONTAINS	INCLUDE	DTID 99022 "Generic Cyst section"	1	U		
47	>	CONTAINS	INCLUDE	DTID 99023 "Adnexal Mass section"	1	U		\$Laterality = EV (G-A101, SRT, "Left")
48	>	CONTAINS	INCLUDE	DTID 99023 "Adnexal Mass section"	1	U		\$Laterality = EV (G-A100, SRT, "Right")
49	>	CONTAINS	INCLUDE	DTID 99024 "Generic Mass section"	1	U		

Table B.0-142: TID 5000 OB-GYN Ultrasound Procedure Report (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
50	>	CONTAINS	INCLUDE	DTID 99025 "Ovarian Mass section"	1	U		\$Laterality = EV (G-A101, SRT, "Left")
51	>	CONTAINS	INCLUDE	DTID 99025 "Ovarian Mass section"	1	U		\$Laterality = EV (G-A100, SRT, "Right")
52	>	CONTAINS	INCLUDE	DTID 99026 "Bladder section"	1	U		
53	>	CONTAINS	INCLUDE	DTID 99030 "IOTA Simple Rules"	1	U		
54	>	CONTAINS	INCLUDE	DTID 99031 "Fetus Z-Score Calculations Section"	1-n	U		
55	>	CONTAINS	INCLUDE	DTID 99032 "User Defined Measurements OB Biometry"	1-n	U		
56	>	CONTAINS	INCLUDE	DTID 99033 "User Defined Measurements"	1-n	U		
57	>	CONTAINS	INCLUDE	DTID 99034 "GYN Findings"	1	U		

Table B.0-143: TID 5001 OB-GYN PATIENT CHARACTERISTICS

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(121118, DCM, ""Patient Characteristics"")	1	M		
2	>	CONTAINS	TEXT	EV(121106, DCM, ""Comment"")	1	U		
3	>	CONTAINS	NUM	EV(8302-2, LN, ""Patient Height"")	1	U		
4	>	CONTAINS	NUM	EV(29463-7, LN, ""Patient Weight"")	1	U		
5	>	CONTAINS	NUM	EV(11996-6, LN, ""Gravida"")	1	U		
6	>	CONTAINS	NUM	EV(11977-6, LN, ""Para"")	1	U		
7	>	CONTAINS	NUM	EV(11612-9, LN, ""Aborta"")	1	U		
8	>	CONTAINS	NUM	EV(33065-4, LN, ""Ectopic Pregnancies"")	1	U		

Table B.0-144: TID 5002 OB-GYN PROCEDURE SUMMARY SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121111, DCM, "Summary")	1	M		
2	>	CONTAINS	DATE	DCID 12003 "OB-GYN Dates"	1-n	U		
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = BCID (12018) OB-GYN Summary
4	>	CONTAINS	TEXT	EV(121106, DCM, "Comment")	1-n	U		
5	>>		INCLUDE	DTID 320 "Image or Spatial Coordinates"	1-n	U		
6	>	CONTAINS	INCLUDE	DTID 5003 "OB-GYN Fetus Summary"	1-n	UC	No more than 1 inclusion per fetus	

Table B.0-145: TID 5003 OB-GYN PROCEDURE FETUS SUMMARY

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125008, DCM, "Fetus Summary")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	TEXT	EV(121106, DCM, "Comment")	1-n	U		
4	>>		INCLUDE	DTID 320 "Image or Spatial Coordinates"	1	U		
5	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (12019) OB-GYN Fetus Summary, (12003) OB-GYN DATES, \$Equation = DCID (12012) OB Equations and Tables

Table B.0-146: TID 5004 FETAL BIOMETRY RATIO SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125001, DCM, "Fetus Biometry Ratios")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	NUM	DCID 12004 "Fetal Biometry Ratios"	1-n	M		
4	>>	R-INFERRED FROM	NUM		2	U		
5	>	HAS PROPERTIES	INCLUDE	DTID 312 "Normal Range Properties"	1	U		

Table B.0-147: TID 5005 FETAL BIOMETRY SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125002, DCM, "Fetus Biometry")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	

Table B.0-147: TID 5005 FETAL BIOMETRY SECTION (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	NUM	DTID 5008 "Fetal Biometry Group"	1-n	M		\$BiometryType = MemberOf DCID (12005) Fetal Biometry Measurements

Table B.0-148: TID 5006 FETAL LONG BONES SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125003, DCM, "Fetal Long Bones")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	INCLUDE	DTID 5008 "Fetal Biometry Group"	1-n	M		\$BiometryType = MemberOf DCID (12006) Fetal Long Bones Biometry Measurements

Table B.0-149: TID 5007 FETAL CRANIUM SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125004, DCM, "Fetal Cranium")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	INCLUDE	DTID 5008 "Fetal Biometry Group"	1-n	M		\$BiometryType = MemberOf DCID (12007) Fetal Cranium

Table B.0-150: TID 5008 FETAL BIOMETRY GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125005, DCM, "BiometryGroup")	1	M		

Table B.0-150: TID 5008 FETAL BIOMETRY GROUP (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	MC	At least one of 2 and 3 shall be present	\$Measurement = \$BiometryType \$Derivation = DCID (3627) Measurement Type
3	>	CONTAINS	NUM	EV(18185-9, DCM, "Gestational Age")	1	MC	At least one of 2 and 3 shall be present	Units= EV(d,UCUM,days)
4	>>	INFERRED FROM	CODE	DCID 228 "Equation or Table"	1	U		DCID (12013) Gestational Age Equations and Tables
5	>>	INFERRED FROM	NUM	EV(121414, DCM, "Standard deviation of Population")	1	U		
6	>>>	HAS PROPERTIES	CODE	EV(121402, DCM, "Normality")	1	UC	If row 5	(SRT, R-002C4, Abnormally High), (SRT, R-002C5, Abnormally Low), (SRT, G-A460, Normal)
7	>>	R-INFERRED FROM	NUM		1-n	U		
8	>>	HAS PROPERTIES	NUM	DCID 226 "Population Statistical Descriptors"	1-n	U		
9	>	CONTAINS	NUM	DCID 12017 "Growth Distribution Rank"	1	U		
10	>>	INFERRED FROM	CODE	DCID 228 "Equation or Table"	1	U		DCID (12015) Fetal Growth Equations and Tables

Table B.0-151: TID 5009 FETAL BIOPHYSICAL PROFILE SECTION

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
1			CONTAINER	DT(125006, DCM, "Biophysical Profile")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	NUM	EV(11631-9, LN, "Gross Body Movement")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
4	>	CONTAINS	NUM	EV(11632-7, LN, "Fetal Breathing")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")

Table B.0-151: TID 5009 FETAL BIOPHYSICAL PROFILE SECTION (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
5	>	CONTAINS	NUM	EV(11635-0, LN, "Fetal Tone")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
6	>	CONTAINS	NUM	EV(11635-5, LN, "Fetal Heart Reactivity")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
7	>	CONTAINS	NUM	EV(11630-1, LN, "Amniotic Fluid Volume")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
8	>	CONTAINS	NUM	DT(11634-3, LN, "Biophysical Profile Sum Score")	1	U		

Table B.0-152: TID 5010 AMNIOTIC SAC SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125070, DCM, "Findings")	1	M		
2	>	HAS OBS CONTEXT	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (T-F1300, SRT, "Amniotic Sac")
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	M		\$Measurement = DT (11627-7, LN, "Amniotic Fluid Index")
5	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	4	U		\$Measurement = DCID (12008) OB-GYN Amniotic Sac

Table B.0-153: TID 5011 EARLY GESTATION SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125009, DCM, "Early Gestation")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	

Table B.0–153: TID 5011 EARLY GESTATION SECTION (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	INCLUDE	DTID 5008 "Fetal Biometry Group"	1-n	M	\$BiometryType= Member of DCID (12009) Early Gestation Biometry Measurements

Table B.0–154: TID 5012 OVARIES SECTION

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M	
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M	DT (T-87000, SRT, "Ovary")
3	>	CONTAINS	INCLUDE	DTID 5016 "LWH Volume Group"	1	U	\$GroupName = EV (T-87000, SRT, "Ovary") \$Width =EV (11829-9, LN, "Left Ovary Width") \$Length =EV (11840-6, LN, "Left Ovary Length") \$Height =EV (11857-0 , LN, "Left Ovary Height") \$Volume=EV (12164-0, LN, "Left Ovary Volume")
4	>	CONTAINS	INCLUDE	DTID 5016 "LWH Volume Group"	1	U	\$GroupName = EV (T-87000, SRT, "Ovary") \$Width = EV (11830-7, LN, "Right Ovary Width") \$Length = EV (11841-4, LN, "Right Ovary Length") \$Height = EV (11858-8, LN, "Right Ovary Height") \$Volume= EV (12165-7, LN, "Right Ovary Volume")

Table B.0-155: TID 5013 FOLLICLES SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (T-87600, SRT, "Ovarian Follicle")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	U		\$Laterality
4	>	CONTAINS	NUM	\$Number	1	U		
5	>	CONTAINS	INCLUDE	DTID 5014 "Follicle Measurement Group"	1-n	U		

Table B.0-156: TID 5014 FOLLICLE MEASUREMENT GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125007, DCM, "Measurement Group")	1	M		
2	>	HAS OBS CONTEXT	TEXT	EV(12510, DCM, "Identifier")	1	U		Unique among all groups of same laterality
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	U		\$Measurement = EV (GD705, SRT, "Volume")
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = EV (11793-7, LN, "Follicle Diameter") \$Derivation = DCID (3627) Measurement Type

Table B.0-157: TID 5015 PELVIS AND UTERUS SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125011, DCM, "Pelvis and Uterus")	1	M		



Table B.0-157: TID 5015 PELVIS AND UTERUS SECTION (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
2	>	CONTAINS	INCLUDE	DTID 5016 "LWH Volume Group"	1	U		\$GroupName = EV (T-83000, SRT, "Uterus") \$Width = EV (11865-3, LN, " Uterus Width") \$Length = EV (11842-2, LN, " Uterus Length") \$Height = EV (11859-6, LN, " Uterus Height") \$Volume = EV (33192-6, LN, " Uterus Volume")
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (12011) Ultrasound Pelvis and Uterus \$Derivation = DCID (3627) Measurement Type

Table B.0-158: TID 5016 LWH VOLUME GROUP

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
1			CONTAINER	\$GroupName	1	M		
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	MC	At least one of row 2,3,4,5 shall be present	\$Measurement = \$Volume (DCID 12011)
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	MC	At least one of row 2,3,4,5 shall be present	\$Measurement = \$Length (DCID 12011) \$Derivation = DCID (3627) Measurement Type
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	MC	At least one of row 2,3,4,5 shall be present	\$Measurement = \$Width (DCID 12011) \$Derivation = DCID (3627) Measurement Type

Table B.0-158: TID 5016 LWH VOLUME GROUP (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
5	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	MC	At least one of row 2,3,4,5 shall be present	\$Measurement = \$Height (DCID 12011) \$Derivation = DCID (3627) Measurement Type

Table B.0-159: TID 5025 OB-GYN FETAL VASCULAR ULTRASOUND MEASUREMENT GROUP

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
1			CONTAINER	\$AnatomyGroup	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	HAS OBS CONTEXT	CODE	EV(G-C171, SRT, "Laterality")	1	MC	IFF anatomy has laterality	DCID (244) Laterality
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	M		\$MeasType = DCID (12119) Vascular Ultrasound Property \$Derivation = DCID (3627) Measurement Type

Table B.0-160: TID 5026 OB-GYN PELVIC VASCULAR ULTRASOUND MEASUREMENT GROUP

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
1			CONTAINER	\$AnatomyGroup	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	EV(G-C171, SRT, "Laterality")	1	MC	IFF anatomy has laterality	DCID (244) Laterality
3	>	HAS OBS CONTEXT	TEXT	EV(112050, DCM, "Anatomic Identifier")	1	U		
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	M		\$MeasType = DCID (12119) Vascular Ultrasound Property \$Derivation = DCID (3627) Measurement Type

Table B.0-161: TID 5100 VASCULAR ULTRASOUND REPORT

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
1		CONTAINER	EV(125100, DCM, "Vascular Ultrasound Procedure Report")	1	M			
2	>	HAS OBS CONTEXT	CODE	EV(R-40FB8, SRT, "Temporal periods Relating to Procedure")	1	U	not used	DCID (12102) Intervention Phase
3	>	HAS CONCEPT MOD	INCLUDE	DTID 1204 "Language of Content Item and Descendants"	1	U	not used	
4	>	HAS OBS CONTEXT	INCLUDE	DTID 1001 "Observation Context"	1	U		
5	>	CONTAINS	INCLUDE	DTID 5101 "Vascular Patient Characteristics"	1	U		
6	>	CONTAINS	CONTAINER	DT(111028, DCM, "Image Library")	1	U	not used	
7	>>	CONTAINS	IMAGE	No purpose of Reference	1-n	M	not used	
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
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);

Table B.0-161: TID 5100 VASCULAR ULTRASOUND REPORT (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
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
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) Extracranial 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

Table B.0-161: TID 5100 VASCULAR ULTRASOUND REPORT (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
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
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

Table B.0-161: TID 5100 VASCULAR ULTRASOUND REPORT (continued)

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
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)

Table B.0-161: TID 5100 VASCULAR ULTRASOUND REPORT (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
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)
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	

Table B.0-161: TID 5100 VASCULAR ULTRASOUND REPORT (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
31	>	CONTAINS	INCLUDE	DTID 99101 "Voluson Ultrasound Graft Section"	1	U		

Table B.0-162: TID 5102 VASCULAR PROCEDURE SUMMARY SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121111, DCM, "Summary")	1	M		
2	>		TEXT	DCID 12101 "Vascular Summary"	1	M		

Table B.0-163: TID 5103 VASCULAR ULTRASOUND SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		\$SectionScope
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	U		\$SectionLaterality
4	>	HAS CONCEPT MOD	INCLUDE	DTID 5104 "Vascular Measurement Group"	1-n	U		\$AnatomyGroup = \$Anatomy
5	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = \$AnatomyRatio

Table B.0-164: TID 5104 VASCULAR ULTRASOUND MEASUREMENT GROUP

	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-A1F8, SRT, "Topographical Modifier")	1	U		DCID (12116) Vessel Segment Modifiers
3	>	HAS CONCEPT MOD	CODE	EV(125101, DCM, "Vessel Branch")	1	U		DCID (12117) Vessel Branch Modifiers



Table B.0-164: TID 5104 VASCULAR ULTRASOUND MEASUREMENT GROUP (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint	
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	M		\$Measurement = DCID (12119) Vascular Ultrasound Property; \$Derivation = DCID (3627) Measurement Type

Table B.0-165: TID 5200 ECHOCARDIOGRAPHY ULTRASOUND 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	not used	
3	>	HAS OBS CONTEXT	INCLUDE	DTID 1001 "Observation Context"	1	U		
4	>	CONTAINS	INCLUDE	DTID 5201 "Echocardiography Patient Characteristics"	1	U		
5	>	CONTAINS	CONTAINER	DT(111028, DCM, "Image Library")	1	U	not used	
6	>>	CONTAINS	IMAGE	No purpose of Reference	1-n	M	not used	
7	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U		\$SectionSubject = EV (T-32600,, SRT, "Left Ventricle"); \$MeasType = DCID (12200) Echocardiography Left Ventricle
8	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U		\$SectionSubject = EV (T-32500, SRT, "Right Ventricle"); \$MeasType = DCID (12204) Echocardiography Right Ventricle
9	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U		\$SectionSubject = EV (T-32300, SRT, "Left Atrium"); \$MeasType = DCID (12205) Echocardiography Left Atrium

Table B.0-165: TID 5200 ECHOCARDIOGRAPHY ULTRASOUND REPORT (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
10	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-32200, SRT, "Right Atrium"); \$MeasType = DCID (12206) Echocardiography Right Atrium
11	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-35400, SRT, "Aortic Valve"); \$MeasType = DCID (12211) Echocardiography Aortic Valve
12	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-35300, SRT, "Mitral Valve"); \$MeasType = DCID (12207) Echocardiography Mitral Valve
13	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-35200, SRT, "Pulmonic Valve"); \$MeasType = DCID (12209) Echocardiography Pulmonic Valve
14	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-35100, SRT, "Tricuspid Valve"); \$MeasType = DCID (12208) Echocardiography Tricuspid Valve
15	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-42000, SRT, "Aorta"); \$MeasType = DCID (12212) Echocardiography Aorta

Table B.0-165: TID 5200 ECHOCARDIOGRAPHY ULTRASOUND REPORT (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
16	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-44000, SRT, "Pulmonary artery"); \$MeasType = DCID (12210) = Echocardiography Pulmonary Artery
17	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-48600, SRT, "Vena Cava"); \$MeasType = DCID (12215) Echocardiography Vena Cavae
18	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (T-48581, SRT, "Pulmonary Venous Structure"; \$MeasType = DCID (12214) Echocardiography Pulmonary Veins
19	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (P5-30031, SRT, "Cardiac Shunt Study"); \$MeasType = DCID (12217) Echocardiography Cardiac Shunt
20	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U	\$SectionSubject = EV (D4-30000, SRT, "Congenital Anomaly of Cardiovascular System"); \$MeasType = DCID (12218) Echocardiography Congenital
21	>	CONTAINS	INCLUDE	DTID 5204 "Wall Motion Analysis"	1-n	U	\$Procedure = DT (P5-B3121, SRT, "Echocardiography for Determining Ventricular Contraction")

Table B.0-165: TID 5200 ECHOCARDIOGRAPHY ULTRASOUND REPORT (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
22	>	CONTAINS	INCLUDE	DTID 5202 "Echo Section"	1	U		\$SectionSubject = EV (8867-4, LN, "Heart Rate"); \$MeasType = DCID (12220) Echocardiography Common Measurements

Table B.0-166: TID 5201 ECHOCARDIOGRAPHY PATIENT CHARACTERISTICS

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(121118, DCM, "Patient Characteristics")	1	M		
2	>	CONTAINS	NUM	EV(121033, DCM, "Subject Age")	1	U		Units = DCID (7456) Units of Measure for Age
3	>	CONTAINS	CODE	EV(121032, DCM, "Subject Sex")	1	U		DCID (7455) Sex
4	>	CONTAINS	NUM	EV(8867-4, LN, "Heart Rate")	1	U		
5	>	CONTAINS	NUM	EV(F-008EC, SRT, "Systolic Blood Pressure")	1	U		
6	>	CONTAINS	NUM	EV(F-008ED, SRT, "Diastolic Blood Pressure")	1	U		
7	>	CONTAINS	NUM	EV(8277-6, LN, "Body Surface Area")	1	M		
8	>>	INFERRED FROM	CODE	EV(8278-4, LN, "Body Surface Area Formula")	1	U		BCID (3663) Body Surface Area Equations
9	>	CONTAINS	NUM	EV(8302-2, LN, "Patient Height")	1	U		
10	>	CONTAINS	NUM	EV(29463-7, LN, "Patient Weight")	1	U		

Table B.0-167: TID 5202 ECHO SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		\$SectionSubject
3	>	CONTAINS	CONTAINER	DT(125007, DCM, "Measurement Group")	1-n	M		
4	>>	HAS CONCEPT MOD	CODE	EV(G-0373, SRT, "Image Mode")	1	U		BCID (12224) Ultrasound Image Modes
5	>>	HAS CONCEPT MOD	CODE	DT(125203, DCM, "Acquisition Protocol")	1	U		

Table B.0-167: TID 5202 ECHO SECTION (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
6	>>	HAS ACQ CONTEXT	CODE	EV(18139-6, LN, "Stage")	1	U	BCID (12002) Ultrasound Protocol Stage Types
7	>	CONTAINS	INCLUDE	DTID 5203 "Echo Measurement"	1-n	U	\$Measurement = \$MeasType; \$Method=CID (12227) Echocardiography Measurement Method

Table B.0-168: TID 5203 ECHO MEASUREMENT

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			INCLUDE	DTID 300 "Measurement"	1	M	\$Measurement = \$Measurement; \$Method = \$Method; \$TargetSite = BCID (12236) Echo Anatomic Sites; \$TargetSiteMod = BCID (12237) Echocardiography Anatomic Site Modifiers
2	>	HAS CONCEPT MOD	CODE	EV(G-C048, SRT, "Flow Direction")	1	U	BCID (12221) Flow Direction
3	>	HAS CONCEPT MOD	CODE	EV(R-40899, SRT, "Respiratory Cycle Point")	1	U	DCID (12234) Respiration State
3	>	HAS CONCEPT MOD	CODE	EV(R-4089A, SRT, "Cardiac Cycle Point")	1	U	DCID (12233) Cardiac Phase
5	>	HAS ACQ CONTEXT	CODE	EV(G-0373, SRT, "Image Mode")	1	U	BCID (12224) Ultrasound Image Modes
6	>	HAS ACQ CONTEXT	CODE	EV(111031, DCM, "Image View")	1	U	BCID (12226) Echocardiography Image View
7	>	HAS ACQ CONTEXT	CODE	EV(18139-6, LN, "Stage")	1	U	BCID (12002) Ultrasound Protocol Stage Types

Table B.0-169: TID 99000 Fetus Doppler Measurements

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99000, DCM, "Fetal Doppler")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus ID"	1	MC	If this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1-n	M		\$FindingSite = EV(T-45510, SNM3 "Cerebral artery") \$Laterality= EV(G-A101, SRT, "Right") \$TargetSiteMod = EV(G-A109, SNM3, "Medial") \$MeasType = MemberOf DCID(9900)
4	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-45510, SNM3 "Cerebral artery") \$Laterality=EV(G-A100, SRT, "Left") \$TargetSiteMod = EV(G-A109, SNM3, "Medial") \$MeasType = MemberOf DCID(9900)
5	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-45510, SNM3 "Cerebral artery") \$Laterality= EV(G-A101, SRT, "Right") \$TargetSiteMod = EV(G-A113, SNM3, "Internal") \$MeasType = MemberOf DCID(9900)

Table B.0-169: TID 99000 Fetus Doppler Measurements (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
6	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M	\$FindingSite = EV(T-45510, SNM3, "Cerebral artery") \$Laterality=EV(G-A100, SRT, "Left") \$TargetSiteMod = EV(G-A113, SNM3, "Internal") \$MeasType = MemberOf DCID(9900)
7	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M	\$FindingSite = EV(T-46420, SNM3, "Hepatic Artery") \$MeasType = MemberOf DCID(9900)
8	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M	\$FindingSite = EV(T-48720, SNM3, "Hepatic Vein") \$MeasType = MemberOf DCID(9901)
9	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M	\$FindingSite = EV(T-48710, SNM3, "Inferior Vena Cava") \$MeasType = MemberOf DCID(9901)
10	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M	\$FindingSite = EV(T-46600, SNM3, "Renal artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(9900)
11	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M	\$FindingSite = EV(T-46600, SNM3, "Renal artery") \$Laterality = EV(G-A101, SRT, "Right") \$MeasType = MemberOf DCID(9900)

Table B.0-169: TID 99000 Fetus Doppler Measurements (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
12	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-46460, SNM3, "Splenic artery") \$MeasType = MemberOf DCID(9900)
13	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-42070, SNM3, "Thoracic aorta") \$MeasType = MemberOf DCID(9900)
14	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-F1810, SNM3, "Umbilical artery") \$MeasType = MemberOf DCID(12111)
15	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-48817, SNM3, "Umbilical vein") \$MeasType = MemberOf DCID(9902)
16	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(VP-0001, 99VP, "Ductus venosus vein") \$MeasType = MemberOf DCID(9901)
17	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(T-45010, SNM3, "Carotid artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12140)
18	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(T-45010, SNM3, "Carotid artery") \$Laterality = EV(G-A100, SRT, "Right") \$MeasType = MemberOf DCID(12140)



Table B.0-169: TID 99000 Fetus Doppler Measurements (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
19	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(T-F1412, SRT, "Vitelline Artery of Placenta") \$MeasType = MemberOf DCID(12140)
20	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-F1810, SNM3, "Umbilical artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12111)
21	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-F1810, SNM3, "Umbilical artery") \$Laterality = EV(G-A100, SRT, "Right") \$MeasType = MemberOf DCID(12111)
22	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-45600, SRT, "Middle Cerebral Artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12141)
23	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-45600, SRT, "Middle Cerebral Artery") \$Laterality = EV(G-A100, SRT, "Right") \$MeasType = MemberOf DCID(12141)
24	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-42000, SRT, "Aorta") \$MeasType = MemberOf DCID(12141)

Table B.0-169: TID 99000 Fetus Doppler Measurements (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
25	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-46400, SRT, "Celiac Axis") \$MeasType = MemberOf DCID(12112)
26	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(T-46510, SRT, "Superior Mesenteric Artery") \$MeasType = MemberOf DCID(12112)
27	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(99918-1, GEK, "Umbilical artery") \$MeasType = MemberOf DCID(12111)
28	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$FindingSite = EV(99918-2, GEK, "Inferior Vena Cava") \$MeasType = MemberOf DCID(9901)

Table B.0-170: TID 99001 Maternal Doppler Measurements

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99001, DCM, "Maternal Doppler Measurements")	1	M		
2	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(VP-0002, 99VP, "Uterine artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12111)
3	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(VP-0002, 99VP, "Uterine artery") \$Laterality = EV(G-A101, SRT, "Right") \$MeasType = MemberOf DCID(12111)

Table B.0-170: TID 99001 Maternal Doppler Measurements (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
4	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(VP-0003, 99VP, "Ovarian artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12111)
5	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(VP-0003, 99VP, "Ovarian artery") \$Laterality = EV(G-A101, SRT, "Right") \$MeasType = MemberOf DCID(12111)
6	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(VP-0001, 99VP, "Ductus Venosus") \$MeasType = MemberOf DCID(12140)
7	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(T-40003, SRT, "Entire Vessel") \$MeasType = MemberOf DCID(12140)
8	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(T-45010, SNM3, "Carotid artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12111)
9	>	CONTAINS	INCLUDE	DTID 99100 "Doppler Group"	1	M		\$TargetSite = EV(T-45010, SNM3, "Carotid artery") \$Laterality = EV(G-A100, SRT, "Left") \$MeasType = MemberOf DCID(12111)

Table B.0-171: TID 99002 FIBROID SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99008-0, GEK, "Ovarian Fibroid")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	U		\$Laterality
4	>	CONTAINS	NUM	\$Number	1	U	"The number of fibroids"	\$Measurement = EV (99706-0, GEK, "Fibroid Diameter") \$Derivation = DCID (3627) Measurement Type
5	>	CONTAINS	INCLUDE	DTID 99003 "Fibroid Measurement Group"	1-n	U		

Table B.0-172: TID 99003 FIBROID MEASUREMENT GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125007, DCM, "Measurement Group")	1	M		
2	>	HAS OBS CONTEXT	TEXT	EV(12510, DCM, "Identifier")	1	U		Unique among all groups of same laterality
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	U		\$Measurement = EV (GD705, SRT, "Volume")
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = EV (99706-0, GEK, "Fibroid Diameter") \$Derivation = DCID (3627) Measurement Type

Table B.0-173: TID 99004 Fetal Anatomy

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99801-0, GEK, "Fetal Anatomy")	1	M		

Table B.0-173: TID 99004 Fetal Anatomy (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus
3	>	CONTAINS	NUM	EV(99801-1, GEK, "Abd Cord Insert")	1	MC	OB_FA_AbdWall
4	>	CONTAINS	NUM	EV(99801-2, GEK, "Stomach")	1	MC	OB_FA_Stomach
5	>	CONTAINS	NUM	EV(99801-3, GEK, "Right Kidney")	1	MC	OB_FA_RKidney
6	>	CONTAINS	NUM	EV(99801-4, GEK, "Upper Extremities")	1	MC	OB_FA_UpExtr
7	>	CONTAINS	NUM	EV(99801-5, GEK, "Spine")	1	MC	OB_FA_Spine
8	>	CONTAINS	NUM	EV(99801-6, GEK, "Left Kidney")	1	MC	OB_FA_LKidney
9	>	CONTAINS	NUM	EV(99801-7, GEK, "Bladder")	1	MC	OB_FA_Bladder
10	>	CONTAINS	NUM	EV(99801-8, GEK, "Lower Extremities")	1	MC	OB_FA_LowExtr
11	>	CONTAINS	NUM	EV(99801-9, GEK, "Diaphragm")	1	MC	OB_FA_Diaphragm
12	>	CONTAINS	NUM	EV(99801-10, GEK, "Lateral Ventricles")	1	MC	OB_FB_LatVent
13	>	CONTAINS	NUM	EV(99801-11, GEK, "Cerebellum")	1	MC	OB_FB_Cereb
14	>	CONTAINS	NUM	EV(99801-12, GEK, "Cist Magna")	1	MC	OB_FB_CistMagna
15	>	CONTAINS	NUM	EV(99801-13, GEK, "4 Chamber")	1	MC	OB_FH_4Chamber
16	>	CONTAINS	NUM	EV(99801-14, GEK, "Left Outflow Tract")	1	MC	OB_FH_LOT
17	>	CONTAINS	NUM	EV(99801-15, GEK, "Right Outflow Tract")	1	MC	OB_FH_ROT
18	>	CONTAINS	NUM	EV(99801-16, GEK, "3 Vessel")	1	MC	OB_FH_3Vessel
19	>	CONTAINS	NUM	EV(99801-17, GEK, "Aortic Arch")	1	MC	OB_FH_AoArch
20	>	CONTAINS	NUM	EV(99801-18, GEK, "Cardiac Rhythm")	1	MC	OB_FH_CardRh
21	>	CONTAINS	NUM	EV(99801-19, GEK, "Ductal Arch")	1	MC	OB_FH_DuctArch
22	>	CONTAINS	NUM	EV(99801-20, GEK, "Fetal Position")	1	MC	OB_FD_FetPos
23	>	CONTAINS	NUM	EV(99801-21, GEK, "Fetal Spine")	1	MC	OB_FD_FetSpine
24	>	CONTAINS	NUM	EV(99801-22, GEK, "Placenta Grade")	1	MC	OB_FD_PlacGrade
25	>	CONTAINS	NUM	EV(99801-23, GEK, "Cord Insertion")	1	MC	OB_FD_CordIns
26	>	CONTAINS	NUM	EV(99801-24, GEK, "Face")	1	MC	OB_FD_Face
27	>	CONTAINS	NUM	EV(99801-25, GEK, "Fetal Head")	1	MC	OB_FD_FetHead
28	>	CONTAINS	NUM	EV(99801-26, GEK, "Placenta Location")	1	MC	OB_FD_PlacLoc
29	>	CONTAINS	NUM	EV(99801-27, GEK, "3 V Cord")	1	MC	OB_FD_3VCord
30	>	CONTAINS	NUM	EV(99801-28, GEK, "Amniotic Fluid")	1	MC	OB_FD_AmnFluid
31	>	CONTAINS	INCLUDE	DTID 99029 "Fetal Anatomy Findings"	1	MC	

Table B.0-174: TID 99005 AMNIOTIC SAC SECTION OLD

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125070, DCM, "Findings")	1	M		
2	>	HAS OBS CONTEXT	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (T-F1300, SRT, "Amniotic Sac")
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	M		\$Measurement = DT (11627-7, LN, "Amniotic Fluid Index")
5	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	4	U		\$Measurement = DCID (99102) OB-GYN Amniotic Sac Old

Table B.0-175: TID 99006 SonoVCADLabor SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(125070, DCM, "Findings")	1	M		
2	>	HAS OBS CONTEXT	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99016-0, GEK, "SonoVCAD-Labor")
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
5	>	CONTAINS	INCLUDE	DTID 99007 "Measurement Group"	1-n	U		\$Measurement = DT (99009-4, GEK, "SonoVCAD-Labor Measurement Group")

Table B.0-176: TID 99007 SonoVCADLabor MEASUREMENT GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125007, DCM, "Measurement Group")	1	M		
2	>	HAS OBS CONTEXT	TEXT	EV(12510, DCM, "Identifier")	1	U		Unique among all groups of same laterality

Table B.0-176: TID 99007 SonoVCADLabor MEASUREMENT GROUP (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	U		\$Measurement = DCID (99103) SonoVCAD-Labor

Table B.0-177: TID 99008 FOLLICLES SonoAVC SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99015-9, GEK, "Ovarian Follicle SonoAVC")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	U		\$Laterality
4	>	CONTAINS	NUM	\$Number	1	U		
5	>	CONTAINS	INCLUDE	DTID 99009 "Follicle SonoAVC Measurement Group"	1-n	U		

Table B.0-178: TID 99009 FOLLICLE SonoAVC MEASUREMENT GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125007, DCM, "Measurement Group")	1	M		
2	>	HAS OBS CONTEXT	TEXT	EV(12510, DCM, "Identifier")	1	U		Unique among all groups of same laterality
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99104")

Table B.0-179: TID 99010 Fetal Echo Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99901-0, GEK, "Fetal Echo")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus ID"	1	MC	If this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	INCLUDE	DTID 99011 "Fetal Echo Group"	1-n	M		

Table B.0-180: TID 99011 Fetal Echo GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	MC		MemberOf DCID (99107) Fetal Echo Finding Site
3	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Measurement Method")	1	MC		MemberOf DCID (99106) Fetal Echo Measurement Method
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99105) Fetal Echo Measurement

Table B.0-181: TID 99012 Pelvic Floor SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99104")

Table B.0-182: TID 99013 Pelvic Floor Finding Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99104")

Table B.0-183: TID 99014 Cardiovascular Profile Score

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99802-0, GEK, "Cardiovascular Profile Score")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	



Table B.0–183: TID 99014 Cardiovascular Profile Score (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	NUM	EV(99802-1, GEK, "Hydrops")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
4	>	CONTAINS	NUM	EV(99802-2, GEK, "Heart Size")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
5	>	CONTAINS	NUM	EV(99802-3, GEK, "Cardiac Function")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
6	>	CONTAINS	NUM	EV(99802-4, GEK, "Venous Doppler")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
7	>	CONTAINS	NUM	EV(99802-5, GEK, "Arterial Doppler")	1	MC	At least one of row 3-7 shall be present	Units = DT ("0:2", UCUM, "range 0:2")
8	>	CONTAINS	NUM	DT(99802-6, GEK, "Cardiovascular Profile Score Sum")	1	U		

Table B.0–184: TID 99015 GYN Kidney Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99030-0, GEK, "GYN Kidney")	1	M		
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99110")

Table B.0–185: TID 99016 Fetal Placenta Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99032-0, GEK, "Fetal Placenta")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	NUM	DTID 99017 "Fetal Placenta Group"	1-n	M		\$MeasurementType = MemberOf DCID (99111) Fetal Placenta Measurements

Table B.0-186: TID 99017 FETAL Placenta GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99032-0, DCM, "PlacentaGroup")	1	M		
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99111")
7	>>	R-INFERRED FROM	NUM		1-n	U		
8	>>	HAS PROPERTIES	NUM	DCID 226 "Population Statistical Descriptors"	1-n	U		
9	>	CONTAINS	NUM	DCID 12017 "Growth Distribution Rank"	1	U		
10	>>	INFERRED FROM	CODE	DCID 228 "Equation or Table"	1	U		DCID (12015) Fetal Growth Equations and Tables

Table B.0-187: TID 99018 GYN Onco Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99810-0, GEK, "GYN Onco")	1	U		
2	>	CONTAINS	CONTAINER	DT(121070, DCM, "Findings")	1	M		
3	>>	CONTAINS	TEXT	EV(99810-1, GEK, "Patient age")	1	U		Units DCID (7456) Units of Measure for Age
4	>>	CONTAINS	TEXT	EV(99810-2, GEK, "Ascites presence")	1	U		Units = DT ("0:1", UCUM, "range 0:1")
5	>>	CONTAINS	TEXT	EV(99810-3, GEK, "Blood flow")	1	U		Units = DT ("0:1", UCUM, "range 0:1")
6	>>	CONTAINS	TEXT	EV(99810-4, GEK, "Max. dia solid component")	1	U		Units = \$Units
7	>>	CONTAINS	TEXT	EV(99810-5, GEK, "Irregular internal cyst walls")	1	U		Units = DT ("0:1", UCUM, "range 0:1")
8	>>	CONTAINS	TEXT	EV(99810-6, GEK, "Acoustic shadow")	1	U		Units = DT ("0:1", UCUM, "range 0:1")
9	>>	CONTAINS	TEXT	DT(99810-7, GEK, "Malignant Value")	1	UC	all of row 3-8 shall be present	Units = \$Units

Table B.0-188: TID 99019 MVP SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99811-0, DCM, "MVP")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	NUM	DTID 5008 "Fetal Biometry Group"	1-n	M		\$BiometryType = MemberOf DCID (12005) Fetal Biometry Measurements

Table B.0-189: TID 99020 Ovarian Cyst SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99812-1, 99GEK, "Ovarian Cyst")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	M		\$Laterality
4	>	CONTAINS	INCLUDE	DTID 99027 "Cyst Measurement Group"	1-n	U		

Table B.0-190: TID 99021 Adnexal Cyst SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99812-7, 99GEK, "Adnexal Cyst")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	M		\$Laterality
4	>	CONTAINS	INCLUDE	DTID 99027 "Cyst Measurement Group"	1-n	U		

Table B.0-191: TID 99022 Generic Cyst SECTION (continued)

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
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Table B.0-191: TID 99022 Generic Cyst SECTION

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99812-5, 99GEK, "Generic Cyst")
4	>	CONTAINS	INCLUDE DTID 99027 "Cyst Measurement Group"	1-n	U		

Table B.0-192: TID 99023 Adnexal Mass SECTION

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99812-6, 99GEK, "Adnexal Mass")
3	>	HAS CONCEPT MOD	CODE EV(G-C171, SRT, "Laterality")	1	M		\$Laterality
4	>	CONTAINS	INCLUDE DTID 99028 "Mass Measurement Group"	1-n	U		

Table B.0-193: TID 99024 Generic Mass SECTION

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99812-0, 99GEK, "Generic Mass")
4	>	CONTAINS	INCLUDE DTID 99028 "Mass Measurement Group"	1-n	U		

Table B.0-194: TID 99025 Ovarian Mass SECTION

NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		CONTAINER	DT(121070, DCM, "Findings")	1	M		

Table B.0-194: TID 99025 Ovarian Mass SECTION (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (99812-2, 99GEK, "Ovarian Mass")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	M		\$Laterality
4	>	CONTAINS	INCLUDE	DTID 99028 "Mass Measurement Group"	1-n	U		

Table B.0-195: TID 99026 Bladder SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	CONTAINS	Container	DT(99813-0, 99GEK, "Bladder")	1	M		
3	>>	CONTAINS	INCLUDE	DTID 5016 "LWH Volume Group"	1	U		\$GroupName = EV (99813-0, 99GEK, "Bladder") \$Width =EV (99813-3,99GEK, "Bladder Width") \$Length =EV (99813-2,99GEK, "Bladder Length") \$Height =EV (99813-4,99GEK, "Bladder Height") \$Volume=EV (99813-1,99GEK, "Bladder Volume")

Table B.0-196: TID 99027 CYST MEASUREMENT GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125007, DCM, "Measurement Group")	1	M		
2	>	HAS OBS CONTEXT	TEXT	EV(12510, DCM, "Identifier")	1	U		Unique among all groups of same laterality

Table B.0–196: TID 99027 CYST MEASUREMENT GROUP (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	U		\$Measurement = EV (G-D705, SRT, "Volume")
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = EV (99812-3, 99GEK, "Cyst Diameter") \$Derivation = DCID (3627) Measurement Type

Table B.0–197: TID 99028 MASS MEASUREMENT GROUP

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV(125007, DCM, "Measurement Group")	1	M		
2	>	HAS OBS CONTEXT	TEXT	EV(12510, DCM, "Identifier")	1	U		Unique among all groups of same laterality
3	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1	U		\$Measurement = EV (G-D705, SRT, "Volume")
4	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = EV (99812-4, 99GEK, "Mass Diameter") \$Derivation = DCID (3627) Measurement Type

Table B.0–198: TID 99029 Fetal Anatomy Findings

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CODE	EV(99700-0, 99GEK, "Fetal Anatomy Findings")	1	M		
2	>	HAS PROPERTIES	CODE	DCID 99115 "Fetal Anatomy Item"	1-n	U		DCID 99116 Fetal Anatomy Normality Codes
3	>	HAS PROPERTIES	TEXT	DCID 99117 "Fetal Anatomy Item Detail"	1-n	U		

Table B.0-199: TID 99030 IOTA Simple Rules Findings

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99810-20, 99GEK, "Fetal Anatomy")	1	M		
2	>	CONTAINS	CODE	EV(99810-22, 99GEK, "IOTA Simple Rules Findings")	1	M		
3	>>	HAS PROPERTIES	CODE	DCID 99118 "IOTA SR Item"	1-n	U		DCID 99119 IOTA SR Codes
3	>	HAS PROPERTIES	TEXT	DCID 99118 "IOTA SR Item"	1-n	U		

Table B.0-200: TID 99031 Fetus Z-Score Calculations SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99928-0, 99GEK, "Fetus Z-Score Calculations")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	NUM	DCID 99120 " Fetus Z-Score Calculations"	1-n	M		
4	>>	R-INFERRED FROM	NUM	DCID 228 "Equation or Table"	1	U		DCID (99121) Z-Score Equations

Table B.0-201: TID 99032 User Defined Measurements OB Biometry SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99999-1, 99GEK, "User Defined Measurements OB Biometry")	1	M		
2	>	HAS OBS CONTEXT	INCLUDE	DTID 1008 "Subject Context, Fetus"	1	MC	IF this template is invoked more than once to describe more than one fetus	
3	>	CONTAINS	NUM	DTID 5008 "Fetal Biometry Group"	1-n	M		\$BiometryType = MemberOf DCID (99122) User Defined Measurements

Table B.0-202: TID 99033 User Defined Measurements SECTION

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99999-0, 99GEK, "User Defined Measurements")	1	M		

Table B.0-202: TID 99033 User Defined Measurements SECTION (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	NUM	DT(99999-2, 99GEK, "User Defined Measurement Group")	1-n	M		\$BiometryType = MemberOf DCID (99122) User Defined Measurements
3	>>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	U		\$Measurement = DCID (99122) User Defined Measurements \$Derivation = DCID (3627) Measurement Type

Table B.0-203: TID 99034 Gyn Findings

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(99703-1, 99GEK, "Findings")	1	M		
	>	HAS PROPERTIES	CODE	DCID 99123 "Gyn Findings Item"	1-n	U		DCID 99124 Gyn Findings Normality Codes
	>	HAS PROPERTIES	TEXT	DCID 99125 "Gyn Findings Item Details"	1-n	U		

Table B.0-204: TID 99100 Doppler Group

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DTID 99100 "Doppler Group"	1-n	M		
2	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	M		\$Measurement = \$MeasType

Table B.0-205: TID 99101 Voluson Ultrasound Graft Section

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	DT(121070, DCM, "Findings")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV(G-C0E3, SRT, "Finding Site")	1	M		DT (T-D000F, SRT, "Vascular Graft")
3	>	HAS CONCEPT MOD	CODE	EV(G-C171, SRT, "Laterality")	1	U		DCID(244) Laterality



Table B.0–205: TID 99101 Voluson Ultrasound Graft Section (continued)

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
4	>	HAS CONCEPT MOD	CODE	EV(G-A1F8, SRT, "Topographical Modifier")	1	U		DCID (12116) Vessel Segment Modifiers
5	>	CONTAINS	INCLUDE	DTID 300 "Measurement"	1-n	M		\$Measurement = DCID (12119) Vascular Ultrasound Property