DICOM Conformance Statement

AI-Rad Companion Chest CT VB10x

August 2025

SIEMENS Healthineers

DICOM Conformance Statement

AI-Rad Companion Chest CT is a cloud-based/on-premises(edge) application, which communicates indirectly with other DICOM nodes since it makes use of the network services provided by teamplay DICOM Hub.

AI-Rad Companion Chest CT:

- Receives the input DICOM data from teamplay DICOM Hub after a storage request to teamplay Receiver using the configurable AET (E.g., "AIRC").
- Displays images to a user (browser-based viewer application).
- Generate result objects CT Image, Comprehensive SR and Secondary Capture Image.
- Stores result DICOM data via teamplay DICOM Hub and teamplay Receiver to one or several target DICOM nodes configured in teamplay DICOM Hub. AI-Rad Companion Chest CT conforms to the DICOM Standard [2] and supports a subset of the storage SOP classes supported by teamplay DICOM Hub, as described in **Table 1: Storage SOP Classes.**

AI-Rad Companion Chest CT conforms to the DICOM Standard [2] and supports a subset of the storage SOP classes supported by teamplay DICOM Hub, as described in Table 1- Network Services.

Please refer to the DICOM Conformance Statements of teamplay DICOM Hub [1] for further information on the provided network services.

NOTE: This DICOM Conformance Statement is applicable for **AI-Rad Companion Chest CT** of version VB10x and later until superseded by a more recent document applicable to a more recent version.

Table 1: Storage SOP Classes

SOP Classes	SOP Class UID	User of Service (SCU)		Provider of Service (SCP)	
SOP Classes created by AI-Rad Companion Chest CT					
		Create	**Send**	**Store**	**Display**
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Yes	No[1]	No[1]	Yes
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	Yes	No[1]	No[1]	No
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	No[1]	No[1]	No
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	Yes	No[1]	No[1]	No
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	Yes	No[1]	No[1]	No
SOP Classes managed by AI-Rad Companion Chest CT					
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	No	No[1]	No[1]	Yes

[1] Network communication is performed by teamplay DICOM hub[1] and teamplay receiver. Please refer to the DICOM Conformance Statements of teamplay DICOM Hub for further information.

Table 2: Media Services

Media Storage Application Profile	Write Files (FSC or FSU)	Read Files (FSR)
NOT APPLICABLE		

Table 3: Implementation Identifying Information

Name	Value
Implementation Class UID	1.3.12.2.1107.5.8.21
Implementation Version Name	AI-Rad Companion

1 Introduction

1.1 Revision History

Version	Date	Change
R1.0	**01/08/2025**	First version for VB10A. Added new IOD: Encapsulated PDF storage, Grayscale Softcopy Presentation State Storage New private codes added in table 68 Updated Table 60 with codes used.

1.2 Audience

This document is intended for the audience listed below. It is assumed that the reader has a working knowledge of the DICOM Standard. The document structure was designed for easier access to relevant information for different user groups:
List of audience shall be hospital staff, health system integrators, software designers or implementers.

1.3 Remarks

The scope of this DICOM Conformance Statement is to facilitate integration between **AI-Rad Companion Chest CT** and other DICOM products. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [2]. DICOM by itself does not guarantee interoperability.
The Conformance Statement does, however, facilitate a first-level comparison for interoperability between different applications supporting compatible DICOM functionality.
This Conformance Statement is not supposed to replace validation with other DICOM equipment to ensure proper exchange of intended information. In fact, the user should be aware of the following important issues:

- The comparison of conformance statements is the first step towards assessing interconnectivity and interoperability between **AI-Rad Companion Chest CT** and other DICOM conformant equipment.
- Test procedures should be defined and executed to validate the required level of interoperability with specific compatible DICOM equipment, as established by the healthcare facility. Siemens Healthineers reserves the right to modify the design and specifications contained herein without prior notice. Please contact your local Siemens Healthineers representative for the most recent product information.

1.4 Definitions, Terms and Abbreviations

Definitions, terms, and abbreviations used in this document are defined within the different parts of the DICOM standard.
Additional Abbreviations are as follows:

AE	DICOM Application Entity
AET	Application Entity Title
ASCII	American Standard Code for Information Interchange
DCS	DICOM Conformance Statement
DICOM	Digital Imaging and Communications in Medicine
FSC	File Set Creator
FSR	File Set Reader
FSU	File Set Updater

GSDF	Grayscale Standard Display Function
IOD	DICOM Information Object Definition
ISO	International Standard Organization
n. a.	not applicable
NEMA	National Electrical Manufacturers Association
O	Optional Key Attribute
PDU	DICOM Protocol Data Unit
R	Required Key Attribute
SCU	DICOM Service Class User
SCP	DICOM Service Class Provider
SOP	DICOM Service-Object Pair
SR	Structured Report
TFT	Thin Film Transistor (Display)
TID	Template ID
U	Unique Key Attribute
UID	Unique Identifier
UTF-8	Unicode Transformation Format-8
VR	Value Representation

1.5 References

[1] DICOM Conformance Statements of teamplay DICOM Hub – https://www.siemens-healthineers.com/en-in/services/it-standards/dicom-conformance-statements-digital-and-automation/teamplay
[2] NEMA PS3 / ISO 12052, Digital Imaging and Communications in Medicine (DICOM) Standard, National Electrical Manufacturers Association, Rosslyn, VA, USA (available free at https://www.dicomstandard.org/)
[3] AI-Rad Companion Data Privacy and Security White Paper – Based on on-demand request from the end users.

2 Networking

Please refer to the latest version of DICOM Conformance Statement of teamplay DICOM Hub[1] for further information on the provided networking capabilities for AI-Rad Companion Chest CT.

AI-Rad Companion Chest CT only supports subset of transfer syntaxes supported by teamplay and the following table lists the supported transfer syntaxes.

Table 4: Supported Image Encoding

Abstract Syntax		Transfer Syntax	
SOP Classes	**SOP Class UID**	**Name List**	**UID List**
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2
		Explicit VR Little Endian	1.2.840.10008.1.2.1
		Deflated Explicit VR Little Endian	1.2.840.10008.1.2.1.99
		Explicit VR Big Endian (Retired)	1.2.840.10008.1.2.2
		JPEG Lossless, Non-Hierarchical, First-Order Prediction(Process 14 [Selection Value 1]): Default Transfer Syntax for Lossless JPEG Image Compression	1.2.840.10008.1.2.4.70
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
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	Explicit VR Little Endian	1.2.840.10008.1.2.1
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	Explicit VR Little Endian	1.2.840.10008.1.2.1
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	Explicit VR Little Endian	1.2.840.10008.1.2.1

2.1 Configuration

Not Applicable

3 Media Interchange

Please refer to the latest version of DICOM Conformance Statements of teamplay DICOM Hub [1] for further information on the provided Media Interchange for AI-Rad Companion Chest CT.

4 Transformations of DICOM to CDA

NOT APPLICABLE

5 Support of Extended Character Sets

AI-Rad Companion Chest CT supports the following character sets as defined in the tables in this section.

Table 5: Single-Byte Character Sets without Code Extension

Character Set Description	Defined Term	ISO Registration Number	Character Set
Default repertoire	None	ISO_IR 6	ISO 646
Latin alphabet No. 1	ISO_IR 100	ISO_IR 100	Supplementary set
		ISO_IR 6	ISO 646
Latin alphabet No. 2	ISO_IR 101	ISO_IR 101	Supplementary set
		ISO_IR 6	ISO 646
Latin alphabet No. 3	ISO_IR 109	ISO_IR 109	Supplementary set
		ISO_IR 6	ISO 646
Latin alphabet No. 4	ISO_IR 110	ISO_IR 110	Supplementary set
		ISO_IR 6	ISO 646
Latin alphabet No. 5	ISO_IR 148	ISO_IR 148	Supplementary set
		ISO_IR 6	ISO 646
Cyrillic	ISO_IR 144	ISO_IR 6	Supplementary set
		ISO_IR 6	ISO 646
Arabic	ISO_IR 127	ISO_IR 127	Supplementary set
		ISO_IR 6	ISO 646
Greek	ISO_IR 126	ISO_IR 126	Supplementary set
		ISO_IR 6	ISO 646
Hebrew	ISO_IR 138	ISO_IR 138	Supplementary set
		ISO_IR 6	ISO 646
Japanese	ISO_IR 13	ISO_IR 13	JIS X 0201: Katakana
		ISO_IR 14	JIS X 0201: Romaji
Thai	ISO_IR 166	ISO_IR 166	TIS 620-253 (1990)
		ISO_IR 6	ISO 646

Table 6: Single-Byte Characters Sets with Code Extension

Character Set Description	Defined Term	Standard for Code Extension	ESC sequence	ISO Registration Number	Character Set
Default repertoire	ISO 2022 IR 6	ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No.1	ISO 2022 IR 100	ISO 2022	ESC 02/13 04/01	ISO-IR 100	Supplementary set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No.2	ISO 2022 IR 101	ISO 2022	ESC 02/13 04/02	ISO-IR 101	Supplementary set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No.3	ISO 2022 IR 109	ISO 2022	ESC 02/13 04/03	ISO-IR 109	Supplementary set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No. 4	ISO 2022 IR 110	ISO 2022	ESC 02/13 04/04	ISO-IR 110	Supplementary set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No. 5	ISO 2022 IR 148	ISO 2022	ESC 02/13 04/13	ISO-IR 148	Supplementary set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646

Table 7: Multi-Byte Character Sets without Code Extension

Character Set Description	Defined Term	ISO Registration Number	Character Set
Unicode	ISO_IR 192	ISO 10646	Unicode in UTF-8
Chinese	GB18030	GB18030	GB 18030-2000 (China Association for Standardization)

Table 8: Multi-Byte Character Sets with Code Extension

Character Set Description	Defined Term	Standard for Code Extension	ESC sequence	ISO Registration Number	Character Set
Japanese	ISO 2022 IR 159	ISO 2022	ESC 02/04 02/08 04/04	ISO-IR 159	JIS X 0212: Supplementary Kanji set
Korean	ISO 2022 IR 149	ISO 2022	ESC 02/04 02/09 04/03	ISO-IR 149	KS X 1001: Hangul and Hanja

All SCS (Special Character Sets) listed above are supported for incoming Data.

Three categories of character sets have to be differentiated because of their different encoding formats:

- Conventional ISO character sets: ISO_IR 6, ISO 2022 IR 6, ISO_IR 100, etc. → Encoded in ISO 2022
- ISO_IR 192 → Encoded in UTF-8
- GB18030 → Encoded in GB18030

It is not possible to recognize the following mismatches automatically on receiving or importing:

- An attribute value is encoded in ISO_IR 192 ← → (0008,0005) contains a conventional ISO character set as primary character set
- An attribute value is encoded in GB18030 ← → (0008,0005) contains a conventional ISO character set as primary character set
- An attribute value is encoded in ISO 2022 ← → (0008,0005) contains ISO_IR 192
- An attribute value is encoded in ISO 2022 ← → (0008,0005) contains GB18030

An IOD that contains one of the above-mentioned inconsistencies does not conform to DICOM. As these kinds of inconsistencies cannot be recognized by the system, the IOD will not be rejected but the character data might be corrupted.

AI-Rad Companion Chest CT supports Kanji characters in the byte zone after 74 (79, 7A, 7B and 7C).

6 Attribute confidentiality profiles

6.1 De-identification

Please refer to the AI-Rad Companion Data Privacy and Security White Paper [3] for further information on the support of de-identification of attributes natively for AI-Rad Companion Cloud deployment. In case of edge (on-premises) deployment, no de-identification happens from teamplay.

7 Security

7.1 Security Profiles

AI-Rad Companion Chest CT does not support any specific security measures.

7.2 Association Level Security

Not Applicable

7.3 Application Level Security

Not applicable

8 Annexes

The tables in these section uses a number of abbreviations.

The abbreviations used in the “Presence” column are:

VNAP	Value is Not Always Present. Attribute is sent zero length if no value is present.
ANAP	Attribute Not Always Present.
ALWAYS	Attribute and Value are always present.
EMPTY	Attribute is sent zero length.

The abbreviations used in the “Source” Column are:

MWL	The attribute value is copied from Modality Worklist.
USER	The attribute value is entered by the user.
AUTO	The attribute value is generated by the system.
CONFIG	The attribute value is obtained by configuration
COPY	The attribute value is copied from the source image

8.1 IOD Contents

8.1.1 Created SOP Instances

8.1.1.1 Comprehensive SR IOD

Table 9: Comprehensive SR IOD Modules

Information Entity	Module	Reference	Presence of Module
Patient	Patient	Table 10	ALWAYS
Study	General Study	Table 11	ALWAYS
	Patient Study	Table 12	ALWAYS
Series	SR Document Series	Table 13	ALWAYS
Equipment	General Equipment	Table 14	ALWAYS
Document	SR Document General	Table 15	ALWAYS
	SR Document Content	Table 16	ALWAYS
	SOP Common	Table 17	ALWAYS

Table 10 lists all Attributes that are supported in the Patient Module.

Table 10: Patient Module

Attribute	Tag	Source	Value	Presence	Comments
Patient`s Name	(0010,0010)	COPY	Copied from source image	VNAP	
Patient ID	(0010,0020)	COPY	Copied from source image	VNAP	
Patient`s Birth Date	(0010,0030)	COPY	Copied from source image	VNAP	
Patient`s Sex	(0010,0040)	COPY	Copied from source image	VNAP	
Issuer of Patient ID	(0010, 0021)	COPY	Copied from source image	ANAP	

Table 11 list all Attributes that are supported in the General Study Module

Table 11: General Study Module

Attribute	Tag	Source	Value	Presence	Comments
Study Instance UID	(0020,000D)	AUTO	Copied from source image	ALWAYS	
Study Date	(0008,0020)	AUTO	Copied from source image	ALWAYS	
Study Time	(0008,0030)	AUTO	Copied from source image	VNAP	
Referring Physician's Name	(0008,0090)	AUTO	Copied from source image	VNAP	
Study ID	(0020,0010)	AUTO	Copied from source image	ALWAYS	
Accession Number	(0008,0050)	AUTO	Copied from source image	VNAP	
Study Description	(0008,1030)	AUTO	Copied from source image	ANAP	

Table 12 lists all Attributes that are supported in the Patient Study Module

Table 12: Patient Study Module

Attribute	Tag	Source	Value	Presence	Comments
Patient`s Age	(0010,1010)	COPY	Copied from source image	ANAP	

Table 13 lists all Attributes that are supported in the SR Document Series Module

Table 13: SR Document Series Module

Attribute	Tag	Source	Value	Presence	Comments
Modality	(0008, 0060)	AUTO	SR	ALWAYS	
Series Instance UID	(0020, 000E)	AUTO	Unique identifier of the Series	ALWAYS	
Series Number	(0020, 0011)	AUTO	1999	ALWAYS	
Series Date	(0008,0021)	AUTO	Date the Series started.	ALWAYS	
Series Time	(0008,0031)	AUTO	Time the Series started.	ALWAYS	
Protocol Name	(0018, 1030)	AUTO	Copied from source image	ALWAYS	
Series Description	(0018, 103E)	AUTO	AIRC Chest CT - Structured Report	ALWAYS	
Referenced Performed Procedure Step Sequence	(0008,1111)	AUTO		EMPTY	

Table 14 lists all Attributes that are supported in the General Equipment Module

Table 14: General Equipment Module

Attribute	Tag	Source	Value	Presence	Comments
Manufacturer	(0008,0070)	AUTO	Siemens Healthineers	ALWAYS	
Manufacturer's Model Name	(0008,1090)	AUTO	AI-Rad Companion Chest CT	ALWAYS	
Device Serial Number	(0018,1000)	AUTO	9999	ANAP	
Software Versions	(0018,1020)	AUTO	Value can be one of the following: CHESTCT VXXXX where XXXX indicates the used version of AI-Rad Companion Chest CT. For Example: - For AI Rad Companion Chest CT version VB10A the value is CHESTCT VB10A	ALWAYS	

Table 15 lists all Attributes that are supported in the SR Documents General Module

Table 15: SR Document General Module

Attribute	Tag	Source	Value	Presence	Comments
Instance Number	(0020,0013)	AUTO	Unique identifier	ALWAYS	
Verification Flag	(0040, A493)	AUTO	UNVERIFIED	ALWAYS	
Completion Flag	(0040, A491)	AUTO	COMPLETE	ALWAYS	
Content Date	(0008,0023)	AUTO	The date the document content creation started.	ALWAYS	
Content Time	(0008,0033)	AUTO	The time the document content creation started.	ALWAYS	
Performed Procedure Code Sequence	(0040,A372)	AUTO		ALWAYS	
> Code Value	(0008,0100)	AUTO	24627-2	ALWAYS	
> Coding Scheme Designator	(0008,0102)	AUTO	LN	ALWAYS	LOINC code
> Coding Scheme Version	(0008,0103)	AUTO	CT Chest	ALWAYS	
Current Requested Procedure Evidence Sequence	(0040,A375)	AUTO		ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
> Study Instance UID	(0020,000D)	AUTO	Study instance UID of the referenced study	ALWAYS	
> Referenced Series Sequence	(0008,1115)	AUTO		ALWAYS	
>> Series Instance UID	(0020,000E)	AUTO	Series instance UID of the referenced series	ALWAYS	
>> Referenced SOP Sequence	(0008,1199)	AUTO		ALWAYS	
>>> Referenced SOP Class UID	(0008,1150)	AUTO	SOP Class UID of the referenced Instance	ALWAYS	
>>> Referenced SOP Instance UID	(0008,1155)	AUTO	SOP Instance UID of the referenced Instance	ALWAYS	

Table 16 lists all Attributes that are supported in the SR Document Content Module

Table 16: SR Document Content Module

Attribute	Tag	Source	Value	Presence	Comments
Value Type	(0040,A040)	AUTO	CONTAINER	ALWAYS	
Concept Name Code Sequence	(0040,A043)	AUTO		ALWAYS	
> Code Value	(0008,0100)	AUTO	126000	ALWAYS	
> Coding Scheme Designator	(0008,0102)	AUTO	DCM	ALWAYS	
> Code Meaning	(0008,0104)	AUTO	Imaging Measurement Report	ALWAYS	
Content Sequence	(0040,A730)	AUTO		ALWAYS	

Refer to **Table 54** for details regarding SR document content module.

Table 17 lists all Attributes that are supported in the SOP Common Module

Table 17: SOP Common Module

Attribute	Tag	Source	Value	Presence	Comments
Specific Character Set	(0008,0005)	AUTO	ISO_IR 192	ALWAYS	
Instance Creation Date	(0008,0012)	AUTO	Date when series is created	ALWAYS	
Instance Creation Time	(0008,0013)	AUTO	Time when series is created	ALWAYS	
SOP Class UID	(0008,0016)	AUTO	SOP Class UID of the respective DICOM Object	ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
SOP Instance UID	(0008,0018)	AUTO	Unique Identifier of the instance	ALWAYS	
Original Specialized SOP Class UID	(0008,001B)	AUTO	1.3.12.2.1107.5.99.3.10	ANAP	
Timezone Offset from UTC	(0008,0201)	AUTO	Copied from the original image. If not present, then it is +0000	ALWAYS	
Contributing Equipment Sequence	(0018,A001)	AUTO		ALWAYS	
> Manufacturer	(0008,0070)	AUTO	The value can be either of the following: Siemens Healthineers SIEMENS	ALWAYS	
> Manufacturer Model Name	(0008,1090)	AUTO	AI-Rad Companion Chest CT	ALWAYS	
> Software Versions	(0018,1020)	AUTO	The value can be either of the following: CHESTCT VXXXX Where XXXX is the version number. For Example: - For AI Rad Companion Chest CT version VB10A the value is CHESTCT VB10A.	ALWAYS	
> Purpose Of Reference Code Sequence	(0040,A170)	AUTO		ALWAYS	
>> Code Value	(0008,0100)	AUTO	Newcode1	ALWAYS	
>> Coding Scheme Designator	(0008,0102)	AUTO	99SHSAIRC	ALWAYS	
>> Code Meaning	(0008,0104)	AUTO	Processing Algorithm	ALWAYS	
Instance Number	(0020,0013)	AUTO	A number that identifies this Composite object instance.	ALWAYS	

8.1.1.2 Secondary Capture Image Storage

Table 18: Secondary Capture IOD Modules

Information Entity	Module	Reference	Presence of Module
Patient	Patient	Table 10	ALWAYS
Study	General Study	Table 11	ALWAYS
	Patient Study	Table 12	ALWAYS
Series	General Series	Table 19	ALWAYS
Equipment	General Equipment	Table 14	ALWAYS
	SC Equipment	Table 20	ALWAYS
Image	General Image	Table 21	ALWAYS

	Image Pixel	Table 22	ALWAYS
	SC Image	Table 23	ALWAYS
	SOP Common	Table 17	ALWAYS

Table 19 lists all Attributes that are supported in the General Series Module

Table 19: General Series Modules

Attribute	Tag	Source	Value	Presence	Comments
Modality	(0008,0060)	AUTO	CT	ALWAYS	
Series Instance UID	(0020,000E)	AUTO	Unique identifier of the series.	ALWAYS	
Series Number	(0020,0011)	AUTO	AIRC Chest CT Results - 2000 AIRC Chest CT - Pulmonary Lesion - 2010 AIRC Chest CT - Pulmonary Lesions Current Time Point - 2010 AIRC Chest CT Pulmonary Lesions Prior Time Point - 2011 AIRC Chest CT Pulmonary Lesions Overview - 2019 AIRC Chest CT Pulmonary Parenchyma - 2020 AIRC Chest CT Pulmonary Parenchyma Overview - 2021 AIRC Chest CT - Pulmonary Density - 2022 AIRC Chest CT - Pulmonary Density Overview - 2023 AIRC Chest CT - Musculoskeletal Spine - 2030 AIRC Chest CT - Musculoskeletal Overview – 2031 AIRC Chest CT - Musculoskeletal Ribfractures - 2050 AIRC Chest CT - Cardiovascular Aorta - 2040 AIRC Chest CT - Cardiovascular Aorta Overview - 2041 AIRC Chest CT - Cardiovascular Heart - 2042 AIRC Chest CT - Cardiovascular Heart Overview - 2043 AIRC Chest CT - Structured Report – 1999 AIRC Chest CT - Encapsulated Pdf - 2001 AIRC Chest CT – Overlay - 2012	ALWAYS	
Series Date	(0008,0021)	AUTO	Date when series is created	ALWAYS	
Series Time	(0008,0031)	AUTO	Time when series is created	ALWAYS	
Series Description	(0008,103E)	AUTO	Values can be one of the below: AIRC Chest CT - Cardiovascular Aorta AIRC Chest CT - Cardiovascular Aorta Overview AIRC Chest CT - Cardiovascular Heart AIRC Chest CT - Cardiovascular Heart Overview AIRC Chest CT - Musculoskeletal Spine AIRC Chest CT - Musculoskeletal Ribfractures AIRC Chest CT - Musculoskeletal Overview AIRC Chest CT - Pulmonary Density AIRC Chest CT - Pulmonary Density Overview AIRC Chest CT - Pulmonary Lesion AIRC Chest CT - Pulmonary Lesions	ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
			AIRC Chest CT - Pulmonary Lesions Current Time Point AIRC Chest CT - Pulmonary Lesions Prior Time Point AIRC Chest CT - Pulmonary Lesions Overview AIRC Chest CT - Pulmonary Parenchyma AIRC Chest CT - Pulmonary Parenchyma Overview AIRC Chest CT - Structured Report AIRC Chest CT - Results AIRC Chest CT - Encapsulated Pdf AIRC Chest CT – Overlay AIRC Chest CT - Overlay Current Time Point AIRC Chest CT - Overlay Prior Time Point		
Patient Position	(0018,5100)	AUTO	Copied from input image	VNAP	
Body Part Examined	(0018,0015)	AUTO	CHEST	ALWAYS	

Table 20 lists all Attributes that are supported in the SC Equipment Module

Table 20: SC Equipment Modules

Attribute	Tag	Source	Value	Presence	Comments
Conversion Type	(0008,0064)	AUTO	WSD	ALWAYS	Synthetic Image
Secondary Capture Device ID	(0018,1010)	AUTO	AI-Rad Companion	VNAP	
Secondary Capture Device Manufacturer	(0018,1016)	AUTO	Siemens Healthineers	VNAP	
Secondary Capture Device Software Versions	(0018,1019)	AUTO	The value can be either of the following: CHESTCT VBXXX Where XXX is the version number. For Example: - For AI Rad Companion Chest CT version VB10A the value is CHESTCT VB10A.	VNAP	

Table 21 lists all Attributes that are supported in the General Image Module

Table 21: General Image Modules

Attribute	Tag	Source	Value	Presence	Comments
Instance Number	(0020,0013)	AUTO	A number that identifies this image.	ALWAYS	
Patient Orientation	(0020,0020)	AUTO	Copied from input image	ANAP	
Content Date	(0008, 0023)	AUTO	Date when series is created	ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
Content Time	(0008,0033)	AUTO	Time when series is created	ALWAYS	
Image Type	(0008,0008)	AUTO	Value can be any of the following: In case of secondary capture series value will be: DERIVED\SECONDARY\0\RESULT In case of CT image storage series value will be: DERIVED\SECONDARY\AXIAL\MPR THICK In case of VRT Results and MPR series value will be: DERIVED\SECONDARY\0\CVRT	ALWAYS	
Image Comments	(0020,4000)	AUTO	auto-created	ALWAYS	

Table 22 lists all Attributes that are supported in the Image Pixel Module

Table 22: Image Pixel Modules

Attribute	Tag	Source	Value	Presence	Comments
Samples per Pixel	(0028,0002)	AUTO	Value can be: • 3 – in case of burnt-in graphics, reports • 1 – in case of overlay graphics	ALWAYS	
Photometric Interpretation	(0028,0004)	AUTO	Copied from input image	ALWAYS	
Planar Configuration	(0028,0006)	AUTO	0	ALWAYS	
Rows	(0028,0010)	AUTO	Value can be: • 1024 – in case of reports • 512 – in case of MPR and VRT results	ALWAYS	
Columns	(0028,0011)	AUTO	Value can be: • 1024 – in case of reports • 512 – in case of MPR and VRT results	ALWAYS	
Bits Allocated	(0028,0100)	AUTO	Value can be: • 8 – in case of burnt-in graphics, reports • 16 – in case of overlay graphics	ALWAYS	
Bits Stored	(0028,0101)	AUTO	Value can be: • 8 – in case of burnt-in graphics, reports	ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
			• 16 – in case of overlay graphics		
High Bit	(0028,0102)	AUTO	Value can be: • 7 – in case of burnt-in graphics, reports • 15 – in case of overlay graphics	ALWAYS	
Pixel Representation	(0028,0103)	AUTO	0	ALWAYS	
Pixel Data	(7FE0,0010)	AUTO	A data stream of the pixel samples that comprise the Image	ALWAYS	

Table 23 lists all Attributes that are supported in the SC Image Module

Table 23: SC Image Modules

Attribute	Tag	Source	Value	Presence	Comments
Date of Secondary Capture	(0018,1012)	AUTO	The date the Secondary Capture Image was captured.	ALWAYS	
Time of Secondary Capture	(0018,1014)	AUTO	The time the Secondary Capture Image was captured.	ALWAYS	
Pixel Spacing	(0028,0030)	AUTO	Copied from input image	ALWAYS	

8.1.1.3 CT Image Storage

Table 24: CT Image Storage IOD Modules

Information Entity	Module	Reference	Presence of Module
Patient	Patient	Table 10	ALWAYS
Study	General Study	Table 11	ALWAYS
	Patient Study	Table 12	ALWAYS
Series	General Series	Table *19*	ALWAYS
Frame of Reference	Frame of Reference	Table 26	ALWAYS
Equipment	General Equipment	Table *14*	ALWAYS
Image	General Image	Table 21	ALWAYS
	General Reference	Table 25	ALWAYS
	Image Plane	Table 27	ALWAYS
	Image Pixel	Table 22	ALWAYS
	CT Image	Table 28	ALWAYS
	SOP Common	Table 17	ALWAYS

Table *25* lists all Attributes that are supported in the General Reference Module

Table 25: General Reference Modules

Attribute	Tag	Source	Value	Presence	Comments
Derivation Description	(0008,2111)	AUTO	Secondary Capture	ALWAYS	
Derivation Code Sequence	(0008,9215)	AUTO		ANAP	Root node
>> Code Value	(0008,0100)	AUTO	Identifier of the coded entry	ANAP	
>> Coding Scheme Designator	(0008,0102)	AUTO	DCM	ANAP	
>> Coding Scheme Version	(0008,0103)	AUTO	1.0	ANAP	
>> Code Meaning	(0008,0104)	AUTO	Volume rendering	ANAP	

Table 26 lists all the attributes of Frame of Reference Module

Table 26: Frame of Reference Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Frame of Reference UID	(0020,0052)	AUTO	Copied from source image	ALWAYS	
Position Reference Indicator	(0020,1040)	AUTO	Copied from source image	ALWAYS	

Table 27 lists all the attributes of Image Plane module

Table 27: Image Plane Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Pixel Spacing	(0028,0030)	AUTO	Copied from source image	ALWAYS	
Image Orientation (Patient)	(0020,0037)	AUTO	Copied from source image	ALWAYS	
Image Position (Patient)	(0020,0032)	AUTO	Copied from source image	ALWAYS	

Table 28 lists all the attributes of CT Image module

Table 28: CT Image Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Image Type	(0008,0008)	AUTO	The value can be any one of the below based on the output image type: DERIVED\SECONDARY\AXIAL\ MPR THICK	ALWAYS	
Samples per Pixel	(0028,0002)	AUTO	1	ALWAYS	
Photometric Interpretation	(0028,0004)	AUTO	MONOCHROME2	ALWAYS	
Bits Allocated	(0028,0100)	AUTO	16	ALWAYS	
Rescale Intercept	(0028,1052)	AUTO	-1024	ALWAYS	
Rescale Slope	(0028,1053)	AUTO	Copied from source image	ALWAYS	
Rescale Type	(0028,1054)	AUTO	Copied from source image	ANAP	
KVP	(0018,0060)	AUTO	120	VNAP	
Acquisition Number	(0020,0012)	AUTO	Copied from source image	ALWAYS	
Reconstruction Diameter	(0018,1100)	AUTO	Copied from source image	ANAP	

Attribute	Tag	Source	Value	Presence	Comments
Distance Source To Detector	(0018,1110)	AUTO	Copied from source image	ANAP	
Distance Source To Patient	(0018,1111)	AUTO	Copied from source image	ANAP	
Gantry Detector Tilt	(0018,1120)	AUTO	Copied from source image	ANAP	
Table Height	(0018,1130)	AUTO	Copied from source image	ANAP	
Rotation Direction	(0018,1140)	AUTO	Copied from source image	ANAP	
Exposure Time	(0018,1150)	AUTO	Copied from source image	ANAP	
Filter Type	(0018,1160)	AUTO	Copied from source image	ANAP	
Generator Power	(0018,1170)	AUTO	Copied from source image	ANAP	
Focal Spots	(0018,1190)	AUTO	Copied from source image	ANAP	
Convolution Kernel	(0018,1210)	AUTO	Copied from source image	ANAP	

8.1.1.4 Encapsulated PDF Storage

Table 29: Encapsulated PDF Storage IOD Modules

Information Entity	Module	Reference	Presence of Module
Patient	Patient	Table 10	ALWAYS
Study	General Study	Table 11	ALWAYS
	Patient Study	Table *12*	ALWAYS
Series	Encapsulated Document Series	*Table 30*	ALWAYS
Equipment	General Equipment	Table *14*	ALWAYS
	SC Equipment	Table *20*	ALWAYS
Encapsulated Document	Encapsulated Document	Table 31	ALWAYS
	SOP Common	Table *17*	ALWAYS

Table 30: Encapsulated Document Series Modules

Attribute	Tag	Source	Value	Presence	Comments
Modality	(0008,0060)	AUTO	DOC	ALWAYS	Document Type

Attribute	Tag	Source	Value	Presence	Comments
Series Instance UID	(0020,000E)	AUTO	Unique identifier of the Series.	ALWAYS	
Series Number	(0020,0011)	AUTO	2001	ALWAYS	
Series Date	(0008,0021)	AUTO	Date when series is created	ALWAYS	
Series Time	(0008,0031)	AUTO	Time when series is created	ALWAYS	
Series Description	(0008,103E)	AUTO	Description of the series	ANAP	

Table 31: Encapsulated Document Modules

Attribute	Tag	Source	Value	Presence	Comments
Instance Number	(0020,0013)	AUTO		ALWAYS	
Content Date	(0008,0023)	AUTO	The date on which the document is generated	ALWAYS	
Content Time	(0008,0033)	AUTO	The time on which the document is generated	ALWAYS	
Acquisition DateTime	(0008,002A)	AUTO	The date and time on which the document is generated	ALWAYS	
Burned In Annotation	(0028,0301)	AUTO	YES	ALWAYS	
Document Title	(0042,0010)	AUTO	AIRC_ChestCT_PDFReport	EMPTY	
Concept Name Code Sequence	(0040,A043)	AUTO		EMPTY	
MIME Type of Encapsulated Document	(0042,0012)	AUTO	application/pdf	ALWAYS	
Encapsulated Document	(0042,0011)	AUTO	The encapsulated document stream (PDF file)	ALWAYS	
Source Instance Sequence	(0042,0013)	AUTO	Sequence referencing source instances	VNAP	

8.1.1.5 Grayscale Softcopy Presentation State Storage

Table 32: Grayscale Softcopy Presentation State IOD Modules

Information Entity	Module	Reference	Presence of Module
Patient	Patient Module	Table 10	ALWAYS
Study	General Study Module	Table 11	ALWAYS
	Patient Study Module	Table *12*	ALWAYS
Series	General Series	Table *19*	ALWAYS
	Presentation Series	Table 33	ALWAYS

Equipment	General Equipment	Table *14*	ALWAYS
Presentation State	Presentation State Identification	Table 34	ALWAYS
	Presentation State Relationship	Table 35	ALWAYS
	Displayed Area	Table 36	ALWAYS
	Graphic Annotation	Table 37	ALWAYS
	Graphic Layer	Table *38*	ALWAYS
	Softcopy Presentation LUT	*Table 39*	ALWAYS
	SOP Common	Table *17*	ALWAYS

Table 33: Presentation Series Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Modality	(0008,0060)	AUTO	PR	ALWAYS	

Table 34: Presentation State Identification

Attribute	Tag	Source	Value	Presence	Comments
Presentation Creation Date	(0070,0082)	AUTO	The date on which the DICOM object is generated	ALWAYS	
Presentation Creation Time	(0070,0083)	AUTO	The time on which the DICOM object is generated	ALWAYS	
Instance Number	(0020,0013)	AUTO	1	ALWAYS	
Content Label	(0070,0080)	AUTO	GSPS_CHESTCT	ALWAYS	
Content Description	(0070,0081)	AUTO	GSPS_CHESTCT	ALWAYS	
Content Creator's Name	(0070,0084)	AUTO	EMPTY	ALWAYS	

Table 35: Presentation State Relationship Macro Attributes

Attribute	Tag	Source	Value	Presence	Comments
Referenced Series Sequence	(0008,1115)	AUTO		ALWAYS	
>Series Instance UID	(0020,000E)	AUTO	Auto generated value based on the AIRC Root UID	ALWAYS	
>Referenced Image Sequence	(0008,1140)	AUTO		ALWAYS	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>> Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	

Table 36: Displayed Area Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Displayed Area Selection Sequence	(0070,005A)	AUTO		ALWAYS	
> Referenced Image Sequence	(0008,1140)	AUTO		ALWAYS	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>> Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>>Displayed Area Top Left Hand Corner	(0070,0052)	AUTO		ALWAYS	The top left (after spatial transformation) pixel in the referenced image to be displayed, given as column\row.
>>Displayed Area Bottom Right Hand Corner	(0070,0053)	AUTO		ALWAYS	The bottom right (after spatial transformation) pixel in the referenced image to be displayed, given as column\row.
>>Presentation Size Mode	(0070,0100)	AUTO	SCALE TO FIT	ALWAYS	
>>Presentation Pixel Spacing	(0070,0101)	AUTO	Physical distance between the center of each pixel in the referenced image (before spatial transformation), specified by a numeric pair - adjacent row spacing (delimiter) adjacent column spacing in mm.	ALWAYS	

Table 37: Graphic Annotation Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Graphic Annotation Sequence	(0070,0001)	AUTO		ALWAYS	
>Referenced Image Sequence	(0008,1140)	AUTO		ALWAYS	
>>Referenced SOP Class UID	(0008,1150)	AUTO		ALWAYS	
>> Referenced SOP Instance UID	(0008,1155)	AUTO		ALWAYS	
>Graphic Layer	(0070,0002)	AUTO	Value can be any one of the	ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
			below • CHEST -CT • Lx (where x is the lesion number)		
>Text Object Sequence	(0070,0008)	AUTO		ANAP	
>>Bounding Box Annotation Units	(0070,0003)	AUTO	PIXEL	ALWAYS	
>>Anchor Point Annotation Units	(0070,0004)	AUTO	PIXEL	ANAP	
>>Bounding Box Top Left Hand Corner	(0070,0010)	AUTO		ALWAYS	
>>Bounding Box Bottom Right Hand Corner	(0070,0011)	AUTO		ALWAYS	
>>Bounding Box Text Horizontal Justification	(0070,0012)	AUTO	CENTER	ALWAYS	
>>Anchor Point	(0070,0014)	AUTO		ANAP	
>>Anchor Point Visibility	(0070,0015)	AUTO	Y	ANAP	
>Graphic Object Sequence	(0070,0009)	AUTO		ANAP	
>>Graphic Annotation Units	(0070,0005)	AUTO	PIXEL	ALWAYS	
>>Graphic Dimensions	(0070,0020)	AUTO	2	ALWAYS	
>>Number of Graphic Points	(0070,0021)	AUTO		ALWAYS	
>>Graphic Data	(0070,0022)	AUTO		ALWAYS	
>>Graphic Type	(0070,0023)	AUTO	POLYLINE	ALWAYS	
>>Graphic Filled	(0070,0024)	AUTO	N	ALWAYS	

Table 38: Graphic Layer Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Graphic Layer Sequence	(0070,0060)	AUTO		ALWAYS	
>Graphic Layer	(0070,0002)	AUTO	Value can be any one of the below • CHEST -CT • Lx (where x is the lesion number)	ALWAYS	
>Graphic Layer Order	(0070,0062)	AUTO	Value can be any one of the below • CHEST -CT	ALWAYS	

Attribute	Tag	Source	Value	Presence	Comments
			• Lx (where x is the lesion number)		
>Graphic Layer Description	(0070,0068)	AUTO	Value can be any one of the below • CHEST -CT • Lx (where x is the lesion number)	ALWAYS	
>Graphic Layer Recommended Display CIELab Value	(0070,0401)				

Table 39: Softcopy Presentation LUT Module Attributes

Attribute	Tag	Source	Value	Presence	Comments
Presentation LUT Shape	(2050,0020)	AUTO	IDENTITY	ALWAYS	

8.1.2 Usage of Attributes from Received IODs

Not Applicable

8.1.3 Attribute Mapping

Not Applicable

8.1.4 Coerced/Modified Fields

Not Applicable

8.2 Data Dictionary of Private Attributes

Not Applicable

8.3 Coded Terminology and Templates

8.3.1 Context Groups

Table 40: CID 43. Numeric Value Failure Qualifier

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	114006	Measurement failure

Table 41: CID 270. Observer Type

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	121007	Device

Table 42: CID 7000. Diagnostic Imaging Report Document Title

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
LN	24627-2	CT Chest

Table 43: CID 6110. Lung Anatomy Finding or Feature

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	31094006	Lobe of lung
DCM	121401	Derivation

Table 44: CID 9000. Physical Quantity Descriptor

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	363698007	Finding Site

Table 45: CID 210. Qualitative Evaluation Modifier Type

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	106233006	Topographical modifier

Table 46: CID 6126. Location in Lung

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	72481006	Middle lobe of right lung

Table 47: CID 6129. Chest Site Involvement

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	39607008	Lung

Table 48: CID 7470. Linear Measurement

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	121207	Height

Table 49: CID 6141. Attenuation Coefficient Measurement

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	112031	Attenuation coefficient

Table 50: CID 219. Geometry Graphical Representation

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	111041	Contour

Table 51: CID 7470. Linear Measurements

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SCT	103339001	Long Axis
SCT	103340004	Short Axis

Table 52: TID 1002. Observer Context

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	121005	Observer Type

Table 53: TID 1004. Device Observer Identifying Attributes

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	121012	Device Observer UID
DCM	121014	Device Observer Manufacturer
DCM	121015	Device Observer Model Name

8.3.2 Template Specifications

AI-Rad Companion Chest CT will generate the results in the form of Comprehensive DICOM SR represented in TID 1500 Measurement Report format. Please see the below tables for an overview of DICOM attributes and their values corresponding to this Measurement Report template.

Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
		CONTAINER	EV (126000, DCM, "Imaging Measurement Report")	Imaging Measurement Report	1500
>	HAS CONCEPT MOD	CODE	EV (113011, DCM, "Document Title Modifier")	("CHESTCT0999", "99SHSAIRC", "AIRC Chest CT Lung Lesion"/"AIRC Chest CT Lung Parenchyma"/"AIRC Chest CT Cardio"/"AIRC Chest CT Vascular Aorta"/"AIRC Chest CT Spine"/"AIRC Chest CT Pulmonary Density"/"AIRC Chest CT Rib Fracture")	2010
>	HAS CONCEPT MOD	CODE	EV ("121049", "DCM", "Language of Content Item and Descendants")	("eng", "RFC5646", "English")	1204
>>	HAS CONCEPT MOD	CODE	EV ("121046", "DCM", "Country of Language")	("US", "ISO3166_1", "United States")	1204
>	HAS OBS CONTEXT	CODE	EV (121005, DCM, "Observer Type")	(121007, DCM, "Device")	1002
>	HAS OBS CONTEXT	UIDREF	EV (121012, DCM, "Device Observer UID")	Uniquely generated	1004
>	HAS OBS CONTEXT	TEXT	EV (121014, DCM, "Device Observer Manufacturer")	Same as Manufacturer (0008,0070)	1004
>	HAS OBS CONTEXT	TEXT	EV (121015, DCM, "Device Observer Model Name")	Same as Manufacturer's Model Name (0008,1090)	1004
>	HAS CONCEPT MOD	CODE	EV ("121058", "DCM", "Procedure reported")	("24627-2", "LN", "CT Chest")	1500
>	CONTAINS	CODE	EV (111017, DCM, "CAD Processing and Findings Summary")	(111241, DCM, All algorithms succeeded; without findings) (111242, DCM, All algorithms succeeded; with findings) (111243, DCM, Not all algorithms succeeded; without findings)	4001
>	CONTAINS	CODE	EV (111064, DCM, "Summary of Detections")	(111222, DCM, "Succeeded") (111223, DCM, "Partially Succeeded")	4000
>>	INFERRED FROM	CONTAINER	EV (111063, DCM, "Successful Detections")		4015
>>>	CONTAINS	CODE	EV (111022, DCM, "Detection Performed")	Different values can be:	4017

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				("CHESTCT0502", 99SHSAIRC, "AIRC Chest CT Spine") ("CHESTCT0410", 99SHSAIRC, "AIRC Chest CT Vascular Aorta") ("CHESTCT0304", 99SHSAIRC, "AIRC Chest CT Cardio") ("CHESTCT0999", 99SHSAIRC, "AIRC Chest CT Lung Lesion") ("CHESTCT0203", 99SHSAIRC, "AIRC Chest CT Lung Parenchyma") ("CHESTCT0611", 99SHSAIRC, "AIRC Chest CT Pulmonary Density") ("CHESTCT0503", 99SHSAIRC, "AIRC Chest CT Rib Fracture")	
>>>>	HAS PROPERTIES	TEXT	EV (111001, DCM, "Algorithm Name")	Different values can be: LungCAD, CT Lung Nodule Technology, AI CT Covid19, Aorta Segmentation, Heart Calcium Detection Algorithm, SyCAD Spine Labeling Algorithm, Rib Fracture Algorithm, Lung Emphysema Detection, Lung Lobe Segmentation,	4019
>>>>	HAS PROPERTIES	TEXT	EV (111003, DCM, "Algorithm Version")	Version of the algorithm with which the findings were found	4019
>	CONTAINS	CONTAINER	EV ("111028", "DCM", "Image Library")		1600
>>	CONTAINS	CONTAINER	EV ("126200", "DCM", "Image Library Group")		1600
>>>	HAS ACQ CONTEXT	CODE	EV ("121139", "DCM", "Modality")	("CT", "DCM", "Computed Tomography")	1602
>>>	HAS ACQ CONTEXT	DATE	EV ("111060", "DCM", "Study Date")	Copied from input image	1602

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
>>>	HAS ACQ CONTEXT	TIME	EV ("111061", "DCM", "Study Time")	Copied from input image	1602
>	CONTAINS	CONTAINER	EV ("126010", "DCM", "Imaging Measurements")		1500
>>	CONTAINS	CONTAINER	EV ("125007", "DCM", "Measurement Group")	Refer to subsequent tables for details of values	1411

Table 55: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Lesion

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1. Lesion, If more than one lesions are found then identifier is named as L1, L2 etc. 2. "No findings" if there are no lesions detected	1411
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	Unique Identifiers	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings: 1. ("RID50149", RADLEX , "Pulmonary nodule"). 2. ("C35552", NCIt, "Cardiovascular System Finding") 3. ("C110937", NCIt, "Musculoskeletal Finding") 4. ("RID28530", DCM, "Opacities") 5. ("RID50149", RADLEX, "Pulmonary nodule") 6. ("RID6039", RADLEX, " low attenuation")	1411
>>>	HAS CONCEPT MOD	CODE	EV ("363698007", "SCT", "Finding Site")	Different Codes and Meaning of finding sites: 1. ("44714003", SCT, "Upper lobe of left lung") 2. ("41224006", SCT, "Lower lobe of left lung") 3. ("42400003", SCT, "Upper lobe of right lung") 4. ("72481006", SCT, "Middle lobe of right lung")	1419

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				5. (“266005”, SCT, “Lower lobe of right lung”) 6. (“39607008”,SCT, “Lung”)	
>>>>	HAS CONCEPT MOD	CODE	EV(106233006,SCT,“Topographical modifier)	7. (“44714003”, SCT, “Upper lobe of left lung”) 8. (“41224006”, SCT, “Lower lobe of left lung”) 9. (“42400003”, SCT, “Upper lobe of right lung”) 10. (“72481006”, SCT, “Middle lobe of right lung”) 11. (“266005”, SCT, “Lower lobe of right lung”)	1419
>>>	HAS OBS CONTEXT	TEXT	EV (CHESTCT0102,99SHSAIRC,"Lesion Review Status")	Measurement auto-confirmed/Measurement accepted/ To be measured.	1411
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers to result image SOP Instance UID	1411
>>>	CONTAINS	CODE	EV(“RID6037”,” RADLEX”,” Attenuation Characteristic”)	1. (RID5741, RADLEX, "Solid") 2. (RID46011, RADLEX, "Partially solid") 3. (RID5747, RADLEX, "Calcified") 4. (RID46016, RADLEX, "Ground glass (non-solid)")	
>>>	CONTAINS	NUM	EV (103339001, SCT, “Long Axis”)	UNITS = EV (mm,UCUM,milimeter)	1400
>>>>	INFERRED FROM	SCOORD		Graphic data (0070, 0022) and Graphic type (0070,0023) atrributes are added.	320
>>>>	HAS CONCEPT MOD	CODE	EV(RID5738, RADLEX, “Composition Descriptor”)	This concept modifier is added only when the lesion is part solid. (RID50154,RADLEX,” Solid component of part-solid pulmonary nodule”)	
>>>	CONTAINS	NUM	EV (L0JK, IBSI, “Maximum 3D Diameter of a Mesh”)	UNITS = EV (mm,UCUM,milimeter)	1400
>>>>	HAS CONCEPT MOD	CODE	EV(RID5738, RADLEX, “Composition Descriptor”)	This concept modifier is added only when the lesion is part solid. (RID50154,RADLEX,” Solid component of part-	

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				solid pulmonary nodule“)	
>>>	CONTAINS	NUM	EV (103340004, SCT, “Short Axis”)	UNITS = EV (mm,UCUM,milimeter)	1400
>>>>	INFERRED FROM	SCOORD		Graphic data (0070, 0022) and Graphic type (0070,0023) atrributes are added.	320
>>>>	HAS CONCEPT MOD	CODE	EV(RID5738, RADLEX, “Composition Descriptor“)	This concept modifier is added only when the lesion is part solid. (RID50154,RADLEX,“ Solid component of part-solid pulmonary nodule“)	
>>>	CONTAINS	NUM	EV (RID50155, RADLEX, “Mean 2D diameter”)	UNITS = EV (mm,UCUM,milimeter)	1411
>>>>	HAS CONCEPT MOD	CODE	EV(RID5738, RADLEX, “Composition Descriptor“)	This concept modifier is added only when the lesion is part solid. (RID50154,RADLEX,“ Solid component of part-solid pulmonary nodule“)	
>>>	CONTAINS	NUM	EV (118565006, SCT, “Volume”)	UNITS = EV (mm3,UCUM,cubic milimeter)	1411
>>>>	HAS CONCEPT MOD	CODE	EV(RID5738, RADLEX, “Composition Descriptor“)	This concept modifier is added only when the lesion is part solid. (RID50154,RADLEX,“ Solid component of part-solid pulmonary nodule“)	
>>>	CONTAINS	Text	EV (121106, DCM, “Comment”)	A warning indicating that slice thickness is outside optimum range would be added in case slice thickness of input data is >2.5 mm for US Institutes.	1410
>>>	HAS OBS CONTEXT	TEXT	EV(113607,DCM, Series Number)	Series number value	
>>>	HAS OBS CONTEXT	TEXT	EV(113609,DCM, Instance Number)	Instance number	
>	CONTAINS	CONTAINER	EV (126011, DCM, Derived Imaging Measurements)		1500
>>	CONTAINS	NUM	EV (CHESTCT0103, 99SHSAIRC, Maximum 2D Diameter Change)	UNITS = EV (%, UCUM, Percent)	1411
>>	CONTAINS	NUM	EV (CHESTCT0104, 99SHSAIRC, Maximum 3D diameter Change)	UNITS = EV (%, UCUM, Percent)	1411
>>	CONTAINS	NUM	EV (CHESTCT0105, 99SHSAIRC, Maximum perpendicular 2D diameter Change)	UNITS = EV (%, UCUM, Percent)	1411
>>	CONTAINS	NUM	EV (CHESTCT0106, 99SHSAIRC, Mean 2D diameter Change)	UNITS = EV (%, UCUM, Percent)	1411

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
>>	HAS OBS CONTEXT	NUM	EV (CHESTCT0108, 99SHSAIRC, Volume Change)	UNITS = EV (d, UCUM, Day); If volume change exceeds 999 days, then UNITS = EV(%, UCUM, Percent)	1411

Table 56: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Parenchyma

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1. LeftUpperLobe / LeftLowerLobe / RightUpperLobe / RightMiddleLobe / RightLowerLobe / LeftLung / RightLung / BothLungs / Undefined / Lung Applied Range 2. "No findings" if there is no parenchyma results detected	1411
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	1. Unique identifier	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings: 1. ("RID6039", RADLEX, "low attenuation") when parenchyma results were found 2. ("CHESTCT0006", 99SHSAIRC, "No parenchyma results available or all results rejected") 3. ("C98451", NCIt, "Chronic Lung Disorder") 2.	1411
>>>	HAS CONCEPT MOD	CODE	EV ("363698007", "SCT", "Finding Site")	Different Codes and Meaning of finding sites: 1. ("44714003", SCT, "Upper lobe of left lung") 2. ("41224006", SCT, "Lower lobe of left lung") 3. ("42400003", SCT, "Upper lobe of right lung") 4. ("72481006", SCT, "Middle lobe of right lung") 5. ("266005", SCT, "Lower lobe of right lung") 6. ("39607008",SCT, "Lung")	1419

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				7. (74101002, SCT, "Both lungs")	
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers result image SOP Instance UID	1411
>>>	CONTAINS	CODE	EV (130400, DCM, “Geometric purpose of region”)	(111041, DCM, “Contour”)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0201, 99SHSAIRC, “LAV950”)	UNITS = EV (% ,UCUM,Percent)	1411
>>>	CONTAINS	CODE	EV (CHESTCT0001, 99SHSAIRC, “Range”)	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX, "Green") 2. ("RID39037", RADLEX, "Yellow") 3. (“CHESTCT0002”, 99SHSAIRC, “Red”) 4. (“CHESTCT0003”, 99SHSAIRC, “Orange”)	
>>>	CONTAINS	CODE	EV (CHESTCT0202, 99SHSAIRC, “Lung Range”)	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX, "Green") 2. ("RID39037", RADLEX, "Yellow") 3. (“CHESTCT0002”, 99SHSAIRC, “Red”) 4. (“CHESTCT0003”, 99SHSAIRC, “Orange”)	1411
>>>	CONTAINS	IMAGE	EV (121232, DCM, “Source series for segmentation”)	Original image series	1411

Table 57: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Cardio

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1. Heart/Calcium Score/Calcium Applied Range 2. “No findings” if there are no cardiac results detected	1411
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	Unique identifier	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings: 1. (“C35552”, NCIt, “Cardio Vascular System Finding”) 2. ((“CHESTCT0006”, 99SHSAIRC, “No cardiac results available or all results rejected”)	1411
>>>	HAS CONCEPT MOD	CODE	EV ("363698007", "SCT", "Finding Site")	Different Codes and Meaning of finding sites:	1419

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				1. ("C12843", "NCIt", "Coronary Artery")	
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers result image SOP Instance UID	1411
>>>	CONTAINS	NUM	EV (CHESTCT0301, 99SHSAIRC, “Heart Volume”)	UNITS = EV (mL,UCUM,milimeter)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0302, 99SHSAIRC, “Coronary Calcium”)	UNITS = EV (mm3, UCUM,cubic milimeter)	1411
>>>	CONTAINS	CODE	EV (CHESTCT0001, 99SHSAIRC, “Range”)	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX , "Green") 2. ("RID39037", RADLEX , "Yellow") 3. (“CHESTCT0002”, 99SHSAIRC, “Red”) 4. (“CHESTCT0003”, 99SHSAIRC, “Orange”)	1411
>>>	CONTAINS	CODE	EV (CHESTCT0303, 99SHSAIRC, “Coronary Calcium Range”)	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX , "Green") 2. ("RID39037", RADLEX , "Yellow") 3. (“CHESTCT0002”, 99SHSAIRC, “Red”) 4. (“CHESTCT0003”, 99SHSAIRC, “Orange”)	1411

Table 58: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Vascular

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1. AorticSinus / Sinoturbulariunction /MaxAscending/ MidAscending / ProximalArch / MidArch / ProximalDescending / MaxDescending / MidDescending/ Diaphragm / Abdominal / Aorta Applied Range 2. “No Findings”, If vascular results are not found	1411
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	Unique Identifiers	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings:	1411

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				1. (“C35552”, NCIt, “Cardio Vascular System Finding”) 2. (“CHESTCT0006”, 99SHSAIRC, “No aorta results available or all results rejected”)	
>>>	HAS CONCEPT MOD	CODE	EV ("363698007", "SCT", "Finding Site")	Different Codes and Meaning of finding sites: 1. ("C33557", NCIt, "Sinus of Valsalva") 2. ("RID579", RADLEX, "Sinotubular Junction") 3. ("CHESTCT0401", 99SHSAIRC, "Mid Ascending Aorta") 4. ("CHESTCT0402", 99SHSAIRC, "Proximal Aortic Arch") 5. ("CHESTCT0403", 99SHSAIRC, "Mid Aortic Arch") 6. ("CHESTCT0404 ", 99SHSAIRC, "Proximal Descending Thoracic Aorta") 7. ("CHESTCT0405 ", 99SHSAIRC, "Mid Descending Thoracic Aorta") 8. ("CHESTCT0406", 99SHSAIRC, "Aorta at Diaphragm") 9. ("RID905", RADLEX, "Abdominal Aorta") 10. (“RID480”, RADLEX,“Aorta”) 11. (“CHESTCT0409“, 99SHSAIRC, Maximum of Descending Aorta) 12. (“CHESTCT0408“, 99SHSAIRC, Maximum of Ascending Aorta)	1419
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers to result image SOP Instance UID	1411
>>>	CONTAINS	NUM	EV (RID13432, RADLEX, “Diameter”)	UNITS = EV (mm,UCUM,milimeter)	1411
>>>	CONTAINS	CODE	EV (CHESTCT0001, 99SHSAIRC, “Range”)	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX, "Green") 2. ("RID39037", RADLEX, "Yellow") 3. (“CHESTCT0002”, 99SHSAIRC, “Red”) 4. (“CHESTCT0003”, 99SHSAIRC, “Orange”)	1411

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
>>>	CONTAINS	CODE	EV (CHESTCT0407, 99SHSAIRC, “Aorta Range”)	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX, "Green") 2. ("RID39037", RADLEX, "Yellow") 3. (“CHESTCT0002”, 99SHSAIRC, “Red”) 4. (“CHESTCT0003”, 99SHSAIRC, “Orange”)	1411

Table 59: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Spine

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1. Thoracic vertebrae labels / Spine Applied Range 2. “No Findings“, if algorithm failed to determine spine labels	1411
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	Unique identifiers	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings: 1. (“C110937”, NCIt, “Musculoskeletal Finding”) 2. (“CHESTCT0006”, 99SHSAIRC, “No spine results available or all results rejected”)	1411
>>>	HAS CONCEPT MOD	CODE	EV ("363698007", "SCT", "Finding Site")	Different Codes and Meaning of finding sites: 1. ("RID29198", "RADLEX", "First thoracic vertebra") 2. ("RID29199", "RADLEX", "Second thoracic vertebra") 3. ("RID29200", "RADLEX", "Third thoracic vertebra") 4. ("RID29201", "RADLEX", "Fourth thoracic vertebra") 5. ("RID29202", "RADLEX", "Fifth thoracic vertebra") 6. ("RID29203", "RADLEX", "Sixth thoracic vertebra") 7. ("RID29204", "RADLEX", "Seventh thoracic vertebra") 8. ("RID31704", "RADLEX", "Eighth thoracic vertebra")	1419

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				9. ("RID29206", "RADLEX", "Ninth thoracic vertebra") 10. ("RID29207", "RADLEX", "Tenth thoracic vertebra") 11. ("RID29208", "RADLEX", "Eleventh thoracic vertebra") 12. ("RID29209", "RADLEX", "Twelfth thoracic vertebra") 13. ("RID29154", "RADLEX", "Vertebra")	
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers result image SOP Instance UID	1411
>>>	CONTAINS	NUM	EV (121207, DCM, "Height")	UNITS = EV (mm,UCUM,milimeter)	1411
>>>>	HAS CONCEPT MOD	CODE	DT (106233006, SCT, "Topographical Modifier")	Different codes and meanings of modifiers in RADLEX: 1. ("RID5818", RADLEX, "Anterior") 2. ("RID5820", RADLEX, "Medial") 3. ("RID5819", RADLEX, "Posterior")	1419
>>>	CONTAINS	NUM	EV (112031, DCM, "Attenuation coefficient")	UNITS = EV (hnsf'U,UCUM,Hounsfield unit)	1411
>>>>	HAS CONCEPT MOD	CODE	EV (121401, DCM, "Derivation")	(C53319,NCIt,"Mean")	1411
>>>	CONTAINS	CODE	EV (CHESTCT0501, 99SHSAIRC, "Spine Range")	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX, "Green") 2. ("RID39037", RADLEX, "Yellow") 3. ("CHESTCT0002", 99SHSAIRC, "Red") 4. ("CHESTCT0003", 99SHSAIRC, "Orange")	1411

Table 60: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Pulmonary density

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1. LeftUpperLobe, LeftLowerLobe, RightUpperLobe, RightMiddleLobe, RightLowerLobe, LeftLung, RightLung, BothLungs, Lung 2. "Not found or Not confirmed", if lung	1411

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				opacities are not found 3. “No Findings“, if algorithm failes to detect opacities in lung	
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	Unique identifiers	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings: 1. (“RID28530“, DCM, “Opacity”) 2. (“CHESTCT0006”, 99SHSAIRC, “Algorithm failed: no pulmonary density results available”) 3. (“CHESTCT0006”, 99SHSAIRC, “Lung opacities not found or not confirmed”)	1411
>>>	HAS CONCEPT MOD	CODE	EV (31094006, SCT, “Lobe of lung”)	Different Codes and Meaning of lobe of lung: 1. ("RID1302", RADLEX, "Right lung") 2. ("RID1326", RADLEX, "Left lung") 3. (“44714003”, SCT, “Upper lobe of left lung”) 4. (“41224006”, SCT, “Lower lobe of left lung”) 5. (“42400003”, SCT, “Upper lobe of right lung”) 6. (“72481006”, SCT, “Middle lobe of right lung”) 7. (“266005”, SCT, “Lower lobe of right lung”) 8. (“39607008”,SCT, “Lung”) 9. (74101002, SCT, "Both lungs")	1411
>>>	CONTAINS	CODE	EV (130400, DCM, “Geometric purpose of region”)	(111041, DCM, “Outline”)	1411
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers to result image SOP Instance UID	1411
>>>	CONTAINS	IMAGE	EV (121232, DCM, “Source series for segmentation”)	Original image series	1411
>>>	CONTAINS	NUM	EV (CHESTCT0601, 99SHSAIRC, “Opacity score”)	UNITS = EV ({Number},UCUM,Number)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0602, 99SHSAIRC, “Total Volume”)	UNITS = EV (mL,UCUM,mililiter)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0603, 99SHSAIRC, “Opacity volume”)	UNITS = EV (mL,UCUM,mililiter)	1411

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
>>>	CONTAINS	NUM	EV (CHESTCT0604, 99SHSAIRC, "Opacity percentage")	UNITS = EV (%{vol},UCUM,VolumePercent)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0605, 99SHSAIRC, "High opacity volume")	UNITS = EV (mL,UCUM,mililiter)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0606, 99SHSAIRC, "High opacity percentage")	UNITS = EV (%{vol},UCUM,VolumePercent)	1411
>>>	CONTAINS	NUM	EV (CHESTCT0607, 99SHSAIRC, "Mean HU total")	UNITS = EV (hnsf'U,UCUM,Hounsfield unit)	1411
>>>	HAS OBS CONTEXT	TEXT	EV(CHESTCT0608, 99SHSAIRC," Mean HU of opacity")	UNITS = EV (hnsf'U,UCUM,Hounsfield unit)	1411
>>>	HAS CONCEPT MOD	CODE	EV (CHESTCT0001, 99SHSAIRC, "Range")	Different Codes and Meaning of ranges: 1. ("RID39089", RADLEX, "Green") 2. ("RID39037", RADLEX, "Yellow") 3. ("CHESTCT0002", 99SHSAIRC, "Red") ("CHESTCT0003", 99SHSAIRC, "Orange")	1411

Table 61: TID 1500 Measurement Report for Comprehensive DICOM SR – Chest CT Rib Fracture

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
Refer **Table 54: TID 1500 Measurement Report for Comprehensive DICOM SR – AI-Rad Companion Chest CT**					
>>>	HAS OBS CONTEXT	TEXT	DT ("112039", "DCM", "Tracking Identifier")	1.Fracture Id, If more than one fractures are found then identifier is named as F1, F2 etc. 2."No findings" if there are no fractures detected	1411
>>>	HAS OBS CONTEXT	UIDREF	EV ("112040", "DCM", "Tracking Unique Identifier")	Unique identifiers	1411
>>>	CONTAINS	CODE	EV ("121071", "DCM", "Finding")	Different Codes and Meaning of findings: ("CHESTCT0505", 99SHSAIRC, "Rib Fracture")	1411
>>>	HAS CONCEPT MOD	CODE	EV ("363698007", "SCT", "Finding Site")	Different Codes and Meaning of findings: ("CHESTCT0506", "99SHSAIRC", %dynamic value%) The value is a dynamic string formed by concatenating the side of rib, position of rib and rib number	1419

Nesting Level	Relationship Type	Value Type	Concept Name	Values	TID
				e.g.: Right Anterior Segment of Rib 7	
>>>	CONTAINS	IMAGE	EV ("130401", "DCM", "Visual representation")	Refers to result image SOP Instance UID	1411
>>>	HAS OBS CONTEXT	TEXT	EV(“CHESTCT0507”. 99SHSAIRC, “Rib Fracture Review Status”)	Measurement auto-confirmed/Measurement accepted/ To be measured.	1411
>>>	HAS OBS CONTEXT	TEXT	EV(“CHESTCT0504”. 99SHSAIRC, “Confidence Score”)	Confidence score	1411
>>>	HAS OBS CONTEXT	TEXT	EV ("113609", "DCM", "Instance Number")	Instance number	1411

8.3.3 Private Code definitions

The following tables list all private attributes created by AI-Rad Companion Chest CT which may be included in the generated instances.

Table 62: Private Coded Entry Attributes

Tag	Attribute	Source	Value Type	Presence	Comments
(0029, 0010)	Private Creator	SIEMENS MEDCOM HEADER	LO	1	
(0029, 0011)	Private Creator	SIEMENS SYNGO ADVANCED PRESENTATION	LO	1	
(0029, 1041)	Application Header Type	VIA_NO_VOLUME	CS	1	
(0029, 1042)	Application Header ID	NOT FOR VOLUME WORKFLOW	LO	1	
(0029, 1043)	Application Header Version	V1 20120620	LO	1	
(0029,1175)	Private Creator	SIEMENS SYNGO ADVANCED PRESENTATION	DS	2	
(0029,117E)	Private Creator	SIEMENS SYNGO ADVANCED PRESENTATION	CS	1	

Table 63: Private Code definitions

Code Value	Code Meaning
CHESTCT0001	Range
CHESTCT0002	Red
CHESTCT0003	Orange
CHESTCT0004	Light Yellow
CHESTCT0005	Unknown
CHESTCT0006	Message description
CHESTCT0007	Undefined
CHESTCT0102	Lesion Review Status
CHESTCT0103	Maximum 2D diameter Change
CHESTCT0104	Maximum 3D diameter Change
CHESTCT0105	Maximum perpendicular 2D diameter Change
CHESTCT0106	Mean 2D diameter Change
CHESTCT0108	Volume Change
CHESTCT0201	LAV950
CHESTCT0202	Lung Range
CHESTCT0203	AI-Rad CT Lung Parenchyma
CHESTCT0301	Heart Volume
CHESTCT0302	Coronary Calcium
CHESTCT0303	Coronary Calcium Range
CHESTCT0304	AI-Rad CT Cardio
CHESTCT0401	Mid Ascending Aorta
CHESTCT0402	Proximal Aortic Arch

CHESTCT0403	Mid Aortic Arch
CHESTCT0404	Proximal Descending Thoracic Aorta
CHESTCT0405	Mid Descending Thoracic Aorta
CHESTCT0406	Aorta at Diaphragm
CHESTCT0407	Aorta Range
CHESTCT0408	Maximum of Ascending Aorta
CHESTCT0409	Maximum of Descending Aorta
CHESTCT0410	AI-Rad CT Vascular Aorta
CHESTCT0501	Spine Range
CHESTCT0502	AI-Rad CT Spine
CHESTCT0504	Confidence Score
CHESTCT0505	Rib Fracture
CHESTCT0506	%dynamic value% The value is a dynamic string formed by concatenating the side of rib, position of rib and rib number e.g.: Right Anterior Segment of Rib 7
CHESTCT0507	Rib Fracture Review Status
CHESTCT0601	Opacity score
CHESTCT0602	Total volume
CHESTCT0603	Opacity volume
CHESTCT0604	Opacity percentage
CHESTCT0605	High opacity volume
CHESTCT0606	High opacity percentage
CHESTCT0607	Mean HU total
CHESTCT0608	Mean HU of opacity

CHESTCT0609	Standard deviation total
CHESTCT0610	Standard deviation of opacity
CHESTCT0611	AI-Rad CT Pulmonary Density
CHESTCT0999	AI-Rad CT Lung Lesion
Newcode1	Processing Algorithm

The Coding Scheme Designator for all the above private codes is “99SHSAIRC”.

8.4 Grayscale Image Consistency

Not Applicable

8.5 Standard Extended / Specialized / Private SOP Classes

Not Applicable

8.6 Private Transfer Syntaxes

Not applicable

Index of Tables

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