

DICOM Correction Item

Correction Number CP-315	
Log Summary: Add General Anatomy Macros	
Type of Modification Addition	Name of Standard PS 3.3 2003
<p>Rationale for Correction:</p> <p>The General Series Module specifies Body Part Examined (0018,0015) to identify the anatomy of interest in a SOP Instance. As a CS VR, the Body Part Examined is not a comprehensive and robust solution that will define uniquely and precisely the body part.</p> <p>The newer IODs, such as DX, US, NM and X-Ray, provide an alternate means of defining the body part at the image level using the Anatomic Region Sequence (0008,2218), the Anatomic Region Modifier Sequence (0008,2220), the Primary Anatomic Structure Sequence (0008,2228), and the Primary Anatomic Structure Modifier Sequence (0008,2230), which all use SNOMED codes values, to more precisely specify the general region of the body examined, as well as the principal structure within that region. This single coding scheme improves interoperability and comparability of data across implementations, as compared with the inconsistent and non-exhaustive defined terms of the Body Part Examined attribute.</p> <p>This CP proposes to add a new General Anatomy Macro, incorporating these attributes. The macro is added to appropriate image IODs that do not already include its attributes, and its attributes are factored out of the various modality-specific IODs.</p> <p>Note: This CP incorporates and supersedes CP423 and CP425.</p>	
Sections of documents affected PS 3.3	
Correction Wording:	

Add new Section 10.x with General Anatomy Macros

10.x General Anatomy Macros

Tables 10.x-1 through 10.x-3 describe the attributes for identifying the general region of the patient anatomy examined using coded terminology, as well as the principal structure(s) within that region that is the target of the current SOP Instance. The only difference between the three macros is the Type of the Anatomic Region Sequence (0008,2218) attribute. Table 10.x-4 describe the attributes for the coding of the principal structure only.

The invocation of these macros may specify Baseline or Defined Context IDs for the Anatomic Region Sequence (0008,2218), the Anatomic Region Modifier Sequence (0008,2220), and/or the Primary Anatomic Structure Sequence (0008,2228).

The general region of the body (e.g. the anatomic region, organ, or body cavity being examined) is identified by the Anatomic Region Sequence (0008,2218). Characteristics of the anatomic region being examined, such as sub-region (e.g. medial, lateral, superior, inferior, lobe, quadrant) and laterality (e.g. right, left, both), may be refined by the Anatomic Region Modifier Sequence (0008,2220).

Note: These Attributes allow the specification of the information encoded by the Body Part Examined (0018,0015) in the General Series Module in a more robust, consistent way.

The specific anatomic structures of interest within the image (e.g., a particular artery within the anatomic region) is identified by the Primary Anatomic Structure Sequence (0008,2228). Characteristics of the anatomic structure, such as its location (e.g. subcapsular, peripheral, central), configuration (e.g. distended, contracted), and laterality (e.g. right, left, both), and so on, may be refined by the Primary Anatomic Structure Modifier Sequence (0008,2230).

**Table 10.x-1
GENERAL ANATOMY MANDATORY MACRO ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
Anatomic Region Sequence	(0008,2218)	1	Sequence that identifies the anatomic region of interest in this Instance (i.e. external anatomy, surface anatomy, or general region of the body). Only a single Item shall be permitted in this sequence.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Context ID may be defined in the macro invocation.</i>	
>Anatomic Region Modifier Sequence	(0008,2220)	3	Sequence of Items that modifies the anatomic region of interest of this Instance One or more Items may be included in this Sequence.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Defined Context ID is 2, unless otherwise defined in the macro invocation.</i>	
<i>Include 'Primary Anatomic Structure Macro' Table 10.x-4</i>		<i>Context ID may be defined in the macro invocation.</i>	

Table 10.x-2
GENERAL ANATOMY REQUIRED MACRO ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
Anatomic Region Sequence	(0008,2218)	2	Sequence that identifies the anatomic region of interest in this Instance (i.e. external anatomy, surface anatomy, or general region of the body). Zero or one Item may be present in this Sequence.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Context ID may be defined in the macro invocation.</i>	
<i>>Anatomic Region Modifier Sequence</i>	(0008,2220)	3	Sequence of Items that modifies the anatomic region of interest of this Instance One or more Items may be included in this Sequence.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Defined Context ID is 2, unless otherwise defined in the macro invocation.</i>	
<i>Include 'Primary Anatomic Structure Macro' Table 10.x-4</i>		<i>Context ID may be defined in the macro invocation.</i>	

Table 10.x-3
GENERAL ANATOMY OPTIONAL MACRO ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
Anatomic Region Sequence	(0008,2218)	3	Sequence that identifies the anatomic region of interest in this Instance (i.e. external anatomy, surface anatomy, or general region of the body). Only a single Item shall be permitted in this sequence.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Context ID may be defined in the macro invocation.</i>	
<i>>Anatomic Region Modifier Sequence</i>	(0008,2220)	3	Sequence of Items that modifies the anatomic region of interest of this Instance One or more Items may be included in this Sequence.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Defined Context ID is 2, unless otherwise defined in the macro invocation.</i>	
<i>Include 'Primary Anatomic Structure Macro' Table 10.x-4</i>		<i>Context ID may be defined in the macro invocation.</i>	

**Table 10.x-4
PRIMARY ANATOMIC STRUCTURE MACRO ATTRIBUTES**

Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence of Items that identifies the primary anatomic structure(s) of interest in this Instance. One or more Items may be included in this Sequence.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Context ID may be defined in the macro invocation.</i>	
>Primary Anatomic Structure Modifier Sequence	(0008,2230)	3	Sequence of Items that modifies the primary anatomic structure of interest in this Instance. One or more Items may be included in this Sequence.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Defined Context ID is 2.</i>	

Replace Anatomic Region attributes with General Anatomy Macro in C.7.6.16.2.8

C.7.6.16.2.8 Frame Anatomy Macro

Table C.7.6.16-9 specifies the attributes of the Frame Anatomy Functional Group macro.

**Table C.7.6.16-9
FRAME ANATOMY MACRO ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
Frame Anatomy Sequence	(0020,9071)	1	Identifies anatomic characteristics of this frame. Only a single Item shall be permitted in this sequence.
>Frame Laterality	(0020,9072)	1	...
<u>>Include 'General Anatomy Required Macro' Table 10.x-2</u>			<u>Defined Context ID for the Anatomic Region Sequence is 4030.</u> <u>Defined Context ID for Anatomic Region Sequence (0008,2218) and Primary Anatomic Structure Modifier Sequence (0008,2230) is 2.</u>

<p>>Anatomic Region Sequence</p>	<p>(0008,2218)</p>	<p>2</p>	<p>Sequence that identifies the anatomic region of interest in this frame (i.e. external anatomy, surface anatomy, or general region of the body).</p> <p>Note: It is strongly recommended that this Attribute be sent with a value.</p> <p>See C.8.11.2.1.1 for further explanation.</p> <p>Only a single Item shall be permitted in this Sequence.</p>
<p>>>Include 'Code Sequence Macro' Table 8.8-1</p>			<p>Defined Context ID is 4009.</p>
<p>>>Anatomic Region Modifier Sequence</p>	<p>(0008,2220)</p>	<p>3</p>	<p>Sequence that modifies the anatomic region of interest in this frame (i.e. prone, supine, decubitus right).</p> <p>May be present only if Anatomic Region Sequence (0008,2218) is sent.</p> <p>See C.8.11.2.1.1 for further explanation. One or more Items may be included in this Sequence.</p>
<p>>>>Include 'Code Sequence Macro' Table 8.8-1</p>			<p>Defined Context ID is 2.</p>
<p>>Primary Anatomic Structure Sequence</p>	<p>(0008,2228)</p>	<p>3</p>	<p>Sequence that identifies the primary anatomic structures of interest in this frame.</p> <p>See C.8.11.2.1.2 for further explanation.</p> <p>One or more Items may be included in this Sequence.</p>
<p>>>Include 'Code Sequence Macro' Table 8.8-1</p>			<p>Defined Context ID is 1.</p>
<p>>>Primary Anatomic Structure Modifier Sequence</p>	<p>(0008,2230)</p>	<p>3</p>	<p>Sequence that modifies the primary anatomic structure of interest in this frame.</p> <p>May be present only if Primary Anatomic Structure Sequence (0008,2228) is sent.</p> <p>See C.8.11.2.1.2 for further explanation.</p> <p>One or more Items may be included in this sequence.</p>
<p>>>>Include 'Code Sequence Macro' Table 8.8-1</p>			<p>Defined Context ID is 2.</p>

Add General Anatomy Macro in C.8.1.2

C.8.1.2 CR Image Module

Table C.8-2 contains IOD Attributes that describe computed radiography images.

Table C.8-2
CR IMAGE MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
...			
<i><u>Include 'General Anatomy Optional Macro' Table 10.x-3</u></i>			<u>Defined Context ID for the Anatomic Region Sequence is 4009.</u>

Add General Anatomy Macro in C.8.2.1

C.8.2.1 CT Image Module

The table in this Section contains IOD Attributes that describe CT images.

Table C.8-3
CT IMAGE MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
...			
<i><u>Include 'General Anatomy Optional Macro' Table 10.x-3</u></i>			<u>Defined Context ID for the Anatomic Region Sequence is 4030.</u>

Add General Anatomy Macro in C.8.3.1

C.8.3.1 MR Image Module

Table C.8-4 contains the Attributes that describe MR images.

Table C.8-4
MR IMAGE MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
...			
<i><u>Include 'General Anatomy Optional Macro' Table 10.x-3</u></i>			<u>Defined Context ID for the Anatomic Region Sequence is 4030.</u>

Replace Anatomic Region attributes with General Anatomy Macro in C.8.4.9

C.8.4.9 NM Image Module

Table C.8-9 contains the Attributes that describe Nuclear Medicine Images.

Table C.8-9
NM IMAGE MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
...			
<i>>>Include 'General Anatomy Optional Macro' Table 10.x-3</i>			No Context ID for the Anatomic Region Sequence is defined.
Anatomic Region Sequence	(0008,2218)	3	Sequence of one Item that identifies the anatomic region of interest in this image (i.e. external anatomy, surface anatomy, or general region of the body). See Section C.8.4.9.1.5.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>			Baseline Context ID is 1. Code Meaning (0008,0104) shall be Type 3 for historical reasons.
<i>>Anatomic Region Modifier Sequence</i>	(0008,2220)	3	Sequence of one or more Items that modifies the anatomic region of interest in this image (i.e. prone, supine, decubitus right). See Section C.8.4.9.1.5.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>			Baseline Context ID is 2. Code Meaning (0008,0104) shall be Type 3 for historical reasons.
Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence of one or more Items that identifies the primary anatomic structure of interest in this image. See Section C.8.4.9.1.6.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>			Baseline Context ID is 1. Code Meaning (0008,0104) shall be Type 3 for historical reasons.
<i>>Primary Anatomic Structure Modifier Sequence</i>	(0008,2230)	3	Sequence of one or more Items that modifies the primary anatomic structure of interest in this image. See Section C.8.4.9.1.6.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>			Baseline Context ID is 2. Code Meaning (0008,0104) shall be Type 3 for historical reasons.

...

C.8.4.9.1.5 Anatomic Region

The general region of the body (e.g. the anatomic region, organ, or body cavity being examined) may be identified by the Anatomic Region Sequence (0008,2218). Characteristics of the anatomic region being examined, such as its orientation relative to gravity (e.g. prone, supine, semi-erect), sub-region (e.g. medial, lateral, superior, inferior, lobe, quadrant), and laterality (e.g. right, left, both), and so on, may be refined by the Anatomic Region Modifier Sequence (0008,2220).

Note: These Attributes allow the specification of the information encoded by the Body Part Examined (0018,0015) and Patient Position (0018,5100) Attributes (in the General Series Module) in a more robust, consistent way.

C.8.4.9.1.6 Primary Anatomic Structure

The specific anatomic structures of interest within the image (e.g. a particular artery within the anatomic region) is identified by the Primary Anatomic Structure Sequence (0008,2228). Characteristics of the anatomic structure, such as its location (e.g. subcapsular, peripheral, central), configuration (e.g. distended, contracted), and laterality (e.g. right, left, both), and so on, may be refined by the Primary Anatomic Structure Modifier Sequence (0008,2230).

Note: These Attributes are intended to replace the Anatomic Structure (0008,2208) Attribute.

Replace Anatomic Region attributes with General Anatomy Macro in C.8.5.6

C.8.5.6 US Image Module

Table C.8-18 specifies the Attributes that describe ultrasound images.

**Table C.8-18
US IMAGE MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...			
<i><u>Include 'General Anatomy Optional Macro' Table 10.x-3</u></i>			For intravascular ultrasound, DCIDs 3010 and 3015 are specified for the Anatomic Region Sequence and DCID 3019 is specified for the Anatomic Region Modifier Sequence. No other Context IDs are specified.
Anatomic Region Sequence	(0008,2218)	3	Sequence of one Item that identifies the anatomic region of interest in this image (i.e. external anatomy, surface anatomy, or general region of the body). See Section C.8.5.6.1.17.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Baseline Context ID is 1.</i>	
>Anatomic Region Modifier Sequence	(0008,2220)	3	Sequence of one or more Items that modifies the anatomic region of interest in this image (i.e. prone, supine, decubitus right). See Section C.8.5.6.1.17.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Baseline Context ID is 2.</i>	
Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence of one or more Items that identifies the primary anatomic structure of interest in this image. See Section C.8.5.6.1.18
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Baseline Context ID is 1.</i>	
>Primary Anatomic Structure Modifier Sequence	(0008,2230)	3	Sequence of one or more Items that modifies the primary anatomic structure of interest in this image. See Section C.8.5.6.1.18
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>		<i>Baseline Context ID is 2.</i>	
...			

...

C.8.5.6.1.17 — Anatomic Region Sequence

~~The general region of the body (e.g. the anatomic region, organ, or body cavity being examined) may be identified by the Anatomic Region Sequence (0008,2218). Characteristics of the anatomic region being examined, such as its orientation relative to gravity (e.g. prone, supine, semi-erect), sub-region (e.g. medial, lateral, superior, inferior, lobe, quadrant), and laterality (e.g. right, left, both), and so on, may be refined by the Anatomic Region Modifier Sequence (0008,2220).~~

~~Note: — These Attributes allow the specification of the information encoded by the Body Part Examined (0018,0015) and Patient Position (0018,5100) Attributes (in the General Series Module) in a more robust, consistent way.~~

C.8.5.6.1.18 — Primary Anatomic Structure Sequence

~~The specific anatomic structures of interest within the image (e.g. a particular artery within the anatomic region) is identified by the Primary Anatomic Structure Sequence (0008,2228). Characteristics of the anatomic structure, such as its location (e.g. subcapsular, peripheral, central), configuration (e.g. distended, contracted), and laterality (e.g. right, left, both), and so on, may be refined by the Primary Anatomic Structure Modifier Sequence (0008,2230).~~

~~Notes: — 1. These Attributes are intended to replace the Anatomic Structure (0008,2208) Attribute.
— 2. The Defined Context ID for IVUS modality images is CID 3010 and CID 3014 (see PS3.16). For Primary Anatomic Structure Modifier Sequence the Defined Context ID for IVUS modality images is CID 3019 (see PS3.16).~~

Replace Anatomic Region attributes with General Anatomy Macro in C.8.7.1

C.8.7.1 X-Ray Image Module

**Table C.8-26
X-RAY IMAGE MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...			
<i>>>Include 'General Anatomy Optional Macro' Table 10.x-3</i>			No Context ID for the Anatomic Region Sequence is defined.
Anatomic Region Sequence	(0008,2218)	3	Sequence of one item that identifies the anatomic region of interest in this image (i.e. external anatomy, surface anatomy, or general region of the body). This anatomic region is placed on the table for examination. See C.8.7.1.1.10.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>			<i>Baseline Context ID is 1.</i>
>Anatomic Region Modifier Sequence	(0008,2220)	3	Sequence of one or more items that modifies the anatomic region of interest in this image (i.e. prone, supine, decubitus right). May be present only if Anatomic Region Sequence (0008,2218) is sent. See C.8.7.1.1.10.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>			<i>Baseline Context ID is 2.</i>
Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence of one or more items that identifies the primary anatomic structure of interest in this image. See C.8.7.1.1.11.
<i>>Include 'Code Sequence Macro' Table 8.8-1</i>			<i>Baseline Context ID is 1.</i>
>Primary Anatomic Structure Modifier Sequence	(0008,2230)	3	Sequence of one or more items that modifies the primary anatomic structure of interest in this image. May be present only if Primary Anatomic Structure Sequence (0008,2228) is sent. See C.8.7.1.1.11.
<i>>>Include 'Code Sequence Macro' Table 8.8-1</i>			<i>Baseline Context ID is 2.</i>
...			

...

C.8.7.1.1.10 — Anatomic Region

The general region of the body (e.g. the anatomic region, organ, or body cavity being examined) may be identified by the Anatomic Region Sequence (0008,2218). Characteristics of the anatomic region being examined, such as its orientation relative to gravity (e.g. prone, supine, semi-erect), sub-region (e.g. medial, lateral, superior, inferior, lobe, quadrant), and laterality (e.g. right, left,

~~both), and so on, may be refined by the Anatomic Region Modifier Sequence (0008,2220). These sequences utilize coded entry data to reference anatomic and modifier terms from a Coding Scheme (e.g. SNOMED).~~

~~Note: These Attributes allow the specification of the information encoded by the Body Part Examined (0018,0015) and Patient Position (0018,5100) Attributes (in the General Series Module) in a more robust, consistent way.~~

~~C.8.7.1.1.11 Primary Anatomic Structure~~

~~The specific anatomic structures of interest within the image (e.g. a particular artery within the anatomic region) is identified by the Primary Anatomic Structure Sequence (0008,2228). Characteristics of the anatomic structure, such as its location (e.g. subcapsular, peripheral, central), configuration (e.g. distended, contracted), and laterality (e.g. right, left, both), and so on, may be refined by the Primary Anatomic Structure Modifier Sequence (0008,2230). These sequences utilize coded entry data to reference anatomic and modifier terms from a Coding Scheme (e.g. SNOMED).~~

~~Note: These Attributes are intended to replace the Anatomic Structure (0008,2208) Attribute.~~

Replace Anatomic Region attributes with General Anatomy Macro in C.8.9.4

C.8.9.4 PET Image Module

Table C.8-63 contains IOD Attributes that describe PET images.

Table C.8-63 PET IMAGE MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
...			
<i><u>Include 'General Anatomy Optional Macro' Table 10.x-3</u></i>			No Context ID for the Anatomic Region Sequence is defined.
Anatomic Region Sequence	(0008,2218)	3	Sequence of one Item that identifies the anatomic region of interest in this image (i.e. external anatomy, surface anatomy, or general region of the body). See Section C.8.4.9.1.5.
>Include 'Code Sequence Macro' Table 8.8-1		Baseline Context ID is 1.	
>Anatomic Region Modifier Sequence	(0008,2220)	3	Sequence of one or more Items that modify the anatomic region of interest in this image (i.e. prone, supine, decubitus right). See Section C.8.4.9.1.5.
>>Include 'Code Sequence Macro' Table 8.8-1		Baseline Context ID is 2.	
Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence of one or more Items that identifies the primary anatomic structure of interest in this image. See Section C.8.4.9.1.6.
>Include 'Code Sequence Macro' Table 8.8-1		Baseline Context ID is 1.	
>Primary Anatomic Structure Modifier Sequence	(0008,2230)	3	Sequence of one or more Items that modify the primary anatomic structure of interest in this image. See Section C.8.4.9.1.6.
>>Include 'Code Sequence Macro' Table 8.8-1		Baseline Context ID is 2.	

Replace Anatomic Region attributes with General Anatomy Macro in C.8.11.2

C.8.11.2 DX Anatomy Imaged Module

Table C.8-69 contains IOD Attributes that describe the anatomy contained in a DX IOD.

**Table C.8-69
 DX ANATOMY IMAGED MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...			
<i>Include 'General Anatomy Required Macro' Table 10.x-2</i>			<p>Defined Context ID for the Anatomic Region Sequence is 4009. This is the anatomic region that is placed on the table or bucky for examination.</p> <p>Note: It is strongly recommended that <u>Anatomic Region Sequence (0008,2218)</u> be sent with a <u>value, in order to ensure that images may be positioned correctly relative to one another for display.</u></p>
Anatomic Region Sequence	(0008,2218)	2	<p>Sequence that identifies the anatomic region of interest in this image (i.e. external anatomy, surface anatomy, or general region of the body). This anatomic region is placed on the table or bucky for examination.</p> <p>Note: It is strongly recommended that this Attribute be sent with a value, in order to ensure that images may be positioned correctly relative to one another for display.</p> <p>See C.8.11.2.1.1 for further explanation. Only a single Item shall be permitted in this Sequence.</p>
>Include 'Code Sequence Macro' Table 8.8-1.			Baseline Context ID is 4009
>Anatomic Region Modifier Sequence	(0008,2220)	3	<p>Sequence that modifies the anatomic region of interest in this image (i.e. prone, supine, decubitus right). May be present only if Anatomic Region Sequence (0008,2218) is sent.</p> <p>See C.8.11.2.1.1 for further explanation. One or more Items may be included in this Sequence.</p>
>>Include 'Code Sequence Macro' Table 8.8-1.			Baseline Context ID is 2

Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence that identifies the primary anatomic structures of interest in this image. See C.8.11.2.1.2 for further explanation. One or more Items may be included in this Sequence.
>Include 'Code Sequence Macro' Table 8.8-1.			Baseline Context ID is 1
>Primary Anatomic Structure Modifier Sequence	(0008,2230)	3	Sequence that modifies the primary anatomic structure of interest in this image. May be present only if Primary Anatomic Structure Sequence (0008,2228) is sent. See C.8.11.2.1.2 for further explanation. One or more Items may be included in this Sequence.
>>Include 'Code Sequence Macro' Table 8.8-1.			Baseline Context ID is 2

C.8.11.2.1 DX Anatomy Imaged Attribute Descriptions

The Attributes in this Module extend the function of Body Part Examined (0018,0015) as used in other IODs, and are intended to be used to facilitate the management of images and series in terms of routing, storage and display, as well as to dictate certain Conditions on Attributes and Modules in the DX IOD.

C.8.11.2.1.1 ~~Anatomic Region~~

~~The general region of the body (e.g. the anatomic region, organ, or body cavity being examined) may be identified by the Anatomic Region Sequence (0008,2218). Characteristics of the anatomic region being examined may be refined by the Anatomic Region Modifier Sequence (0008,2220).~~

~~Note: Coding mechanisms may be defined for specific clinical contexts.~~

C.8.11.2.1.2 ~~Primary Anatomic Structure~~

~~The specific anatomic structures of interest within the image are identified by the Primary Anatomic Structure Sequence (0008,2228). Characteristics of the anatomic structure may be refined by the Primary Anatomic Structure Modifier Sequence (0008,2230).~~

Replace Anatomic Region attributes with General Anatomy Macro in C.8.11.7

C.8.11.7 Mammography Image Module

Table C.8-74 contains IOD Attributes that describe a Digital Mammography X-Ray Image including its acquisition and positioning.

**Table C.8-74
MAMMOGRAPHY IMAGE MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...			

<u>Include 'General Anatomy Mandatory Macro' Table 10.x-1</u>		<u>Defined Context ID for the Anatomic Region Sequence is 4013.</u>	
Anatomic Region Sequence	(0008,2218)	1	Sequence that identifies the anatomic region of interest in this image. Only a single Item shall be permitted in this Sequence.
<u>>Include 'Code Sequence Macro' Table 8.8-1.</u>		<u>Defined Context ID 4013.</u>	
...			

Correct section references in C.8.11.9

C.8.11.9 Intra-oral Image Module

Table C.8-76 contains IOD Attributes that describe a Digital Intra-oral X-Ray Image including its acquisition and positioning.

**Table C.8-76
INTRA-ORAL IMAGE MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...			
Anatomic Region Sequence	(0008,2218)	1	Sequence that identifies the anatomic region of interest in this image. Only a single Item shall be permitted in this Sequence.
>Include 'Code Sequence Macro' Table 8.8-1.		Defined Context ID 4016.	
>Anatomic Region Modifier Sequence	(0008,2220)	1C	Sequence that refines the anatomic region of interest in this image. Required if Primary Anatomic Structure Sequence (0008,2228) is not sent. Only a single Item shall be permitted in this Sequence.
>>Include 'Code Sequence Macro' Table 8.8-1.		Defined Context ID 4017.	
Primary Anatomic Structure Sequence	(0008,2228)	1C	Sequence that describes the primary anatomic structures of interest in this image. See C.11.8.9.1.1 C.8.11.9.1.1 for further explanation. Required if Anatomic Region Modifier Sequence (0008,2220) is not sent. One or more Items may be included in this Sequence.
>Include 'Code Sequence Macro' Table 8.8-1.		Defined Context ID 4018 or 4019. See C.11.8.9.1.1 C.8.11.9.1.1 for further explanation.	

C.8.11.9.1 Intra-oral Image Attribute Descriptions

C.8.11.9.1.1 Primary Anatomic Structure Sequence

The Code Value (0008,0100) shall be drawn from the DICOM Content Mapping Resource, Context ID 4018, for permanent dentition, or Context ID 4019 for deciduous dentition.

These Context Groups correspond to ISO 3950-1984 that describes a designation of permanent and deciduous dentition using a two digit code, the first digit of which designates a quadrant, and the second digit a tooth.

The teeth imaged shall be listed as multiple Items in the Primary Anatomic Structure Sequence (0008,2228).

C.8.12.1 VL Image Module

Table C.8-77 specifies the Attributes that describe a VL Image produced by Endoscopy (ES), General Microscopy (GM), Automated-Stage Microscopy (SM), External-camera Photography (XC), or other VL imaging Modalities.

**Table C.8-77
VL IMAGE MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...
Anatomic Region Sequence	(0008,2218)	1C	Sequence that identifies the anatomic region of interest in this image (i.e. external anatomy, surface anatomy, or general region of the body). Only a single Item shall be permitted in this sequence. Required if Number of Frames (0028,0008) is present and Specimen Accession Number (0040,050A) is absent. May be present otherwise.
>Include 'Code Sequence Macro' Table 8.8-1		DCID 4040 is specified for the Video Endoscopic IOD. For other IODs, no Baseline Context ID is defined.	
>Anatomic Region Modifier Sequence	(0008,2220)	3	Sequence of Items that modifies the anatomic region of interest of this image One or more Items may be included in this Sequence.
>>Include 'Code Sequence Macro' Table 8.8-1		Baseline Context ID is 2 .	
<u>Include 'Primary Anatomic Structure Macro' Table 10.x-4</u>		<u>No Context ID is defined.</u>	
Primary Anatomic Structure Sequence	(0008,2228)	3	Sequence of Items that identifies the primary anatomic structure(s) of interest in this image. One or more Items may be included in this Sequence.
>Include 'Code Sequence Macro' Table 8.8-1		No Baseline Context ID is defined	
>Primary Anatomic Structure Modifier Sequence	(0008,2230)	3	Sequence of Items that modifies the primary anatomic structure of interest in this image. One or more Items may be included in this Sequence.
>>Include 'Code Sequence Macro' Table 8.8-1		Baseline Context ID is 2.	