

1	Status	Final Text
2	Date of Last Update	2019/05/24
3	Person Assigned	David Clunie
4		mailto:dclunie@dclunie.com
5	Submitter Name	QIICR
6	Submission Date	2018/10/14

7	Correction Number CP-1858	
8	Log Summary: Allow single modifier for categorical observations in TID 1500	
9	Name of Standard	
10	PS3.16 2019b	
11	Rationale for Correction:	
12	There are use cases for a single modifier for categorical observations (qualitative evaluations) in Measurement Reports.	
13	This is especially important to allow for a post-coordinated laterality or other topographic modifiers to avoid a combinatorial expansion	
14	of pre-coordinated codes.	
15	Also, add template parameter for the value, not just the type, of the qualitative evaluations.	
16	Correction Wording:	

Amend DICOM PS3.16 as follows (changes to existing text are bold and underlined for additions and ~~struckthrough~~ for removals):

TID 1410 Planar ROI Measurements and Qualitative Evaluations

Table TID 1410. Parameters

\$Measurement	Coded term or Context Group for Concept Name of measurement
...	...
\$ModType	Modifier Name for Concept Name of measurement
\$ModValue	Modifier Value for Concept Name of measurement
...	...
\$QualitativeEvaluationsType	EName of e valuations encoded with code or text responses
<u>\$QualValue</u>	<u>Value of evaluations encoded with code responses</u>
<u>\$QualModType</u>	<u>Modifier Name of evaluations encoded with code or text responses</u>
<u>\$QualModValue</u>	<u>Modifier Value of evaluations encoded with code or text responses</u>
\$FindingType	Type of the finding

Table TID 1410. Planar ROI Measurements

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (125007, DCM, "Measurement Group")	1	M		
...				
12	>	CONTAINS	CODE	\$QualitativeEvaluationsType	1-n	U		<u>\$QualValue</u>
12b	>>	HAS CONCEPT MOD	CODE	<u>\$QualModType</u>	1-n	U		<u>\$QualModValue</u>
13	>	CONTAINS	TEXT	\$QualitativeEvaluationsType	1-n	U		

Content Item Descriptions

>...	...
Rows 12, 12b , 13	Allows encoding a flat list of name-value pairs that are coded questions with coded or text answers, for example, to record categorical observations related to the subject of the measurement group. A single level of coded modifiers may be present.

TID 1411 Volumetric ROI Measurements and Qualitative Evaluations

Table TID 1411. Parameters

\$Measurement	Coded term or Context Group for Concept Name of measurement
...	...
\$ModType	Modifier Name for Concept Name of measurement
\$ModValue	Modifier Value for Concept Name of measurement
...	...
\$QualitativeEvaluationsType	EName of e valuations encoded with code or text responses
<u>\$QualValue</u>	<u>Value of evaluations encoded with code responses</u>
<u>\$QualModType</u>	<u>Modifier Name of evaluations encoded with code or text responses</u>

\$QualModValue	Modifier Value of evaluations encoded with code or text responses
\$FindingType	Type of the finding

Table TID 1411. Volumetric ROI Measurements

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (125007, DCM, "Measurement Group")	1	M		
...								
16	>	CONTAINS	CODE	\$QualitativeEvaluationsType	1-n	U		\$QualValue
16b	>>	HAS CONCEPT MOD	CODE	\$QualModType	1-n	U		\$QualModValue
17	>	CONTAINS	TEXT	\$QualitativeEvaluationsType	1-n	U		

Content Item Descriptions

...	...
Rows 16, 16b , 17	Allows encoding a flat list of name-value pairs that are coded questions with coded or text answers, for example, to record categorical observations related to the subject of the measurement group. A single level of coded modifiers may be present.

TID 1500 Measurement Report

Table TID 1500. Measurement Report

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
...								
6	>	CONTAINS	CONTAINER	EV (126010, DCM, "Imaging Measurements")	1	C	IF row 10 and 12 are absent	
7	>>	CONTAINS	INCLUDE	DTID 1410 "Planar ROI Measurements and Qualitative Evaluations"	1-n	U		\$Measurement = B??? \$Measurement = B??? \$Units = B??? \$Derivation = B??? \$Method = B??? <u>\$QualModType = BCID 210</u> <u>"Qualitative Evaluation Modifier Types"</u> <u>\$QualModValue = BCID 211</u> <u>"Qualitative Evaluation Modifier Values"</u>

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
8	>>	CONTAINS	INCLUDE	DTID 1411 "Volumetric ROI Measurements and Qualitative Evaluations"	1-n	U		\$Measurement = B??? \$Measurement = B??? \$Units = B??? \$Derivation = B??? \$Method = B??? <u>\$QualModType = BCID 210 "Qualitative Evaluation Modifier Types"</u> <u>\$QualModValue = BCID 211 "Qualitative Evaluation Modifier Values"</u>
9	>>	CONTAINS	INCLUDE	DTID 1501 "Measurement and Qualitative Evaluation Group"	1-n	U		\$Measurement = B??? \$Measurement = B??? \$Units = B??? \$Derivation = B??? \$Method = B??? <u>\$QualModType = BCID 210 "Qualitative Evaluation Modifier Types"</u> <u>\$QualModValue = BCID 211 "Qualitative Evaluation Modifier Values"</u>
...								
12	>	CONTAINS	CONTAINER	EV (C0034375, UMLS, "Qualitative Evaluations")	1	C	IF row 6 and 10 are absent	
13	>>	CONTAINS	CODE		1-n	U		
13b	>>>	HAS CONCEPT MOD	CODE	BCID 210 "Qualitative Evaluation Modifier Types"	1-n	U		BCID 211 "Qualitative Evaluation Modifier Values"
14	>>	CONTAINS	TEXT		1-n	U		

Content Item Descriptions

Rows 6, 10, 12	The conditions require that at least one of the "heading" containers be present, though any of them may be present but empty.
Rows 7, 8, 9	The baseline context groups defined allow for generic intensity, size and texture measurements, regardless of the geometry of the ROI (e.g., linear distance can be measured on volumes, or volume can be estimated from a linear distance), and being baseline, do not constrain the invoker from using other appropriate concepts specific to the application.
Row 9	A Measurement Group is used to contain one or more individual measurements that are invocations of TID 300, consistent with TIDs 1410 and 1411, which both already have Measurement Group containers as their roots.

Rows 12, 13, 13b , 14	These Content Items allow encoding a flat list of name-value pairs that are coded questions with coded or text answers, for example, to record categorical observations related to the entire subject of the report rather than specific measurement groups. <u>A single level of coded modifiers may be present, such as to post-coordinate the laterality if the parent concept involves an anatomic part.</u>
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TID 1501 Measurement and Qualitative Evaluation Group

Table TID 1501. Parameters

Parameter Name	Parameter Usage
...	...
\$ModType	Modifier Name for Concept Name of measurement
\$ModValue	Modifier Value for Concept Name of measurement
...	...
<u>\$QualitativeEvaluationsType</u>	<u>Name of evaluations encoded with code or text responses</u>
<u>\$QualValue</u>	<u>Value of evaluations encoded with code responses</u>
<u>\$QualModType</u>	<u>Modifier Name of evaluations encoded with code or text responses</u>
<u>\$QualModValue</u>	<u>Modifier Value of evaluations encoded with code or text responses</u>
\$FindingType	Type of the finding

Table TID 1501. Measurement Group

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1		CONTAINS	CONTAINER	EV (125007, DCM, "Measurement Group")	1	M		
...								
11	>	CONTAINS	CODE	<u>\$QualitativeEvaluationsType</u>	1-n	U		<u>\$QualValue</u>
11b	>>	<u>HAS CONCEPT MOD</u>	<u>CODE</u>	<u>\$QualModType</u>	<u>1-n</u>	<u>U</u>		<u>\$QualModValue</u>
12	>	CONTAINS	TEXT	<u>\$QualitativeEvaluationsType</u>	1-n	U		

Content Item Descriptions

...	...
Rows 11, 11b , 12	Allows encoding a flat list of name-value pairs that are coded questions with coded or text answers, for example, to record categorical observations related to the subject of the measurement group. <u>A single level of coded modifiers may be present.</u>

CID 244 Laterality

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Type: Non-Extensible
 Version: 20030108
 UID: 1.2.840.10008.6.1.37

Table CID 244. Laterality

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
<u>Include CID 247 "Laterality Left-Right Only"</u>				

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	24028007	Right	G-A100	G0205090
SCT	7774000	Left	G-A104	G0205094
SCT	51440002	Bilateral	G-A102	C0238767
SCT	66459002	Unilateral	G-A103	C0205092

CID 245 Laterality with Median

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Type: Non-Extensible
 Version: 20190118
 UID: 1.2.840.10008.6.1.1267

Table CID 245. Laterality with Median

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
<i>Include CID 244 "Laterality"</i>				
SCT	260528009	Median	R-4081A	C2939193

CID 3019 Cardiovascular Anatomic Location Modifiers

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Type: Extensible
 Version: ~~20160314~~20190524
 UID: 1.2.840.10008.6.1.49

Table CID 3019. Cardiovascular Anatomic Location Modifiers

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
<i>Include CID 212 "Generic Anatomic Location Modifiers"</i>				
<i>Include CID 247 "Laterality Left-Right Only"</i>				
SCT	255549009	Anterior	R-404GG	G0205094
SCT	128950003	Arterial graft to cited segment	G-D873	C1264698
SCT	26216008	Central	G-A110	G0205099
SCT	46053002	Distal	G-A119	C0205108
SCT	128947001	Graft to cited segment, body	G-D870	C1264695
SCT	128948006	Graft to cited segment, distal anastomosis	G-D872	C1264697
SCT	128949003	Graft to cited segment, proximal anastomosis	G-D871	C1264696
SCT	261089000	Inferior	R-4094A	G0205104
SCT	49370004	Lateral	G-A104	G0205093
SCT	7774000	Left	G-A104	G0205094
SCT	264114003	Ostium	R-4215C	C0444567
SCT	255551008	Posterior	R-404GE	G0205095
SCT	40415009	Proximal	G-A118	G0205107
SCT	24028007	Right	G-A100	G0205090

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	264217000	Superior	R-42191	C1282910
SCT	128951004	Venous graft to cited segment	G-D874	C1264699
SCT	361097006	Entire Vessel	T-40003	C1283786
DCM	122101	Aneurysm on cited vessel		
DCM	122102	Graft to cited segment, proximal section		
DCM	122103	Graft to cited segment, mid section		
DCM	122104	Graft to cited segment, distal section		

Add new context group(s) to DICOM PS3.16 as follows:

CID 210 Qualitative Evaluation Modifier Types

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Type: Extensible
 Version: 20190524
 UID: 1.2.840.10008.6.1.1285

Table CID 210. Qualitative Evaluation Modifier Types

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	272741003	Laterality	G-C171	C0332304
SCT	106233006	Topographical modifier	G-A1F8	C0205089

CID 211 Qualitative Evaluation Modifier Values

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Type: Extensible
 Version: 20190524
 UID: 1.2.840.10008.6.1.1286

Table CID 211. Qualitative Evaluation Modifier Values

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
<i>Include CID 245 "Laterality with Median"</i>				
<i>Include CID 212 "Generic Anatomic Location Modifiers"</i>				

CID 212 Generic Anatomic Location Modifiers

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Type: Extensible
 Version: 20190524
 UID: 1.2.840.10008.6.1287

1

Table CID 212. Generic Anatomic Location Modifiers

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	255549009	Anterior	R-404CC	C0205094
SCT	26216008	Central	G-A110	C0205099
SCT	46053002	Distal	G-A119	C0205108
SCT	261089000	Inferior	R-4094A	C0205104
SCT	49370004	Lateral	G-A104	C0205093
SCT	255551008	Posterior	R-404CE	C0205095
SCT	40415009	Proximal	G-A118	C0205107
SCT	264217000	Superior	R-42191	C1282910

12

CID 247 Laterality Left-Right Only

13
16
18
20

Resources: [HTML](#) | [FHIR JSON](#) | [FHIR XML](#) | [IHE SVS XML](#)
 Type: Non-Extensible
 Version: 20190524
 UID: 1.2.840.10008.6.1.1284

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Table CID 247. Laterality Left-Right Only

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	24028007	Right	G-A100	C0205090
SCT	7771000	Left	G-A101	C0205091