

1	Status	March 2019 Voting Packet
2	Date of Last Update	2019/01/17
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5	Submitter Name	QIICR
6	Submission Date	2018/10/14

7	Correction Number CP-1857
8	Log Summary: Allow single modifier for categorical observations in TID 1500
9	Name of Standard
10	PS3.16
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
...	...
<del>\$QualitativeEvaluationsType</del>	<del>EName of e</del> 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	<del>\$QualitativeEvaluationsType</del>	1-n	U		<u>\$QualValue</u>
<b>12b</b>	<b>&gt;&gt;</b>	<b>HAS CONCEPT MOD</b>	<b>CODE</b>	<u>\$QualModType</u>	1-n	U		<u>\$QualModValue</u>
13	>	CONTAINS	TEXT	<del>\$QualitativeEvaluationsType</del>	1-n	U		

### Content Item Descriptions

>...	...
Rows 12, <b>12b</b> , 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. <b><u>A single level of coded modifiers may be present.</u></b>

## 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
...	...
<del>\$QualitativeEvaluationsType</del>	<del>EName of e</del> 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>

<b>\$QualModValue</b>	<b>Modifier Value of evaluations encoded with code or text responses</b>
\$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	<del>\$QualitativeEvaluationsType</del>	1-n	U		<del>\$QualValue</del>
<b>16b</b>	>>	<b>HAS CONCEPT MOD</b>	<b>CODE</b>	<b>\$QualModType</b>	1-n	U		<b>\$QualModValue</b>
17	>	CONTAINS	TEXT	<del>\$QualitativeEvaluationsType</del>	1-n	U		

**Content Item Descriptions**

...	...
Rows 16, <b>16b</b> , 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. <b>A single level of coded modifiers may be present.</b>

**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???  <b><u>\$QualModType = BCID ccc1</u></b> <b><u>"Qualitative Evaluation Modifier Types"</u></b>  <b><u>\$QualModValue = BCID ccc2</u></b> <b><u>"Qualitative Evaluation Modifier Values"</u></b>

	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><b>\$QualModType = BCID ccc1 "Qualitative Evaluation Modifier Types"</b></u> <u><b>\$QualModValue = BCID ccc2 "Qualitative Evaluation Modifier Values"</b></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><b>\$QualModType = BCID ccc1 "Qualitative Evaluation Modifier Types"</b></u> <u><b>\$QualModValue = BCID ccc2 "Qualitative Evaluation Modifier Values"</b></u>
...								
12	>	CONTAINS	CONTAINER	EV (C0034375, UMLS, "Qualitative Evaluations")	1	C	IF row 6 and 10 are absent	
13	>>	CONTAINS	CODE		1-n	U		
<b>13b</b>	<b>&gt;&gt;&gt;</b>	<b>HAS CONCEPT MOD</b>	<b>CODE</b>	<b>BCID ccc1 "Qualitative Evaluation Modifier Types"</b>	1-n	U		<b>BCID ccc2 "Qualitative Evaluation Modifier Values"</b>
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.

1 2 3	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.
4 5 6 7	Rows 12, 13, <b>13b</b> , 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. <b><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></b>

## 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
...	...
<b><u>\$QualitativeEvaluationsType</u></b>	<b><u>EName of evaluations encoded with code or text responses</u></b>
<b><u>\$QualValue</u></b>	<b><u>Value of evaluations encoded with code responses</u></b>
<b><u>\$QualModType</u></b>	<b><u>Modifier Name of evaluations encoded with code or text responses</u></b>
<b><u>\$QualModValue</u></b>	<b><u>Modifier Value of evaluations encoded with code or text responses</u></b>
\$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	<b><u>\$QualitativeEvaluationsType</u></b>	1-n	U		<b><u>\$QualValue</u></b>
<b>11b</b>	>>	<b><u>HAS CONCEPT MOD</u></b>	<b><u>CODE</u></b>	<b><u>\$QualModType</u></b>	1-n	U		<b><u>\$QualModValue</u></b>
12	>	CONTAINS	TEXT	<b><u>\$QualitativeEvaluationsType</u></b>	1-n	U		

### Content Item Descriptions

...	...
Rows 11, <b>11b</b> , 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. <b><u>A single level of coded modifiers may be present.</u></b>

## 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-CT Concept ID	UMLS Concept Unique ID
SRT	G-A100	Right	24028007	C0205090
SRT	G-A101	Left	7771000	C0205091
SRT	G-A102	Right and left	51440002	C0238767
SRT	G-A103	Unilateral	66459002	C0205092

## CID 3019 Cardiovascular Anatomic Location Modifiers

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

Table CID 3019. Cardiovascular Anatomic Location Modifiers

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-CT Concept ID	UMLS Concept Unique ID
<b><u>Include CID ccc3 "Generic Anatomic Location Modifiers"</u></b>				
SRT	G-D873	Arterial graft to cited segment	128950003	C1264698
SRT	G-D870	Graft to cited segment, body	128947001	C1264695
SRT	G-D872	Graft to cited segment, distal anastomosis	128948006	C1264697
SRT	G-D871	Graft to cited segment, proximal anastomosis	128949003	C1264696
SRT	G-A101	Left	7771000	C0205091
SRT	R-4215C	Ostium	264114003	C0444567
SRT	G-A100	Right	24028007	C0205090
SRT	G-D874	Venous graft to cited segment	128951004	C1264699
SRT	T-40003	Entire Vessel	361097006	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 ccc1 Qualitative Evaluation Modifier Types

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML  
 Type: Extensible  
 Version: yyyymmdd  
 UID: 1.2.840.10008.6.1.uuu1

### Table CID ccc1. Qualitative Evaluation Modifier Types

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

### CID ccc2 Qualitative Evaluation Modifier Values

**Resources:** HTML | FHIR JSON | FHIR XML | IHE SVS XML  
**Type:** Extensible  
**Version:** yyyyymmdd  
**UID:** 1.2.840.10008.6.1.uuu2

### Table CID ccc2. Qualitative Evaluation Modifier Values

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-CT Concept ID	UMLS Concept Unique ID
<i>Include CID 244 "Laterality"</i>				
<i>Include CID ccc3 "Generic Anatomic Location Modifiers"</i>				

### CID ccc3 Generic Anatomic Location Modifiers

**Resources:** HTML | FHIR JSON | FHIR XML | IHE SVS XML  
**Type:** Extensible  
**Version:** yyyyymmdd  
**UID:** 1.2.840.10008.6.uuu3

### Table CID ccc3. Generic Anatomic Location Modifiers

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