

DICOM Correction Proposal

STATUS	New
Date of Last Update	2019/10/30
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<The box shall precede each new section to be modified>

Correction Number	CP-1988
Log Summary:	Improve the definition of programmable device as used in contrast administration.
Name of Standard	PS3.16, 2019c, TID 11007 (Imaging Agent Administration Step)
Rationale for Correction:	When looking to the definition of EV(130218, DCM "Programmable Device"), the defining text was obviously not updated during the specification phase to the actual "step/phase" semantic. It should say: "Can be configured to execute a series of <u>phases</u> automatically". In order to keep backward compatibility make a new definition for this purpose.
Correction Wording:	Add a new definition with Code Value 99cp1988newcode0002 and Code Meaning "Programmable Injector Device", which is defined as "Can be configured to execute a series of phases automatically." Change Concept of row 16 in TID 11007 to EV(99cp1988newcode0002, DCM, "Programmable Injector Device")

Amend DICOM PS3.16 2019c as follows
(changes to existing text are bold and underlined for additions and ~~struckthrough~~ for removals):

TID 11007 Imaging Agent Administration Step

This template provides detailed information on an Imaging Agent Administration step. A step is part of a plan. Steps are usually distinguished from other steps because an operator's intervention is required between steps. Steps are also distinguished when they have different routes of administration. A step may consist of multiple phases.

Type: Extensible
Order: Non-Significant
Root: No

Table TID 11007. Imaging Agent Administration Step

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (130195, DCM, "Imaging Agent Administration Step")	1	M		
2	>	CONTAINS	TEXT	EV (130196, DCM, "Imaging Agent Administration Step Identifier")	1	M		

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
3	>	CONTAINS	UIDREF	EV (130246, DCM, "Imaging Agent Administration Performed Step UID")	1	MC	IFF root Concept Name Code Sequence = (130227, DCM, "Performed Imaging Agent Administration")	
4	>	CONTAINS	CODE	EV (130181, DCM, "Administration Mode")	1	M		DCID 63 "Imaging Agent Administration Mode"
5	>	CONTAINS	CODE	EV (113874, DCM, "Person Role in Organization")	1-n	MC	IF Row 4 = (130174, DCM, "Manual Administration")	DCID 7450 "Person Roles"
6	>	CONTAINS	CODE	EV (130250, DCM, "Administration Step Type")	1	M		DCID 72 "Imaging Agent Administration Step Type"
7	>	CONTAINS	NUM	EV (130197, DCM, "Administration Delay")	1	U		UNITS = EV (s, UCUM, "s")
8	>	CONTAINS	NUM	EV (130198, DCM, "Scan Delay")	1	U		UNITS = EV (s, UCUM, "s")
9	>	CONTAINS	NUM	EV (130193, DCM, "Pressure Limit")	1	UC	IFF Row 4 = (130173, DCM, "Automated Administration")	UNITS = EV (kPa, UCUM, "kPa")
10	>	CONTAINS	CODE	EV (410675002, SCT, "Route of Administration")	1	M		DCID 11 "Route of Administration"
11	>>	HAS PROPERTIES	CODE	EV (272737002, SCT, "Site of")	1	UC	IF Row 10 equals(47625008, SCT, "Intravenous route") OR (12130007, SCT, "Intra-articular route")	DCID 3746 "Percutaneous Entry Site"
12	>>>	HAS CONCEPT MOD	CODE	EV (272741003, SCT, "Laterality")	1	UC	IF Row 11 has laterality	DCID 247 "Left-Right Only"
13	>	CONTAINS	INCLUDE	DTID 11008 "Imaging Agent Administration Phase"	1-n	M		
14	>	CONTAINS	INCLUDE	DTID 11023 "Imaging Agent Administration Graph"	1-n	UC	IFF root Concept Name Code Sequence = (130227, DCM,	

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
							"Performed Imaging Agent Administration")	
15	>	CONTAINS	NUM	EV (130219, DCM, "Number of Injector Heads")	1	UC	IFF Row 4 = (130174, DCM, "Automated Administration")	
16	>	CONTAINS	CODE	EV (130218 99cp1988newcode0002, DCM, "Programmable Injector Device")	1	UC	IFF Row 4 = (130174, DCM, "Automated Administration")	DCID 231 "Yes-No Only"
17	>	CONTAINS	CONTAINER	EV (130172, DCM, "Manually triggered injection information")	1	UC	IF Row 4 = (130173, DCM, "Automated Administration") AND IFF root Concept Name Code Sequence = (130227, DCM, "Performed Imaging Agent Administration")	
18	>>	CONTAINS	NUM	EV (130241, DCM, "Total Step Volume Administered")	1	M		UNITS = EV (ml, UCUM, "ml")
19	>>	CONTAINS	NUM	EV (130242, DCM, "Total number of manually triggered injections")	1	M		
20	>	CONTAINS	TEXT	EV(99cp1986newcode0001, DCM, "Imaging Agent Administration Step Sequence Number")	1	MC	IF root Concept Name Code Sequence = (130226, DCM, "Planned Imaging Agent Administration")	

Content Item Descriptions

Row 14	For a multi- syringe/pump injector there will be one graph per syringe/pump system. This is only included in the performed administration because it is descriptive not prescriptive.
Row 20	Imaging Agent Administration Step Sequence Number shall be treated as the ordinal of the defined administration step within the administration steps (i.e., "1" for the first step, "2" for the second, etc.).

D DICOM Controlled Terminology Definitions (Normative)

This Annex specifies the meanings of codes defined in DICOM, either explicitly or by reference to another part of DICOM or an external reference document or standard.

The contents of this table are available in OWL format at <ftp://medical.nema.org/medical/dicom/resources/ontology/dcm/dcm.owl> and in Biportal.

Table D-1. DICOM Controlled Terminology Definitions (Coding Scheme Designator "DCM" Coding Scheme Version "01")

Code Value	Code Meaning	Definition	Notes
...
13021899cp19 <u>88newcode000</u> <u>2</u>	Programmable <u>Injector</u> Device	<u>Can be configured to execute a series of phases automatically.</u>	
...