

## DICOM Correction Item

Correction Number		CP-650
Log Summary: Add Pediatric Patient Size to Patient Demographics Module		
Type of Modification	Name of Standard	
Addition	PS 3.3, 3.6, 3.16 - 2009	
<p>Rationale for Correction</p> <p>Pediatric emergency medicine has broadly adopted a coding system for categorizing patients by size to minimize inappropriate dose of medications or radiation. For patient safety purposes, it is useful to convey the patient's size code information to modalities in Modality Worklist, and to record the size used in the Composite SOP Instance attributes. This should be a Code Sequence attribute (rather than free text in the Additional Patient Information attribute) to allow automated protocol selection based on size category.</p> <p>See Frush, D.P., et al., "Improved Pediatric Multidetector Body CT Using a Size-Based Color-Coded Format", AmJourRoent 2002 (<a href="http://www.ajronline.org/cgi/content/full/178/3/721">http://www.ajronline.org/cgi/content/full/178/3/721</a>)</p> <p>Additionally, there are quantitative measurement (e.g., calcium scoring) applications that utilize a categorization of patient size. While this categorization may be inferred from the Patient Size and Patient Weight attributes, if known, in some situations a directly coded categorization may be useful. This categorization is generally not conveyed in Modality Worklist (hence the Context Group is not specified in the Patient Demographic Module), but could be recorded in the Composite SOP Instance attributes.</p>		
<p>Sections of documents affected</p> <p>PS 3.3 Section C.2.3, C.7.2.2</p> <p>PS 3.6 Section 6, Annex A</p> <p>PS 3.16 Annex B, D</p>		
Correction Wording:		

***In PS 3.3 add new attribute to Patient Demographic Module***

### C.2.3 Patient Demographic Module

Table C.2-3 defines the Attributes relevant to generally describing a patient.

**Table C.2-3  
 PATIENT DEMOGRAPHIC MODULE ATTRIBUTES**

Attribute Name	Tag	Attribute Description
...		
Patient's Size	(0010,1020)	Patient's height or length in meters
Patient's Weight	(0010,1030)	Weight of the patient in kilograms
<b><u>Patient's Size Code Sequence</u></b>	<b><u>(0010,1021)</u></b>	<b><u>Patient's size category code</u></b> <b><u>One or more Items shall be included in this sequence.</u></b>

<b>&gt; Include Code Sequence Macro Table 8.8-1</b>		<b><u>Baseline Context ID is CID 7040 for pediatric patients</u></b>
Patient's Address	(0010,1040)	Legal address of the named patient
...		

**In PS 3.3 add new attribute to Patient Study Module**

**C.7.2.2 Patient Study Module**

Table C.7-4a defines Attributes that provide information about the Patient at the time the Study was performed.

**Table C.7-4a  
PATIENT STUDY MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
...			
Patient's Size	(0010,1020)	3	Length or size of the Patient, in meters.
Patient's Weight	(0010,1030)	3	Weight of the Patient, in kilograms.
<b><u>Patient's Size Code Sequence</u></b>	<b><u>(0010,1021)</u></b>	<b><u>3</u></b>	<b><u>Patient's size category code</u></b> <b><u>One or more Items shall be included in this sequence.</u></b>
<b>&gt;Include 'Code Sequence Macro' Table 8.8-1</b>		<b><u>Baseline Context ID is CID 7040 for pediatric patients</u></b> <b><u>Baseline Context ID is CID 7042 for CT calcium scoring</u></b>	
Occupation	(0010,2180)	3	Occupation of the Patient.
...			

**In PS 3.6 Section 6 add new attribute description**

Tag	Name	Keyword	VR	VM
<b><u>(0010,1021)</u></b>	<b><u>Patient's Size Code Sequence</u></b>	<b><u>PatientSizeCodeSequence</u></b>	<b><u>SQ</u></b>	<b><u>1</u></b>

**In PS 3.6 Annex A add new Context Group UID**

**Table A-3  
 CONTEXT GROUP UID VALUES**

Context UID	Context Identifier	Context Group Name
...	...	...
<u>1.2.840.10008.6.1.824</u>	<u>7040</u>	<u>Broselow-Luten Pediatric Size Categories</u>
<u>1.2.840.10008.6.1.824</u>	<u>7042</u>	<u>Calcium Scoring Patient Size Categories</u>

**In PS 3.16 Annex B Add new Context Groups**

**CID 7040      Broselow-Luten Pediatric Size Categories**

**Context ID 7040**

**Broselow-Luten Pediatric Size Categories**

**Type: Non-Extensible      Version: 20100127**

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
SRT	F-051E3	Broselow Luten Pink Zone (6-7 kg)
SRT	F-051DF	Broselow Luten Red Zone (8-9 kg)
SRT	F-051E4	Broselow Luten Purple Zone (10-11 kg)
SRT	F-051E8	Broselow Luten Yellow Zone (12-14 kg)
SRT	F-051E7	Broselow Luten White Zone (15-18 kg)
SRT	F-051E0	Broselow Luten Blue Zone (19-23 kg)
SRT	F-051E5	Broselow Luten Orange Zone (24-29 kg)
SRT	F-051E6	Broselow Luten Green Zone (30-36 kg)

**CID 7042      Calcium Scoring Patient Size Categories**

Patient sizes for calibrating calcium scoring, from the Consortium for Multi-Detector CT Evaluation of Coronary Calcium.

**Context ID 7042**

**Calcium Scoring Patient Size Categories**

**Type: Non-Extensible      Version: 20100127**

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)
DCM	113601	Small: < 32.0 cm lateral thickness
DCM	113602	Medium: 32.0–38.0 cm lateral thickness
DCM	113603	Large: > 38.0 cm lateral thickness

***In PS 3.16 Annex D Add new Terms***

Code Value	Code Meaning	Definition	Notes
...			
113601	<b><u>Small: &lt; 32.0 cm lateral thickness</u></b>	<b><u>Small body thickness for calcium scoring adjustment. Lateral thickness is measured from skin-to-skin, at the level of the proximal ascending aorta, from an A/P localizer image.</u></b>	
113602	<b><u>Medium: 32.0–38.0 cm lateral thickness</u></b>	<b><u>Medium body thickness for calcium scoring adjustment. Lateral thickness is measured from skin-to-skin, at the level of the proximal ascending aorta, from an A/P localizer image.</u></b>	
113603	<b><u>Large: &gt; 38.0 cm lateral thickness</u></b>	<b><u>Large body thickness for calcium scoring adjustment. Lateral thickness is measured from skin-to-skin, at the level of the proximal ascending aorta, from an A/P localizer image.</u></b>	