DICOM Correction Item

Correction Number	CP-482

Log Summary: Addition of stress/rest terminology to PET IOD	

Type of Modification	Name of Standard
Enhancement	PS 3.3 2004

Rationale for Correction

These attributes are already part of the NM IOD (the Acquisition Context Module and associated stress and rest label codes were added in CP-351). The PET IOD also needs to include these attributes, as the same kind of clinical situations arise for PET cardiac imaging. This CP proposes adding exactly the same attributes as are used in the NM IOD, as Type 3 attributes.

The PET IOD refines the definition of a Series to stipulate that all Images in the Series must be from the same temporal frame of reference, same fundamental meaning, same activity source, same isotope/radiopharmaceutical, derived from the same reconstruction processing, and originated from the same acquisition setup and parameters. Therefore, it is consistent to further stipulate that the patient state (specifically stress or rest) indicated in the Acquisition Context Module must be the same across the entire Series as well.

Sections of documents affected

PS 3.3 Sections A.21.3, C.8.9.1.1

Correction Wording:

Add the following line to PS3.3 Table A.21.3-1, and the module to the table A.1-1

Table A.21.3-1
PET IMAGE IOD MODULES

IE	Module	Reference	Usage
.....			
Image	Image Pixel	C.7.6.3	M
	Acquisition Context	**C.7.6.14**	**U**
	PET Image	C.8.9.4	M
....			

Add the following section to Part 3.3.

A.21.3.1   Acquisition Context Module

The Defined Template for Acquisition Context Sequence (0040,0555) is TID 3470.

Modify section C.8.9.1.1 of Part 3.3 as follows.

Note: …

The PET Image IOD further refines a PET Series IE by the attributes in the PET Series Module, the PET Isotope Module, ~~and~~ the PET Multi-gated Acquisition Module**, and the Acquisition Context Module**. These are the attributes that shall not change from Image to Image. Therefore, in addition to the criteria above for a General Series (same patient, study, frame of reference, equipment), the attributes in the PET Series IE define a PET series as a group of images that: are from the same temporal frame of reference; have the same fundamental meaning (e.g. same units: either activity density, metabolism, or attenuation); are derived from the same activity source (emission or transmission); are from the same isotope and radiopharmaceutical; were derived from the same reconstruction processing; and, originated from the same acquisition setup and parameters**, including the patient conditions (cardiac stress or rest) if applicable**.