

DICOM Correction Proposal

STATUS	Final Text
Date of Last Update	2013/10/15
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Correction Number	CP-1306
Log Summary: Structural brain MR codes	
Name of Standard PS 3.16 2011	
<p>Rationale for Correction:</p> <p>Standard codes are important for the quantification of brain structure (e.g., hippocampal) volume for Alzheimer's Disease that encode the output of some analysis tool results that may be used in Structured Reports using standard codes.</p> <p>These might be used, for example, in the (G-C0E3, SRT, "Finding Site") (\$TargetSite parameter) of TID 300, or TID 1419 (in CP 1112 SR Structure for ROI Statistics).</p> <p>The codes are consistent with those being added in CID 7153 Brain Tissue Segmentation Types of CP 1258.</p>	
Correction Wording:	

Amend PS 3.16 to add a context group containing structures for volumetric measurements:

CID 7140

Brain Structures for Volumetric Measurements

Context ID 7140
Brain Structures for Volumetric Measurements
Type: Extensible Version: 20131010

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-CT Concept ID	UMLS Concept Unique ID
SRT	T-A3230	Amygdala	4958002	C0002708
SRT	T-D0558	Brain Stem	119238007	C1268144
SRT	T-A3200	Caudate Nucleus	11000004	C0007461
SRT	T-A6041	Cerebellar Cortex	361593004	C1284087
SRT	T-A6080	Cerebellar White Matter	33060004	C0152381
SRT	T-A2020	Cerebral Grey Matter	40146001	C0007776
SRT	T-A2030	Cerebral White Matter	68523003	C0152295
SRT	T-D1403	Cranial Cavity	264452006	C1280705
SRT	T-A1504	Cranial Subarachnoid Space	362312008	C1284571
SRT	T-A1604	Fifth Ventricle	180933005	C0228158
SRT	T-A1820	Fourth Ventricle	35918002	C0149556
SRT	T-A3500	Globus Pallidus	14738005	C0017651

SRT	T-A2570	Hippocampus	5366008	C0019564
SRT	T-A1509	Cerebellar Subarachnoid Space	263972004	C0446676
SRT	T-A1721	Inferior Horn of Lateral Ventricle	362315005	C1284574
SRT	T-A1650	Lateral Ventricle	66720007	C0152279
SRT	T-A0149	Nucleus Accumbens	427667007	C0028633
SRT	T-A0190	Intracranial structure	128319008	C1267697
SRT	T-A3400	Putamen	89278009	C0034169
SRT	T-D0593	Thalamus	119406000	C0458271
SRT	T-A1740	Third ventricle	49841001	C0149555
DCM	110700	Ventral Diencephalon		
DCM	110701	White Matter T1 Hypointensity		
DCM	110702	White Matter T2 Hyperintensity		

- Notes:
1. (T-D1403, SRT, "Cranial Cavity") may be used to describe the volume of the entire intra-cranial space (intra-cranial volume or ICV).
 2. (T-A6041, SRT, "Cerebellar Cortex") is the gray matter of the cerebellum (as distinct from (T-A6080, SRT, "Cerebellar white matter")).
 3. (T-A1504, SRT, "Cranial Subarachnoid Space") may be used to describe the volume of the exterior CSF (surrounding the brain, excluding the ventricles).
 4. (T-A1509, SRT, "Cerebellar Subarachnoid Space") may be used to describe the volume of the inferior intracranial CSF space (infra-tentorial).

Amend PS 3.16 to add definitions:

DICOM Code Definitions (Coding Scheme Designator "DCM" Coding Scheme Version "01")

Code Value	Code Meaning	Definition	Notes
110700	Ventral Diencephalon	Ventral structures of the diencephalon that cannot readily be distinguished on MR imaging, including the hypothalamus, mammillary body, subthalamic nuclei, substantia nigra, red nucleus, lateral geniculate nucleus, medial geniculate nucleus, zona incerta, cerebral peduncle, lenticular fasciculus, medial lemniscus, and optic tract. See " http://neuromorphometrics.org:8080/Seg/html/segmentation/ventral%20diencephalon.html ".	

110701	White Matter T1 Hypointensity	Area(s) of reduced intensity on T1 weighted images relative to the surrounding white matter. These may be indicative of age-related or neurodegenerative white matter lesions, and may be co-located with areas of white matter T2 hyperintensity, but the concept is specifically confined to the MR appearance on T1 weighted images.	
110702	White Matter T2 Hyperintensity	Area(s) of increased intensity on T2 weighted images relative to the surrounding white matter. These may be indicative of age-related or neurodegenerative white matter lesions, and may be co-located with areas of white matter T1 hypointensity, but the concept is specifically confined to the MR appearance on T2 weighted images.	

Amend PS 3.6 Table A3:

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

Context UID	Context Identifier	Context Group Name
...		
<u>1.2.840.10008.6.1.967</u>	<u>7140</u>	<u>Brain Structures for Volumetric Measurements</u>
...		