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7	Submission Date	2025/12/19

8	Correction Number CP-2601
9	Log Summary: Add Contrast Agents
10	Name of Standard
11	PS3.16
12	Rationale for Correction:
13	The list of MR contrast agents in CID 12 is incomplete.
14	Add Gadopichlenol.
15	Use SCT concepts instead of RXNORM and RADLEX.
16	<i>[Ed.Note: As stated in the existing note, some agents can be encoded as either products or substances in SNOMED CT; currently we are using product, and in SNOMED these are related to substance by "Has active ingredient" relationship. However, there is no such product for Gadopichlenol, so use substance instead.]</i>
17	
18	
19	<i>[Ed.Note: There may be some confusion about whether to use the salt-form versus the acid, e.g., Gadoterate meglumine (-/712714000) versus Gadoteric acid (785368006/710812003), which have different product/substance concepts in SNOMED; currently we use the salt form substance (712714000) (there is no product form).]</i>
20	
21	
22	<i>[Ed.Note: Consider refactoring CID 12 into modality-specific sub-groups, e.g., X-Ray, MR, US, or type of substance, e.g., paramagnetic, or ingredient based, e.g., gadolinium.]</i>
23	
24	<i>[Ed.Note: Consider adding column to CID 12 to show CID 13 value (similar to units, segmentation category pattern.)]</i>
25	<i>[Ed. Note: Consider adding low and high osmolality generic children of ionic and non-ionic agents.]</i>
26	<i>[Ed.Note: CRS request#nnnnn to add 1363068006, 410872002, 1340006004, 1340009006]</i>
27	Correction Wording:

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

CID 12 Imaging Contrast Agent

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
 Keyword: ImagingContrastAgent
 FHIR Keyword: dicom-cid-12-ImagingContrastAgent
 Type: Extensible
 Version: ~~20210714~~yyymmdd
 UID: 1.2.840.10008.6.1.10

Table CID 12. Imaging Contrast Agent

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID	Trade Name (Informative)
SCT	15158005	Air	A-80230	C0001861	
SCT	25419009	Barium Sulfate	C-12217	C0004754	
SCT	90745007	Bunamiodyl	C-B0315	C0623554	
SCT	31811003	Carbon dioxide	C-10520	C0007012	
SCT	62442005	Chloriodized oil	C-B0316	C0301444	
SCT	7140000	Contrast agent	C-B0300	C2930749	
SCT	12335007	Diatrizoate	C-B0317	C0012004	Angiovist™ (Berlex), Cardiografin™ (Bracco), Cystografin™ (Bracco), Gastrografin™ (Bracco), Gastrovist™ (Berlex), Hypaque™ (GE), MD-nn™ (Mallinckrodt), Reno-nn™ (Bracco), Renografin™ (Bracco), Renovist™ (Bracco), Sinografin™ (Bracco), Urovisit™ (Berlex)
SCT	792865009	Gadobenate dimeglumine		C5230781	Multihance® (Bracco)
SCT	407976008	Gadobutrol	C-B0415	C0291216	Gadavist®
SCT	354088005	Gadodiamide	C-B03C3	C0082646	Omniscan™ (GE)
SCT	770982005	Gadofosveset		C1698893	Vasovist™ (Epix), Ablavar
SCT	768763008	Gadolinium		C0303704	
SCT	109216000	Gadopentetate dimeglumine	C-B0321	C0060934	Magnevist™ (Berlex)
SCT	<u>1363068006</u>	<u>Gadopiclenol</u>		<u>C5392287</u>	<u>Vueway® (Bracco), Elucirem™ (Guerbet)</u>
SCT	712714000	Gadoterate meglumine	C-F06BC	C0118538	Clariscan™ (GE), Dotarem® (Guerbet)
SCT	353946009	Gadoteridol	C-B03AD	C0060930	ProHance (Bracco)
SCT	409477004	Gadoversetamide	C-B0493	C0754820	Optimark® (Liebel-Flarsheim)
SCT	440223009	Gadoxetate disodium	C-178FF	C1714000	Eovist (Bayer)
SCT	12801003	Iodamide meglumine	C-B0326	C0065884	Renovue™ (Bracco)

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID	Trade Name (Informative)
SCT	73212002	Iodipamide	C-B0318	C0021971	Cholographin™ (Bracco), Sinografin™ (Bracco)
SCT	353962003	Iodixanol	C-B03BC	C0063757	Visipaque™ (GE)
SCT	89595000	Iodized oil	C-B0319	C0021972	
SCT	86584005	Iodoalphonic acid	C-B0323	C0063766	
SCT	74554008	Iodophthalein	C-B0341	C0163095	
SCT	40710000	Iodopyracet	C-B0327	C0021990	
SCT	109218004	Iohexol	C-B0322	C0022005	Omnipaque™ (GE)
RADLEXSCT	<u>RID41585</u> <u>1340006004</u>	Ionic iodinated contrast agent		G0361904 <u>C5967521</u>	
SCT	109219007	Iopamidol	C-B0329	C0022026	Isovue™ (Bracco)
SCT	76155001	Iopanoic acid	C-B0328	C0022028	Telepaque™ (GE)
SCT	28121005	Iophendylate	C-B0331	C0022029	Pantopaque™ (Alcon)
SCT	23053002	Iophenoxic acid	C-B0333	C0063816	
SCT	353903006	Iopromide	C-B0382	C0063817	Ultravist or Imeron
SCT	353912008	Iothalamate	C-B038B	C0022032	Conray™ (Mallinckrodt), Cysto-Conray™ (Mallinckrodt), Vascoray™ (Mallinckrodt)
SCT	109222009	Ioversol	C-B0332	C0063828	Optiray™ (Mallinckrodt)
SCT	412228003	Ioxaglate	F-61E1C	C0205807	Hexbrix™ (Mallinckrodt)
SCT	409484007	Ioxilan	C-B0303	C0063829	Imagenil
SCT	87445005	Ipodate	C-B0335	C0022049	Bilivist™ (Berlex), Oragrafin™ (Bracco)
RXNORMSCT	<u>236987 410872002</u>	Mangafodipir trisodium		G0772324 <u>C0067297</u>	Teslascan™ (GE)
SCT	47192000	Meglumine diatrizoate	C-B0345	C0012005	Angiovist™ (Berlex), Cardiografin™ (Bracco), Cystografin™ (Bracco), Gastrografen™ (Bracco), Gastrovist™ (Berlex), MD-nn™ (Mallinckrodt), Reno-nn™ (Bracco), Renografin™ (Bracco), Renovist™ (Bracco), Sinografin™ (Bracco), Urovist™ (Berlex)
SCT	69783005	Meglumine iodipamide	C-B0324	C0065885	Cholographin Meglumine™ (Bracco)
SCT	90733003	Metrizamide	C-B0348	C0025869	Amipaque™ (GE)
SCT	354094002	Metrizoate	C-B03C9	C0025870	Isopaque™ (GE)
RADLEXSCT	<u>RID38696</u> <u>1340009006</u>	Non-ionic iodinated contrast agent		G0521968 <u>C5967524</u>	
SCT	43538006	Non radiopaque medium	C-B0312	C0301446	
SCT	24099007	Oxygen	C-10110	C0030054	

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID	Trade Name (Informative)
SCT	111158001	Propyliodone	C-B0337	C0033509	Dionosil™ (GSK)
SCT	7140000	Radiopaque medium	C-B0300	C2930749	
SCT	32836007	Sodium acetrizoate	C-B0338	C0546847	Salpix™ (Ortho)
SCT	83423008	Sodium diprotrizoate	C-B0342	C0301447	
SCT	925002	Sodium iodipamide	C-B0325	C0301445	Cholographin Sodium™ (Bracco)
SCT	38344006	Sodium iodomethamate	C-B0344	C0301448	
SCT	109212003	Sodium tyropanoate	C-B0314	C0936260	
SCT	11713004	Water	C-10120	C0043047	

Note

- The codes drawn from SNOMED are recommended to be those from the concept hierarchy of "pharmaceutical/biological product", and secondarily from the hierarchy "substance".
- Trade names are from <http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm>.

For reference unchanged, DICOM PS3.16:

CID 13 Imaging Contrast Agent Ingredient

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML
Keyword: ImagingContrastAgentIngredient
FHIR Keyword: dicom-cid-13-ImagingContrastAgentIngredient
Type: Extensible
Version: 20190817
UID: 1.2.840.10008.6.1.11

Table CID 13. Imaging Contrast Agent Ingredient

Coding Scheme Designator	Code Value	Code Meaning	SNOMED-RT ID	UMLS Concept Unique ID
SCT	44588005	Iodine	C-11400	C0021968
SCT	58281002	Gadolinium	C-17800	C0016911
SCT	31811003	Carbon Dioxide	C-10520	C0007012
SCT	39290007	Barium	C-12200	C0004749
SCT	83598005	Xenon	C-17200	C0043339
SCT	15158005	Air	A-80230	C0001861
SCT	24099007	Oxygen	C-10110	C0030054
SCT	11713004	Water	C-10120	C0043047
SCT	3829006	Iron	C-13000	C0302583