

Minimum data set in Imaging for collection in local applications Version 1.0						
Group of items	Operating objectives	Item n°	Collection status	Item	Item definition	Expected value
Study (1...n series)	Qualification of a study (set of series of images) taken during a visit	1.1	Mandatory	Unique number	Unique number identifying the study.	Character string Dicom Tag (0020,000D)
		1.2	Mandatory	Description	Description of the study.	Character string Dicom Tag (0008,1030)
		1.3	Mandatory	Time of acquisition	Time of acquisition	Date and time Dicom Tag (0008, 0032), (0008, 0022) or DicomTag (0008, 0021), (0008, 0023) or Dicom Tag (0008, 0031), (0008, 0033)
		1.4	Mandatory	Storage location	Study storage location (PACS, web server, etc.).	Character string
		1.5	Optional	Institution name	Name of the organization or institution responsible for the study.	Character string Dicom Tag (0008,0080)
		1.6	Mandatory	Terms and conditions	List of all modalities used.	Character string Dicom Tag (0008,0061)
		1.7	Mandatory	Number of series	Number of series included in the study.	Integer Dicom Tag (0020, 1206)
Equipment	Qualification of the equipment used to acquire a series of images	2.1	Mandatory	Manufacturer	Manufacturer's name.	Character string Dicom Tag (0008,0070)
		2.2	Mandatory	Model name	Equipment model name	Character string Dicom Tag (0008,1090)
		2.3	Mandatory	Acquisition software version	Software version of series acquisition equipment.	Character string Dicom Tag (0018,1020)
Series (1...n images Medical)	Qualification of a series of medical images taken during a visit. All images have the same acquisition modality and technique (each series belongs to a study)	3.1	Optional	User number	User number to identify the series.	Character string Dicom Tag (0020,0011)
		3.2	Mandatory	Unique reference number	Unique number (SUID) of the series referenced in the series study.	Character string Dicom Tag (0020,000E)
		3.3	Mandatory	Modality	Type of equipment used to acquire series data.	Character string Dicom Tag (0008, 0060)
		3.4	Mandatory	Description	Series description.	Character string Dicom Tag (00e1, 1040), (0008, 103E), (0008, 1030)
		3.5	Optional	Body part examined	Body part examined.	Character string Dicom Tag (0018,0015)
		3.6	Mandatory	Number of images in series	Number of images in the series.	Integer Dicom Tag (0020,1209)
		3.7	Mandatory	Time of acquisition	Time of acquisition	Date and time Dicom Tag (0008,002a) Dicom Tag (0008,0032)
		3.8	Mandatory (if PET) else optional	Patient weight	Patient weight in Kgs.	Dicom Tag (0010,1030)
		3.9	Mandatory (if PET) else optional	Patient size	Patient height in meters.	Decimal/Float Dicom Tag (0010,1020)
Contrast agent/radiopharmaceutical	Qualification of medical image contrast media	4.1	Mandatory if PT, Optional if NM	Product name	Name of radiopharmaceutical.	Character string Dicom Tag (0018,0031)
		4.2	Optional	Contrast agent	Contrast agent.	Character string

			(CT, MR, DX)			Dicom Tag (0018,0010)
		4.3	Optional (CT, MR, DX)	Injection start time	Injection start time.	Date and time Dicom Tag (0018,1042)
		4.4	Optional (CT, MR, DX)	Injection end time	Injection end time.	Date and time Dicom Tag (0018,1043)
		4.5	Mandatory if PT, Optional if NM	Actual injection time	Actual time of administration of radiopharmaceutical to patient for imaging purposes.	Date and time Dicom Tag (0018,1072)
		4.6	Mandatory if PT, Optional if NM	Radiopharmaceutical dose	Radiopharmaceutical dose administered to the patient, measured in megabecquerels (Mbq) at the start time of radiopharmaceutical treatment.	Integer Dicom Tag (0018,1074)
<b>Medical image</b>	Medical image taken during a visit (each image belongs to a series of images)	5.1	Mandatory	Unique number	Unique number used to identify the image.	Dicom Tag (0008,0018) Character string
		5.2	Mandatory	Cutting thickness	Nominal cut thickness, in mm.	Character string Dicom Tag (0018,0050)
		5.3	Mandatory	Pixel spacing	Physical distance between the centers of each two-dimensional pixel, specified by two numerical values.	Character string Dicom Tag (0028,0030)
		5.4	Optional	Field of view	The field of view (FOV) is defined as the dimensions of the exact anatomical region included in a scan in mm.	Integer Defined by 5.2, 5.3, 5.5 and 5.6
		5.5	Mandatory	Number of pixels in line direction	Number of pixels in the direction of the reconstructed matrix line.	Integer Dicom Tag (0028,0010)
		5.6	Mandatory	Number of pixels in column direction	Number of pixels in the column direction of the reconstructed matrix.	Integer Dicom Tag (0028,0011)
<b>Magnetic Resonance Imaging (MRI)</b>	Qualification of a magnetic resonance image (MRI)	6.1	Mandatory	Pulse sequence type	Pulse sequence type.	Character string Dicom Tag (0018,0024)
		6.2	Mandatory	Nominal field strength	Nominal magnet field strength, in Tesla.	Decimal/Float Dicom Tag (0018,0087)
		6.3	Mandatory	Description of acquisition type	Description of the type of acquisition, including the number of dimensions.	Character string Dicom Tag (0018,0023)
		6.4	Mandatory	Repetition time	Repetition time in ms.	Decimal/Float Dicom Tag (0018,0080)
		6.5	Mandatory	Echo time	Echo time in ms.	Decimal/Float Dicom Tag (0018,0081)
		6.6	Mandatory	Precession frequency	Precession frequency in MHz of the target core.	Decimal/Float Dicom Tag (0018,0084)
		6.7	Mandatory	Tilt angle	Tilt angle of the RF pulse in degrees affecting T1 weighting.	Decimal/Float Dicom Tag (0018,0024) / (0018,1314)
		6.8	Mandatory	Period between the middle of the RF inversion pulse and the middle of the excitation pulse	Period between the middle of the RF inversion pulse and the middle of the excitation pulse to detect the amount of longitudinal magnetization.	Decimal/Float Dicom Tag (0018,0082)
		6.9	Mandatory	Receiving antenna used	Receiving antenna used.	Character string Dicom Tag (0018,1250)
<b>Computed tomography (CT)</b>	CT-scan image qualification	7.1	Optional	Pic kilovoltage produced by the X-ray generator	Kilovoltage peak of the voltage produced by the X-ray generator.	Integer Dicom Tag (0018,0060)

imaging		7.2	Mandatory	X-ray tube current in mA	X-ray tube current in mA.	Integer Dicom Tag (0018,1151)
		7.3	Mandatory	X-ray exposure time in ms.	X-ray exposure time in ms.	Integer Dicom Tag (0018,1150)
		7.4	Mandatory	"Spiral Pitch Ratio of table feed per rotation to total collimation width	"Spiral Pitch Ratio of table feed per rotation to total collimation width.	Decimal/Float Dicom Tag (0018,9311)
		7.5	Mandatory	Filter type	Filter type.	Character string DicomTag (0018,1160)
		7.6	Mandatory	Convolution kernel or algorithm	A label describing the convolution kernel or algorithm used to reconstruct the data.	Character string Dicom Tag (0018,1210)
Nuclear Medicine Imaging (NM and PT)	Image qualification in nuclear medicine (NM) and PT	8.1	Mandatory	Attenuation correction method	Attenuation correction method	Character string Dicom Tag (0054,1101)
		8.2	Mandatory	Reconstruction method	Reconstruction method e.g. 2D filtered back-projection, 2D iterative, 3D PROMIS, 3D FAVOR, 3D iterative.	Character string Dicom Tag (0054,1103)
		8.3	Mandatory	Diffusion correction method	Scattering correction method. For example, convolution-subtraction, dual-energy window, model-based, use of attenuation data.	Character string Dicom Tag (0054,1105)
Digital radiology imaging (DX)	Image qualification in digital radiology (DX)	9.1	Mandatory	Laterality of body part	Examination of the laterality of the part of the body being examined.	Character string Dicom Tag (0020,0062)
		9.2	Optional	Patient orientation	Patient orientation.	Character string Dicom Tag (0020,0020)
		9.3	Mandatory	Kilovoltage peak of the X-ray generator used	Kilovoltage peak of the voltage produced by the X-ray generator.	Integer Dicom Tag (0008,0060)
		9.4	Mandatory	Exposure expressed in mAs	Exposure expressed in mAs, for example calculated from exposure time and X-ray tube current.	Integer DicomTag (0018,1152)
		9.5	Mandatory	X-ray exposure time in ms	X-ray exposure time in ms.	Integer DicomTag (0018,1150)
Segmentation	Qualification of the image segmentation method used to contour the region of interest (ROI) Optional concept	10.1	Mandatory	Unique DICOM object identifier	Unique DICOM identifier.	Character string Dicom Tag (0008,1155)
		10.2	Mandatory	Unique identifier ROI	Region of interest identifier (ROI)	Character string Dicom Tag (3006,0084)
		10.3	Mandatory	User-defined name for ROI	User-defined name for the ROI.	Character string Dicom tag (3006,0026)
		10.4	Optional	User-defined description of ROI.	User-defined description of the ROI.	Character string Dicom tag (3006,0028)
		10.5	Mandatory	ROI type	ROI type (e.g. RTStruct, binary mask).	Character string
		10.6	Mandatory	File identifier	Uniquely identifies the identifier or file name referenced.	Character string