

1	Status	Assigned
2	Date of Last Update	2017/01/24
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8	Correction Number CP-1679	
9	Log Summary: Add compression pressure to mammography, breast tomosynthesis and projection objects	
10	Name of Standard	
11	PS3.3, PS3.6	
12	Rationale for Correction:	
13	Compression force and compressed thickness are normally recorded for breast examinations. However, the same force has different	
14	effects on different sized breasts and causes different amounts deformation. It is useful to record the pressure applied, which is the	
15	force divided by the size of the contact area, in order to gather data with which to optimize and monitor the compression procedure.	
16	See Grimbergen K, den Heeten A. Pressure controlled compression of the breast in mammography. DI Europe. 2016 Oct; <a href="http://www.dieurope.com/latest_news/pressure-controlled-compression-of-the-breast-in-mammography">http://www.dieurope.com/latest_news/pressure-controlled-compression-of-the-breast-in-mammography</a> and de Groot J et al. Standardizing	
17	mammographic breast compression: Pressure rather than force? European Congress of Radiology. Vienna, Austria; 2012. <a href="http://pdf.posterng.netkey.at/download/index.php?module=get_pdf_by_id&amp;poster_id=109846">http://pdf.posterng.netkey.at/download/index.php?module=get_pdf_by_id&amp;poster_id=109846</a>	
18		
19		
20	Correction Wording:	

Amend DICOM PS3.3 as follows (changes to existing text are bold and underlined for additions and ~~struckthrough~~ for removals):

## C.8.11.5 DX Positioning Module

Table C.8-72. DX Positioning Module Attributes

Attribute Name	Tag	Type	Attribute Description
...	...	.	...
Body Part Thickness	(0018,11A0)	3	The average thickness in mm of the body part examined when compressed, if compression has been applied during exposure.
Compression Force	(0018,11A2)	3	The compression force applied to the body part during exposure, measured in Newtons.
<b><u>Compression Pressure</u></b>	<b><u>(0018,11ee)</u></b>	<b><u>3</u></b>	<b><u>The compression pressure applied to the body part during exposure, measured in kPa.</u></b>
Paddle Description	(0018,11A4)	3	Description of the compression paddle, if compression was applied to the body part during exposure.

## C.8.21.3.4 Breast Tomosynthesis Acquisition Module

Table C.8.21.3.4-1. Breast Tomosynthesis Acquisition Module Attributes

Attribute Name	Tag	Type	Attribute Description
X-Ray 3D Acquisition Sequence	(0018,9507)	1	Each Item represents an acquisition context related to one or more reconstructions.  The values of Acquisition Index (0020,9518) may be used as index in this Sequence.  One or more Items shall be included in this Sequence.
...	...	...	...
>Body Part Thickness	(0018,11A0)	1	The average thickness in mm of the body part examined when compressed, if compression has been applied during exposure.
...	...	...	...
>Compression Force	(0018,11A2)	1	The compression force applied to the body part during exposure, measured in Newtons.
<b><u>&gt;Compression Pressure</u></b>	<b><u>(0018,11ee)</u></b>	<b><u>3</u></b>	<b><u>The compression pressure applied to the body part during exposure, measured in kPa.</u></b>
>Paddle Description	(0018,11A4)	1	Description of the compression paddle, if compression was applied to the body part during exposure.
...	...	...	...

## C.8.31.1 Enhanced Mammography Image Module

Table C.8.31-1. Enhanced Mammography Image Module Attributes

Attribute Name	Tag	Type	Attribute Description
...	...	...	...
Body Part Thickness	(0018,11A0)	1	The average thickness in mm of the body part examined when compressed, if compression has been applied during exposure.
Compression Force	(0018,11A2)	1	The compression force applied to the body part during exposure, measured in Newtons.

Attribute Name	Tag	Type	Attribute Description
<b><u>Compression Pressure</u></b>	<b><u>(0018,11ee)</u></b>	<b><u>3</u></b>	<b><u>The compression pressure applied to the body part during exposure, measured in kPa.</u></b>
Paddle Description	(0018,11A4)	1	Description of the compression paddle, if compression was applied to the body part during exposure.
...	...	...	...

Amend DICOM PS3.6 as follows (changes to existing text are bold and underlined for additions and ~~struckthrough~~ for removals):

## 6 Registry of DICOM Data Elements

Table 6-1. Registry of DICOM Data Elements

Tag	Name	Keyword	VR	VM	
(0018,11A0)	Body Part Thickness	BodyPartThickness	DS	1	
(0018,11A2)	Compression Force	CompressionForce	DS	1	
<b><u>(0018,11ee)</u></b>	<b><u>Compression Pressure</u></b>	<b><u>CompressionPressure</u></b>	<b><u>DS</u></b>	<b><u>1</u></b>	
(0018,11A4)	Paddle Description	PaddleDescription	LO	1	