

Part IV - Appendix D

Average Patient Exposure Guide

Medical ESE's

Compliance with RHB 4.2.13.2 may be determined if the patient's exposure at skin entrance (ESE) does not vary from the national averages listed below by more than 50%. Facilities should strive for an ESE that does not vary from the national average by more than 20%. Facilities utilizing digital imaging systems shall not exceed the ESE Limits as outlined for a 200 speed system.

ESE Limits

Projection	Thickness	200 Speed/Digital	400 Speed
PA Chest – Grid - Non Grid	23 cm	12 - 38 7 - 23	7 - 23 2 - 8
AP Abdomen	23 cm	245 - 735	150 – 450
AP Lumbar Spine	23 cm	225 - 675	175 - 525
Full Spine (AP)	23 cm	130 - 390	72 - 218
AP Cervical Spine	13 cm	67 - 203	47 - 142
Lateral Skull	15 cm	72 - 218	35 - 105
Ret Pyelogram (AP)	23 cm	297-893	297-893
Thoracic Spine (AP)	23 cm	204-612	204-612
DP Foot	8 cm	37 - 111	37 - 111
Cephalometric	15 cm	15 - 45	15 - 45

Notes:

- a) Patient thicknesses are expressed in centimeters (cm).
- b) All measurements are made in air (no phantom).
- c) If the film/screen speed cannot be determined, it will be assumed to be 200 speed.

Mammography ESE's: Refer to RHB 5.11.5.10

Dental Intraoral ESE's:

This chart represents the range of exposures that will produce acceptable quality radiographs. Compliance with RHB 4.2.13.2 shall be considered met if the patient's exposure at skin entrance (ESE) is within the limits shown. Facilities utilizing digital imaging systems shall not exceed the ESE Limits as outlined for a "D" speed film system.

kVp	"D" Speed Film and Digital	"E" and "F" Speed Film
	ESE Limits	ESE Limits
50	340-690	176-384
55	280-600	152-324
60	248-528	132-276
65	216-480	112-240
70	192-420	96-204
75	136-312	80-168
80	120-276	72-144
85	104-240	64-126
90	96-216	56-108
95	88-192	48-64
100	80-168	40-56