ImPACT CT Patient Dosimetry Calculator: 64 Slice Scanners

1. Current Version 0.99x, Jan 06

Includes Siemens Sensation 64 and GE VCT

2. Philips Brilliance 40 and 64

Calculate as for a Philips MX8000 IDT. Essentially CTDI values in air and in phantom are similar, implying that filtration the same. Only difference is therefore that the beam is wider on the 40 and 64 scanners.

Use 'collimation (mm)' eg 7.5 or 40 mm, and type in value for 'relative CTDI' factor, form table below, in cell (I,12) on ScanCalculation page.

Data from Philips 64

Collimation		Relative CTDI factor	
(n x mm)	(mm)	Small fs	Large fs
12 x 0.625	7.5	-	1.018
16 x 0.625	10	1.002	1.000
12 x 1.25	15	-	0.875
40 x 0.625	25	0.877	0.876
32 x 1.25	40	-	0.749
64 x 0.625	40	0.749	0.748

(fs = focal spot)

3. Toshiba Aquilion 64

Detector array is the same. Assume that filtration is the same, therefore can calculate as for a Toshiba 16.

se 12/5/2006