

TABLE 5.1. Performance data of different PET scanners¹.

Performance	ADVANCE/ ADVANCE Nxi (General Electric)	ECAT ACCEL (CTI-Siemens)	ECAT EXACT HR+ (CTI- Siemens)	ECAT EXACT (CTI-Siemens)	ECAT ART (CTI- Siemens)	C-PET (Philips- ADAC)	ALLEGRO (Philips- ADAC)
Transaxial resolution							
FWHM (mm) at 1 cm		6.2 (2D)	4.6 (2D)				
	4.8 (2D/3D)	6.3 (3D)*	4.5 (3D)*	6.0 (2D/3D)	6.2	5.0*	4.8*
FWHM (mm) at 10 cm		6.7 (2D)	5.4 (2D)				
	5.4 (2D/3D)	7.4 (3D)*	5.6 (3D)*	6.7 (2D/3D)	6.9	6.4*	5.9*
Axial resolution							
FWHM (mm) at 0cm		4.0 (2D)	4.3 (2D)	4.2 (2D)	4.5 (2D)		
	4.7 (3D)	5.8 (3D)*	4.2 (3D)*	4.6 (3D)	4.9	5.5*	5.4*
FWHM (mm) at 10 cm		6.0 (2D)	5.0 (2D)	5.9 (2D)			
	5.4 (2D)	7.1 (3D)*	5.7 (3D)*	6.5 (3D)	6.6	5.9*	6.5*
System sensitivity (net trues) (cps/Bq/mL)							
	5.4 (2D) [†]	5.4 (2D)	5.4 (2D)	4.9 (2D)			
	31.0 (3D) [‡]	27.0 (3D)	24.3 (3D)	21.2 (3D)	7.3	12.1*	19.0*
Scatter fraction (%)							
	10 (2D)	16 (2D)	17 (2D)	16 (2D)			
	35 (3D)	36 (3D)	36 (3D)	36 (3D)	36	25	25

¹ Reprinted with permission of the Society of Nuclear Medicine from: Tarantola et al PET Instrumentation and Reconstruction Algorithms in Whole-body Applications. *J Nuc Med.* 2003;44:756–769.

* Assessed according to NEMA NU 2–2001, National Electrical Manufacturers Association; 2001.

[†] Measured at 300-keV LLD in high sensitivity mode.

[‡] Measured at 300-keV LLD.

All other parameters were measured following NEMA NU 2–1994, National Electrical Manufacturers Association, 1994.