Table S1. Characteristics of the studies considered for the review.

First Author [N. Ref.]	Reported Mean Activity (MBq)	Uptake Time	Reconstruction Methods
Valk PE [53]	370	2-3 hours	ns
Bruehlmeier M [54]	291 for [18F]FMISO, 500-700 for [15O]H2O	150-170 minutes	FWHM 5 mm
Rajendran JG [55]	3.7/Kg for [18F]FMISO and [18F]FDG	120-140 minutes	Hanning filter after scatter correction
Cher LM [56]	18.5/Kg for [18F]FMISO, ns for [18F]FDG	2 hours	3D reconstruction
Spence AM [57]	3.7/Kg	120-140 minutes	Hanning filter after corrections for scatter, singles, and random events
Swanson KR [58]	3.7/Kg	120-140 minutes	Hanning filter after corrections for scatter, singles, and random events
Szeto MD [59]	3.7/Kg	120-140 minutes	ns
Kawai N [60]	308 for [11F]FMISO, 246 for [11C]MET	120-140 minutes	Hanning filter (kernel FWHM 10 mm, cutoff frequency 0.4 cycle/projection element)
Hirata K [61]	400 for [18F]FMISO and [18F]FDG	4 hours	FBP with a Hann filter of 4 mm full-width at half-maximum
Yamamoto Y [62]	3.7/Kg	120 minutes	OSEM algorithm
Kawai N [63]	270	120 minutes	OSEM algorithm
Barajas RFJ [64]	259	90 minutes	Time-of-flight
Gerstner ER [65]	3.7/Kg	110 minutes	3D FBP and iterative techniques, filter sizes ranged from 2–6mm, reconstructed image resolution varied from 1–6mm
Yamaguchi S [66]	400	4 hours	FBP based method with a Hann filter of 4 mm full-width at half-maximum
Bekaert L [67]	400	120 minutes	OSEM 2D algorithm (nine subsets and two iterations) and filtered in 3-D with a Butterworth filter
Toyonaga T [84]	400	4 hours	FBP or OSEM with a Hann filter of 4 mm full width at half maximum

Toyonaga T [85]	413.9 for [18F]FMISO, 323.3 for [18F]FDG	4 hours	FBP or OSEM with a Hann filter of 4 mm full width at half maximum
Ferreira Da Ponte K [68]	5/Kg	2 hours	OSEM 2D algorithm (9 subsets and 2 iterations) and filtered in 3 dimensions with a Butterworth filter
Preibisch C [69]	194.6	120-140 minutes	OSEM (3 × 21 subsets, 172 × 172 matrix, nominal voxel size 1.67 × 1.67 × 2.03 mm3, Gaussian filter 4 mm)
Abdo R [70]	3.7/Kg	2 and 3 hours	ns
Abdo R [71]	3.7/Kg	2, 3 and 4 hours	ns
Miyake K [72]	ns	ns	FBP with a Hanning filter (kernel FWHM 10 mm, cutoff frequency 0.4 cycle/projection element)
Muzi M [73]	237 or 259	110 minutes	3D-FBP with corrections for attenuation, scatter, random events, dead time, and sensitivity, post-reconstruction 6-mm Hanning filter.
Abdo R [74]	3.7/Kg	2 and 3 hours	3D-OSEM algorithm
Collet S [75]	5/Kg	2 hours	OSEM 2D algorithm (9 subsets and 2 iterations) and filtered in 3 dimensions with a Butterworth filter on a 1.95 3 1.95 3 3.27 mm voxel size.
Huang S [76]	3.7/Kg	120 minutes	3D iterative OSEM with two iterations and 21 subsets, time of flight, PSF-correction, slice thickness 3 mm, matrix size 128 ×128, in-plane reconstruction pixels size 6.3638 mm×6.3638 mm, and a Gaussian post-reconstruction convolution kernel with full width at half maximum of 5 mm.
Suzuki K [77]	262 for [18F]FMISO, 235 for [18F]FDG	120 minutes	OSEM) algorithm
Uchinomura S [78]	3.7/Kg for [18F]FMISO and [18F]FDG	120 minutes	OSEM, incorporating correction with PSF and time-of-flight model (5

			iterations, 21 subsets) using a Gaussian filter.
Barajas RFJ [79]	3.7/Kg	90 minutes	ns
Suzuki T [80]	ns	120 minutes	OSEM
Wang Y [81]	350-550	4 hours	Attenuation correction using CT data, post-filtering at 2 mm FWHM, VUE Point HD (3D OSEM), PSF (subsets, 12; iterations, 4; filter cutoff, 2.0 mm).
Okamoto M [82]	413.9 for [18F]FMISO, 323.3 for [18F]FDG	4 hours	FBP or OSEM with a Hann filter of 4 mm full width at half maximum
Nehmeh SA [83]	298 for [18F]FMISO, 288 for [18F]FLT	90 minutes	OSEM algorithm (4 iterations; 21 subsets) with time-of -flight and PSF correction.

FWHM: Full Width at Half Maximum, PSF: Point Spread Function, OSEM: ordered subset expectation maximization, FBP: filtered back projection, MBq: megabecquerel, PET/CT: positron emission tomography/computed tomography, kg: kilogram, ns: not specified, [18F]FDG: [18F]fluorodesoxyglucose; [18F]FMISO: [18F]fluoromisonidazole; [18F]FLT: [18F]fluorothymidine; [15O]H2O: [15O]water; [11C]MET: [11C]methionine, 3D: three dimension.