

# Dosage Card (Version 5.7.2016)

## Multiple of Baseline Activity

Weight kg	Class A	Class B	Class C	Weight kg	Class A	Class B	Class C
3	1	1	1	32	3.77	7.29	14.00
4	1.12	1.14	1.33	34	3.88	7.72	15.00
6	1.47	1.71	2.00	36	4.00	8.00	16.00
8	1.71	2.14	3.00	38	4.18	8.43	17.00
10	1.94	2.71	3.67	40	4.29	8.86	18.00
12	2.18	3.14	4.67	42	4.41	9.14	19.00
14	2.35	3.57	5.67	44	4.53	9.57	20.00
16	2.53	4.00	6.33	46	4.65	10.00	21.00
18	2.71	4.43	7.33	48	4.77	10.29	22.00
20	2.88	4.86	8.33	50	4.88	10.71	23.00
22	3.06	5.29	9.33	52-54	5.00	11.29	24.67
24	3.18	5.71	10.00	56-58	5.24	12.00	26.67
26	3.35	6.14	11.00	60-62	5.47	12.71	28.67
28	3.47	6.43	12.00	64-66	5.65	13.43	31.00
30	3.65	6.86	13.00	68	5.77	14.00	32.33

$$A[\text{MBq}]_{\text{Administered}} = \text{Baseline Activity} \times \text{Multiple}$$

- For a calculation of the administered activity, the baseline activity value has to be multiplied by the multiples given above for the recommended radiopharmaceutical class (see reverse).
- If the resulting activity is smaller than the minimum recommended activity, the minimum activity should be administered.
- The national diagnostic reference levels should not be exceeded!

### Examples:

- $^{18}\text{F}$  FDP-PET Brain, 50 kg: activity to be administered [MBq] =  $14.0 \times 10.71$  [MBq]  $\approx 150$  MBq
- $^{123}\text{I}$  mIBG, 3 kg: activity to be administered [MBq] =  $28.0 \times 1$  [MBq] = 28 MBq < 37 MBq (Minimum Recommended Activity)  
→ activity to be administered: 37 MBq

This card is based upon the publication by Jacobs F, Thierens H, Piepsz A, Bacher K, Van de Wiele C, Ham H, Dierckx RA. Optimized tracer-dependent dosage cards to obtain weight-independent effective doses. Eur J Nucl Med Mol Imaging. 2005 May; 32(5):581-8.

This card summarizes the views of the Paediatric and Dosimetry Committees of the EANM and reflects recommendations for which the EANM cannot be held responsible. The dosage recommendations should be taken in context of „good practice“ of nuclear medicine and do not substitute for national and international legal or regulatory provisions.



Android App



iPhone App

## Recommended Amounts in MBq

Radiopharmaceutical	Class	Baseline Activity (for calculation purposes only)	Minimum Recommended Activity <sup>1</sup>
		MBq	MBq
<sup>123</sup> I (Thyroid)	C	0.6	3
<sup>123</sup> I Amphetamine (Brain)	B	13.0	18
<sup>123</sup> I HIPURAN (Abnormal renal function)	B	5.3	10
<sup>123</sup> I HIPURAN (Normal renal function)	A	12.8	10
<sup>123</sup> I mIBG	B	28.0	37
<sup>131</sup> I mIBG	B	5.6	35
<sup>18</sup> F FDG-PET torso	B	25.9	26
<sup>18</sup> F FDG-PET brain	B	14.0	14
<sup>18</sup> F Sodium fluoride	B	10.5	14
<sup>67</sup> Ga Citrate	B	5.6	10
<sup>68</sup> Ga-labelled peptides	B	12.8	14
<sup>99m</sup> Tc ALBUMIN (Cardiac)	B	56.0	80
<sup>99m</sup> Tc COLLOID (Gastric Reflux)	B	2.8	10
<sup>99m</sup> Tc COLLOID (Liver/Spleen)	B	5.6	15
<sup>99m</sup> Tc COLLOID (Marrow)	B	21.0	20
<sup>99m</sup> Tc DMSA	B	6.8	18.5
<sup>99m</sup> Tc DTPA (Abnormal renal function)	B	14.0	20
<sup>99m</sup> Tc DTPA (Normal renal function)	A	34.0	20
<sup>99m</sup> Tc ECD	B	51.8	100
<sup>99m</sup> Tc HMPAO (Brain)	B	51.8	100
<sup>99m</sup> Tc HMPAO (WBC)	B	35.0	40
<sup>99m</sup> Tc IDA (Biliary)	B	10.5	20
<sup>99m</sup> Tc MAA / Microspheres	B	5.6	10
<sup>99m</sup> Tc MAG3	A	11.9	15
<sup>99m</sup> Tc MDP	B	35.0	40
<sup>99m</sup> Tc Pertechnetate (Cystography)	B	1.4	20
<sup>99m</sup> Tc Pertechnetate (Ectopic Gastric Mucosa)	B	10.5	20
<sup>99m</sup> Tc Pertechnetate (Cardiac First Pass)	B	35.0	80
<sup>99m</sup> Tc Pertechnetate (Thyroid)	B	5.6	10
<sup>99m</sup> Tc RBC (Blood Pool)	B	56.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin (Cancer seeking agent)	B	63.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin <sup>2</sup> (Cardiac rest scan 2-day protocol min)	B	42.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin <sup>2</sup> (Cardiac rest scan 2-day protocol max)	B	63.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin <sup>2</sup> (Cardiac stress scan 2-day protocol min)	B	42.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin <sup>2</sup> (Cardiac stress scan 2-day protocol max)	B	63.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin <sup>2</sup> (Cardiac rest scan 1-day protocol)	B	28.0	80
<sup>99m</sup> Tc SestaMIBI/Tetrofosmin <sup>2</sup> (Cardiac stress scan 1-day protocol)	B	84.0	80
<sup>99m</sup> Tc Spleen (Denatured RBC)	B	2.8	20
<sup>99</sup> Tc TECHNEGAS (Lung ventilation) <sup>3</sup>	B	49.0	100

<sup>1</sup> The minimum recommended activities are calculated for commonly used gamma cameras or positron emission tomographs. Lower activities could be administered when using systems with higher counting efficiency.

<sup>2</sup> The minimum and maximum values correspond to the recommended administered activities in the EANM/ESC procedural guidelines (Hesse B, Tagil K, Cuocolo A, et al). EANM/ESC procedural guidelines for myocardial perfusion imaging in nuclear Cardiology. Eur J Nucl Med Mol Imaging. 2005 Jul;32(7):855-97.

<sup>3</sup> This is the activity load needed to prepare the Technegas device. The amount of inhaled activity will be lower.