

Appendix 1: Individualized Dosing of Thymoglobulin according to the PARACHUTE trial¹

Patients receiving bone marrow or peripheral stem cell grafts

Body Weight kg	Lymphocyte Count x10 ⁹ /kg	Cumulative Dose mg/kg	Starting day Day	Number of doses n	Daily dose mg/kg
5	0.1	10	-9	4	2.5
5	0.5	10	-9	4	2.5
5	1.0	10	-9	4	2.5
5	2.0	10	-9	4	2.5
5	3.0	10	-9	4	2.5
5	4.0	10	-9	4	2.5
7.5	0.1	10	-9	4	2.5
7.5	0.5	10	-9	4	2.5
7.5	1.0	10	-9	4	2.5
7.5	2.0	10	-9	4	2.5
7.5	3.0	10	-9	4	2.5
7.5	4.0	10	-9	4	2.5
10	0.1	10	-9	4	2.5
10	0.5	10	-9	4	2.5
10	1.0	10	-9	4	2.5
10	2.0	10	-9	4	2.5
10	3.0	10	-9	4	2.5
10	4.0	10	-9	4	2.5
15	0.1	10	-9	4	2.5
15	0.5	10	-9	4	2.5
15	1.0	10	-9	4	2.5
15	2.0	10	-9	4	2.5
15	3.0	10	-9	4	2.5
15	4.0	10	-9	4	2.5
20	0.1	8	-9	4	2
20	0.5	10	-9	4	2.5
20	1.0	10	-9	4	2.5
20	2.0	10	-9	4	2.5
20	3.0	10	-9	4	2.5
20	4.0	10	-9	4	2.5
25	0.1	8	-9	4	2
25	0.5	10	-9	4	2.5
25	1.0	10	-9	4	2.5
25	2.0	10	-9	4	2.5
25	3.0	10	-9	4	2.5
25	4.0	10	-9	4	2.5
30	0.1	7	-9	4	1.8
30	0.5	9	-9	4	2.3
30	1.0	10	-9	4	2.5
30	2.0	10	-9	4	2.5
30	3.0	10	-9	4	2.5
30	4.0	10	-9	4	2.5
35	0.1	7	-9	3	2.3
35	0.5	8	-9	4	2.0
35	1.0	9	-9	4	2.3
35	2.0	10	-9	4	2.5
35	3.0	10	-9	4	2.5
35	4.0	10	-9	4	2.5
40	0.1	6	-9	3	2.0
40	0.5	7	-9	4	1.8
40	1.0	8	-9	4	2.0
40	2.0	10	-9	4	2.5
40	3.0	10	-9	4	2.5
40	4.0	10	-9	4	2.5
50	0.1	5.5	-9	3	1.8
50	0.5	6	-9	4	1.5
50	1.0	8	-9	4	2.0
50	2.0	10	-9	4	2.5
50	3.0	10	-9	4	2.5
50	4.0	10	-9	4	2.5

Body Weight	Lymphocyte Count	Cumulative Dose	Starting day	Number of doses	Daily dose
kg	x10 ⁹ /kg	mg/kg	Day	n	mg/kg
60	0.1	5	-9	2	2.5
60	0.5	5.5	-9	3	1.8
60	1.0	6	-9	3	2.0
60	2.0	8	-9	4	2.0
60	3.0	10	-9	4	2.5
60	4.0	10	-9	4	2.5
70	0.1	5	-9	2	2.5
70	0.5	5	-9	3	1.7
70	1.0	6	-9	3	2.0
70	2.0	8	-9	4	2.0
70	3.0	10	-9	4	2.5
70	4.0	10	-9	4	2.5
80	0.1	4.5	-9	2	2.3
80	0.5	5	-9	3	1.7
80	1.0	6	-9	3	2.0
80	2.0	8	-9	4	2.0
80	3.0	10	-9	4	2.5
80	4.0	10	-9	4	2.5

Thymoglobulin dosage

Thymoglobulin is given from day -9 in 1 to 4 doses, with the cumulative dose evenly distributed over the dosing days. The dosage of Thymoglobulin is determined on the basis of the dosage tables. For the determination of the dosage, the weight and lymphocyte count should be rounded to the nearest number in the table (52 kg should be dosed as 50 kg, 56 kg should be dosed as 60 kg).

Important: *this only applies for the determination of the dose in mg/kg, actual body weight should be used to calculate actual dose.* The range of weights and lymphocyte counts stated in the table are the maximum: children >80 kg and lymphocyte counts >4x10⁹/L are dosed as 80 kg or as lymphocyte counts 4x10⁹/L, respectively. See also the example below.

The daily dose of Thymoglobulin in mg/kg/day as found in the dosing table is multiplied by the current actual weight to obtain the dose in mg/day. The maximum calculation weight is 80 kg: children with an actual weight over 80 kg should be dosed as a child weighing 80 kg.

Reference

1. Admiraal R, Nierkens S, Bierings MB, et al. Individualised dosing of anti-thymocyte globulin in paediatric unrelated allogeneic haematopoietic stem-cell transplantation (PARACHUTE): a single-arm, phase 2 clinical trial. *Lancet Haematol.* 2022;9(2):e111-e120.