Seattle Children's
HOSPITAL • RESEARCH • FOUNDATION

Recommended maximum allowable blood draw volumes:

PATIENT'S WEIGHT		PATIENT'S TOTAL VOLUME	MAXIMUM AMOUNT PER BLOOD DRAW or 24 HOUR PERIOD
kg	**lbs**	**mL**	2.5 mL/ kg/ day
1	2.2	100	2.5
2	4.4	200	5
3	6.6	240	7.5
4	8.8	320	10
5	11	400	12.5
6	13.2	480	15
7	15.4	560	17.5
8	17.6	640	20
9	19.8	720	22.5
10	22	800	25
11 thru 15	24 thru 33	880-1200	27.5 - 37.5
16 thru 20	35 thru 44	1280-1600	40 - 50
21 thru 25	46 thru 55	1680-2000	52.5 - 62.5
26 thru 30	57 thru 66	2080-2400	65 - 75
31 thru 35	68 thru 77	2480-2800	77.5 - 87.5
36 thru 40	79 thru 88	2880-3200	90 - 100
41 thru 45	90 thru 99	3280-3600	102.5 - 112.5
46 thru 50	101 thru 110	3680-4000	115 - 125
51 thru 55	112 thru 121	4080-4400	127.5 - 137.5
56 thru 60	123 thru 132	4480-4800	140 - 150
61 thru 65	134 thru 143	4880-5200	152.5 - 162.5
66 thru 70	145 thru 154	5280-5600	165 - 175
71 thru 75	156 thru 165	5680-6000	177.5 - 187.5
76 thru 80	167 thru 176	6080-6400	190 - 200
81 thru 85	178 thru 187	6480-6800	202.5 - 212.5
86 thru 90	189 thru 198	6880-7200	215 - 225
91 thru 95	200 thru 209	7280-7600	227.5 - 237.5
96 thru 100	211 thru 220	7680-8000	240 - 250

Patients blood voume base on:	1 to 2 kg	100 mL/kg	(pre-term infant)
	>2 kg	80 mL/kg	(term infant - adult)

Blood draw volumes per day should be limited to 2.5 mL/kg/day and should not exceed 4 mL/kg/day

Please refer to Central Venous Catheter (CVC) Management for guidance on daily max blood collection volumes.

1.*Blood sample volumes in child health research:review of safe limits* , Howie, Stehen RC
Bull World Health Organ. 2011 Jan 1; 89(1): 46–53. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3040020/

2. Peplow C, Assfalg R, Beyerlein A, Hasford J, Bonifacio E, Ziegler AG. Blood draws up to 3% of blood volume in clinical trials are safe in children. Acta Paediatr. 2019 May;108(5):940-944. doi: 10.1111/apa.14607. Epub 2018 Oct 30. PMID: 30291644; PMCID: PMC6587985.

3. Berger RP, Beers SR, Papa L, Bell M; Pediatric TBI CDE Biospecimens and Biomarkers Workgroup. Common data elements for pediatric traumatic brain injury: recommendations from the biospecimens and biomarkers workgroup. J Neurotrauma. 2012 Mar 1;29(4):672-7. doi: 10.1089/neu.2011.1861. Epub 2011 Nov 22. PMID: 22106839; PMCID: PMC3289842.