Numerical References

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69.1 Fluid Requirements (Table 69.1)

Table 69.1 Fluid requirements

	Day	ml/kg/day
Premature infant	1	60
	2	70
	3	90
	>3	Up to 200
Term infant	1	60
	2	80
	3	100
	>3	Up to160
Child		
>4 weeks to 10 kg		100
10–20 kg		1000 ml + 50 ml/kg/day over 10 kg
>20 kg		1500 ml + 20 ml/kg/day over 20 kg

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69.2 Normal Heart Rate; Respiratory Rate; Blood Pressure (Table 69.2)

Table 69.2 Normal measurements

Age	Heart rate	Respiratory rate	Blood pressure
Neonate			
1–28 days	100–165	>55	65/35 to 80/50
Infant			
1 month to 1 year	100–150	30–55	80/55 to 100/65
Child (years)			
1–2	70–110	20–30	90/55 to 105/70
3–5	65–110	20–25	95/60 to 105/70
6–11	60–95	14–22	100/65 to 115/75
12–15	55–85	12–18	110/70 to 120/80

69.3 Conversion Rates

Depending on origin and country, parents tend to talk in traditional units when discussing their offspring's measurements. Some conversion factors may be appropriate (Table 69.3).

Table 69.3 Anglocentric (Imperial & USA) measurements

Weight	
1 kg ≡ 2.2 lb (pounds)	1 lb ≡ 0.45 kg 14 lbs = 1 stone
1 kg ≡ 34 oz (ounces)	1 oz ≡ 28 g
1 g ≡ 0.035 oz	
Length	
1 m ≡ 3.3 ft (feet)	1 yard ≡ 0.91 m 1 ft ≡ 0.30 m
1 cm ≡ 0.4 in (inch)	1 in ≡ 2.5 cm
Liquid	
1 l ≡ 1.76 pt (pints) (UK)	1 pt ≡ 570 ml (UK) 1 pt (UK) = 20 fl oz
1 l ≡ 2.11 pt (US)	1 pt (US) = 16 fl oz 1 fl oz ≡ 28 ml (UK) ≡ 29 ml (US)
Energy	
1 kJ ≡ 0.24 kcal	1 kcal ≡ 4.2 kJ (Joules)
Pressure	
1 kPa ≡ 7.5 mmHg	1 mmHg ≡ 133 Pa (Pascal)

69.4 Average and Normal (Table 69.4)

Table 69.4 Height and weight

Age	Weight (kg)	Height (cm)	Body surface area (m^2)
Preterm (gestation)			
24 weeks	0.65		
28	1.1		
32	1.7		
36	2.6		
Term			
Neonate	3.5	50	0.23
1 month	4.2	55	0.27
3	5.6	59	0.33
6	7.7	67	0.41
1 year	10	76	0.49
3	15	94	0.65
5	18	108	0.74
10	30	132	1.1
14	50	163	1.5
Adult (male)	70	173	1.8
Adult (female)	56	163	1.6

69.5 Normal Hematological Values (Table 69.5)

Table 69.5 Hematology

	Age of life	
Hemoglobin	0–6 days	145–220 g/l
	7 days	140–186 g/l
	8 days–3 months	95–125 g/l
	3 months–4 years	110–140 g/l
	5–12 years	115–140 g/l
White cells	0–6 days	10.2–26.0
	7 days	5.0–21.0
	8 days–6 months	6.0–15.0
	7 months–5 years	5.0–12.0
Platelets		150–450
MCV	0–3 months	100–130 fl
	3–4 months	85–100 fl
	4 months–4 years	70–86 fl
Neutrophils	0–3 days	5.0–13.0
	4 days	1.5–10.0
	5 days–6 years	1.5–8.0
	7–11 years	2.0–6.0
Lymphocytes	0–2 days	2.0–4.5
	3 days	3.0–9.0
	4 days–12 months	4.0–10.0
	1–6 years	1.5–9.5

69.6 Calorie Requirements (Table 69.6)

Table 69.6 Estimated calorie requirement per day by age, sex and physical activity (if they are sedentary they need roughly 20–25% less calorie)

Age	Active male	Active female
2	1000	1000
3	1400	1400
4	1600	1400
5	1600	1600
6	1800	1600
7	1800	1800
8	2000	1800
9	2000	1800
10	2200	2000
11	2200	2000
12	2400	2200
13	2600	2200
14	2800	2400
15	3000	2400
16	3200	2400

69.7 Common Antibiotic Doses (Tables 69.7 and 69.8)

Table 69.7 Oral antibiotic doses

Antibiotic	Oral (1 month–2 years)	Oral (2–6 years)	Oral (6–12 years)	Frequency
Penicillin G/V	62.5 mg	125	250	QDS
Amoxicillin	0.25 ml/kg (125/31)	5 ml (125/31)	5 ml (125/31)	TDS
Flucloxacillin	62.25 mg	125 mg	250	QDS
Cefuroxime	10 mg/kg	125 mg	250 mg	TDS
Metronidazole	125 mg	250 mg	500 mg	TDS
Erythromycin	125 mg	250 mg	500 mg	QDS
Vancomycin	5 mg/kg	5 mg/kg	62.5 mg	TDS

Table 69.8 Intravenous antibiotics

Antibiotic	IV dose per kg	Frequency
Ceftazidime	25 mg	TDS
Ceftriaxone (IM/IV)	50 mg	OD
Meropenem	10 mg	TDS
Gentamicin (levels needed)	7 mg 2.5 mg	OD TDS
Teicoplanin	10 mg (dose 1–3) then 6 mg	BD Once daily