

A GUIDE TO SOME PAEDIATRIC SIZES AND DOSES USED IN ANAESTHESIA AND RESUSCITATION

Age	Typical Weights Kg	ETT Bore mm	Length ORAL cm	NASAL cm	Basal fluid ml/kg/hr	Ventilation Settings	Laryngeal Mask	Max size Suction catheter
Prem	2	2.5	8	9.5	3			5
Newborn	3	3	9	11	3	Rate30/min		6
2/12	4.5	3.5	10	11.5	4		1 rarely used	7
6/12	7	3.5	11	12.5	4	Rate25/min	1.5	7
1year	10	4	12	14	4	Rate20/min	1.5	8
18/12	12	4.5	13	15	3		2	8
2	13	4.5 -5	14	16	3		2	8
4	17	5 - 5.5	15	17	3		2	10
6	21	5.5 - 6	16	19	3	Rate16/min	2	10
8	25	6 - 6.5	17	20	2.5	V _T 10-15mls/kg	2.5	12
10	31	6.5 - 7	18	21	2.5	Paw 15-25	2.5	12
12	40	7 - 7.5	20	23	2	cm H ₂ O	3	14

Top up Blood Transfusion:

RCC @4mls/kg/1g rise in Hb reqd
Total BLOOD VOLUME 80mls/kg

Resuscitation in BURNS:

1st 24hrs Parkland Formula

Hartmann's @ 4mls x kg x % area burn
½ over first 8hrs
½ over next 16hrs

In addition to maintenance fluids

0.45% NaCl + 5% Glucose
4ml/kg 1st 10kg + 2ml/kg 10-20kg
+1ml/kg each kg after 20kg

ANAESTHETIC DRUGS

Thiopentone 4-6mg/kg
Propofol 2-5mg/kg
Ketamine 2mg/kg (5-10mg/kgIM)
Glycopyrrolate 0.01mg/kg
Suxamethonium 1-2mg/kg
Atracurium 0.5mg/kg
Mivacurium 0.1-0.2mg/kg
Vecuronium 0.1mg/kg
Rocuronium 0.5mg/kg
Neostigmine 0.04mg/kg

Fentanyl 2-5mcg/kg
Remifentanyl 0.1-1mcg/kg/min
Codeine (IM) 1-1.5mg/kg (not IV)
Morphine 40-100mcg/kg
Alfentanil 20-50mcg/kg
IV Paracetamol 15mg/kg
[max 60mg/kg/24]

INFUSIONS

MORPHINE

Body wt in kg = mg in 50mls NaCl
(up to 50mg in 50mls)
Run at **10 - 40mcg/kg/hr = 0.5 - 2mls/hr**
If + Cyclizine 1mg/kg then make up in 5% Glucose

RELAXANT/ FENTANYL

Vecuronium 10mg + Fentanyl 500mcg in 10mls at 0.1ml/kg/hr
(gives **Vec 0.1mg/kg/hr + Fent 5mcg/kg/hr**)
Atracurium 50mg + Fentanyl 200mcg in 10mls at 0.1ml/kg/hr
(gives **Atrac 0.5mg/kg/hr + Fent 2mcg/kg/hr**)

SEDATION Midazolam 0.1-0.2mg/kg/hr

Clonidine **0.1-0.5mcg/kg/hr** (0.3mg/kg in 50mls)

EPIDURAL

0.1% Bupivacaine + Fentanyl 2mcg/ml
0.2 - 0.4ml/kg/hr

Magnesium Sulphate 50mg/kg (0.2mmol/kg) dilute to 10%
(100mg in 1ml) with 5% glucose give IV over 10- 15min : 25mg/kg/hr

mcg = micrograms

RESUSCITATION DRUGS

Adrenaline(1/10,000) 0.1ml/kg
Atropine 0.02mg/kg
Ca Chloride(10%) 0.2ml/kg
Na Bicarb(8.4%) 1ml/kg
{1/2 correct[Base XS x kg x 0.3] x 0.5}
Glucose(10%) 3 - 5ml/kg
{HYPERKALAEMIA + Insulin 0.1 unit/kg}

HYPOVOLAEMIC SHOCK:

Initial Fluid Infusion **N.Saline 20mls/kg**
then PPS

DC Defibrillation 4 joules / kg

SEDATION (oral)

Alimemazine 2-3mg/kg [max 90mg]
Diazepam 0.25-0.5mg/kg [max10mg]
Midazolam 0.5mg/kg [max20mg]
Chloral / Triclofos 30-50mg/kg [max2g]
Clonidine[1st dose 1mcg/kg] 1-5mcg/kg 8hrly

ANALGESICS

Paracetamol 15mg/kg 4-6hrly [max 90mg/24]
<3months [max 60mg/24]
Ibuprofen 5-10mg/kg 6-8hrly
Diclofenac(O/PR) 1-2mg/kg [max 1mg/kg/8hrly]
Codeine(O/PR) 1mg/kg 4hrly [max 240mg/24]
Dihydrocodeine 0.5-1mg/kg 6hrly [max 30mg]
Morphine >1yr 0.2-0.3mg/kg (oral)[max10mg]
Morphine(IM/IV) <1yr 0.1mg/kg
{reduce IV dose with GA} >1yr 0.2mg/kg
IV : Dilute dose in 10mls NaCl give slowly

Naloxone 10mcg/kg
Flumazemil 10mcg/kg

A&E [over 1yr only]

Intranasal Diamorphine 0.1mg/kg
In vol of 0.2ml when no IV access

Aminophylline 5mg/kg
Chlorphenamine 0.1-0.25mg/kg
Hydrocortisone 4mg/kg
Furosemide 1mg/kg
Mannitol(10%) 5ml/kg (0.5g/kg)
Cyclizine 1mg/kg
Dexamethasone 0.15mg/kg
Metoclopramide 0.15mg/kg
Ondansetron 0.1mg/kg
Prochlorperazine 1-4yrs 2.5mg PR
5-12yrs 5mg PR

ANTIBIOTICS

(Loading Dose)

Amoxycillin (SBE) 50mg/kg oral or 25mg/kg IV
Ampicillin 50mg/kg
Augmentin 30mg/kg
Benzylpenicillin 30mg/kg
Cefotaxime 50mg/kg
Ceftriaxone 50-80mg/kg
Cefuroxime 30mg/kg
Clarithromycin (Pen allergy) 7.5mg/kg(infusion)
Clindamycin (SBE)* 5mg/kg (over 1/2hr)
Flucloxacillin 25mg/kg
Gentamicin 2-5mg/kg
Metronidazole 7.5mg/kg
Vancomycin 15mg/kg(over 1hr)
* Penicillin allergy or if amoxycillin in prev month

SEIZURES

Lorazepam 0.1mg/kg[max4mg]
Midazolam (buccal / nasal) 0.2mg/kg[max10mg]

Diazepam 0.2-0.3mg/kg[max10-20mg]

LOCAL ANAESTHETICS (max dose)

Levobupivacaine 2.5mg/kg/6hrs
(1ml/kg of 0.25% or 0.5ml/kg of 0.5%)
Lignocaine 3mg/kg (0.3ml/kg 1%)
+ Adrenaline 7mg/kg (0.7ml/kg1%)
CAUDAL: 0.25% Levobupivacaine 0.5-1ml/kg
+ Ketamine 0.5mg/kg (10mg/ml) preservative free
SPINAL: Heavy Bupivacaine 0.5% 0.13ml/kg

CARDIAC

Dopamine : (3mg/kg in 50mls)
Dobutamine : 1ml/hr = 1mcg/kg/min
(dose 5-20mcg/kg/min)
Adrenaline : (0.3mg/kg in 50mls)
Noradrenaline : 1ml/hr = 0.1mcg/kg/min
(dose 0.01-2mcg/kg/min)
VF (shock resistant) Amiodarone 5mg/kg rapid IVbolus
{use 5% glucose then 5-15mcg/kg/min
if dilution reqd}
SVT Adenosine 50 - 300 mcg/kg [max 3mg]