



NSW Ambulance

excellence in care

Emergency Reference Card

Paediatric



FOR USE BY GSA HEMS TRAINED CRITICAL CARE CLINICIANS ONLY.
VERSION 1.4 MARCH 2015



NEWBORN – 4kg

Rapid Sequence Induction

ETT Size - 3		ETT Length-10cm	
Laryngoscope blade	Miller 1	iGel size – N/A	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		8mg	0.8mL
Sedation (0.5mg/kg)		2mg	0.2mL
Sux	2mg/kg	8mg	0.2mL
	50mg/mL		
Rocuronium	1.5mg/kg	6mg	0.6mL
	10mg/mL		
Morphine	0.1mg/kg	0.4mg	0.4mL
	1mg/mL		
Midazolam	0.1mg/kg	0.4mg	0.4mL
	1mg/mL		

All doses are IV/IO

NEWBORN – 4kg

Normal Vitals	Resp 30-50	Pulse 110-160	Systolic BP 50-90
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INITIAL VENTILATOR SETTINGS

RATE 30-40	BVM ONLY (Not suitable for Oxylog) (Target tidal volume guide 24 - 36mls)
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FLUID

Blood	10mL/kg	40mL
Crystalloid	20mL/kg	80mL (40mls for trauma)
Glucose 50% Not recommended		use 7.5mL 10% Glucose
Hypertonic Saline 7.5%	5mL/kg	20mL **Not Intraosseous**

RESUCITATION DRUGS

Adrenaline	10mcg/kg	Arrest	40mcg	0.4mL of 1:10,000
Atropine	20mcg/kg		80mcg	
Midazolam	0.15mg/kg	Seizure	0.6mg	0.6mL

OTHER

Cefazolin	15mg/kg	60mg
Intranasal Fentanyl (300mcg/mL)		Not recommended
Ondansetron (2mg/mL)		Not recommended
Ropivacaine 0.75%	NERVE BLOCK ONLY 2mg/kg	Not recommended
Tranexamic Acid		Not recommended

NEWBORN – 4kg



6 MONTHS – 7.5kg

Rapid Sequence Induction

ETT Size – 3 or 4		ETT Length-11cm	
Laryngoscope blade	Miller size 1	iGel size – N/A	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		15mg	1.5mL
Sedation (0.5mg/kg)		4mg	0.4mL
Sux	2mg/kg	15mg	0.3mL
	50mg/mL		
Rocuronium	1.5mg/kg	12mg	1.2mL
	10mg/mL		
Morphine	0.1mg/kg	0.8mg	0.8mL
	1mg/mL		
Midazolam	0.1mg/kg	0.8mg	0.8mL
	1mg/mL		

All doses are IV/IO

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6 MONTHS – 7.5kg

Normal Vitals	Resp 30-40	Pulse 110-160	Systolic BP 50-90
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE

30

BVM ONLY (Not suitable for Oxylog)
(Target tidal volume guide 60 - 90mls)

FLUID

Blood	10mL/kg	70mL
Crystalloid	20mL/kg	150mL (75mls for trauma)
Glucose 50%		4mL (or 20mL of 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	40mL **Not Intraosseous**

RESUCITATION DRUGS

Adrenaline	10mcg/kg	Arrest	80mcg	0.8mL of 1:10,000
Atropine	20mcg/kg		150mcg	
Midazolam	0.15mg/kg	Seizure	1mg	1mL

OTHER

Cefazolin		15mg/kg	100mg
Intranasal Fentanyl (300mcg/mL)		2mcg/kg	Not recommended
Ondansetron (2mg/mL)		0.1mg/kg	0.8mg (0.4mL)
Ropivacaine 0.75%	NERVE BLOCK ONLY	2mg/kg	Not recommended
Tranexamic Acid			Not recommended

6 MONTHS – 7.5kg



1 Year – 10kg

Rapid Sequence Induction

ETT Size - 4		ETT Length-12cm	
Laryngoscope blade	Mac size 2	iGel size - 2	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		20mg	2mL
Sedation (0.5mg/kg)		5mg	0.5mL
Sux	2mg/kg	20mg	0.4mL
	50mg/mL		
Rocuronium	1.5mg/kg	15mg	1.5mL
	10mg/mL		
Morphine	0.1mg/kg	1mg	1mL
	1mg/mL		
Midazolam	0.1mg/kg	1mg	1mL
	1mg/mL		

All doses are IV/IO

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1 Year – 10kg

Normal Vitals	Resp 25-35	Pulse 100-150	Systolic BP 60-90
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
25	80 - 120	5

FLUID

Blood	10mL/kg	100mL
Crystalloid	20mL/kg	200mL (100mls for trauma)
Glucose 50%		5mL (or 25mL 10%Glucose)
Hypertonic Saline 7.5%	5mL/kg	50mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	100mcg	1mL of 1:10,000
Atropine 20mcg/kg		200mcg	
Midazolam 0.15mg/kg	Seizure	1.5mg	1.5mL

OTHER

Cefazolin	15mg/kg	150mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	20mcg (0.2mL)
Ondansetron (2mg/mL)	0.1mg/kg	1mg (0.5mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	Not recommended
Tranexamic Acid	10mg/kg	100mg

1 Year – 10kg



2 Year – 12.5kg

Rapid Sequence Induction

ETT Size – 4

ETT Length-13cm

Laryngoscope
blade

Mac/Miller 2

iGel size - 2

DOSE

VOLUME

Ketamine (10mg/mL) *REDUCE INDUCTION DOSE IN SHOCK*

Induction (2mg/kg)

25mg

2.5mL

Sedation (0.5mg/kg)

7.5mg

0.75mL

Sux

2mg/kg

50mg/mL

25mg

0.5mL

Rocuronium

1.5mg/kg

10mg/mL

20mg

2mL

Morphine

0.1mg/kg

1mg/mL

1.25mg

1.25mL

Midazolam

0.1mg/kg

1mg/mL

1.25mg

1.25mL

All doses are IV/IO

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2 Year – 12.5kg

Normal Vitals	Resp 20-30	Pulse 80-140	Systolic BP 75-110
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
20	100-130	5

FLUID

Blood	10mL/kg	125mL
Crystalloid	20mL/kg	250mL (100mL for trauma)
Glucose 50%		6mL (or 30mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	60mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	125mcg	1.2mL of 1:10,000
Atropine 20mcg/kg		250mcg	
Midazolam 0.15mg/kg	Seizure	2mg	2mL

OTHER

Cefazolin	15mg/kg	200mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	25mcg (0.2mL)
Ondansetron (2mg/mL)	0.1mg/kg	1.25mg (0.6mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	25mg (3.25mL)
Tranexamic Acid	10mg/kg	125mg

2 Year – 12.5kg



3 Years – 15kg

Rapid Sequence Induction

ETT Size – 4 or 5		ETT Length-14cm	
Laryngoscope blade	Mac size 2	iGel size - 2	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		30mg	3mL
Sedation (0.5mg/kg)		8mg	0.8mL
Sux	2mg/kg	30mg	0.6mL
	50mg/mL		
Rocuronium	1.5mg/kg	25mg	2.5mL
	10mg/mL		
Morphine	0.1mg/kg	1.5mg	1.5mL
	1mg/mL		
Midazolam	0.1mg/kg	1.5mg	1.5mL
	1mg/mL		

All doses are IV/IO

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3 Years – 15kg

Normal Vitals	Resp 20-30	Pulse 80-140	Systolic BP 76-100
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
20-25	120 - 150	5

FLUID

Blood	10mL/kg	150mL
Crystalloid	20mL/kg	300mL (150mls for trauma)
Glucose 50%		8mL (or 40mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	75mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	150mcg	1.5mL of 1:10,000
Atropine 20mcg/kg		300mcg	
Midazolam 0.15mg/kg	Seizure	2.25mg	2.25mL

OTHER

Cefazolin	15mg/kg	225mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	30mcg (0.2mL)
Ondansetron (2mg/mL)	0.1mg/kg	1.6mg (0.8mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	30mg (4mL)
Tranexamic Acid	10mg/kg	150mg

3 Years – 15kg



4 Years – 18kg

Rapid Sequence Induction

ETT Size – 4 or 5		ETT Length-14cm	
Laryngoscope blade	Mac size 2	iGel size - 2	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		35mg	3.5mL
Sedation (0.5mg/kg)		9mg	0.9mL
Sux	2mg/kg	35mg	0.7mL
	50mg/mL		
Rocuronium	1.5mg/kg	30mg	3mL
	10mg/mL		
Morphine	0.1mg/kg	1.8mg	1.8mL
	1mg/mL		
Midazolam	0.1mg/kg	1.8mg	1.8mL
	1mg/mL		

All doses are IV/IO

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4 Years – 18kg

Normal Vitals	Resp 20-25	Pulse 70-110	Systolic BP 75-110
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
15-20	140 - 180	5

FLUID

Blood	10mL/kg	180mL
Crystalloid	20mL/kg	360mL (180mL for trauma)
Glucose 50%		10mL (or 50mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	90mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	180mcg	1.8mL of 1:10,000
Atropine 20mcg/kg		350mcg	
Midazolam 0.15mg/kg	Seizure	2.5mg	2.5mL

OTHER

Cefazolin	15mg/kg	275mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	35mcg (0.2mL)
Ondansetron (2mg/mL)	0.1mg/kg	1.8mg (0.9mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	30mg (5mL)
Tranexamic Acid	10mg/kg	180mg

4 Years – 18kg



5 Years – 22kg

Rapid Sequence Induction

ETT Size – 5

ETT Length-15cm

Laryngoscope
blade

Mac size 2

iGel size - 2

DOSE

VOLUME

Ketamine (10mg/mL) *REDUCE INDUCTION DOSE IN SHOCK*

Induction (2mg/kg)

45mg

4.5mL

Sedation (0.5mg/kg)

10mg

1mL

Sux

2mg/kg

50mg/mL

50mg

1mL

Rocuronium

1.5mg/kg

10mg/mL

35mg

3.5mL

Morphine

0.1mg/kg

1mg/mL

2mg

2mL

Midazolam

0.1mg/kg

1mg/mL

1.8mg

2mL

All doses are IV/IO

PAEDIATRIC Emergency Reference Card – GSA HEMS.

5 Years – 22kg

Normal Vitals	Resp 20-25	Pulse 70-110	Systolic BP 75-110
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
15-20	180 - 220	5

FLUID

Blood	10mL/kg	220mL
Crystalloid	20mL/kg	440mL (220mls for trauma)
Glucose 50%		10mL (or 50mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	100mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	220mcg	2.2mL of 1:10,000
Atropine 20mcg/kg		440mcg	
Midazolam 0.15mg/kg	Seizure	3mg	3mL

OTHER

Cefazolin	15mg/kg	350mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	45mcg (0.3mL)
Ondansetron (2mg/mL)	0.1mg/kg	2mg (1mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	40mg (5mL)
Tranexamic Acid	10mg/kg	220mg

5 Years – 22kg



6 Years – 25kg

Rapid Sequence Induction

ETT Size – 5

ETT Length-16cm

Laryngoscope
blade

Mac 2

iGel size – 2

DOSE

VOLUME

Ketamine (10mg/mL) *REDUCE INDUCTION DOSE IN SHOCK*

Induction (2mg/kg)

50mg

5mL

Sedation (0.5mg/kg)

15mg

1.5mL

Sux

2mg/kg

50mg/mL

50mg

1mL

Rocuronium

1.5mg/kg

10mg/mL

40mg

4mL

Morphine

0.1mg/kg

1mg/mL

2.5mg

2.5mL

Midazolam

0.1mg/kg

1mg/mL

2.5mg

2.5mL

All doses are IV/IO

PAEDIATRIC Emergency Reference Card – GSA HEMS.

6 Years – 25kg

Normal Vitals	Resp 18-22	Pulse 70-110	Systolic BP 80-100
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
20	200 - 250	5

FLUID

Blood	10mL/kg	125mL
Crystalloid	20mL/kg	500mL (250mls for trauma)
Glucose 50%		12mL (or 60mL 10%Glucose)
Hypertonic Saline 7.5%	5mL/kg	125mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	250mcg	2.5mL of 1:10,000
Atropine 2.5mg/kg		500mcg	
Midazolam 0.15mg/kg	Seizure	3.5mg	3.5mL

OTHER

Cefazolin	15mg/kg	375mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	50mcg (0.3mL)
Ondansetron (2mg/mL)	0.1mg/kg	2.4mg (1.2mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	50mg (6.6mL)
Tranexamic Acid	10mg/kg	250mg

6 Years – 25kg



8 Years – 30kg

Rapid Sequence Induction

ETT Size – 6

ETT Length-17cm

Laryngoscope
blade

Mac 2

iGel size – 3

DOSE

VOLUME

Ketamine (10mg/mL) *REDUCE INDUCTION DOSE IN SHOCK*

Induction (2mg/kg)

60mg

6mL

Sedation (0.5mg/kg)

15mg

1.5mL

Sux

2mg/kg

50mg/mL

60mg

1.2mL

Rocuronium

1.5mg/kg

10mg/mL

45mg

4.5mL

Morphine

0.1mg/kg

1mg/mL

3mg

3mL

Midazolam

0.1mg/kg

1mg/mL

3mg

3mL

All doses are IV/IO

PAEDIATRIC Emergency Reference Card – GSA HEMS.

8 Years – 30kg

Normal Vitals	Resp 18-22	Pulse 70-110	Systolic BP 80-100
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
20	240 - 300	5

FLUID

Blood	10mL/kg	300mL
Crystalloid	20mL/kg	600mL (300mL for trauma)
Glucose 50%		20mL (or 75mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	150mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	300mcg	3mL of 1:10,000
Atropine 2.5mcg/kg		600mcg	
Midazolam 0.15mg/kg	Seizure	4.5mg	4.5mL

OTHER

Cefazolin	15mg/kg	450mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	60mcg (0.3mL)
Ondansetron (2mg/mL)	0.1mg/kg	3mg (1.5mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	60mg (8mL)
Tranexamic Acid	10mg/kg	300mg

6 Years – 30kg



10 Years – 35kg

Rapid Sequence Induction

ETT Size - 6		ETT Length-18cm	
Laryngoscope blade	Mac 2 or 4	iGel size - 3	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		70mg	7mL
Sedation (0.5mg/kg)		18mg	1.8mL
Sux	2mg/kg	70mg	1.2mL
	50mg/mL		
Rocuronium	1.5mg/kg	50mg	5mL
	10mg/mL		
Morphine	0.1mg/kg	3.5mg	3.5mL
	1mg/mL		
Midazolam	0.1mg/kg	3.5mg	3.5mL
	1mg/mL		

All doses are IV/IO

PAEDIATRIC Emergency Reference Card – GSA HEMS.

10 Years – 35kg

Normal Vitals	Resp 16-20	Pulse 80-110	Systolic BP 90-110
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
20	280 - 350	5

FLUID

Blood	10mL/kg	350mL
Crystalloid	20mL/kg	700mL (350mL for trauma)
Glucose 50%		18mL (or 90mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	180mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	350mcg	3.5mL of 1:10,000
Atropine 20mcg/kg		700mcg	
Midazolam 0.15mg/kg	Seizure	5mg	5mL

OTHER

Cefazolin	15mg/kg	500mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	70mcg (0.3mL)
Ondansetron (2mg/mL)		4mg (2mL)
Ropivacaine 0.75%	NERVE BLOCK ONLY 2mg/kg	70mg (9mL)
Tranexamic Acid	10mg/kg	350mg

10 Years – 35kg



12 Years – 40kg

Rapid Sequence Induction

ETT Size – 6 or 7		ETT Length-18cm	
Laryngoscope blade	Mac 2 or 4	iGel size – 3	
		DOSE	VOLUME
Ketamine (10mg/mL) <i>REDUCE INDUCTION DOSE IN SHOCK</i>			
Induction (2mg/kg)		80mg	8mL
Sedation (0.5mg/kg)		20mg	2mL
Sux	2mg/kg	80mg	1.6mL
	50mg/mL		
Rocuronium	1.5mg/kg	60mg	6mL
	10mg/mL		
Morphine	0.1mg/kg	4mg	4mL
	1mg/mL		
Midazolam	0.1mg/kg	4mg	4mL
	1mg/mL		

All doses are IV/IO

PAEDIATRIC Emergency Reference Card – GSA HEMS.

12 Years – 40kg

Normal Vitals	Resp 15-20	Pulse 60-100	Systolic BP 80-110
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INITIAL VENTILATOR SETTINGS – SIMV VC

RATE	TIDAL VOLUME	PEEP
15	320-400	5

FLUID

Blood	10mL/kg	400mL
Crystalloid	20mL/kg	800mL (400mL for trauma)
Glucose 50%		20mL (or 100mL 10% Glucose)
Hypertonic Saline 7.5%	5mL/kg	200mL **Not Intraosseous**

RESUSCITATION DRUGS

Adrenaline 10mcg/kg	Arrest	400mcg	4mL of 1:10,000
Atropine 20mcg/kg		800mcg	
Midazolam 0.15mg/kg	Seizure	5mg	5mL

OTHER

Cefazolin	15mg/kg	600mg
Intranasal Fentanyl (300mcg/mL) 1 st Dose	2mcg/kg	80mcg (0.4mL)
Ondansetron (2mg/mL)		4mg (2mL)
Ropivacaine 0.75% NERVE BLOCK ONLY	2mg/kg	80mg (10.5mL)
Tranexamic Acid	10mg/kg	400mg

12 Years – 40kg

Sources: APLS 4th Edition, NETS IV Drug Calculator and PediSTAT
Designed and created by Dr Chris Hill and Karel Habig.



NSW Ambulance

