



NEWBORN EMERGENCY TRANSPORT SERVICE MEDICAL GUIDELINES

Transport Medication List

Newborn Emergency Transport Service Medical Guidelines
King Edward Memorial/Princess Margaret Hospitals
Perth Western Australia
Authorisation and review by NETS WA

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TRANSPORT DRUGS

DRUG	PRESENTATION	DOSE	ROUTE
ACICLOVIR	250MG/10ML VIAL	<30 weeks: 20mg/kg/dose 12hrly ≥30 weeks: 20mg/kg/dose 8 hrly Further dilute 1ml from vial to 5ml with 0.9% NaCl =5mg/ml	UV IV OVER 1 HOUR
ADENOSINE	6 MG/2 MLS VIAL	INITIAL DOSE: 100 MICROGRAMS/KG Increase in 50micrograms/kg increments to max 300micrograms/kg/dose. Dilute 1 ml to 10 ml with 0.9% NaCl = 300 micrograms/ml	RAPID IV INCREASING DOSES CAN BE GIVEN EVERY 2 MINUTES UNTIL RETURN TO SINUS RHYTHM
ADRENALINE	1:10,000 AMP (1 mg/10 ml)	Infusion: 0.1-1micrograms/kg/min Dilute 0.3mg/kg (3ml/kg of 1:10 000) in 50ml glucose/saline solution. 1ml/hr = 0.1micrograms/kg/min	IV UA ETT Acute resus (all routes): Term infant >34 weeks: 1ml Preterm infant <34 weeks: 0.5ml Repeated doses maybe required
ALPROSTADIL (PROSTIN)	500 MICROGRAMS/ML AMP BEWARE of apnoeas. Consider intubation	25 – 50 NANOGRAMS/KG/MIN Divide 167 by the weight of the baby then add 500 micrograms (1 vial) of Prostin to this amount of mls of diluent 1 ml/hr = 0.05 micrograms/kg/min = 50 nanograms/kg/min	IV infusion Eg. If weight = 3.5 kg $167 \div 3.5 = 47.7$ mls of 0.9% NaCl plus one amp (500 micrograms) of Prostin
AMOXYCILLIN	IV: 500 MG VIAL Add 4.6 ml WFI = 100 mg/ml IV: 1000 mg vial Add 9.2 ml WFI = 100 mg/ml Do not give simultaneously with Gentamicin, as Y-site incompatible	FOR SEPSIS: 50 MG/KG/DOSE All gestations < 7 days = 12 hourly All gestations ≥7 days = 8 hourly FOR MENINGITIS: 100MG/KG/DOSE All gestations < 7 days = 12 hourly All gestations ≥7 days = 8 hourly	IV IM IM: 500 mg vial Add 1.6 ml WFI = 250mg/ml IM: 1000 mg vial Add 3.2 ml WFI = 250mg/ml

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ATROPINE	600 MICROGRAMS/ML amp	IV: 20 MICROGRAMS/KG/DOSE Dilute to 6 mls with WFI to give 600 micrograms/6ml (100micrograms/ml)	IV
BENZYL PENICILLIN	600 MG VIAL Add 5.6 ml WFI = 100 mg/ml Do not give simultaneously with Gentamicin, as Y-site incompatible	50 MG/KG <7 days = 12 hourly ≥7 days = 8 hourly	IV IM IM: Add 1.6 ml WFI = 300 mg/ml
CAFFEINE	50MG/5ML loading dose does not require dilution	Loading dose: 20mg/kg	Infuse over 30 mins
CALCIUM GLUCONATE DO NOT MIX WITH SODIUM BICARB	1 GRAM IN 10 MLS 10% SOLUTION 0.22mmol Ca per ml	For hypocalcaemia seizures: Withdraw 2ml/kg gluconate and dilute with equal amount NaCl. Infuse over 10mins Maintenance infusion: 5ml/kg/24 hrs Withdraw 5ml/kg and dilute to 25 mls with 5% glucose or 0.9% NaCl solutions. Infuse at 1ml/hr.	IV SLOWLY OVER 10 MINS Use central line if available. Make sure UVC tip is not in the heart or liver.
CEFOTAXIME	IV 1g vial: Add 9.6 ml WFI = 100 mg/ml 500mg vial: Add 4.8 mls WFI =100mg/ml	50 MG/KG <7 days: 12-hrly >7-21 days: 8-hrly >21 days: 6-hrly	IV IM IM: 1g vial Add 3.6 ml WFI = 250 mg/ml
CLONAZEPAM	1 MG/ML AMP	LOADING DOSE 100-250MICROGRAMS (NOT PER KG) Dilute to 10mls with WFI=100micrograms/ml Repeat in 1 hour if required. Infusion dose: 10 micrograms/kg/hour Dilute 0.5 ml (500 micrograms) to 50 ml with glucose/saline solution	IV 10micrograms/kg/hr = 1ml/hr
DIGOXIN	50 MICROGRAM/2 MLS AMP Use undiluted SLOW IVI over 5 mins	LOADING DOSE: <34/40 15-25 micrograms/kg >34/40 30-40 micrograms/kg If dilution required dilute to 10 ml with WFI = 50 micrograms/10 ml	IV Give ½ loading dose then ¼ in 8 hours then last ¼ in 8 hours.

DRUG	PRESENTATION	DOSE	ROUTE
DOBUTAMINE	250 MG/20 MLS AMP (SANDOZ) 250 MG powder for reconstitution (Aspen) – add 18mL water for inj to dissolve, withdraw & further dilute to 20mL (250mg/20mL)	1 - 20 MICROGRAMS/KG/MIN (INITIALLY 5 MCG) Infusion: Dilute 30 mg/kg to 50 ml in glucose/saline solution 1 ml/hr = 10 micrograms/kg/min	IV UV AS INFUSION
DOPAMINE	200 MG/5 MLS AMP	5 – 20 MICROGRAMS/KG/MIN Infusion: Dilute 30 mg/kg to 50 mls in 5% glucose or 0.9% sodium chloride 1 ml/hr = 10 micrograms/kg/min	IV UV Note: 0.5 – 5 micrograms/kg/min ↑ renal perfusion 5 – 20 micrograms/kg/min ↑ renal perfusion & cardiac output
FENTANYL	100 MICROGRAMS/2ML AMP	4 MICROGRAMS/KG/DOSE (PRE-INTUBATION) 1-5 micrograms/kg/hour (infusion) Dilute 2ml ampoule to 10 ml with 0.9% sodium chloride = 10 microgram/ml Infusion: Dilute 50 microgram/kg of baby's weight to 50ml glucose/saline solution = 1microgram/kg/ml	<u>SLOW IV UV</u> Continuous infusion
FLUCLOXACILLIN	500 MG VIAL Add 4.6 ml WFI = 100 mg/ml	25 MG/KG/DOSE <34/40 <14 days = 12 hourly <34/40 ≥14 days = 8 hourly ≥34/40 <14 days = 8 hourly ≥34/40 ≥14 days = 6 hourly For Staph aureus bacteraemia, meningitis, osteomyelitis = 50 mg/kg/dose	IV IM Administer IV over 10 min IM: Add 2.1 ml WFI = 200 mg/ml
FRUSEMIDE	20 MG/2 ML AMP	0.5 – 1.0 MG/KG Dilute with WFI/0.9% NS	PREFERABLY IV
GENTAMICIN	80 MG/2 MLS AMP Dilute to 8 mls with NaCl to give 10 mg/ml IV dose SLOWLY over 10 mins Do not give simultaneously with Penicillins, as Y-site incompatible	Corrected GA <30 weeks: 0-7 days >7 days Corrected GA 30-35 weeks: 0-7 days > 7 days Corrected GA >35 weeks: 0-14 days > 14 days	5mg/kg 48-hrly 5mg/kg 24-hrly 6mg/kg 48-hrly 6mg/kg 24-hrly 4.5mg/kg 24-hrly 7mg/kg 24-hrly
GLUCAGON	1 MG POWDER WITH 1 ML SYRINGE OF WFI AS DILUENT	200 MICROGRAMS/KG STAT (MAX DOSE 1MG) For infusions: Dilute reconstituted vial to 50 ml with 10% glucose to give 1000 micrograms/50 ml. 0.5 ml/kg/hr=10 micrograms/kg/hr Infusion dose: 5 – 20 micrograms/kg/hr	IV IM SC NOTE: 1 unit=1 mg

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HEPARIN SODIUM	NETS only carries 1,000 units/ml amp	0.5 UNITS/ML ADDED TO ALL SOLUTIONS TO BE INFUSED CENTRALLY I.E.: ARTERIAL LINES UMBILICAL LINES & CENTRAL VENOUS LINES	IV UV UA
ISOPRENALINE	1000 MICROGRAMS/ 5MLS AMP	0.05 - 0.5 MICROGRAMS/KG/MIN Infusion: Dilute 300 micrograms/kg to 50mls of 0.9% NaCl or glucose solutions 1 ml/hr = 0.1 micrograms/kg/min	IV UV
LIGNOCAINE	50 MG/5 MLS AMP 1%	LOADING: 0.5 – 1 MG/KG Maintenance: 10 – 50 micrograms/kg/min Infusion: Dilute 30 mg/kg in 50 ml of 5% glucose solution 1 ml/hr = 10 micrograms/kg/min	IV OVER 5 MINS
METRONIDAZOLE	500 MG/100 ML	LOADING DOSE: 15 MG/KG < 7 days – 7.5 mg/kg 24 hourly ≥7 days – 7.5mg/kg 12 hourly > 44 weeks – 7.5 mg/kg 8 hourly	IV Infuse over 20 mins

MIDAZOLAM	15 MG/3 ML AMP (5mg/ml) Dilute 1ml midazolam with 4ml WFI =5mg/5ml (1mg/ml) 5 MG/ML AMP (1mg/ml)	INTERMITTENT DOSING: 100–200 MICROGRAMS/KG 4-8 HOURLY Infusion: 1-2 micrograms/kg/min 3 mg/kg of baby's weight diluted to 50 ml glucose/saline solutions 1 ml/hr = 1 micrograms/kg/min	IV UV Slow push over 5 mins
MILRINONE	10MG/10ML Withdraw 1.5mg of milrinone per kg of baby's weight (1.5mL/kg) and dilute to 50mL with an appropriate infusion fluid. Diluent: Sodium chloride 0.9%, Glucose 5%	< 30 weeks Loading dose: 135 microgram/kg given over 3 hours (run at 1.5mL/hr for 3 hrs) then maintenance dose: 0.2 microgram/kg/min (run at 0.4mL/hr) ≥ 30 weeks Loading dose: 75 microgram/kg given over 60 mins (run at 2.5mL/hr for 1 hour) then maintenance dose: 0.5 – 0.75 microgram/kg/min (run at 1 – 1.5mL/hr) NB: LOADING DOSE CAN CAUSE HYPOTENSION, SO OFTEN OMITTED	IV as continuous infusion
MORPHINE	USUALLY 10 MG/ML AMP Beware: other strengths may be available in different hospitals	100 – 200 MICROGRAMS/KG/DOSE Infusions: 10-40micrograms/kg/hour Dilute ampoule to 10 ml with WFI = 1 mg/1 ml Infusion: add 0.5 mg/kg to 50 ml glucose/saline solution. 1ml = 10 micrograms/kg/ hour	IV UV IM: USE UNDILUTED

DRUG	PRESENTATION	DOSE	ROUTE
NEOSTIGMINE (reversal of muscle relaxants)	0.5mg/mL (500mcg/mL) OR 2.5mg/mL (2500mcg/mL) Give over 1 min	50-80micrograms/kg/dose Diluent: sodium chloride, glucose, Use undiluted or dilute contents of 2.5mg amp to 16.5mL=150microgram/mL	IV,IM To be used in conjunction with Atropine (20micrograms/ kg/dose). IV push
PARACETAMOL	ORAL: 250MG/ML IV: vial 1mg/ml	ORAL: 28-32 WEEKS: LOADING 20MG/KG THEN 10-15MG/KG/DOSE MAX 30MG/KG/DAY >32 weeks: loading 20mg/kg then 10-15mg/kg/dose max 60mg/kg/day IV: >38weeks: 10mg/kg/dose 6 hourly 35-37 weeks: 7.5mg/kg/dose 8 hourly	IV infuse over 15mins use undiluted
PANCURONIUM	4 MG/2 MLS AMP	100 – 150 MICROGRAMS/KG/DOSE REPEAT AFTER 3 MINUTES AS REQUIRED Dilute to 10mls with WFI=400micrograms/ml	IV UV
PIPERACILLIN-TAZOBACTAM (Tazocin)	4G VIAL	Corrected GA <30 weeks ≤28 days: 100mg/kg/dose 12-hrly >28 days: 100mg/kg/dose 8-hrly Corrected GA 30-36 weeks ≤14 days: 100mg/kg/dose 12-hrly >14 days: 100mg/kg/dose 8-hrly Corrected GA >36 weeks ≤7 days: 100mg/kg/dose 12-hrly >7 days: 100mg/kg/dose 8-hrly Add 37mL WFI to 4g vial = 100mg/mL	IV Infuse over 30 minutes
PHENOBARBITONE	200 MG/ML AMP	LOADING DOSE: 20 MG/KG STAT If no response a further 10-20 mg/kg Dilute to 10 mls with WFI = 20 mg/ml	IV Infuse over 10-15 mins

PHENYTOIN	50 MG/ML AMP	Loading dose 15-20 mg/kg Dilute to 1:10 with 0.9% NaCl ONLY . Flush line with 0.9% NaCl pre & post	IV ONLY Infuse over 30-60 mins with ECG monitoring
SODIUM BICARBONATE	8.4% IN 10 MLS AMP 1ml 8.4% = 1mmol	Dilute 1ml 8.4% NaHCO ₃ with 1ml WFI (=4.2% solution) Resus: 1 - 2 mmol/kg over 30 min Correction of pH (½ correction): $\frac{0.3 \times \text{wt (kg)} \times \text{base deficit}}{2}$	IV UV

DRUG	PRESENTATION	DOSE	ROUTE
SURFACTANT SURVANTA	8 MLS VIAL Use at room temperature	4 ML/KG/DOSE IN AT LEAST 2 SEPARATE ALIQUOTS Up to 4 doses at 6 hourly intervals	ETT Store opened & unopened vials at 2-8 °C Discard 12 hours after opening
SURFACTANT CUROSURF	120MG/ 1.5 MLS 240mg/ 3 mls Use at room temperature	RESCUE: 2.5MLS/KG = 200MG/KG 1.25 mls/kg(100mg/kg) after 12 hours to max dose 400mg/kg Prophylaxis: 1.25 -2.5 mls/kg within 15 mins of birth then 1.25 mls/kg 6-12 hourly. Subsequent doses 12 hourly. Max 300-400mg/kg	ETT Store opened & unopened vials at 2-8 °C Discard 12 hours after opening
SUXAMETHONIUM CHLORIDE	100 MG/2 MLS AMP	1-2 MG/KG/DOSE Dilute 1 ml with 4mls 0.9% WFI = 10mg/ml	IV UV 2mg/kg= 5 mins muscle relaxation
VANCOMYCIN	500mg vial	Corrected GA < 30 weeks: 0-7 days: 10mg/kg/dose 12-hrly >7 days: 10mg/kg/dose 8-hrly Corrected GA 30-37 weeks: 0-7 days: 15mg/kg/dose 12-hrly >7 days: 15mg/lkg/dose 8-hrly Corrected GA 37-44 weeks: All ages: 25mg/kg/dose 12-hrly Add 10mL WFI to vial. Withdraw 1mL of this solution (50mg/ml) & further dilute to 10mL with 0.9% saline (=50mg/10mL)	IV UV Infuse over 1- 2 hrs
VECURONIUM	10 MG POWDER VIAL Add 10 ml WFI to vial = 1 mg/ml	Usual intermittent dose: 100micrograms/kg/dose Infusion: 1-4 micrograms/kg/min Dilute 6mg /kg to 50 mls with 0.9%NaCl or 5% Glucose solutions Infusion: 0.5 ml/hr = 1 micrograms/kg/min	IV UV Repeat dose at 1-2 hr
VITAMIN K (PHYTOMENADIONE)	2 MG/0.2 ML AMP	BW<1500 gms 0.5 mg = 0.05 ml BW>1500 gms 1 mg = 0.1 ml May be diluted to 0.5 ml with 0.9% NaCl	UA UV IV IM Over 5 mins IM: use undiluted