NEWBORN EMERGENCY TRANSPORT SERVICE MEDICAL GUIDELINES

OPERATIONAL GUIDELINES

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

Referring Call

A **Call-conferencing system** for NETS is in use. **ALL referring calls are conferenced and recorded**. This allows better team communication & an accurate record of the information exchanged.

Doctors, nurses & midwives can call the NETS line at any time for advice, or to arrange a retrieval.

After-hours, the call is usually taken by the 6B registrar. Basic information can be sought from the caller while more senior people are being patched into the call conference. These can include:

- The on-call NETS consultant and NETS Fellow
- The 1st on-call consultant for PMH

- *If possible or appropriate:*
  - Other subspecialists eg: cardiologist/ PICU consultant/ KEMH obstetrician etc
  - RFDS doctor

The person taking the call needs to DOCUMENT all the following information on the Transport Call Sheet:

- Referring doctor's name & CONTACT NUMBER
- Advice or request for retrieval?
- Hospital details (patient location, direct contact number)
- Patient details (name, date of birth, gestation, current age, weight)
- Clinical details (history, current problem, signs & symptoms, previous & current management)
- Transport details (urgency, mode, is the mother coming with the baby?)
- Documentation of whatever advice is given

Note: Once NETS is contacted, we accept some responsibility for the care of the patient. When accepting a transfer, medical staff have the right & duty to suggest any necessary interim monitoring & treatment measures (eg: IV cannulation, antibiotics etc.)

Requests to attend deliveries at a referring hospital:

- Very occasionally, a NETS team will need to attend deliveries of high risk/ preterm neonates in peripheral hospitals.

- However, it is not standard practice to depart on a retrieval if a neonate is not yet born. It is always preferable to transfer the mother to KEMH than for a preterm baby to be outborn. Western Australia has the best rates of in-utero transfer in the country: In most cases, preterm delivery can be delayed sufficiently to transfer the mother to KEMH.
- Referring doctor must contact the on-call obstetrician at KEMH to discuss in-utero transfer. Ideally, a call conference should be set up to discuss with referring team, on-call obstetrician & NETS consultant.

Retrieval of infants beyond the neonatal period

1. Infants <46 weeks corrected age and <6kg can be retrieved by NETS. Any child >46 weeks corrected is not suitable for NETS retrieval.

2. If the NETS consultant or on-call neonatologist decides that an infant is not suitable for NETS retrieval, the referring doctor will be asked to call **PMH Emergency Department (9340-8380)** for advice.

3. If the decision is for NETS retrieval <u>but not to admit to 6B</u> (refer to admission criteria for ward 6B), the following guidelines will apply:

- **Ventilated infants are likely to go to PICU directly**

    - The NETS consultant will remain in charge of all aspects of the retrieval, and will provide advice to the referring and retrieval team. In addition, the on-call PICU consultant will be conferenced into the call to provide additional advice to the retrieving team.

- **Non ventilated infants will go to ED for further assessment**

    - The NETS consultant will remain in charge of all aspects of retrieval, & will provide advice to the referring & retrieving team. The NETS consultant will formally inform & update the ED consultant (ph 9340-8380) regarding the condition of the infant and expected time of arrival.
    - A formal handover will take place between the NETS team, the medical registrar (if available) & the ED staff, using the iSoBAR format.

- **Infants retrieved on CPAP**

    - The NETS consultant will remain in charge of all aspects of the retrieval, and will provide advice to the referring and retrieval team. In addition, the on-call PICU consultant will be conferenced into the call to provide additional advice to the retrieving team.

    - **Those commenced on CPAP for apnoea/ hypoxia not managed by oxygen alone**: Depending on bed availability these patients may be directly admitted to PICU or NICU or be offloaded in ED. If they are offloaded in ED, the ED consultant will need to be informed (ph 9340-8380) prior to arrival. Such infants should not have their CPAP removed on arriving in ED. The patient should be assessed by the PICU & inpatient medical team in ED to determine disposition.

    - **Those commenced on CPAP to make transport safer**: Such infants can have a trial of CPAP removal to assess their suitability for a general ward. When the baby arrives in ED the CPAP will be removed prior to the medical handover. The handover will take place between the retrieval team, the medical registrar (if available) and the ED team. If it

becomes apparent that the child's condition off CPAP is deteriorating then referral for PICU input can be made as per usual practices.

Notification is provided to PICU (ph 9340-8165) or to ED consultant (ph 9340-8380) when the patient is 20-30 minutes away from PMH. This will allow the medical registrar or PICU registrar to be available on arrival to the hospital to participate in the handover of the patient. If coming to ED the ED consultant will page the medical registrar to make them aware of the patient as they will not have been informed previously.

Direct phone line	NETS hotline	1300 NETS WA (1300 6387 92)
	PMH ward 6B	9340 8534 or 8448
	PMH switchboard	9340 8222
	KEMH switchboard	9340 2222
	PMH ED	9440 8380

Metropolitan Transports

An Ambulance Transport Officer (ATO) from St John Ambulance Service (SJA) is rostered on from 0730 - 0030, Monday to Friday to drive the NETS Telethon ambulance, and is based in the NETS office. Contact number 0405 535 000.

The ATO's are now permitted to drive under Priority One circumstances ("lights and sirens").

After hours and at weekends SJA should be contacted directly to provide an ambulance and paramedic crew - see below.

St John Ambulance (SJA) – Road Transport

Direct phone line: Tie line: 8562
Phone: 9334 1234

Information to convey:

- Patient and hospital details
- Desired time of departure
- Urgency (most transports are Priority 2:
    a. Priority 1 (state "immediate dispatch, lights & sirens")
    b. Priority 2 (ask for an ambulance at PMH within 25 min)
    c. Priority 3 (state that it's a routine transport within the next "x" hours)

Specify a time frame as SJA Priority ratings are different to NETS ratings.

Air transport: Royal Flying Doctor Service (RFDS)

Retrieval from centres >180km from Perth are usually by fixed wing aircraft, utilising the RFDS.

RFDS direct line 1800 625 800

Procedure:

- Contact the RFDS Coordinator via direct line and request transport, giving all relevant details
- Discuss the transport urgency with the RFDS doctor
- Await a call back from RFDS with the departure time
- Transport doctor goes to Jandakot airport by taxi to meet the RFDS team (pilot & flight nurse) for the retrieval

For very sick or preterm neonates or neonates likely to require nitric oxide, a NETS nurse will accompany the doctor and flight nurse. Discuss with RFDS Coordinator (aircraft weight limitations may be an issue).

If a flight is not available within an appropriate time, discuss the retrieval with the NETS consultant; it may be possible to go by road instead (eg: Bunbury, Narrogin are well within driving distance.)

Keep in touch with the referring hospital/doctor & document any further advice on the Transport Call Sheet.

Prior to departing from NETS base

Good preparation and team communication prior to departure prevents items being forgotten and ultimately speeds the retrieval.

- Check Mansell cot equipment and first line resuscitation equipment
- Draw up fluids & resus/ intubation drugs as required
- Fill humidifier chamber of ventilator with water and preheat the ventilator (if required)
- Collect cold drugs, iStat & cartridges & transilluminator
- Collect therapeutic cooling kit if appropriate
- Collect special “premmie pack” if appropriate
- Consider taking Nitric Oxide on all transports where the baby is requiring >40% oxygen
- Take a copy of the Transport Call Sheet with you
- Complete as much documentation as you can before you arrive at the referring hospital
- Make sure you have had something to eat and drink; take a bottle of water with you.

Procedure before departure from referring hospital

- **Stabilize baby in transport cot** and apply seat belt.
- **Collect maternal blood** (hand-labelled and signed EDTA tube 5-10ml, accompanied by a pathology request form *both signed by the person collecting the specimen.)*
- **Collect placenta** (if available) and all other available specimens (gastric aspirate, blood culture, etc.)
- Collect copied **maternal and baby's notes and x-rays**.
- **Call the NETS call-conferencing system** to update the NETS consultant and staff in the receiving unit about the baby's condition.
- **Inform ambulance crew** when ready for departure.
- Allow the **parents** to see (and hold if appropriate) the baby before departure. Give parents a copy of the NETS brochure.
- Briefly re-examine the baby and **check if condition is appropriate** for transport.
- Switch over to cot oxygen/power supply then **disconnect power/oxygen** from the wall/external supply.
- Survey the room to ensure that no equipment or documentation has been left behind.

Make sure you are happy with the condition of the baby before leaving the referring hospital. Do not be pressured by others to do so.

Return journey

- Make sure **power and oxygen supply is connected** to the ambulance/aircraft supply and input source changed on cot.
- Briefly **discuss patient's condition** and potential problems **with the pilot & ambulance crew**.
- Communicate the degree of urgency to the transport crew.

- **Keep the transport cot closed and aim for minimal handling of the baby during transport.**
- **Chart observations** every 10 - 15 minutes (more frequently in case of instability) and document all relevant changes in the baby's care or condition.
- CLEAR DOCUMENTATION IS PARAMOUNT – these are legal documents.
- **Hand over the baby** to receiving team using the **iSoBAR format.**
- **Complete the Data Sheet.**

File copies of the Observation and Management Chart & Transport Call Sheet in the NETS folders. File original Data Sheet in folder at desk.

Transport of multiples

The NETS consultant must be notified immediately to plan the retrieval.

The Mansell Neocot is able to accommodate twins but:

- There is only one ventilator. You may consider taking the babyPAC ventilator with you. Make sure you take appropriate tubes and all connectors with it.
- There is only one monitor, so may need to take another monitor (e.g. Masimo pulse oximeter.)
- RFDS may be able to supply a 2nd Propaq and extra syringe pumps – arrange this when arranging the transport.

Check function of the equipment and familiarise yourself with it before leaving!

Depending on the mode of transport, distance of transport and the severity of illness of the patients, the decision, after discussion with the consultant and all other involved parties will be to:

- Either transport twins in one cot using a second set of equipment (a second nurse may be required.)

- Send out a second NETS team.

- If no second NETS team is available consider “back to back” transfers.