CLINICAL PRACTICE GUIDELINE
NEWBORN EMERGENCY TRANSPORT SERVICE (NETS WA)

Pneumothorax

This document should be read in conjunction with the Disclaimer

Consider in any ventilated baby or baby on CPAP who acutely deteriorates.

Clinical Clues

Increase in transcutaneous / end-tidal CO_2, worsening hypoxaemia, worsening respiratory acidosis, reduced breath sounds on affected side.

Management

- Transillumination with a cold bright light should be attempted, but requires significant darkness and may be negative in larger babies.
- CXR may be available in referring hospital.
- **For emergencies / acute deterioration / bradycardia / hypotension, do not wait for CXR.** Needle chest with 22G or 24G cannula.
- For significantly large / symptomatic pneumothorax, or for air transports, consider insertion of chest drain (pneumothorax is likely to expand with increasing altitude).
- Pigtail catheters and Argyle catheters are both acceptable; attach to Heimlich valve.
- For small pneumothorax / mild distress, on road transports, consider no treatment (Cot O_2 to improve oxygen saturations).
- 100% oxygen - Nitrogen 'washout' technique is **not recommended**.
- Transcutaneous or end-tidal CO_2 monitoring should be used in all patients with Air Leaks.
- For flight transports - Fly with Sea Level Cabin and inform the pilot of the need for this.
- Pneumomediastinum rarely requires drainage.
- Intubating an infant when it is known to have a pneumothorax can result in further deterioration because positive pressure ventilation will increase the air leak and place it under tension. Drain the air first to stabilise the infant and then intubate under controlled conditions.

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