The Unwell Neonate

RDN
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NETS

‘Moving Intensive Care for Kids’

Ways of looking at the problem
- Diagnosis
- Severity
- Timing of presentation

Diagnosis
- Congenital
- Medical
- Surgical
- Other

Diagnosis
- Congenital
- Medical
- Prematurity
- Respiratory

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  - Respiratory
- Prematurity
- Respiratory
- Haemorrhage

Diagnosis
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  - Prematurity
  - Respiratory
  - Haemorrhage
  - Hydrops

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  - Respiratory
  - Asphyxia
  - Sepsis

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Asphyxia
- Fetal distress
- Low Apgars
- Respiratory resuscitation
- New approaches

Sepsis
- Often subtle
- Early or late in presentation
- Consider
  - UTI
  - Septicaemia
  - Meningitis
  - Pneumonia
- Treatment

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Severity
- Critically ill
- Moderate unwell
- ? Unwell at all

Clinical evaluation
- Detailed history
- Observation
- Physiological measurements
- ‘Apgar’ score
List of problems requiring retrieval

- Respiratory distress from any cause (e.g. meconium aspiration, neonatal pneumonia, Infant respiratory distress syndrome) - without the capability to monitor oxygen therapy and arterial blood gases - without the capability to give ventilatory assistance
- Intravenous fluid requirements
- Surgical conditions
- Low birth weight infants
- Suspected congenital heart disease
- Significant birth complications
- Severe neonatal depression
- Unresponsiveness to resuscitation efforts
- Infants of diabetic mothers
- Neonatal seizures
- Suspected infection (sepsis, meningitis)
- Hemolytic disease
- Apnea
- Suspected shock
- Persistent acidosis
- Recurring hypoglycemia
- Infants not doing well for unknown reasons

Timing of presentation

- Ante-natal
- Post-natal
- Immediate
- Delayed
- Post-discharge

Three commandments

- Warm, Pink & Sweet
  - Normothermic
  - O₂ Sat ~ 95%
  - BSL > 2.5

ABC

- A - Airway
- B - Breathing
- C - Circulation
- D - Drugs
- E - Environment

Set-up for resuscitation

- Infant warmer
- Bag
  - Self-inflating
  - T-piece
- Mask 0, 1
- Laryngoscope & straight blades: sizes 0, 1
- ETT 2.5, 3, 3.5, 4.0
- Suction FG 12 (short)
- Gastric tube (Long FG 8)

Desirable

- T-piece ventilator (Neopuff™)
- Incubator
- Infusion pumps
- Digital camera / email facilities

Calling for help

- NETS Line 1300 36 2500
  - Press 1 for neonatal (paediatric) retrieval
  - Press 2 for obstetric transfer
- Fax 1300 36 2498
- help@nets.org.au

No need to 'find a bed'

Information

- Patient’s name, age / DOB, weight
- Patient’s location and caller’s name
- Provisional diagnosis
- History and current clinical condition
- Vital signs HR, RR, O₂ Sat, CR or BP
- Treatment instigated and planned
- Other vocal (± regional) resources?
- Destination preference
Arranging the environment
- Large working area
- Radiant warmer
- Power points
- O₂, air & suction
tubing
- Trolley, rubbish & 
  sharps bins
- Phone near patient 
  (cordless, if possible)
- X-ray facilities

Packed to go…

Summary
- Anticipation & prevention
- Diagnostic challenges
- Consider timing of presentation
- Action plans

Questions?

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