Reducing Stress and Optimising Outcomes in neonatal care

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Areas covered....

- Developmental care integrated with family centred care
- Positioning
- Environmental care
- Positive touch & handling
- Non-nutritive sucking
- Skin to skin contact/care
- Pain management
Developmental care

- Those interventions that support and facilitate the stabilisation, recovery and development of infants and families undergoing intensive care, and beyond, in an effort to promote optimal outcome.
- Developmental needs are complex.
- Environment is often inappropriate.
- Parental relationships also require consideration.
Aims

• To integrate the developmental needs of neonates with intensive / special care
• To understand a neonate’s developmental needs
• To provide interventions necessary to support development
• Recognise the family as an equal member of the health-care team
Fostering parent-infant interaction

• Aim to support mutually satisfying parent-infant interaction
• Establish a family-centred approach
• Empower parents to assume their natural role of advocating for their infants’ needs
• Support parent’s ability to understand their infant’s level of communication
Neonatal self-regulation

• ‘Organisation’ or self regulation of *behaviour*—the ability to maintain a balance as the neonate deals with the demands of the environment

• Aim is to maintain or return to a state of balance and relaxation.

• E.g. calming measures to encourage consolability, ‘*self-quieting*’, / ‘habituation’, hand-to-mouth movement /action & sucking have consoling effects

• Sources:
Behavioural organisation

• Organisation is reinforced and enhanced by caregivers who recognise and respond to behavioural cues of the neonate.

• Provide ‘time-out’ when there are avoidance behaviours

• Support efforts to balance signs of stability
  – How does he / she respond to caregiving?
  – Does he/she like a particular position?
  – What has a negative impact on the infant?
  – How much stimulation can the neonate tolerate?
  – Can the timing and organisation of procedures be altered to decrease stress?
Interventions

• To help the neonate / infant manage stress and organise behaviour
• AIM to enhance an organised, quiet, alert state
• E.g. - swaddling, non-nutritive sucking, decreasing visual / auditory stimuli, elicit grasp or rooting reflexes
• Handling – minimal when stressed. Start appropriate handling when neonate is stable – e.g. stroking
  • Hawthorne, 2005; Westrup, 2006; Hamilton, 2008
Interventions

• Observe for stressed (or ‘avoidance’) behaviours – gaze aversion, regurgitation, crying, extension.
• Provide a ‘time-out’ from incoming stimuli when a neonate is stressed to allow him/her to self-regulate
• Hold limbs in flexion close to body
• Get to know individual sensitivities and responses for the best consoling
Positioning

• Promote physiological flexion – limbs in the mid-line for hand-to-mouth orientation

• Flexion – hips and knees in symmetry, arms forward and flexed, head in line with body

• Boundaries (‘nesting’ )– in relation to those movements aimed at making and maintaining contact with a stable surface in the immediate environment

• Organisation through containment
Promote physiological flexion
Modifying environment

- Light
- Noise
- Activity / interventions
- Temperature
- Avoid excessive noise and handling which cause instability & stress

Pickler et al, 2013
Positive Handling

- Therapeutic touch – stroking / massaging gently according to neonates’ cues
- Kangaroo Care – “skin-to-skin” to promote parental involvement and also improve many physiological functions (e.g. thermal control)
- Consider in both intubated and non-intubated neonates.

Non-nutritive sucking

- **AIM** – to enhance later success in oral feeding
- Simple intervention
- Brings neonate to an alert state
- Transition to oral feeds more successful
- An opportunity for parental involvement
Pain & stress management

• Assessment of pain & stress is essential and consideration of the causes. Integrate this into normal assessment and care planning.

• Assess all areas –
  – physiological (e.g. heart rate, saturations)
  – biochemical (e.g. glucose?) and
  – behavioural (e.g. facial expression, body movements).

• Various pain assessment tools exist
  • AAP, 2006; Twycross, 2006; Meek. 2012
Pain & stress management

- **Pharmacological** management in sick neonate – paracetamol for non-ventilated, morphine for ventilated

- **Non-pharmacological** – Sucrose for procedural plain, breast milk, pacifier, holding, rocking, skin to skin and other soothing measures – these are key nursing areas and an ideal opportunity to involve the parents
Finally ....

• “Care should be supportive to the behavioural organisation of the infant, thus he should be handled when he / she wishes and left to rest when he exhibits signs of stress”  (Wolke, 1987 in Brazelton & Nugent, 2011)

• Julia Petty
Further Reading

- **DEVELOPMENTAL CARE**

- **ENVIRONMENTAL CARE**
Further Reading

- **PAIN IN THE NEONATE**

- **KANGAROO CARE / SKIN TO SKIN**