



infant

for neonatal and paediatric
healthcare professionals

Newborn pain: Closing the practice-evidence gap

Evidence-based practice is a common term with an underlying philosophy to encourage clinicians to change their practice based on the best evidence available. Research-based evidence that should inform and change practice has been around for years and yet practice change has been poorly implemented in many areas.

In Australia we are currently facing this challenge in relation to pain in the newborn infant. Painful procedures in newborn infants can have immediate and long term adverse effects that can be reduced with analgesia. However, when you speak to clinicians, their practices appear to vary considerably across institutions, states and countries. Earlier this year the Royal Australian College of Physicians released a statement on the Guidelines for the Management of Newborn Pain¹ and the Australian College of Neonatal Nurses published their position papers on Newborn Pain Assessment and Management². These guidelines have given an added focus to the goals of the current project.

Despite strong evidence that simple interventions such as sucrose, breast feeding, swaddling, multi-sensory stimulation or topical analgesic agents during painful procedures such as venipunctures and heel lancing reduce the physiological response to pain³, only about 50-75% of staff are aware of the evidence. Less than 20% of units have clear policies, and an even lower proportion use these interventions in practice^{4,5}.

Evidence suggests that to maximise benefit and minimise harm, narcotic analgesia for ventilated newborns should be targeted at those most likely to benefit, based on assessment of pain, rather than giving it routinely to all infants⁶. Most Australian NICUs use narcotics but do not routinely use pain assessment tools⁴. I am sure the practices are similar across international boundaries.

With this challenge, we have embarked on a national project to reduce the evidence-practice gap in all 23 NICUs in Australia in the first instance, then follow-on to target the regional hospitals, children's wards, emergency departments, community health centres and general practitioner rooms.

The scope of the project is aided through the established networks for newborn care that exist throughout the country. The Australian and New Zealand Neonatal Network (ANZNN) consists of clinicians representing all the NICUs in Australia and New Zealand who communicate

regularly and meet once a year to identify areas for consistency in documenting practice and outcomes of newborn care. The Australian College of Neonatal Nurses (ACNN) has representatives from all states and neonatal units who have developed position statements on neonatal pain. The group communicates regularly through teleconference and meets once a year to identify clinical practice and professional issues. The Australian Collaboration of Neonatal Nurse Researchers (ACNNR) is a network of nurse researchers who are working on collaboration between states to implement evidence for practice. These networks have joined to ensure the evidence practice gap for pain is reduced.

The project began early in 2006 when the project team was appointed under the leadership of Professor David Henderson Smart from the Centre for Perinatal Health Services Research at the University of Sydney. Coordinators have been appointed for each state and work in collaboration with the Project Lead. The model we have chosen is to audit current practices of analgesia and sucrose use as well as the team practices in each NICU. Local champions (medical and nursing) in each NICU, SCN and postnatal ward are leading the process in each institution. A major focus of the project is to identify potential barriers to implementing change that the team can work together to solve. We are currently implementing an educational programme on the use of a pain assessment tool and providing interactive workshops on critical appraisal of the evidence for pain management in the newborn.

To date this project has shown how the strength of collaboration through various networks across the country has enabled us to identify innovations and changes to improve the care of newborn infants in pain. I hope to share with you further developments and success of the project over time.

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Acknowledgements

The project is funded by the National Institute of Clinical Studies (NICS).

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