

An observational study using video recordings to explore the first hour after admission to a Neonatal Intensive Care Unit (NICU)

Laurene Aydon¹, Andrew Gill¹, Margo Zimmer¹, Mary Sharp¹, Patricia Woods¹, Carly Seeber¹, deb Mooney¹, and Jamee Murdoch¹

¹Government of Western Australia Child and Adolescent Health Service

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Abstract

AIM To explore the admission process to our Neonatal Intensive Care Unit. **METHODS** A first phase quality improvement initiative was conducted. We utilised observational video recording of a convenience sample of inborn admissions. Two remote GoPro cameras were placed, one giving an overview of activity and the other focussed on the infant. Recordings captured the first hour after admission including transfer to the NICU by the birthing team. The video footage of each case study was reviewed by a multidisciplinary panel using an agreed semi quantitative analysis of events. **RESULTS** Ten admissions to the NICU were video recorded between June and October 2018. Gestational age 282- 401. A focus on maintaining airway support was inconsistent as was the ability to provide continuous monitoring of vital signs. Overall leadership of the process was lacking, and handover often appeared fragmented. Median temperature on admission was 362 (354-373) oC. Vascular access and fluid management occurred at a median of 36 (13 – 67) minutes. **CONCLUSIONS** Planning and approval for this study was protracted, particularly negotiating the use of video recording. Anecdotally, this delay is thought to have contributed to an improvement in managing admissions, particularly when maintaining airway support and monitoring. However, our baseline data has highlighted a lack of leadership, fragmented handover, low admission temperatures and broad time frames to achieve vascular access. A guideline to streamline handover and nursery transition is currently being implemented, a subsequent evaluation cycle is planned.

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