Quality improvement can reduce unintended extubations

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Studies spanning the last thirty years have examined contributors to unintended extubation (UE) in neonatal intensive care units (NICUs). Common themes emerge: low staff-to-patient ratios, less stable securement methods, procedures which cause patient movement and insufficient patient sedation. Implementation of comprehensive and multifaceted quality improvement (QI) initiatives to reduce UE has more recently been demonstrated effective in multiple NICUs. Galiote et al report a single-centre QI project designed to reduce UE in a Level IV NICU in the USA through which a reduction in UE rate to the recommended benchmark of <1 per 100 ventilation days was achieved. The QI methodology used is appropriate, and the manuscript follows the reporting guidelines for QI in health care (http://www.equator-network.org/reporting-guidelines/squire/). Overall, the implementation project is well structured and designed.

For QI efforts to be effective in a healthcare service, it is vital to have clear leadership combined with an environment where frontline staff are empowered to actively engage in the process. There is evidence of positive cultural change in this project's NICU, with one intervention point focused on enabling nurses and respiratory therapists to speak up with their concerns. It appears that the project was appropriately multidisciplinary, with dedicated QI teams for UE prevention assembled in Epochs 1 and 2 of the intervention. It is assumed the overall QI team for UE was made up of neonatologists, nursing staff, respiratory therapists and administrators. However, given the composition of NICU clinical teams varies between units and neonatal networks, it would have been useful for the background and roles of each team member in this project to be described in more detail. It does not appear that there was formal parent or caregiver involvement in the study: while not commonly reported at present, collaboration with families for QI in NICUs can add great value to these endeavours.

This implementation project was first prompted by an observation that UE had increased to an unacceptable level in this NICU. The process of intervention planning was well structured, and spanned across several elements of NICU care including bolstering staff presence at high UE risk timepoints, procedure standardization for endotracheal tube securement, guidance for managing patient position and episodes of high-risk movement, real-time reporting and analysis of adverse events, optimising communication and the use of visual aids for clear identification of at-risk infants. Further information on why each particular intervention was selected over other potential interventions would be informative for NICUs planning similar projects. It is also not clear in the paper whether the team appraised reasons for the initial rise in UE in their unit that prompted the project in the first place: this may have provided valuable insight to the key UE drivers identified.

It is clear from this study and others that UE can be successfully reduced through the use of multiple, well-selected interventions that are driven by a dedicated QI team. Future QI endeavours for UE in NICUs should focus on the sustainability of these initiatives, with a view to ensuring longevity of a safety culture in NICUs.

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CONFLICT OF INTEREST
None.
REFERENCES


