Midline Head Positioning to Reduce the Risk of Intraventricular Hemorrhage in Very Low Birth Weight Neonates

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Midline Head Positioning to Reduce the Risk of Intraventricular Hemorrhage in Very Low Birth Weight Neonates

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Background/Introduction

For very low birth weight infants born weighing less than 1,500 grams, does the use of midline head positioning for the first 72 hours of life reduce the risk of intraventricular hemorrhage compared with current practice?

Methods

In the Neonatal ICU at LVHN, there is currently no set clinical standard for head positioning of a very low birth weight infant upon admission and during the first 72 hours of life. Head positioning varies between infants based on nursing judgment and respiratory support needs.

In order to change this practice, several forms of education were implemented. These included a presentation to the NICU’s Developmental Care Committee and the Neonatologists, online education assigned to nursing staff through TLC, in-service education on the unit showing proper infant positioning with different forms of respiratory support, and hands on practice positioning a model both supine and laterally.

Evaluation of a successful change in practice will be evaluated using data from the Vermont Oxford Network to compare the incidence of intraventricular hemorrhage in neonates born weighing less than 1,500 grams at LVHN prior to change in practice in 2014 to a year after practice was changed in 2015.

Additionally, following the change of practice, nursing compliance will be observed in practice and assessed with a post-education survey, which will determine the need for future re-education of staff.

RESULTS

Currently, not all data from LVHN and other hospitals/health networks belonging to the Vermont Oxford Network have been uploaded. In 2016, when entries from 2015 are complete, the data will be evaluated to determine if midline head positioning has had an effect on LVHN’s statistics for intraventricular hemorrhage in very low-birth-weight infants. Results from a full calendar year will provide a more comprehensive picture of the outcomes. As of now, the evidence indicates an improvement in 2015 with zero Grade 3 bleeds and only two Grade 4 hemorrhages documented. While this is still a higher percentage of patients, the complete data collected from the yearly census has not yet been documented due to several pending discharges from the NICU.

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Evidence

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2015 Data

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Conclusion

Vermont Oxford Network data indicates that compliance with midline head positioning and the reduction of Grade 3 & 4 intraventricular hemorrhages is improving, thus continued education is recommended.

PLANNED DISSEMINATION

Continue education through the use of multiple modalities for RNs, RRT, PT, and MDs.

Continue to encourage compliance and interventions.

Institute a bedside card reminding staff to maintain midline positioning until a specified date.

REFERENCES


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