PICO question: In the neonatal population is the use of the Little Sucker wall suctioning unit more efficacious, safe and hygienic when compared to a bulb syringe.

Background and Significance: Oronasopharengeal suction of airways in the neonate is one of the most common practices used worldwide. The device of choice for most neonatal areas is the bulb syringe. During a meeting of the Level 2 Unit Nurse Practice Council a staff nurse raised questions concerning the hygiene of bulb syringes. Current practice was reviewed and a lack of a specific guideline for the use and cleaning of bulb syringes was discovered.

Synopsis of the Evidence: The evidence revealed that wiping the nose and mouth has the same efficacy as the use of bulb suctioning in neonates born at or beyond 35 weeks gestation. There was no advantage to infants from suctioning. When reviewing the literature on pressure generated by bulb syringes; only one bulb syringe met the pressure guideline suggested by the Neonatal Resuscitation Program and had such a large size the authors' felt it would preclude the use in premature infants. All five other bulbs studied generated more than the recommend pressure. Another study revealed that 40% of the bulb syringes studied were contaminated with pathogenic material and would have gone home with the infant. Additionally it was found that the manufacturer recommended the bulb syringe as a single use item, and had been since 1988.

Description of the Project: This EBP project was chosen to implement a practice change and evaluate the outcome.

Project Plan: A review of current suctioning processes and manufacturers' recommendation were undertaken. A standardized recommendation for suction pressure was instituted. Staff education was initiated and included a daily safety check and proper use of the equipment. Due to the size of the unit we decided to limit the project to 24 beds contained in 2 pods. Staff members who were assigned to those pods received one on one education that included correct set-up of the equipment and no bulb syringes were allowed at the bedside.

Cost/Benefit: A cost benefit analysis was difficult to undertake. Because we were not changing bulb syringes after each use our costs increased as we moved to the Little Sucker and change them daily.

Lessons Learned: This project needed to be interdisciplinary rather than just nursing to get "buy in and be completed.

Staff members including some providers were resistant to give up a familiar tool and learn a new process for safety and suctioning. Comprehensive one on one education was needed to overcome this resistance.

Budgetary concerns developed because the project was not cost neutral. By addressing the practice change as a safety issue working with standards, guidelines and regulatory issues we were able to demonstrate the additional costs were warranted.

Attempting a practice change requires perseverance. Members of the project team worked together to overcome each obstacle as it arose. This was accomplished by focusing on the patient safety concerns and what was best for the baby!

**References:**

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