Announcement of Scholarly Presentation

Candidate: Mary Ellen Connolly

Date, Time, Place: 11/24/14 2:00 PM  Room 435

Scholarly Project Title: A Quality Improvement Project to Increase Breast Milk Expression

Scholarly Project Abstract: (You must type your abstract in the space provided on this form.)

**Problem:** Premature infants who are fed breast milk in the Neonatal Intensive Care Unit (NICU) are less likely to develop necrotizing enterocolitis and retinopathy of prematurity. However, they may not tolerate feeding at the breast for weeks to months after birth. During the interim, mothers of ill infants are recommended to pump breastmilk to ensure an adequate milk supply. Pumping milk may be difficult for mothers experiencing anxiety related to their child’s health compounded with the stress associated with the NICU environment.

**Objective:** The purpose of this quality improvement project was to implement a pumping program in an inner city NICU to provide support for mothers and increase breast milk expression rates.

**Sample:** Fourteen mothers from one urban medical center were enrolled in the program. The mothers gave birth to infants with diagnoses of prematurity, twin or triplet gestation, gastroschisis, and omphalocele. The majority of the women enrolled in the program were African American and receiving medical assistance.

**Methods:** Five NICU nurses volunteered to be breast milk champions and received education about the benefits of breast milk and the key factors involved in maintaining an adequate milk supply. The champions engaged mothers in face-to-face or telephone conversations using a “Coming to Volume Assessment” tool as a guide to assess pumping effectiveness. Daily breastmilk volumes pumped by the mothers and the number of days required to achieve goal milk volumes were monitored by the champions. Upon completion of the program, the champions were interviewed to ascertain their feedback about the benefits, ease of use and future directions for the pumping program.

**Results:** Six mothers completed the program and were able to achieve their goal volume. The average maximum milk collected by the mothers was 836.6 ml (SD=228.5, 95% confidence interval (CI) 596-1076) on infant day of life number 8. The champions reported the “Coming to Volume Assessment” tool was easy to use and endorsed continued implementation of the pumping program.

**Implications:** A pumping program that incorporates staff education and the use of the “Coming to Volume Assessment” tool along with daily dialogue with mothers to evaluate effectiveness of breast milk expression can aide in the promotion of breast milk expression in the NICU.

**Scholarly Chair:** Kathleen M Buckley, Associate Professor

**Scholarly Advisory Committee Members:**
- Member: Dawn Mueller-Burke, Assistant Professor
- Member: Carmel McComiskey, Director, Nurse Practitioners and Physician Assistants, University of Maryland Medical Center