Oral Defense Announcement
University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree
Doctor of Nursing Practice with an emphasis in Pediatric Nurse Practitioner

Sarah Marie Ulses
B.S. in Nursing, August, 2016, University of Missouri-St. Louis

Utilizing High Flow Oxygen Therapy in Infants with Bronchiolitis

Date: July 9th, 2020
Time: 9:40am – 10:15am
Place: Remote

Abstract
Problem Bronchiolitis is the leading diagnosis for pediatric hospitalizations for children under a year of age. The purpose of this study was to evaluate supportive high-flow oxygen (HFO) therapy for infants requiring more than 2L/min nasal cannula oxygen therapy on a general pediatric floor.

Methods A retrospective medical record review of hospitalized infants less than 12-months, requiring HFO therapy over a three-month winter period. Oxygen use, length of stay (LOS), and disposition in 2019 when no HFO was allowed on the general pediatric floor was compared to 2020 when HFO was allowed.

Results Of 28 patients (N = 28), 13 patients (n = 13) were in the 2019 cohort and 15 patients (n = 15) in the 2020 cohort. A significant positive association between length of oxygen therapy and LOS in the 2019 (rₚ = 0.95, p<.001) and 2020 (rₚ = 1.00, p<.001); length of oxygen therapy and length of HFO therapy (rₚ = 0.77, p = .015); and LOS and length of HFO therapy (rₚ = 0.80, p = .010) occurred. There was no difference in patients initially admitted to the PICU between 2019 and 2020 (7/13 = 54% vs 4/15 = 27%, p = .133) or with the rate of transfers to the PICU between groups (6/13 = 46% vs 5/15 = 33%, p = .480).

Implications for Practice Use of HFO therapy on the general pediatric floor was associated with a decrease in frequency of initial PICU admissions and transfers, but there were no changes in length of oxygen therapy, length of HFO therapy, PICU LOS, or total LOS.

Defense of Dissertation Committee
Laura Kuensting, DNP, APRN, PCNS-BC, CPNP, CPEN - Chairperson
Roxanne Reid, DNP, MSNEd, RN
Phineas Oren, MD