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## Effects of nurse-led mechanical ventilator weaning protocol on ventilator duration and weaning success in preterm infants with ventilator-nasal continuous positive airway pressure

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The present study was a quasi-experimental research with non-randomized control group, post-test only design which aimed at investigating effects of a nurse-led mechanical ventilator weaning protocol on ventilator duration and weaning success of preterm infants with ventilator-nasal positive airway pressure (V-NCPAP). The study sample consisted of preterm infants who received V-NCPAP and were admitted into the pediatric and neonatal intensive care unit (P-NICU) at Sirindhorn Hospital. Twenty-nine subjects in the control group received routine weaning, while thirty subjects in the experimental group received the nurse-led mechanical ventilator weaning protocol which consisted of 3 phases: 1) Pre-weaning phase 2) inter-weaning phase and 3) post-weaning phase. The research instruments composed of the nurse-led mechanical ventilator weaning protocol, the V-NCPAP record form, and the nursing record form base on nurse-led mechanical ventilator weaning protocol. Data were analyzed by using descriptive statistics, chi-square test, Fisher's probability exact test, independent t-test and Mann-Whitney U test. The study findings demonstrated that preterm infants in experimental group had ventilator duration shorter than that preterm infants in control group with statistical significance ( $p < .05$ ), while weaning success in experimental group more than control group without statistical significance ( $p > .05$ ). The study findings revealed the nurse-led mechanical ventilator weaning protocol could reduce ventilator duration and promote weaning success. Therefore, further study is needed for the effectiveness of nurse-led mechanical ventilator weaning protocol in different setting or add on other dimensional outcomes of weaning success to enhance quality of care provided to preterm infants with V-NCPAP.

### Biography

Chonticha Kuladnarm has completed her BSN from Kaukarun College of Nursing. She is a Professional Nurse at Sirindhorn Hospital, Bangkok and pursuing Master of Nursing Science (Pediatric Nursing) in Ramathibodi School of Nursing, Faculty of Medicine, Ramathibodi Hospital, Mahidol University.

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