Nursing workload in premature care: comparison of two methods of non invasive respiratory support

Davide Brea¹, Daniele Trevisanuto¹, Pierluigi Badon¹, Anna Dal Gesso²
1. University of Padua
2. University General Hospital of Padua

Abstract
Continuous positive airways pressure (CPAP) is a kind of non invasive ventilation which is frequently used to treat respiratory problems in premature newborns. Great part of nursing care in a NICU is occupied by the management of CPAP devices, of which the most used types are nasal canulas and nasopharyngeal canulas.

Goals. To identify what is the CPAP device which requires the least nursing time and the least number of nursing interventions on the device itself and on the newborn. To evaluate possible differences in newborns' vital signs and parameters over 24 hours, according to the device used.

Subjects and methods: 26 to 34-week gestational age newborns. Quasi-experimental controlled trial. Each newborn underwent each of the two types of CPAP devices consecutively for at least 24 hour.

Results. No significant differences were found in vital signs and parameters over 24 hours in the newborns undergoing the two different CPAP devices. Nasopharyngeal canulas required a significantly lower number of nursing interventions than nasal canulas.

Conclusion. Nasopharyngeal canulas for CPAP seem to reduce nursing workload and newborn discomfort.