

Summary of publication

Simulation and Training - Monivent® Neo Training

Effect of a positive pressure ventilation-refresher program on ventilation skill performance during simulated newborn resuscitation

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Key words:

Simulation, Psychomotor skill training, Resuscitation, Positive pressure ventilation, Newborn, Refresher

Newborn healthcare providers must be well-trained and skilled to initiate the delivery of adequate and effective positive pressure ventilation (PPV) to ensure newborn survival and reduce long-term morbidity.

Niles et al, identifies that resuscitation competency is transient after standard training and that studies have reported that implementation of a training program consisting of high-frequency, short-duration, psychomotor skill “Refreshers” can improve resuscitation skills when utilized as a supplement to standard resuscitation education.

This study was conducted in the Labor and Delivery Unit (LDU) and Intensive Care Nursery (ICN) in a tertiary academic hospital. The objective of their study was to assess the effectiveness of a neonatal resuscitation simulation educational program featuring brief, repeated PPV-Refresher psychomotor skill practice to improve PPV performance among front-line nurses caring for newborns. Nurses completed a PPV skills assessment upon enrolment (Baseline) and three months after the

baseline assessment. Data on inflation volume and ventilation rate were collected and compared. During the study period of 3 months, at least 75 PPV-refresher courses were completed.

Conclusion

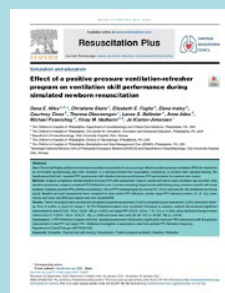
Niles and colleagues found that, ‘Implementation of a brief PPV-Refresher psychomotor skill program significantly improved the total number of PPV delivered and number of Target PPV (volume 10-21 mL) on a manikin.

Although they were unable to determine an optimal PPV-Refresher frequency to improve performance, their data suggests that completing one PPV-Refresher session quarterly may be sufficient to improve and maintain the number and quality of PPV delivered.

Application in clinical practice

Expert consensus recommends resuscitation psychomotor skill training and validation at regular time intervals in order to improve performance and mitigate recognized barriers.

A low-dose high-frequency training, set up in combination with monthly or regular training sessions, can improve and maintain manual ventilation skills.



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