"Simulation-based training offers a safe environment to develop and maintain competency.

Adequate competency in neonatal procedures is critical to the quality of neonatal care."

SANDRA AXELSSON BRAKSTAD

Midwife at Södra Älvsborgs Sjukhus (SÄS) Neonatal Intensive Care Unit and Labor Ward



In Sweden, more than 110 000 babies are born each year and it is estimated that 3-6 % of these newborns require some kind of respiratory support at birth.

Delivery room (DR) and Neonatal Intensive Care Unit (NICU) staff at Södra Älvsborgs Sjukhus (SÄS) practice manual ventilation skills with Monivent Neo Training.

As a county hospital in Västra Götaland Region, SÄS provides specialized healthcare for 295 000 inhabitants in the town of Borås and its surrounding municipalities.



SANDRA AXELSSON BRAKSTAD Midwife at Södra Älvsborgs Sjukhus (SÄS) Borås Neonatal

Intensive Care Unit (NICU) and Labor Ward Unit.

Midwife Sandra Axelsson Brakstad, works at the labor ward and neonatal intensive care unit at Södra Älvsborg Sjukhus (SÄS). She is responsible for the resuscitation training of neonatal and delivery room staff using Monivent Neo Training.

"Simulation-based training offers a safe environment to develop and maintain competency. Adequate competency in neonatal procedures is critical to the quality of neonatal care."

Planned and regular training benefit all

Monivent Neo Training has been used by the DR and NICU staff since February 2021. Sandra and a colleague from NICU were introduced to and trained on the system and now they are performing training sessions with colleagues on a regular basis. Sandra is responsible for preparation and instruction and suggests improvements on technique performed during the training.



Sandra explains that their ambition is to practice at least once a month or every second month to improve and maintain the manual ventilation skills among the DR and NICU staff. On each occasion up to 4 persons participate and it is mostly midwives and neonatal nurses but also assistant nurses as they can often be the first responders on-site before neonatal staff take over.

Prior each session the participant completes a questionnaire providing information about his or her previous experience ventilating a newborn, last occasion for practicing ventilation etc.

"We might have staff who have not done any training for quite some time and they really appreciate these occasions and feel more confident for each training session. They can see how they were performing in terms of mask leakage, ventilation rate and providing adequate ventilation within set volume target range."

Confidence increase with practice

The response has been very positive. It is encouraging to see the development over time, comparing the first occasion with the second, and see that there is indeed improvement. The staff has continued to practice their manual ventilation skills. One of the main benefits is becoming more confident in manual mask ventilation and knowing that the newborn is supported during its breathing efforts, says Sandra.

"Personally, I noticed a significant difference between the first time I practiced compared to when I had practiced a few times. In the beginning, I noticed mask leakage and this has decreased over time. You improve your technique and know how to hold the mask to minimize mask leakage. This technique is something you benefit from in real life.", she continues.

"Even if you are experienced on manually ventilating newborns, there is always room for improvement or some fine tuning. And of course you have the general benefit of just practicing your skills."

Portable and wireless - Everything in a case

The Monivent Neo Training is an easy-to-use, wireless training system provided with a carrying case containing all items you need to practice – tablet, charging station, sensor modules and sensor masks. The only thing you need is a leak-free manikin and a bag resuscitator or a T-piece.

We can easily transport the device from the NICU to the DR for practicing either in the simulation room, in the coffee room or where we prefer to be. It can be used wherever you want thanks to the wireless sensor modules, says Sandra.





Benefit of training - Both for experienced and rookies

Before I started practicing with Monivent Neo Training, I didn't have much experience of manually ventilating newborns. It is indeed a great advantage for us to have the Monivent Neo Training here to practice whenever we have time and opportunity. You increase your confidence and are better prepared for those occasions when a newborn needs support breathing. You feel more and more confident for each time you have practiced. Mask leakage and mask technique has improved over time.

Historical data for future improvement

The system provides feedback through the color-coded LED on the sensor modules and corresponding color is displayed on the tablet. It allows the user to check technique e.g. is the ventilation within volume target range, how much mask leakage is occuring and what is the ventilation rate. Focusing on manikin chest rise and the sensor module color gives the user a clear indication if performing according to set targets.

Every training session is scored and logged in the system to allow tracking of performance over time and comparison of results from previous sessions. When you have finished the session the history provides you with all data for follow up and tracking of performance over time. There is extensive information with graphs and figures to compare how you have improved and what you need to practice.

Improving over time - Getting better and better

We are fortunate to have Monivent Neo Training system here for training purposes. With 3000 deliveries each year and given that most newborns are doing well, we realize that there is a need to practice for that occasion when we have a baby requiring additional support. With Monivent Neo Training we have that possibility, Sandra concludes.

About Södra Älvsborgs Sjukhus (SÄS)

Södra Älvsborgs Sjukhus, is a county hospital in Västra Götaland Region and provides specialized healthcare for 295 000 inhabitants in the town of Borås and its surrounding municipalities. In total there are 4000 employees at SÄS where the majority are based at the main hospital SÄS Borås.

Delivery care in Södra Älvsborgs Sjukhus (SÄS) also offers special maternity care for women with pregnancy risk or pregnancy complications. A midwife and a nurse have joint responsibility, and

obstetricians, pediatricians and anesthesiologists are available with short notice. The neonatal intensive care unit, which is located one floor above the delivery department, can cater for in total 8 NICU patients. Approximately 130 persons are employed, where 60 work at the neonatal intensive care unit and more than 70 persons at the delivery ward.



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