

**2025 HA Convention**  
**O3-Staff Engagement and Empowerment**  
**Presentation No. F3.5.**

# **Neonatal Resuscitation Training in A&E Department to Increase Staff Confidence in Neonatal Stabilization and Resuscitation**

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# Introduction

- Staff training provides knowledge, skills, and tools needed to excel in their roles and contribute to the practice.
- Important of neonatal resuscitation in A&E:
  - Infrequent but life-saving event
- Challenges faced by A&E staff in managing neonates
  - 67.6% A&E staff never attend neonatal resuscitation program provider course (NRP).
  - 24.3% A&E staff attend NRP over 2 years ago
  - 8.1% A&E staff attend NRP within 2 years.



# Current Challenges in Neonatal Emergency Care in A&E

## Infrequent Exposure

Neonatal emergencies occur rarely but require immediate expert response

## Psychological Barriers

Anxiety and stress can impair clinical performance during critical moments..

## Limited Practice

A&E staff often lack regular hands on experience with newborn resuscitation.

## Training Gaps

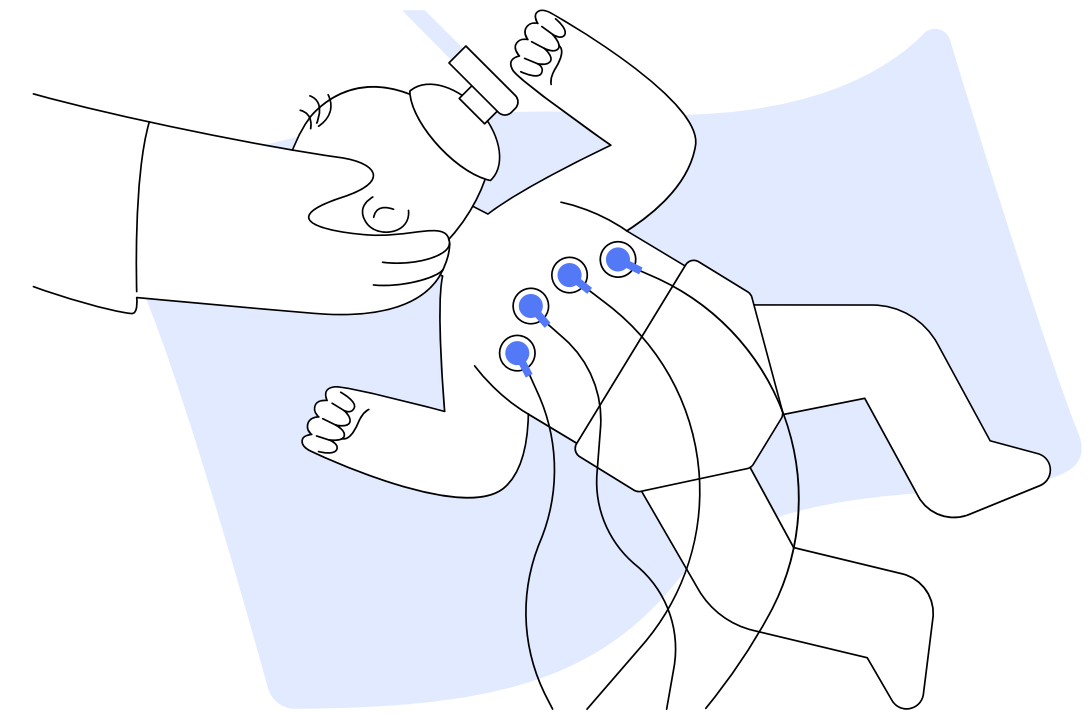
Current methodologies may not address practical and emotional readiness.



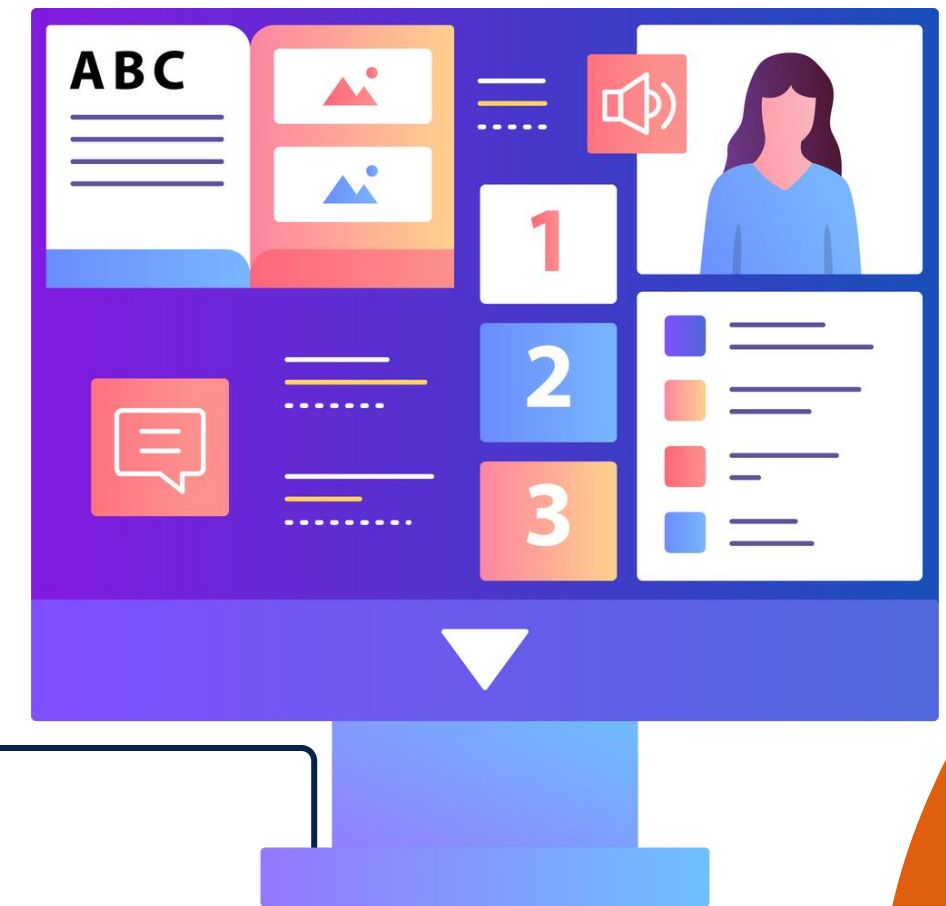


# Why focus on neonatal resuscitation?

- Neonatal emergencies: Rare but high-stakes scenarios
- A&E's role as first responders for critically ill neonates
- 10% Newborn require resuscitation. One in ten newborn needs immediate intervention after birth.
- 1% need advanced care. These cases require intensive medical intervention to survive.
- 10 min. Critical window. The first minutes determine long-term outcomes for distressed newborns.
- Common neonatal emergency in A&E:
  - Birth asphyxia
  - Respiratory distress
  - Prematurity complications
  - Sepsis / Shock
  - Hypoglycemia / hypothermia



# Objectives of Training Program



## Objective

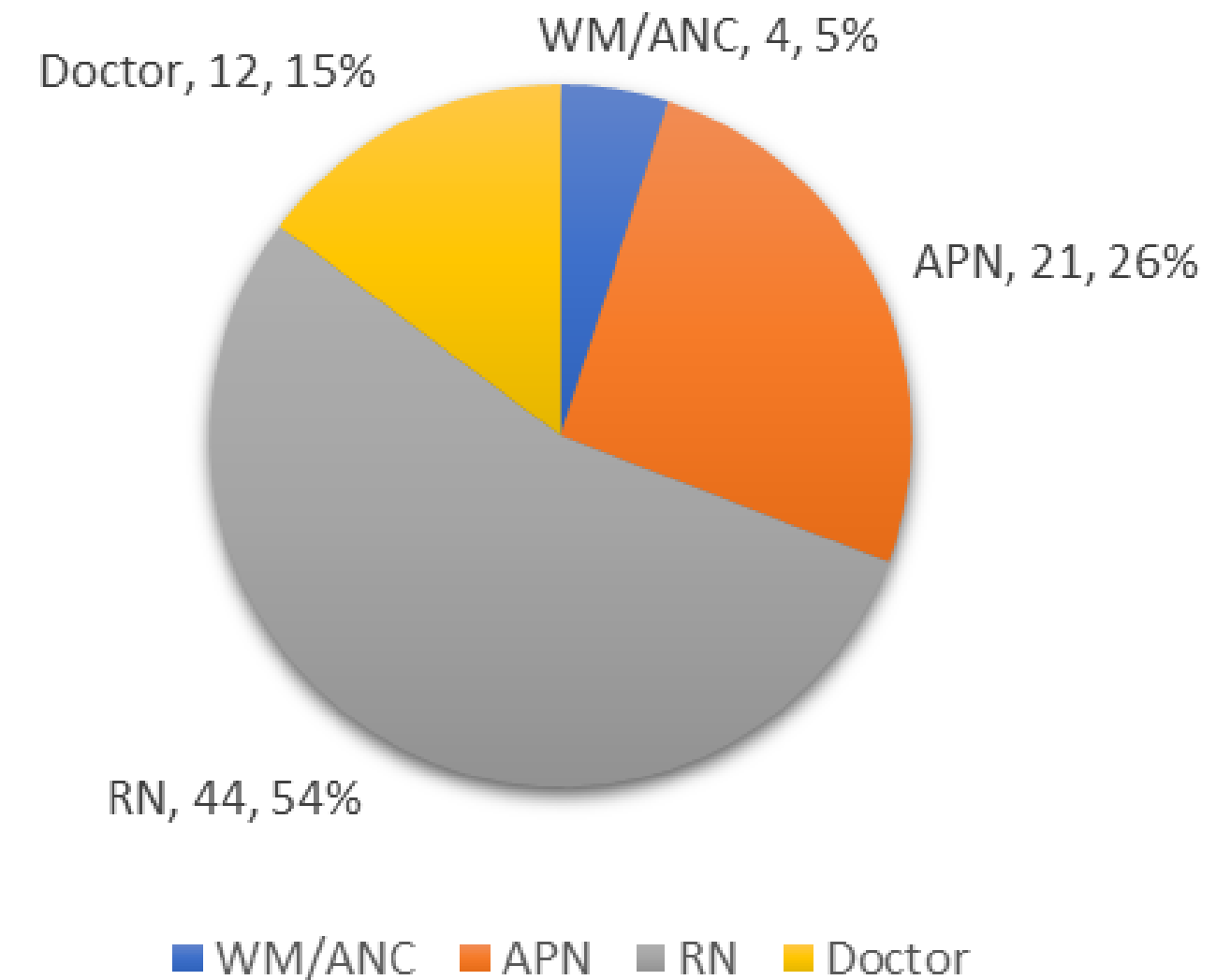
Design a simulation workshop on neonatal resuscitation in A&E department to enhance their knowledge and skill, also increase their confidence to neonatal stabilization and resuscitation.



# Methodology

- From 9-9-2024 to 17-12-2024 total 21 identical simulation workshop has been completed.
- Each workshop was 1.5 hrs.
- Total 81 staff attended
- Inclusion criteria:
  - All A&E residents
  - All A&E nurses
- Exclusion criteria:
  - First year graduate (they will attend another 4hrs workshop)
- After the workshop, staff need to complete the evaluation form and rating their confidence of neonatal resuscitation.
- Use Paired t-test (two-tail) to compare the result.
- A&E Neonatal resuscitation drill has been held in Dec. for assessment after workshop for evaluation.

**Total 81 A&E staff attend**



# Training Program Overview

## Target Audience

A&E doctors: Resident  
A&E Nurses: WM, ANC, APN, RN

## Pre-reading Material

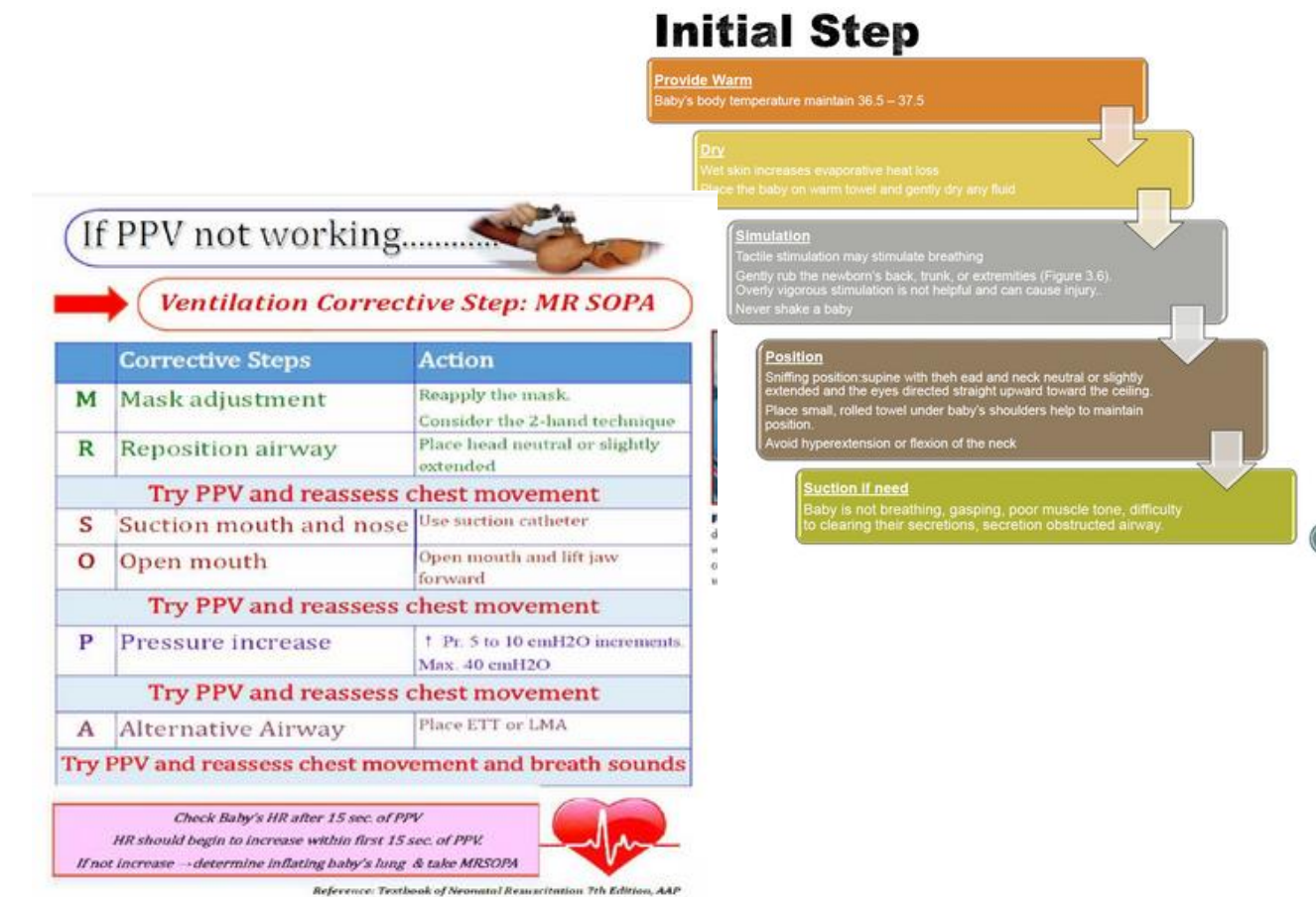
Pre-reading material send to all A&E doctor and nurses.

## Hand-on Simulation Workshop

4 staff in one session in one hour hand-on simulation workshop  
Direct experience with equipment builds muscle memory.

## Scenario-based Drill

- After workshop, regular scenario-based drill in A&E department for assessment.
- Realistic emergency simulation develop clinical judgment.
- Regular evaluation ensures sustained skill proficiency





# Key Principles of Neonatal Resuscitation

## Equipment

- Equipment familiarization
- E-trolley
- Resuscitation Flow Chart

## Initial Step

- Initial Step
- Temperature control

## Positive Pressure Ventilation (PPV)

- Positive Pressure Ventilation (PPV) technique
- T-piece (Neopuff) set up
- Mask selection
- Corrective Steps: MRSOPA

## Chest compressions

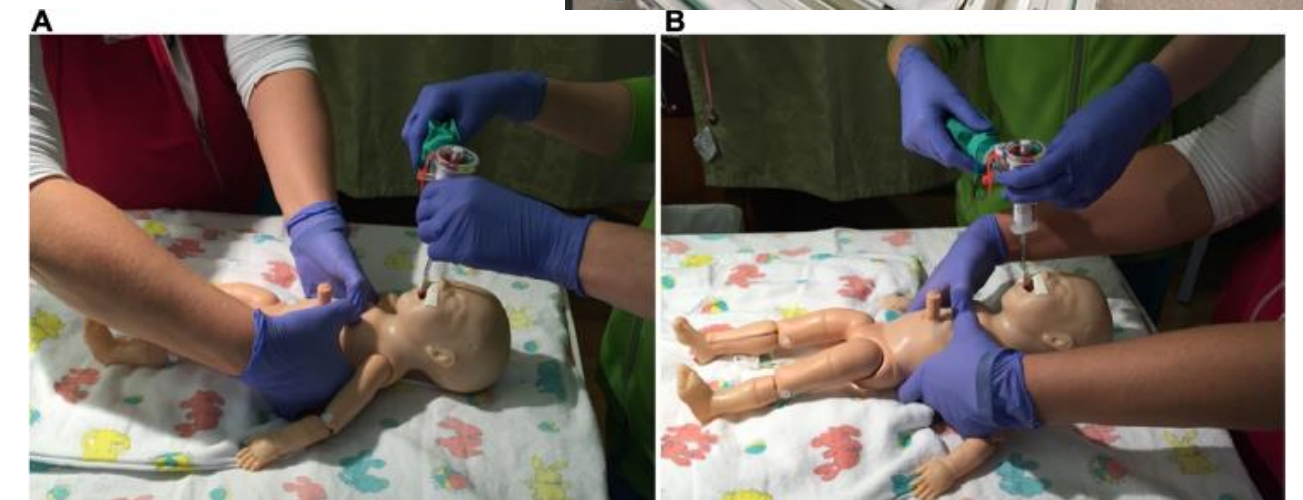
- Rate: 3:1
- PPV with chest compression technique

## Intubation, UVC and Medication

- Video Scope: STORZ C-Max
- ETT Intubation and fixation
- UVC insertion and fixation
- Medication and blood transfusion

## Scenario based

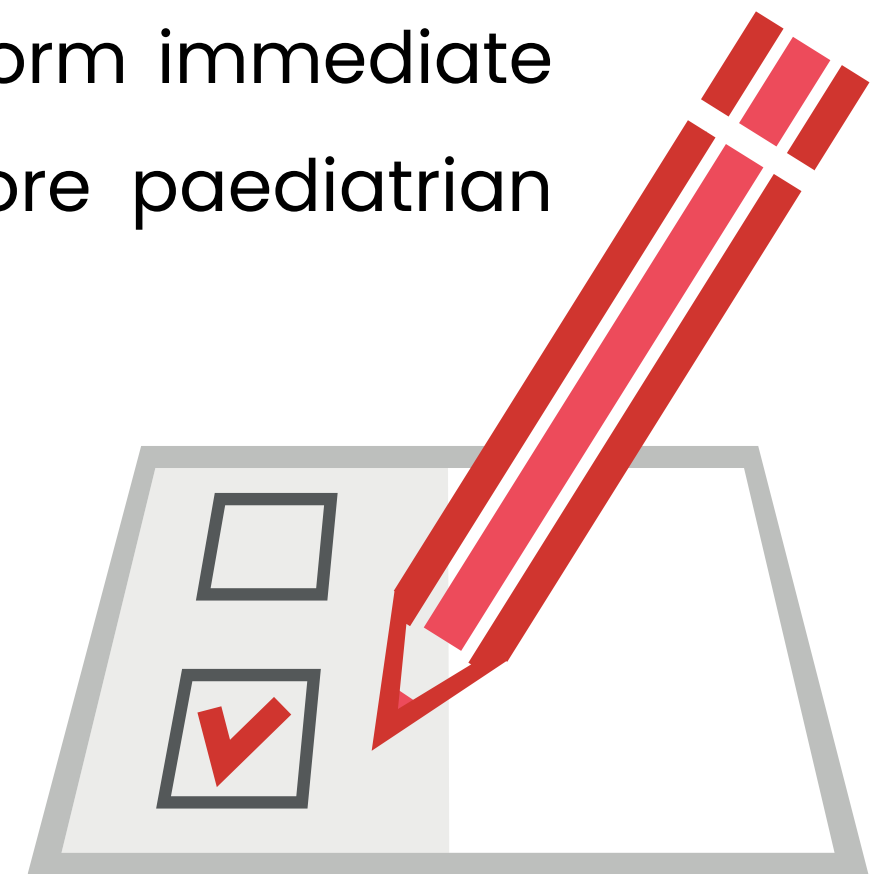
- Scenario 1 Born Before Arrival (BBA)
- Scenario 2 Born on Arrival (BOA)
- Scenario 3 Patient arrest in waiting area





# Result

- Total 74 evaluation has been received
- Mean of confident to perform neonatal stabilization and resuscitation: before 2.135 and after 4.838 ( $P < 0.001$ , paired two-tail t-test).
- 93.2% staff recommend to hold this workshop yearly for review knowledge.
- Neonatal resuscitation drill has been hold on 5-12-2024. A&E doctor and nurse can perform immediate action for neonatal resuscitation before paediatrician arrive.



# Continuous Improvement and Updating Training



## **STAY CURRENT**

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Continuously update our training to reflect changes in best practices, new technologies, and evolving staff needs .  
The ongoing improvement not only enhances staff skills but also benefits patient care.



## **INNOVATE**

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Experiment with new training methods and technologies. Seek out innovative approaches that can enhance the learning experience and maximize staff engagement.





# Conclusion

In conclusion, effective staff training is essential for developing a skilled and engaged workforce. It is not just about imparting knowledge. It's about fostering confidence and competence among our staff.

By focusing on continuous improvement and innovation in our training programs will help us maintain high standards in neonatal resuscitation and ensure that our staff are always prepared to provide the best care possible.



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 **GIVE**   
**SUPPORT**





# THANK YOU



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