



# NOA

PAEDIATRIC ADVANCED LIFE SUPPORT

Ventilator-Ready, Mid-Fidelity Training  
Made Accessible



Real-time Performance Feedback  
Dynamic Vital Signs Control

PORTABLE

CURRICULUM READY

RESPONSIVE





THE TRAINING GAP

Respiratory illness is a leading cause of postneonatal mortality, accounting for 1 in 4 infant deaths globally.

SOURCE TOPJIAN AA, ET AL. PEDIATRIC BASIC AND ADVANCED LIFE SUPPORT GUIDELINES - AMERICAN HEART ASSOCIATION, 2020.

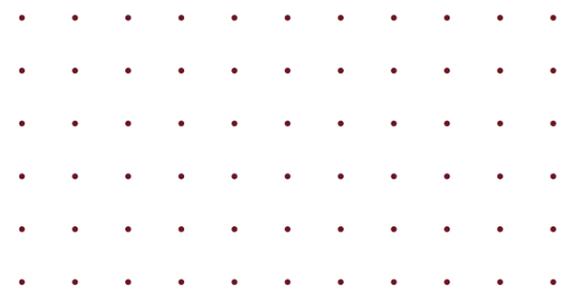
# Ventilator-Ready, Mid-Fidelity Training, Made Accessible

NOA simulates the specific interventions shown to improve outcomes in infant respiratory arrest.

NOA delivers genuine lung compliance, giving learners realistic feedback during bag-mask ventilation and confirming correct airway positioning in a way that static trainers cannot. The airway accepts the full range of LMA devices and is compatible with iGel supraglottic airways in sizes 1 and 1.5, reflecting current EPLS and PALS guidance on airway management. NOA also connects directly to standard ventilators, supporting the full progression from manual ventilation to mechanical respiratory support within a single scenario.

Positioning is handled through our patent-pending joint system, which gives NOA a range of movement that supports the full scope of paediatric airway manoeuvres and clinical positioning. Instructors can place NOA accurately for jaw thrust, head tilt, chin lift and limb-based assessments without compromising the integrity of the scenario.

These features ensure that programs training to current EPLS and PALS standards have everything they need in a single, deployable package. As guidelines continue to prioritise supraglottic airways and early ventilator support in paediatric resuscitation, NOA keeps training aligned with the most effective interventions.



# Meet NOA

NOA is an anatomically accurate manikin modelling an 8-month-old infant male. His joints deliver a range of motion consistent with that of a real infant, supporting realistic clinical positioning throughout training scenarios. Integrated features cover airway management, chest compressions, IO access, and capillary refill time assessment.

## SPECIFICATION

- WEIGHT 4.3KG
- HEIGHT 70CM
- HEAD CIRCUMFERENCE 44CM
- CHEST CIRCUMFERENCE 45CM



# RIB CORE

## CORE CONTROLLER

RIB CORE connects wirelessly to NOA and gives instructors real-time control over patient vitals through a compact, intuitive interface. Dedicated dials for pulse strength, pulse rate, and capillary refill time allow precise adjustment of patient status without interrupting the scenario.

RIB CORE simultaneously captures key CPR metrics, including compression depth, rate, and duration, providing objective performance data to support competency assessment and skill development.



## WHATS INCLUDED

- NOA PATIENT MANIKIN
- RIB CORE CONTROLLER
- 5X IO CARTRIDGES
- 2X USB-C CABLE



# Palpable Brachial pulse

NOA features a palpable brachial pulse at the anatomically correct site on the right arm.

Pulse strength and rate are controlled independently through dedicated dials on the RIB CORE controller, giving instructors precise real-time adjustment of haemodynamic status without interrupting the scenario.



# Chest Compression

## FEATURES

NOA provides realistic chest compression training with built-in measurement and feedback through RIB CORE.

### COMPRESSION DEPTH & RESISTANCE

Realistic resistance simulates an infant's chest compliance, with a 40mm depth range. NOA's anatomically correct ribcage structure behaves in a realistic manner during chest compressions, allowing students to practice smooth, controlled technique at the appropriate depth for the infant's size.

### TECHNICAL

40MM OPTIMUM 1/4 OF TOTAL CHEST DEPTH

50MM MAXIMUM

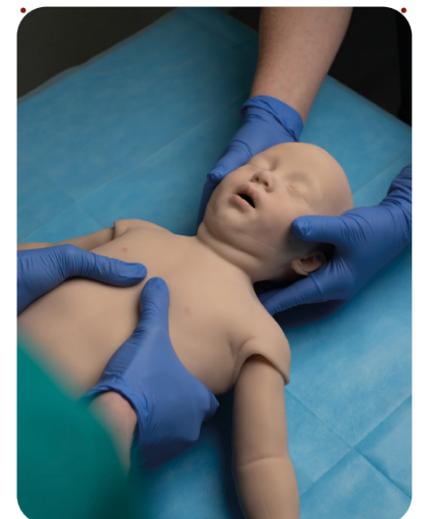
PALPABLE CHEST LANDMARKS

IR SENSOR CAPTURES RATE & DEPTH OF COMPRESSIONS

### CAPTURING STUDENT PERFORMANCE

Chest compression depth is captured in real-time on the RIB CORE display, this indicates correct and incorrect adherence to infant resuscitation guidelines.

Chest Compression Rate is displayed on the CORE controller and responds to the compressions performed on NOA in real-time.



# Airway System

## FEATURES

NOA's airway is designed to provide realistic resistance and anatomical accuracy for infant airway management training. The airway features clearly identifiable vocal cords and other relevant anatomical landmarks. The airway responds to head positioning and supports a range of clinical interventions.

### AIRWAY INTERVENTIONS

NOA Supports a full range of airway management adjuncts, including i gel, Laryngeal Mask Airway (LMA), endotracheal intubation and mechanical ventilation. NOA is engineered to enable realistic technique practice including head positioning.

### MECHANICAL VENTILATION

NOA be connected to a standard mechanical ventilator for advanced training scenarios.

### COMPATIBLE DEVICES

IGEL SIZE 2

ETT SIZE 3.5

LARYNGOSCOPE SIZE M1

LMA SIZE 2

ISO SIZE 5



BVM



I-GEL



LARYNGOSCOPE



# Capillary Refill



NOA's capillary refill time (CRT) indicator gives learners a visual assessment cue that responds directly to applied pressure, supporting whole-patient assessment skills.

## CONTROLLING CAPILLARY REFILL



Instructors adjust CRT through a dedicated RIB CORE dial across a 1 to 10 second range, covering everything from normal peripheral perfusion to the prolonged refill times associated with shock and circulatory compromise.



# Intra Osseous Access

NOA provides tibial intraosseous (IO) access sites for procedural training. The IO site uses replaceable cartridges that allow for multiple insertions before requiring replacement

Each IO cartridge supports approximately 15-20 insertions before tactile feedback degrades. When you notice reduced resistance or the 'pop' sensation becomes less distinct, replace the cartridge.

## TECHNICAL

TIBIAL SITE  
15 - 20 USES  
25MM 15 GAUGE



# Our Development Partners

NOA was developed in close collaboration with senior simulation faculty and clinical educators across the UK's leading paediatric training centres. Each institution received early access to the product and provided structured feedback that directly shaped the final design.

The most significant outcome of that process was the RIB CORE controller. Working with educators made clear that complexity was the enemy of deployment. Instructors needed a device they could hand to a colleague and have running within minutes, without a training session. That feedback drove the decision to centre the interface around the controls that matter most, capturing the data that meaningfully informs learner performance.

Partner feedback also informed targeted refinements to NOA's surface anatomy. Educator input highlighted the specific landmarks instructors rely on when coaching correct hand placement, and that detail informed how those features are expressed on the final model, ensuring they read clearly under the conditions of a live training session.



# Technical Specification

## AIRWAY MANAGEMENT

Anatomically Accurate Airway

Epiglottis | Vocal cords | nasal passage

Supraglottic Landmarks

Airway occluded when neck is in non-neutral position

## COMPATIBLE DEVICES

IGEL Size 2      Laryngoscope Size Miller 1

ETT Size 3.5      ISO Size 5

LMA Size 2      Standard Ventilators

## RIB CORE

Wireless Connectivity

Real Time Vital Control:

Pulse Rate | Pulse Strength | Capillary Refill

CPR Metrics:

Compression Depth | Rate | Duration

Power Rechargeable, USB-C

Battery Life:

3–6 Hours

## WEIGHTS AND VALUES

Weight 4.3kg      Head Circumference 44cm

Height 70cm      Chest Circumference 45cm

## PACKAGE CONTENTS

NOA Patient Simulator      CORE Controller

5X IO Cartridges      2X USB-C Cable

## INTRAOSSEOUS ACCESS

Tibial Site      25mm 15 Gauge

15–20 Uses per Replaceable Cartridge

Palpable Boney Landmarks

