


Mia

Patient Simulator

Training for Acute Neonatal Emergencies





Preparing for  
time-critical  
neonatal  
emergencies



# Mia

**Mia** is a state-of-the-art newborn simulator designed to meet the challenges of specialist training in neonatal care.

From basic assessment to critical thinking skills in emergency scenarios, Mia will enable profound learning experiences that are transferable to clinical practice promoting safer patient care and improved outcomes.

One of the benefits of **Mia** is that you can use as both a newborn and an infant.



## Realistic skin quality

Band aids, moulage... Mia's skin can be easily cleaned to as good as new.



### Neonatal Resuscitation

Realistic resuscitation skills practice supports clinical guidelines and protocols. Chest compressions, ventilation with a bag valve mask (BVM), airway adjuncts and mechanical ventilation.



### Difficult Airway Management

Can't intubate, can't ventilate! The anatomically correct, realistic feel and durable design of Mia's airway allows trainees to hone their airway management skills in advanced neonatal emergency scenarios.



### In-situ and 'Just in time' training

The wireless design of Mia and her extensive battery life (5-6 hours) enables in-situ simulation training to take place in the NICU and will help to overcome challenges in training schedules, enhance performance in new teams and provide an opportunity to practice rare emergency scenarios just before patient admissions.

Available in several skin tones

## Basic Assessment of the Newborn



Mia allows for many of the checks required in the basic physical assessment of the newborn, including:

### Measurements

- Head & abdominal circumference
- Length
- Vital signs including pulse and breathing rate

### Physical Exam

- General appearance
- Head and Neck –head shape, fontanelles and clavicles
- Auscultation – heart, lung and bowel sounds
- Bilateral chest rise and fall synced with breathing
- Correct movement of the arms and legs – realistic bone structure, palpable ribs, knee caps and many more



### Neurological Assessment

- Convulsions
- Programmable blinking
- Programmable pupils
- Programmable muscle tone: active, decreased, hypotonia, lacking
- Programmable, palpable fontanelle
- Sounds: crying, screaming, coughing, moaning, grunts



Measuring 21.5"/55cm and weighing 9lbs/4kg, Mia can facilitate many emergency scenarios simulating a newborn to a 28-week old infant.

## Simulation training with your own medical devices



When simulation training can incorporate the use of your own medical devices, the learning benefits are highly significant in transferring skills to real patient care. ECG, defibrillation, pacing, capnography, mechanical ventilator with different modes. (A/C, SIMV, PCV, PSV, NIPPV, setting PEEP values up to 20 cmH<sub>2</sub>O)



### Run scenarios on the fly to challenge quick decision-making skills

Mia supports real-life infant emergency scenarios in a safe and realistic inter-disciplinary team environment. The instructor can create a diverse range of scenarios where learning to communicate effectively and respond as a team are paramount to improve outcomes.

# Let the software do the work...

The software solutions behind our simulator platforms follow a simple mantra: make it easy, make it reliable and make it do whatever the instructor wants!

Our intuitive software is so easy to use, you can run Mia on the fly and capture learning opportunities in the moment - all in a risk-free environment!

Alternatively, you can create your own scenarios

to cover specific teaching points and learning objectives unique to your training programs.

Mia's range of pre-programmed patient states and scenarios are also available to ease your busy workload.

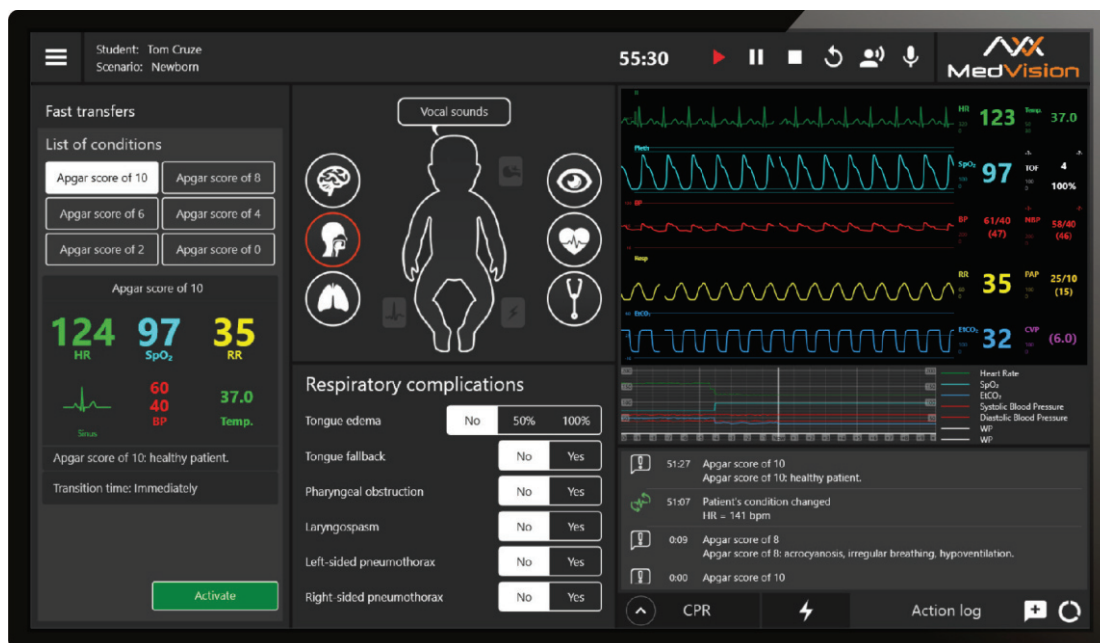


## Scenario Builder

Creating scenarios has never been this easy! Highly flexible in its operation, our scenario builder software allows you to create simple to more complex patient cases through its touchscreen 'drag and drop' capability.

Drop in, Slide to Sequence and Easy Adjustment of patient events and physiological parameters, make it possible to fully customize your programs for trainees to acquire the required competencies.





## Instructor Tablet

Our Instructor Tablet with its quality touch screen makes navigation between windows and menus a totally seamless experience.

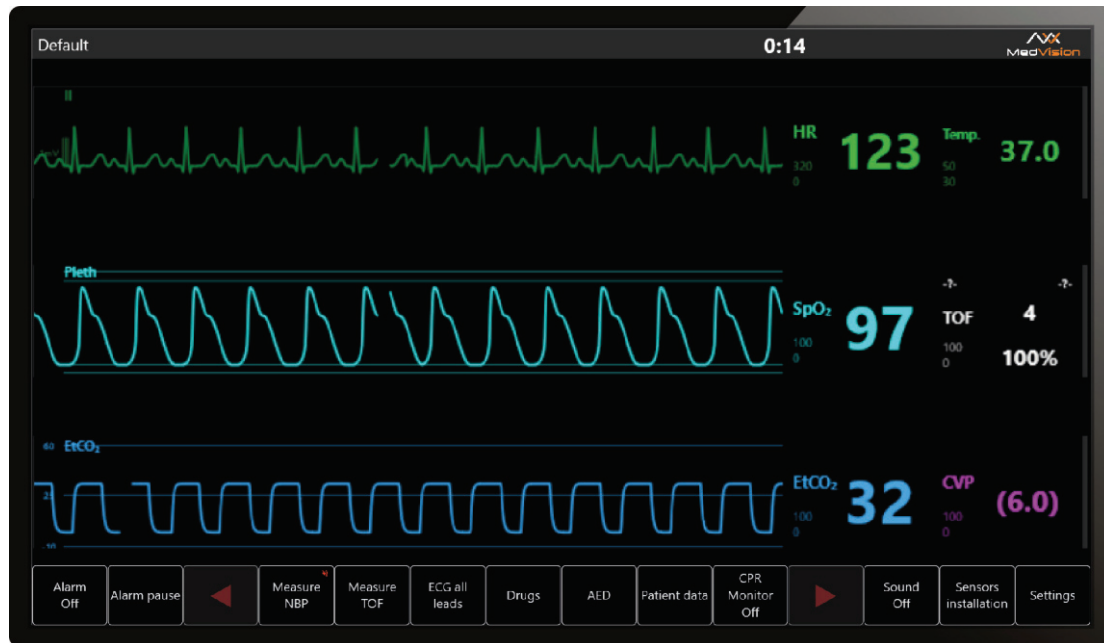
Of course, it has all the functionality you would expect from an instructor tablet: automated and manual scenario modes; easy selection of

patient states and themes; synchronized vital signs with the patient monitor; slider controls for nuanced changes to the patient's condition... but it's the intuitiveness of the user interface that is the real game-changer here. From 'pick-up-and-play' to running complex scenarios, it really is that simple.



Scenarios...  
create your  
own or run  
on the fly

## Patient Monitor



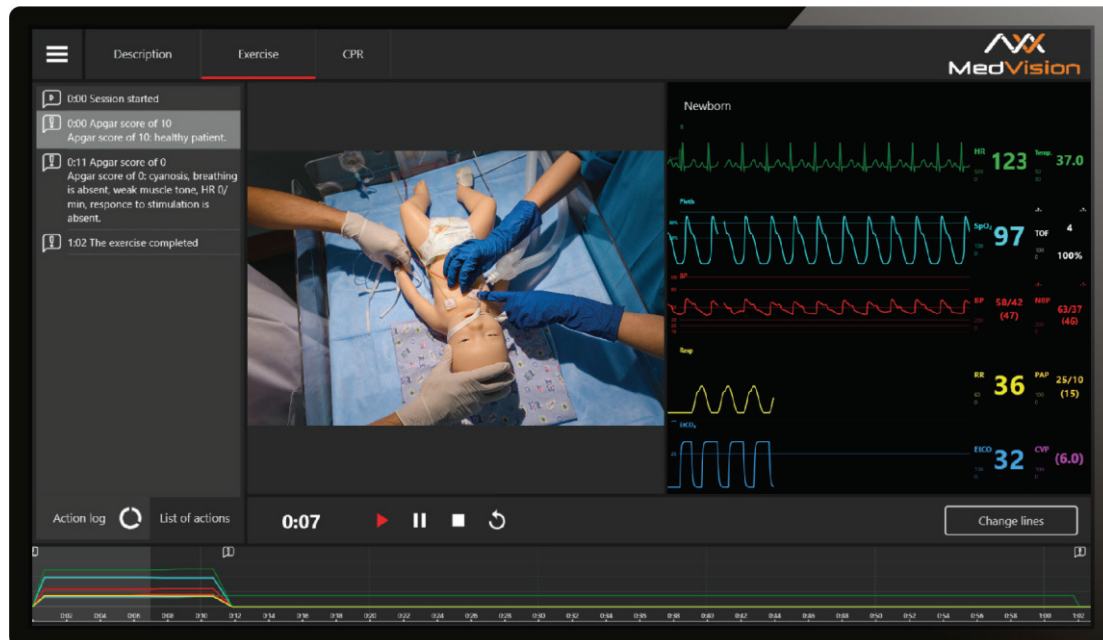
Our touchscreen patient monitor displays vital signs with a familiar look and functionality typical of its real counterparts.

It is fully customizable and the operator can simply select and display vital signs most appropriate to the patient's clinical case.

A novel feature of our patient monitor is the real-time CPR performance display, which can be employed during cardiac arrest scenarios. Feedback on the quality of CPR: rate, depth, release and ventilation supports compliance with Guidelines.

A virtual manual defibrillator is also available for cardiac arrest and cardioversion events.

## Debrief Viewer



The debrief is arguably the most important element of the simulation exercise, which is why we have put careful attention to the features within our Debrief Viewer.

Our debrief software provides the instructor with unprecedented flexibility in its operation. Whether you review the session from start to finish or jump to time-stamped events, we have made it easy to find and access meaningful moments within the simulation with full patient data to ensure the best possible learning outcomes.

CPR performance metrics are also available at the touch of a button.

The integrated action log captures all trainee records and performance data.

Mia's Action Log captures performance data from the scenario to allow for a quality debrief and reflective learning.

# Features

## Airway

- Realistic airway
- Supraglottic airway device support
- Head and jaw mobility
- Orotracheal and nasotracheal intubation
- Laryngeal mask airway insertion
- Pulmonary aspiration
- Cricoid pressure
- Positive pressure ventilation
- Dynamic airway resistance
- Neck hyperextension
- Airways obstruction
- Esophageal Intubation
- Feeding tube insertion
- Bag valve mask (BVM)
- Cyanosis and acrocyanosis
- Chest rise and fall
- Bilateral bronchi resistance
- Tracheotomy

## Breathing

- Spontaneous breathing
- Respiratory rate is synchronized with vital parameters on the bedside monitor
- Programmable respiratory patterns
- Programmable diaphragmatic excursions

- Mechanical ventilation (A/C, SIMV, CPAP, PCV, PSV, NIPPV)
- PEEP (up to 20cm H2O)
- Airways synced to the respiratory rate
- Variable compliance
- Variable bronchi resistance
- Audible needle decompression with realistic feedback

## Auscultation

- High-fidelity heart, lung, and bowel sounds
- Independent normal / abnormal heart sounds at mitral (1), aortic and pulmonic (2) sites
- Abdominal murmurs: normal / abnormal
- Korotkoff sounds auscultation while monitoring blood pressure
- Programmable bilateral chest rise and fall, synced with breathing

## Neurology

- Convulsions
- Programmable blinking
- Programmable muscle tone: active, decreased, hypotonia,

- Programmable pupils
- Programmable, palpable fontanel

## CPR

- Realistic chest compressions
- Automatic activity log, displaying all user actions
- Depth, frequency, hands placement assessment and log
- Ventilation volume
- Manual configuration of CPR protocols
- Printable detailed CPR assessment

## Vascular access

- Intravenous injections (pre-installed catheter)
- Intraosseous access (tibia, bilateral)

## Other features

- Sounds: crying, screaming, coughing, moaning, grunts
- Sucking reflex
- Pre-installed themes, scenarios, programs
- Realistic bone structure, palpable ribs, kneecaps and many more

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## Sales Enquiries:

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