

# Neonatal resuscitation: a guide to the latest equipment

Some newborn babies may struggle to breathe at birth, especially those born preterm or with a medical condition. They may require prompt stabilisation or resuscitation – delay can exacerbate hypoxia, increase the need for assisted ventilation and contribute to neonatal morbidity and mortality. In this issue of *Infant*, we look at the wide variety of equipment used in newborn resuscitation.



SMART Resuscitation Mask Leak Trainer

The **SMART Resuscitation Mask Leak Trainer** has been designed to assist in learning or improving mask ventilation technique for those who may be called upon to resuscitate babies or young children. SMART stands for Standardised Measurement of Airway Resuscitation Training. This training device forms part of the UK Resuscitation Council's Advanced Resuscitation of the Newborn Infant (ARNI) course and can also be used for ongoing practice, for self or observed certification, or for research purposes. Used as a training aid, it permits risk-free practice and certification and provides objective and immediate feedback on mask ventilation technique.

GM Instruments offers two versions of the device: the Standard version is supplied with a preterm and term manikin while the Advanced version includes a choice of manikin (preterm, term or young child).

Central Medical Supplies is the exclusive UK distributor of the new **Comen BQ80 Infant Radiant Warmer**, a 4-in-1 resuscitation unit for neonates. The unit has options to integrate four core functions into one platform to help healthcare teams easily respond to urgent medical needs. The Comen BQ80 is not only a neonatal radiant warmer but also a resuscitation, monitoring and phototherapy device.

The unit has an inbuilt monitoring option, which eliminates the need for an additional patient monitor. This can capture the vital signs and waveforms of newborn infants in real time during resuscitation to enable medical teams to evaluate the effectiveness of interventions.

Other features include: a far infrared ceramic heating tube to maintain normal skin temperature; a soft, easy to clean heat-conducting silicone gel mattress; a built-in T-piece resuscitator; a 360° visible alarm; a patented tilt angle display function; built-in X-ray film box; electric bed lifting; an integrated electronic scale and a damping door, which reduces noise for the neonate. Central Medical Supplies is now taking bookings from hospitals for a free trial of the Comen BQ80.



Comen BQ80 Infant Radiant Warmer

**LifeStart** is a neonatal bedside resuscitation unit, designed to accommodate all the necessary equipment to give babies the best start in life. The first few moments of life can be a dilemma for clinical staff. Despite the evidence outlining the benefits of optimal cord clamping, most guidelines state that priority should be given to resuscitation of the infant. The LifeStart eliminates this dilemma as its compact design allows it to be easily positioned close to the mother, enabling the infant's airway to be supported on a warm platform while the umbilical cord remains intact. This helps to facilitate improved placental transfusion and smoother cardiovascular transition. The LifeStart permits the addition of a resuscitation device, such as the **Inspire rPAP**, a non-invasive rescue device for the stabilisation and resuscitation of infants. Resuscitation of newborn babies is a stressful experience for parents. Bedside resuscitation allows family members to stay together for mutual comfort, without having to be separated from their baby during this worrying procedure. LifeStart and Inspire rPAP are available from Inspiration Healthcare.



Inspire rPAP



LifeStart



Babyroo TN300

The Dräger **Babyroo TN300** is a configurable open care warmer with state-of-the-art thermoregulation capabilities as well as advanced integrated technologies to support emergency resuscitation and family-centred care. It comes with an optional Respiratory Support Module with AutoBreath functionality and gas mixer options. The respiratory support interface requires minimal set up and helps to standardise protocols and meet resuscitation guidelines. It automatically delivers the desired respiration rate. Following initial stabilisation, AutoBreath helps to bridge respiratory support until the patient arrives at the NICU.

The NeoFlow range of respiratory care products provides support for each step of a neonate's respiratory journey. **NeoFlow Resuscitation Masks** are designed to provide a secure seal with minimum pressure on sensitive skin. The masks incorporate core strength to resist collapse during use. They feature a hand positioning guide for optimal seal and ventilation along with finger grooves and crystal-clear clarity.

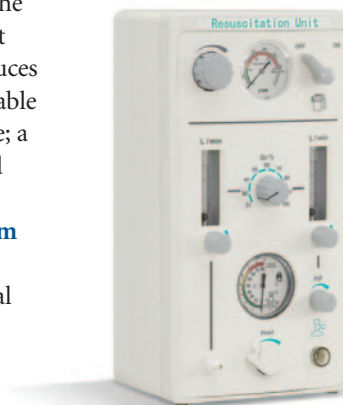
**NeoFlow T-Piece Resuscitation Circuits** can support a baby through a resuscitation mask or endotracheal tube with the added benefit of positive end-expiratory pressure (PEEP) valves for fine adjustment of pressure. They are supplied with antimicrobial protection, a double swivel elbow and additional connectors to accommodate all types of T-piece equipment. The **NeoFlow Blender** and **Blender Buddy** can be connected to any neonatal resuscitator for accurate control of flow and oxygen

Available from Walters Medical, the **Atom Infa Warmer i** is a high-end multi-functional open incubator that comprehensively supports a variety of medical tasks from the delivery room to the NICU, including resuscitation. The built-in oxygen blender and manometer, and resuscitation device support safe artificial ventilation and resuscitation. A CPR timer permits assessment of the health condition of the newborn every 30 seconds.

The easy-to-use touch panel display provides temperature monitoring, weight measurement and visual alarm conditions. Other features include: an X-ray cassette tray accessible from three directions; a far infrared heater to warm the mattress surface; a canopy that can be tilted independently so that the examination light always illuminates the treatment space, and a pressure-dispersion mattress that reduces the contact pressure on the infant's skin. A detachable baby guard enables easy cleaning and maintenance; a rotary damper allows the baby guard to be opened silently and hands free.

Also available from Walters Medical are the **Atom Resusci Flow** and the **Atom Resusci Flow with Blender** – resuscitation units that perform artificial respiration with a stable pressure to ensure prompt and safe resuscitation.

Atom Resusci Flow with Blender (above right); Atom Resusci Flow (below); and Atom Infa Warmer i (right)



concentration. An inline oxygen analyser allows for accurate oxygen monitoring. The NeoFlow range is available from Armstrong Medical.



NeoFlow Resuscitation Mask and T-Piece Resuscitation Circuit

The Infant Supplier Guide provides a searchable database of equipment used for the care of sick and premature infants. Visit: [www.infantjournal.co.uk/supplierguide.html](http://www.infantjournal.co.uk/supplierguide.html)