

KM Medical Unveils the Next Step in Neonatal Resuscitation at Medica 2008

Date: 11-10-2008 07:37 PM CET

Category: [Health & Medicine](#)

Press release from: [KM Medical](#)

Agency: **Halsin Partners**

KM Medical, an innovative medical technology company based in Auckland, New Zealand, will unveil, for the first time in the World, at Medica 2008 (November 19-22), the Next Step in Neonatal Resuscitation and Transport Ventilation - The KM Medical Neonatal Resuscitator .

This automatic, portable neonatal resuscitator and ventilator has been designed to reduce the incidence of volutrauma and barotrauma. These respiratory difficulties can lead to neonatal chronic lung disease (CLD), the major long-term pulmonary complication of preterm birth affecting about 20% of infants who need respiratory assistance.¹ Ten million newborns worldwide each year need resuscitation assistance. More than 1 million babies die annually from complications of birth asphyxia.²

“Whereas current neonatal resuscitators control airway pressure only, the KM Medical Neonatal Resuscitator controls tidal volume, airway pressure and respiratory rate simultaneously. This is so important in neonates, who are so small and extremely difficult to ventilate,” noted Richard McCulloch, KM Medical’s Managing Director and co-founder.

“We also saw a huge gap in the Transport Ventilator market, as current units are large, heavy and expensive. Our unit is the size of a torch, weighs less than 1kg can use air as well as oxygen and can run from a battery pack, aircraft power, or a vehicle cigarette lighter therefore has very wide applications as a transport ventilator,” noted Gilbert Kuypers, Technical Director and co-founder of KM Medical.

KM Medical is developing two versions of the device, a recovery-table version with full options and a simpler version for transport. The device has attracted international attention as a finalist in the 2008 Bayer Innovation Awards for Research and Development.

A team led by Dr Enrico Haemmerle, Dept. of Mechanical Engineering, The University of Auckland, New Zealand, has headed prototype development. A working prototype will be unveiled at the KM Medical booth on the New Zealand Trade & Enterprise Stand, MEDICA Hall 17/A58.

References

1. Treatments in Respiratory Medicine. 4(5):347-359, 2005. Sweet, David G 1 2; Halliday, Henry
2. Respiratory Care 2003;48 (3):288-294 Neonatal Resuscitation, Wiswell, Thomas, MD

About the Neonatal Resuscitator/Ventilator

The hand-held, low-cost Neonatal Resuscitator/Ventilator has been developed for the resuscitation and transport ventilation of neonates. It consists of a cylinder in which is mounted a piston, which acts as a linear pump. Induction valves are located at one end of the cylinder. Connected to the other end of the cylinder is a bi-directional valve. This valve directs the flow of air or air/oxygen mixture from the resuscitator to the patient and the flow of exhaled air from the patient out through an exhaust port. The bi-directional valve connects with either a mask or an endotracheal tube.

The unit is electronically-driven and incorporates a Central Programmable Unit (CPU) to provide both resuscitation and ventilation functions. The CPU and control/display panel set and display either the pre-programmed profiles or operator settings which control tidal volume, airway pressure and respiratory rate simultaneously. The predetermined programmed profiles use the patient’s weight as a key. This is particularly significant for neonatal applications as there is a growing awareness that resuscitation of neonatal patients using a traditional bag valve mask or other device providing only pressure

control can lead to volutrauma.

KM Medical plans to enter into a licensing agreement with a global manufacturer for production and marketing.

Richard McCulloch
Managing Director
KM Medical
DDI: +64 9 482 5070
Mob: +64 21 929 577

Mike Sinclair
Director
Halsin Partners
DDI: +44 20 7084 5955
Mob: +44 7968 022075

[You can find this press release here](#)