



Vygon launches b-card, an innovative device that combines continuous chest compressions and dynamic oxygenation for CPR

Groundbreaking device designed by anesthesiology specialist Dr. Boussignac revolutionizes the management of cardiac arrest by emergency first responders

This universal resuscitation device for first aiders or physicians can be used with a face mask, supraglottic airway device or endotracheal tube

Ecouen, France, September 6, 2016 – Vygon, the single-use medical devices group, announces today the commercial launch of the b-card[®] (Boussignac Cardiac Arrest Resuscitation Device), a non-invasive ventilation system providing continuous oxygen delivery during CPR (CardioPulmonary Resuscitation). The device ensures dynamic alveolar ventilation without the need to pause chest compressions.

Recent international scientific recommendations advocate, when treating a cardiac arrest, chest compressions should not be interrupted in order to ensure continuous blood flow¹. However, it is still desirable to provide oxygen². Therefore emergency responders currently alternate between chest compressions and ventilation at a rate of 30 compressions to two rescue breaths.

The new b-card device eliminates the need to stop compressions to ventilate. Connected to a source delivering oxygen at a flow rate of 15L/minute, the b-card generates a virtual valve. This acts as the 'heart' of the device, optimizing the pressure created during the chest compression and decompression phases of resuscitation. Each chest compression has a dual action: helping to expel the air contained in the alveolae and simultaneously pumping blood from the chest cavity into general circulation. In the decompression phase, the virtual valve creates negative intrathoracic pressure, optimizing gas exchange in the alveoli. At the same time, it improves venous return towards the heart. This increases the blood flow ejected from the heart during the next chest compression. B-card has the dual effect of optimizing hemodynamics and ventilation when lifesavers are performing chest compressions.

"As a simple device requiring minimal training, it can be used by first responders, allowing them to treat cardiac arrests more effectively," said Dr. Michel Blanche, chief physician with the emergency services for France's Loire-Atlantique region.

"Working in partnership with Dr. Boussignac, former anesthesiologist and inventor of several ventilation devices, Vygon Group is proud to have developed a device that could revolutionize the management of cardiorespiratory arrest," said Stéphane Regnault, chairman of Vygon's management board. "The device is being successfully used by a number of pre-hospital medical teams in France and elsewhere. It includes the option to use it with a face mask and can be fitted by professional emergency first responders – emergency workers, qualified first aiders and nurses – who often provide the first-line response to an out-of-hospital cardiac arrest."

¹ American Heart Association, 2015: <https://eccguidelines.heart.org/index.php/circulation/cpr-ecc-guidelines-2/>

² Bobrow B, Ewy G, *Ventilation during resuscitation efforts for out of hospital primary cardiac arrest*



The b-card is available to purchase at: https://www.vygon.com/fr/catalogue/b-card_1256_00657001 - Product code: 6570.01

About cardiac arrest

If not treated, cardiac arrest leads to death within three to five minutes. In the majority of cases, it is the result of ventricular fibrillation, a heart arrhythmia that prevents the heart from fulfilling its role as a pump supplying the rest of the body. When the blood stops circulating, the organs, including the brain and the heart, are no longer supplied with oxygen and gradually die. The purpose of cardiopulmonary resuscitation (CPR) – chest compressions to pump blood around the body and rescue breaths to provide oxygen – is to oxygenate the organs when the victim has stopped breathing, thereby increasing their chances of survival.

About Vygon

Vygon designs, manufactures and markets high-tech single-use medical devices for health care professionals in hospital and for private and independent practitioners. Vygon is a world leader within this industry, offering a wide range of products in a number of clinical specialties: neonatology, adult and pediatric critical care, anesthesia, long-term vascular access, oncology, emergency, cardiovascular and surgery, and home care. With expertise right along the value chain, from product design to the delivery of training for medical personnel, Vygon provides health care professionals with effective and innovative products tailored to their needs and those of their patients, for optimum use and safety. The company distributes over 205 million products a year in more than 120 countries through its network of 27 subsidiaries and 331 distributors. Vygon products display the CE and/or FDA mark and are manufactured in the group's eight factories in Europe, the USA and Colombia. A family company founded in 1962, Vygon is based in Ecouen, in France's Greater Paris region. It is a mid-sized business employing 2,150 staff worldwide. The turnover in 2015 was €302 million (\$328.6 million), with 81% of this derived from Vygon's international business.

www.vygon.com

Media contacts and analysts

Andrew Lloyd & Associates
Agnes Stephens / Lise Beltzung
agnes@ala.com / lise@ala.com

Tel: +44 1273 675 100

US + 1 617 202 4491

[@ALA_Group](#)