

**4 April, 2011 - For Immediate Release**

## **EVERY BREATH YOU TAKE.....**

### ***New monitor can give vital advance warning of cardiac arrest***

A revolutionary medical monitoring device which could detect a heart attack up to 45 minutes before it occurs in a hospital patient has received a European seal of approval.

The respiR8™ continuous breathing rate counter was developed by a small team of scientists in a Surrey based medical research and development company called Anaxsys Technology and is now being marketed to hospitals in the UK, Switzerland, Holland, Germany and Spain. The device, which works on the simple principle of measuring water in a patients breath, was developed thanks to an initial grant from the Government backed Technology Strategy Board. It has recently been awarded a CE mark –the European conformity and compliance standard which now opens the way for the company to develop its market in Europe and expand further as a company as it sets its sights on Japan later this year and the U.S next year.

The respiR8™ could totally transform the way that patients are monitored after an anaesthetic by alerting healthcare professionals to respiratory depression – which can occur following surgery, and rapid breathing above 27 breaths per minute which is a sign that can occur up to 45 minutes before cardiac arrest. The new device consists of a moisture sensor that is fitted inside an oxygen mask during post operation recovery to give an accurate respiratory counter for consultants, anaesthetists and nurses. Moisture from a patient's breath condenses on to the sensor which produces a signal that is relayed to an electronic monitor which then displays the current respiratory rate as well as a graph of its movement in the past hour.

Anaxsys is a cutting edge medical device company that is developing a range of respiratory diagnostic and monitoring products based upon unique sensor technology. The company believes that their products provide inexpensive, easy to use equipment that offers considerable advantages to the patient and healthcare professionals in the UK and beyond. In addition to already being available in Switzerland and Germany, the company has also completed successful trials for the respiR8™ at four hospitals in Spain and has recently received regulatory approval from the South African health authorities.

Deryk Williams, founder and CEO of Anaxsys Technology, based in Send, Woking, said:  
"Respiratory rates are considered to be one of the most important ways to measure a patient's overall condition and yet they are currently one of the least monitored – mainly due to the lack of products available in the market."

"We developed respiR8™ through research and development with input from anaesthetists and clinical staff, and it has completed 37 trials in UK hospitals and is in use at seven hospitals in the UK already – with a further 34 trials planned across the country this year."

Just last month a report issued by the Royal College of Anaesthetists and the Difficult Airway Society showed that routine monitoring of breathing could reduce deaths in intensive care. The most important finding was that the absence of a breathing monitor (capnograph) contributed to 74% of airway related deaths. (The full report can be viewed here:  
[http://www.rcoa.ac.uk/docs/NAP4\\_pr.pdf](http://www.rcoa.ac.uk/docs/NAP4_pr.pdf))

Anaxsys has already appointed a distributor in Europe while it looks further a field to the Far East and the US for further potential markets. Successful returns on the hospital version of the monitor are then going to be reinvested in producing an ambulance friendly version. The company has already started work on a prototype after it was awarded a £100,000 grant from the Strategic Health Authority in the East of England and the East of England RDA.

"We started work on developing a more robust and portable version of the product – one that can be strapped around a patients' wrist or ankle. It is battery operated and so could also be easily fixed to entrapped patients at road accidents or within buildings," said Deryk.

"For paramedics, a patient's overall 'fitness' determines the strategy they will adopt in terms of evacuating them – and respiratory rates can give vital information when time is of the essence. A fully transportable version of respiR8™ is in development for ambulances. The hospital version of respiR8 is accurate to within one breath per minute.'

In addition to flying the flag for British businesses in Europe and being an ambassador for UK innovation, Anaxsys has created around nine new jobs at its head office in Surrey and at its research and production lab in Keele, Staffordshire. And, commercialisation of respiR8™ has directly created three new posts within supplier companies that it works with.

Deryk added: "Innovation is vital within the NHS to facilitate huge steps forward in patient care and safety – but this in turn takes research and development that needs to be funded."

'We are so pleased to be able to show that the support of Government organisations like the Technology Strategy Board makes a real difference. It opens the doors to funding for small businesses like ours to develop and grow – which in today's economic climate is more important than ever.'

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## **About Anaxsys**

Anaxsys is a medical device company that develops and markets innovative respiratory devices that meet clinical needs. Anaxsys' unique approach to identifying and meeting clinical needs has resulted in a range of novel products, based on Anaxsys' patented sensor technology, to improve patient outcomes. These product ranges are targeted at patient monitoring, screening and diagnostics in the areas of vital signs, asthma, sleep apnoea and lung cancer. Anaxsys' first product to market is respiR8, a continuous respiratory rate counter that provides an early indication of patient deterioration. For more information, visit [www.anaxsys.com](http://www.anaxsys.com).

## **About Technology Strategy Board**

The Technology Strategy Board is a business-led government body which works to create economic growth by ensuring that the UK is a global leader in innovation. Sponsored by the Department for Business, Innovation and Skills (BIS), the Technology Strategy Board brings together business, research and the public sector, supporting and accelerating the development of innovative products and services to meet market needs, tackle major societal challenges and help build the future economy. For more information please visit [www.innovateuk.org](http://www.innovateuk.org).

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