

# Care of the Critically Ill

## October 2006

### DRUGS AND EQUIPMENT

#### The Electrode Company

*Routine pulse oximeter probe checks advised by leading UK Hospital Anaesthetic Department*

The Electrode Company Ltd specialises in non-invasive monitoring, optical sensors and high performance pulse oximetry. It produces a portable microspectrometer, which, in a survey of pulse oximeter accuracy conducted and reported on by the Department of Anaesthetics at the Royal Gwent Hospital, Newport, highlighted faults in 11% of pulse oximeter probes evaluated.

The microspectrometer is the Lightman®, which is designed to test

the light emitting accuracy of the LED and photodiode sensitivity of the SpO<sub>2</sub> probes. The Lightman was taken to a variety of clinical areas to test the sensors. During the assessments, there was minimal disruption to clinical services, and an erroneous reading of up to +/- 2% at 90% oxygen saturation was considered acceptable.

The use of pulse oximeters has become widespread, and patients are SpO<sub>2</sub> monitored intermittently on the wards. Their accuracy is important because it has clinical ramifications if faulty. For example, a sensor with a positive error will lead clinicians to believe that the patient is better oxygenated than is the case.

The survey in the Royal Gwent Hospital pointed to the importance of introducing routine pulse oximeter sensor checking with the Lightman. It is



a novel and compact hand-held device that makes pulse oximetry testing quick, simple, reliable, accurate and achievable on site, minimising time lost and reducing downtime.

For information on this unique device, please visit the Electrode Company on [www.electro.co.uk](http://www.electro.co.uk) or telephone 01291 650279.