

Applications and Markets

Lactate Monitoring in Critical Care

A recent study looking at all adult intensive care unit admissions (n = 13,932) occurring during a three year period within a particularly healthcare institution reported that high blood lactate (hyperlactatemia) is frequent in critically ill patients and often used as a marker of adverse outcome, confirming similar reports previously published. The authors report incidences of high blood lactate between 40 – 45%, and highly significant associations between hyperlactatemia and fatality rates (blood lactate > 2 mmol/L, and 27% respectively). Other studies show that mortality rates of nearly 70% are independently associated with blood lactate levels of at least 3.5 mmol/L.

There is clear need for a reliable indicated to assess cellular hypoxia. Such a system could monitor the effectiveness of therapeutic interventions. Probe Scientific is investigating the performance of its MicroEye® device with online sensor system to provide continuous and automated real-time online monitoring (CAR-TOM) of blood lactate for applications in critical care and cardiovascular medicine.