

0001

## CASE STUDY

### PROXIMA:

A PATIENT  
DEDICATED  
ARTERIAL BLOOD  
GAS ANALYSER  
WHICH SUPPORTS  
RAPID AND  
FREQUENT  
MEASUREMENTS AT  
CRITICAL TIMES



**SPHERE**  
RAISING THE STANDARD  
OF CRITICAL CARE

FOR FURTHER INFORMATION PLEASE CONTACT:

### NIHR TRAUMA MIC



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## PROJECT SUMMARY

The NIHR Trauma Management MedTech Co-operative (NIHR Trauma MIC) collaborated with Sphere Medical Ltd on the development of the world's first patient attached blood gas, electrolyte and metabolite monitoring system.

## CLINICAL NEED

Regular measurement of physiological variables has become a routine part of the monitoring of patients. The continuous monitoring of critically ill patients, in particular, can be both demanding and time consuming to health practitioners.

## THE SOLUTION

The Proxima system allows for near real time analysis, with laboratory accuracy, at the patient's bedside. It can be utilised on all patients with indwelling arterial cannulae and selected central venous catheters, along with widespread applications in Emergency Departments, transport, major surgery and adult/paediatric critical care.

This device enables faster clinical decision making and the potential for improved patient outcomes whilst cutting costs for healthcare payers.

## HOW WE SUPPORTED

- Facilitated the provision of a simulated critical care bed and operating theatre with equipment for ISO 62366 testing
- Recruited 45 clinical staff volunteers (Consultant Anaesthetists, Operating Department Practitioners, and ICU Nurses) for a usability study
- Loaned AV equipment for scenario recording
- Facilitated office space for innovative industry working
- Assisted through the stages of clinical trials which took place within the ICU at Birmingham's Queen Elizabeth Hospital
- Facilitated the testing of the new model of the device to produce pilot data for its use in humans

## OUTCOME

The device is now fully ISO62366 tested and CE marked, allowing Sphere Medical Ltd to sell to national and international healthcare providers.

The Trauma MIC is creating a business case for the device to be taken up in the NHS.

## COMPANY PROFILE

Sphere Medical (based in Cambridge, UK) specialises in the development of innovative medical monitoring and diagnostic equipment.

Their products are used in a wide range of medical applications, enabling faster clinical decision-making and improved patient outcomes, whilst providing efficiencies that result in reduced healthcare costs.

The company's strategy is focused on developing the Proxima platform for measuring blood gases, electrolytes and metabolites.

