



The NIHR Trauma Management MedTech Co-operative (part of the MedTech and In Vitro diagnostics Co-operatives) will build expertise and capacity in the NHS to support the development of new medical technologies, enabling improved management of the trauma care pathway from the point of injury through to stabilisation and recovery.

The Co-operative is based at University Hospitals Birmingham (UHB) NHS Foundation Trust, a Major Trauma Centre where the most serious casualties from across the West Midlands are treated. UHB also hosts the Royal Centre for Defence Medicine which provides dedicated training for defence personnel and is a focus for medical research. The remit of the Trauma Management MedTech Co-operative is to develop and deliver a programme of work that could improve clinical outcomes and quality of life for patients who have suffered a traumatic injury. The focus of work will be on three distinct but inter-related parts of the patient pathway following traumatic injury:

### **1) Acute response to injury and stabilisation**

The time between a traumatic injury and medical stabilisation is a crucial window for new developments. Improvements to decision support systems, monitoring, diagnostics and transport will all have major benefits to patients. In critical care, better infection control, management of inflammatory responses, better pain control, novel respiratory support, earlier detection of deterioration and maintenance of muscle mass are all areas where progress can be made.

### **2) Repair, regeneration and reconstruction**

Following initial stabilisation there is the potential for significant advances in tissue repair, regeneration and reconstruction. These include tissue engineering, the management of burns and acute wounds, and surgical interventions.

### **3) Re-enablement and rehabilitation**

Survival following trauma can be the beginning of a long, intensive and demanding journey to recovery. Earlier and more effective rehabilitation will help patients' recovery. There is potential for development in all areas of rehabilitation, including improved prosthetics, robotics, virtual reality and functional electrical muscle stimulation.



**Professor Tom Clutton-Brock, Clinical Director of the NIHR Trauma Management MedTech Co-operative**

"Trauma Management MedTech Co-operative is in its ninth year of funding with support from a small but highly effective team. With over 360 industry engagements recorded, it has supported numerous grant applications, pre-clinical studies and, increasingly, Clinical Investigations."

"Co-location with the Medical Devices Testing and Evaluation Centre (MD-TEC) has allowed the MIC to offer a unique facility for human factors and usability testing. The emphasis is on significant improvements in patient safety when medical devices, including software as a medical device, are used."

"Although our focus is around trauma our expertise in usability and device regulations have a role in many clinical areas so please get in touch."