



London Major Trauma System

Have YOU heard about MODET?

What does MODET stand for? Multiple Organ Dysfunction in Elderly Trauma.

What is it? A Pan-London Major-Trauma-System Prospective Observational Research Study.

Where's it taking place? Patients are being recruited from within the Critical-Care Units of all four London Major Trauma Centres (St. Mary's, the Royal London, King's College and St. Georges' Hospitals).

Why is it looking at elderly trauma? Well, we know that people in the UK are now living for longer than ever before. As such, the number of older people suffering traumatic injury is increasing. Of these, a significant proportion will develop multiple organ dysfunction (MODS) as a result of their injuries. Younger trauma patients who survive MODS usually recover quickly whereas older patients appear to suffer prolonged organ dysfunction, often complicated by persistent immunosuppression and infections. MODS in older people is also associated with increased mortality characterised by late, indolent death.

Isn't that just because they're old? Maybe, although not necessarily! Frailty is also known to reduce physiological function, and co-morbidity is thought to have adverse effects on recovery from traumatic injury. So it might be that these and other factors have more of an impact on outcome than the actual age of the patient at injury, and at this stage we don't know.

How could the results of this study change what we do in practice? In lots of ways! For example, if we have a better understanding of what factors are most likely to impact on a patient's ability to recover from MODS after severe trauma, this will help us to determine what treatment and care is most appropriate and they are most likely to benefit from, and what is less likely to be of benefit and may just prolong suffering and distress.

On a wider scale, by looking at elderly trauma as a distinct population group it may become evident that they have different physiological needs which may present in different ways to other types of trauma patients. For example, there is some evidence that elderly trauma patients with a severe brain injury may initially present with a slightly higher GCS than younger patients with an equivalent injury. Or that the concept of permissive hypotension in the bleeding trauma patient may actually increase the likelihood of organ dysfunction in older patients, many of whom are hypertensive pre-injury. Other factors, such as the way in which older people may present to trauma systems might affect their initial assessment and management in comparison to younger trauma.

If the focus is on elderly trauma, why are you recruiting young adult trauma patients too? We need a control group to be able to compare & contrast levels of organ dysfunction and outcomes. Additionally, the UK evidence-base on trauma care is still developing and any new information about organ dysfunction in the trauma population as a whole will be of value.

How long is MODET going to run for, and how long many patients do you need? MODET will run for two years and we need to include 259 older patients (aged ≥ 65 years) and 414 younger patients (aged ≤ 65 years) per year. This means that we need to recruit at least one older patient and two younger trauma patients from the Critical-Care Unit(s) of each Major Trauma Centre per week to meet our target.

What can I do to help? If you work on one of the Critical-Care Units (ICU and/or HDU) which is participating in MODET, then your local research team will need your help! If you think you have a trauma patient who is eligible for MODET, speak to your local research team. We anticipate that most units will be able to recruit enough younger trauma patients, but older trauma patients may be less frequently admitted and/or more easily missed.

The following research teams are involved in the day-to-day running of MODET on each site:

St Mary's Hospital: The Neuroscience, Emergency & Trauma (NET) Research Team

The Royal London Hospital: The Trauma Research Team

King's College Hospital: The Anaesthetics, Critical-care, Emergency & Trauma (ACET) Research Team

St George's Hospital: The Critical-Care Research Team

We are two Critical-Care Research Nurses, employed by Queen Mary University of London (the Study Sponsor) to work exclusively on MODET and help the research teams on each of the four sites involved in the study. Our contact details are as follows:

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The Chief Investigator for MODET is Dr. Elaine Cole, Director of Research & Innovation, Pan-London Major Trauma System. Email: e.cole@qmul.ac.uk

If you want to read more details about the study, please look at our website:

<http://www.c4ts.qmul.ac.uk/modet/modet-1>

