Emergency Medicine Research Group
Edinburgh

# EMeRGE News

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*EMeRGE aims to coordinate, facilitate and promote quality research in Emergency Medicine*

## Research Update—what is happening?

**For the first time in recent years there are currently no trials actively recruiting patients in the ED but this is all about to change.**

In this newsletter the EMeRGE team wishes to introduce you to **several new research projects** that will be coming our way and also tell you how we intend to support the department in order to minimise any impact these will have on the workload of clinical staff.

Behind the scenes we have been working towards **a plan to place research nurses in the clinical area**. These nurses will be responsible for identifying eligible patients and will assist with the care and recruitment of research subjects whilst promoting and teaching staff on the various projects.

Initially they will be available from 8am to 4pm Monday to Friday but over the coming months and years this will be expanded to cover evenings and weekends.

Look out for news of **three new research nurse secondments**. These have been advertised and we are in the process of filling these posts. They will be seconded to work 11.5 hours a week each and will join our established research nurse team.

## In set-up

NEW

### Tranexamic acid for the treatment of GI bleeding

Haemorrhage alleviation with tranexamic acid - Intestinal system

An international, randomised, double blind placebo controlled trial (HALT-IT). Aim is to evidence whether early administration of TXA reduces mortality and other clinical outcomes in patients with significant acute GI bleeding. We hope to start patient recruitment in August so look out for information and training sessions coming your way soon. This is a large international trial coordinated from the London School of Hygiene and Tropical Medicine. Dr Matt Reed is the local investigator. Research nurses Rachel and Alison will be the main contacts.

Remember, with our expanding team we will be providing more support in the clinical area than we have been able to for previous trials.

## High STEACS

NEW

Aiming to evaluate the impact of a new high-sensitivity troponin I assay on the assessment of patients with acute coronary syndrome. Dr Nick Mills, Consultant cardiologist is Chief Investigator. Dr Alasdair Gray is local contact for recruitment of ED patients into a cost-effectiveness sub-study. Patients with suspected Acute Coronary Syndrome will be recruited Monday to Friday 8am to 3pm. What does this mean for the ED? Participation in the study will not interfere with routine clinical care. All study processes will be carried out by research nurses (from cardiology and ED). Patients will only be recruited if research staff are available.

- Patients identified by research nurses and clinical staff (call bleep 5795).
- Research nurses will obtain consent, complete a questionnaire, obtain additional blood sample at 3 hrs from presentation.
- This will evaluate feasibility of early rule-out & discharge from the ED.

We would like to welcome cardiology research nurses Amy Ferry and Dennis Sandeman who will introduce themselves to you over the coming weeks.

## 3Mg Lancet Publication

The main findings of the 3Mg trial have been published: Intravenous or nebulised magnesium sulphate versus standard therapy for severe acute asthma (3Mg trial): a double-blind, randomised controlled trial. The Lancet Respiratory Medicine, Volume 1, Issue 4, Pages 293 - 300, June 2013.

The 3Mg Study

### Findings

Between July 30, 2008, and June 30, 2012, we recruited 1109 (92%) of 1200 patients proposed by the power calculation. 261 (79%) of 332 patients allocated nebulised MgSO4 were admitted to hospital before 7 days, as were 285 (72%) of 394 patients allocated intravenous MgSO4 and 281 (78%) of 358 controls. Breathlessness was assessed in 296 (89%) patients allocated nebulised MgSO4, 357 (91%) patients allocated intravenous MgSO4, and 323 (90%) controls. Rates of hospital admission did not differ between patients treated with either form of MgSO4 compared with controls or between those treated with nebulised MgSO4 and intravenous MgSO4. Change in VAS breathlessness did not differ between active treatments and control, but change in VAS was greater for patients in the intravenous MgSO4 group than it was in the nebulised MgSO4 group (5·1 mm, 0·8 to 9·4; p=0·019). Intravenous or nebulised MgSO4 did not significantly decrease rates of hospital admission and breathlessness compared with placebo: intravenous MgSO4 was associated with an odds ratio of 0·73 (95% CI 0·51 to 1·04; p=0·083) for hospital admission and a change in VAS breathlessness of 2·6 mm (—1·6 to 6·8; p=0·231) compared with placebo; nebulised MgSO4 was associated with an odds ratio of 0·96 (0·65 to 1·40; p=0·819) for hospital admission and a change in VAS breathlessness of −2·6 mm (—7·0 to 1·8; p=0·253) compared with placebo.

Interpretation: Our findings suggest nebulised MgSO4 has no role in the management of severe acute asthma in adults and at best suggest only a limited role for intravenous MgSO4 in this setting.

Check out the notice boards in the central ED corridor, we have just changed the posters. Many of these were displayed at the successful SCEM conference held in Edinburgh 6th June.

**Congratulations to those whose oral and poster presentations were selected.**