ICU

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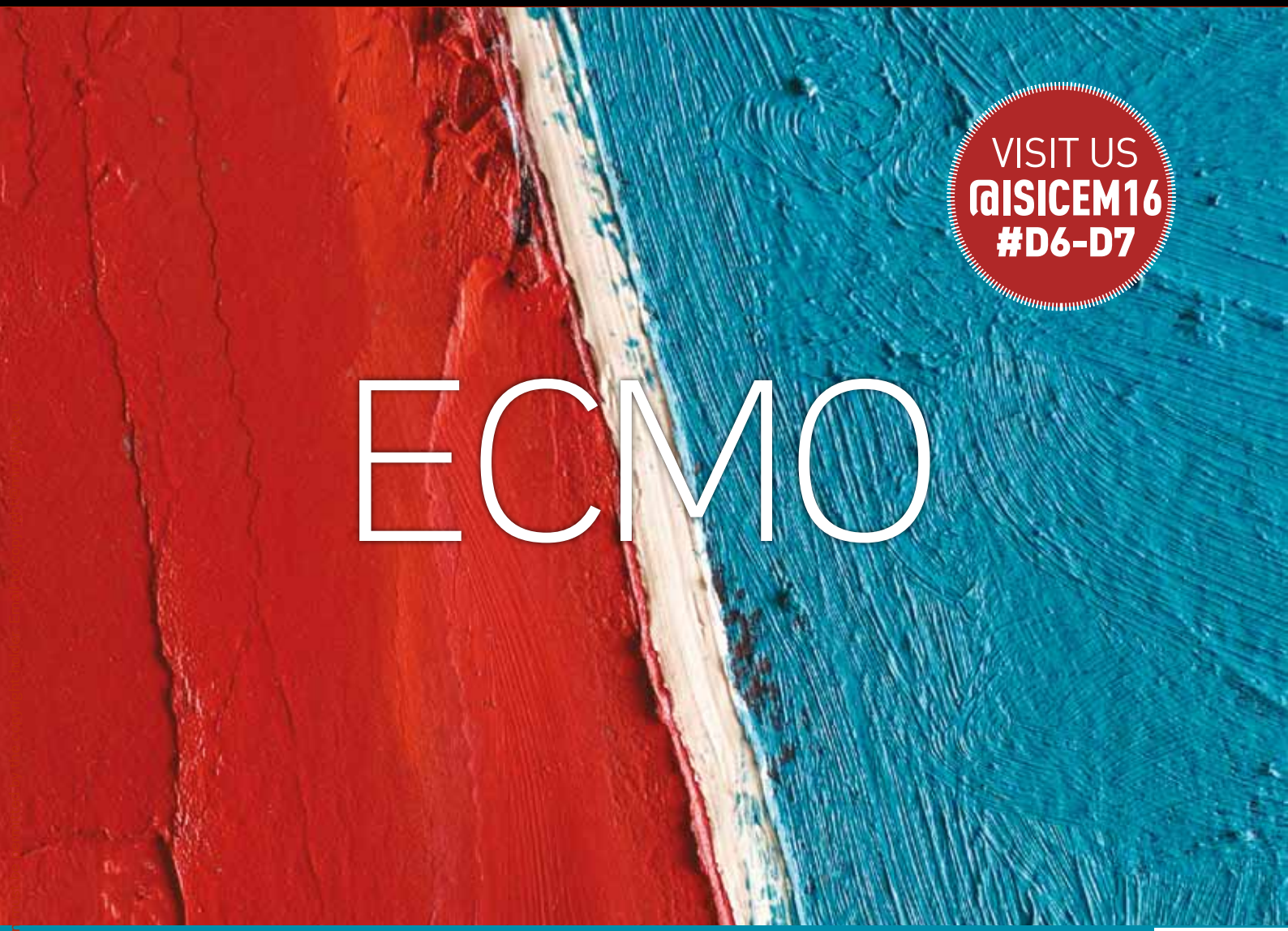

ECMO

PLUS

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CENTRE FOR RESEARCH IN INTENSIVE CARE

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The Centre for Research in Intensive Care (CRIC) was established in 2015 to provide support and services for research into intensive care, intervention and treatment (CRIC.nu). CRIC was established to maintain and improve the infrastructure obtained through the large trials conducted in Denmark, the Scandinavian Starch for Severe Sepsis/Septic Shock (6S) (Perners et al. 2012) and Transfusion Requirements in Septic Shock (TRISS) (Holst et al. 2014) trials.

The Centre is a partnership between Danish researchers who conduct clinical trials, systematic reviews, biostatistics and health-related socio-economic analyses. Funding is from the public Innovation Fund Denmark. CRIC's mission is to provide scientific, methodological, statistical and/or management services or support to new or experienced researchers in whatever aspects of research they may pursue related to improved care and treatment of intensive care patients. CRIC's vision is to become a national service and an international collaborator for intensive care researchers.

> **"We have improved the care for ICU patients through our research and want to continue to the benefit of patients, relatives and society"**

CRIC is working for:

- transparency in research processes;
- improved public access to data and results;
- best-practice approach;
- standardised processes.

Danish ICUs are involved as partners running clinical research programmes and as trial sites in the ongoing trials. CRIC maintains an open policy, so that all Danish intensivists with a good idea for a research programme are welcome, if the programme fits the model. The model is to run clinical programmes containing a large randomised controlled trial (RCT) of frequent interventions given to ICU patients for which there are doubts about the balance between benefit and harm. The CRIC management and steering committees make the final decision on what programmes to run. Any new programme should raise the resources for itself, but CRIC staff will help with this.

Current Research Programmes

There are five clinical and non-clinical programmes taking place between 2015-2021.

Stress Ulcer Prophylaxis (SUP) in the Intensive Care Unit (SUP-ICU) (NCT02467621) (clinicaltrials.gov/ct2/show/NCT02467621)
This will assess the benefits and harms of stress ulcer prophylaxis (SUP) with proton pump inhibitors (PPI) in adult ICU patients. The research programme comprises a topical systematic review, a systematic review and meta-analysis, an international 7-day inception cohort study, an international unit evaluation and a randomised clinical trial of pantoprazole vs. placebo. The participating countries are Denmark, Norway, Finland, the Netherlands, Italy, Switzerland and the UK. The randomised trial started recruitment in January 2016 and 112 of the 3350 acutely ill ICU patients have been randomised.

Agent Intervening against Delirium in Intensive Care Unit (AID-ICU)
This will assess the benefits and harms of antipsychotics in adult patients with delirium in the ICU. First an international inception cohort study will be done to describe current use of haloperidol and other pharmacological agents for delirium in critically ill patients admitted to ICUs in Denmark, Norway, Sweden, Finland, Netherland, Switzerland, Germany, the UK, Italy, Belgium, Canada, Brazil, Spain and France. Based on the results of the cohort study and those of a systematic review with meta-analysis and trial sequential analysis, a large randomised trial will be designed to inform clinicians on the use of anti-psychotics for ICU patients with delirium.

Hypoxaemia Oxygenation Target for ICU patients (HOT-ICU)
This will assess the benefits and harms of different oxygenation targets in adult ICU patients with acute respiratory failure. The research programme comprises retrospective cohort studies, a systematic review and meta-analysis, and a large randomised clinical trial of lower vs. higher oxygenation targets in ICU patients with acute respiratory failure.

Improving meta-analyses of ICU interventions
This programme will improve the methods for meta-analysing trial data of interventions given to ICU patients including trial sequential analysis and independent patient data meta-analysis.

Improving the analyses of time-dependent data in ICU trials
This programme will improve and develop the analyses of time-dependent variables in trials of ICU patients to better understand the why, the how and the how much of interventions' effects. ■

References

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