Approximately 10 years ago the Intensive Care Society (ICS) established the Intensive Care Foundation (ICF).

Our purpose as the ICF is to ensure that the ICS upholds its objective of ‘the promotion of study and research into critical care...’ Over the past 10 years we have firmly established a leading role for ourselves within the critical care community.

The ICF currently co-ordinates over 70% of UK intensive care research. Our medium term objective is to establish regular diverse income streams to follow in the footsteps of other successful medical charities such as; the British Heart Foundation, Cancer Research UK and the British Lung Foundation.

The ICS currently provides most of our funding through donations and Gift Aid, but our long-term focus is to become self-funding.
One of the challenges we face as a charity is the public perception of critical care and critical care research. We aim to inform the public about the role of intensive care units (ICUs), and how our work impacts intensive care treatment both in the UK and worldwide. Many charitable organisations concentrate on chronic diseases (e.g. heart disease, cancer, Multiple Sclerosis), rather than the wide range of acute medical conditions that are treated in ICUs. As a result, a significant amount of public support is donated to societies with “disease” labels, rather than a diverse speciality such as critical care. In contrast to the issues faced by critical care charities at a national level, fundraising at a local level in individual ICUs by staff, patients and relatives is often quite successful. The drive for this is often the desire for the user to reward or improve the hospital or service they have shared an experience with. It is one of our aims to understand how we can encourage people to also donate to a national body.

Supporting the public to understand our role as a speciality is a major challenge. This can be seen through our prioritisation exercises with the James Lind Alliance, this was a project focused on discovering where our research and resources should be focused, based on desire from clinicians, patients, relatives and members of the public.

We have a well-rehearsed, established and successful model of allocating our income. The ICF has three directors and two deputy directors of research who are some of the highest regarded professionals within critical care. The role of the directors and deputy directors is to identify, administrate and execute research for the ICF. Grants are awarded by the ICF to encourage or pump-prime ICU research and time is funded for the directors and deputy directors to work on our collaborative UK critical care trials.

The quality of the research projects we have directly funded has contributed to three directors of research achieving professorships in their own academic institutions.
Funding Streams
2016

1. Annual direct contribution from many individual members of the ICS, often these are boosted by Gift Aid.

2. Donations to fundraising activities, where the ICF is the recipient of the fundraisers’ endeavours. Details of these activities and participants are shown on www.ics.ac.uk.

3. Direct financial contributions from Industry Partners such as B Braun, Orion and Vygon.

4. Financial contribution from the ICS to underpin ICF activities and provide funding until our fundraising development plans are actioned.
Grants and awards

2016 AWARDS AT A GLANCE

All of the awards granted by the ICF are made through a competitive peer review process assessed by the ICS Research Committee, chaired by Dr Andrew Bentley. The committee identifies and judges potential future projects to be undertaken or funded by the ICF.

NEW INVESTIGATORS AWARD SHARING (£24,373)

1. Sean Pollen £10,000: The role of mitochondria in septic acute kidney injury

2. Jonathan Millar £14,373: Can mesenchymal stromal cells modify the inflammatory response to ECMO? A proof of concept study

NURSING AND ALLIED HEALTH PROFESSIONAL FOUNDATION FELLOWSHIP (£2,200)

1. Nicola Denny received £2,200 to assist with her MSc Dissertation

MEDICAL STUDENT ESSAY PRIZE (£200)

1. Paul McEnhill received £200 for his essay entitled: Delirium in critical care: underdiagnosed and misunderstood?
GOLD MEDAL AWARD
STATE OF THE ART 2016

Dr Rashan Hanifa: Strategies to improve critical care outcomes in resource limited settings. Rashan will now have the opportunity to sit on the ICS Research Committee for 2 years

1

New Generation E-Poster - Mika Hamilton: IMproving PAtient Consentin Transparency for commonly performed ICU procedures: A Quality Improvement project (IMPACT-QI)

2

Research Free Paper - Mina Bharal: Is Volume Based Feeding the Way Forward for UK Critical Care Patients?

3

Clinical Oral Presentation - Harriet Kemp: Physician documented pain assessment in 45 ICUs in the United Kingdom. The PAin in INTensive Care (PAINT) Study

3

Research Oral Presentation - Miriam Sanderson: Prediction of 30 day mortality in patients with Sepsis; an exploratory analysis of care process and patient characteristics

4

Clinical E-Poster - Neil Roberts: Driving pressure as a part of lung protective ventilation at a large District General Hospital
Clinical trials

INTRODUCTION

The ICF Directors of Research are involved with over 20 current or recently completed studies. They are often the principal investigator but also collaborate and assist other researchers with trial design and submission of grant proposals. Our directors also support the studies through the CTUs with which the ICF collaborates.

PROJECTS IN SETUP

STRESS-L

A phase IV randomised multicentre study

- Principal Investigator: Dr Tony Whitehouse, Queen Elizabeth Medical Centre, Birmingham
- Funding: NIHR, EME. Grant preparation supported by Intensive Care Foundation Directors of Research

Background: A study into the reversal of septic shock with landiolol (beta blockade). The aim is to recruit 340 patients with the primary outcome measure being the mean SOFA score between groups in the first 14 days.

This trial is currently in set up.

ADAPT - Sepsis

A phase IV randomised multicentre study

- Principal Investigator: Professor Paul Dark, Salford Royal Hospital, Manchester
- Funding: NIHR, HTA. Grant preparation supported by Intensive Care Foundation Directors of Research

Background: Sepsis is linked to long term illness and unavoidable deaths, with the NHS providing a generic antibiotic treatment plan. Increases in the biomarkers C-reactive protein (CRP) and procalcitonin (PCT) are linked with sepsis, providing an opportunity for a targeted antibiotic duration plan to reduce patient side effects and overall antibiotic usage.

Public benefit: To determine whether monitoring of CRP or PCT as a treatment plan reduces the duration of guided antibiotic therapy in patients with moderate to severe sepsis compared to standard care.

Patients to be recruited: 1000+
SuDDICU

- Principal Investigator: Professor Anthony Gordon, Imperial College, London, Director of Research ICF

SuDDICU is now in set up in the UK and should start recruitment in 2018.

It is a crossover cluster randomised controlled trial of Selective Decontamination of the Digestive Tract in Intensive Care Unit patients. The trial will recruit 15,000 patients from 40-45 ICUs in the UK, Australia and Canada. The aims are to determine whether SDD is clinically effective at reducing hospital mortality in mechanically ventilated critically ill patients in the ICU without increasing antibiotic resistance, and is cost-effective compared to standard care.

REMAP-CAP

- Principal Investigator: Professor Anthony Gordon, Imperial College, London, Director of Research ICF

REMAP-CAP is a joint project with the Intensive Care National Audit & Research Center (ICNARC)

This is a randomized embedded multifactorial adaptive platform trial for Community-Acquired Pneumonia and is part of the EU-funded PRPARE grant that is a pandemic preparedness research programme. It will set up a platform for testing multiple interventions in CAP and will use Bayesian response-adaptive randomisation. As well as the EU, the trial is also funded in Australia and New Zealand and we hope to start recruitment early in 2018.
Clinical trials

CURRENT PROJECTS

REALIST

- Principal Investigator: Professor Danny McAuley, Queen’s University, Belfast
- Start date: March 2018
- Funding: Wellcome Trust

The aim of this study is to investigate the role of mesenchymal stromal cells (MSCs), in treating patients with Acute Respiratory Distress Syndrome (ARDS).

The specific objectives are:
(1) to assess the safety and maximum tolerated dose of a single intravenous infusion of MSCs in patients with ARDS in a phase 1 study;

(2) to assess the potential efficacy of a single intravenous infusion of MSCs in 66 patients with ARDS, and to acquire mechanistic data regarding the activity of these cells in patients with ARDS in a phase 2 study.

Public benefit: ARDS is a common condition affecting over 20,000 people per year in the UK: approximately 6000 will die. ARDS occurs in response to many different illnesses including severe trauma, infection and major surgery, and affects all age groups. In ARDS, the lungs become leaky and fill with fluid so it becomes difficult to breathe. There is no known specific drug treatment to treat ARDS that improves outcome.

Mesenchymal stromal cells (MSCs) can reduce inflammation, fight infection and improve repair of injured tissue. In this proposal we want to test MSCs in patients with ARDS. If MSCs were effective in this small clinical trial we would proceed to a large trial across the UK to confirm the effect. A treatment that reduced death and long-term disability from ARDS would have major healthcare impact.

Re-PHILL

- Principal Investigator: Professor Gavin Perkins, University of Warwick, Director of Research ICF
- Funding National Institute for Health Research (NIHR) Efficacy & Mechanism Evaluation Programme (EME)

RePHILL (Resuscitation with Pre-Hospital Blood Products) is a multicentre randomised controlled trial of pre-hospital blood product administration versus standard care for traumatic haemorrhage.

The trial will test the hypothesis that pre-hospital blood products (PHBP) resuscitation with up to two units each of packed red blood cells (PRBC) and lyophilised plasma (LyoPlas N-w), will improve tissue perfusion (as measured by lactate clearance), and reduce mortality in trauma patients with haemorrhagic shock compared to the current standard practice of crystalloid (normal saline) resuscitation.

The pilot study has been completed and the main study is open to recruitment.
CURRENT PROJECTS

Prevention HARP – 2

- Principal Investigator: Dr Murali Shyamsundar, Queen’s University, Belfast
- Start date: April 2016
- Funding: NIHR Clinician Scientist Award

This project will deliver a multicentre randomized double-blind placebo controlled clinical trial to determine whether simvastatin 80mg for four days pre-surgery and up to 7 days post-surgery, vs placebo, would improve outcomes in patients undergoing elective oesophagectomy. 452 patients from at least 12 sites will be recruited.

Public benefit: Acute respiratory distress syndrome (ARDS) is a serious illness which affects the lungs and can occur after surgery such as removal of the food pipe (oesophagectomy). The objective of this trial is to investigate the efficacy of simvastatin in reducing the occurrence of ARDS and other post-operative complications in patients undergoing oesophagectomy. If effective, there will be significant benefits to patients and the NHS.

REST

- Principal Investigator: Professor D McAuley, Queen’s University, Belfast, Director of Research ICF
- Start date: April 2016
- Funding: NIHR Health Technology Assessment Programme

This project will deliver a multicentre randomized clinical trial to determine whether veno-venous extra-corporeal carbon dioxide removal and ultra-protective mechanical ventilation improves clinical outcomes and is cost-effective, in comparison with standard care in adult patients who require invasive mechanical ventilation for acute hypoxaemic respiratory failure. The trial will recruit 1120 patients from at least 40 ICUs in the UK.

Public benefit: Respiratory failure is common in the UK; about 100,000 people each year need treatment with mechanical ventilation. Although mechanical ventilation is life-saving, it can be linked with damage to the lungs. A mechanical ventilator acts like bellows with air being forced into the lungs under pressure. If the pressure needed to help the patient breathe is too high this can cause lung damage. New devices are available that can help remove carbon dioxide from the patient’s blood, which is one of the main functions of the lungs.

These devices may allow more gentle mechanical ventilation, which could cause less harm to the lungs and improve the outcome of patients with respiratory failure. This project will provide necessary information about the devices, in order to help doctors decide whether they are helpful or not. Find it on www.nets.nihr.ac.uk/projects/hta/1314302.
Clinical trials

RECENTLY COMPLETED

VAP RAPID 2
Rapid detection of Ventilator Associate Pneumonia (VAP) – towards improved antibiotic stewardship

• Principal Investigator: Professor John Simpson, Newcastle University
• Start date: October 2013
• Funding: Health Innovation Challenge Fund Welcome Trust. Grant preparation supported by Intensive Care Foundation Directors of Research

Ventilator-associated pneumonia (VAP) is the leading cause of healthcare-associated infection (HCAI) in the ICU with a prevalence of 10%. VAP is associated with an excess mortality, hospital and ICU length of stay and increased cost of care. Since delay in treatment has been shown to result in increased mortality, antibiotics are started as soon as VAP is suspected. However VAP is confirmed microbiologically in 30% of cases of ‘suspected’ VAP.

The widespread use of antibiotics has lead to increasing antibiotic resistance and this is a particular concern in the ICU, where critically ill patients are vulnerable to HCAI and infection by antibiotic-resistant pathogens. There is a need to improve antibiotic stewardship in all patient groups including those with suspected VAP. The difficulty with current diagnostic methods is that clinical decisions are limited by the time taken for culture and sensitivity testing in the microbiology lab, which typically takes 24-72 hours.

New rapid biomarker-based diagnostics could improve this situation. Our study group has demonstrated that bronchoalveolar lavage fluid biomarkers can be used to effectively exclude VAP in both a single-centre derivation study and more recently in a multicentre validation study. This RCT aims to test the clinical value of this bespoke VAP biomarker ‘kit’.

PARAMEDIC 2
Randomised placebo controlled trial of Adrenaline for out of Hospital Cardiac Arrest

• Principal Investigator: Professor Gavin Perkins, University of Warwick, Director of Research ICF
• Start date: March 2014
• Funding: NIHR Health Technology Assessment Programme

Working with 5 NHS ambulance services, patients in cardiac arrest were randomly assigned (in equal numbers) to receive adrenaline or matching placebo. The aim was to determine the effect of adrenaline from a clinical (long term survival), patient focused (brain function, health related quality of life) and cost effectiveness perspective. The study sought to recruit 8000 patients and will provide a definitive answer as to whether adrenaline is an effective treatment for cardiac arrest.

Public benefit: Around 50,000 people experience sustained sudden cessation of heart function (cardiac arrest) each year in the UK. Initial resuscitation efforts are effective in restarting the heart in about 1 in 4 cases (25%), but over half of these patients subsequently die in intensive care as a consequence of severe brain damage. Adrenaline currently forms part of the Resuscitation Council Protocols. More recently, possible harmful side effects of adrenaline treatment in cardiac arrest have been recognized. PARAMEDIC2 will provide a definitive answer as to whether adrenaline is an effective treatment for cardiac arrest. The results will be immediately fed into an established process for evaluation of evidence, from which international and UK clinical guidelines are produced and subsequently implemented in the NHS. Find it on www.nets.nihr.ac.uk/projects/hta/12127126.

Results expected Summer 2018
Gatekeeping in Intensive Care
Understanding and improving the decision-making process surrounding admission to the ICU

Given the burdens of therapy on an intensive care unit and the limited prognosis for many critically ill patients, admission to an ICU bed will not be appropriate for all patients. Little is known about how decisions regarding ICU admission are made, or should be made, for patients in the NHS. By studying this area of clinical practice we will develop a mechanism to improve the quality and consistency of decision-making regarding access to the ICU for critically ill patients.

The project has 4 work packages (WP). WP1 will describe current practice and explore the experience of key participants. WP2 will involve a discrete choice experiment, designed using factors identified in WP1 and in the literature, to identify preferences of ICU physicians and ICU outreach nurses regarding factors determining patient’s admission to ICU. WP3 is to be informed by WPs 1&2, and will involve the development, implementation, and testing of a decision support framework to guide clinicians through the decision-making process, together with a patient/family support document to help them understand and participate in the process. WP4: an evaluation tool for assessing the impact of the decision support framework on decision-making will be developed and tested.

Recruitment is closed, the analysis of results and final report are in progress.
RECENTLY COMPLETED

**MoDUS**

Modifying Delirium using Simvastatin

- **Principal Investigator:** Valerie J. Page, ICM Consultant, Watford General Hospital
- **Start date:** February 2013
- **Funding:** Research for Patients Benefit program from NIHR. Grant preparation supported by Intensive Care Foundation Directors of Research

A single-centre randomised double-blind placebo controlled superiority phase II trial, to recruit 142 patients randomised to receive once daily simvastatin 80mg or placebo for up to 28 days. The aim of this study is to investigate the efficacy of statins initiated early during an ICU stay for the prevention of ICU delirium; to determine any improvement in related neurocognitive sequelae to reduce the incidence.

Public benefit: The incidence of delirium in mechanically ventilated patients can reach 80%. Delirium may predispose patients to long-term cognitive impairment after critical illness, and is associated with inflammation and neuronal apoptosis, which may lead to brain atrophy. Therefore, an intervention which reduces delirium could potentially translate to a reduction of long-term cognitive impairment and dementia.

The results of this trial do not support the hypothesis that simvastatin modifies the duration of delirium and coma in critically ill patients.

The MoDUS trial results have also been published in Lancet Respiratory Medicine.

**BREATHE**

Protocolised trial of invasive and non-invasive weaning off ventilation

- **Principal Investigator:** Professor Gavin Perkins, University of Warwick, Director of Research ICF
- **Start date:** January 2013
- **Funding:** NIHR Health Technology Assessment Programme.

A pragmatic randomised controlled open multicentre effectiveness trial of 400 patients in 22 UK ICUs. The purpose is to determine if the use of non-invasive ventilation (NIV) as an intermediate step in the protocolised weaning of patients from invasive ventilation is clinically beneficial and cost effective.

Public benefit: About 60,000 people each year in the UK become critically ill and require sedation and treatment with invasive mechanical ventilation given via a tube placed in the windpipe. Although initially lifesaving, invasive mechanical ventilation can be associated with a number of complications. The longer a person requires invasive ventilation, the poorer their chances of surviving. The process of liberating patients from invasive ventilation is referred to as weaning. There is international evidence that switching from invasive to non-invasive ventilation (also called mask ventilation) as an intermediate step in the weaning process, may reduce the amount of time spent on the ventilator and the risk of complications. Find it on www.controlled-trials.com/ISRCTN15635197.

The results of this trial are to be released at the end of 2017.
Clinical trials

RECENTLY COMPLETED

VANISH
Vasopressin v Noradrenaline as Initial therapy for Septic Shock

Public benefit: Vasopressin and steroids are both naturally produced hormones that are released during times of severe illness. However, when blood pressure drops due to infection, these compensatory mechanisms often fail. Studies have shown that administering both of these drugs can help restore blood pressure and reduce the use of other adrenaline-type drugs. Recent studies found that vasopressin may be most effective if used earlier and for less severe drops in blood pressure and may have a specific role in preventing kidney failure. It may also be more effective if administered with steroids.

This study is aimed to help doctors to understand better how to treat this life-threatening condition. We know that the onset of kidney failure increases the risk of dying from severe infection and can sometimes lead to the requirement for life-long dialysis. By preventing and reducing kidney failure we would provide patients with better outcomes, improved survival rates and less need for dialysis, and also reduce the costs to the NHS of treating these patients.

Published in 2016 (see reading list number 15)

- Principal Investigator: Anthony Gordon, Imperial College, London, Director of Research ICF
- Start Date: January 2013
- Completion Date: May 2015
- Funding: NIHR Research for Patient Benefit Programme

In this study, 414 patients from 18 ICUs in the UK were randomized to receive vasopressin or noradrenaline for the duration of their septic shock. Once the maximum dose of the vasopressin or noradrenaline study drug was reached, either steroids or placebo were added in.

The aims of this trial were, 1) to test if vasopressin reduces renal dysfunction compared to noradrenaline when used as the initial vasopressor in the management of adult patients who have septic shock, and 2) to test if there is an interaction between vasopressin and steroids.
Clinical trials

RECENTLY COMPLETED

LeoPARDS
Levosimendan for the Prevention of Acute Organ Dysfunction in Sepsis

- Principal Investigator: Anthony Gordon, Imperial College, London, Director of Research ICF
- Start date: January 2014
- Funding: NIHR Efficacy and Mechanisms Evaluation Programme

A double-blind randomized controlled trial of 516 adult critical care patients within 24 hours of the onset of septic shock, from 34 ICUs in the UK. Levosimendan infusion for 24 hours versus a matching placebo infusion.

Public Benefit: Overwhelming infection, often called sepsis, is a major problem for the health community. According to a recent report in the UK at least 100,000 people each year suffer from sepsis, of these around 37,000 die.

This study is carefully designed to try and identify whether using a drug called levosimendan in patients with sepsis could produce important benefits by reducing multiple organ failure, which will then hopefully lead to better survival rates. Find it on www.controlled-trials.com/ISRCTN12776039.

ICON
The Intensive Care Outcome Network

- Principal Investigator: Dr Duncan Young, John Radcliffe Hospital, Oxford
- Funding: BUPA Foundation and Intensive Care Foundation

The Intensive Care Outcome Network study (ICON) is a long-term study of patients who have spent at least 24 hours in an ICU at one of the hospitals taking part in the study. Patients who agree to take part in the study from 17 units were asked to fill in a set of questionnaires, 3 months, 12 months and 2 years after being discharged from the ICU. The questionnaires ask about the patient’s health immediately before admission to ICU and their current health state.

Public benefit: The comprehensive assessment of quality of life and psychological health for up to 2 years after discharge will help to describe the impact of an intensive care stay on development of stress related disorders, anxiety and depression. This has never previously been studied in such detail.
Clinical trials

ABLE
Age of Blood Evaluation

- Principal Investigator: Professor Tim Walsh, University of Edinburgh
- Start date: July 2011
- Completion: December 2014
- Funding: NIHR Health Technology Assessment Programme, Grant preparation supported by Intensive Care Foundation Directors of Research

Double-blind multicentre randomized controlled clinical trial of 500 adult critically ill patients in 7 ICUs, who have had a request for their first red blood cell (RBC) unit transfusion during the first 7 days of their admission to the ICU, and are likely to require invasive and/or non-invasive mechanical ventilation exceeding 48 hours. Patients will be randomized to receive either standard issue RBCs (average 18 to 21 days storage) or RBCs stored 7 days or less. The primary outcome is a 90 day mortality study to run concurrently with Canadian arm.

Public benefit: 4 out of every 10 patients in critical care require blood transfusions. Although we use RBC sparingly with a target haemoglobin of usually <7.5, some 10% of the UK blood supply is used in intensive care. Currently RBCs are stored by blood banks for up to 35 days before transfusion. We know that changes occur during RBC storage that reduce the ability of RBCs to transport oxygen to tissues, and that harmful substances can accumulate in stored blood. A positive trial would confirm that prolonged storage has clinical consequences; a negative trial would reassure clinicians and blood banks regarding the safety of prolonged storage. The outcome of the completed study of 1211 patients in 64 centres across Canada and Europe demonstrates no significant difference between the groups. Hence “old” blood was not shown to be harmful and there is no need to change current blood bank practices. Publication: NEJM 2015;372:1410-1418.

DNACPR
Do Not Attempt Cardiopulmonary Resuscitation

- Principal Investigator: Professor Gavin Perkins, University of Warwick, Director of Research ICF
- Start date: June 2013
- Completion: March 2015
- Funding: NIHR Health Service Delivery Research Programme

This proposal seeks to summarise the research evidence around DNACPR decisions, in 48 acute hospital trusts, to identify the reasons why conflict and complaints arise and identify inconsistencies in implementation of national guidelines across NHS Acute Trusts. The approach includes a systematic search and detailed synthesis of published research, assessment of the extent of the problem through reviewing NHS complaint registries and enforcement notices, and measuring inconsistency in implementation of current guidelines across acute NHS Trusts.

Public benefit: The outcome shows a wide variation in practice around the translation of DNACPR national guidelines into local practice. A better understanding from this study of the reasons for this variation, and making the users aware of this variation will improve standardisation and adoption across the UK. It will also reduce some of the adverse patient and relative experiences which have been frequently described in the media.

Publications:
Clinical trials

**PUBLISHED IN 2015**

**PARAMEDIC**

Mechanical chest compression for out of hospital cardiac arrest

- Principal Investigator: Professor Gavin Perkins, University of Warwick, Director of Research ICF
- Start date: April 2010
- Completion: June 2013
- Funding: NIHR Heath Technology Assessment Grant

A pragmatic cluster randomized controlled trial in which 4471 patients in cardiac arrest in the community either received chest compression delivered by a mechanical (Lucas2) device (1652), or manual chest compressions (2819). The device was assigned in a ratio 1:2 ambulances within each of 4 Ambulance Trusts in the UK.

Public benefit: A range of mechanical devices to deliver chest compressions within a cardiac arrest have come into healthcare in the last 8 years. This study tested the efficiency of one of these commonly used devices against conventional manual CPR. This very large study failed to show any benefit of this mechanical device in reducing mortality. Therefore a strong recommendation is that although these devices do no significant harm, a cost benefit of the device cannot be supported. Publication: Perkins et al Lancet 2015(385)p947-955.

**PUBLISHED IN 2014**

**HARP2**

A multicentre double-blind clinical trial of 540 patients with an onset of ARDS within the previous 48 hours were commenced on daily simvastatin vs placebo in 40 UK ICUs. The outcome was that simvastatin therapy, although safe and associated with minimal adverse effects, did not improve clinical outcomes in patients with ARDS. Publication: Mcauley et al NEJM 2014;371:1695-1703.

**BALTI prevention**


**VACS**

A very useful study demonstrating that hydrocortisone reduced the use of vasopressin in a randomized controlled study of 61 patients with septic shock. Publication: Gordon et al Crit Care Med 2014;42(6):1325-1333.
Clinical trials

PUBLISHED IN 2013

HOPE

Intravenous haloperidol is the most commonly used therapy in critical care for the treatment of delirium. 142 critical care patients were randomized to receive intravenous haloperidol vs normal saline to treat acute onset of delirium. Haloperidol did not reduce the duration of delirium in these patients compared with placebo. This study has helped us to move onto other strategies which may prove more effective. Publication: Page et al The Lancet Respiratory Medicine 2013;1(7):515-523.

OSCAR

A multicentre study in 29 UK ICUs, 795 patients with ARDS were randomly assigned to high-frequency oscillation or “normal” ventilation. This study showed no significant benefit for either strategy. UK clinical practice has moved on significantly and patients are referred earlier for ECMO now that HFOV is not considered a suitable therapy. Publication: Young et al NEJM 2013;368:806-813.

TracMan

A study in 70 UK ICUs involving 909 ventilated patients clinically shown to warrant a tracheostomy to aid ongoing care were randomized to receive a tracheostomy by day 4 of ventilation, or delay tracheostomy to day 10 unless extubated before. There was no significant difference in mortality outcome between these groups. This was a particularly important study, the findings of which reversed a trend to perform early tracheostomy in UK critical care patients. This effectively reduces the risk to patients of unnecessary tracheostomy giving the clinician more confidence to persevere with conventional extubation strategies for up to 10 days. Publication: Young et al JAMA 2013;309:2121-2129.

PUBLISHED IN 2012

ICAN

The Intensive Care Aftercare Network was the first study in Europe to estimate the social, economic and quality of life impact of a period of critical illness on patients and their families. An exploration of social and economic outcome, and associated health-related quality of life after critical illness in general ICU survivors: a 12-month follow-up study. Because of its broad resonance, the study was picked up by the wider news media - such as Radio 5 Live, The Today Programme and BBC Breakfast. Publication: Griffiths J, et al Crit Care. 2013 May 28;17(3):R100.

BALTII 2

A multicentre trial examining the safety and effectiveness of intravenous salbutamol for ARDS. The study found that use of intravenous salbutamol was harmful. UK ARDS and international sepsis guidelines recommend this therapy is no longer used and clinicians should continue with best supportive care. Publication: Gao, Perkins, Gates et al. Lancet 2012, 379(9812):229-35.
Clinical trials

1. BREATHE: http://www.controlled-trials.com/ISRCTN15635197
3. REST: http://www.nets.nihr.ac.uk/projects/hta/1314302
4. PARAMEDIC 2: http://www.nets.nihr.ac.uk/projects/hta/12127126
5. LeoPARDS: http://www.controlled-trials.com/ISRCTN12776039
6. ABLE: NEJM 2015;372:1410-1418
12. OSCAR: Young et al NEJM 2013;368:806-813
Summary

WHY ICF?

This report highlights the significant contribution of the ICF to intensive care research both nationally and internationally. Through the success of the directors and deputy directors of research in initiating and completing large multicentre clinical trials, and coordinating peer reviews, the Foundation has gained both the respect and recognition of the UK critical care research community.

Over £30 million has been awarded from major grant awarding bodies to deliver the studies highlighted above, and through this we have developed a strong national and international profile.

We have previously held a very successful “Research Colloquium” bringing together researchers and funders to shape future themes for intensive care research. The research prioritisation exercise with the James Lind Alliance is an example of how the ICF has been key to inform themed calls. Our directors and deputy directors of research continue to coordinate and implement important intensive care research and we maintain strong relationships with the major UK grant awarding bodies (NIHR, MRC and Wellcome Trust) and the UKCCRG.

The landscape of UK intensive care research may have changed over the last few years but the ICF is committed to maintaining and developing its already significant contribution and values through collaborative working.

Dr Andrew Bentley
Chair of the Intensive Care Foundation

MORE INFORMATION?

All of the activities outlined in this report can be found in more detail on our website: www.ics.ac.uk/icf.
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