ECCRG RESEARCH

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Edinburgh Critical Care Research Group

ECCRG RESEARCH NEWS

Critical Care—Critical Research

'Learn from yesterday, live for today, hope for tomorrow' – Albert Einstein

For some participants and their loved ones, research is founded on trust and hope. They entrust their health and hope for others' future health to research when they're asked to take part in a study with us. It's often a highly emotionally charged decision during their time in the critical care environment. As we need human participation to progress medical science, ensuring our patients feel safe and empowered is crucial when we're at their bedside asking them to become part of research—this is in our team DNA.

Studies that take us away from ICU

By Mia Amamio
Peri-op Snr Research Nurse

In addition to critical care studies, we also support anaesthetic/peri-operative research. Currently we have anaesthetic/peri-operative studies that focus on patients undergoing surgery in different specialities at RIE, including Orthopaedic, Hepatobiliary, Upper GI, Vascular and Cardiothoracics. This means we now need two dedicated members of the team for these studies.

Peri-operative research involves patients before, during or after their surgery. The main difference between this patient group and critical care is the patient's ability to consent. Excluding emergency surgical procedures, patients mostly have capacity to consent to research studies for themselves. Patients are approached days before their surgery to ensure that they will have time to carefully consider their participation in the study. It is important that patients have the opportunity and ample time to read the Patient Information Sheet (PIS) so that we receive **informed consent** from them.

Informed Consent is not just a piece of paper they sign, but more importantly a whole process, from our first contact with them until the day their participation ends. The consent must be signed by the patient and a trained delegated member of the research team before any intervention or observation begins. Often this means that we meet with the potential research participant early in the morning before surgery begins. Normally we meet them on the ward if the patient has been admitted, or at the Day Surgery Unit. We follow the patients from the day of surgery until after hospital discharge to follow-up. Depending on the study protocol, this could be 30-180 days after their surgery!

Inside this issue:

The long and SHORTER of it

One of the trials we have just began recruiting patients into is the 'Shorter Trial' - *'A randomised controlled trial of SHORT duration antibiotic thERapy for critically ill patients with sepsis.'*

The latest study to be added to our catalogue is looking at patients with sepsis in ICU and comparing different antibiotic durations. The lead Investigator based here in Edinburgh is Dr Kallirroi Kefala. Here are some stats showing why it is so important we continue research into the treatment of sepsis:

In the UK there are:

*** 5 sepsis deaths per hour**

*** 4,000+ deaths each year in Scotland**

*** 50,000 sepsis deaths each year**

*** 246,000 people affected by sepsis each year**

Sepsis Research Annual Review 2022/2023

Often, when a sepsis patient is being supported in ICU, there is a risk of antibiotic overuse which can lead to 'superbugs'. The study is to test the duration and efficacy of short duration antibiotic treatment (5 days) –v– usual antibiotic treatment (7+ days) to reduce antibiotic overuse and associated harms, such as Antimicrobial resistance (AMR). The patients will be selected at random into either usual or short duration care. The primary outcome measure is to determine if short duration antibiotic therapy is better/worse/the same as standard duration. As they are in ICU, they will receive any additional care should it be required. Understandably there will be secondary outcomes including, length of stay in critical care and the hospital and suspected clinically relevant antibiotic-associated adverse events.

We may be able to reduce the time patients are prescribed antibiotics and prevent any more antibiotic resistant bacteria from affecting our patients

With the patient's permission, we will follow up with them after one month and again after three months. This will determine how their recovery has been and inform our data.

Find out more about the Shorter Trial by visiting www.shortertrial.com

SHORTER Rx TRIAL

Follow us on X - @EdCriticalCare

Q&A with our very own Dr Tom Craven

Our Principal Investigators head up each study or trial and are committed to reaching as many patients as possible to offer them the opportunity to be part of research. They work closely with our team every day to achieve this goal and we'd like to know more about them. We asked Dr Tom Craven, Consultant in Critical Care, ITU if he'd take part in our Consultant Q&A Session—**and he said yes!...**

We can't thank you enough for allowing us a glimpse into your world Dr Craven!

What is your role in ICU and research?

I am a consultant in critical care. When not working clinically I work for National Research Scotland to help manage the portfolio of research studies being offered to our patients and their relatives. We deliver a mixture of interventional and observational studies, usually in the range of about 15-20 studies at any one time. I am also involved in exciting research being run by the University of Edinburgh, such as developing a photon based alternative to x-ray for in-body device location and a novel method for diagnosing ventilator-associated pneumonia.

What's been your biggest challenge in research?

I've always found it hard to balance a career in clinical medicine and clinical research. I think the problem is getting harder because of the volume of knowledge required for each, plus the scrutiny and bureaucracy that accompany both. I'm lucky to work with many amazing colleagues who manage to do this so successfully.

Did you know you wanted to be involved in research early in your career?

No, I wanted to be an orthopaedic surgeon when I went to medical school! Early on I realised critical care is where the interesting stuff happens and being involved in research just makes it more interesting.

What's the best piece of advice you have ever been given?

"When you say you will do a thing, you must do exactly that thing", Arcángel de Jesús, main bad guy, Miami Vice (2006)

If you had unlimited funding, what research would you like to do?

Developing a treatment to prevent, or even reverse, hypoxic brain injury. Alternatively, an instant hangover cure would make lots of money!

Which person has made the biggest impact on your life?

During a rugby match I tried to tackle the biggest player from a visiting Pacific Islanders team. His nickname was 'Bus'…

How do you envisage the future of research?

I hope there will be more platform studies. Platform studies are long running studies of a similar group of patients where promising new treatments are tested until we know whether they work or not. Treatments can be added and dropped at any time and you only need one control group. It's way more efficient at getting to an answer about a potential treatment quickly.

And finally… If you could invite anyone (past and present) to dinner, who would that be and why?

My family and friends are the only people who consistently 'bring the fun' at dinner time.

What's happening in the team?

Let's give a warm snuggly welcome to...

Baby Lachlan Macdonald

Our wonderful Lead Research Nurse, Lucy Macdonald, can now add 'mum' to her impressive CV.

Lachlan arrived safely at midday on 23rd July 2024 (just in time for lunch, a very important part of the day in research...). I can see he's going to fit into the team very nicely.

We also welcomed Chynara into the team

Before Chynara Atabekova joined us she was (and still is) an ICU nurse, here's what she said about both roles:

"Working with patients every day made me curious about the 'why' behind the treatments and outcomes I saw. The curiosity led me to research, where I get to dig deeper into finding ways to improve care. Splitting my time between the ICU and research keeps things fresh and helps me stay grounded in what really matters—better patient outcomes."

We're very happy to have you on board Chynara!

And we'd like you to meet Louise too!

"I'm currently on secondment to the Research team, I am also a Staff Nurse in RIE ICU (116/118). I'm really enjoying the research role as it's an opportunity to contribute to innovations in patient care and to learn new skills. I also value the opportunity to get to know patients and their families in a different way and follow their progress after discharge from critical care." says Louise

… and we're enjoying getting to know you Louise, welcome aboard!

Join us in wishing both Louise and Chynara well in their new roles and welcoming them into the research community.

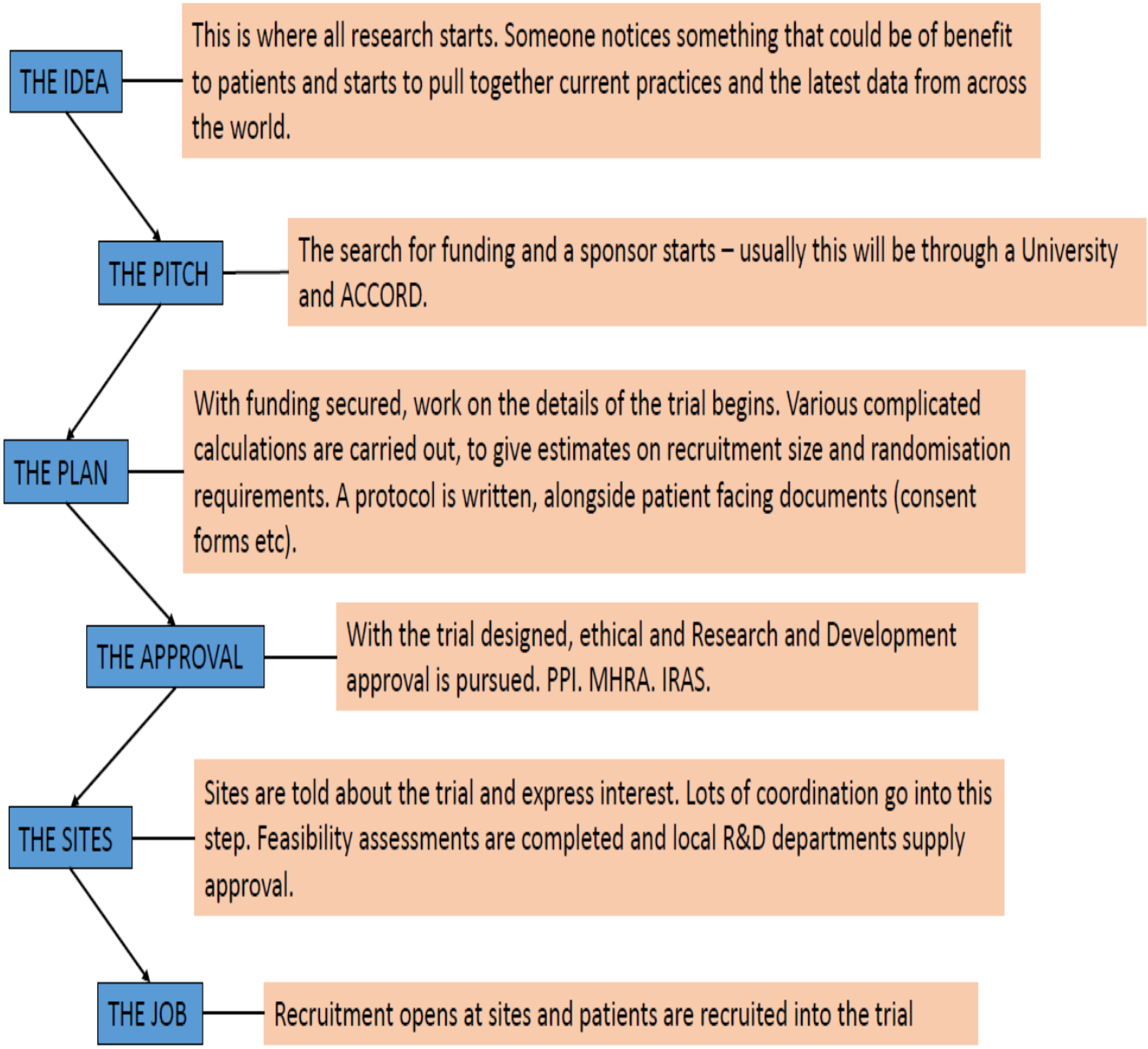
Find out what Dr Tom Craven had to say in his Q&A session with us on page 3

From idea to implementation

By Scott Simpson
Senior Research Nurse

Every wondered how a study or trial comes into being?

Scott Simpson, Senior Research Nurse has pulled together an infographic which represents the process from the beginning when someone, or a team, have an idea to improve care to asking patients if they'd like to be part of research.



Want to know more?

Ask one of the research team or one of the Study Investigators

It's Quiz o'clock—test your research knowledge—match the words to the meanings

Send it in to us to be in with a chance of WINNING A PRIZE!!!

RANDOMISED	A type of study in which both participants AND their doctors are aware which treatment is being given.
BLINDED/DOUBLE-BLINDED	A small scale study that is used to prove the viability of an intervention.
PLACEBO-CONTROLLED	One of the potential randomisation outcomes that participants can be assigned to.
OPEN-LABEL	There are two or more potential allocations. One gets active treatment, the other gets standard practice
PILOT PHASE	A type of study in which participants, or participants AND their doctors do not know which treatment is being given.
ARM	The establishment of an entry level into a trial, designed to compare multiple interventions which can be added to or removed as data becomes available.
EQUIPOISE	Professionals involved in the care of research participants do not know which intervention is more effective, preventing any bias in trial participation.
PLATFORM	Allocating participants to different groups in a research study, without taking any similarities or differences between them into account.

Acronym Buster!

AE - Adverse Event

API—Associate Principal Investigator

CI - Chief Investigator

CRF—Clinical Research Facility

Or Case Report Form

GCP— Good Clinical Practice

PerLR—Personal Legal Representative

PI—Principal Investigator

PIS—Patient Information Sheet

PPI—Patient and Public Involvement

ProLR—Professional Legal Representative

REC—Research Ethics committee

SAE - Serious Adverse Event

SUSAR—Suspected Unexpected Serious Adverse Reaction

Need to know anything else?

Drop us an email!

More Studies For You To Peruse!

Upcoming Studies:

SHORTER Trial:
A randomized controlled trial of SHORT duration antibiotic therapy for critically ill patients with sepsis.

Opened—September 2024

PANGEA Trial:
A double-blind placebo-controlled study with an open-label pilot phase, assessing the efficacy, tolerability and safety of EU-C-001 in patients with moderate to severe traumatic brain injury.

Open date to be confirmed

Get In Touch!

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