



July 2020

**ED CLINICAL RESEARCH UNIT
END OF YEAR SUMMARY
REPORT 2019/20**

Author: Heather Jarman
On behalf of the ED Clinical Research Unit
[@stgedresearch](#)

Report at a glance

Aims of the ED Clinical Research Unit:

To integrate evidence-based practice and research into the work of the ED

To support individual researchers and aspiring researchers from research idea to implementation

To coordinate ED research activity, and to facilitate and optimise research capacity

To raise awareness of research amongst clinical staff

2019 / 2020 saw us recruit 2518 participants in to research studies - more than any other ED in the UK

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Our academic lead, [Professor Heather Jarman](#), was appointed as a NIHR Senior Nurse Research Leader

[see page 2](#)

We funded two clinical staff members to undertake a PG Cert in Research Methods to help them on their path to a research career

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We received more than [£250,000 of external funding](#) for research nurses to recruit and support patients in studies

2020 / 2021 in numbers



More than 3000 patients screened to take part in studies



18 studies open to recruitment



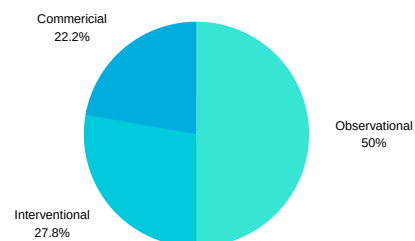
£250,000 funding for research delivery staffing

10

publications from ED staff



5 full time research nurse posts

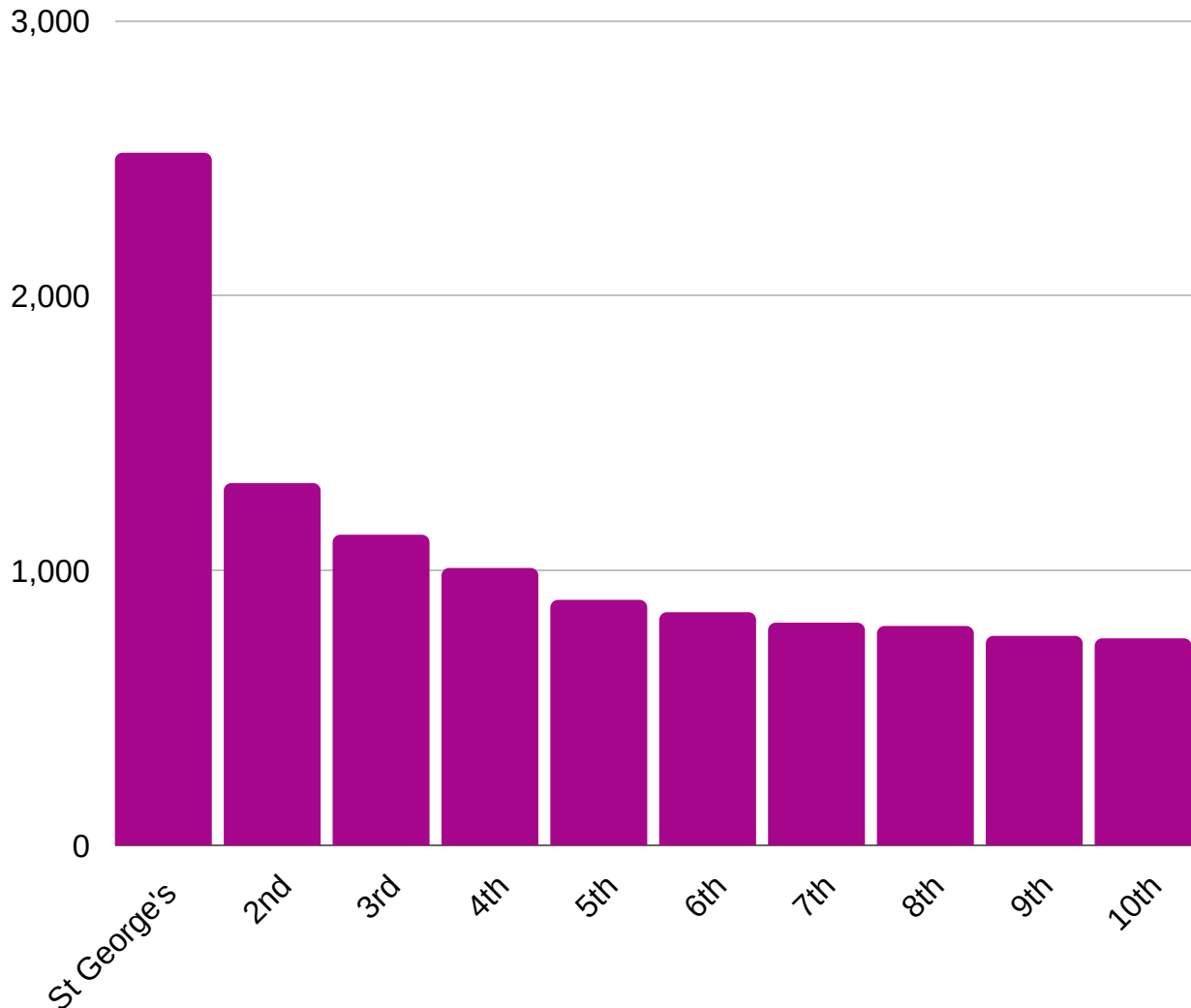


22% of studies were commercial

Report highlights

Research is vital to improve treatments and the way care is delivered in the Emergency Department. Our vision is to embed research as a core activity in the ED, and that every patient and member of staff in the ED should have the opportunity to be part of a research study if they wish. Studies are conducted to a set of quality, safety and monitoring standards specific to research.

We have continued to build on our strong reputation for research delivery (recruitment to studies) in 2019 / 20, and for the second year in a row recruited more participants to studies to any other ED in the UK with 2,524 participants.



Achievements

The achievements of our research staff were recognised at a national level.

- Our academic lead, Professor Heather Jarman, was appointed as an NIHR Senior Nurse Research Leader to increase research engagement and support clinical academic careers for nurses working in emergency care
- The research delivery team recruited the '1st patient anywhere' into the The TRAUMA INtramuscular Tranexamic Acid Clinical Trial-Trauma-INTACT



Achievements against our 2019 / 2020 objectives

We set some ambitious objectives for the research unit to achieve in 2019/20 and were successful in a number of key areas. A summary is below:

Objective 1: to increase research capability

Identify and support clinical staff wishing to pursue clinical academic careers

- ✓ We have worked collaboratively with the Joint Faculty, Kingston University and St George's to prepare 2 student application for a competitive NIHR pre-doctoral clinical academic fellowship award (PCAF)

Fund post-graduate research training (PGCert, MRes) for clinical staff

- ✓ We have funded two clinical staff members to undertake a PGCert in Research Methods to help them on their path to a research career
- ✓ Dr Phil Moss, Emergency Medicine Consultant is undertaking a Masters in Research (MRes) at Southampton University, supported by the research unit

Other achievements:

- ✓ Developed 3 new ED Principal Investigators, including our trainee principal investigators from our EM trainee cohorts
- ✓ Increased the number of academic publications from ED staff

“I was fortunate for the ED Clinical Research Unit to kindly support and fund my completion of a Post-Graduate Certificate in Healthcare Research Methods and Skills. This six month course has provided me with practical skills and academic knowledge, including critically appraising literature, interpreting statistics and research proposal writing. Completing the PGCert has opened opportunities to apply for research grants, a fellowship, further clinical research academic courses and has given me the confidence to make research an integral part of my clinical practice.”



Vicky Mummery, Emergency Practitioner
PGCert in Research Methods student

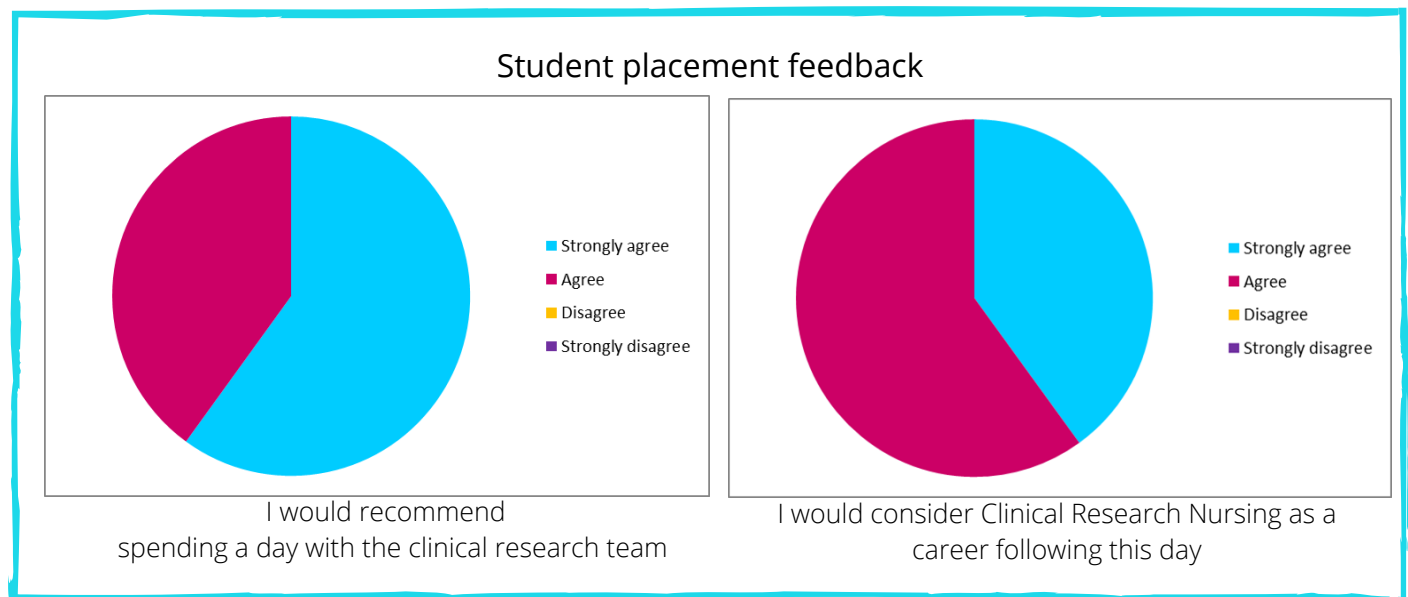
Objective 2: to build a research culture

To hold research awareness events and training for all staff groups

- ✓ Research introduction sessions, including the role of the research unit, are included on induction programmes for medical and nursing staff
- ✓ We have introduced a journal club, the 'So What? Seminar' open to all staff members to review current evidence and develop critical appraisal skills
- ✓ We have continued to develop our website to promote the work of the research unit <https://www.stgeorges.nhs.uk/service/emergency-department/research/>

To expand student placement opportunities with the research team

- ✓ Nursing students on placement in the ED all spend a shift working with the research team



Objective 3: to build research capacity

- ✓ We have expanded the research delivery team to 6.5 full-time equivalent staff to increase recruitment in to studies.

To review the responsibilities and structure of the research team to maximise effectiveness of the roles

- ✓ We appointed a Clinical Research Assistant and Clinical Research Practitioner to provide research set-up and governance support to the research unit
- ✓ We have appointed an emergency medicine consultant research lead to support new Principal Investigators

Collaborative working

It is important, in order to grow and have the greatest impact for our patients, that the ED Clinical Research Unit has strong links and partnerships with other research active departments in the Trust, academic partners and external research organisations.



- Our emergency medicine trainees have led on research collaborations with the RCEM Trauma Emergency Research Network (TERN), including their first projects on workplace burnout
- We have continued our partnership with **SGUL** through the submission of grant applications and publications jointly with the Population Health Research Institute and the joint faculty Emergency, Cardiovascular and Critical Care Research Group
- Professor Heather Jarman has continued in her role as **Clinical Research Network** specialty lead for Trauma and Emergency Care studies across all Trusts in South London
- We maintain strong links and involvement in the Paediatric Emergency Research in the UK and Ireland (**PERUKI**) network, collaborating on a wide range of studies and publications



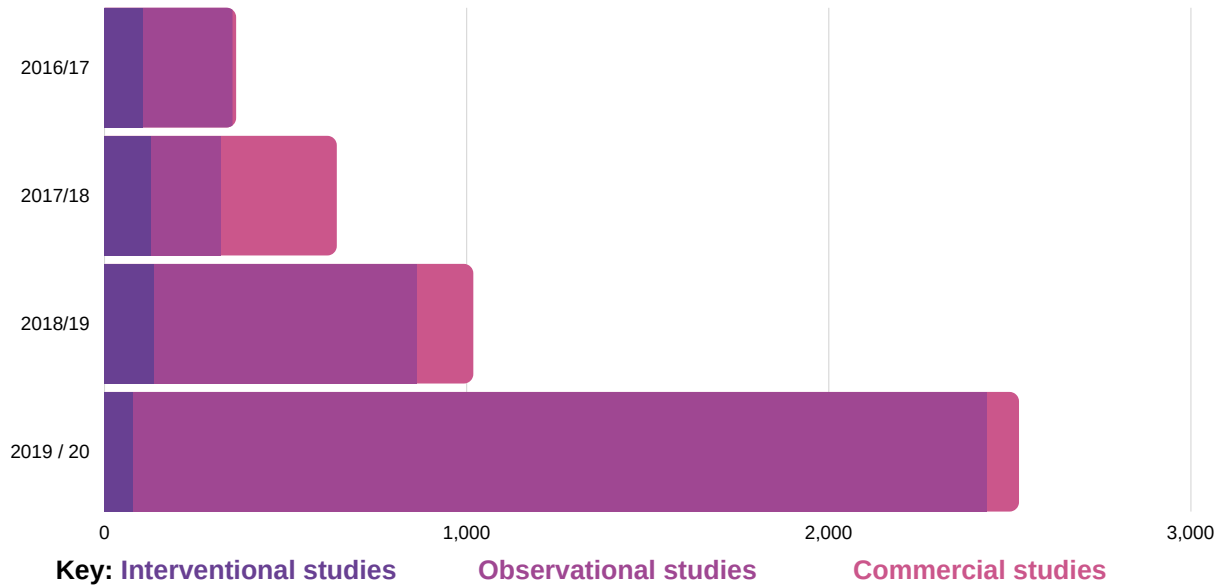
Dr Mark McInerey
Emergency Medicine trainee

“It has been really quite exciting working in an emergency department where research is undertaken with such enthusiasm and dedication. As an emergency medicine doctor, I often have wanted to be more involved in such activities, but felt like I have never had time or opportunity in my career so far. St George's ED, however, has been a refreshing change in this respect. It has been fascinating to see studies in action, be that during cardiac arrest, major trauma or with children with wrist injuries. I have learnt more about research methods and trials in my time at St George's Hospital more than any other post, and have also enjoyed participating in the journal club. Research is an integral part of the department, and all nurses and doctors are supported to be involved. I feel excited about my future career knowing that research opportunities are accessible to doctors working in emergency medicine, and look forward to being further involved.”

Research delivery

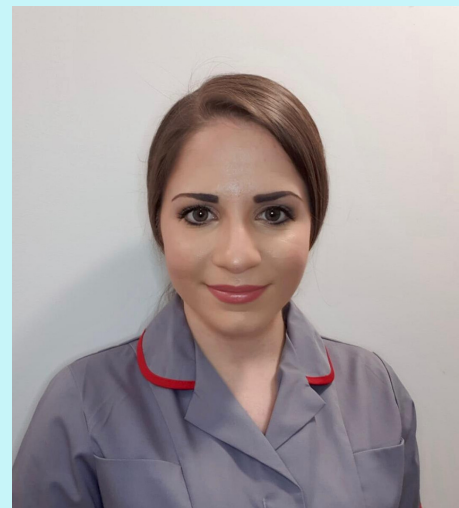
Recruitment to research studies

We recruited patients and staff in to 8 research studies in 2019/20 covering conditions including major haemorrhage, frailty in trauma, carbon monoxide exposure, fractures in children and recreational drug use



,A total of **2,524** people were recruited into studies run by the clinical research unit. This was an increase of 328 on the previous year. This is **1,507** more participants than the previous year.

“I started working in the ED Clinical Research Unit in April 2019 as the EDCO study coordinator and research practitioner. Part of my role has involved coordinating the biggest recruiting study sponsored by St George's across 4 sites. The other part of my role has involved working closely with the research nurses to recruit patients across ED. I have always worked in research within different specialities, however this role has taught me the importance of developing close working relationships with the research team as well as the clinical team. This has been key to the unit and to ensuring that patient's interests are always put first by identifying them for research studies early. It is truly rewarding to see that research is at the heart of ED and embedded within the clinical pathway for patients.”



Desi Baramova
Clinical Research Practitioner

Publications

In 2019/20, ED staff were published 7 papers in academic journals, as both authors and collaborators and had 3 poster abstract presentations published. This is an increase on the previous year.

Body R, Twerenbold R, Austin C, Boeddinghaus J, Almashali M, Nestelberger T, Morris N, Badertscher P, McDowell G, Wildi K, Moss P, Jarman H et al. Diagnostic accuracy of a high-sensitivity cardiac troponin assay with a single serum test in the emergency department. *Clinical Chemistry* 2019; 65(8): 1006-1014
<https://doi.org/10.1373/clinchem.2018.294272>

Body R, Almashali M, Morris N, Moss P, Jarman H et al. Diagnostic accuracy of the T-MACS decision aid with a contemporary point of care troponin assay. *Heart* 2019; 105(10): 768-774 <https://doi:10.1136/heartjnl-2018-313825>

Curry N, Foley C, Wong H, Mora A, Curnow E, Zarankaite A, Hodge R, Hopkins V, Deary A, Ray J, Moss P, Reed M, Kellett S, Davenport R, Stanworth S. The application of a haemorrhage assessment tool in evaluating control of bleeding in a pilot trauma haemorrhage trial. *Tranfusion Med* 2019, 29(6):454-59. <https://doi: 10.1111/tme.12644>

Halter M, Kulnik S, Hilton A, Baron A, Garner S, Jarman H. Lay understanding of head injury and when an ambulance might be needed: a mixed methods study. *Emerg Med Jour* 2019, 36(10) e11; <https://10.1136/emered-2019-999abs> [poster]

Hudson A, Gavrilovski M. Adequacy of vascular access in pre-hospital major haemorrhage. London Trauma Conference 2019. *Scand J Trauma Resusc Emerg Med* 2020, (28)13 <https://doi.org/10.1186/s13049-020-0711-6> [poster]

Jones G, Herrera A, Wang C, Moss P, Blazejovaa L. Rapid assessment and discharge, optimizing emergency department bed space allocation: an interrupted time-series analysis. *Eur J Emerg Med* 2020, 27:64-68 <https://doi:10.1097/MEJ.0000000000000614>

Kulnik ST, Halter M, Jarman H et al. Confidence and willingness among laypersons in the UK to act in a head injury situation: a qualitative focus group study. *BMJ Open* 2019, 9:e033531. <https://doi:10.1136/bmjopen-2019-033531>

Leitch P, Hudson A. Incidence of Hyperoxia in HEMS Trauma Patients. London Trauma Conference 2019. *Scand J Trauma Resusc Emerg Med* 2020, (28)13 <https://doi.org/10.1186/s13049-020-0711-6> [poster]

Saxena G, Mahdi A. Rhabdomyolysis as an initial presentation of systemic lupus erythematosus: a case report. *Int J Emerg Med* 2019, 12(33)
<https://doi.org/10.1186/s12245-019-0251-x>

Sivayoham N, Blake L, Tharimooopantavida S, Chughtai S, Hussain A, Cecconi M, Rhodes A. The REDS score: a new scoring system to risk-stratify emergency department suspected sepsis: a derivation and validation study. *BMJ Open* 2019, 9:e030922.
<https://doi.org/10.1136/bmjopen-2019-030922>

Publications as collaborators

The CRASH-3 Intracranial Bleeding Mechanistic Study Collaborators. Tranexamic acid in traumatic brain injury: an explanatory study nested within the CRASH-3 trial. *Eur J Trauma & Emerg Surg* 2020. <http://doi.org/10.1007/s00068-020-01316-1>

The CRASH-3 trial collaborators. Effects of tranexamic acid on death, disability, vascular occlusive events and other morbidities in patients with acute traumatic brain injury (CRASH-3): a randomised, placebo-controlled trial. *Lancet* 2019, 394:1713-23 [https://doi.org/10.1016/S0140-6736\(19\)32233-0](https://doi.org/10.1016/S0140-6736(19)32233-0)

Paediatric Emergency Research in the United Kingdom & Ireland (PERUKI) collaborative. Levetiracetam versus phenytoin for second-line treatment of paediatric convulsive status epilepticus (EcLiPSE): a multicentre, open-label, randomised trial. *Lancet* 2019
[https://doi.org/10.1016/S0140-6736\(19\)30724-X](https://doi.org/10.1016/S0140-6736(19)30724-X)

Plans for 2020 / 2021

We know there is more to we can do to raise the profile of research in the ED and to increase access to research opportunities for staff. In 2020/21 we will continue to recruit into research studies as part of our 'core business' but we need to continue to grow and nurture academic staff in ED.

Our main objectives, aligned to those of the Trust Research Strategy, for 2020/21 are:

We will treat research as 'core' business in the ED

- At all levels of the Directorate research will be reflected in planning, objective setting and governance arrangements
- To ensure that the priorities of the academic unit are informed by clinical practice challenges and questions
- To ensure that all service evaluation and research projects, including those undertaken as non-research post-graduate pathways, are conducted under a clear governance framework, including dissemination of findings
- To develop ways of making the evidence-base and research accessible to all members of staff in the ED

We will invest in our staff to support their research ambitions

- To prepare an application for an NIHR Academic Clinical Fellow to commence in September 2021
- To appoint to a 'researcher in residence' / post-doctoral role to support funding applications and provide mentorship to junior researchers
- To support medical and nursing/AHP staff to undertaken approved NIHR Clinical Academic Career pathways
- To support non-academic staff to undertake researcher training (PGCert / MRES)
- To provide support, and short-term funding if required, to staff to generate pilot data, or write formal funding applications

We will work with St George's, University of London and academic partners

- To increase the number of honorary contracts / joint clinical academic appointments within SGUL to support research
- To work towards integration into the Institute of Clinical and Translational Research

Acknowledgements

We are grateful to all those in the ED who continue to support the research team, including past and present research nurses. Most of all we thank everyone who participates in our research studies, sometimes in spite of the uncertainty of the benefit, so that our practice can continue to based on the best available evidence.

