



RESEARCH & DEVELOPMENT ANNUAL REPORT

2022 to 2023

AUTHOR: Theresa Foster, Head of Research

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1.0 Introduction

The East of England Ambulance Service NHS Trust (EEAST) delivers a wide range of high-quality sponsored and hosted research, with engaged staff throughout the Trust. Research is considered core business for the NHS, bringing benefits to patients, clinicians, and the NHS Organisation (Box 1). The NHS Long Term Plan launched in January 2019² highlights the need for “Research and innovation to drive future outcomes improvement” and states that “Patients benefit enormously from research and innovation, with breakthroughs enabling prevention of ill-health, earlier diagnosis, more effective treatments, better outcomes and faster recovery.” Indeed, the Care Quality Commission incorporated clinical research enquiries into its Well-Led Framework³.

The EEAST Research Support Service (RSS) collaborates with academic and other health and social care partners regionally and nationally to develop, support, and promote research as a core part of service provision. This reporting period covered the restart of paused research activity due to the COVID-19 pandemic. RSS has worked hard to ensure that EEAST patients and staff continued to have every opportunity to participate safely in relevant pre-hospital ambulance research.

Box 1 – Why do we do research?

Benefits of research

For our patients:

- Improved health outcomes for all patients not just those participating in research
- Most patients want to take part in clinical research for new knowledge
- Taking part in clinical trials results in improved clinical care

For the NHS:

- Research findings result in better treatment for patients
- Improves use of scarce NHS resources
- Enables fair use of resources and reduces inequalities

For healthcare clinicians:

- Involvement in research increases clinical skills
- Helps clinicians to understand evidence and use this in their clinical practice
- Improves job satisfaction
- Encourages team working

For healthcare organisations:

- Involvement in research helps attract more forward-looking staff
- Increases the number of clinicians with expertise in research
- Drives the development of research relevant to the population served

This report presents an overview of clinical research activity and achievements within EEAST during the timeframe April 2022 to March 2023. Such continued participation in high quality clinical research activity has demonstrated EEAST's on-going commitment to improving the care it offers, in addition to contributing to wider health improvement. Research

findings are being used to inform clinical and other service developments, where such evidence is available.

2.0 Research Policy, Strategy, & Capability

A copy of the current approved Research and Development (R&D) Policy v6.0 can be obtained from the Trust website within the Clinical Quality / RSS folder, [Research policy and capability](#). The aim of this Policy is to advise the conduct of research activity within EEAST to ensure compliance with good research practice as detailed in the UK Policy Framework for Health and Social Care Research⁴. The Policy is reviewed and updated every two years.

The Research and Innovation Enabling Strategy 2020-2024 principle aim was to provide a credible and ambitious direction to the EEAST research function. A copy is available within the Clinical Quality / RSS folder, [Research policy and capability](#). It should be noted that this Strategy is due to be reviewed during 2023-2024.

EEAST R&D management arrangements, organisational study capabilities, and R&D interests are available via the R&D Operational Capability Statement (RDOCS) on the Trust website within the Clinical Quality / RSS folder, [Research policy and capability](#). This document signposts interested parties to the best person to contact within EEAST for differing research enquiries, for example capacity and capability assessments, research passports, contracts, and so forth. It is reviewed and updated every two years.

In line with legislation, Trust Performance in Initiating and Delivering (PID) reports (about initiating Clinical Trials and delivering Commercial Contract Clinical Trials), are published internally and externally on the Trust website within the Clinical Quality / RSS folder, [Research policy and capability](#). Publication is monitored by the National Institute for Health Research (NIHR) Clinical Trials Performance Team and reported nationally⁵. Such research activity continues to form a small proportion of the clinical research that EEAST undertakes, therefore nil returns are common. National monitoring was paused at the end of quarter 2 in the reporting timeframe.

3.0 Research Networking Activity

Clinical Research Networks (CRNs) are responsible for allocating NIHR monies to support delivery of NIHR Portfolio-adopted research activity. EEAST maintained Partner Organisation status with CRN-East of England, and regularly attended associated meetings throughout the reporting period. In addition, CRN-North Thames continued their financial support which has enabled the delivery of research in their area of the Trust region.



The National Ambulance Research Steering Group (NARSG) continued to meet bi-monthly, and EEAST was actively involved and represented NARSG at National Trauma & Emergency Care Research meetings. Northern Ireland ambulance service has joined NARSG meaning all UK ambulance services are now represented. The group continues to share good practice in research, as well as encouraging collaboration with external partners including academia, commercial organisations and other health and social care providers to inform research funding bids. NARSG is accountable to, and a sub-group of, the Association of Ambulance Chief Executives.

RSS team members also attended a variety of academic and research network groups, from which was sought guidance, support and linkages to researchers and other resources. Examples of such activity included CRN East of England Stroke Specialty group, regional Research Managers meetings, College of Paramedics events, and Council for Allied Health Professions Research East Anglia group.

4.0 Health Research Authority Approval

Health Research Authority (HRA) Approval provides a single governance approval for all NHS research, consisting of assessments by HRA staff alongside the independent Research Ethics Committee (REC) opinion where required. NHS Trusts assess their capacity and capability to deliver HRA Approved studies, before giving permission to start if feasible. Up to date HRA guidance is available via <https://www.hra.nhs.uk/>.

RSS team members have been trained to undertake the capacity and capability assessments, ensuring all arrangements are in place to successfully deliver a study via:

- Review of costings / research contracts / agreements (as necessary)
- Liaison with required support department(s)
- Advice regarding issuing of honorary research contracts or letters of access
- Provision of guidance on HRA requirements and applications
- Review of impact of amendments to existing studies

5.0 Research Project Activity

This reporting period has continued to be busy, notably with more large-scale studies. Five studies which commenced in previous reporting periods remained active during 2022-23.

In addition, RSS received a total of 8 new research study proposals requiring capacity and capability assessments during 2022-23, 7 of which were given approval to proceed, with 1 pending final feasibility checks. All were NIHR Portfolio projects, even the 3 at MSc or PhD student-level of research.

A summary of research projects with delivery activity in the reporting period is presented in Table 1 below. Further details can be obtained from the Trust website within the Clinical Quality / RSS folder, or from RSS directly.

Table 1. Research projects which had delivery activity in reporting period 2022 to 2023

Brief Project Title	Sponsor	Status & Notes
Impact of menopause on female ambulance staff – CESSATION (NIHR Portfolio)	East of England Ambulance Service	On-going from previous reporting period. Completed March 2023.
Ketone Meter use feasibility study – KARMA-2 (NIHR Portfolio)	East of England Ambulance Service	On-going from previous reporting period. Completed March 2023.

Brief Project Title	Sponsor	Status & Notes
Advanced mobile stroke unit evaluation	East of England Ambulance Service	On-going from previous reporting period.
IV versus IO administration of cardiac arrest medications - PARAMEDIC-3 (NIHR Portfolio)	Warwick University	On-going. Recruitment now underway and study undergoing expansion.
NHS staff retention in a post-covid-19 world (NIHR Portfolio)	University of Bath	On-going from previous reporting period.
Prehospital feedback diary study (NIHR Portfolio)	University of Leeds	PhD research. Recruitment completed.
SEE-IT Good Sam app for clinical triage study (NIHR Portfolio)	South East Coast Ambulance Service	Recruitment completed.
Triage of patients with traumatic brain injury (NIHR Portfolio)	University of Manchester	Recruitment completed.
Paramedic decisions during out of hospital cardiac arrests - REACT-2 (NIHR Portfolio)	Northumbria University	Recruitment completed.
National ambulance fatigue management system - CATNAPS (NIHR Portfolio)	University of East Anglia	Recruitment underway.
Pre-hospital FICB for suspected fractured neck of femur - RAPID-2 (NIHR Portfolio)	Swansea University	Feasible and in training / set-up phase prior to recruitment start.
TXA administration for mild head injury patients - CRASH-4 (NIHR Portfolio)	London School of Hygiene & Tropical Medicine	EEAST selected as site.
Spinal immobilisation study (NIHR Portfolio)	Imperial College London	Feasibility underway

6.0 Recruitment of Research Subjects

During 2022-23 EEAST recruited 654 participants (patients and Trust staff) as a site into high quality research studies approved by a Research Ethics Committee, a large increase on the previous year. Studies such as

PARAMEDIC-3 and RAPID-2, which had been affected by the pandemic, were finally able to open during this reporting timeframe.

It should be noted that where EEAST acts as a Participant Identification Centre or hosts smaller-scale student level projects being undertaken by Trust staff and external parties, the recruitment to such activity is not routinely captured.

7.0 Impact of Research on Practice

Research impact is the effect / change / contribution / benefit of research to patients, the public, society, or the economy. For the NIHR, research impact is therefore how knowledge generated from research benefits peoples' health and wellbeing, how health and care services are delivered, and how these can bring about benefits to our society and economy. Examples of types of research impact include:

- (a) an increase or decrease in something (e.g. speed of intervention uptake)
- (b) the cost of a treatment decreasing
- (c) an increase in the number of follow-up visits
- (d) starting or stopping something (such as the development of a new service)
- (e) stopping a treatment option or policy
- (f) changing a way of working
- (g) changing the way people think or behave
- (h) making no change due to equipoise of treatment/service.

Findings from the KARMA2 study have informed an update to Joint Royal Colleges Ambulance Liaison Committee (JRCALC) diabetes care guidelines which are recommending the use of blood ketone meters by ambulance staff across the UK.

The CESSATION Final Report was circulated to all UK ambulance Trusts, and findings were shared with the EEAST Trust Board and via meetings of the Ambulance Association of Chief Executives. EEAST has so far received feedback from South Central Ambulance Service that they had developed a dedicated 'Menopause Policy' for consultation, and Yorkshire Ambulance

Service had commenced a menopause support group because of the research.

Findings from the VITALS project revealed that almost half of EEAST staff tested for vitamin D status were insufficient. A successful bid to the College of Paramedics small grant scheme has been achieved to explore factors that may impact vitamin D status further. This research (EVOLVED) will commence during 2023-24.

RSS share the findings from high-quality research at Clinical Best Practice Group (CBPG) meetings, to inform recommendations for decisions about future direction of clinical practice.

8.0 Financial Support

Financial support for the RSS function was obtained from contracted income related to delivery of some of the research studies during the reporting period. Over and above such income, the Trust received funding from the CRNs amounting to approximately £156k, an increased level of support from previous years.

CRN funds maintained the full-time Advanced Research Paramedic role, as well as 2 full-time Research Paramedics, and part of the Head of Research role within RSS, to facilitate delivery and development of NIHR Portfolio research activities. CRN East of England support was also utilised for Local Project Management System (EDGE) training, NHS Number capturing for research participants, and capacity building activities within the Trust. Contracted income supported a further 2 full-time Research Paramedics on secondments.

9.0 Research Capacity

During 2022-23 the substantive RSS function consisted of 3.0 Whole Time Equivalent (WTE) staff, supported during the year by seconded Research Paramedic roles on fixed-term contracts for delivery of the KARMA-2, PARAMEDIC-3 and RAPID-2 studies.

Research awareness and knowledge-raising activity throughout the Trust involved dissemination of research findings on the Trust website, discussion at CBPG, Medicine Management and Clinical Directorate meetings, as well as regular articles in Trust publications.

Wider dissemination of the findings from research activities has been achieved through oral and poster presentations at external peer-reviewed meetings and conferences, as well as publications in peer-reviewed journals, copies of which can be obtained from RSS.

Trust staff undertaking graduate or post-graduate studies with a research element, whether financially supported by the Trust or not, continued to be encouraged to contact RSS for mentoring and support alongside their Higher Education Institution supervision.

It is anticipated that all student paramedics within the Trust have undertaken an introduction to research training module. Similarly, all clinicians involved in research studies are expected to successfully obtain an appropriate Good Clinical Practice certificate.

In collaboration with CRN East of England, the Fundamentals of Clinical Research Delivery in the Ambulance Setting online learning module received NIHR accreditation and was made available to all UK ambulance services via NIHR Learn ([Learning and support | NIHR](#)).

10.0 Participant in Research Experience Survey

The national NIHR Participant in Research Experience Survey (PRES; [Participant in Research Experience Survey \(PRES\) | NIHR](#)) is promoted by the CRNs as a feedback mechanism to Trusts regarding their research delivery. PRES activity also became a CRN

High Level Objective during this reporting timeframe. EEAST utilised the paper version of the PRES for Ambulance Trusts for patients, and the online PRES for adults for staff that participated in suitable studies during 2022-23.

Given that almost 100 PRES approaches were made, only 13 responses were received in 2022-23. Whilst this was more than double the previous year,

response was disappointing given the resource outlaid. Positive research experiences were reported generally, but the response rate this year has once again not given any additional learning to inform RSS practice. It should be noted that very few studies were suitable for PRES activity.

11.0 Research Involvement Group

The Research Involvement Group (RIG) has continued to meet remotely during this reporting period and has proved a useful forum for EEAST to engage with patient and public members and to receive on-going objective feedback about research that it wishes to undertake and deliver.

Individual RIG members have volunteered to take a special interest in all the studies being delivered in EEAST to give a local PPI perspective. In addition, the group have agreed to participate in development of poster presentations for conferences and engage in development of the new research strategy during 2023-24.

12.0 The Library & Knowledge Service

EEAST subscribes to the Library & Knowledge Service for NHS Ambulance Services in England (LKS ASE). The subscription provides all employed EEAST staff with access to library services including document supply, literature searching, current awareness, and guides and help on various aspects of information skills. The LKS ASE can be contacted directly by staff via email Matt.Holland@nwas.nhs.uk or by using one of the online forms on the website <https://ambulance.libguides.com/home1/home>.

13.0 Research Newsletter

The RSS Newsletter has continued to be produced twice a year. Current and future studies are showcased, and relevant findings shared. The RSS Newsletter has been cascaded using Need to Know, hard copy via internal post, and the Clinical App, and copies can be obtained on the Trust website [Research Newsletters](#) or by contacting RSS.

According to records from the Clinical App Technical team, the RSS Spring 2022 Newsletter was viewed **54 times**, and the RSS Summer 2022 Newsletter was viewed **21 times** in total.

14.0 Publications

Gee, B., Nicholls, H., Rivett, S., Clarke, T., Wilson, J. and Prothero, L. (2022) "Very hit and miss": an interpretive phenomenological analysis of ambulance service care for young people experiencing mental health crisis. *British Paramedic Journal*, 7(1), 43-50

Foster, T., Prothero, L. and Mochrie, T. (2022) Line manager knowledge and concerns when managing female staff during the menopause transition in one UK ambulance service. Abstract. EMJ, 23 August, 2022.

Kingston, M. et al. (2022) Clinical and cost-effectiveness of paramedic administered fascia iliaca compartment block for emergency hip fracture (RAPID 2) - Protocol for an individually randomised parallel-group trial. *Trials*, 23: 677. DOI 10.1186/s13063-022-06522-3

15.0 Research Presentations

'Menopause affects us all . . .' Menopause transition experiences of female ambulance staff from a UK ambulance service (2022) Poster: College of Paramedics National Conference.

A mixed-methods study of female ambulance staff experiences of the menopause transition (CESSATION) (2022) EEAST Menopause Learning Circle.

Clinical and Cost-effectiveness of Paramedic Administered Fascia Iliaca Compartment Block for Emergency Hip Fracture Trial (RAPID2) presentation. Norfolk and Waveney ICB inaugural conference in October 2022.

Clinical and Cost-effectiveness of Paramedic Administered Fascia Iliaca Compartment Block for Emergency Hip Fracture Trial (RAPID2) presentation. CAHPR East Anglia meeting in February 2023.

16.0 Research Misconduct, Fraud and Complaints

Once again, no concerns or incidences have been raised in this reporting period.

17.0 Future Direction

In line with the recently published Best Research for Best Health Strategy (2022)¹ our primary focus will be on supporting and seeking funds to generate health-related research, which leads to improved outcomes for people (patients and staff). Additionally, the Trust will explore means to support more internal research projects for instance through collaborations with universities throughout the region.

The Research & Innovation Enabling Strategy 2020-24 and corresponding action plan provided a framework for the advancement of research within the Trust. However, the research landscape was altered dramatically through the COVID-19 pandemic, so it is timely to review the EEAST research strategy during 2023-24. Future direction will support the main aims of the new Trust Clinical Strategy and Integrated Care Systems within the region.

Increasing PRES activity has been set as a High Level Objective by CRN since 2021-22, therefore identification of appropriate studies from which to approach participants will continue to be a focus in the new financial year.

At a local, regional, and national level, the Trust will continue to attract high quality studies and drive the development of research grant applications in under-developed areas of pre-hospital ambulance research need and areas of importance to Trust patients and staff. Identified areas of focus include research into end-of-life care, frailty, dementia, children and young people, mental health, learning disabilities and maternity patients.

RSS will continue to communicate opportunities for research skills development throughout the Trust, to increase research knowledge, particularly at the senior management level.

18.0 References

1. Department of Health and Social Care (2022) Best research for best health. A new national health research strategy. [Best research for best health: a new national health research strategy - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/104211/best-research-for-best-health-a-new-national-health-research-strategy.pdf)
2. Department of Health and Social Care (2019) The NHS Long-term Plan <https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/>
3. Care Quality Commission (2018) Key lines of enquiry, prompts and ratings characteristics for healthcare services <https://www.cqc.org.uk/guidance-providers/healthcare/key-lines-enquiry-healthcare-services>
4. Health Research Authority (Nov 2017) UK Policy Framework for Health and Social Care Research. <https://www.hra.nhs.uk/planning-and-improving-research/policies-standards-legislation/uk-policy-framework-health-social-care-research/>
5. National Institute for Health Research (2019) Performance in Initiating and Delivering Clinical Research (PID) Submission guidelines <https://www.nihr.ac.uk/documents/performance-in-initiating-and-delivering-guidelines/19932>