SEE-IT Study Newsletter

Emergency Medical Services Streaming Enabled Evaluation In Trauma: The SEE-IT Trial

WHAT'S INCLUDED IN THIS NEWSLETTER?

WELCOME TO THE SUMMER 2022 NEWSLETTER

Background

Have you ever been involved in a serious incident or had to call 999 for someone who needs urgent medical attention? Ever wondered how the emergency medical services decide which help to send you and how life threatening the patients' injuries are?

A 'trauma incident' is when someone suffers serious injuries that may be life changing, cause death or long-term disability. Trauma incidents (e.g., road traffic collisions) are one of the biggest killers of people aged under 45 in the UK. Following a trauma incident, most patients will be taken to a hospital emergency department by ambulance. Ambulances usually attend an incident by road, but in serious cases, a critical care paramedic (CCP) or an air ambulance (helicopter, HEMS) may be sent. The aim is to get the patient to the most appropriate hospital to treat their injuries without delay, to improve their chances of survival, recovery from their injuries and minimise chances of long-term problems.

When you call 999, the person from the ambulance service who answers the call **(the call handler)** will ask you a series of questions to determine what type of help is needed and how quickly. This information helps the **dispatchers (who allocate emergency medical resources)** decide **exactly** how urgently, and which type of ambulance is required e.g. Ambulance, Critical Care Paramedic or Air Ambulance. The 999 caller may give incomplete or wrong information so sometimes the wrong type or number of ambulances may be sent. This might also delay getting the right help to other patients as resources may not be available to those who need them. It is also costly for the NHS and air ambulance charities if resources are sent when not needed.

What is the SEE-IT Trial?

Researchers at the University of Surrey and South East Coast Ambulance Service (SECAmb) have been funded by the National Institute of Health Research (NIHR) to conduct a study called a "feasibility trial" - to test the use of live streaming from the scene of trauma incidents via 999 callers' smartphones.

Ultimately, we want to see if the use of live streaming from 999 callers' smartphones (using GoodSAM technology) helps determine more quickly which emergency medical resources are needed at the scene of trauma incidents (e.g., ambulance, air ambulance). **Check out our website to meet the study team and find out more:** www.surrey.ac.uk/SEEITstudy

What are we doing?

With the help of **Air Ambulance Charity Kent, Surrey and Sussex (AAKSS)**, **SECAmb** are testing a live streaming system **(GoodSAM)** that allows the ambulance service to actually see what is happening at the scene, rather than just relying on 999 callers to describe the scene. We are hoping this will help the dispatchers make quicker and more accurate decisions about which and how many ambulances to send, so that patients get the best help in the fastest possible time.

The SECAmb ambulance dispatch centre are using GoodSAM live streaming for six weeks spread out over six months (from June to November 2022), so we can see if and how it might help decision making about ambulance dispatch for trauma incidents.

How are we doing it?

We are conducting an evaluation to help us understand how and why live streaming works (or does not work). This includes observing it being used in real time and via surveys and interviews with 999 callers and ambulance dispatch centre staff.

For a week of every month from June to November, some of the 999 calls for trauma incidents will use live streaming. Information we collect about the incidents and the decisions will be compared with similar calls where live streaming is not used.

We want to know things like; Does live streaming help decide what type and how many ambulances are needed? Is using live streaming acceptable to both 999 callers and ambulance service staff? Does the technology work in the dark and where there is limited phone signal?

- A panel of medical experts are helping us to develop 'optimal dispatch criteria' for different types of incidents and injuries. With permission from patients involved in incidents, we will collect information from their medical records (about the type of injuries they sustained, the treatment they received, and the transport they received), and then apply the criteria to determine the optimal dispatch for that incident. We will then compare what was received with these 'optimal criteria'. Ultimately, we want to see if using live streaming helps staff make faster decisions about the resources (types of professionals and types of vehicles) needed at the scene.
- We are also exploring the use of live streaming in a second ambulance service (London Ambulance Service) located in a city so we can see if live streaming works in a similar way in an area where the population is more diverse.

Wellbeing

An important part of this feasibility study is to check that using live streaming does not cause psychological harm to members of the public or ambulance service staff. We are doing this by comparing measures of psychological harm in surveys with 999 callers who did and did not use live streaming; and in surveys with staff at SECAmb before and after use of live streaming.

We are also measuring psychological wellbeing in staff from a second ambulance service (East of England Ambulance Service) who do not currently use live streaming, and will compare levels with staff at SECAmb. Sources of support will be provided for any 999 callers or staff that require help.

Meet the team: Principle Investigator Spotlight

Prof Cath Taylor, Professor of Workforce Organisation and Wellbeing (University of Surrey):
"After over 25 years working in NHS research, this is my first study in a pre-hospital setting and I am working with a fantastic team and learning fast! Live streaming is already in use in some parts of the country but we don't know if/how it works (or importantly, if it causes any harm) – this study will help to answer some of these important questions."

Prof. Richard Lyon MBE is a Professor in Pre-Hospital Emergency Medicine (University of Surrey) and Associate Medical Director for AAKSS.
"Trauma is still a leading cause of death in young people. I'm excited about SEE-IT as the trial has real potential to significantly improve the speed and accuracy of dispatching critical emergency medical personnel teams needed to save lives."

What have we done so far?

The first trial week is complete! As expected, research in the pre-hospital setting must be flexible due to the fast-changing nature of the environment. We have had a few teething problems so far e.g., 999 callers not completing our wellbeing survey; we are currently reviewing the timing of the invitation to 999 callers. However, the feedback so far has been overwhelmingly positive, and we have managed to live stream from some trauma incidents.
A huge thank you to all the ambulance and hospital trusts who are supporting us with this study. There is a real sense of excitement about the SEE-IT Trial in the air!

How can you support us?

- Spread the word. Tell your colleagues, families, and friends about SEE-IT!
- A group of members of the public are working with the study team throughout this project to make sure the views of patients and the public are fully represented. We are keen that our group represents the diverse general population and we currently lack representation from young men and would also welcome input from those for whom English is not a first language. Please get in touch if you are interested in advising us throughout this project.

What is next?

Our next newsletter will be shared in the Autumn where we will be able to give a short trial update as we will be much further into the study. Watch this space!

Contact the team via email if you have any comments or questions: SEE-IT@surrey.ac.uk

Thank you for your interest. With our best wishes from the SEE-IT research team.

Funding source: This study/project is funded by the NIHR Health and Social Care Delivery Research (NIHR130811)/Injuries and Accidents. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care. The project is also supported by the Clinical Research Network and has received favourable opinion from the HRA (21/LO/0912).