Exploring the use of pre-hospital pre-alerts and their impact on patients, ambulance service and Emergency Department staff: protocol for a mixed methods study

Sampson FC (1), Bell F (2), Webster P (3), Coster J (1), O'Hara R (1), Goodacre S (1), Foster A (1), Miles J (2), Millins M (2), Pountney A (2), Rosser A (4), Spaight R (5), Turner J (1), Boyd A (2), Pilbery R (2), Long J (1)

(1) The University of Sheffield, (2) Yorkshire Ambulance Service NHS Trust, (3) Public Contributor – affiliated to Leeds Teaching Hospitals NHS Trust, (4) West Midlands Ambulance Service University NHS Foundation Trust, (5) East Midlands Ambulance Service NHS Trust
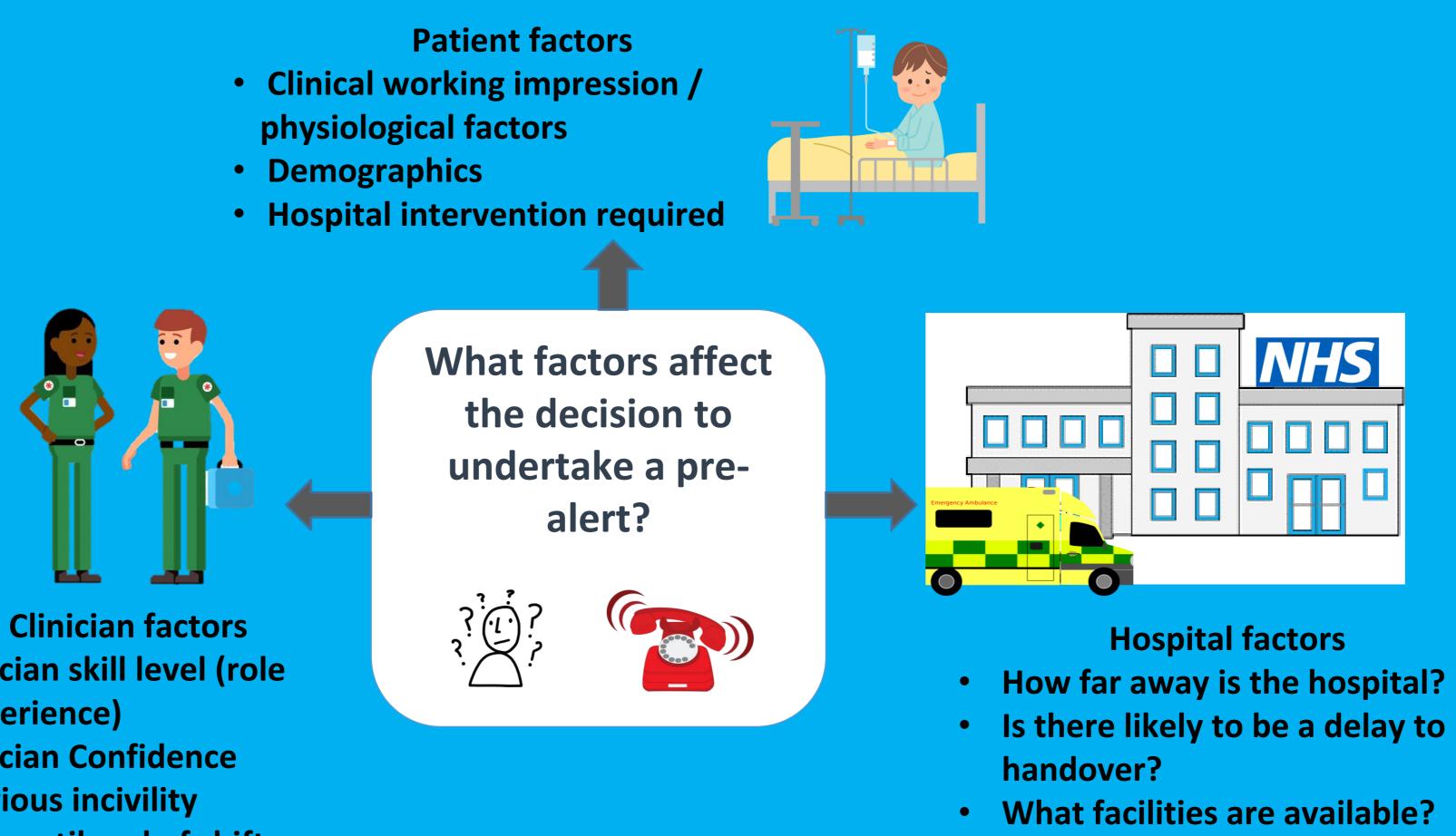
What is the problem?

- Pre-hospital pre-alerts can help Emergency Departments (EDs) to prepare for the arrival of a critically unwell patient, which may lead to improved patient outcomes.

- Ambulance clinicians need to decide which patients to pre-alert so that only the patients who require immediate ED senior clinical review are being pre-alerted.

What factors affect the decision to undertake a pre-alert?

Patient factors
- Clinical working impression / physiological factors
- Demographics
- Hospital intervention required

Clinician factors
- Clinician skill level (role /experience)
- Clinician Confidence
- Previous incivility
- Time until end of shift

Hospital factors
- How far away is the hospital?
- Is there likely to be a delay to handover?
- What facilities are available?

How do we plan to address this?

There is currently very little evidence about how out of hospital pre-alert decisions are made and communicated, and the impact of these pre-alerts on receiving EDs and patients.

We will address this question using 5 different work packages.

1) How are patients being pre-alerted currently?

We will explore existing pre-alert guidance and understand who is being pre-alerted, and whether there are differences in pre-alerting practice between clinicians by:
- Mapping existing guidance from UK Ambulance Trusts.
- Describing existing pre-alert practice using routine data analysis of 12 months ePRF data (July 2020-June 2021) for three Ambulance Trusts (EMAS, WMAS, YAS).

2) How do Ambulance Clinicians undertake pre-alerts?

We will explore how ambulance clinicians make pre-alert decisions, and how they communicate pre-alerts using:
- Semi-structured interviews with ambulance clinicians in 3 Ambulance Trusts (n=18-24)
- Online Qualtrics™ survey of ambulance clinicians in England.

3) What is the impact of pre-alerts on ED staff?

We will explore how pre-alert information can be used by ED staff in order to improve patient care using.
- Semi-structured interviews with ambulance clinicians and ED staff (n=24-30)
- Observation of pre-alert processes and response within 6 EDs (2 at each Ambulance Trust)

4) What do service users think?

We will involve PPI throughout the project.
We will seek to understand the patient and carer perspective of pre-alerts using:
- Semi-structured interviews with patients and/or carers from 2 EDs (n=12-16)

5) How will we use the findings from these different perspectives?

We will hold a national workshop to co-produce information to support guidance. This will include feedback and validation of findings, and will identify:
- Recommendations for improving pre-alert practice for ambulance clinicians and ED staff
- Priority areas for further guidance

How will we make these findings useful?

We will work with our PPI and stakeholders to develop our outputs.

We will work with national organisations to identify how to incorporate recommendations into national guidance for good practice :
- National Ambulance Service Medical Directors Group (NASMed)
- Joint Royal Colleges Ambulance Liaison Committee (JRCalc)
- Royal College of Emergency Medicine (RCEM)