

Understanding Variation in rates of Ambulance service Non-conveyance of patients to an emergency department (VAN)



Our Project: The National Institute for Health Research (NIHR) has funded a study to understand why rates of non-conveyance vary between ambulance services and between different localities in ambulance services. The focus is on three types of non-conveyance: provision of telephone advice and signposting rather than dispatching a vehicle ('hear and treat'), treatment at the scene ('see and treat') and transport to facilities other than an emergency department such as an urgent care centre or walk in centre ('see and convey elsewhere').

Work Package 1 - Identifying determinants of non-conveyance rates

We will undertake a qualitative interview study with ambulance service managers, paramedics and health care commissioners to identify potential factors that may explain the variation.

Work Package 2 - Explaining variation

We will test factors identified in WP1 in a multilevel analysis for each of the three types of non-conveyance using one month of routine ambulance data.

Work Package 3 - Potentially inappropriate non-conveyance

We will test factors that might explain variation in re-contacts with ambulance services within 24 hours. We will also use a linked dataset constructed by the NIHR Applied Research Programme PHOEBE, which is developing ambulance service quality measures, to identify determinants of variation in mortality, hospitalisation and emergency department attendance rates for non-conveyed patients in two ambulance services.

Work Package 4 - Addressing evidence gaps

First, little is known about variation in the provision of 'hear and treat' and we will explore this in depth in three services with highly varied 'hear and treat' rates and re-contact rates. We will undertake non-participant observation and interviews with ambulance service staff delivering this service.

Second, we will pay specific attention to respiratory problems within our study as this is the second largest indication for 'see and treat'. We will collect and analyse data specific to respiratory problems in WP1-3.

Our team: The team comprises experienced researchers in emergency and urgent care from three universities (Sheffield, Lincoln, Hertfordshire), clinicians from the NHS (Yorkshire Ambulance Service, Sheffield Teaching Hospitals) and patient and public involvement from the Sheffield Emergency Care Forum: Professor Alicia O'Cathain, Lindsey Bishop-Edwards, Richard Campbell, Joanne Coster, Dr Richard Jacques, Cathryn James, Dr Emma Knowles, Dr Rod Lawson, Mrs Maggie Marsh, Dr Rachel O'Hara, Professor Niro Siriwardena, Tony Stone, Janette Turner, Professor Julia Williams.

The study started in **January 2015 for two years**. For information please contact the Study Lead Professor Alicia O'Cathain (a.ocathain@sheffield.ac.uk) or the Project Manager Dr Emma Knowles (e.l.knowles@sheffield.ac.uk).

