

Impact of having a long lie after a fall

Submission date 14/11/2024	Recruitment status Recruiting	☒ Prospectively registered ☒ Protocol
Registration date 10/02/2025	Overall study status Ongoing	☐ Statistical analysis plan ☐ Results
Last Edited 07/05/2026	Condition category Injury, Occupational Diseases, Poisoning	☐ Individual participant data ☒ Record updated in last year

Plain English summary of protocol

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When a person is unable to get up from the floor for a long time after a fall, this is known as a “long lie”. Around one in three adults over 65 fall each year, and about one in five of these remain on the floor for over an hour. This can lead to serious problems such as dehydration, pressure sores, muscle damage, and distress. As ambulance response times increase, more people are being left on the floor for longer, which may worsen health outcomes.

Although there is a lot of research on preventing falls, much less is known about what happens to people who have been unable to get up after a fall or how best to support people while they wait for help. Current advice assumes ambulances arrive quickly and focuses on possible hip fractures, but most people who fall do not break a hip. Advice such as not moving or avoiding fluids may actually cause harm when someone is left on the floor for some time.

This study aims to understand what happens to people who cannot get up after a fall and how they can be better supported while waiting for help. We will:

1. Analyse linked NHS data (with all personal details removed) to find out who is affected, what happens after their fall, and how long people can be on the floor before harm increases (work package 1 [WP1]).
2. Estimate care costs by comparing people helped up quickly with those left for longer (WP2).
3. Review hospital notes for 200 patients to understand how long periods on the floor affect recovery (WP3).
4. Interview staff in ambulance, residential, and care home settings about current practice, advice given and possible future improvements (WP4 & 5).
5. Speak with patients who have been unable to get up after a fall and/ or their carers about their experiences and what could help in future (WP6).
6. Share findings in several national workshops to develop clear guidance for managing people after a fall (WP7).

Who can participate?

We are keen to speak with different groups of individuals working across the care pathway of those people who cannot get up after a fall, as well as from patients and carers. Specifically:

1. Home care workers (any location) and Care Home Managers (nursing and/ or residential) from organisations based in the following regions: East of England, East Midlands, North East, Wales and West Midlands [WP4b].
2. Professionals working in three Ambulance Service trust regions - Yorkshire, East Midlands, South West, involved in the patient pathway, i.e. Urgent Community Response (UCR) teams,

frailty or falls services (community and acute settings), emergency department, other relevant roles who encounter people who cannot get up after a fall [WP5].

3. Individuals (and carers) that have recently experienced a fall and could not get up [WP6].

What does the study involve?

Staff working in health and/ or care organisations will be invited to take part in an interview (30-40 minutes), either by telephone or online, to share their experiences of managing people who cannot get up after a fall, the challenges involved, and any strategies used to mitigate harm while individuals await care.

Individuals (and carers) that have recently experienced a fall and could not get up will be invited to take part in two short interviews (30 minutes), either by telephone or online, to share their experience of the fall. The first interview will take place shortly after study registration, and the second 3-6 months later.

All data will be anonymised and handled confidentially. Participants will receive a £25 high-street shopping voucher as a thank you for each interview completed. CPD certificates will also be offered to health and care professionals.

What are the possible benefits and risks of participating?

There are no direct medical benefits to participants but the information the study results will help us to understand how guidance and care for people who fall and could not get up can be improved in the future. This should help ambulance services, care homes and also help future patients.

Where is the study run from?

The University of Sheffield and Yorkshire Ambulance Service NHS Trust (UK)

When is the study starting and how long is it expected to run for?

April 2024 to March 2027

Who is funding the study?

The National Institute for Health and Care Research (NIHR)

Who is the main contact?

Prof. Fiona Sampson, f.c.sampson@sheffield.ac.uk, longlies@sheffield.ac.uk

Contact information

Type(s)

Scientific, Principal investigator

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Type(s)

Scientific, Public

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Additional identifiers

Integrated Research Application System (IRAS)

336914

Central Portfolio Management System (CPMS)

Study information

Scientific Title

Mixed methods study to understand the scale, impact and care trajectory for patients who have a long lie after a fall

Acronym

Long Lies Study

Study objectives

Current objectives as of 12/11/2025:

1. To characterise the frequency and duration people remain on the floor following a fall in ambulance patients using data from one UK region held within the CUREd+ routine linked dataset
2. To understand the care trajectory, health outcomes, and health resource use of patients who fall and could not get up using the CUREd+ linked dataset
3. To understand the mechanisms by which people who fall and could not get up impacts care trajectories using hospital notes review for a subset of 200 patients identified from ambulance service data
4. To identify interventions used to mitigate the impact of remaining on the floor for a long time following a fall before arrival at hospital using a survey of ambulance services and social care providers
5. To understand how key stakeholders mitigate remaining on the floor for a long time following a fall using staff interviews;
6. To understand the impact of remaining on the floor for a long time following a fall on individuals using interviews with individuals and carers
7. To refine the definition of a 'long lie' that is likely to cause harm and identify actions to reduce their consequences for individuals

Previous objectives:

This study aims to understand what happens when people have a long lie after a fall and how people can be helped while waiting for an ambulance.

This is a mixed methods study incorporating 7 linked work packages over 27 months (April 2024-June 2026). NHS Ethics, HRA, CAG, and CUREd+ approvals will take place in months 0-6. As part of the approvals process, preliminary drafts of surveys (WP4) and interview materials (WP5, WP6) will be developed in collaboration with PPI and stakeholders during these months. These will be updated following outcomes and feedback from the telephone survey with residential care/ nursing homes in WP4. The overall design is an observational mixed methods study, following a parallel design, with data from six interrelated work packages being integrated before the development of guidance with key stakeholders (WP7) (O'Cathain 2010). The research addresses a recognised research gap and is problem-driven rather than theory-driven, arising from a long-standing service-led need for information about the management of patients with long-lie that has been exacerbated by contextual factors such as increasing ambulance service pressures and resulting ambulance delays.

Ethics approval required

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Ethics approval(s)

1. Approved 16/08/2024, Sheffield Centre for Health and Related Research (SchARR) Research Ethics Committee (University of Sheffield Regent Court 30 Regent Street, Sheffield, S1 4DA, United Kingdom; +44 114 222 1443; l.v.unwin@sheffield.ac.uk), ref: 061049
2. Approved 11/03/2025, School of Medicine and Population Health Research Ethics Committee (University of Sheffield, Western Bank Villa, 300-302 Western Bank, Sheffield, S10 2TN, United Kingdom; -; clinmed-pophealth-rec@sheffield.ac.uk), ref: 066991
3. Approved 28/02/2025, North East - Newcastle & North Tyneside 2 Research Ethics Committee (2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; -; newcastlenorthtyneside2.rec@hra.nhs.uk), ref: 25/NE/0005
4. Approved 16/07/2025, HRA & HCRW (-, -, -, United Kingdom; -; approvals@hra.nhs.uk), ref: 336914
5. Approved 06/06/2025, CAG (2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; -; cag@hra.nhs.uk), ref: 25/CAG/0063
6. Approved 16/08/2024, School of Medicine and Population Health Research Ethics Committee (University of Sheffield, Western Bank Villa, 300-302 Western Bank, Sheffield, S10 2TN, United Kingdom; -; clinmed-pophealth-rec@sheffield.ac.uk), ref: 061049
7. Approved 28/03/2025, HRA & HCRW (-, -, -, United Kingdom; -; approvals@hra.nhs.uk), ref: 350537
8. Approved 16/08/2024, School of Medicine and Population Health Research Ethics Committee (University of Sheffield, Western Bank Villa, 300-302 Western Bank, Sheffield, S10 2TN,, United Kingdom; -; clinmed-pophealth-rec@sheffield.ac.uk), ref: 061049

Primary study design

Observational

Study design

Observational mixed methods study

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Specialty: Trauma and Emergency Care, Primary sub-specialty: Pre-hospital; Health Category: Disputed Aetiology and Other

Interventions

Current methodology as of 12/11/2025:

This observational mixed-methods study will investigate the experiences and outcomes of adults who have fallen and were unable to get up from the floor for an extended period – a 'long lie'. Participants will be identified through linked ambulance, emergency department, and

hospital records, with all personal information removed prior to analysis. Quantitative analyses will describe who is affected, the duration spent on the floor, associated health complications, and patterns of healthcare use over the following 12 months. Health and social care costs will also be estimated, and detailed hospital record reviews will be conducted for a subset of 200 patients to examine clinical outcomes.

To understand current practice, interviews will be undertaken with professionals from ambulance, hospital, and residential or care home settings to explore how people are supported after a fall and while waiting for help. A further group of interviews will be conducted with people who have experienced being unable to get up after a fall, and with their relatives or carers, to explore personal experiences and the impact on daily life.

Findings from both the quantitative and qualitative components will be discussed in a national workshop with key stakeholders from health and social care services. This will inform the development of clear, evidence-based guidance to support people who have fallen and are awaiting assistance.

Previous methodology:

The team is conducting a mixed methods study comprising seven interrelated work packages (WP1-WP7). A brief overview of the entire project is provided below. Ethics approval from the University of Sheffield (UOS) has been obtained for WP4 and WP5, but Health Research Authority (HRA) approval is also required. Additionally, a subsequent HRA and NHS ethics application will be submitted for WP3 and WP6.

WP1: This work package aims to understand the characteristics and care trajectory of ambulance service patients who have been unable to get up after a fall. Using the CUREd+ dataset, which includes routine emergency care data from the Yorkshire & Humber region, the team will explore the demographic and clinical characteristics of patients experiencing a long lie and analyse trends in the frequency and duration of long lies. The dataset will also be used to understand the care trajectory of these patients.

WP2: This work package focuses on understanding the resource use of ambulance service patients after their fall. The CUREd+ dataset and NHS routine costs will be utilised to model the healthcare resource use of patients unable to get up following a fall and to understand the economic impact of long lies.

WP3: This work package aims to understand the mechanisms for the impact of long lies by reviewing patient notes. A detailed review of all patient records for three months following a fall will be conducted for a subset of 200 patients conveyed to hospitals within the Yorkshire and Humber region. The data will be used to explore how a long lie impacts the patient care trajectory and key health outcomes. Fifty patients will be identified at each of four hospitals with an Emergency Department within the region. Expressions of interest will be invited from all eligible hospitals. Research nurses will seek consent from patients within two weeks of their initial hospital attendance and request permission to access their notes from the initial ambulance contact up until 90 days after their fall. Translators will be available for patients who require them to ensure inclusivity. CAG approval will be included in the future NHS ethics and HRA application for patients who lack capacity, are seriously ill, or die during the care episode.

WP4: This work package aims to identify how health and social care organisations mitigate long lies. Existing interventions used in health and social care settings will be identified, and strategies used by key stakeholders to manage patients at risk of a long lie will be understood. This will be done through three sub-packages:

WP4a: A structured survey of all UK NHS 999 Emergency Operations Centre ambulance service clinical leads to understand current interventions, local guidance, and initiatives for managing long lies.

WP4b: A structured survey of residential and nursing home managers in the Yorkshire area to understand initiatives used within care facilities to manage patients while awaiting ambulance services.

WP4c: An online survey of care-sheltered housing and social care providers, disseminated via social media and Local Authority Link networks (LARks), to provide a descriptive analysis of interventions from ambulance services and care providers.

WP5: This work package aims to understand how key stakeholders mitigate and manage long lies. Semi-structured telephone or online interviews will be conducted with 22-26 key stakeholders across three ambulance service areas. The National Ambulance Research Group (NARSG) will be engaged to identify sites expressing interest in participating.

WP6: This work package explores the impact of long lies on patients and carers. Interviews will be conducted with a diverse group of 18-24 patients who have experienced a long lie after a fall and their carers to understand the impact on issues important to patients. Recruitment will be done through various approaches, including patients from WP3, existing networks and registries, and patient groups. Recruitment materials have been developed with the PPI group, and efforts will be made to include traditionally minoritised groups. Translation services will be provided as needed, and participants will be offered £25 Love2Shop vouchers as a thank-you for participating. HRA approvals and NHS ethics for this work package will be recruited later.

WP7: This work package focuses on making recommendations for service policy to reduce risk to patients. Findings from multiple workstreams will be integrated. The team will collaborate with diverse key stakeholders across the identified care trajectory to co-produce guidance for hospitals, ambulance services, and patients/carers. Additionally, recommendations for service policy will be developed to reduce risk to patients and avoid unnecessary healthcare resource use.

Intervention Type

Other

Primary outcome(s)

Current primary outcome measures as of 12/11/2025:

1. Factors associated with length of lie (source: YAS automated free-text search/CUREd+ dataset linkage):

1.1. Length of lie in minutes (continuous)

2. Association between length of lie and patient care pathway outcomes (source: CUREd+ dataset linkage):

2.1. Ambulance conveyance (vs see and treat) at attendance (conveyance), 30 days and 6 months post-fall (mortality)

3. Operationalising a harmful length of lie (source: CUREd+ dataset linkage):

3.1. Standardised rate ratios (ratio of observed/expected events). Determined by analysis of outcomes (e.g., mortality) across intervals of lie duration.

4. Qualitative outcome measures (source: interviews and focus groups):

4.1. Stakeholder management and mitigation of long lies; patient/carers perspective, psychological impact, and advice needs.

Previous primary outcome measure:

The identification and evaluation of effective interventions and strategies used by healthcare

and social care providers to manage and mitigate the impact of long lies for patients measured using data collected from surveys, interviews, and data analysis from multiple work packages (WP4a, WP4b, WP4c, and WP5), throughout the study, with final evaluation upon completion of all work packages

Key secondary outcome(s)

Current secondary outcome measures as of 12/11/2025:

1. Factors associated with length of lie (source: YAS automated free-text search/CUREd+ dataset linkage):

1.1. Length of lie in minutes - 'short' vs 'long' lie (categorical with pre-defined cutoffs)

2. Association between length of lie and patient care pathway outcomes (source: CUREd+ dataset linkage):

2.1. Incidence of acute admission to hospital (binary)

2.2. Length of stay of the admission (continuous)

2.3. Number of investigations at ED (count)

2.4. Number of treatments received at ED (count)

2.5. Level of urgency/acuity of the ED attendance (categorical)

2.6. Discharge to care home or 'step down' or intermediate care (categorical)

2.7. Number of and time to first readmission within 12 months (count/time-to-event)

2.8. Number of and time to first unplanned ED attendance within 12 months (count/time-to-event)

2.9. Number of and time to first NHS 111 call within 12 months (count/time-to-event)

2.10. Number of and time to first ambulance callout within 12 months (count/time-to-event)

2.11. Number of and time to first outpatient contact within 12 months (count/time-to-event)

2.12. Corresponding measures of acuity/urgency for each healthcare re-contact

Previous secondary outcome measures:

There are no secondary outcome measures

Completion date

31/03/2027

Eligibility

Key inclusion criteria

Current inclusion criteria as of 12/11/2025:

WP3: Patients must have fallen, been unable to get up off the floor, and consequently called 999 for an ambulance. They must also have been transported (conveyed) to one of the four participating study hospitals within the Yorkshire and Humber region.

WP4a: UK NHS 999 Emergency Operations Centre ambulance service clinical leads.

WP4b: Residential and nursing home managers, and Home care Workers in the UK.

WP4c: Those working in residential and nursing homes, providing home care support, and in other providers of social care.

WP5: Health professionals involved in the management of individuals that are unable to get up from the floor for a long time after a fall, working in three ambulance service areas – South

West, East Midlands and Yorkshire and Humber. Seeking individuals in a variety of organisations and roles such as Urgent Community Response (UCR); Frailty or falls services (community and acute settings), emergency departments, other relevant roles.

WP6: Individuals (and their carers) who have fallen and been unable to get up off the floor for a long period of time, and help was contacted.

Previous inclusion criteria:

WP4 - UK NHS 999 Emergency Operations Centre ambulance service clinical leads (n=13)

WP4b) residential and nursing home managers in the Yorkshire area (using the 18+ Wakefield Research Hub networked research-active residential homes)

WP4c) UK-wide care and residential home managers

WP5 n = 22-26. Key stakeholders across 3 ambulance service areas - a variety of roles in the ambulance service including frontline clinicians and 999 call handlers. Hospitals within the participating ambulance will identify staff that are involved throughout the process of care such as ED, frailty and acute medicine departments (dependent upon the findings from WP1). Residential and care home staff in the participating ambulance service areas.

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

18 Years

Upper age limit

100 Years

Sex

All

Total final enrolment

0

Key exclusion criteria

Current exclusion criteria as of 12/11/2025:

WP3: Registration with NHS Data Opt-out, or if they have already been approached to participate in the study.

WP5: Health professionals working in the healthcare field who are not directly involved in the management of this patient cohort and does not work within the three specific geographical boundaries.

Previous exclusion criteria:
Not meeting the participant inclusion criteria

Date of first enrolment

24/04/2025

Date of final enrolment

31/03/2027

Locations

Countries of recruitment

United Kingdom

England

Northern Ireland

Scotland

Wales

Study participating centre

North East Ambulance Service NHS Ft

Bernicia House

Goldcrest Way

Newcastle upon Tyne

England

NE15 8NY

Study participating centre

Yorkshire Ambulance Service NHS Trust

Springhill

2 Brindley Way

Wakefield 41 Industrial Estate

Wakefield

England

WF2 0XQ

Study participating centre

North West Ambulance Service NHSTrust

Ladybridge Hall

399 Chorley New Road

Bolton
England
BL1 5DD

Study participating centre

West Midlands Ambulance Service University NHS Foundation Trust

Millennium Point
Waterfront Business Park
Dudley Road
Brierley Hill
England
DY5 1LX

Study participating centre

East Midlands Ambulance Service Trust Hq

1 Horizon PLACE
Mellors Way
Nottingham Business Park
Nottingham
England
NG8 6PY

Study participating centre

South Western Ambulance Service NHS Foundation Trust

Abbey Court
Eagle Way
Sowton Industrial Estate
Exeter
England
EX2 7HY

Study participating centre

South Central Ambulance Service NHS Foundation Trust

7-8 Talisman Business Centre
Talisman Road
Bicester
England
OX26 6HR

Study participating centre

South East Coast Ambulance Service NHS Foundation Trust

Trust Headquarters
Nexus House
4 Gatwick Road
Crawley
England
RH10 9BG

Study participating centre

London Ambulance Service NHS Trust

220 Waterloo Road
London
England
SE1 8SD

Study participating centre

East of England Ambulance Service NHS Trust

Unit 3
Whiting Way
Melbourn
Royston
England
SG8 6NA

Study participating centre

Welsh Ambulance Services NHS Trust

Unit 7
Ffordd Richard Davies
St Asaph Business Park
St. Asaph
Wales
LL17 0LJ

Study participating centre

Scottish Ambulance Service

Gyle Square
1 South Gyle Crescent
Edinburgh
Scotland
EH12 9EB

Study participating centre**Ni Ambulance Service Health and Social Care Trust**

Knockbracken Healthcare Park
Saintfield Road
Belfast
Northern Ireland
BT8 8SG

Study participating centre**Leeds Community Healthcare NHS Trust**

3 White Rose Office Park
Millshaw Park Lane
Leeds
England
LS11 0DL

Study participating centre**Mid Yorkshire Teaching NHS Trust**

Pinderfields Hospital
Aberford Road
Wakefield
England
WF1 4DG

Sponsor information

Organisation

Yorkshire Ambulance Service NHS Trust

ROR

<https://ror.org/01sawky49>

Funder(s)

Funder type

Government

Funder Name

National Institute for Health and Care Research

Alternative Name(s)

National Institute for Health Research, NIHR Research, NIHRresearch, NIHR - National Institute for Health Research, NIHR (The National Institute for Health and Care Research), NIHR

Funding Body Type

Government organisation

Funding Body Subtype

National government

Location

United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are/will be available upon request from the contact details listed in the publicly available data access and management plan: Data Management and Access Plan (<https://netscc-webapps.soton.ac.uk/damps/damps-document.phtml?id=NIHR158676>). The Data Management and Access Plan outlines which data are not available upon request due to the ethical restrictions and approvals in place to protect the special category health data included in WP1, 2 and 3.

IPD sharing plan summary

Stored in publicly available repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file	version 1.2	02/04/2024	28/11/2024	No	No
Protocol file	version 1.5		20/11/2025	No	No
Protocol file	version 1.7		07/05/2026	No	No
Study website		11/11/2025	11/11/2025	No	Yes