

# Developing a prognostic tool for sprained ankles - the SPRAINED study

<b>Submission date</b> 29/04/2015	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 30/04/2015	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
<b>Last Edited</b> 06/11/2019	<b>Condition category</b> Injury, Occupational Diseases, Poisoning	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Ankle sprains are one of the most common soft tissue injuries, mostly involving the ligaments (strong bands of tissue connecting together bones) on the outside of the ankle. Many people go to A&E with a sprained ankle every year, with the extent of injury varying from minor stretching to complete tear of the ligaments. The injury itself is painful and, unless minor, makes walking difficult. Symptoms generally last for weeks but, for a significant minority of people, they can actually last for months or years. Treatment generally depends on how bad the injury is but includes advice, self care, physiotherapy, ankle support, immobilisation and surgical repair. It is often very difficult to determine how serious the injury is at initial presentation, due to the swelling and pain caused by the injury. Simple tests like standing on one leg can help to determine how bad the injury is. Summaries of the research literature conclude there is a lack of good-quality evidence to help clinical decision-making. Probably as a result of this, there is no standard guideline for UK emergency department (ED) clinicians to follow, so clinical practice varies. Our group have completed a large study looking at which types of ankle support are best for severe sprains. We are planning to use the data from this trial to develop a tool that will help clinicians assess the risk of patients having a good or poor recovery. We will then check how well it works in a new set of patients recruited from A&Es around the UK.

### Who can participate?

Adult patients with ankle sprains.

### What does the study involve?

The participants taking part in this study are followed up at set times by questionnaire over nine months. We believe poor recovery means serious problems with level of activity, pain, confidence /stability of the ankle and/or recurrent injury. It is a combination of these measures that we try and predict using a combination of clinical and patient reported measures taken at A&E visits. Examples include age, sex, ability to walk, stability of the ankle and swelling. To aid us in developing the prognostic model, we review the current research literature and consult clinical experts and patients on what are important factors and outcomes. Decisions are made from a choice of candidate tools, options on the presentation of tools and potential additional measurements. The decisions will be made at a face to face meeting called a Modified Nominal Group which aims to gain consensus on decisions. At the end of the two and a half years of

research we aim to have developed a tool that will give a guide as to the chances of recovery for individual patients. A&E clinicians could then modify treatment or refer patients early for specialist treatment if they are at risk of poor recovery which could lead to more successful treatments and reduced costs to the NHS and society.

What are the possible benefits and risks of participating?

As this research is focused on using information, some of which is already routinely collected, the risk of harm is very low. The study will not interfere with ankle sprain treatment or any later rehabilitation participants might receive from their General Practitioner or Physiotherapist. We do not promise the study will help participants in particular, but the information we get from this study may help improve the NHS treatment for people with ankle sprains in the future

Where is the study run from?

A&E departments run by one of eight NHS trusts in the UK.

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

June 2015 to April 2017

Who is funding the study?

National Institute for Health Research (HTA programme).

Who is the main contact?

1. Mr Daryl Hagan (public)  
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2. Dr David Keene (scientific)

## Contact information

### Type(s)

Public

### Contact name

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Scientific

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**Additional identifiers****Protocol serial number**

N/A

**Study information****Scientific Title**

Synthesising a clinical Prognostic Rule for Ankle Injuries in the Emergency Department

**Acronym**

SPRAINED

**Study objectives**

To validate a clinical prognostic tool that helps to detect risk of poor outcome following ankle sprain for patients presenting to Emergency Departments/Minor Injury Units.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

NRES Committee London-Chelsea, 10/04/2015, ref: 15/LO/0538

**Study design**

A multicentre cohort study for prognostic model validation

**Primary study design**

Observational

**Study type(s)**

Other

**Health condition(s) or problem(s) studied**

Ankle sprain

**Interventions**

In this validation study, we will recruit 675 adult patients with ankle sprains and follow these patients up by questionnaire at set time points over 9 months. We believe poor recovery means serious problems with level of activity, pain, confidence/stability of the ankle and/or recurrent injury. It is a combination of these measures that we will try and predict using a combination of clinical and patient reported measures taken at A&E visits examples are age, sex, ability to walk, stability of the ankle and swelling.

**Intervention Type**

Not Specified

**Primary outcome(s)**

A composite measure indicating poor outcome for participants at 9 months, defined as either moderate/severe pain and/or moderate/severe functional difficulty and/or significant lack of confidence in the ankle and/or recurrent sprain.

**Key secondary outcome(s)**

1. Foot and Ankle Outcome Score (FAOS)
2. EuroQuol EQ-5D-3L
3. Health service resource use items

**Completion date**

30/04/2017

**Eligibility****Key inclusion criteria**

1. Participant is willing and able to give informed consent for participation in the study
2. Male or female, aged 16 years or above
3. Diagnosed with acute ankle sprain (<7 days old)

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

1. Ankle fracture (excluding flake fracture <2mm)
2. Other recent (<3 months) lower limb fracture

**Date of first enrolment**

01/06/2015

**Date of final enrolment**

29/02/2016

## **Locations**

### **Countries of recruitment**

United Kingdom

### **Study participating centre**

**Oxford University Hospitals NHS Trust**

Oxford

United Kingdom

-

### **Study participating centre**

**Heart of England NHS Foundation Trust**

Birmingham

United Kingdom

-

### **Study participating centre**

**Sheffield Teaching Hospitals NHS Foundation Trust**

Sheffield

United Kingdom

-

### **Study participating centre**

**Gloucestershire Hospitals NHS Foundation Trust**

Gloucester

United Kingdom

-

### **Study participating centre**

**University Hospitals Leicester NHS Trust**

Leicester

United Kingdom

-

### **Study participating centre**

**North Bristol NHS Trust**

Bristol  
United Kingdom

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**Study participating centre****Royal Berkshire NHS Foundation Trust**

Reading  
United Kingdom

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**Study participating centre****Milton Keynes University Hospital NHS Foundation Trust**

Milton Keynes  
United Kingdom

-

## Sponsor information

**Organisation**

University of Oxford (UK)

**ROR**

<https://ror.org/052gg0110>

## Funder(s)

**Funder type**

Government

**Funder Name**

National Institute for Health 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

### IPD sharing plan summary

Not provided at time of registration

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/11/2018		Yes	No
<a href="#">Results article</a>	results	05/11/2018	06/11/2019	Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">Study website</a>	Study website	11/11/2025	11/11/2025	No	Yes