ISRCTN11261867 https://doi.org/10.1186/ISRCTN11261867

Digital skin surveillance of healthcare workers in the NHS

Submission date
11/07/2025

Recruitment status
Not yet recruiting

Registration date
14/07/2025

Overall study status
Ongoing

Last Edited
16/02/2026

Condition category
Skin and Connective Tissue Diseases

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol
Background and study aims
Occupational hand dermatitis is the most frequently recognized occupational skin disease in the United Kingdom, particularly among healthcare workers. There is a statutory responsibility under the COSHH Regulations 2002 for employers to carry out health surveillance for hand dermatitis in workers exposed to a known hazard in the workplace
and where there is potential for significant exposure. The reality of introducing such a programme in the healthcare setting is a challenge, not least because it raises practical and logistical issues which need to be carefully considered; for example which questionnaire should be used for health surveillance or, who should do the visual inspection of a worker's skin if dermatitis is suspected?

Who can participate?
NHS staff employed at participating NHS organisations

What does the study involve?
Participants will be required to complete a single item self-assessed skin questionnaire and provide selfie hand photographs using a standardise method. These will be assessed by a trained dermatology nurse (with back-up assessment by a dermatologist) for the presence of hand dermatitis.

What are the possible benefits and risks of participating?
Benefits: By taking part in this study, participants will be provided with a remote digital assessment of hand dermatitis based on the data they provide (i.e. hand photographs). Therefore, if this assessment indicates that they may have hand dermatitis then we will recommend that they self-refer for follow-up advice and support from either their local occupational health, GP or pharmacist. Conversely, where applicable participants will also benefit by receiving confirmation that they do not have hand dermatitis. Furthermore, the potential to implement this screening tool more widely across the NHS workforce and to other high risk worker groups will lead to improvements in the early detection and management of workers hand dermatitis, and such favourable outcomes will have wider benefits to the NHS.
Risk: This is a low risk study and we do not anticipate participants will experience any burden and adverse effects from taking part in this study. While the participants assessed as having hand

dermatitis (positive case) will be strongly recommended to seek follow-up confidential advice and management from their local occupational health department, general practitioner (GP) or pharmacy as soon as possible, the researchers are unable to mandate that such action is taken by participants. However, as per existing NHS staff policy and statutory regulation, if staff suspect they may have hand dermatitis then they are expected to report it to their employer, therefore the onus is on the participants to fulfil this requirement.

Where is the study run from?
The study will be implemented at four NHS organisations (Aneurin Bevan University Health Board (Wales), Guy's and St Thomas' NHS Foundation Trust (England), University Hospital of Leicester NHS Trust and Hampshire and Isle of Wright Healthcare NHS Foundation Trust.

When is the study starting and how long is it expected to run for?
September 2024 to August 2026

Who is funding the study?
The Colt Foundation (UK)

Who is the main contact?
Dr Vaughan Parsons, vaughan.parsons@nhs.net

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Clinical Trials Information System (CTIS)
Nil known

ClinicalTrials.gov (NCT)
Nil known

Central Portfolio Management System (CPMS)

65524

Study information

Scientific Title
Assessing the feasibility, acceptability, and effectiveness of using a hand dermatitis self assessment screening questionnaire in a workplace health surveillance programme

Study objectives
We postulate that screening by a single-item questionnaire with follow-up of those reporting possible hand dermatitis by teledermatology using selfies taken with a mobile phone camera, would be a novel, and time- and cost-effective, approach to optimise and improve health surveillance for hand dermatitis in healthcare staff. If our suggested method is found to be feasible, acceptable, and effective, it has the potential to revolutionise the early detection and management of hand dermatitis in the healthcare sector.

Ethics approval required
Ethics approval required

Ethics approval(s)
approved 11/07/2025, HRA and Health and Care Research Wales (HCRW) (Castlebridge 4, 15-19 Cowbridge Road East, Cardiff, CF11 9AB, United Kingdom; -; HCRW.approvals@wales.nhs.uk), ref: 25/HRA/2155

Study design
Interventional non-randomized

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Occupational hand dermatitis

Interventions
To explore our research question, we propose to invite either clinical or non-clinical staff from three different Trusts who are at risk of developing occupational hand dermatitis because of their work (washing their hands more than 10 times a day at work), to take part in our research. We will identify workers by liaising with the Trust occupational health services and Trust managers. Staff who wish to be involved will be asked to complete a short on-line questionnaire asking them some simple questions including whether they think that they currently have hand or wrist dermatitis and in which location on their hands or wrists.

We will ask them to take selfie photographs of their hands and wrists using smart phones using a standard method (procedure). These will be uploaded on to the electronic portal at the same time they complete their questionnaire (or within a 3 day window period). We will ask staff and managers how easy it was to administer and use the questionnaire and take the hand photographs and send them back to the study team.

The photographs will then be accessed by a trained dermatology nurse, to assess whether the staff participants have dermatitis using the Validated Investigator Global Assessment for Atopic Dermatitis (vIGA-AD) tool. The nurse's assessment will further be corrected for the dermatologists' expert opinion where needed, in the cases that the vIGA-AD assessment differs from participants' self-reports of dermatitis. The nurse's assessment of participants' dermatitis (corrected by dermatologist if required) (gold standard) will then be compared with whether the staff participants thought that they had hand dermatitis (new proposed screening tool).

Using the findings from this study, we will then be able to determine how accurate the participants are in knowing whether they have hand dermatitis, and whether this is for non-clinical as well as clinical staff and for staff with different skin colours. Additionally, we will also assess how feasible it would be to use our screening questionnaire and hand photographs for NHS staff in other Trusts and potentially other workers who are at high risk of developing hand dermatitis at work.

Intervention Type
Other

Primary outcome(s)
The specificity, positive and negative predictive value of the screening questionnaire taken at one time point (baseline)

Key secondary outcome(s))
There are no secondary outcome measures

Completion date
31/08/2026

Eligibility

Key inclusion criteria
1. NHS staff (clinical and non-clinical) who are at increased risk of developing occupational hand dermatitis, here defined as staff who on average wash their hands with soap and water for a minimum of 10 times a day at work. Examples of staff we will include are nurses (with the exception of ICU nurses - as this occupational group were part of the original SCIN study), operating department practitioners, mortuary staff, clinical scientists and bench staff working in laboratories.
We will aim at recruiting participants representing different skin phototypes .
2. Additionally, to be eligible participants will need to employed by the participating NHS organisation AND have access to a smart phone or tablet device for the purpose of taking and sending in hand photographs.
3. All participants must be aged 16-80 years and have a valid NHS email address to be eligible for entry into the study.

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
16 years

Upper age limit
80 years

Sex
All

Total final enrolment
0

Key exclusion criteria
1. Individuals with current dermatitis as diagnosed by a medical practitioner
2. Individuals who have used topical steroid cream to their hands in the past 6 weeks
3. Visiting or temporary personnel who are undertaking duties on NHS premises including students on placements
4. Contractors and anyone not directly employed by the participating NHS organisation
5. Individuals on long term sick leave (4 weeks or longer)

Date of first enrolment
01/05/2026

Date of final enrolment
30/06/2026

Locations

Countries of recruitment
United Kingdom

England

Wales

Study participating centre
University Hospitals of Leicester NHS Trust
Leicester Royal Infirmary
Infirmary Square
Leicester
England
LE1 5WW

Study participating centre

Aneurin Bevan University Lhb
Headquarters - St Cadoc's Hospital
Lodge Road
Caerleon
Newport
Wales
NP18 3XQ

Study participating centre
Guys and St Thomas' NHS Foundation Trust
249 Westminster Bridge Road
London
England
SE1 7EH

Study participating centre
Hampshire and Isle of Wight Healthcare NHS Foundation Trust
Tatchbury Mount Hospital
Calmore
Southampton
England
SO40 2RZ

Sponsor information

Organisation
Guy's and St Thomas' NHS Foundation Trust

ROR
https://ror.org/00j161312

Funder(s)

Funder type
Charity

Funder Name
Colt Foundation

Alternative Name(s)

The Colt Foundation

Funding Body Type
Private sector organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
At the end of the study and with consent from participants, the final anonymised dataset will be uploaded to OSF data repository for future ethnically approved research. This has been highlighted on the PIS and the ICF, and participants will have the option to with-hold their anonymised data if they desire.

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 1.0	15/05/2025	14/07/2025	No	No