# The SCIN (Skin Care Intervention in Nurses) Trial

Submission date	<b>Recruitment status</b> No longer recruiting	[X] Prospectively registered		
13/06/2013		[X] Protocol		
Registration date 21/06/2013	Overall study status Completed	<ul><li>Statistical analysis plan</li></ul>		
		[X] Results		
Last Edited	Condition category	Individual participant data		
23/10/2019	Skin and Connective Tissue Diseases			

#### Plain English summary of protocol

Background and study aims

Hand dermatitis (eczema) is a common cause of discomfort and loss of productivity in the NHS workforce with treatment costs amounting to £125 million/year. Different preventive measures are used to reduce hand dermatitis in healthcare workers but it is not clear how effective these are. To prevent infections spreading between patients, nurses have to wear gloves and wash their hands a lot of the time. This constant contact with detergents and water often leads nurses to develop hand dermatitis, which in turn may mean that they are more likely to carry harmful bacteria on their hands. The risk of getting hand dermatitis is particularly high in nurses with a past history of allergic disease such as asthma and childhood eczema and among nurses who work in intensive care units (ICUs) where patient contacts and hand washing are more frequent. Hand dermatitis can be reduced by avoiding unnecessary overuse of gloves and washing of hands, drying hands properly after washing, and regular use of hand creams (moisturisers). However, hand care by nurses is often poor. We will study nurses at high risk of hand dermatitis (student nurses with a past history of allergic disease and ICU nurses) and test the effectiveness and value for money of an online training programme (Behavioural Change Package or BCP) which aims to change nurses beliefs and behaviours in looking after their hands.

#### Who can participate?

This study aims to recruit, through the participating trust's Occupational Health (OH) department, at least 40 ICU nurses and 40 first year student nurses at each of 26 NHS trusts in England.

#### What does the study involve?

NHS trusts will be randomly allocated to one of two groups. 13 trusts will receive BCP and 13 trusts to act as controls. Nurses in the control trusts will be provided with the same written information as the nurses in trusts receiving BCP, and will be encouraged to report hand dermatitis early to their OH department. They will otherwise receive advice in accordance with their local trust's existing policies. Nurses receiving BCP will be encouraged to develop detailed plans to help them change their behaviours, supported by online reminders. The student nurses will be provided with personal tubes of moisturising cream. On ICU wards, facilities for washing and drying hands will be reduced and dispensers of moisturising creams installed. The participants will be asked to complete a questionnaire at the start of the study about past and current hand dermatitis, allergies, beliefs about hand care, use of gloves, soaps, alcohol hand rubs, moisturisers, activities outside work which may lead to dermatitis and current quality of

life. BCP will then be implemented in the allocated trusts. We will ask the nurses to complete a shorter questionnaire soon after they have received the BCP and again at the end of 12 months. In addition, any nurses who report hand dermatitis at any stage of the study will be asked to have their hands photographed and checked for harmful germs. Nurses with hand dermatitis will be treated according to normal practice in their trust. Two dermatologists from the study team will review the photographs to grade the severity of dermatitis. We will also randomly check the hands of nurses who do not have dermatitis.

What are the possible benefits and risks of participating?

All nurses participating in the study will benefit from intensive hand care advice. If the programme is effective, those in the BCP-receiving group will benefit from a lower risk of developing hand dermatitis. The results of the study will be circulated to the participants so that all nurses in the study will benefit from increased awareness of the importance of hand care at work. The study has been designed to have few, if any, adverse effects on the study participants. The programme is not painful or intrusive and should have little inconvenience. Once an individual has developed irritant hand dermatitis the outlook is poor. Individuals may develop sleep disturbance and hampered leisure activities.

#### Where is the study run from?

This study is being led by Guy's and St Thomas' NHS Foundation Trust but involves senior researchers and experts from King's College, London; the University of Southampton; Imperial College, London; University College London; the University of Manchester and Nottingham University Hospitals NHS Trust.

When is the study starting and how long is it expected to run for? After a feasibility study in a hospital in Wales, the main study will start in September 2014 and will last until May 2017.

Who is funding the study? The project is funded by the National Institute for Health Research (NIHR), UK

Who is the main contact? Dr Ira Madan Ira.madan@kcl.ac.uk

## **Contact information**

## Type(s)

Scientific

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#### Type(s)

Scientific

#### Contact name

Dr Vaughan Parsons

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## Additional identifiers

Protocol serial number HTA 11/94/01

## Study information

#### Scientific Title

A cluster randomised controlled trial of a behavioural change package to prevent hand dermatitis in nurses working in the National Health Service

#### Acronym

**SCIN** 

#### **Study objectives**

It is hypothesised that a behavioural change intervention to improve hand care, based on the theory of planned behaviour and implementation intentions, coupled with provision of hand moisturisers, can produce a clinically useful reduction in the occurrence of hand dermatitis when compared to standard care in at-risk nurses working in the National Health Service (NHS).

More details can be found at http://www.nets.nihr.ac.uk/projects/hta/119401 Protocol can be found at http://www.nets.nihr.ac.uk/\_\_data/assets/pdf\_file/0006/81186/PRO-11-94-01.pdf

## Ethics approval required

Old ethics approval format

#### Ethics approval(s)

NRES Committee London - City Road & Hampstead, original application approved on 31/10/2013 (ref: 13/LO/09810) and substantial amendment application approved on 05/09/2014. Protocol v14 approved 05/11/2014.

#### Study design

Four-year cluster randomised controlled trial

#### Primary study design

Interventional

#### Study type(s)

Prevention

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

Hand dermatitis

#### **Interventions**

- 1. Nurses in intervention trusts will receive the bespoke online behavioural change package (BCP). This will be developed by members of the study team with expertise in dermatology, occupational medicine, nursing, and health psychology and care will be taken to ensure compatibility with current guidance on infection control. It will include advice: on when and when not to use gloves; on when to use antibacterial hand rubs; on when and how to wash and dry hands; on when to use moisturising cream; and to contact OH early if hand dermatitis occurs. As part of the package, nurses will be asked to form implementation intentions for performing behaviours in their workplace. These will be recorded, and participants will subsequently be reminded of them and offered the opportunity to revise them. The package will be supported by provisions to encourage adherence, such as moisturising creams. It will be actively reinforced over the course of the study by consistent messages on skin care from local OH and control of infection teams, and from line management.
- 2. Nurses in control trusts will be provided with an advice leaflet about optimal hand care and encouragement to contact their occupational health department early if hand dermatitis occurs.

#### Intervention Type

Behavioural

#### Primary outcome(s)

The primary outcome is the change in point prevalence of visible hand dermatitis from baseline to the end of follow up.

Methodology: All study participants will be asked to contact their occupational health department early if they develop hand dermatitis. Their hands, wrists and forearms will be photographed using a standardised method. The images obtained will subsequently be assessed independently by two dermatologists blinded to other information about the participant, to ascertain whether any hand dermatitis is present. A participant will be classed as a case if both observers note visible hand dermatitis. In the event of disagreement, between the two dermatologists a third arbitrator will be consulted.

## Key secondary outcome(s))

Secondary outcomes will be the difference between intervention and control trusts in:

- 1. The incidence of new episodes of hand dermatitis presenting to the OH department over the 12-months of follow-up
- 2. Severity of visible hand dermatitis from baseline to the end of follow-up
- 3. Days lost from sickness absence and days of modified duties because of hand dermatitis per 100 days of nurse time during the 12-months of follow-up
- 4. The change in estimated prevalence of hand colonisation by pathogenic bacteria (with or

without associated dermatitis) from baseline to the end of follow-up

- 5. The change from baseline to after completion of the BCP, and to the end of the 12-month follow-up in beliefs about dermatitis prevention behaviours.
- 6. The change from baseline to the end of follow-up in the reported frequency of use of alcohol hand rubs for hand cleansing, hand-washing with water, use of recommended techniques for drying hands after washing, use of moisturising creams and use of gloves for different durations (for student nurses, who will not have started clinical attachments at the beginning of the study, this will reduce to differences between the intervention and control trusts at the end of the follow-up)
- 7. The change from baseline to the end of follow-up in quality of life score

We will also document the reported participation in the behavioural change package, reasons given for not participating, and comments on its content.

#### Completion date

31/05/2017

## **Eligibility**

#### Key inclusion criteria

- 1. All NHS trusts in England which train nurses, have an in-house occupational health (OH) service and have at least one intensive care unit (ICU)
- 2. First year student nurses and ICU nurses

#### Participant type(s)

Health professional

#### Healthy volunteers allowed

No

### Age group

Adult

#### Sex

All

#### Total final enrolment

1956

#### Key exclusion criteria

In order to avoid the risk of student nurses moving placements from an intervention to a control trust (or vice versa), only one trust in each city or town will be invited to participate. London is an exception to this where three trusts were identified in which student nurses did not move to neighbouring trusts during their training.

#### Date of first enrolment

01/09/2014

#### Date of final enrolment

01/12/2015

## Locations

#### Countries of recruitment

**United Kingdom** 

England

Scotland

Wales

### Study participating centre Guy's and St Thomas NHS Foundation Trust

The Education Centre
75-79 York Road
Waterloo
London
United Kingdom
SE1 7EH

## Study participating centre

Cambridge University Hospitals NHS Foundation Trust

Cambridge Biomedical Centre Robinson Way and Long Road Cambridge United Kingdom CB2 0QQ

## Study participating centre

East Kent University Hospitals NHS Foundation Trust

Kent & Canterbury Hospital Ethelbert Road Canterbury United Kingdom CT1 3NG

### Study participating centre Frimley Health NHS Foundation Trust

Frimley Park Hospital Portsmouth Road Frimley Camberley United Kingdom GU16 7UJ

## Study participating centre Homerton University Hospital NHS Foundation Trust

Homerton Row London United Kingdom E9 6SR

#### Study participating centre Hull and East Yorkshire Hospitals NHS Trust

OH Department Castle Hill Hospital Castle Road Cottingham United Kingdom HU16 5JQ

# Study participating centre Industrial Diagnostics

Atherstone House
The Sidings
Merry Lees Industrial Est.
Merry Lees
United Kingdom
LE9 9FE

## Study participating centre Kettering General Hospital NHS Foundation Trust

Rothwell Road Kettering United Kingdom NN16 8UZ

## Study participating centre Lancashire Teaching Hospitals Foundation NHS Trust

LTH Occupational Health Royal Preston Hospital Sharoe Green Lane Preston United Kingdom PR2 9HT

# Study participating centre NHS Lothian

NHS Lothian Occupational Health Service Astley Ainslie Hospital Grange Loan Edinburgh United Kingdom EH9 2HL

#### Study participating centre

Luton and Dunstable University Hospital NHS Foundation Trust

Luton & Dunstable University Hospital Lewsey Road Luton United Kingdom LU4 0DZ

### Study participating centre Milton Keynes NHS Foundation Trust

Milton Keynes Hospital Standing Way Milton Keynes United Kingdom MK6 5LD

## Study participating centre Norfolk and Norwich University Hospitals NHS Foundation Trust

20 Rouen Road Norwich United Kingdom NR1 1QQ

## Study participating centre Northampton General Hospital NHS Trust

Occupational Health Department Billing House Cliftonville Northampton United Kingdom NN1 5BD

## Study participating centre North Tees NHS

University Hospital of North Tees Hardwick Stockton on Tees United Kingdom TS19 8PE

### Study participating centre Nottingham University Hospitals NHS Trust

Queens Medical Centre Campus Nottingham Occupational Health Derby Road Nottingham United Kingdom NG7 2UH

## Study participating centre Oxford University Hospital NHS Trust

John Radcliffe Hospital Headington Oxford United Kingdom OX3 9DU

# Study participating centre Papworth Hospital NHS Foundation Trust

Papworth Everard Cambridge United Kingdom CB23 3RE

# Study participating centre Pennine Acute Hospital NHS Foundation Trust

North Manchester General Hospital Delaunays Road Crumpsall Manchester United Kingdom M8 5RB

## Study participating centre Plymouth Hospitals NHS Trust

Kingstor House Derriford Hospital Plymouth United Kingdom PL6 8DH

### Study participating centre Royal Berkshire NHS Foundation Trust

21 Craven Road Reading United Kingdom RG1 5LE

## Study participating centre St George's Healthcare NHS Trust

St George's Healthcare NHS Trust Blackshaw Road Tooting London United Kingdom SW17 0QT

# Study participating centre The Ipswich Hospital NHS Trust

Heath Road Ipswich United Kingdom IP4 5PD

## Study participating centre The Leeds Teaching Hospitals NHS Trust

St. James's University Hospital Beckett Street Leeds United Kingdom LS9 7TF

# Study participating centre The Newcastle Upon Tyne Hospitals NHS Foundation Trust

Campus for Aging and Vitality (NGH) Westgate Road Newcastle Upon Tyne United Kingdom NE4 6BE

# Study participating centre University Hospitals Birmingham NHS Foundation Trust

Woodlands Nurses Home Selly Oak Hospital Raddlebarn Birmingham United Kingdom B29 6JF

### Study participating centre University Hospitals of Leicester NHS Trust

Leicester Royal Infirmary Infirmary Square Leicester United Kingdom LE1 5WW

### Study participating centre University Hospital Southampton NHS Trust

Southampton General Hospital Tremona Rd Southampton United Kingdom SO16 3YD

## Study participating centre Sheffield Hospital NHS Trust

Northern General Hospital Herries Road Sheffield United Kingdom S5 7AU

### Study participating centre York Teaching Hospital NHS Foundation Trust

Centurion House
Centurion Park
Tribune Way
Clifton Moor
York
United Kingdom
YO30 4RY

# Study participating centre University of Manchester

The Mill Sackville Street Manchester United Kingdom M13 9PL

# Study participating centre University of Salford

Allerton Building Frederick Road Campus Salford United Kingdom M6 6PU"

## Study participating centre Wye Valley NHS Trust

County Hospital Stonebow Rd Hereford United Kingdom HR1 3AW

Study participating centre
West Suffolk NHS Foundation Trust
West Suffolk Hospital

Hardwick Lane Bury St Edmunds United Kingdom IP33 2QZ

#### Study participating centre Old Nurses Home

Glangwilli General Hospital Carmarthen United Kingdom SA31 2AF

## Study participating centre Ty Hafren Bronglais

General Hospital Aberystwyth United Kingdom SY23 1ER

# Study participating centre Prince Philip Hospital

Dafen Road Llanelli United Kingdom SA14 8QF

# Study participating centre Withybush General Hospital

Fishguard Road Haverfordwest United Kingdom SA61 2PZ

## Sponsor information

#### Organisation

Guy's and St Thomas' NHS Foundation Trust (UK)

**ROR** 

# Funder(s)

## Funder type

Government

#### **Funder Name**

Health Technology Assessment Programme

#### Alternative Name(s)

NIHR Health Technology Assessment Programme, Health Technology Assessment (HTA), HTA

#### 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

Available on request

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/10/2019	23/10/2019	Yes	No
Protocol article	protocol	17/03/2016		Yes	No
HRA research summary			28/06/2023	No	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes