

Trust Guideline for the Prevention and Management of Latex Allergy and Occupational Skin Disorders

A Clinical Guideline recommended

For use in:	All clinical areas within the Norfolk and Norwich University Hospital
By:	All Health Care Workers
For:	All Health Care Workers
Division responsible for document:	Trustwide
Key words:	Occupational skin disease, Latex, Contact Irritant Dermatitis, Type 1 or immediate type hypersensitivity, Type IV or delayed type hypersensitivity, Health Surveillance
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Date of approval:	21 December 2019
Ratified by or reported as approved to:	Clinical Safety and Effectiveness Sub-Board
To be reviewed before: This document remains current after this date but will be under review	21 December 2022
To be reviewed by:	Occupational Health
Reference and / or Trustdocs ID No:	CA2076 – ID No: 1231
Version No:	5.1
Description of changes:	No clinical changes. New front sheet and footers amendments to titles and key people
Compliance links: (is there any NICE related to guidance)	No
If Yes – does the strategy/policy deviate from the recommendations of NICE? Is so, why?	N/A

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Quick reference information

1.1 Staff information & Leaflets

- Preventing Contact Dermatitis at Work
- Latex Allergy

1.2 Occupational Skin Disease

1.2.1 Irritant Contact Dermatitis

- Irritant contact dermatitis is the commonest form of hand dermatitis; it is a non-allergic condition that is reversible provided contact with irritants is avoided. It can develop in the workplace after repeated or prolonged low-grade exposure to an irritant substance.
- Irritant contact dermatitis most commonly relates to frequent hand washing, scrubbing and inadequate rinsing or prolonged wearing of gloves. Wet work is one of the biggest risks for contact dermatitis. Wet work means having hands frequently in contact with water.
- Symptoms may occur such as:-
 - Redness,
 - Soreness,
 - Dryness or cracking of the skin.

1.2.2 Immediate Hypersensitivity (Type 1)

- This is an allergic reaction provoked by exposure to a specific type of antigen referred to as an allergen. Some of the most common examples of substances which can cause this allergic reaction are drugs, food and pollen.
- This type of reaction is more commonly seen in the health care environment by staff who have become sensitised to natural rubber latex. This reaction may occur within minutes of latex exposure [reactions are usually immediate] symptoms range from local reactions to anaphylaxis (see below).
- This type of reaction occurs in individuals who are sensitised to specific sensitising agents and when exposed exhibit specific symptoms of: -
 - **Urticaria (hives)** – this is an allergic reaction of the skin where the individual develops weals, often with redness and severe itching.

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- **Conjunctivitis** – itching and watering of the eyes
- **Rhinitis** – itching and watery nose, sometimes sneezing
- **Occupational Asthma** – wheeze and/or chest tightness and/or cough which may improve on days away from work
- **Anaphylaxis** – this is a rare but severe and life threatening reaction which includes swelling of the tongue and throat, resulting in an obstructed airway or asthma. The individual can also develop severe shock due to a fall in blood pressure. This condition requires urgent treatment according to Advanced Life Support guidelines.

1.2.3 Delayed Hypersensitivity (Contact Allergic Dermatitis) (Type 4)

- This is a reaction which can take 6-48 hours to develop following exposure to an allergen. This reaction is not antibody mediated but a type of cell-mediated response. Common examples of this are reactions to metals such as nickel in jewellery.
- This reaction is commonly seen in HCWs who develop an allergy to the chemicals used to process rubber in the manufacture of latex products. The skin may become itchy, red and inflamed and blistering of the skin may occur if the reaction is severe.

1.3 Modes of Exposure to natural rubber latex

- There are 5 possible ways for HCWs or their patients to come into contact with natural rubber latex. These are: -
 - **Cutaneous** - contact with the skin via gloves or other latex products
 - **Mucous membranes** - via products used in dental treatment, intubation and internal examinations and catheterisation.
 - **Internal tissue** - during surgical procedures from contact with latex gloves or devices
 - **Intravascular** - via latex products used in intravascular devices e.g. IV cannulae or devices used to deliver IV fluids and injectables (medicine bungs)
 - **Inhalation** of glove protein (rare as powdered latex gloves are no longer used)

2. Aim and Objective of Guideline

2.1 Aim

To minimise the risks associated with the development of occupational skin disease as far as is reasonably practicable. To effectively manage staff who may develop occupational skin disease as a result of their work.

2.2 Objectives

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- 2.2.1** Control Measures - to prevent and manage the effects of occupational skin disease on HCWs by promoting good skin care management techniques. To promote an increased knowledge of the risk and the signs and symptoms associated with this hazard.
- 2.2.2** To ensure measures are in place to assess the risk of occupational skin disease.
- 2.2.3** To outline health surveillance and reporting mechanism for healthcare workers who may develop occupational skin disease whilst working at this Trust.
- 2.2.4** To monitor and review the effectiveness of the systems designed to prevent and manage occupational skin disease.

3.0 Rationale

- 3.1** Occupational skin disease is amongst one of the most commonly reported health conditions..
In 2015, there were 1518 estimated individuals with new cases of occupational skin disease reported within EPIDERM.
Of these (80%) were contact dermatitis

Health care workers have high incidence, with rates of over 30 new cases per 100,000 workers per year.

- 3.2** The most common affected occupation includes HCWs (mainly nurses).It is well recognised that individuals in jobs which require frequent hand washing, exposure to irritant and allergenic chemicals and frequent glove wearing are high risk of occupational skin disease (2009 Royal College of Physicians Faculty of Occupational Medicines (FOM), NHS Plus Dermatitis Occupational aspects of management)
- 3.3** The cost of occupational skin disease to the HCW and the Trust can be high. It may include lengthy medical treatment, time lost from work, infection risk and potential work redeployment.
- 3.4** The Trust is committed to reducing the health effects associated with occupational skin disease and exposure to natural rubber latex by purchasing non latex gloves for non-surgical procedures. It actively encourages the purchase of non-latex medical products where possible and manages the risk where this is not possible.
- 3.5** Powdered gloves are not to be used within the Trust.
- 3.6** The following legislation outlines the Trust responsibility in the prevention and management of occupational skin disease.
- Health & Safety at Work etc Act (1974)

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- Personal Protective Equipment (1992)
- COSHH (2002)
- RIDDOR (updated 2013)

3.7 National guidance on the occupational management of latex allergy and dermatitis has been issued by the Royal College of Physicians, Faculty of Occupational Medicine and NHS plus and is the evidence base used to develop this guideline.

4.0 Definition of Terms Used

Occupational skin disease - this refers to skin disease that may be caused by work and includes latex allergy.

Health Surveillance – a method to detect and assess systematically the adverse affects of work or work place exposure on the health of the Health Care Worker (HCW).

Allergen - an environmental substance that can produce an immunological reaction in the body. Common skin allergens include fragrances, rubber, chemicals and preservatives.

Sensitising agent – a substance that is capable of eliciting a specific immune response which may result in the development of an allergic response. Sensitisation may develop after a latent interval of a few weeks to years if the immune system develops antibodies or sensitised cells. Once the body learns to recognise the allergen, exposure will nearly always cause a response of the immune system and symptoms of allergy.

Contact Dermatitis - inflammation of the skin which may result from contact with an external substance, this can occur through two mechanisms, irritation or allergy.

Latex - natural rubber latex (NRL) is the milky sap obtained from rubber trees. It is used in many medical products, it is widely used and a cost effective material with many unequalled benefits (particularly as a barrier against infections).

Type 1 or immediate type hypersensitivity - this is an allergic reaction provoked by re exposure to a specific type of antigen referred to as an allergen. Exposure may be by ingestion, inhalation, injection or direct contact.

Type IV or delayed type hypersensitivity - this is a reaction which can take two to three days to develop. Unlike the other types, it is not antibody mediated but is a type of cell mediated response. This condition may be referred to as contact allergic dermatitis.

5. Broad recommendations

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- 5.1. All HCWs who are exposed to known risk factors which includes frequent hand washing, exposure to irritant and allergic chemicals and frequent or persistent glove wearing must adhere to the following Trust policy and guidelines : -
- Trust COSHH Policy
 - Trust Guideline for the Management of Glove Usage.
 - Trust Policy for the identification of latex allergy in adults and children.
 - Trust Hand Hygiene Infection Control Policy

6. Prevention and Management of Occupational Skin Disease

6.1 Role of the Health Care Worker

- 6.1.1 All HCWs should adhere to the Trust policy and guidelines and adopt good skin management techniques at all times.
- 6.1.2 All HCWs must report any potential occupational skin disease or work related respiratory symptoms to a manager and seek advice from Workplace Health & Wellbeing. This is important in order to establish whether the problem is associated with exposure to chemicals or poor hand washing/care techniques which is usually the case (producing irritant dermatitis) rather than being directly due to exposure to latex or another sensitising agent.
- 6.1.3 Gloves should only be worn when it has been identified that this type of Personal Protective Equipment (PPE) is necessary for the task being undertaken.
- 6.1.4 Gloves must not be worn where there is no exposure to blood and body fluids, other potentially infectious material (B1 Isolation Precautions, Infection Control Manual) or harmful chemicals.
- 6.1.5 Nitrile non sterile examination gloves are now the glove of choice in the Trust and will replace all latex examination gloves unless a risk assessment identifies latex as a glove of choice.
- 6.1.6 By wearing latex gloves when not required the HCW will also expose patients to a risk of sensitisation or allergic reactions.
- 6.1.7 Hands should be decontaminated before and after using gloves.
- 6.1.8 Emollient hand cream approved by the Trust (not obtainable from Pharmacy) should be used regularly following glove removal and hand decontamination. This will help to prevent dry/cracked hands and irritant contact dermatitis.
- 6.1.9 All HCWs should attend annual mandatory health and safety training where information will be provided on skin management techniques.

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6.2 Role of the Manager

- 6.2.1** All managers responsible for risk assessments within their work area will ensure health surveillance is undertaken by staff who are exposed to substances which can cause occupational skin disease.
- 6.2.2** Managers must ensure HCWs regularly inspect their hands and ensure compliance with the skin management health surveillance programme.
- 6.2.3** Managers will be informed of HCWs who have been diagnosed with an occupational skin condition or who are being investigated for one and provided with advice on how to manage the situation in the workplace.
- 6.2.4** Managers should refer their staff to Workplace Health & Wellbeing where it has been identified that a staff member has a suspected occupational skin disease.
- 6.2.5** Managers should ensure that all staff are informed of the risks of occupational skin disease and when to seek assistance from Workplace Health & Wellbeing
- 6.2.6** Managers should attend training on the management of occupational skin disease as indicated within the mandatory training guide.

6.3 Role of Workplace Health & Wellbeing (Occupational Health)

- 6.3.1** Workplace Health & Wellbeing will co-ordinate the Annual Skin Health Surveillance programme.
- 6.3.2** Workplace Health & Wellbeing will manage any cases of suspected occupational skin disease and refer to the dermatology services where appropriate
- 6.3.3** Workplace Health & Wellbeing will undertake annual health surveillance including spirometry testing for all staff diagnosed with a latex allergy or as indicated by an OH physician.
- 6.3.4** Workplace Health & Wellbeing will advise the Trust where a risk cannot be managed by the use of suitable alternative equipment, avoidance of contact or where the environment does not permit any possible changes. Workplace Health & Wellbeing will advise on relocation considerations following consultation with the HCWs manager and the HR Manager.

7. Health Surveillance

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7.1 New Employees - Pre employment

- 7.1.1** Workplace Health & Wellbeing will screen all potential HCWs to obtain and document information about existing skin disease including latex allergy and refer to an Occupational Health physician where appropriate.
- 7.1.2** Workplace Health & Wellbeing will undertake a three-month skin review on staff identified as having a skin problem at the pre-employment health stage. All information will be documented.

7.2 Annual Skin Health Surveillance

- 7.2.1** It is the manager's responsibility to ensure an annual skin health surveillance questionnaire is distributed to all employees who are exposed to hazards that may cause occupational skin disease in the work place; this includes staff exposed to nitrile gloves. This will be coordinated by Workplace Health & Wellbeing but it will be the responsibility of the manager to ensure information is kept within their department and to demonstrate this has been undertaken.
- 7.2.2** All staff who have been identified as potentially having an occupational skin disease by the annual skin health surveillance questionnaire will be referred to Workplace Health & Wellbeing and further investigations undertaken if required. HCWs who have been diagnosed with a Type 1 Latex allergy or at the request of the Occupational Health Physician will undergo annual health surveillance and respiratory testing by Workplace Health & Wellbeing.

7.3 Medical staff

- 7.3.1** The annual skin health surveillance for medical staff (excluding medical students) will be undertaken by Workplace Health & Wellbeing and in liaison with Medical Staffing and Clinical Directors who will be informed of any non-compliance.

8. Specialist Allergy Testing

- 8.1** HCWs will be assessed by Occupational Health and may be referred to the Dermatology Department who will investigate and diagnose cases of dermatitis, which may be due to allergy (particularly those which may be related to NRL).

9. Clinical Audit Standards (see appendix 1 Monitoring table)

- 9.1** All HCWs will receive annual training on the prevention and management of occupational skin disease.

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- 9.2 Annual skin health surveillance will be undertaken on staff who are exposed to known risk factors which may cause occupational skin disease.
- 9.3 Annual health surveillance will be undertaken by WHWB for all staff that are diagnosed with a latex allergy.

10. Summary of development and consultation process undertaken before registration and dissemination

- 10.1 This Guideline has been developed by the members of the Skin Management Advisory Group and in consultation with Consultant Dermatologists.

11. References

HSE (2016) Work related skin disease in Great Britain 2016.
<http://www.hse.gov.uk/statistics/causdis/dermatitis/skin.pdf>

HSE (1991) **Medical aspects of occupational skin diseases**, Guidance note 24 (second edition)

Royal College of Physicians & NHS Plus (2008) **Latex Allergy, Occupational aspects of management**, a national guideline.

Royal College of Physicians, Faculty of Occupational Medicine & NHS Plus (2009) **Dermatitis, Occupational aspects of management**, a national guideline , p7.

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Monitoring Compliance / Effectiveness Table

Appendix 1

<i>Element to be monitored</i>	<i>Lead Responsible for monitoring</i>	<i>Monitoring Tool / Method of monitoring</i>	<i>Frequency of monitoring</i>	<i>Lead Responsible for developing action plan & acting on recommendations</i>	<i>Reporting arrangements</i>	<i>Sharing and disseminating lessons learned & recommended changes in practice as a result of monitoring compliance with this document</i>
Annual training for all staff (within mandatory training)	Occupational Health Nurse Manager Hilary Winch	Trust Training Report (via workforce information report)	Annual	Training Department / Manager	Health & Safety	<i>Workforce Sub Group</i>
Annual health surveillance for all staff diagnosed with a latex allergy	Senior OH Nurse Karen Carpenter	E-opas OH report	Annual	OH Nurse manager	Health & Safety	
Annual health surveillance for all exposed staff	Senior OH Nurse Karen Carpenter	E-opas portal report (once portal operational)	Annual	OH Nurse Manager / Dept Managers	Health & Safety	