Doncaster and Bassetlaw Teaching Hospitals
NHS Foundation Trust

Glove Use Policy (Latex)

This procedural document supersedes: CORP HSFS 13 v.7 – Glove Use Policy

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Executive Sponsor(s)	Kirsty Edmondson-Jones Director of Innovation & Infrastructure
~~Author~~/reviewer: (this version)	Gary Hewit – Health and Safety Advisor
Date written/revised:	April 2023
Approved by:	Health and Safety Committee
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Date issued:	July 2023
Next review date:	11 May 2026
Target audience:	All Trust-wide staff

Amendment Form

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date Issued	Brief Summary of Changes	Author
Version 8	6 July 2023	• Amended to the updated version of the APD template. • Amended to reflect change of reviewer. • Amended to reflect change of executive sponsor. • Updated the format of 'Glove Use Pyramid' (page 4) • Replaced 'HSDU' with 'Sterile Services' (appendix 4).	Gary Hewit
Version 7	21 Nov 2019	• Updated to reflect changes to the organisation or responsibilities.	Neil Donegan
Version 6	7 April 2016	• Policy updated with minor changes • Glove use triangle added to Appendix 1	Neil Donegan
Version 5	31 July 2013	• Appendix 2 updated for STAFF • Change of format in accordance with CORP/COMM 1 v.6	Ian Soulsby

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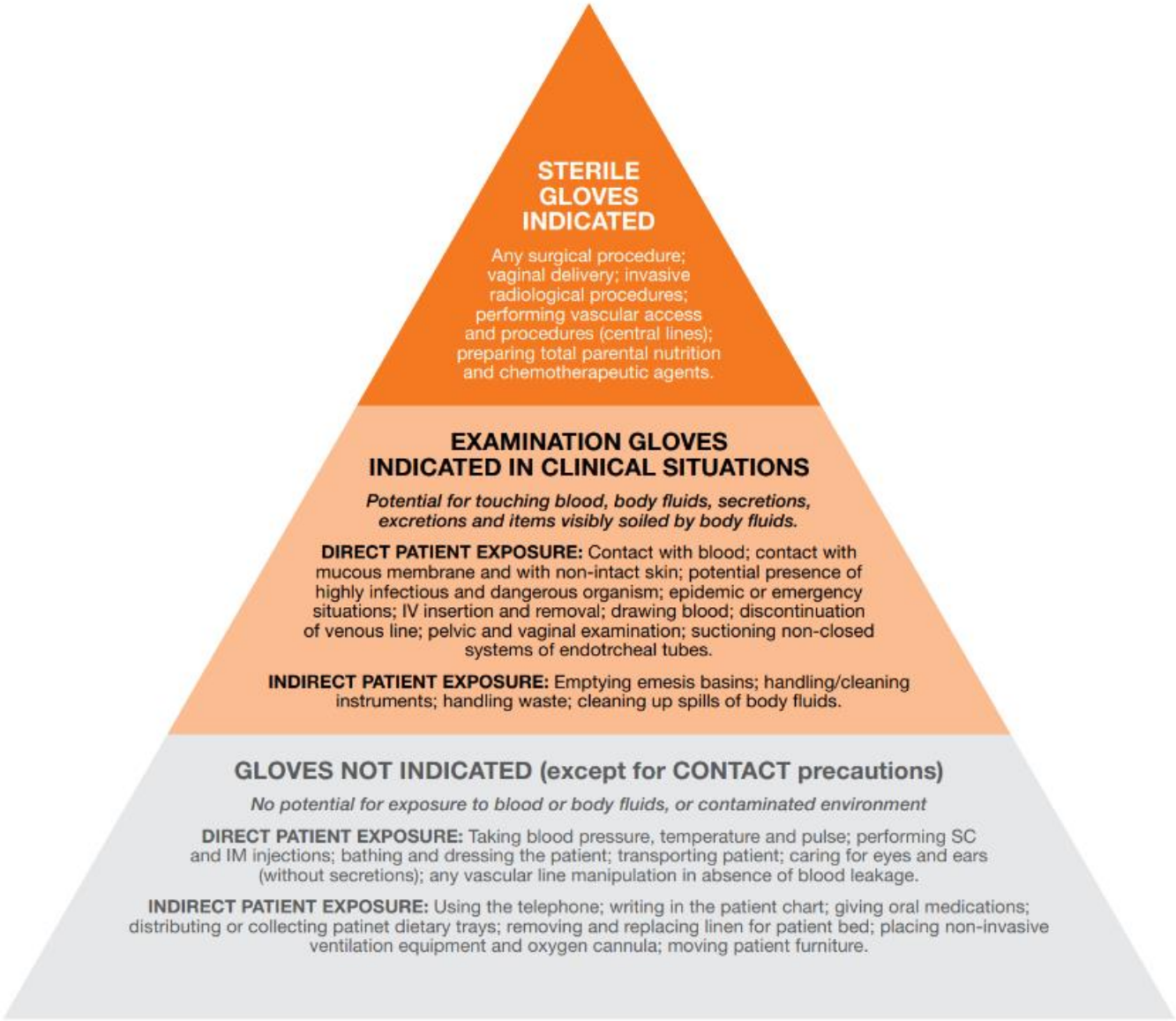
GLOVE USE PYRAMID



1 INTRODUCTION

In recent years, concern among healthcare workers and the general public with regard to the hazards and modes of transmission of various pathogens, has led to the increased use of barriers against infection with gloves forming a primary method of protection.

As the frequency and duration of the use of gloves has increased the emergence of sensitisation of some substances used to produce the gloves has been identified as a problem area.

An example of such a substance is latex which, over time, has resulted in some individuals developing allergic reactions ranging from irritation to rare occurrences of anaphylactic shock.

2 PURPOSE

It is the purpose of this policy to secure compliance with the Control of Substances Hazardous to Health Regulations 2002. It will endeavour to discharge this duty to limit exposure to those substances used to produce the gloves that are known to have a potentially adverse effect on those people who are subject to the exposure. It will further give additional information, instruction, and training to ensure that all gloves that are selected are fit for the user and the purpose for which they are intended.

- To PREVENT or control exposure to substances hazardous to health.
- To MANAGE foreseeable risks to sensitised individuals and protect them from further hazardous exposures.
- To RESPOND appropriately to any adverse reactions to the wearing of gloves and prevent work-related recurrences.
- To REDUCE inappropriate use of gloves.

3 DUTIES AND RESPONSIBILITIES

In all aspect of Health and Safety, the Trust has a responsibility to ensure the safety of all members of staff, and each member of staff has a responsibility to ensure that they comply with all safety measures put in place.

The use of latex gloves is strictly limited to those procedures specifically requiring surgeons' gloves as a measure of precision and dexterity. Once a need has been established, a risk assessment must document this need, and a process put in place to comply with the mandatory requirement that all staff using latex surgeons' gloves receive appropriate training annually.

It is the responsibility of managers to ensure compliance with this standard. A record of latex use training attendance must be kept in each ward or department and maintained by the

ward/department manager. It is also the responsibility of the managers to follow up those staff who fail to attend this training.

4 PROCEDURES

The hands of clinical staff are the most likely means of transmission of hospital acquired infection. This risk can be minimised by thorough hand washing and the use of gloves (see Standard Infection Prevention and Control Precautions Policy PAT/IC 19 and Hand Hygiene PAT/IC 5).

The purpose of wearing gloves is to either prevent the hands becoming contaminated with dirt or micro-organisms, or to prevent the transfer of organisms already present on the skin or the hands. It is essential to ensure that hands are washed following the removal of gloves.

Staff must ensure that the appropriate type of glove is selected for particular procedures and purpose to ensure safety and protection for staff and patients and eliminate inappropriate usage (Appendix 1).

Inappropriate use of gloves increases the wearer's exposure to the chemicals and accelerants in the glove material, which can result in skin sensitisation or inability to work. Inappropriate use of gloves would include the washing of a patient where there is no risk of contact with blood or body fluids. In order to reduce the risks of sensitisation, do not wear gloves unless clinically indicated.

Gloves should be changed and discarded after each patient use or task (Wilson 2001). Gloves must never be washed between uses as damage may go undetected (Adams et al 1992). Furthermore, washing gloved hands is considered to be reprocessing, which has legal implications (MHRA 2006).

4.1 Glove Material

Nitrile

Nitrile is the accepted material of choice for gloves used in healthcare due to strength and barrier properties (Rego and Roley 1999). A concern for many years has been the risk of impaired dexterity due to muscle fatigue where nitrile gloves are worn for a prolonged period of time, but the stretchability of these gloves continues to be improved by manufacturers.

Furthermore, residual accelerants in nitrile may also cause a Type IV allergic response in wearers.

Latex

Natural rubber latex provides excellent protection against blood borne viruses which, for many years, has made it the material of choice for gloves when dealing with blood- and blood-stained body fluids. Furthermore, its strength and durability has reinforced this opinion.

The use of gloves in healthcare and, therefore, staff exposure to natural rubber latex has increased since the mid-1980's. With this increased exposure the risks associated with natural rubber latex have also increased. Although allergy to natural rubber latex remains rare, it can produce reactions ranging from non-allergic irritation to allergy which is a key disadvantage. However, there will be areas of healthcare where it continues to be appropriate to use natural rubber latex gloves, but this must follow a documented risk assessment.

Vinyl

Vinyl gloves are looser fitting than either natural rubber latex or nitrile but, due to degradation with use, they have a higher leakage rate and, therefore, skin contamination. Glove disposal by incineration can lead to pollution through the release of toxins.

4.2 Glove Selection

Following a full and informed risk assessment the correct glove choice can be made.

4.3 Glove Storage

It is an important safety action to store latex and non-latex product in separate areas. An area must be identified to store sterile surgeons' gloves (following the risk assessment for need), with the procedures for which it is deemed necessary to use these gloves clearly marked.

4.4 Reactions to Glove Material

There are three recognised types of allergic reactions to gloves: -

Type I – Immediate Hypersensitivity

This reaction is predominantly a response to the natural protein residue found in gloves which generally produces symptoms within 5 – 30 minutes of exposure to the substance. Such a reaction is almost immediate in effect but usually diminishes rapidly once contact with the substance has ceased.

NB: This type of reaction has been reported following latex glove use. At the present time there have been no reports of Type I allergies to synthetic gloves.

The symptoms are characterised by local or generalised urticaria and oedema. Rhinitis, conjunctivitis, or asthma may also occur. In extreme cases respiratory difficulties and anaphylaxis may occur (for treatment of anaphylaxis see Emergency Treatment of Anaphylaxis Policy and Guidelines PAT/EC 3). Repetitive skin or mucous membrane contact with any product containing high protein residues may cause sensitisation. Once this has occurred future allergic reactions may be caused through contact with products containing lower residue levels.

Type IV – Delayed Hypersensitivity

This reaction is predominantly caused by an allergy to the residues of accelerating agents used in the manufacturing processes of all gloves. Also known as allergic contact dermatitis, the severity of this type of allergy varies greatly. It is often characterised by a red rash on the back of the

hands and between the fingers. The skin may become leathery, and papules or blisters may also be present. The reaction is delayed, occurring several hours after contact, reaching a maximum after 24 – 48 hours and then subsides. Repeated exposure to gloves may cause the skin condition to extend beyond the area of contact with the gloves or other medical devices.

Irritation
This is a non-allergic condition the effects of which are usually reversible. When gloves are worn a rash may occur on the back of the hands, which is characteristically dry and itchy. These symptoms usually resolve once contact with the product is discontinued.

It is important to note, however, that a wide range of substances may cause skin irritation. For example, skin cleansing and disinfecting agents may induce skin reactions, which may be confused with glove allergy. Where necessary advice should be sought on diagnosis, precautions or treatment from a General Practitioner, Occupational Health, or a Dermatologist.

4.5 Management of Healthcare Workers with a Suspected Glove Allergy

Whilst the main focus of attention has been directed towards gloves, the risk of allergic reactions within the hospital setting also exists with other medical devices. A thorough understanding of personal allergic history is essential in order to manage this risk.

Pre-employment Screening for New Employees
All new employees complete a health questionnaire that enquires about respiratory health and skin conditions. If such a health problem is identified this will be recorded in their Occupational Health records. An assessment will be carried out, a blood test (RAST test) may be taken, and appropriate referral and advice will be given.

If it is demonstrated that the level of sensitivity to glove materials is such that contact with the substance could be detrimental to the health of the prospective employee, then alternative gloves or restrictions to practice may be recommended to the individual and their manager.

During Employment
It is the duty of all employees to report to their manager and Occupational Health if they suspect an adverse reaction to gloves or other products.

An annual Glove Sensitivity Screening Questionnaire (Appendix 2) must be circulated to any staff who are regular glove wearers. A memo will be circulated to all managers by Occupational Health, to serve as a general reminder.

Each ward or department must have a robust mechanism for screening all staff. It is the responsibility of managers to ensure that the screening questionnaire is disseminated to all staff within their ward or department. It is also the responsibility of managers to maintain a record of completed questionnaires, following up non-responders as appropriate. (Appendix 5)

Occupational Health will arrange an appointment for a skin assessment if there are any positive responses to the questionnaire and referral to a Dermatologist may be considered. Advice will be given regarding hand washing, skin care and appropriate glove selection.

If a glove allergy is identified this will be recorded in the employee's Occupational Health records. Those employees known to be sensitised to gloves or those considered to be at a higher risk of developing sensitisation will be reviewed more frequently by Occupational Health.

If an employee's health is affected by contact with gloves and all reasonably practicable measures have been taken to reduce their exposure, redeployment to another area may be advised. This would only be possible with the full agreement of the individual, their manager, and a Human Resources Adviser.

4.6 Management of Patients with a Suspected Latex Allergy

Patients need to be encouraged to disclose if they have a latex allergy by being questioned about allergies and rashes related to contact with rubber and possible food allergies.

A notice should be predominantly placed in each waiting area which reads:

"Are you allergic, or do you react to, any medicines, foods or other substances?
If so, please inform staff before receiving any treatment."

During pre-operative assessment questions should be asked, such as: -

- Do you react to wearing rubber gloves?
- Do you have any skin problems when you blow up a balloon?
- Have you had any previous problems at the dentist, e.g if latex gloves are used do you suffer from blistering to the mouth?
- Do you have any skin reactions to condoms?

If the patient gives a positive response to any of the above questions the following must take place: -

- A Latex Allergy Screening Questionnaire (Appendix 3) should be completed.
- Bloods to be taken for RAST Test.
- Refer to Dermatology Clinic for skin testing who will provide advice before surgery.

Medical staff should be advised of the suspected sensitivity and its implications. This should be clearly documented in the patient's notes on the Alert/Hazard Notification Card. If an allergy is confirmed the patient, carers, Ward staff, Theatres and other departments should be advised wherever relevant. Early notification is essential so that all areas are prepared to receive the patient into a safe environment.

Each Directorate should have a dedicated link person who is available to guide and advise staff following the identification of patients or staff with a latex allergy. Latex-free equipment is the preferred option when purchasing any new equipment or supplies for Wards or departments. Consultation with the latex link person or Supplies Department may be necessary.

The surgical team responsible for the patient with a latex allergy must inform Theatre staff, the Anaesthetist and Ward staff before admission to hospital where possible but at least one week prior to intended operation date. The whole team, including the Service Assistants and Recovery Staff need to know so that necessary precautions can be taken.

If in any doubt treat a patient as latex sensitive.

4.7 Diagnostic Tests

Whenever glove sensitisation is suspected diagnostic testing should be encouraged in order to identify the allergen. Appropriate advice can then be provided on allergy avoidance and alleviation of symptoms.

The following methods may be used in diagnosis: -

- **IN VITRO testing** – the advantage of methods such as RAST (radioallergsorbent) and ELISA (enzyme linked immunosorbent assay) testing is that the reaction and determination is made in vitro rather than on the surface of the subject's skin. Sensitivity of these tests is such that allergic individuals may go undetected if tests are used in isolation. Negative results with a positive history still require investigating further.

- **SKIN PRICK test** – an aqueous extract of the suspected protein is introduced at an epidermal puncture site. A positive result is graded according to the diameter of erythema at the test site compared with a positive (histamine) and a negative (saline) control.

- **USE test** – this is conducted over 15 – 20 minutes or less if the subject experiences distress. It has been recommended that only one finger of a glove be used initially to minimise the risk to highly sensitive individuals. Only the source material (not the allergen) is identified.

- **PATCH test** – this is used to identify specific contact antigens involved in delayed reactions causing allergic dermatitis. It involves a two-day occlusive application of the test material to intact skin. Positive responses are looked for on day two and then day four.

5 TRAINING/ SUPPORT

The Infection Prevention and Control Team (IPCT) provides training on mandatory training days, which includes hand hygiene, glove use, standard precautions, and skin care.
The Standard Training Needs Analysis (TNA) – The training requirements of staff will be identified through a training needs analysis. Role specific education will be delivered by the service lead.

6 MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

What is being Monitored	Who will carry out the Monitoring	How often	How Reviewed/ Where reported to
Use of Gloves	Managers	Annual	Managers
Skin and respiratory problems	Occupational Health	Annual	Database in Occupational Health

Further Advice
Further advice can be obtained from the contact areas identified in Appendix 4.

7 EQUALITY IMPACT ASSESSMENT

The Trust aims to design and implement services, policies and measures that meet the diverse needs of our service, population, and workforce, ensuring that none are disadvantaged over others. Our objectives and responsibilities relating to equality and diversity are outlined within our equality schemes. When considering the needs and assessing the impact of a procedural document any discriminatory factors must be identified.

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment for All Policy (CORP/EMP 4).

The purpose of the EIA is to minimise and if possible, remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation, or religious belief. No detriment was identified. (See Appendix 6)

8 ASSOCIATED TRUST PROCEDURAL DOCUMENTS

PAT/EC 3 – Emergency Treatment of Anaphylaxis Policy and Guidelines
PAT/IC 5 – Hand Hygiene
PAT/IC 19 – Standard Infection Prevention and Control Precautions Policy

9 DATA PROTECTION

Any personal data processing associated with this policy will be carried out under 'Current data protection legislation' as in the Data Protection Act 2018 and the General Data Protection Regulation (GDPR) 2016.

For further information on data processing carried out by the trust, please refer to our Privacy Notices and other information which you can find on the trust website: https://www.dbth.nhs.uk/about-us/our-publications/uk-data-protection-legislation-eu-general-data-protection-regulation-gdpr/

10 REFERENCES

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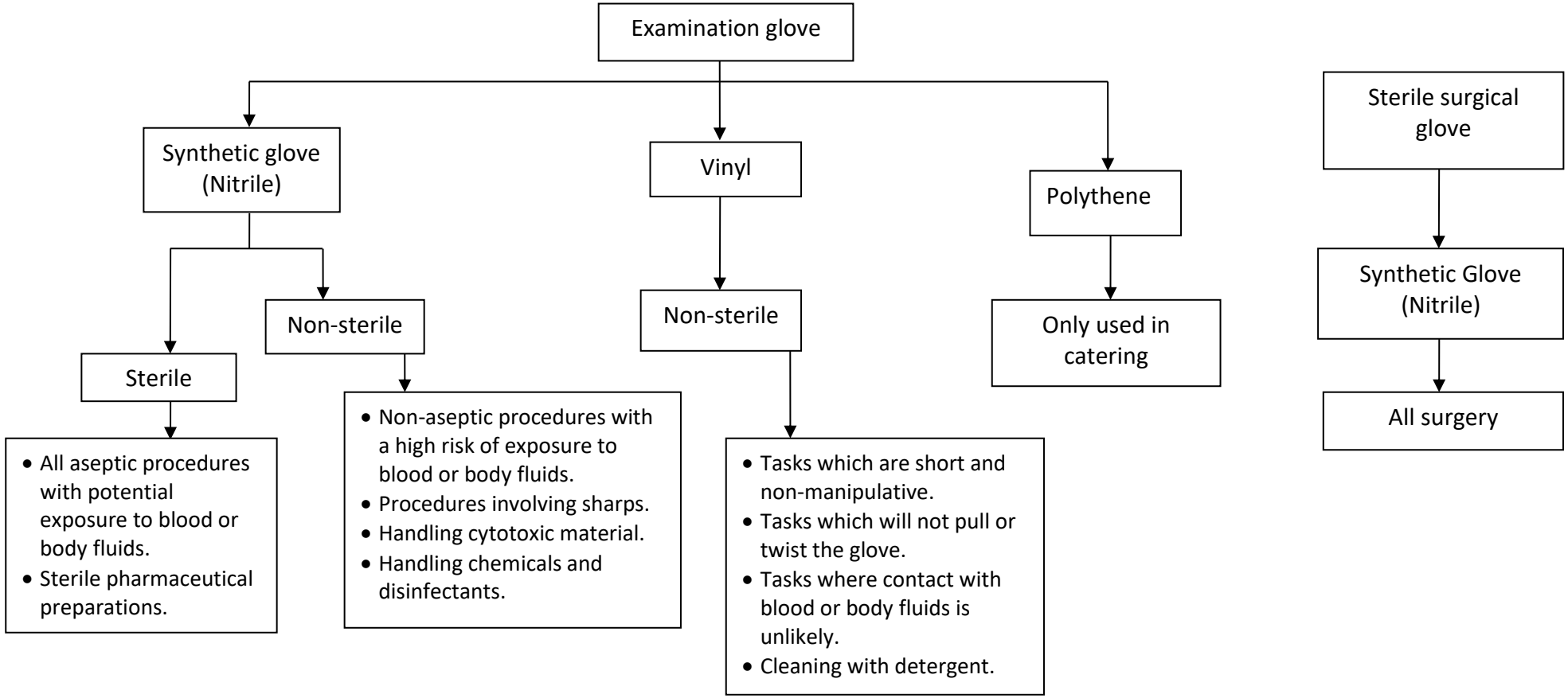
APPENDIX 1 – GLOVE USE GUIDE



NB: Only where a synthetic glove (Nitrile) is not appropriate latex may be considered for use following a risk assessment

APPENDIX 2 – GLOVE SENSITIVITY SCREENING QUESTIONNNARIE (STAFF)

Name: …… DOB: ……..

Job Title: …… . Department: ……

Do you have a skin condition associated with glove use? Yes/ No

If you have answered <u>No</u> sign and date the form and return to your Manager.

If you have answered <u>Yes</u> sign and date then continue to complete the form.

Signed…… Date……..

Please tick any symptoms below that you experience and state approximately how long after contact they occur: -

Rash……..
Itchy skin……..
Runny nose……..
Sneezing……..
Itchy/watery eyes……
Shortness of breath……
Facial Swelling……
Dizziness……..

In the last 12 months have you had any of the following symptoms?

[a]	Redness or swelling of the fingers or hands	Yes	No
[b]	Cracking of skin on fingers or hands	Yes	No
[c]	Blisters on fingers or hands	Yes	No
[d]	Flaking or scaling of skin on fingers or hands	Yes	No
[e]	Itching of fingers or hands	Yes	No

APPENDIX 3 – LATEX ALLERGY SCREENING QUESTIONNAIRE (PATIENT)

Name: ……..

Date of Birth: ……..

Address: ……..

Current Occupation: ……

PAST MEDICAL HISTORY

1. Do you have a history of any of the following? Please tick any that apply.

Asthma	☐	Hay Fever	☐
Hand Eczema	☐	Eczema elsewhere on the body	☐

2. Have you had any surgery? ☐ Yes ☐ No

If 'Yes' please give brief details of the procedure and your age at the time.

3. Have you had any extensive dental work? ☐ Yes ☐ No

4. Do you have any congenital abnormalities ☐ Yes ☐ No

Type: (e.g spina bifida) ……

5. Do you have any food allergies? ☐ Yes ☐ No

If 'yes' are you allergic to any of the following? Please tick any that apply and briefly describe symptoms.

Banana ……
Peach ……
Pineapple ……
Potato ……
Avocado ……
Kiwi Fruit ……
Papaya ……..
Egg ……
Tomato ……
Peanut ……
Other ……

6. Does your occupation involve frequent contact with items containing natural rubber latex? ☐ Yes ☐ No

7. Have you had a reaction to any of the following products made from natural rubber latex? Please tick any that apply.

Balloons ……..
Rubber Gloves ……..
Condoms ……..
Hot Water Bottles ……..
Rubber Balls ……..
Rubber Bands ……..
Elastoplast ……..
Elastic Bandages ……..
Erasers ……..
Garden Hoses ……..
Other ……..

8. If you answered 'yes' to the last question, how long after contact and what reaction would you expect to occur? Please state time against any that apply.

Rash on Hands ……..
Itching ……..
Urticaria (Hives) ……..
Runny Nose ……..
Sneezing ……..
Itchy/Watery Eyes ……..
Shortness of Breath ……..
Facial Swelling ……..
Dizziness ……..
Other ……..

9. Have you ever suffered anaphylactic shock? If so, how many times and under what conditions?

SUMMARY OF RESULTS (To be completed by Doctor/Registered Nurse/Midwife)

Latex sensitivity assessment…….

……

IgE and RAST test
Date Performed …… Result ……

Further Referral ……

Use test …… Patch tests …… Prick test ……..

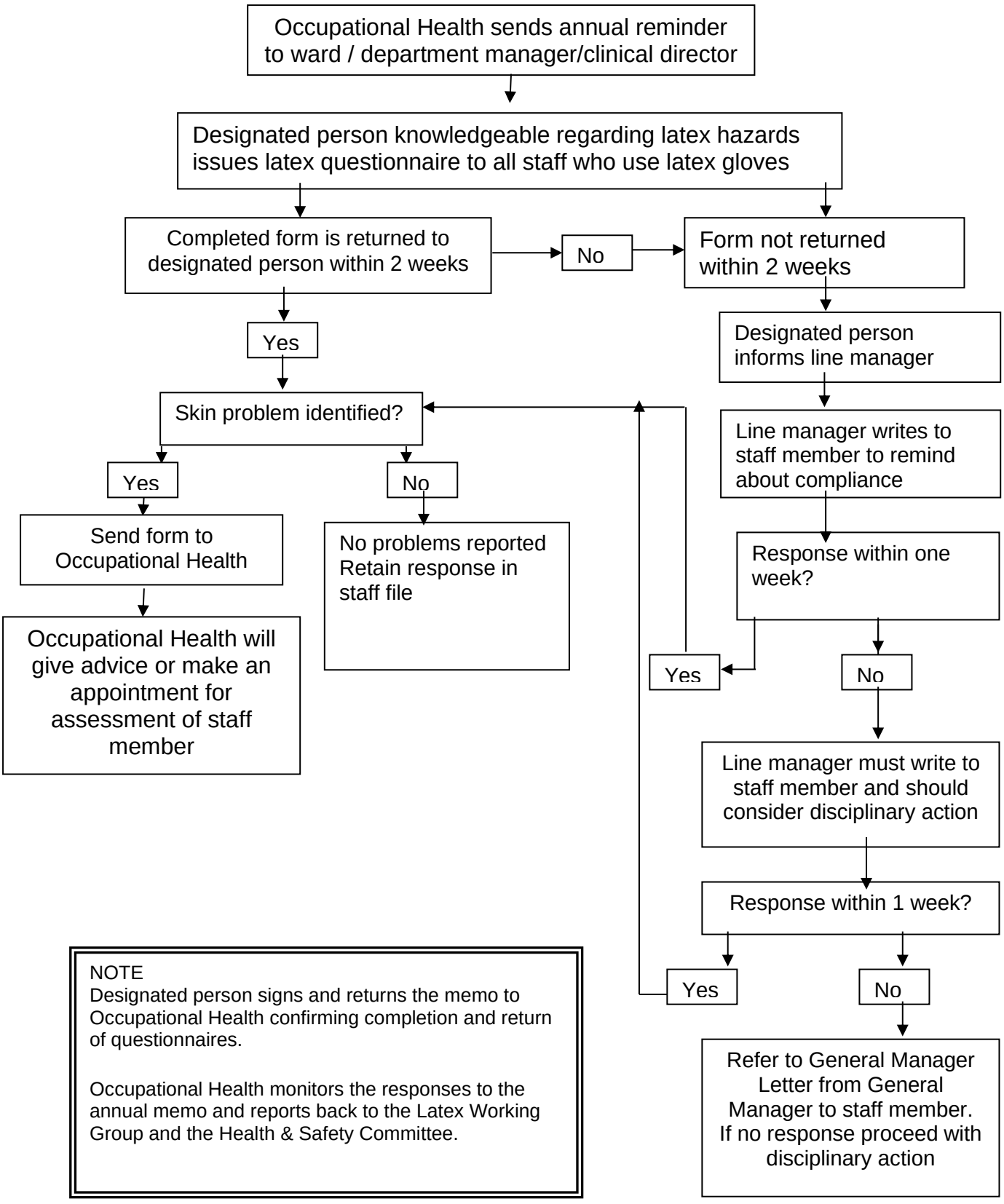
Any other Type 1 reaction ……

Outcome ……

APPENDIX 4 – CONTACT AREAS FOR ADVICE

- Occupational Health Service Manager
- Lead Nurse, Infection Control
- Procurement Specialist, Supplies
- Sterile Services (to order any instrument trays free from latex)
- Women's Hospital, Theatres
- Montagu Theatres
- Orthopaedic Theatres
- Main Theatres, DRI
- Bassetlaw Theatres
- Health and Safety

APPENDIX 5 – LATEX SCREENING QUESTIONNAIRE FLOW CHART



APPENDIX 6 - EQUALITY IMPACT ASSESSMENT PART 1 INITIAL SCREENING

~~Service/Function~~/Policy/~~Project/Strategy~~	Division	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
Glove Use Policy	Estates and Facilities	Gary Hewit	Existing	April 2023

1) Who is responsible for this policy? Name of Division/Directorate – Estates and Facilities

2) Describe the purpose of the service / function / policy / project/ strategy? To ensure that all Trust staff are aware of the Glove Use Policy

3) Are there any associated objectives? Legislation, targets national expectation, standards

4) What factors contribute or detract from achieving intended outcomes? – Behaviour and understanding

5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief? Details: [see Equality Impact Assessment Guidance] - No

- **If yes, please describe current or planned activities to address the impact** [e.g. Monitoring, consultation] – N/A

6) Is there any scope for new measures which would promote equality? [any actions to be taken] – N/A

7) Are any of the following groups adversely affected by the policy?

Protected Characteristics	Affected?	Impact
a) Age	No	
b) Disability	No	
c) Gender	No	
d) Gender Reassignment	No	
e) Marriage/Civil Partnership	No	
f) Maternity/Pregnancy	No	
g) Race	No	
h) Religion/Belief	No	
i) Sexual Orientation	No	

8) Provide the Equality Rating of the service / function /policy / project / strategy – tick (✓) outcome box

Outcome 1 ✓	Outcome 2	Outcome 3	Outcome 4

If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a* **Detailed Equality Analysis form in Appendix 4

Date for next review: ?

Checked by: Sean Tyler – Head of Compliance **Date: April 2023**