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LATEX ALLERGY PROCEDURE

Introduction and Aim

The aim of this Procedure is to support the Latex Allergy Policy in it's duty to assess the risk from latex in accordance with the Control of Substances Hazardous to Health Regulations 2002.

Objectives

The Objectives of the procedure are to:-

- Prevent the development of latex allergy
- Prevent symptoms due to latex allergy in both staff and patients
- Provide an environment where the UHB seeks to minimise the risk from exposure to latex
- Manage - where latex allergy in patients and staff is suspected or known, control measures will be identified to allow healthcare to be provided and continued employment where possible
- To ensure the UHB complies with the Control of Substances Hazardous to Health Regulations 2002.

Scope

This procedure applies to all of our staff in all locations including those with honorary contracts.

Equality Health Impact Assessment	*An Equality and Health Impact Assessment (EHIA) has been completed and this found there to be no impact*
Documents to read alongside this Procedure	Health and Safety Policy Control of Substances Hazardous to Health (COSHH) Procedure Occupational Health Policy Managing Attendance at Work Policy All Wales Incident, Hazard and Near Miss Reporting Policy
Approved by	Operational Health and Safety Group/Health and Safety Committee
Accountable Executive or Clinical Board	Chair of Operational Health and Safety Group

Director	
Author(s)	Health and Safety Adviser

Disclaimer

If the review date of this document has passed please ensure that the version you are using is the most up to date either by contacting the document author or the Governance Directorate.

Summary of reviews/amendments			
Version Number	**Date of Review Approved**	**Date Published**	**Summary of Amendments**
1		30.07.2019	New Procedure in line with new UHB Policy arrangements

Appendix

1 WHAT IS LATEX?

Latex is the protective fluid contained in tissue beneath the bark of the rubber tree, *Hevea brasiliensis.*

Natural rubber latex (NRL) is a cloudy white liquid, similar in appearance to cows milk, collected by cutting a thin strip of bark from the tree and allowing the latex to exude into a collecting vessel.

The latex collected from the rubber tree is composed of rubber particles, protein, water and other substances.

Processing of the latex (eg centrifugation and leaching) can affect the level of protein in the finished product. Some glove manufacturers wash the gloves in a chlorinated solution to reduce the tackiness of the latex to avoid having to powder the glove. Chlorination followed by prolonged leaching reduces the protein levels, producing a glove low in protein.

2. ROUTES OF EXPOSURE

The potential routes of exposure to latex allergens are:

- Cutaneous – via gloves, tapes, masks, urine drainage bags;
- Mucous membranes – via products used in dentistry, anaesthesia and rectal examinations, eye droppers;
- Inhalation – via aerosolisation of glove powder;
- Internal tissue – via latex products used in surgery;
- Intravascular – via latex products used in intravascular devices (e.g. IV cannulae) or devices used to deliver IV fluids and injectables (syringes and IV administration sets) or in the vial stopper or needle sheath of some injectable medicines;
- Gynaecological examinations.

3. TYPES OF REACTION

3.1 Irritant Contact Dermatitis

This is a common form of dermatitis, one example is “Housewives Hand Dermatitis”. In most cases it is caused by damage to the skin from repeated exposure over a long period of time to water, soap and other detergents (such as surgical scrub). It is not due to an allergy to latex.

3.1.1 Symptoms

It usually presents as a dry, itchy red rash on the back of the hands and fingers. There may be episodes of blistering and weeping of affected skin which may swell. After prolonged involvement, the skin may become dry, thickened and scaly. Symptoms may appear to be aggravated by latex gloves, largely through the effect of occlusion, friction or the powder.

3.1.2 Diagnosis

Diagnosis is based primarily on history and examination.

Patch tests which test for type IV delayed hypersensivity allergy to various common contact allergens are negative in irritant contact dermatitis.

3.1.3 Treatment

Treatment is with non-irritating soap substitute, emollient creams and topical steroids. Sufferers must reduce their irritant exposure. Paradoxically this usually involves recommending greater use of non powdered latex gloves for protection during wet work.

3.2 Allergic Contact Dermatitis (Type IV Delayed Hypersensitivity)

This is less common than irritant contact dermatitis, it is caused by an allergy to the residues of the rubber chemical agents used in latex glove manufacture.

3.2.1 Symptoms

The symptoms and signs are usually indistinguishable from irritant contact dermatitis as above, frequently the two conditions coexist. There may be dermatitis at other sites exposed to latex, such as under the waist-band or on the soles of the feet. Secondary spread of dermatitis to non-exposed skin can occur.

3.2.2 Diagnosis

Diagnosis is confirmed by demonstrating positive patch tests to one or more of the rubber accelerators. Once established, this form of allergic response lasts for many years.

3.2.3 Treatment

Effective management requires the stringent avoidance of the responsible agent along with topical treatment as above. Although prolonged contact must be avoided, transient contact may not be a problem.

3.3 Immediate Hypersensitivity (Type 1)

This is much rarer than the above forms of contact dermatitis. However it is very important as it can cause severe and even fatal reactions.

3.3.1 The Role of Protein

Type 1 (immediate) hypersensitivity is due to an Immunoglobulin E (IgE) response to natural latex protein which happens in two stages. Stage one is when the body first becomes sensitised to allergen and the immune system makes antibodies called (IgE) against it. Stage two occurs if the person is exposed to the same allergen again, these antibodies then trigger an immune response to fight them off causing the symptoms of an allergic reaction. It should be noted that latex protein may adhere to particles of starch powder inside gloves, and the powder aerosol may thus also induce symptoms through inhalation.

3.3.2 Symptoms

Symptoms usually develop within 5 – 40 minutes of exposure and diminish rapidly once contact with the latex material has ceased. It may present with immediate itching and swelling of the fingers or hand when a latex glove is worn. This is more likely to occur at sites where the skin is broken or affected by dermatitis.

Immediate hypersensitivity may manifest as rhinitis, conjunctivitis or asthma.

More serious but uncommon are symptoms of anaphylaxis. These are more likely to occur when there has been latex contact with the mucous membranes or body cavities (as in surgery). Anaphylaxis may present with any or all of the following:

- Local or generalised itching, urticaria and/or angio-oedema
- Rhinitis and/or conjunctivitis
- Asthma
- Extreme anxiety
- Nausea, vomiting and abdominal pain
- Tachycardia with or without hypertension
- Faintness or loss of consciousness
- Cardio-respiratory arrest

If anaphylaxis is suspected immediate medical assistance should be summoned.

4. DIAGNOSING THOSE AT RISK

4.1 Staff

4.1.1 Diagnosis

Employees who think they may have latex allergy, after discussion with their Line Manager should be seen by the Occupational Health Service. Managers who are concerned that an employee may have latex allergy must refer them to the Occupational Health Service for clinical investigation.

4.1.2. Management of Affected Employees

Advice regarding latex avoidance will be given and the Occupational Health Service will review latex allergic employees after avoidance advice has been given to ensure symptom control.

The condition of latex allergy may require reporting as an Occupational Disease under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013. Further advice on this matter is available from the Occupational Health Service and the Health, Safety and Environment Unit.

4.2 New Employees

The pre-employment health questionnaire asks about known allergies, including latex. If latex allergy is identified and confirmed in a prospective employee the Occupational Health Service will advise the management and the employee of any adjustments needed to the working practices or workplace to accommodate the employee. The Health Board will make any reasonable adjustments necessary to comply with this advice. The Occupational Health Service will review latex allergic employees after avoidance advice has been given to ensure symptom control.

4.3 Locums and Agency Staff

All locum and agency staff should be screened by their own agencies before commencing work within the Health Board however they would be expected to comply with the Health Board's policy/procedure whilst in post. If presenting with symptoms of a Latex Allergy, they should seek advice or clinical investigations from their own agency.

4.4 Patients

Certain conditions, occupations or those with a previous history of immediate reaction to skin-rubber exposure during various contact activities should alert the clinician to the possibility of latex allergy. For example:

- Atopy
- Spina Bifida
- Food allergy – avocado, banana, chestnut and kiwi represent the biggest risk of cross allergencity.
- Being a Healthcare Worker
- An allergy to rubber balloons, condoms and rubber gloves
- Multiple Surgical procedures

If latex allergy is suspected, further investigation may be requested from the Dermatology Department.

4.4.1 Management of Latex Sensitive Patient Admitted to Hospital

Effective communication between staff from all departments involved in the case of the patient is essential in maintaining patient safety.

- On admission, the named nurse will ensure that the patient is asked about any allergies.

- Patients notes must be labelled 'Latex Allergy', this is to be included in all relevant documentation i.e. nursing notes, medication chart, medical notes, on procedure request forms to other departments e.g. X-ray etc

- Notify all departments who are involved in treatment, investigation or care for the patient to ensure all necessary precautions are maintained e.g Theatres, X-ray etc.

- Do not use any product that contains latex for nursing, surgical, medical or any other procedure.

- Most equipment today is latex free, however check all labels and packaging before use to ensure they do not contain latex. If in doubt do not use the item until it has been determined that it is latex free. **(In the event of a resuscitation attempt this may not be possible).**

- Remove latex products from the patient's room to reduce the risk of inadvertent use of these products.

- Educate the patient about latex allergy and the possibility of obtaining a Medic-Alert bracelet or locket.

- Where Type I allergy is confirmed and surgery or other medical procedures are imminent, patients should be scheduled first on the theatre list to minimise risk of contamination with latex.

- For patients requiring emergency surgery, every effort will be made to schedule with the latex allergy first on the emergency operating list. However when this is not possible due to clinical demand, all latex items will be removed from theatre prior to sending for the patient to prevent contact with the patient and to allow necessary air changes to occur.

- Obstetric patients who have known or have possible latex allergies should be noted at booking clinic, and all appropriate departments notified at this time i.e ward, theatres etc.

4.4.2 Management of Patients in the Community

- Do not use any product that contains latex for nursing, surgical, medical or any other procedure.

- Check all labels and packaging before use to ensure they do not contain latex. If in doubt do not use the item until it has been determined that it is latex free.

- Ensure non-latex gloves are used when attending to patients with latex allergy.

- Remember to check other items such as urinary catheters, syringes, IV giving sets and dressings or bandages.

- Educate the patient about latex allergy and the possibility of obtaining a Medic-Alert bracelet or locket.

- Ensure all documentation is labelled 'Latex Allergy', to ensure continuity of care. Update the patient's notes.

5. PREVENTION

5.1 Use of Low Protein Devices

Sensitisation can be prevented by the use of devices low in protein. Currently, the accepted method for assaying protein in latex devices is the Modified Lowry Assay.

The Surgical Materials Testing Laboratory carries out testing of medical devices for the All Wales Contracts. Part of this work includes assaying protein levels in medical devices. Reports are available from SMTL on request and on their Internet site http://www.smtl.co.uk, which documents protein levels in various medical devices including gloves and urinary catheters. More information can also be found at www.hse.gov.uk/latex.

5.2 Use of Non-Latex Devices

The use of non-latex devices is recommended in situations where staff or patients have a known latex allergy, and contact with the device is unavoidable. Appendix 1 lists products known to contain latex. As far as is reasonably practicable, all clinical areas should have latex-free items available in case of an emergency. This would include items such as latex-free gloves and all items on resuscitation trolleys.

5.3 General Measures

Good housekeeping practices should be followed to remove latex containing dust from the workplace. Areas potentially contaminated from latex devices should be identified for frequent cleaning.

Ventilation filters and vacuum bags should be changed frequently in these identified areas.

6. RESPONSIBILITIES

6.1 Chief Executive

The Chief Executive has overall responsibility for ensuring arrangements are in place for the implementation of the Latex Allergy Policy/Procedure.

6.2 Chair of Operational Health and Safety Group

The Chair of the Operational Health and Safety Group has delegated responsibility for ensuring arrangements are in place for the implementation of the Latex Allergy Policy/Procedure.

6.3 Clinical Board Managers/Nurses will:

Ensure through their Directorate/Locality/Department Managers that Departments have Local Procedures for managing latex allergy in their areas. 7.4.1 and 7.4.2 refers.

6.4 Directorate/Locality/Departmental Managers will:

Ensure that this procedure and appropriate arrangements are implemented into their areas of responsibility. This includes making staff aware of this procedure and providing adequate information to staff.

6.5 Lead Clinicians will:

- Ensure that the allergy history, including latex of any patient being considered for elective surgery is established and recorded in advance of admission. All conscious non-elective patients will be asked on admission to the Emergency Department if they have any known allergies. If the patient has a skin problem for which the diagnosis is not clear but in which a latex allergy is a possibility, the patient should be referred for a dermatological opinion.

- Ensure that if it is known that the patient has a latex allergy that this information is recorded and communicated to all parties who will be involved in the treatment and care of the patient.

6.6 Ward/Departmental Managers/Community Leads will:

- Ensure staff are made aware of the risks of latex allergy.

- Ensure that COSHH Assessments for latex are undertaken.

- Ensure only non-latex gloves (powder free, low protein latex gloves) are available for all employees and effectively manage provision through the risk assessment process and appropriate control measures.

- Ensure that where it has been identified that non-latex gloves must be used due to a specific clinical procedure, a risk assessment has been carried out and that these

risk assessments are reviewed and updated as necessary.

- Ensure non-latex products are available for employees who may be sensitised to latex.

- Ensure non-latex gloves and latex gloves are stored separately, if it has been risk assessed that latex gloves are required.

- Make use of a health surveillance programme including pre-employment screening to establish if a prospective employee has a history of latex allergy.

- Raise awareness of latex allergy by inclusion of the topic in the induction process for new starters.

- Ensure every reasonable precaution is taken to protect a latex sensitive member of staff.

- Manage exposure to latex through health surveillance and the annual appraisal system where appropriate. A Latex questionnaire is to be completed with the employee as part of their appraisal (Refer to Appendix 2). Positive results are to be referred to the Occupational Health Service.

- Ensure a latex free environment as far as reasonably practicable, if he/she is notified that there is a latex sensitive patient on ward/department.

- Ensure that every patient is asked if they have any allergies and is recorded on the patient notes.

- Ensure that all staff are made aware if a latex sensitive patient is on the ward/department and that this is clearly marked in the patient notes.

- Complete an E-Datix Incident Report Form if a patient suffers an adverse reaction as a result of being in contact with latex.

6.7 Occupational Health Service will:

- Refer to the process developed to deal with the assessment of latex allergy in staff before and during employment.

- Advise employees and their managers on restrictions necessary to safeguard their health.

- Ensure that staff with known Type 1 latex sensitivity receives health surveillance at appropriate intervals.

- Ensure that there is a follow up for staff that are diagnosed with latex allergy/sensitivity.

  Advise the Health, Safety and Environment Unit of any employees who have been diagnosed with contact dermatitis as the condition of latex allergy may require reporting as an Occupational Disease under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 2013.

- Advise the Health Board management through the Operational Health and Safety Group of significant issues as they arise.

6.8 Health, Safety and Environment Unit will:

- Provide advice and support in the completion of the COSHH Assessments.

- Provide advice and information with regard to potential hazards in the workplace.

- Advise on methods of risk assessment.

6.9 Procurement Department will:

- Provide advice to Managers on the purchase of gloves and other equipment.

- Ensure only non-latex gloves (powder free, low protein latex) are available for all employees and effectively manage provision through the risk assessment process and appropriate control measures.

- Assist in finding alternative products for staff and patients who are allergic to latex products.

- Provide information to managers from manufacturers.

6.10 Staff will:

- Report any skin allergy problems to their Line Manager and Occupational Health.
- Assume responsibility to read and understand the relevant sections of this procedure.
- Complete an E-Datix Incident Report Form if any skin allergy problems occur.

6.11 What Staff Can Do To Protect Themselves

The assessment of risk under COSHH and this Procedure should eliminate the use of latex gloves and restrict the use of other latex products with a high leachable protein content, as far as is reasonably practical. In practice, measures likely to be identified by a suitable and sufficient risk assessment will include having a procedure, which includes:

- not wearing gloves unnecessarily
- ensuring that powdered latex gloves **are not** used
- following good hygiene practices, such as washing hands after removing gloves.
- all staff must use reasonable measures to ensure their skin remains healthy and intact. Barrier creams can affect glove integrity and should not be applied to hands immediately before wearing gloves.
- reporting any skin allergy problems to their Manager and the Occupational Health Service as soon as possible.

7. REVIEWING THE PROCEDURE

The Procedure will be reviewed within three years of implementation or as the Health Board changes and/or when legislation, codes of practice and official guidance dictate.

REFERENCES

Control of Substances Hazardous to Health Regulations 2002
Management of Health and Safety at Work Regulations 1999

Royal College of Physicians and NHS Plus – Latex Allergy, Occupational Aspects of Management 2008

Medical Device Alert (1996) Latex Sensitisation in the Healthcare Setting 1996/01

National Patient Safety Agency (NPSA) Protecting People with Allergy Associated with Latex 2005/08

APPENDIX 1

COMMON MEDICAL DEVICES CONTAINING LATEX

Adhesive tape
Ambu bags
Band-Aids and similar
Bulb syringes
Colostomy pouch
Condom urinary collection devices
Dental cofferdams
Elastic bandages
Electrode pads
Enema tubing kits
Fluid warming blankets
Gloves - examination and sterile
Haemodialysis equipment
Mattresses on stretchers
Neonatal incubator
PCA syringes
Protective sheets
Rubber gloves
Rubber pads
Stethoscope tubing
Stomach and GI tubes
Tourniquets
Urinary catheters
Vial stoppers
Wound drains

<u>Anaesthesia and Operating Room Equipment</u>

Blood pressure cuffs (bladder and tubing)
Bile bags
Chest drainage units
Drapes
Electrode pads
Endotracheal tubes
Epidural catheter injection adapters
Eye shields
Head straps
Injection ports on iv bags
Laparoscopy insufflation hoses
Linear/Burr hole drapes
Latex cuffs on plastic tracheal tubes
Latex injection ports on iv tubing

Multidose vial stoppers
Needle counting systems
Naso-pharyngeal airways

Oral-pharyngeal airways
Porous tape
Penrose tubing
Rubber suction catheters
Rubber breathing circuits
Rubber ventilation bellows
Rubber masks
Rubber tourniquets
Surgical masks
Teeth protectors & Bite blocks
Vented basic solution sets

Miscellaneous Products Containing Latex

Adhesive tape
Balloons
Condom
Camera eyepiece
Diaphragm
Dummies
Household work gloves
Paint
Raincoats
Shower cap
Swimming fins
Tennis/squash shoes
Underwear

Reference source: http://www.jr2.ox.ac.uk/bandolier/bandopubs/NHSSlatex.html

APPENDIX 2

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Caerdydd a'r Fro
Cardiff and Vale University Health Board

Latex Questionnaire for the Personal Development Appraisal Review

Name……..... Dept……..…..

DOB……... Location…….

Job title……... Date started in post……

Have you had any reactions to gloves you have used at work? Including the following:	**Yes**	**No**	**Details**
Runny nose or sore itchy eyes			
Eczema, rash or dermatitis on hands			
Eczema on any other part of body			
Red, sore skin on hands			
Wheezing or breathlessness at work			
Have you had any reactions to the gloves you use at work?			

Signature of employee……..

Name and post of person administering this questionnaire……..

Signature……

Name of manager…….

Refer any positive responses to the Occupational Health Department

Action: NO FURTHER ACTION REQUIRED AT THIS TIME/YES - REFER TO OH

Date of next due questionnaire…….