5.1 Guidelines for Glove Selection

1. Introduction

1.1 The aim of wearing gloves is to:

i) Protect users hands from becoming contaminated with organic matter and micro-organisms.

ii) Protect users hands from certain chemicals that may adversely affect the condition of the skin.

iii) Reduce the risk of cross infection by preventing the transfer of organisms from staff to patients and vice versa. (Infection Control Nurses Association (ICNA) 2002).

1.2 Gloves should be capable of providing protection from hazards, be comfortable and fit the wearer (Health & Safety Executive (HSE) 1992). Choice should therefore be made on the basis of their suitability for protection, compatibility with the task and user requirements.

1.3 It should be noted that wearing gloves does not negate the necessity for handwashing following a task or episode of care (Pratt et al, 2001).

1.4 For a full list of products available at the Queens Medical Centre please refer to 'Medical Glove Purchasing' (2001) in the Queens Medical Centre 'Medical and Surgical supplies formulary'.

2. Risk assessment and glove selection

2.1 An informed risk assessment should be undertaken to ensure that an appropriate glove choice is made for the specific task/procedure. Various factors need to be considered when assessing risk as required by the Control of Substances Hazardous to Health (COSHH) regulations (HSE 2002).

2.2 The key factors include:

- Hazard identification e.g. whether a Blood-Borne Virus (BBV) or other organism may be present.
- What effect the BBV or organism/chemicals may have.
- Where the BBV or organism is present e.g. blood or body fluids.

- Ways in which the employee may be exposed, e.g. direct contact or sharps injury.

- Estimate of exposure i.e. number and range of sources and frequency of contact.

2.3 Please refer to the Appendix that will assist the user to make an informed decision regarding the most appropriate glove for each specific task.

2.4 Double gloving should be considered when health care workers undertake either an exposure prone procedure or when glove punctures are likely (ICNA, 2002).

2.5 It is important to ensure that gloves fit correctly. Poor fitting gloves can interfere with dexterity and performance exposing the wearer to potential risks.

3. Legal requirements and single use

3.1 Examination and surgeons gloves are classed as medical devices, and since 1998 must comply with European Law (DoH 1998). All gloves used for this purpose should have a CE mark to demonstrate compliance (MDA 1999a).

3.2 Examination and surgeon's gloves are designated as 'single-use' and should never be reused under any circumstances (MDA, 2000). Gloves should be disposed of after each task or episode of care (Pratt et al, 2001).

4. Glove materials

4.1 Gloves come in a variety of materials which include:

4.2 Natural rubber latex (NRL)

NRL provides a high level of protection against BBV. They also have great strength, elasticity, flexibility and general comfort (MDA, 1996). Due to this, NRL is the material of choice for gloves when dealing with blood and body fluids (Pratt et al, 2001).

4.3 Non-natural rubber products

Nitrile can be utilised as alternatives to NRL, however barrier properties need to be defined by manufacturers data. It is important to note that nitrile gloves usually contain similar chemical additives (such as thirurams or carabamates) as NRL, which can act as contact allergens. They are good in use with chemical agents, but are not as flexible as NRL.

4.4 Vinyl

In accordance with MDA (1996) Guidelines, this type of glove should not be used for clinical use.

4.5 Plastic/co-polymer

The only clinical circumstances in which these may be used is as a sterile product for endotracheal suction when over a latex examination glove. Otherwise they are not recommended for use in the healthcare setting, or as protective clothing (ICNA, 1999, HSE 1992). They are poor fitting, have seams which may not be complete and have a tendency to tear easily.

5. NRL sensitivity and allergy

5.1 True NRL allergy remains rare, however exposure to NRL can produce various reactions. Allergies related to NRL can be either:

- Immediate: A response to naturally occurring proteins in latex result in immediate hypersensitivity. Symptoms occur between 5 and 30 minutes after exposure. Reactions may include skin reddening or wheezing. Usually these reactions subside within 2 hours of removal of the allergen.

- Delayed: A delayed hypersensitivity or allergic contact dermatitis is a response to the chemical accelerators used in synthetic and NRL manufacturing process. An acute rash occurs after 6 to 48 hours and once a person has become sensitised to an allergen, the slightest contact may provoke recurrence.

5.2 Any Health Care worker who thinks they may have a glove related allergy must attend Occupational Health to enable a comprehensive assessment to be conducted.

6. References

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Medical Devices Agency (MDA) (1999). The CE mark, Bulletin No.2.

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Royal College of Nursing (RCN) (1999). latex allergy in healthcare settings, Working well initiative. Employment brief 25/99. RCN London.

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Appendix: Risk assessment for glove choice