



**Adopted BOD October 2005  
Updated BOD January 2013**

## **Guideline Statements for the Natural Rubber Latex Protein Allergic Patient in the Operating Room Environment**

### **Introduction**

With the recent increase and awareness of natural rubber latex protein allergies, it is very important for all members of the perioperative team to understand and recognize the need to decrease and/or eliminate latex exposure in the operating room (OR) for those individuals who are allergic to natural rubber latex.<sup>19,20</sup>

The intended purpose is to provide guidelines for perioperative staff to promote an optimal operative experience for individuals who demonstrate a natural rubber, latex protein allergy. Appropriate care of the patient is essential to their safety from anaphylactic reactions and to assure an ideal outcome. These Guidelines should be used in accordance with each health care facility's (HCF) Latex Allergy Committee guidelines. If the HCF uses latex-free products, these practices may not be needed.

### **Guideline I**

**Schedule the latex allergy patient as the first case of the morning and preferably the first day of the week.**

1. Scheduling the patient as the first case of the day will contribute to decreasing the chances of airborne powder from powdered, natural rubber latex gloves, creating an optimal physical environment for patients with a natural rubber latex protein allergy.<sup>1,4,6,9,13,21</sup>
  - A. Glove powder that becomes airborne can remain airborne up to five hours.
  - B. Operating rooms with high laminar air flow exchange rates have the same latex aeroallergen levels as ones with the conventional air exchange rates.<sup>4</sup>
  - C. ORs that were not used for 48 hours or more contain undetectable amounts of aeroallergens.<sup>4</sup>

### **Guideline II**

**All natural rubber latex containing supplies should be removed from the OR and proper housekeeping practices employed to promote the removal of latex-containing dust from the workplace, including frequent cleaning of upholstery, carpets, ventilation ducts, changing of ventilation filters and vacuum bags.**

1. Asthma attacks and bronchospasm can be induced in individuals with a Type I natural rubber latex protein allergy by being in an environment where there is an open box of powdered, natural rubber gloves, or where latex-laden powder has

- been released.<sup>2,3,11,12,15,16</sup>
2. Glove powder can linger in ventilation systems, on furniture, and overhead lights.<sup>4</sup>
  3. Non-latex gloves should be used to clean the operating rooms, recovery rooms and preoperative holding areas.<sup>5,7,8,10</sup>

### **Guideline III**

**Patients should wear a filter particulate mask when being transported through the hospital corridors.**

1. Filter particulate masks reduce the amount of glove powder being inhaled by the patient with a latex protein allergy.<sup>9</sup>

### **Guideline IV**

**Only use latex-free head coverings for patients and staff.**

1. Only bouffant caps that do not contain a natural rubber latex elastic band should be used to cover the hair of patients or staff.<sup>9</sup>

### **Guideline V**

**Patients should be transported directly from the patient unit to the OR.**

1. Transporting patients directly to the OR minimizes exposure to, or coming in contact, with the preoperative holding and OR areas containing natural rubber latex particles.

### **Guideline VI**

**Latex allergic signs should be posted on patient's bed, on the inside and outside of the OR doors to aid in keeping traffic to a minimum, and on anesthesia equipment. The OR staff should be educated as to acceptable procedures and equipment to use with the natural rubber latex protein allergic patient.**

1. Posting of signs prevents any employee who has worn powdered natural rubber latex gloves from entering any environment where the natural rubber latex protein allergic individual will be.
2. Items, such as stretchers, equipment, and supplies used on, or for the patient, should be cleaned.
3. All natural rubber latex containing medical devices should be labeled as such.<sup>17</sup>
4. Devices should be checked for the presence of natural rubber latex in packaging materials, sealant and contents.
5. Documentation should be obtained from manufacturers, stating the natural rubber latex status of the product, packaging and sealant, and the documentation kept on file for reference by surgery department staff.<sup>17</sup>

### **Guideline VII**

**A latex-free equipment/supply cart should be created, stocked, and used for procedures involving the natural rubber latex protein allergic patient. Premade packages containing natural rubber latex-based products or powdered natural rubber latex gloves should not be used during the surgical procedure.**

1. Supplies for natural rubber latex protein allergic patient use should be identified, assembled, and stocked in a cart for ease of identification and use for surgical procedures to reduce the chances of using items containing natural rubber latex.<sup>14</sup>
2. Powder from natural rubber latex gloves can penetrate the layers of materials found in premade packages.
3. Packages, which do not use natural rubber latex containing sealant, should be stocked in the operating room for use on the latex-protein allergic patient.

#### **Guideline VIII**

**The operating room staff should not wear natural rubber latex gloves for any procedure involving a latex protein allergic patient.**

1. Surgical team members should not wear any form of latex gloves, including wearing nonlatex gloves over natural rubber latex gloves, wearing low-powdered or powder-free natural rubber latex gloves.

#### **Guideline IX**

**All equipment, packages and supplies should be confirmed, as being natural rubber latex free prior to opening or using on a patient. Packing material of devices should be also confirmed as being natural rubber latex free in packaging materials, sealant, and contents.**

1. Equipment, packages, and supplies should be checked for the presence of natural rubber latex in packaging materials, sealant and contents.<sup>14</sup>
2. Documentation should be obtained from manufacturers, stating the natural rubber latex status of the product, packaging and sealant, and the documentation kept on file for reference by surgery department staff.<sup>18</sup>

#### **Guideline X**

**Wires, blood pressure cuff(s), EKG cords, and all other items that normally come into contact with the patient's skin are prevented from coming into contact with the patient.**

1. Wires, EKG leads, blood pressure cuffs and other items that contain natural rubber latex should be covered to prevent contact with the patient's skin or substitute with non-latex items.<sup>9</sup>

#### **Guideline XI**

**Proper precautions should be employed to avoid the use of natural rubber latex ports on IV lines.**

1. Extension tubing and stopcock should be added to the IV lines that contain natural rubber latex ports. The stopcock portal is used to inject intravenous medications.
2. Natural rubber latex ports should be labeled as such, or covered with colored tape to prevent use.
3. Latex-free intravenous tubing should be used.

#### **Guideline XII**

**An isolation section of the Post Anesthesia Care Unit (PACU) should be designated for the recovering patient with a natural rubber latex protein allergy.**

1. Proper signage should be posted indicating the isolation section and the need for implementing latex safe protocols.<sup>17</sup>
2. PACU staff should be educated in the implementation of latex-safe protocols, including wearing nonlatex gloves without powder, and using the supplies from the latex-free supply cart in the care of the patient.

### **Guideline XIII**

#### **Multi-discipline focused, facility-specific policies and procedures to address care issues for the latex protein allergic patient should be developed.**

1. Health care facilities should develop a Latex Allergy Practices Committee comprised of representatives from all patient-care focused disciplines, including nursing, dietary, laboratory, housekeeping, anesthesia, operating room, pharmacy, respiratory therapy, admitting, X-ray, volunteers and home care. This committee should be charged with the development of policies and procedures related to the care of the natural rubber, latex-protein allergic patient. The committee should be responsible for the review of the policies on a timely basis for the purpose of updating.

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