

#### DEPARTMENT OF THE NAVY BUREAU OF MEDICINE AND SURGERY 7700 ARLINGTON BOULEVARD FALLS CHURCH, VA 22042

IN REPLY REFER TO

BUMEDINST 6200.16A CH-1 BUMED-M3 14 Jun 2017

# BUMED INSTRUCTION 6200.16A CHANGE TRANSMITTAL 1

From: Chief, Bureau of Medicine and Surgery

Subj: PREVENTION OF LATEX SENSITIZATION AND MINIMIZING ITS EFFECTS AMONG HEALTH CARE WORKERS AND PATIENTS

Encl: (1) Revised Page 2 of Enclosure (1)

- 1. <u>Purpose</u>. To provide a new page 2 of enclosure (1), which revises the language regarding the use of latex, natural membrane, and polyurethane condoms, for prevention of sexually transmitted diseases.
- 2. <u>Action</u>. Remove page 2 of enclosure (1) of the basic instruction and replace with enclosure (1) of this change transmittal.
- 3. Records created as a result of this change transmittal, regardless of media and format, must be managed per SECNAV M-5210.1 of January 2012.
- 4. Retain. For record purposes, keep this change transmittal in front of the basic instruction.

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Releasability and distribution:

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# DEPARTMENT OF THE NAVY BUREAU OF MEDICINE AND SURGERY 7700 ARLINGTON BOULEVARD FALLS CHURCH, VA 22042

BUMEDINST 6200.16A BUMED-M3 29 Sep 2014

# **BUMED INSTRUCTION 6200.16A**

From: Chief, Bureau of Medicine and Surgery

Subj: PREVENTION OF LATEX SENSITIZATION AND MINIMIZING ITS EFFECTS AMONG HEALTH CARE WORKERS AND PATIENTS

Ref: (a) National Institute for Occupational Safety and Health (NIOSH), Publication Number 97-135, "Preventing Allergic Reactions to Natural Rubber Latex in the Workplace," Jun 1997

- (b) Guidelines for the Management of Latex Allergies and Safe Latex Use in Health Care Facilities, Sussman, G., and Gold, M., American College of Allergy, Asthma and Immunology, Aug 1996
- (c) Occupational Safety and Health Administration (OSHA), Safety and Health Information Bulletin SHIB 01-28-2008, Potential for Sensitization and Possible Allergic Reaction Natural Rubber Latex Gloves and other Natural Rubber Products
- (d) NMCPHC-TM OM 6260 Medical Surveillance Procedures Manual and Medical Matrix
- (e) SECNAV M-5210.1 of Jan 2012

Encl: (1) Latex Product Management Guidelines and Substitutes

- (2) Occupational Latex Exposure
- (3) Prevention of Latex Allergy and Adverse Reactions to Latex Among Patients
- 1. <u>Purpose</u>. To provide policy and guidance for prevention of latex sensitization in workers and patients based on reference (a), which is located at: <a href="http://www.cdc.gov/niosh/docs/97-135/pdfs/97-135.pdf">http://www.cdc.gov/niosh/docs/97-135/pdfs/97-135.pdf</a>; reference (b), which is located at: <a href="http://www.acaai.org/allergist/allergies/Types/latex-allergy/Pages/latex-allergies-safe-use.aspx">http://www.acaai.org/allergist/allergies/Types/latex-allergy/Pages/latex-allergies-safe-use.aspx</a>; and reference (c), which is located at: <a href="http://www.osha.gov/dts/shib/shib012808.html">http://www.osha.gov/dts/shib/shib012808.html</a>.
- 2. Cancellation. BUMEDINST 6200.16.
- 3. <u>Scope</u>. This instruction applies to Navy medical treatment facilities (MTFs) and dental treatment facilities (DTFs), medical research and development commands, and medical and dental personnel assigned to operational forces.

# 4. Background

a. Although latex allergies have decreased over the past 10 years with implementation of workplace latex allergy prevention programs and changes in manufacturing processes, such allergies continue to occur in certain populations, especially health care workers and at-risk

patients. Once sensitized, latex-allergic individuals are at risk for potentially life-threatening reactions to latex exposure. Reducing latex exposure to the maximum extent possible minimizes sensitization and development of new latex allergy cases.

- b. Persons at risk for latex sensitization may be divided into three broad categories:
- (1) Workers in the health care industry (physicians, nurses, dentists, laboratory technicians, etc.).
- (2) Workers in other occupations where latex materials or protective equipment may be used (emergency response personnel, security personnel, housekeepers, food service workers, veterinarians, maintenance personnel, etc.).
- (3) Patients in MTFs and DTFs, especially those with a history of frequent exposure to latex via surgical or other medical and dental treatments.
- c. Enclosure (1) provides examples of latex-containing products and a suggested inventory of products that should be used for patients who are sensitized to latex. Enclosure (2) provides guidance for preventing development of occupation-related latex allergy. Enclosure (3) delineates responsibilities of MTFs, DTFs, and personnel caring for patients who have or who are at risk of developing latex allergy.
- 5. Policy. Prevention of latex sensitization and related morbidity will be supported by:
  - a. Mandatory education of health care workers.
- b. Identifying health care workers and patients at high risk or who are already allergic, and taking appropriate precautions.
- c. Using non-latex products (synthetic alternatives not made with natural rubber latex) whenever practical, and always during care of latex allergic patients. Surgical and exam gloves must be powder-free (2 milligrams or less powder/glove) if made of natural latex and have a low content of latex protein allergen (<50 micrograms protein/gram latex).
  - d. Using appropriate work practices to reduce the likelihood of reactions to latex.

# 6. Action

a. Commanders, commanding officers, officers in charge, and procurement officers shall be aware of the guidelines in enclosure (1), and will seek to stock and use the appropriate latex-free substitute to the maximum extent possible.

- b. Commanders, commanding officers, and officers in charge shall ensure that the recommendations in enclosure (2) are followed when developing local policies and instructions for use of latex-containing products.
- c. MTF and DTF personnel caring for patients shall ensure that the responsibilities in enclosure (3) are fulfilled, including, where appropriate, screening for latex allergy in patients.
- d. Occupational medicine/occupational health, military health centers, and branch clinics shall screen workers exposed to latex-containing products, including firefighters, health care workers, and others potentially exposed to blood and body fluids, according to the appropriate program in reference (d).
- 7. Records created as a result of this instruction, regardless of media and format, shall be managed per SECNAV Manual 5120.1 of January 2012.

M. L. NATHAN

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# LATEX PRODUCT MANAGEMENT GUIDELINES AND SUBSTITUTES

1. <u>Background</u>. Eliminating or minimizing exposure to products made from or containing latex is the most effective way to reduce development of or symptoms from latex allergy. Substitute products made without latex are available for most latex products. Use of products containing latex should be minimized wherever feasible. Latex containing products must be avoided entirely by patients and workers with known latex allergy.

# 2. Products Containing Latex

A wide variety of health care and related products contain latex. The following are examples of products that may contain latex.

Examination & Emergency Equipment	Personal Protective Equipment	Hospital and Dental Supplies	Office Supplies	Other Common Objects
Blood pressure cuffs	Gloves	Anesthesia	Erasers	Baby bottle
Disposable gloves	Goggles	masks/nasal prongs	Rubber bands	nipples
Electrode pads	Respirators	Bite blocks and		Condoms
Endotracheal tubes	Rubber aprons	bitewing tabs		Diaphragms
Intravenous (IV)	Surgical masks	Catheters		Dishwashing
tubing		Dental dams		gloves
Oral and nasal		Goggles		Expandable
airways		Gutta percha		fabric
Stethoscopes		Impression materials		(waistbands)
Syringes		Injection ports		Hot water bottles
Tourniquets		Orthodontic bands		Pacifiers
		Prophy angles		
		Rubber tops of multi-		
		dose vials		
		Surgical tubing		
		Wound drains		
		Urethral catheters		

# 3. Example Latex Rubber Products and Substitutes:

Products	Latex	Substitute		
Infant Supplies	Pacifiers or feeding nipples	Silicone products		
Clothing	Elastic fabrics, diapers, and underwear made with natural rubber	Elastic fabrics not made with natural rubber, such as "spandex" or "lycra" (note that elastic webbing often contains natural rubber).		
Cleaning	Cleaning gloves	Nitrile, neoprene, vinyl, or copolymer gloves.		
Furnishings	Rubber mats, carpet backing, or foam rubber made with natural rubber	Most "foam rubber" is actually foam polyurethane and will not cause problems.		
Medical Products	Male and female condoms, diaphragms, medical gloves, bandages, first aid tape, and urethral catheters	Synthetic rubber or polyurethane condoms; nitrile, neoprene, vinyl, or copolymer gloves; only some brands contain rubber.		

# Note:

- (1) It is nearly impossible to list every latex-containing consumer product. The allergenicity of latex products can be reduced by washing a product thoroughly with soap and water. The product should be soaked in a large amount of water for several minutes. Wiping the surface with a damp rag is not sufficient to remove chemicals. Clothing which might contain latex elastic should be laundered before use. However, latex gloves should not be washed before being used.
- (2) Condoms made of polyurethane or other synthetic material provide protection equal to that of latex condoms against sexually transmitted diseases (STD), including human immunodeficiency virus (HIV), and against pregnancy. Use of natural membrane condoms for the prevention of STDs is not recommended because natural membrane condoms are porous enough that viral STD transmission can occur with their use. Condoms labeled as polyurethane do not contain latex.
- (3) Paints labeled as "latex" do not contain natural rubber latex; in that case, "latex" refers to the acrylic emulsion. Such paints do not pose a risk of latex sensitization.
- 4. <u>Inventory of Products for Treatment of Latex Sensitized Patients</u>. A latex-free cart must be available for management of a latex allergic patient. The latex-free cart should be inspected

monthly, or, if secured, at intervals sufficient to ensure materials are not out of date and to verify that the cart at no time includes latex-containing items. It is the responsibility of clinic staff to conduct periodic inventory of cart. Coordinate with the Materials Management Department to ensure adequate stock of supplies. The latex-free cart shall contain the following products at minimum:

- a. Laminated sign "LATEX ALLERGIC PATIENT" for patient room.
- b. Latex-free syringes, all sizes.
- c. Latex-free angiocaths, all sizes.
- d. Latex-free tourniquets.
- e. Latex-free exam gloves, multiple sizes.
- f. Latex-free sterile surgical gloves, multiple sizes.
- g. Silicone Foley catheters, multiple sizes.
- h. Latex-free face masks, multiple sizes.
- i. Latex-free resuscitation bags, multiple sizes.
- j. Latex-free oxygen tubing.
- k. Latex-free nasopharyngeal airways, multiple sizes.
- 1. Latex-free nasogastric tubes, multiple sizes.
- m. Latex-free endotracheal (ET) tube suction cannulae.

#### OCCUPATIONAL LATEX EXPOSURE

1. <u>Latex Exposure Risk</u>. Workers in the health care industry and others similarly exposed to latex gloves (laboratory technicians, security personnel, emergency response personnel, housekeepers, food service workers, maintenance personnel, etc.) are at risk for developing latex allergy from exposure to latex gloves.

#### 2. Types of Reactions to Latex

- a. Irritant Contact Dermatitis. The most common reaction to latex products is irritant contact dermatitis (not an allergic reaction), manifested by the development of dry, itchy, red areas on the skin, usually the hands. This reaction is caused by skin irritation from using gloves or by exposure to other workplace products and chemicals; it can also result from repeated hand washing and drying, incomplete hand drying, use of cleaners and sanitizers, and exposure to powders added to the gloves.
- b. Delayed (Type IV) Hypersensitivity. This is the most common "latex allergy," although it is usually an allergy to chemicals added to latex during harvesting, processing, or manufacturing. These chemicals can cause skin reactions similar to those caused by poison ivy. As with poison ivy, the rash usually begins 6 to 48 hours after contact and may progress to oozing skin blisters or spread away from the area of skin touched by the latex.
- c. Immediate (Type I) Hypersensitivity. This is the most serious allergic reaction. Certain proteins in latex may cause sensitization. Exposures at even very low levels can trigger allergic reactions in some sensitized individuals. Reactions usually begin within minutes of exposure to latex, but they can occur hours later. Mild reactions to latex involve skin redness, itching, or hives. More severe reactions may include respiratory symptoms such as runny nose, sneezing, itchy eyes, scratchy throat, difficulty breathing, coughing spells, and wheezing (asthma). Rarely, shock may occur, but a life-threatening reaction is seldom the first sign of latex allergy. Such reactions are similar to those seen in some allergic persons after a bee sting. Type I allergic individuals should avoid all contact with latex. Incidence of respiratory sensitization (asthma) increases with cumulative exposure over a working lifetime.
- 3. <u>Levels and Routes of Exposure</u>. The amount of latex exposure needed to produce sensitization or an allergic reaction is unknown; however, reductions in exposure to latex-related proteins have been associated with decreased sensitization and symptoms. The proteins responsible for latex allergies have been shown to fasten to powder used on some latex gloves. When powdered gloves are worn, more latex protein reaches the skin. Also, when gloves are changed, latex protein and powder particles get into the air where they can be inhaled and contact mucous membranes. In contrast, work areas where only powder-free gloves are used show low levels or undetectable amounts of the sensitizing proteins. Wearing latex gloves during episodes of hand dermatitis may increase the risk of developing latex allergy. A skin rash may be the first sign a worker has become allergic to latex and more serious reactions could occur with continuing exposure.

- 4. Personal Risk Factors. Atopic individuals (persons with a tendency to have allergic conditions) are at increased risk for developing latex allergy. Latex allergy is also associated with allergies to certain foods, especially fruit (the latex fruit syndrome). Literature reports document clinical or laboratory cross-allergenicity with avocado, potato, banana, tomato, chestnut, kiwi fruit, papaya, peach, bell pepper, turnip, mango, fig, melon, pineapple, zucchini, and others. People with spina bifida, hydrocephalus and/or congenital genitourinary abnormalities are at increased risk for latex allergy, presumably due to early and frequent exposure to latex through surgical procedures and other medical treatments.
- 5. <u>Diagnosing Latex Allergy</u>. Latex allergy should be suspected in anyone who develops symptoms after latex exposure. Any exposed worker who experiences symptoms should be evaluated by a physician, since further exposure could result in a serious allergic reaction. A diagnosis is made by using the results of a medical history, physical examination, and tests. Patch testing, glove use testing, and allergen extract skin testing should be performed only by qualified specialists with full resuscitative equipment and medication to handle severe anaphylactic reactions. A negative latex-specific Immunoglobin E test does not rule out a latex allergy, and tests may suggest latex allergy in a worker with no clinical symptoms; thus, blood test results must be interpreted by a knowledgeable physician.
- 6. <u>Treating Latex Allergic Workers</u>. Once a worker becomes allergic to latex, special precautions are needed to prevent exposures during work as well as during medical or dental care. Antihistamines and steroids may reduce the allergy symptoms, but complete latex avoidance is the most effective approach. Many facilities maintain latex safe areas or "zones" for affected patients and workers, where risk of latex exposure is minimized through use of non-latex products and removal of latex allergenic proteins.
- 7. <u>Responsibilities for Prevention of Occupational Latex Allergy</u>. Preventing latex allergy in the workplace is based on minimizing latex exposure. Activities with latex-exposed workers are to implement the following to the extent resources and mission objectives allow.
- a. <u>Commanders and Supervisors</u>. Consistent with National Institute for Occupational Safety and Health recommendations, employers shall take the following steps to protect workers from latex exposure and allergy in the workplace:
- (1) Provide workers with non-latex gloves when there is little potential for contact with infectious materials. These activities include (but are not limited to) food preparation, routine housekeeping, and maintenance.
  - (2) If latex gloves must be used, provide reduced protein, powder-free gloves.
- (3) Ensure workers use good housekeeping practices to remove latex-containing dust from the workplace.

- (a) Identify areas contaminated with latex dust for frequent cleaning (upholstery, carpets, ventilation ducts, and plenums).
- (b) Ensure workers change ventilation filters and vacuum bags frequently in latex-contaminated areas.
- (4) Provide workers with education programs and training materials about latex allergy. Training should be documented as required by the Occupational Safety and Health Administration or other pertinent regulatory, accreditation, or licensing authorities (e.g., for hospitals, The Joint Commission, etc.). Training should include instructions to promptly report symptoms of latex allergy. Detecting symptoms early and removing symptomatic workers from latex exposure are essential for preventing severe or long-term health effects.
- (5) Periodic screening is not necessary in latex-free and latex-safe facilities; workers in the latter can be monitored for development of allergic symptoms. In more significant risk/exposure situations, periodic screening must be considered. Health care workers exposed or potentially exposed to latex should be enrolled in the Health Care Worker Medical Surveillance Program (program 719 of reference (d)). Other workers with actual or potential latex exposure should be enrolled in the Latex Medical Surveillance Program (program 310 of reference (d)).
- (6) Re-evaluate current prevention strategies whenever a worker is diagnosed with latex allergy.
- b. <u>Occupational Medicine/Occupational Health, Military Health Centers, and Branch</u> Clinics
- (1) Ensure all staff are screened according to the appropriate medical surveillance program in reference (d), Medical Surveillance Procedures Manual and Medical Matrix (program 719 for health care workers or program 310 for other workers exposed to latex), or using other appropriate screening tool that addresses all the areas of those programs.
- (2) Ensure any latex allergies are noted in the occupational health record and entered into the allergy profile, as appropriate.
- (3) If a military member has a positive screening questionnaire, refer him or her to an MTF allergy clinic.
- c. <u>Workers</u>. To protect themselves from latex exposure and allergy in the workplace, workers should take the following steps:
- (1) Use non-latex gloves to the greatest extent possible. Non-latex options include nitrile, vinyl (not recommended in chemotherapy), polyurethane, neoprene, Tactylon®, and elastryn.

- (2) If latex gloves are chosen, use powder-free low protein content gloves or double-glove with non-latex gloves.
  - (3) When wearing latex gloves, do not use oil-based hand creams or lotions.
  - (4) After removing latex gloves, wash hands with a mild soap and dry thoroughly.
- (5) Take advantage of all latex allergy education and training provided by employers, including becoming familiar with procedures for preventing latex allergy and learning to recognize the symptoms of latex allergy.
- (6) Workers with latex allergy should avoid direct contact with latex gloves and other latex containing products until evaluated by a physician experienced in treating latex allergy.
- (7) Comply with elements of the medical surveillance program in which they are enrolled.
- 8. <u>Additional Information</u>. Additional information about occupational latex allergy is available via the Centers for Disease Control and Prevention, Occupational Latex Allergies Web page, <a href="http://www.cdc.gov/niosh/topics/latex/">http://www.cdc.gov/niosh/topics/latex/</a>.

# PREVENTION OF LATEX ALLERGY AND ADVERSE REACTIONS TO LATEX AMONG PATIENTS

# 1. Background

- a. Patients in medical and dental care environments may already have or may be at risk for developing latex allergy. The risk of developing latex allergy increases with frequency, intensity, and duration of latex exposure. Special precautions must be taken with surgical patients allergic to latex. Latex can be an aeroallergen and present in the operating room environment for at least an hour after the use of powdered latex gloves. The recommendations for preventing latex allergy in the health care setting are based on minimizing latex exposure. They include education of staff, identification of patients who have or are at increased risk of having latex allergy, taking appropriate pre-operative precautions, maintaining latex-free or latex safe areas, being prepared to respond to severe allergic reactions, and eliminating or reducing use of latex-containing products, especially by providing readily-accessible non-latex gloves.
- b. <u>Types of Reactions to Latex</u>. The following reactions may occur in patients exposed to latex products:
  - (1) Irritant contact dermatitis (not an allergic reaction).
  - (2) Delayed (Type IV) hypersensitivity (skin rash).
- (3) Immediate (Type I) hypersensitivity (including skin rash, urticaria, respiratory symptoms, and anaphylaxis).

#### 2. Responsibilities

- a. Medical and Dental Treatment Facilities (MTFs and DTFs)
  - (1) Provide education to all health care personnel about latex allergy and its prevention.
- (2) Provide readily accessible latex-free gloves in all patient care areas. Specifically, latex-free gloves should be placed on counter tops or wall dispensers, while powder-free latex gloves should be placed under counters or in cabinets (i.e., latex-free gloves must be at least as, and preferably more, conveniently accessible as latex gloves, and all latex gloves must be powder-free).
  - (3) Prohibit the use of latex gloves that are not powder-free.
  - (4) Ensure the maintenance of one or more latex-free carts.
- (5) Ensure that there is a mechanism for identifying patients as latex-allergic, including labels on patient charts and signs at patient rooms and bedsides.

- (6) Provide latex-free substitute medical and dental devices and equipment for use with all latex-allergic patients.
  - (7) If feasible, maintain one or more latex-free or latex-safe areas.
- b. <u>Staff Providing Patient Care at MTFs and DTFs</u>. This includes physicians, dentists, nurses, nursing assistants, and those doing patient intake and registration.
- (1) Take a careful history for patients at risk, particularly those with atopy or multiple allergies, or a history of multiple surgical procedures. Ask for a history of balloon or glove intolerance and allergies to medical products used in chronic care (e.g., catheters). Screening tools such as questionnaires may be developed by the local activity. Questionnaires should identify key symptoms, such as sneezing, runny nose, wheezing, rash/eczema, hives, hypotension, anaphylaxis, etc. The following areas can be used to identify those with or at high risk of developing latex allergy.
  - (a) Regular contact with latex gloves or other rubber products.
- (b) Frequent dental procedures or any medical condition or problem that resulted in multiple operations or chronic medical instrumentation, such as urinary catheterization.
- (c) Symptoms associated with exposure to latex gloves or any other product containing rubber or latex (e.g., balloons, condoms, etc.).
- (d) Symptoms after eating fruits or vegetables, especially avocado, banana, potato, tomato, chestnut, or kiwi.
  - (e) Hay fever, eczema, anaphylaxis, hives, or symptoms of asthma.
  - (f) Allergic reaction to bee stings.
- (2) If a patient has a documented latex allergy, ensure that "latex allergy" is noted on the inpatient and outpatient records, and entered into the electronic health record profile. Arrange for a latex-free environment.
- (3) Use only non-latex gloves and other products on latex-allergic patients and on patients with spina bifida.
- (4) To the greatest extent possible, use non-latex exam gloves. It is appropriate to use nitrile, vinyl, polyurethane, neoprene, Tactylon®, or elastryn for protection against infectious materials.

- (5) If latex gloves are felt to offer the best protection from infectious materials, use powder-free, low latex protein sterile latex gloves or double-glove with latex-free gloves.
  - (6) Refer military patients with positive screening to the allergy clinic.
  - (7) Report any adverse reaction to latex products.

#### c. Nursing Staff at MTFs and DTFs Where Latex May be Present

- (1) Ensure that patients who are confirmed allergic wear a Medic-Alert bracelet at all times.
- (2) Ensure that adequate latex-free gloves are available in the appropriate size for all patient care providers.
  - (3) Ensure that no latex gloves come into contact with the patient.
  - (4) Ensure that latex-free cart(s) are fully stocked and current.
- (5) Ensure that, if possible, latex-allergic surgery patients are scheduled as the first case of the day.
  - (6) On the afternoon before surgery:
- (a) Check latex allergy cart for supplies. Coordinate with the Materials Management Department to ensure adequate stock of supplies.
- (b) Call pharmacy to ascertain whether routine and non-routine drugs are available in vials or ampules that do not contain latex.
  - (c) Ensure operating room nurses on service have been notified.
  - (d) Ensure that non-latex sterile gloves have been obtained.
- (7) Educate patients diagnosed with latex allergy on avoiding latex exposure and the importance of informing health care providers of latex allergy.

#### d. Operating Room Staff

- (1) Place a sign on the operating room door indicating the patient is allergic to latex.
- (2) Ensure that latex substitute surgical items are available for all latex allergic patients.

(3)	Items	used	in	surgery	may	inc	lud	le:
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- (a) Drains (e.g., Penrose).
- (b) Urinary catheters.
- (c) Instrument mats.
- (d) Rubber shod clamps.
- (e) Vascular tags.
- (f) Bulb syringes for irrigation.
- (g) Rubber bands.

# e. Anesthesiologists and Nurse Anesthetists

- (1) Ensure that no latex gloves come into contact with the patient.
- (2) Ensure that the following latex-free supplies are immediately available (if any of the below items within the department are latex-containing, a dedicated "latex-free" cart is strongly advised):
  - (a) Glass syringes (unless latex-free plastic syringes are available).
  - (b) Drugs in latex-free vials.
  - (c) IV tubing without latex injection ports.
  - (d) Neoprene anesthesia machine reservoir bags.
  - (e) Non-latex barriers between rubber containing items and the skin.
  - (f) Non-latex sterile gloves.
  - (g) Resuscitation bags with silicone rather than latex rubber valves.
  - (h) Non-latex bronchoscope sleeves.
  - (i) Non-latex esophageal stethoscope (does not usually contain latex).
  - (j) Non-latex plunger in the translaryngeal lidocaine kit.

- (k) Non-latex cuff on the laryngeal mask airway.
- (3) Setup a regular circuit on the anesthesia machine and use a non-latex reservoir bag. Use plastic masks (adult or pediatric).
- (4) Draw up drugs in glass or non-latex containing syringes. Wherever possible, do not draw up drugs from multi-dose, latex stoppered vials. Where there is no alternative, rubber stoppers can be popped and the drug drawn up in a non-latex containing syringe.
  - (5) Ensure epinephrine is available in non-latex containing vials or pre-filled syringes.
- (6) Set up intravenous (IV) infusion with one or two three-way stopcocks and no injection ports. (Alternatively, tape all injection ports over and do not use.)
- (7) Avoid latex-containing blood pressure cuffs or tourniquets if possible. Use non-latex padding under a rubber tourniquet if necessary for IV placement.
  - (8) Teflon IV catheters can be used safely.
- (9) Latex allergy should not alter the choice of anesthetic technique. There are no drugs that are specifically contraindicated.
- (10) Ensure operating room staff places a sign on the operating room door indicating the patient is allergic to latex.
  - (11) Remind the surgical service staff of these precautions.
  - (12) Be aware of the following:
- (a) Routine diagnostic testing in the at-risk population is not recommended for those with a positive history. If the history is equivocal or there remains clinical suspicion of latex allergy, testing may be indicated if use of latex products is unavoidable.
- (b) The use of routine preoperative histamine-1 (H1) or histamine-2 (H2) blockers and steroids is controversial. Unless familiar with their use, expert consultation should be sought if such use is considered.

# f. Allergy Clinic

- (1) Evaluate patients or staff members who have been identified as potentially latex allergic.
- (2) For those patients and staff who are latex allergic, ensure latex allergy is noted in the health or outpatient record and entered into the allergy profile.

- (3) Prescribe or administer desensitization or pre-exposure protocols as appropriate.
- g. Emergency Department, Critical Care Units, Operating Room, and Labor and Delivery
  - (1) Minimize the use of latex-containing materials.
- (2) Place a latex-free cart in these areas if feasible; if not feasible, see that a latex-free cart is placed in an adjoining area.
  - h. Physicians Caring for Patients with Diagnosed or Suspected Latex Allergy
    - (1) Be aware of the following:
- (a) Anaphylaxis has been reported even in patients pre-treated with H1 and H2 blockers and steroids and managed in a latex-free environment.
  - (b) Onset is generally 20 to 60 minutes after exposure to the antigen.
- (c) Anaphylaxis presents with the clinical triad of hypotension, rash, and bronchospasm. Hypotension is the most common sign. A rash is not always seen. Serum mast cell tryptase levels are high during an episode and up to 4 hours after. Complement component 3 (C3) and complement component 4 (C4) done at 30 minutes, 1 and 4 hours post-episode will show a serial increase. Blood should be taken in an Ethylenediaminetetraacetic acid tube. These tests will help confirm the diagnosis of anaphylaxis, but do not identify latex as the antigen. Results will not be immediately available.
  - (2) Always be prepared to treat latex allergy.
- (3) When treating latex anaphylaxis, apply current clinical practice guidelines, available from the Agency for Healthcare Research and Quality National Guideline Clearinghouse, http://guideline.gov/content.aspx?id=38449&osrc=12.
- (4) Seek appropriate consultation with or referral to Allergy and Immunology if necessary.

#### i. Materials Management Department

- (1) Ensure that the warehouse is stocked with latex allergy supplies via the Defense Medical Logistics Standard Support supply system. Ensure adequate par levels are established based on usage for latex-free supplies as indicated in enclosure (1) of this instruction. Please note that the list is not all inclusive.
- (2) On an ad hoc basis, coordinate with clinic staff to ensure adequate supply stockage of latex-free carts within the MTF/DTF.

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