SUBJECT: Infection Control – CPR Manikins

(The following recommendations for decontaminating manikins used in CPR training were furnished to the Emergency Medical Services Program by the United States Center for Disease Control, Atlanta, Georgia.)

1. The manufacturer’s recommendations and provision for sanitary practices should be thoroughly examined.

2. Students should be told in advance that the training sessions will involve "close physical contact" with their fellow students.

3. Students should not actively participate in training sessions if they have dermatologic lesions on the hands or in oral or circumoral areas; are known to be hepatitis B carriers; have upper-respiratory-tract infection or AIDS (or evidence of HTLV III/LAV infection); or the student has reason to believe that he or she has been exposed to or is in the active stage of any infectious process.

4. If more than one CPR manikin is used in a class, students should be assigned in pairs, with each pair having contact with only one manikin. This limits possible exposures.

5. All persons responsible for CPR training should be thoroughly familiar with hygienic concepts, as well as the procedures for cleaning and maintaining manikins and accessories. Manikins should be inspected routinely for signs of physical deterioration, such as cracks or tears in plastic surfaces, which prevent thorough cleaning. Manikin’s clothes and hair should be washed periodically or whenever visibly soiled.

6. In order to limit the potential for disease transmission during the two-rescuer "switching procedure", the second student taking over ventilation should simulate it instead of blowing into the manikin.

7. When practicing the "obstructed airway procedure", the finger sweep should either be simulated or done on a manikin whose airway was
decontaminated before the procedure and will be decontaminated afterwards.

8. Each time a different student uses the manikin, the individual protective face shield, if used, should be changed. After a potentially contaminating procedure, the manikin face and inside the mouth should be wiped vigorously with clean absorbent material (e.g., 4” X 4” gauze pad) wetted with hypochlorite solution or with 70% isopropanol, or ethanol. The surfaces should remain wet for at least 30 seconds before they are wiped dry with a second piece of clean absorbent material. Although highly bactericidal, alcohols are not broad-spectrum agents; their use here is recommended primarily as an aid in mechanical cleaning and because some persons find the odor or hypochlorite objectionable. Little viable microbial contamination is likely after the cleaning procedure.

9. At the end of class, the procedures listed below should be followed to avoid drying of contamination on manikin surfaces:

- Disassemble the manikin as directed by manufacturer.
- As indicated, thoroughly wash all external surfaces (also reusable protective face shields) with warm soapy water and brushes.
- Rinse all surfaces with fresh water.
- Wet all surfaces with a sodium hypochlorite solution having at least 500 ppm free available chlorite (e.g., ¼ cup (approximately 60 ml) liquid household bleach (approximately 5% sodium hypochlorite) per gallon (approximately 4 liters) of tap water) for 10 minutes. This solution must be made fresh at each class and discarded after each use.
- Rinse with fresh water and immediately dry all external and internal surfaces.

10. Persons responsible for the use and maintenance of CPR manikins should not totally rely on disinfectants for protection from cross-infection. Emphasis should be placed on thorough cleaning (scrubbing, wiping). Microbial contamination is easily removed from smooth, nonporous surfaces by using disposable cleaning cloths moistened with a detergent solution. There is no evidence that a soaking procedure alone in any liquid is as effective as the same procedure accompanied by vigorous scrubbing.