

CGP 107

National Ambulance CPR Manikin Utilization & Cleaning Procedures

[LINK TO POLICY](#)

[LINK TO PROCEDURES
& FORMS](#)



Table of Contents

1. POLICY INTRODUCTION	3
2. SCOPE	3
3. ROLES AND RESPONSIBILITIES	3
4. POLICY STATEMENT	4
4.1. Manikin Cleaning and Maintenance	3
5. RELEVANT LEGISLATION	4
6. RELATED POLICIES & PROCEDURES	7
7. FEEDBACK	7
8. DOCUMENT CONTROL AND OWNERSHIP	7

1. POLICY INTRODUCTION

This policy gives oversight to the use of manikins in clinical education and professional development; that are needed to ensure that National Ambulance staff receive safe and high quality education from the Clinical Education Department. The overall aim is to meet international best practice standards in terms of teaching aid use, as well as ensure health and safety measures in education.

2. SCOPE

This policy applies to all Staff / Learners, Educators, and anyone else that might use the NA Manikins for education and training within NA areas of work or outside.

The purpose of this policy is to ensure that all staff involved in education, working within (or for) National Ambulance, are aware of the correct infection control methods required when facilitating learning with CPR manikins.

The manikin cleaning / disinfection event must be annotated in Manikin Utilization and Cleaning Registers (found on site at each facility) for each course it is utilized on. Further, Manikin ID Documents have been created to track individual use, maintenance & repair, disinfection (etc.) and should always be with the manikin it is intended to provide a life history of. The records will be used to assess compliance and in the quality control and audit processes. In the absence of any of the above mentioned tracking documents, the Education Manager must be notified asap. Compliance of this policy is essential to maintaining a healthy and safe learning environment.

3. ROLES AND RESPONSIBILITIES

Chief Administrative Medical Officer is responsible for the development, implementation, monitoring and revision of this policy. The MD is responsible for ensuring that the NA Mission, Vision, Values and strategic objectives inform this policy and for compliance with any clinical legal and regulatory requirements.

The Clinical Education Manager is responsible for ensuring that educational activities that relate to the implementation of this policy and the compliance by all those that use these educational accessories.

Educators / Instructors / Learners / Volunteers are responsible for following this policy and maintaining compliance in all aspects (including recording of Cleaning and disinfection events)

4. Policy

It is both the responsibility of the education staff, and students attending training, to minimize the risks of cross contamination / transmission of infections.

To protect other participants from exposure, anyone with an infection, cuts or lesions on their mouth or hands are required to notify the instructor prior to class commencement, so that alternate arrangements can be made to limit exposure and to support the learner's needs alternatively. .

All persons responsible for CPR training shall be thoroughly familiar with hygienic concepts (e.g., washing hands thoroughly before manikin contact, not eating during class to avoid contamination of manikins with food particles etc.).

Direct mouth to mouth/nose practice shall not be routinely performed on the CPR manikins, due to the potential for infection transmission. Ventilations to the manikin shall be achieved via utilization of a barrier device (eg. Pocket Mask / Face Shield) or a Bag Valve Mask (BVM).

4.1. MANIKIN CLEANING & MAINTENANCE

Any use of manikins, cleaning or changing of parts of any manikin for routine maintenance must be done in consultation with the specific user manual for the manikin or manufacturers guideline. Upon completion of the training scenario the manikin face and the inside of the mouth shall be wiped vigorously with Manikin cleaning wipes (alternatively a gauze pad moistened with either Virkon solution or with 70% alcohol (isopropanol or ethanol) can be utilized.

Manikins shall be routinely inspected for signs of physical deterioration, such as cracks or tears in plastic surfaces that could affect the cleaning process.

Hard plastic surfaces of the manikins utilized, and pocket masks must be wiped over with disinfectant solution or manikin wipes. Filters must be disposed of in the clinical waste bags, as should face shields.

Manikins which had ventilations provided to them **without filters** via pocket mask, face shield or mouth to mouth/nose must be disassembled and decontaminated. The Contaminated Manikins must be Red Tagged (available from Facilities) to avoid any further usage until they are decontaminated and made ready for use. In these instances, the manikin's airways **must** be replaced with a new set (available from facilities). Personnel conducting disinfection, cleaning and or replacement must wear protective gloves during these procedures. The brand or model of manikin being utilized should be taken into account for dismantling and decontaminating of that particular manikin as per the manufacturers recommendation.

Routine disinfection of the entire manikin is not required where no direct contact or very low risk of contamination is evident. However, routine cleaning of the head, torso, top skin, is recommended with manikin wipes or disinfection solution.

Planned maintenance should include washing with a warm soapy solution, and then rinsed with a clean damp cloth. Manikin wash events to be planned by the Education Department, as this may involve the manikins being (out of use) disassembled and all external and internal surfaces cleaned with necessary parts being replaced when necessary.

All cleaning, disinfection and repair events must be annotated on the Manikin ID Documents as well as the facility register. Non-compliance in any part of the policy will be subject to management review and intervention.

4.2. COVID-19 RECOMMENDATIONS FOR CPR TRAINING

The outbreak of the COVID-19 virus has generated questions and concerns about potential exposure during CPR training on manikins.

Follow the AHA recommendations for equipment decontamination during CPR training with the following additional requirements:

- All participants should practice good hygiene, including handwashing with soap and water for at least 20 seconds before and after the course, and before and after snack or meal breaks
- Instructors should decontaminate the manikins after each student practices or tests on the manikin using an alcohol-based solution per CDC recommendations
- During AHA courses where mouth-to-mouth or mouth-to-mask breaths are practiced, providers should be allowed to give simulated breaths. Course participants should demonstrate the actions of placing the mask or other barrier device over the mouth and nose of the manikin, opening the airway manually, then simulate giving breaths without contacting the barrier device or manikin with their mouth.
- Bag masks should be used when practicing two-rescuer skills, and participants should wear gloves and clean bag masks between practices with an alcohol-based solution per CDC recommendations
- When possible, manikins should be spaced apart at least 3 feet (1 meter) during training, based on WHO guidance on social distancing

Before Teaching Session

If several students use one Manikin Face, thoroughly sanitize the manikin face after every use by using Manikin

- If manikins are visibly dirty clean with soap and water and dry thoroughly with a paper towel.
- Wipe the face skin with an alcohol wipe and dry with a clean paper towel.
- Insert new face shield lung bag.
- If manikins are left exposed before teaching session faces will be covered using an alcohol wipe to prevent air borne contamination.

Cleaning during CPR and Trauma Session

If several students use one Manikin Face, thoroughly sanitize the manikin face after every use by using Manikin Wipes. This is also recommended if the Manikin Face Shield has been used during the CPR training.

1. Tear foil packet open - take out and unfold

2. Rub manikin's mouth and nose vigorously
3. Wrap wipe snugly over mouth and nose
4. Let stay in place for 30 seconds
5. Dry manikin's face with a clean paper towel or similar
6. Ventilation practice may now continue

Cleaning after CPR and Trauma Session

The Airway is intended for single use and are non-cleanable.

It is to be disposed after one CPR class (training session) if mouth-to-mouth ventilation has been performed. This is also recommended if the Manikin Face Shield has been used during the CPR training. Changing the lung between each CPR class, is not needed if students use a personal Pocket Mask with one-way-valve and filter.

After the CPR Class, the parts can be cleaned by using manual processes (submerge for 20 min item in water added cleaning detergent) or using an automatic cleaning process.

Remove the manikins' Face and disassemble Face Connector from the Face Mask.

For cleaning use a Soap solution

Soap solution

1. Disassemble Face Connector from the Face Mask
2. Submerge both parts in water at 60 - 70 °C (140 - 158 °F) which contains dish washing detergent for 20 minutes
3. Thoroughly clean all surfaces using a brush as necessary
4. Rinse all components in detergent-free water at 30 - 40 °C (86 - 104 °F)
5. Dry the components thoroughly

When additional cleaning is required, use a Chemical solution.

Chemical cleaning after CPR and Trauma Session

The Face Mask and Face Connector can be cleaned by a Chemical solution.

Chemical solution

1. Disassemble Face Connector from Face Mask
2. Submerge both parts in 0.5 % Sodium Hypochlorite for 20 minutes
3. Remove traces of the Chemical solution by rinsing in detergent-free water at 30 - 40 °C (86 - 104 °F), for at least 2 minutes
4. Dry the Components thoroughly

Recommended Chemicals

Can be cleaned with the following chemicals, widely used in healthcare facilities:

- 0.5 % Sodium Hypochlorite

Chemicals can alternatively be applied by spray or a moist cloth, by following the instructions for Manikin skins.

Manikin skins

Wipe the skin with a moist cloth to remove stains.

Skins with electrodes or glued patches should be cleaned with a clean dry cloth only, as moisture could damage the attached parts.

For cleaning use a Soap solution

Soap solution

1. Skin parts can be cleaned by soap and hot water
2. Wipe the skin with a moist cloth to remove stains
3. Use a melamine resin sponge or brush as necessary (*)
4. Wipe the skins with detergent-free water at 30 - 40 °C (86 - 104 °F)
5. Dry the components thoroughly

* Use a moist cloth for cleaning skins with paint/make-up, as sponge or brush might wear off the Paint.

When additional cleaning is required, use Manikin Wipes or an alternative Chemical solution.

Recommended Chemicals

Can be cleaned with the following chemicals, widely used in healthcare facilities:

- 0.5 % Sodium Hypochlorite (*)
 - 70 - 90 % Ethanol
 - 60 % Isopropanol
- * Skins with nylon zippers should not be cleaned by Sodium Hypochlorite, as this might damage the zipper parts.

Hard plastic parts

Wipe the parts with a moist cloth to remove stains.

Parts with electrodes should be cleaned with a clean dry cloth only, as moisture could damage the attached parts.

For normal cleaning use a Soap solution

Soap solution

1. Plastic parts can be cleaned by soap and hot water
2. Wipe the parts with a moist cloth to remove stains
3. Use a melamine resin sponge or brush as Necessary
4. Wipe the parts in detergent-free water at 30 - 40 °C (86 - 104 °F)
5. Dry the components thoroughly

When additional cleaning is required, use Manikin Wipes or an alternative Chemical solution.

Recommended Chemicals

Can be cleaned with the following chemicals, widely used in healthcare facilities:

- 0.5 % Sodium Hypochlorite
- 70 - 90 % Ethanol (1)
- 60 % Isopropanol (2)
 - 1) Use only a Soap solution or Ethanol to clean the Jaw of Little Anne, other Chemicals might damage the flexible valve holder.
 - 2) Isopropanol shall not be used for cleaning the skull of Little Anne and Little Junior.

Manikin clothing

The manikin clothing can be cleaned by washing machine, at 40 °C (104 °F).

For more details, see the care label.

The Baby Anne fabric body can be cleaned with a damp cloth only, using mild detergent if necessary. Users must take care not to expose the fabric body to excessive moisture, as this may penetrate the fabric and soak the manikin's stuffing.

Bags and training mats

Wipe the fabric with a moist cloth to remove stains.

For cleaning use a Soap solution.

Soap solution

1. The fabric can be cleaned by soap and hot water
2. Wipe the fabric with a moist cloth to remove stains
3. Use a melamine resin sponge or brush as necessary
4. Wipe the fabric in detergent-free water at 30 - 40 °C (86 - 104 °F)
5. Dry the components thoroughly

When additional cleaning is required, use Manikin Wipes or an alternative Chemical solution.

Recommended Chemicals

Can be cleaned with the following chemicals, widely used in healthcare facilities:

- 70 - 90 % Ethanol
- 60 % Isopropanol

Electronic parts

Electronics, like the QCPR Sensor or Circuit boards inside the manikins, should be cleaned with a clean dry cloth only. Moisture may damage the unit.



Effective March 2020, along with the above current policy, we will be adding the following

- Gloves will be sent to each class for students to utilize on manikins- along with the proper hygiene. Students who work at medical facilities will be told they can bring their own gloves.
- We will have additional antiseptic at each class.
- No students will perform “mouth to” techniques. They can verbalize after opening the airway. “Give 2 slow breaths”
- We will not have students practicing with face shields, valves or pocket masks until the international accreditation states it is safe to do so.
- Manikins should be at 3 feet (1 meter) apart as per the AHA training.

5. RELEVANT LEGISLATION

International, federal or local legislation and circulars relevant to this Policy. Full detail on this legislation can be found in QHP109 Legal Register.

Code, Name of Legislation	Jurisdiction
- Training Memo: Optional Instructional Changes during COVID19 Outbreak	American Heart Association
- COVID-19 Statement Letter - CPR Training	Laerdal
- Guideline for Disinfection and Sterilization in Healthcare Facilities	CDC (Center for Disease Control and Prevention)
- limit spread of the COVID-19 virus	World Health Organization
- JAMA, June 1996, Vol 255, No 41, Cleaning of CPR Manikins	Journal of the American Medical Association
- Instructor's Manual for Basic Life Support American Heart Association, 2015	American Heart Association
- AHA Training Memo (April 23, 2012). Equipment Decontamination Guidelines for CPR training	American Heart Association
- Cardiopulmonary Resuscitation— Potential Danger of Cross-Infection	Journal of the American Medical Association
- Cleaning disinfecting and sterilizing self-contained self-rescuer Mouthpiece assemblies used in Hands-on training	USA Department of interior
- Hygiene solutions for BLS	Laerdal helping save lives website
- Prestan Professional Manikins	Prestant Products,LLC

- Care and Cleaning Recommendations
- Soar J, Mancini ME, Bhanji F, Billi JE, Dennett J, Finn J, Ma MHM, Perkins GD, Rodgers DL, Hazinski MF, Jacobs I, Morley PT, on behalf of the Education, Implementation, and Teams Chapter Collaborators. Part 12: Education, implementation, and teams: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations. Resuscitation 2010;81:e288–e330.

Prestant Products,LLC
Prestant Products,LLC

Appendix 2

KEY POINTS

- Each student will have his own Adult/Infant dedicated manikins (QCPR) on his own table.
- Each student must wear mask and gloves all the time
- All disposable items should be kept safe in hazardous bag as per the NA infection policy
- In case of suspected COVID, all the face, lungs part of the used manikins needs to be changed per the manufacturer

6. RELATED POLICIES AND FORMS

List related policies and procedures to the created/updated policy.

Policy & Procedure /Form
CGF190 Education Department AHA TC and Instructor Agreement
CGP136 Education & Professional Development Policy Manual
CGP216 Use of Feedback Devices in Resuscitation Training Courses
CGP128 American heart Association Training Center Policy and Procedures
CGP146 Policy for Continuing Medical Education
CGP108 EMS Education Onboarding Policy

Training date: _____
Course: _____
Accreditation: _____
Instructor: _____
Disinfectant used: _____

[illegible]

Any feedback or suggestions for improvement to this Policy, Processes or Procedures can be submitted to qhse@nationalambulance.ae

A review and update of this document will take place as necessary, when changes occur that identify the need to revise this Policy such as changes in roles and responsibilities, release of new legislative or technical guidance, or identification of a new policy area.

Chief Administrative Medical Officer / Delegate



Change Brief

Version No.	Date	Changes
1	October 2013	New Policy
2	April 2016	Combining CGP106 and CGP 107 and manufacturers guidelines for infection prevention control. 1. Typo errors, it was highlighted that we need to use the American English Spelling for the Policy Document and corrections was done accordingly. 2. The 3 Monthly Washing Period of Manikins was removed and was replaced by the Education Department scheduling a cleaning day and the Education Managers discretion. This was because it would be a technical issue with Dismantling & Re-assembling the Manikins as well as the units being out of action for the duration of the exercise. 3. I have also Loaded the Cleaning & Disinfection Record Form onto N Drive so that Educators/Facilitators can access and record
3	August 2016	1. The Policy was made simpler and more practical to ensure better compliance. 2. Diagrams of specific models of manikins was removed as there are multiple models now being used at NA. 3. The Course Registers have now been adapted to ensure better records for compliance, quality control and audit processes. 4. The policy now focuses on basic principles of infection control and compliance oppose to bureaucratic processes.
4	October 2016	Induction, Scope, Roles & responsibilities added for Policy Standard Compliance also Manufacturers recommendations on maintenance statement added
5	November 2017	Changes in line with better infection control measure and tracking of individual units as recognized by best practice standards.
6	November 2019	Policy due for review Medical Director Terminology Delete "Field Training Officer & Mentors" ...that could make thorough cleaning" to be changed to "that could affect the cleaning process.

7	December 2021	<p>Updated policy according to the COVID-19' outbreak cleaning instructions by the international accreditation AHA, NAEMT, CDC, and WHO</p> <p>New instructions were established to maintain the cleanliness of the use of the manikins and other tool. This document includes important information that may impact our current training practice</p> <p>This policy is to provide information to instructors, instructor trainers, educators, program administrators, medical directors or others involved in teaching the international and CME courses which required using educational and training equipment materials during COVID.</p> <p><i>Discussion during Policy Review Committee</i></p> <p>Change ownership to Chief Administrative Medical Officer / Delegate</p>
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Review & Approval: _____ Date: _____

Dr. Ayman Ahmad

Chief Administrative Medical Officer