

OPERATIONS MANUAL

Adult Casualty Care Rescue Randy



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HEALTHCARE

Included

- a. Casualty Care Rescue Randy
- b. Simulated Blood Powder (makes 5 gallons) (800-225)
- c. Inner Skin
- d. Outer Skin
- e. Mechanical (foot powered) simulated blood pump
- f. Instructions
- g. Rugged transfer case for accessories
- h. Silicone Repair Kit (149-6081)
- i. Ten (10) repairable cricothyroid trainers (149-6079)
- j. Three (3) repairable neck skins (149-6080)
- k. Randy Instruction Sheet
- l. Shorts

Overview

Casualty Care Rescue Randy has been designed to train TCCC/TECC for all service members, EMS, EMT and LEO professionals. CCRR can also be used for initial active scene and extraction interventions. CCRR allows for hyper-realistic training procedures to treat the three most preventable causes of death on the battlefield or in civilian trauma situations:

1. Massive hemorrhage managed using tourniquets, hemostatic dressings, junctional devices, and pressure dressings.
2. Airway managed by oral/nasal airway devices and surgical cricothyroidotomy.
3. Treatment of tension pneumothorax with placement of a needle decompression device.

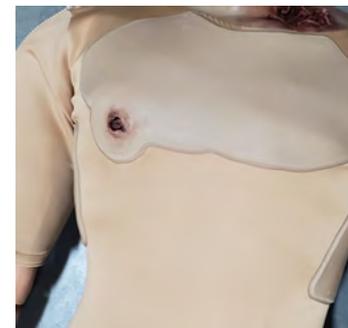
Features

1. Hemorrhage control using wound packing and/or tourniquet techniques at four different locations.

- A. Neck
- B. Brachial - left
- C. Inguinal - left
- D. Femoral - right



2. Treatment of a sucking chest wound.



3. Needle Decompression procedures both anterior and axillary locations.



4. Surgical airway (cricothyroidotomy). Supports multiple training cycles with each repairable neck skin, and multiple repairable tracheas for the cricothyroidotomy procedure.



Getting Started

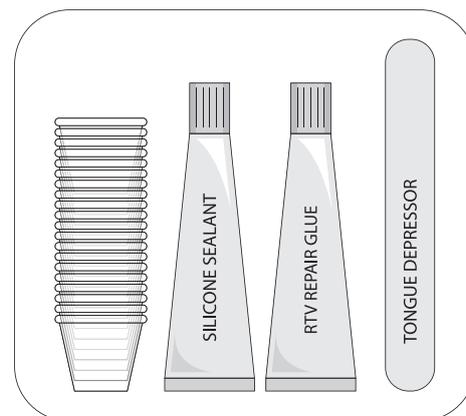
1. Unpack all the components, lay them out and make sure all the components in the kit are included.
 - a. Casualty Care Rescue Randy
 - b. Simulated Blood Powder (makes 5 gallons)
 - c. Inner Skin
 - d. Outer Skin
 - e. Mechanical (foot powered) simulated blood pump
 - f. Hose set includes four color coded connector hoses that have been secured together. Each hose includes a separate shutoff and one-way valve. Can run 4 blood lines simultaneously
 - g. Instructions
 - h. Rugged transfer case
 - i. Repair Kit
 - j. Ten (10) repairable cricothyroid trainers
 - k. Three (3) repairable neck skins



Inner Skin



Outer Skin



REPAIR KIT CONTENTS	
ITEM	QTY
Tongue Depressor	15
Silicone Sealant	1
RTV Repair Glue	1
Dram Cups	XX

Pre-Operational Service Check

1. Inner Skin

- a. Ensure that there are no rips or tears.
- b. Ensure that all the tubes are in place.
- c. Put the Inner Skin on Randy.

Step 1. During this entire process, keep track of the tubes being sure not to crush, pinch, kink, twist or compromise the tubes in any way. With the zipper completely open, put the Inner Skin over both feet and pull it up tight into the hip area.

Step 2. Work the fabric to be sure that all the material is above the knees.

Step 3. Put the hands into the arm holes and work the material up both arms at the same rate.

Step 4. When the material is up to the top of the shoulders, lift both arms over CCRR head to pull it up tight.

Step 5. Make sure that all of the tubes are coming out of the Velcro flap without being crushed, pinched, kinked, twisted, or anything else that might compromise the flow of fluids within the tubes.

Step 6. Zip up the Inner Skin.

Step 7. Do any final alignments to the Inner Skin so it fits properly.



Inner suit pulled up to waist



Inner suit with arms inserted



Inner suit with arms inserted



Zip up the inner suit



Hoses coming out of inner suit

2. Outer Skin

- a. Ensure that there are no rips or tears.
- b. Ensure that all the tubes connected to the wounds on the Outer Skin are in place.
- c. Test that the wounds and their tubes are open and not clogged or pinched. Do this by blowing air through the tube.
- d. Ensure that the edges of all wounds are still properly secured to the Outer Skin.
- e. Put the Outer Skin on Randy

Because the outer skin needs to be tight and wrinkle free it takes a sequence to put it on. Follow these steps to have the skin on or off in just a couple of minutes.

During this entire process, keep track of the tubes being sure not to crush, pinch, kink or compromise the tubes in any way.

Step 1. With the zipper completely open, put the Outer Skin over both feet and pull the suit up tight into the hip area.

Step 2. Work the fabric to be sure that all the material is above the knees.

Step 3 Plug in the tubes for the Inguinal and Femoral wounds

Step 4. Work the Outer Skin up over the waist making sure that the tubes that were just connected lie in the proper position.



Outer suit pulled up to waists



Connect wound



Connect other wound

Step 5. Put the hands into the arm holes and work the material up both arms at the same rate.

Step 6. When the material is up to the top of the shoulder, lift both arms over the head to help pull it up tight.

Step 7. Loosen up the Outer Skin and connect the Neck and the Brachial wounds.

Step 8. Ensure that all the tubes are coming out the Velcro flap without being crushed, pinched, kinked, twisted or do anything else that might compromise the flow of fluids within the tubes.

Step 9. Zip up the Outer Skin.

Step 10. Do any final adjustments to the Outer Skin so it fits properly.

Step 11. Place preferred clothing over CCRR.



Put arms into suit



Raise arms to pull suit tight



Connect wound



Connect wound



Insert thorax



Add neck skin

Clothes

Because CCRR is a Human Patient Simulator (HPS), not a drag dummy, it should be treated like a human during training, which means it should not be dragged without clothing. While the back of the outer skin is protected with a layer of CORDURA®, an abrasion, scuff and tear resistant material, it must not be dragged on any surface without clothing, otherwise the Warranty will be voided.

The Foot Pump



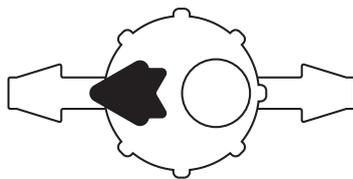
1. The Foot Pump is specially made to work in conjunction with your CCRR. It is human powered and doesn't need electricity or batteries to operate.
2. The pump hose that connects to the outer skin has 4 connections.
3. Each of these are connected to one of the 4 color-coded wound tubes on the CCRR outer skin that will be selected for bleeding. The colors are as follows:

Red - Neck Bleed
Yellow - Brachial Bleed
Green - Inguinal Bleed
Blue - Femoral Bleed



Foot Pump Pre-Operational Setup

1. Filling the Foot Pump with Simulated Blood
 - a. The type of blood used and the way it is mixed will affect the viscosity of the blood and how it works in the system. Use whatever blood to achieve the desired effect. Mixing the blood the exact same way every time will achieve the best results.
 - b. Place the blood reservoir inside the carrying bag.
 - c. Run the single port hose thru the slot in the right shoulder strap of the carrying bag and connect to the blood reservoir.
 - d. Unscrew the cap on the blood reservoir and fill with simulated blood.
 - e. Make sure the cap is closed correctly and does not leak.
 - f. Use the securing strap on the inside of the bag to secure the reservoir in place.
2. Inspect that there is 1 connector and 1 flow valve on each of the 4 hose ends coming from the pump.
 - a. Make sure that the arrow on the flow adjustment knob is lined up with the tubing for each tube that will be used. This will open that valve all the way.
 - b. All of the tubes will bleed unless the arrow is turned 90 degrees.
 - c. You are able to use from 1 to 4 bleeds in unison depending on how many of them are set to the "ON" position shown below.



- d. If you do not want a specific wound to bleed, do not plug it in to the wound hose on the outer skin and leave it in the off position when plugged in.

The pump only needs one tube plugged in to operate, but ensure that all other hoses are in the off position

Bleed air out of the lines and adjust flow

1. Bleed the air out of the lines and adjust the flow before training. It is easier and wastes less simulated blood if the bleeding and everything was adjusted at one time.
2. Plug in one of the tubes for a wound intended for use.
3. Operate the pump and watch the wound. Simulated blood will be seen from the wounds in just a few seconds
4. Adjust the knob to get the desired flow.
5. Unplug the wound from the pump.
6. Repeat the process 1-4 for the other wounds.
7. The CCRR is now ready to start.

Operation

1. Because of the design of CCRR, there are several ways for stopping the bleed:
 - a. Direct pressure.
 - b. Pack wound with gauze.
 - c. Use application of tourniquets to stop the wound from bleeding.



Storage

When finished with the training and it is time to clean and store the unit, there are necessary actions to be completed.

Flush the System

1. Pump out any simulated blood left in the system.
2. Fill the reservoir with cold water. Do not use hot water.
3. Operate the pump and run the water throughout the system while repeatedly turning on and off all flow controls.
4. While operating the pump, repeatedly un-plug and re-plug the tubes for the wounds from the pump.

Note: The most common places for a clog to develop is at connections and valves.

5. Refill the reservoir and run the water through again.
6. Continue running water through the system until the water is no longer red.
7. Run additional water through the system
8. Proper flushing of the pumps, tubes and wounds after training is imperative!
9. Once the blood dries in the tubes it is very difficult to remove, necessitating replacing the tubes.

Drying

Like everything else where water is involved, CCRR can be subjected to mold and mildew if the simulator is not properly dried out between training. Apart from the discolorations, the bad smell, mold and mildew will shorten the life of the Inner and Outer Skins.

Caution- Many kinds of molds are hazardous and even deadly to humans.

While the outer skin is breathable, the head and neoprene inner skin are not. Even though the inner skin is neoprene and waterproof, it is sewn together so it has tiny holes that let in the water.

It is recommend removing both skins and placing CCRR and the inner and outer skins in front of a fan until it is everything is completely dry. Do not place in dryer.

Glossary



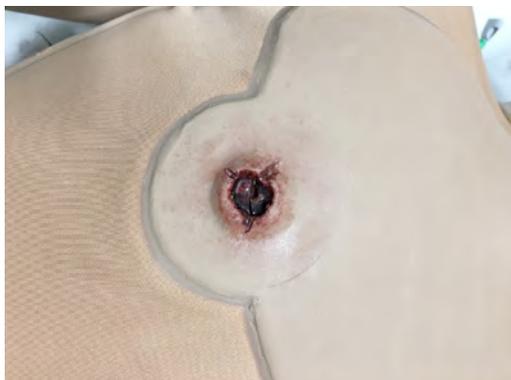
Arm wound



Neck wound



Inguinal wound



Chest wound



Face wound



Thigh wound

Training Supply List

Recommended medical supplies to facilitate training on CCRR (not included)

- Scalpel
- Two (2) - 3 ½", 14 gauge Angiocath needles for needle decompression
- Cricothyrotomy kit / Cric Key
- Chest seal
- Two (2) CAT - Combat Application Tourniquets (or) Two (2) SAM tourniquets
- Junctional Tourniquet - with subclavian artery tourniquet option - SAM tourniquets
- Pressure dressing
- Self-Adherent Wrap
- Wound packing gauze
- Nasopharyngeal airway
- Oropharyngeal airway
- Latex gloves
- Repair kit with three (3) neck skins - included with Casualty Care Rescue Randy
- Ten (10) Tracheas - included with Casualty Care Rescue Randy
- Blood / Blood mix - 5 gallons of mix included with Casualty Care Rescue Randy



angiocath



chest seal



cric key



cricothyrotomy kit



nasopharyngeal airway



oropharyngeal airway



pressure dressing



SAM junctional tourniquet



self adherent wrap



wound packing gauze



SAM tourniquet



CAT tourniquet

Troubleshooting Guide

Problem	Possible Causes	Solutions
Pump doesn't pump	Is there blood in the reservoir	If yes, go to the next possible cause. If not, put blood into the reservoir.
	Is the tube from the pump plugged into the blood reservoir?	If yes, go to the next possible cause. If not, plug in the tube.
	Unplug the connection where it enters the suit. Does fluid come out here?	If yes, move to the possible cause. If not, check the flow control valve is in the open position. If it is open, the tube is plugged.
	Plug the tube into a different wound and operate the pump. Does that wound bleed?	If yes, the original tube inside the suit is plugged or kinked. Check for kinks at the connection by the wound. If yes, move to the possible cause.
No Fluid from a tube.	Is the tube plugged into the pump?	If yes, move to the next possible cause. If not, plug in the tube.
	Is the flow control turned on?	If yes, move to the possible cause. If not, turn on the flow control.
No Blood coming from wound	Plug a known working tube into wound and operate the pump. Does the wound bleed?	If yes, the original tube has an issue. If not, the tube inside the suit is plugged or kinked. Check for kinks at the connection by the wound.
Blood is coming from wrong wound	Are the color codes correct?	Check for proper color codes on the tubes.

Warranty

1 Year Warranty

Nasco Healthcare warrants their products to be free from defects in materials and/or workmanship for a period of one year from the date of purchase, as evidenced by the date on the invoice of the product shipment to the end user. This warranty expressly does not cover abuse, accidental or purposeful damage, or any form of modification to the product. This warranty does not cover moulage products. Only products manufactured at the Nasco Healthcare plant in Saugerties, NY receive this limited warranty status. All other products sold through Nasco Healthcare, but manufactured elsewhere, are subject to the warranties supplied by the product manufacturer. These warranties may differ from the Nasco Healthcare warranty.

Warranty Exclusions

CCRR has been designed to be a robust and long lasting field training device. Some components are considered to be 'consumable' subject to determination over use and are not covered under the standard warranty. All items are covered by workmanship warranty. However, items excluded from warranty due to wear include:

- Damage to cloth components due to wear through as may be caused by dragging
- Stained clothing and suit components
- Damage sustained as a result of using simulated blood other than provided by Nasco Healthcare
- Damage sustained by needles, scalpels, or other such instruments



All our Casualty Care Rescue Randy outer skins, head masks, and wounds are individually hand-made. They are one-of-a-kind creations and not assembly-line manufactured. As a result, products will have subtle variations from one piece to the next, caused by variations in the materials and hand processes.



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