

CAE

Healthcare

CAE Medicor User Guide

Peripheral Intravenous Catheterization Arm



Disclaimer

This product is a simulation device designed for training and demonstration purposes only.

Proprietary Notice

This document, including the information contained herein, is confidential and/or proprietary to CAE Inc., and shall not be reproduced or disclosed in whole or in part, or used for any purpose whatsoever without the prior written authorization of CAE Inc.

Trademark Information

Trademarks and/or registered trademarks of CAE Healthcare Inc. and/or its affiliates include but are not limited to: Apollo, Ares, AresAR, Aria, Athena, BabySIM, BluePhantom, Caesar, CathLabVR, EndoVR, HPS, ICCU, InfantSIM, iStan, Juno, LapVR, LearningSpace, Lucina, LucinaAR, Luna, Maestro, Medicor, METIman, Müse, NeuroVR, PediaSIM, SimEquip, Simulex, StethoSym, SymDefib, SymEyes, UniSIM, Vimedix, VimedixAR and Vivo. All other brands and product names are trademarks or registered trademarks of their respective owners. All logos, tradenames and trademarks referred to and used herein remain the property of their respective owners and may not be used, changed, copied, altered, or quoted without the written consent of the respective owner. All rights reserved.

Contents

Cautions and Warnings	1
General Precautions.....	1
Latex Statement.....	1
Fluids.....	1
Needles.....	2
Introduction	3
Anatomy.....	3
Equipment Overview.....	4
Using the Training Model	5
Setup.....	5
Fluid Setup.....	5
Training.....	7
Peripheral IV Procedure.....	7
Care and Maintenance	9
Storage and Transport.....	9
Cleaning.....	9
Replacing the IV Arm Skin and Tubing.....	10
Help and Technical Assistance.....	14

THIS PAGE INTENTIONALLY LEFT BLANK

Cautions and Warnings

Read this user guide, including all cautions and warnings, before you use your CAE Medicor™ skills training model. Use this product only as described in this guide. If you use it incorrectly, it may be unsafe and will void your warranty. Keep this information for future reference.

General Precautions

- Do only the procedures supported by the model as described in this user guide.
- Use needles only. Do not use or store scissors, scalpels, box-cutters, or other sharp objects with the model.
- Do not pull on the model skin. This can cause the skin to tear.
- Do not expose the model to sunlight for prolonged periods.
- Do not use or store the model near a heat source.
- Use only Medicor simulated blood and iodine antiseptic with the model. Do not use or apply any other substances as they may discolor or stain the model upon contact.
- Do not use chemical solvents on the models.
- Clean the model with water and a light soap solution only. Do not immerse or use large amounts of liquid to wash it.

Latex Statement

- Currently, CAE Medicor products with tubing contain latex. Solutions to remove latex from our product line are in development.
- Users with latex sensitivity should use caution when handling or replacing tubing.
- Please refer to the specific product details for information on additional latex components.

Fluids

- Use only fluid solutions made with CAE Medicor powders in our products. Do not substitute any other fluid and use fluid only as directed.
- Do not modify fluid reservoirs or any other product component.
- Wear gloves when using simulated blood fluid. It will stain skin and clothes.
- Protect your eyes, skin, and clothing against accidental fluid exposure. The Material Safety Data Sheet (MSDS) is available on the CAE Healthcare website.
 - May irritate eyes or skin; flush well with water.
 - May contain pigments that stain clothing; wash immediately with cold soapy water.
- Fluids are not intended for human consumption. If accidental ingestion occurs, drink a glass of water and consult a physician.

Needles

- Use only new, sharp, unbent 22 gauge needles. Smaller needles (higher than 22 gauge) can bend during use and damage the model.
- The self-healing feature of CAE MedicSkin applies only to needle sticks. Healing is not guaranteed if needles larger than 22 gauge, scalpels, or other sharp implements are used to cut into or pierce the model.
- Replace needles after ten uses. Dull needles can damage the model.
- Use extreme caution when using needles during training to avoid injury.

Introduction

This user guide describes the features, use, and care of the following skills training model:

- CAE Medicor Peripheral Intravenous (IV) Catheterization Arm

This training model is intended as a platform for the practice of peripheral intravenous access and phlebotomy procedures.



CAE Medicor Peripheral IV Arm

Anatomy

The Peripheral IV Arm is constructed with realistic CAE MedicSkin and is offered in three different skin tones (light, medium, and dark). There are two tubing options upon purchase:

- Black tubing that allows beginner students to see the vascular anatomy under the skin.
- Clear tubing that allows students to locate veins primarily by palpation.

The anatomy of this model includes:

- Median vein
- Cephalic vein
- Basilic vein

The model has tubes that have a female Luer lock connector to work with equipment that has a male Luer lock connector. The tubes are used to fill the vessels within the model. Users must infuse fluid to prepare the model for use. More information can be found in the *Fluid Setup* section of this guide.

This training model has replaceable tubing and skin. See the *Care and Maintenance* section of this guide for instructions on how to replace tubing and skin.

Equipment Overview

The following items are included with your shipment:

- Skills training model
- Fluid input bag with integrated dropper and tubing
- Fluid output bag with tubing
- Simulated blood powder

The following additional items are required for training but not included in your purchase:

- Distilled water
- Procedure equipment per local protocol

Optional accessories or consumables for your model are available to purchase on the CAE website:

- Replacement internal arm tubing
- Replacement arm skin
- Replacement arm skin lubricant
- Replacement arm cuff
- Replacement fluid bags
- Simulated blood powder

Using the Training Model

This section has information and instructions about the setup and use of the training model and any specific procedures.

Setup

Follow the guidelines below to unpack and set up your CAE Medicor training model:

1. Open the shipping carton:
 - Use extreme caution with sharp tools, such as a box cutter, to avoid damage to the training model or any accessories.
2. Unpack the equipment:
 - Remove the training model from its shipping container.
 - Review the equipment, accessories, and supplies. See the *Equipment Overview* section of this user guide for a list of items included with this model.
3. Set up the skills training model:
 - Place the model palm facing up on a stable table or other work surface.
 - Place the model on smooth surfaces only. Rough or uneven surfaces can leave impressions on the skin and damage the model.

Fluid Setup

To begin, mix the simulated blood fluid:

1. Measure 500 mL of distilled water.
2. Check that the clamps are securely closed on the fluid bags.
3. Open the lid of the input fluid bag (included) and pour in the measured distilled water.
4. Add one packet of simulated blood powder to the distilled water.
5. Close the lid of the input fluid bag securely and shake for approximately 30 seconds or until the blood powder is completely dissolved and no particles are visible.

To complete the setup:

1. Hang the input bag on an IV pole or support 12 inches (30 cm) above the training model that enables the use of the integrated dropper in the tubing.

Note: The bag must remain elevated throughout the training session.

2. Attach the output fluid bag to the connector tube on the medial (pink) side of the arm.



Connecting Fluid Bags to Arm

3. Place the output bag on a flat surface at the same level as the arm or at a lower level.
4. Attach the input fluid bag to the connector tube on the distal (thumb) side of the arm.
5. Securely close both connector tube clamps. Do not pull on tubing when closing clamps.
6. Start the fluid flow:
 - a. Confirm that the output fluid bag lies at the same level or lower than the training model.
 - b. Confirm that the cap on the output fluid bag is securely closed to avoid leakage.
 - c. Open all clamps.
7. Allow the simulated blood fluid to flow from the input fluid bag into the arm for approximately 20 seconds, or until simulated blood flows from the model into the output tube.
8. As the simulated blood fluid reaches the output fluid bag, check for bubbles in the tubing to the output fluid bag.



Fluid Flow to Arm

9. When there are no more bubbles in the tubing, close the clamp of the output fluid bag to stop the flow. This creates back pressure in the vein for simulated flashback.

Training

Our products are essential practical components to complement and enhance your training curriculum and provide a realistic simulation experience to practice the psychomotor skills needed for various procedures.

Peripheral IV Procedure

CAE Medicor products do not teach procedures or techniques. Refer to your institution or training program for more information.

THIS PAGE INTENTIONALLY LEFT BLANK

Care and Maintenance

With proper care, your training model will remain in optimal condition and ready for use.

Storage and Transport

Follow these guidelines to properly store or transport your model:

- Storage temperature degree range: 64 - 77 °F (18 - 25 °C)
- Store in a dry location protected from dust and direct contact with sunlight.
- Do not store in contact with other training models or hard objects as the pressure can damage the CAE MedicSkin tissue. Do not stack multiple training models on top of each other.
- Transport the model securely so it does not fall.
- Do not carry by the tubes or use them as handles as this will damage the model.

Cleaning

To maximize the lifespan of the product, clean the product thoroughly after each use and before storage.

Note: You must flush the simulated blood fluid from the internal tubing after each training use to avoid product damage.

To clean the exterior:

1. Mix one cup of tap water with ¼ teaspoon of mild liquid soap (such as dish soap).
2. Gently clean the exterior with the soap mixture and a soft, non-abrasive sponge or cloth.
3. Rinse lightly with clean water.
4. Dab or pat with a clean, soft, lint-free cloth to dry the product after cleaning. Do not wipe or rub the skin, which can damage it.
5. Make sure the model is completely dry for storage.

To flush and clean the internal tubing:

1. Make sure the clamps on both tubes of the training model and the input and output fluid bags are securely closed.
2. Disconnect the input and output fluid bags from the arm.
3. Fill a separate fluid bag with distilled water. Make sure the clamp is securely closed.
4. Connect the separate fluid bag to the lateral (thumb) side of the arm.
5. Place the base of the arm over an empty container. Make sure the tube located on the medial (pinky) side of the arm hangs into the container.
6. Open the clamps to all tubing.

7. Allow the distilled water to flow through the arm tubing into the empty container until the fluid flow stops.
8. Close the clamps on all tubing.
9. Disconnect the separate fluid bag from the arm.
10. Repeat steps 3 through 8 until the fluid runs clear into the container.

Replacing the IV Arm Skin and Tubing

Read and follow these instructions carefully to replace the IV arm tubing and skin.

1. Flush the simulated blood fluid out of the tubes located inside the skills trainer. For instructions, see the *Cleaning* section of this user guide.
2. Remove the IV arm skin:
 - a. Place the arm on a clean and flat surface in a supine position with the palm facing down.
 - b. Remove the cuff located at the base of the arm and set it aside.



Removing the Cuff

- c. Cut and dispose of the zip tie. You will not need a zip tie here anymore.



Cutting the Zip Tie

- d. Remove the connector tubes by pulling them out from the base of the arm one at a time.



Removing the Connectors

- e. Stand the arm base up on the shoulder end of the arm.
- f. Lubricate the skin entirely
- g. Pull the skin towards the hand. The arm and hand skin will come off the base as one piece.



Pulling the Skin Off

3. Remove the tubing:
 - a. Place the arm base in a supine position.

Care and Maintenance

- b. Gently pull the IV arm tubing from one end of the tube connection to the other until the tubing has been fully removed. Rotate the arm as needed.



Removing the Tubing

- c. Flush the used tubing with distilled water and dispose of it.
4. Replace the IV arm tubing:
 - a. With the arm base in a supine position, insert one end of the new tubing into the end fitting near the top of the arm base.



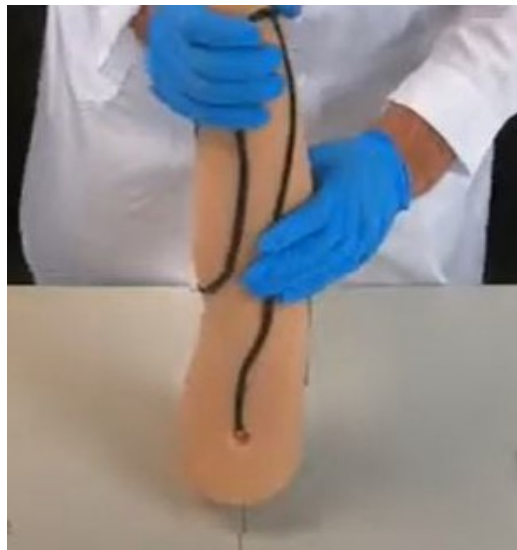
Inserting Tubing Into End Fitting

- b. Gently tuck the tubing into the tubing track lines in the IV arm with an upward motion to avoid lengthening the tubing. Rotate the arm as needed.



Pushing the Tubing Into Place

- c. Insert the tubing connector on the other end into the second end fitting to complete the tube connection.
 - d. Ensure all the tubing is securely fitted into the tubing track line.
5. Replace the Peripheral IV Arm skin:
 - a. Stand the arm base up on the shoulder end of the arm.



Standing the Arm Base Up

- b. Use CAE Medisor lubricant (available for purchase) to lubricate the exterior only of the replacement skin.
- c. Turn the skin inside-out until the triangle marker appears on the skin.
- d. Match the triangle marker to the mark on the arm base.

Care and Maintenance

- e. Place the arm skin on the top of the arm base and roll the skin all the way down the arm base until the skin is completely and securely fitted to the arm base. A replacement zip tie is not needed.



Rolling the Skin Down the Arm Base

- f. Place the arm on a clean and flat surface in a prone position with the palm facing up.
- g. Replace the two connector tubes into the arm base by pushing them into place one at a time.



Reconnecting the Connector Tubes

- h. Place the cuff back on the arm and fit it securely into position.

Note: A replacement cuff is available for purchase, if needed.

Help and Technical Assistance

For assistance, contact CAE Customer Support. Contact information for all regions is available on the back cover of this guide and on the CAE Healthcare website.



Healthcare

For more information about CAE products, contact your regional sales manager or the CAE distributor in your country, or visit caehealthcare.com.

Tel +1 941-377-5562 or 866-233-6384

For customer support, please contact CAE.

Customer Support Headquarters - United States

Monday - Friday from 7:00 a.m. to 6:00 p.m. ET

Phone 1-866-462-7920

Email: srqcustomerservice@cae.com

Customer Support - Canada

Monday - Friday from 8:00 a.m. to 5:00 p.m. ET

Phone 1-877-223-6273

Email: can.service@cae.com

Customer Support - Europe, Middle East, and Africa

Monday - Friday from 8:00 a.m. to 5:00 p.m. CET

Phone +49 (0) 6131 4950354

Email: international.service@cae.com

Customer Support - United Kingdom and Ireland

Monday - Friday from 9:00 a.m. to 5:00 p.m. GMT

Phone +44 (0) 800-917-1851

Email: uk.service@cae.com

Customer Support - Latin America

Monday - Friday from 9:00 a.m. to 5:00 p.m. BRT/BRST

Phone +55 11 5069-1510

Email: la.service@cae.com

Customer Support - Asia Pacific

Monday - Friday from 8:00 a.m. to 5:00 p.m. CET

Phone +49 (0) 6131 4950354

Email: ap.service@cae.com