

# Adam, Rouilly

SERVING MEDICAL EDUCATION WORLDWIDE

## AR90 CORMAN® - ADULT NASOGASTRIC/NASOJEJUNAL FEEDING TRAINER

Instruction Manual



Thank you for purchasing this **AR90 CorMan®**.

The CorMan® simulator has been designed to allow training on a variety of scenarios. The feeding tube may be **diverted** into either the **right** or **left lung**, into the **stomach** or through a dynamic pyloric sphincter into the **duodenum**. An open mouth and moveable head demonstrate **feeding tube curling** in the back of the mouth during difficult placements.

The lungs, stomach and small intestine all accept fluids, allowing for aspiration and administering feed or medication.

Developed in collaboration with clinical experts the simulator has been designed to enhance training and proficiency in nasogastric and nasojejunal feed tube and gastrostomy device placement and management in **adults**.

**Please read this instruction manual carefully and retain it for future reference.**

## Skills

- Measurement, placement and securement of nasogastric and nasojejunal tubes
- Insertion of gastrostomy device
- Tube misplacement into left or right lung
- Measuring pH (acidity/alkalinity) of stomach aspirate
- Enteral feeding via nasogastric, nasojejunal or gastrostomy devices
- Administration of liquid based medicines

## Features

- Easy to use, minimal maintenance
- Accurate internal anatomy
- Divided nasal septum allows for use of nasal bridles
- Moveable head and visible tube curling
- Tracheal/oesophagus feed tube diversion
- Left and right lung entry
- Stomach unit with gastrostomy opening
- Dynamic pyloric sphincter and duodenum
- Upright or supine use
- Transparent anatomy to aid understanding. Removable skin enhances blind training.

## Safety and Precautions



For training using liquids, do not lie the simulator completely flat as this may cause leakage. We recommend training in the upright position, or using the up-stand support to ensure the simulator lies at an angle.



During use, fill the stomach and lungs only to the maximum lines as indicated on the simulator. Filling above the lines may cause leakage.



Do not leave or store the simulator with liquids inside the stomach or lungs, especially acidic liquids. Prolonged contact with acidic liquids will cause accelerated wear.



The stomach and small bowel unit and both lungs are disposable items and will need to be replaced periodically.



This simulator is designed to facilitate training in the passing of nasogastric and nasojejunal tubes and gastrostomy tube insertion. The procedures demonstrated in this manual serve as a guide only. Local policies will determine the type of feeding devices to use. Devices are not supplied with this simulator as choice of device varies according to local policy.

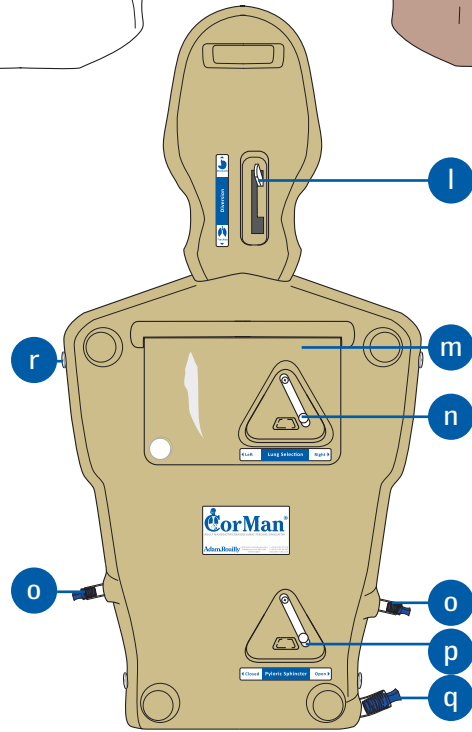
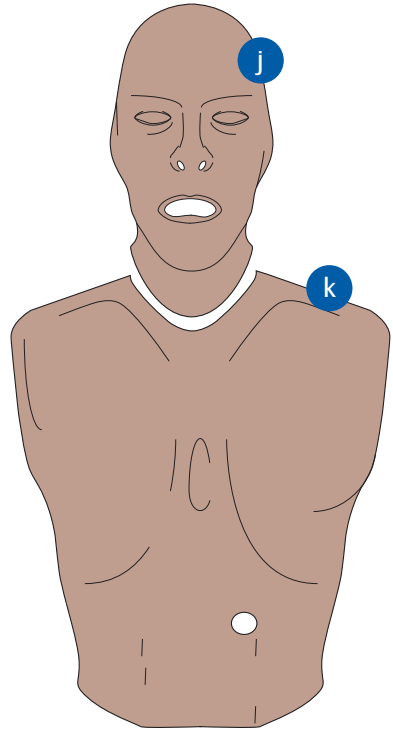
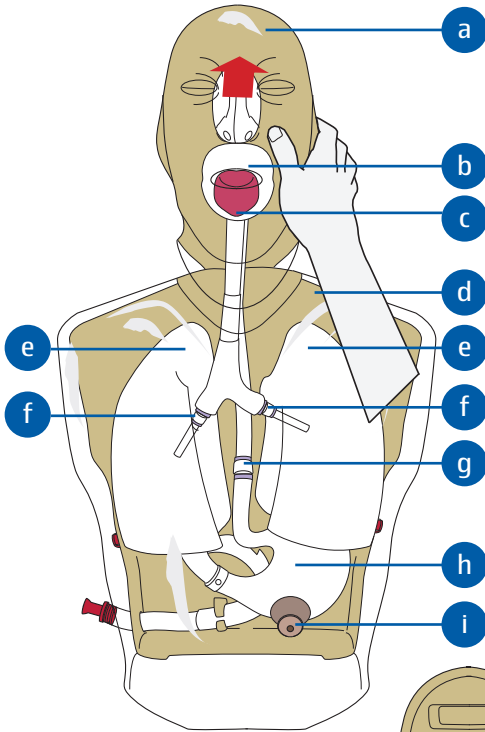


Please treat the simulator with the same care you would a patient.

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# Parts



SCAN ME

**a** Head with adjustable tilt



The head is a sealed unit. Do not attempt to open or gain access to the head. Doing so could damage the model and invalidate your guarantee.

**b** Nostrils with divided septum

**c** Open mouth with tongue

**d** Removable transparent torso cover

**e** Lung (300 ml maximum capacity)

**f** Lung quick release connector (white)

**g** Stomach quick release connector (white)

**h** **S90/9 STOMACH & SMALL BOWEL**

**i** Simulated gastrostomy opening

**j** Simulated head skin covering

**k** Simulated torso skin covering

**l** Trachea/Stomach diverter

**m** Up-stand

**n** Left/right lung diverter

**o** Blue lung drain plug

**p** Pyloric Sphincter diverter

**q** Blue stomach/small bowel drain plug

**r** Transparent cover thumbscrew (x4)

## Supplied With

**S052 SILICONE LUBRICANT**

**S90/1 RIGID CARRYING CASE**

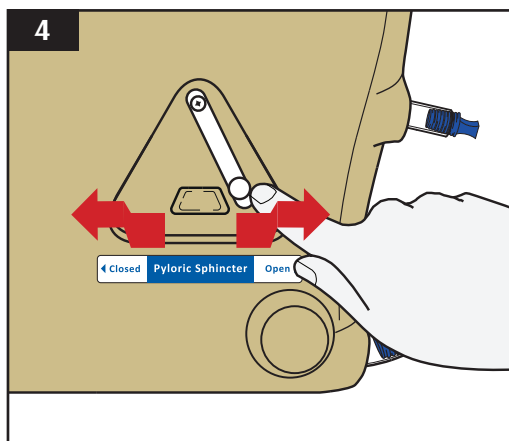
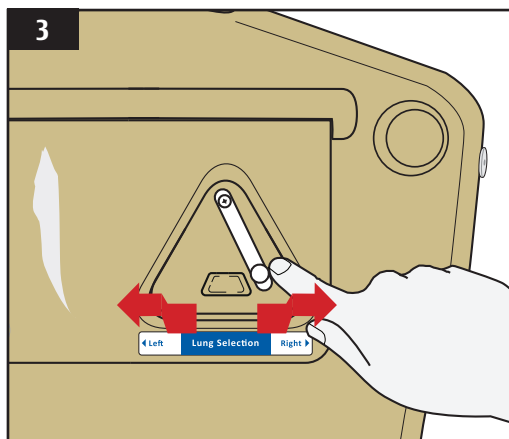
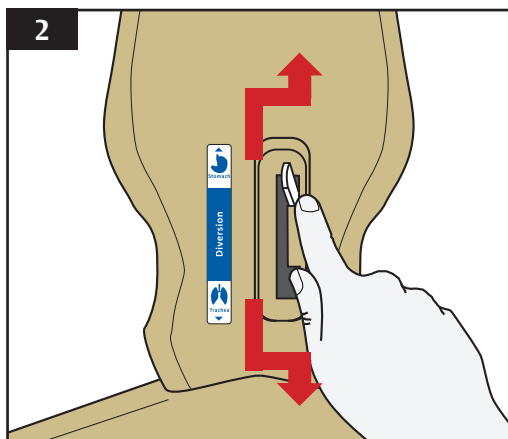
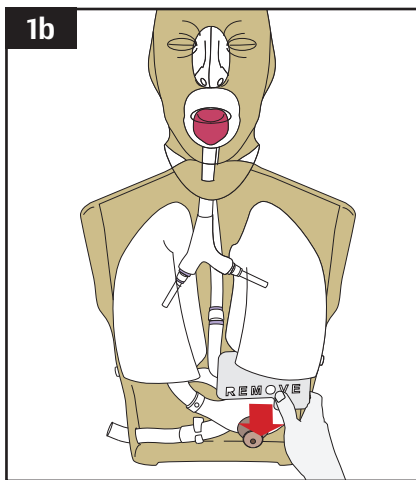
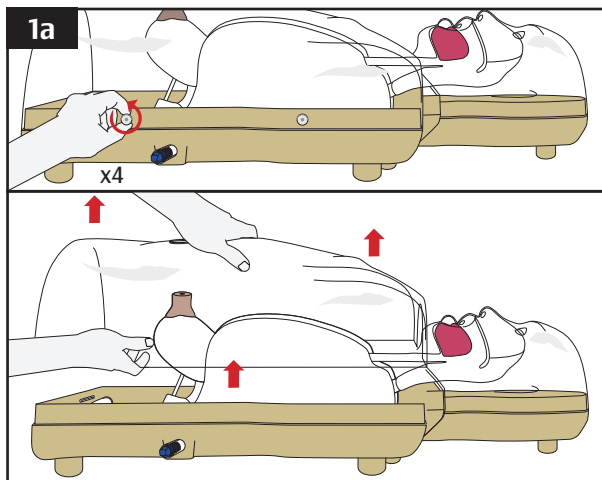


If you require replacement parts please contact our Sales Department, quoting codes where applicable.



**Scan the QR code to access the product video.**  
**<https://youtu.be/pa5WDZuCRHE>**

## Before Use



## Remove Transit Packing Material

**1a**

Remove the **transit packing material** from inside the model before first use.

Remove the transparent torso cover by unscrewing the four thumbscrews.

**1b**

Remove the foam marked "REMOVE" from between the stomach and left lung.

Replace the transparent torso cover by reinstalling the four thumbscrews.

**The model is now ready for use.**



**Retain and refit the transit packing material for any transportation of the model.**

CorMan® contains three independent diverters which direct the path of the feeding tube into different areas of the internal anatomy, for a wide range of training scenarios. Diversion may be set before or during training:

### Stomach or Trachea Diversion

**2**

At the rear of the head, set stomach or trachea diversion by moving the paddle, ensuring it has located into its homing position on the right to the desired selection as indicated.

### Left or Right Lung Diversion

**3**

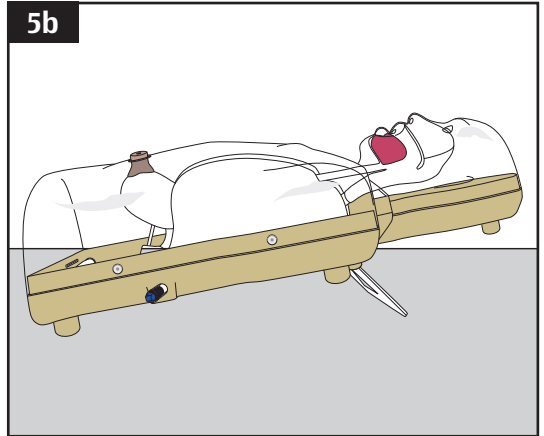
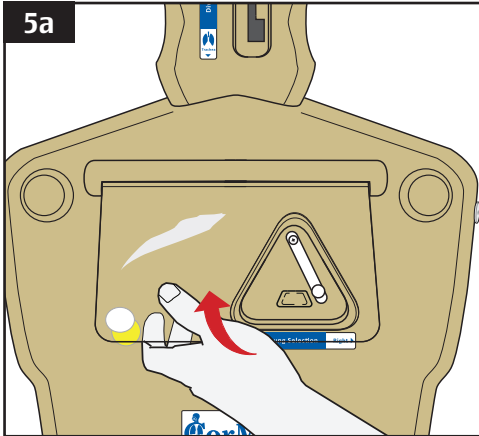
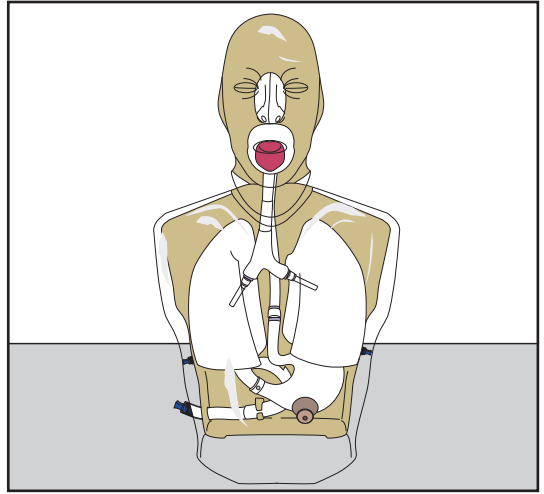
If diversion into the trachea is set, the feeding tube may further be diverted into the left or right lung. Move the paddle over the protrusion and into its homing position to the desired lung selection as indicated.

### Opening or Closing the Pyloric Sphincter

**4**

If diversion into the stomach is set, the pyloric sphincter can be set to open or closed, restricting or allowing access to the duodenum for nasojejunal procedures. Move the paddle over the protrusion and into its homing position to the desired pyloric selection as indicated.

# Before Use





## Upright or Supine Use

Ensure the work area is clean and dry.

CorMan® may be used in the upright or supine position.



For training using liquids, do not lie the simulator completely flat as this may cause leakage. We recommend training in the upright position, or using the up-stand support to ensure the simulator lies at an angle.

## Using the Up-stand for Supine Use

**5a**

At the rear of the torso, lift and release the up-stand from the yellow and white velcro fastening.

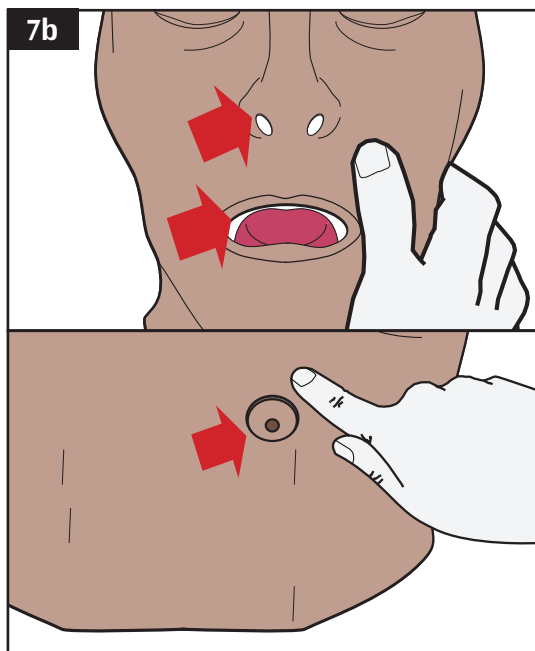
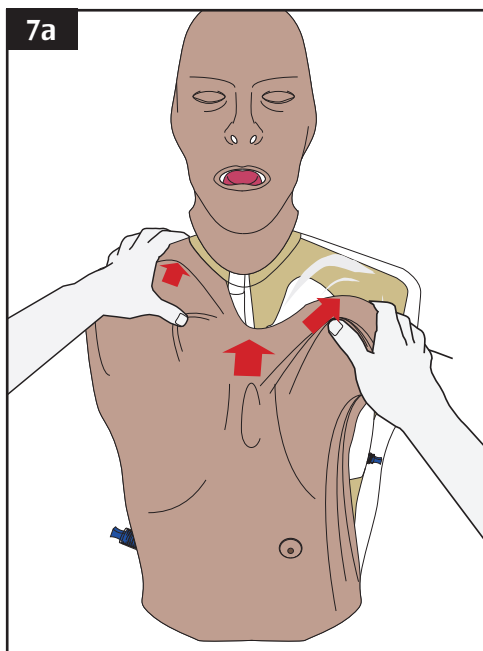
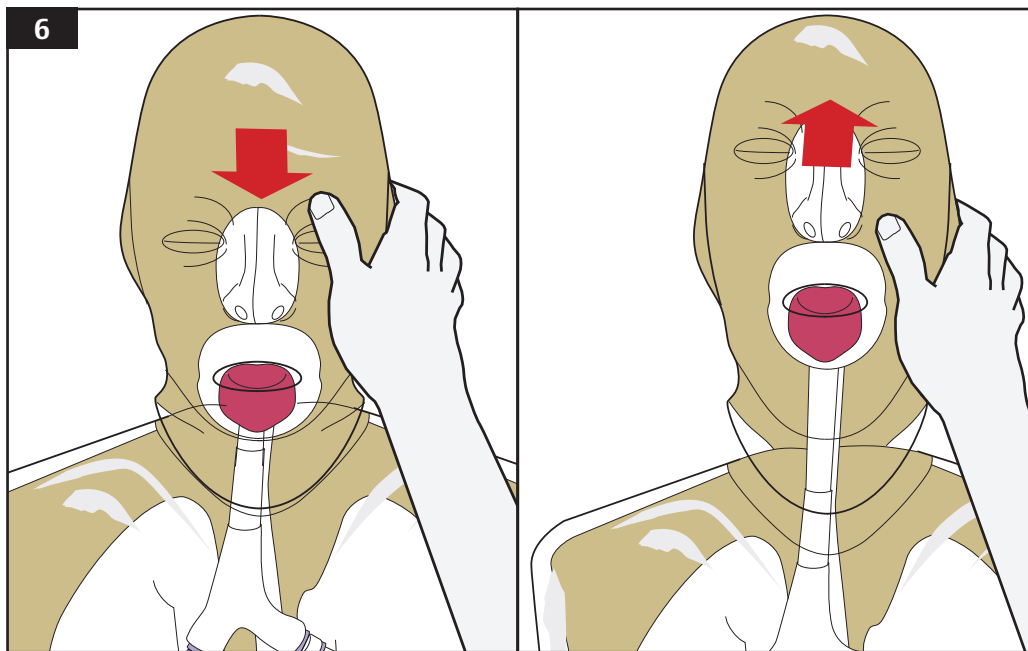
**5b**

Supporting the up-stand, lie the simulator down on a stable, flat surface.



When using the up-stand, do not apply excessive force onto the simulator. If necessary support the simulator with pillows etc.

## Before Use



## Head Tilt

**6**

The head may be tilted forward or back as required.



**Do not bend the head further than its mechanical limit. Doing so could damage the model.**

## Using the Simulated Skin Covering

The included torso and head skin coverings enhance blind training and allow for more realistic simulation.

**7a**

Place the skin coverings over the head and torso, so that the contours of the transparent cover fit those in the skin covering.

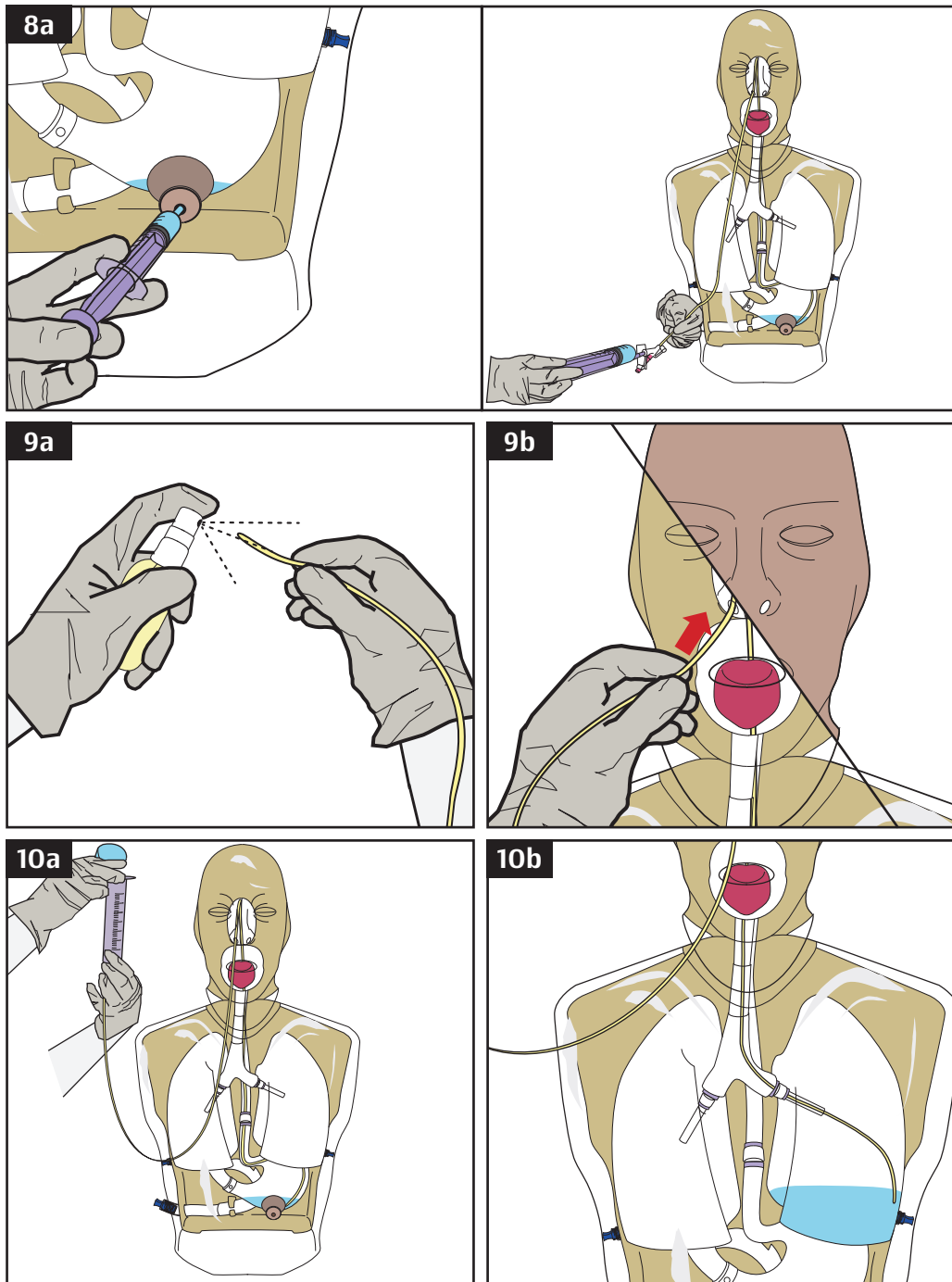
**7b**

After fitting, ensure that both nostrils, mouth and the gastrostomy are easily accessible through the skin covering.



**The skin coverings are delicate items and should be treated with care. Do not fold or attempt to cut the skin. Do not mark the skin with permanent marker or ball point pens - these cannot be removed.**

## During Use: Nasogastric/Nasojejunal Procedures





This simulator is designed to facilitate training in the passing of nasogastric and nasojejunal tubes and gastrostomy tube insertion. The procedures demonstrated in this manual serve as a guide only. Local policies will determine the type of feeding devices to use. Devices are not supplied with this simulator as choice of device varies according to local policy.

## Inserting Liquid for Aspiration/pH Measurement

**8a**

Liquid may be introduced into the stomach directly to practice aspiration and/or testing pH (alkalinity/acidity). This should be injected into the stomach via the simulated gastrostomy opening.



The stomach accepts up to 60 ml of liquid.  
Do not fill the stomach above the maximum fill line as indicated.

## Inserting Nasogastric or Nasojejunal Feeding Tubes

**9a**

For a more realistic simulation, lubricate all nasogastric or nasojejunal tubes with the supplied silicone lubricant or water.

**9b**

Nasogastric/nasojejunal tubes may be inserted into the simulator through both nostrils, with or without the simulated skin coverings in place.



Nasogastric/Nasojejunal tubes up to size 10 Fr may be used.  
Ryles tubes up to size 12 Fr should be used.

## Introducing Liquids

**10a**

During use, a range of nasogastric and nasojejunal procedures may be simulated as liquids can be introduced into the stomach.

Liquids may be introduced via bolus feeding or be connected to a feeding pump.

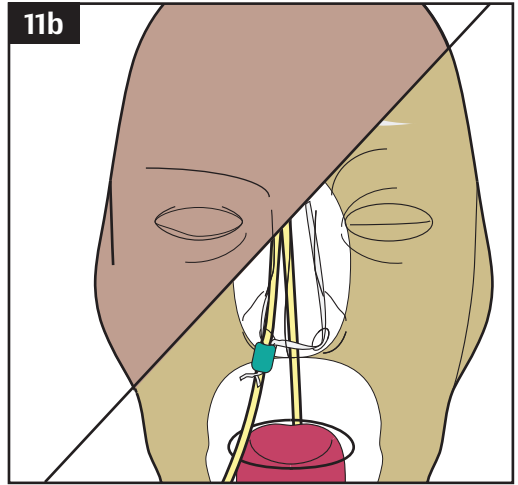
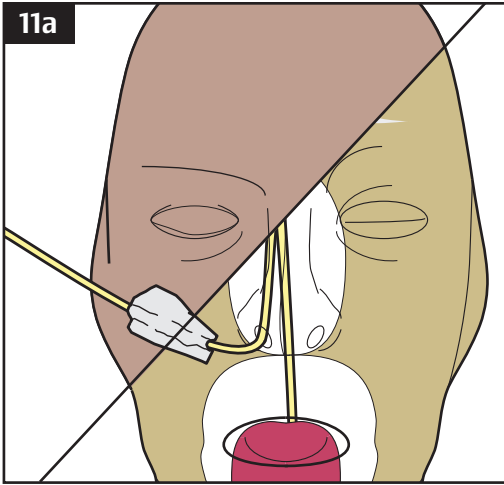
**10b**

Liquids may also be introduced into both the left and right lungs to simulate bad practice.



The stomach accepts up to 60 ml of liquid.  
The left and right lungs accept up to 300 ml of liquid each.  
Do not fill the stomach or lungs above the maximum fill lines as indicated.

## During Use: Nasogastric/Nasojejunal Procedures



## Use of Tape/Adhesive Dressings and Nasal Bridles

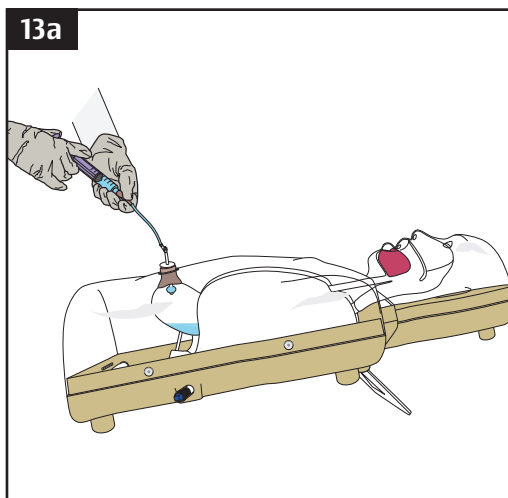
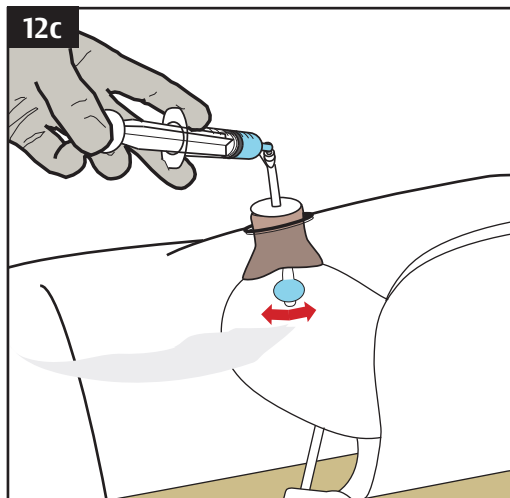
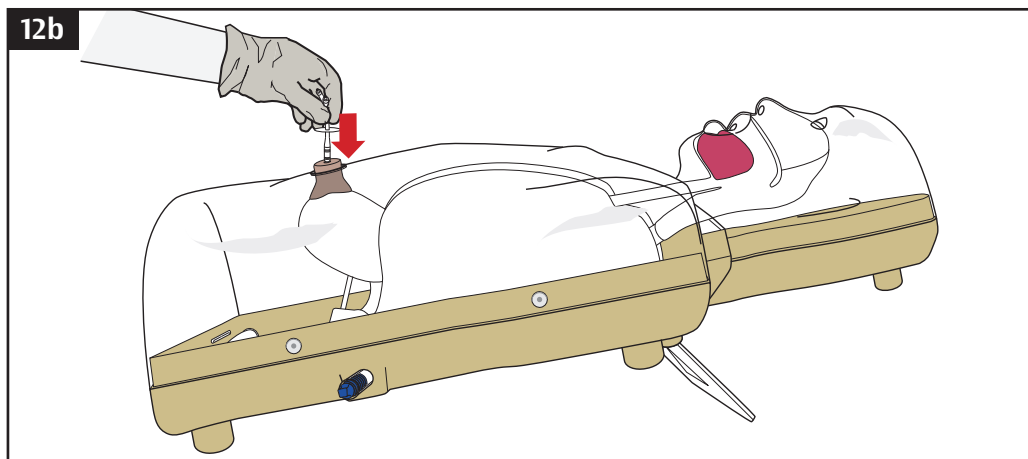
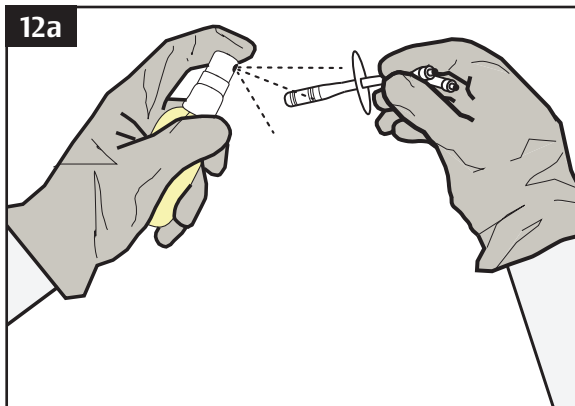
**11a**

Tape or adhesive dressings may be secured to the simulator's face to keep the nasogastric tube in place, with or without use of the simulated face skin covering.

**11b**

A nasal bridle (not supplied) can also be introduced into the simulator via the divided septum, with or without use of the simulated face skin covering.

## During Use: Gastrostomy Procedures







A gastrostomy device is not supplied with this simulator as choice of device varies according to local policy.

## Inserting of Gastrostomy Devices

**12a**

For a more realistic simulation, lubricate all gastrostomy devices with the supplied silicone lubricant or water.

**12b**

Devices can be inserted into the stomach via the simulated gastrostomy opening.



Gastrostomy devices up to size 16 Fr may be used.

**12c**

The simulator can accept gastrostomy devices equipped with inflatable balloons.

## Introducing Liquids

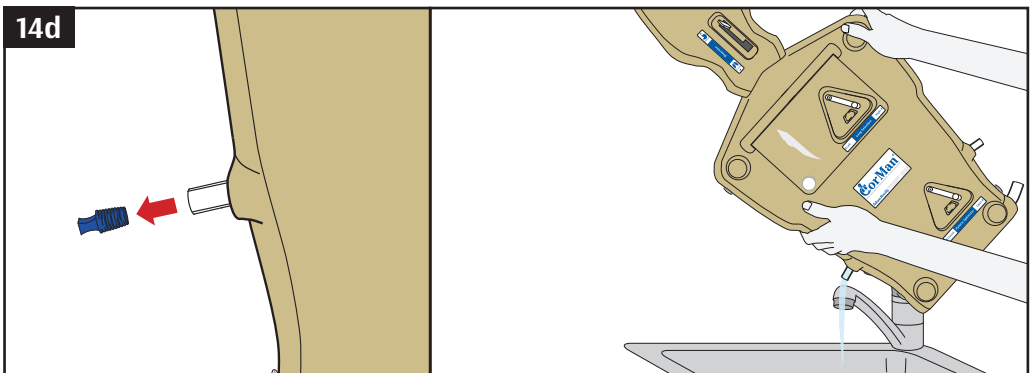
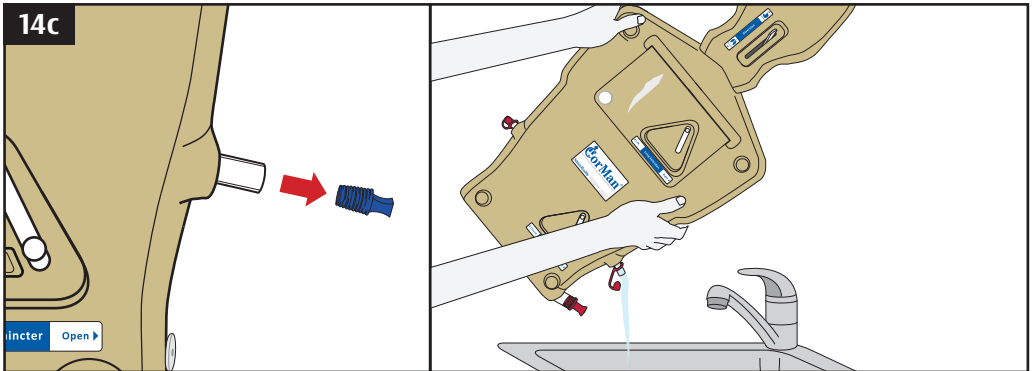
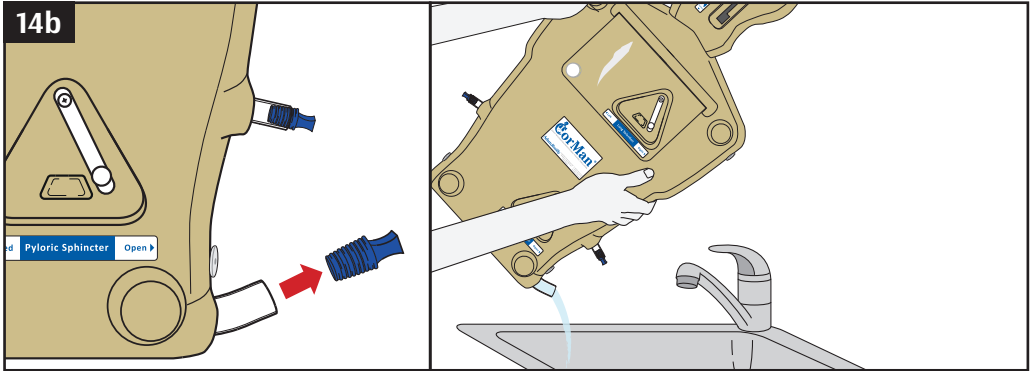
**13a**

Liquids may be introduced into the stomach via a gastrostomy device.



The stomach accepts up to 60 ml of liquid.  
Do not fill the stomach above the maximum fill line as indicated.

## After Use



## Removing Liquids

The stomach and lungs may be drained easily in between training sessions or after use.

**14a**

After use, remove all nasogastric and gastrostomy devices from the simulator as well as nasal bridles and tape if used.

**14b**

Remove the blue stomach/small bowel drain plug. Hold and support the simulator at the rear over a sink or container to empty liquid from the stomach and small bowel.

**14c**

Remove the blue right lung plug. Hold and support the simulator at the rear over a sink or container to empty liquid from the right lung.

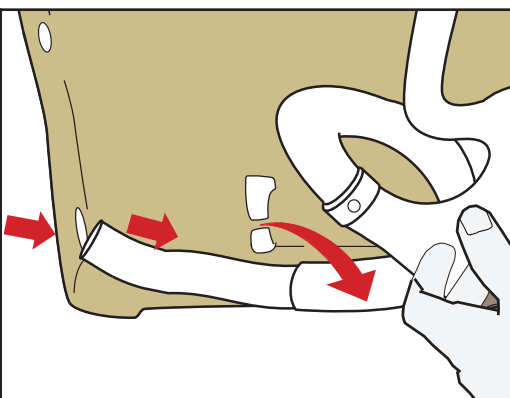
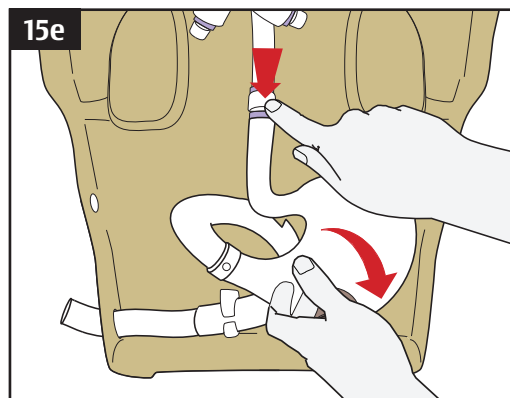
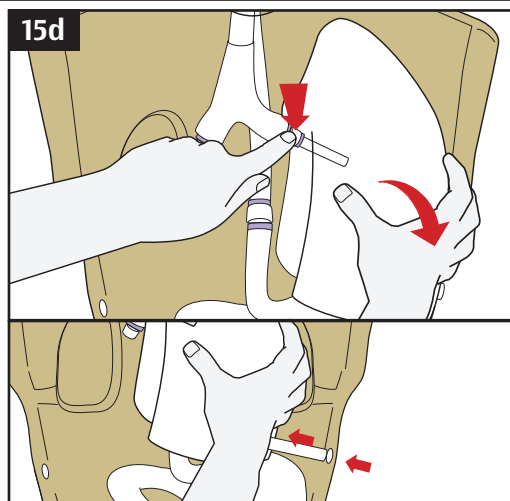
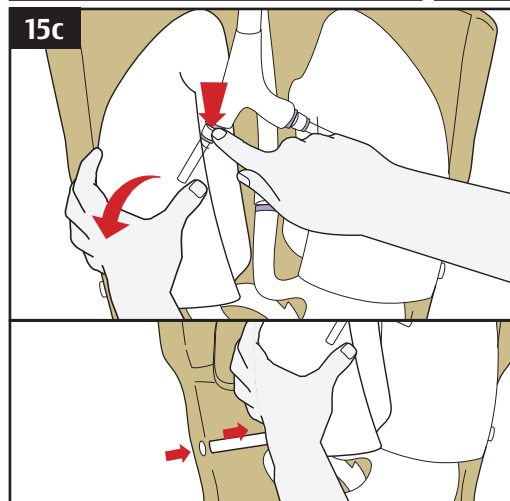
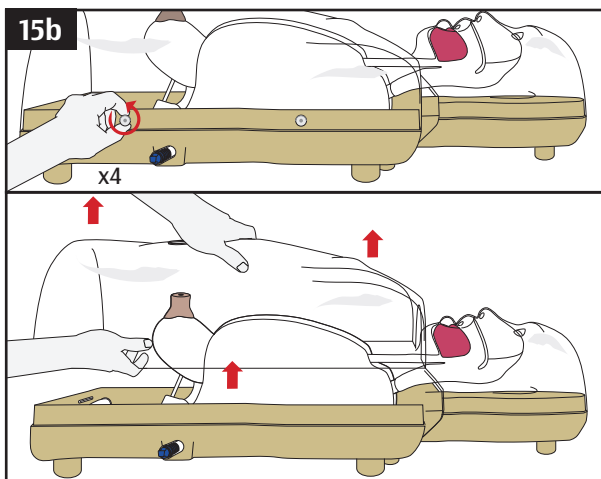
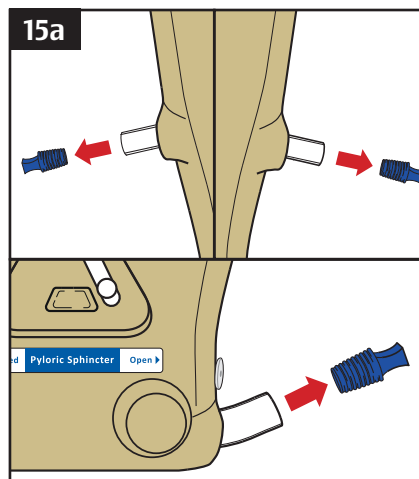
**14d**

Remove the blue left lung plug. Hold and support the simulator at the rear over a sink or container to empty liquid from the left lung.



Do not leave or store the simulator with liquids inside the stomach or lungs, especially acidic liquids. Prolonged contact with acidic liquids will cause accelerated wear.

## After Use



## Cleaning or Replacing the Stomach and Lungs



The stomach and lungs must be cleaned and dried after each use and before storage.



Do not leave or store the simulator with liquids inside the stomach or lungs, especially acidic liquids. Prolonged contact with acidic liquids will cause accelerated wear.



To maintain optimal performance of the simulator, the stomach and lungs will need to be replaced periodically as these are disposable items. To replace the stomach or lungs follow these instructions.

**15a**

Ensure the simulator has been drained as in **Step 14**.

Remove the blue lung drain plugs and stomach/small bowel drain plug.

**Keep the plugs safely for refitting later.**

**15b**

Lie the simulator on a stable, flat surface.

Unscrew the four thumbscrews and lift off the transparent torso cover from the base.

**Keep the thumbscrews safely for refitting later.**

**15c**

First, remove the right lung. Press and hold the white quick-release connector button to release the tubing from the bronchial diverter. Pull the lung away from the velcro fastening on the base, feeding the drainage tube through the hole in the base.

**15d**

Remove the left lung also by pressing and holding the white quick-release connector button to release the tubing from the bronchial diverter. Pull the lung away from the velcro fastening on the base, feeding the drainage tube through the hole in the base.

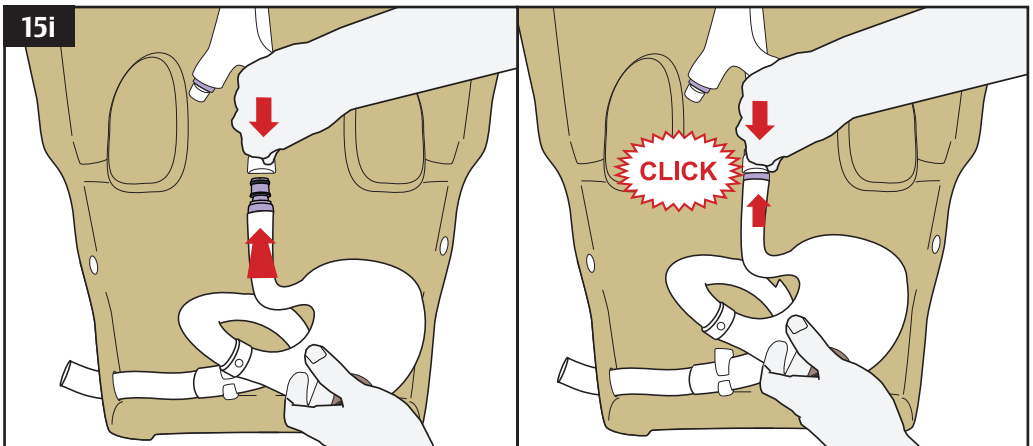
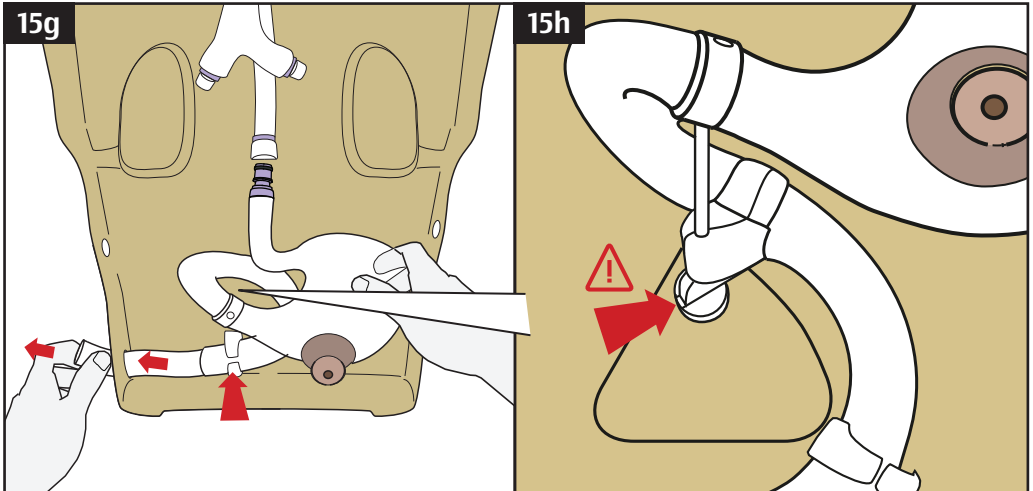
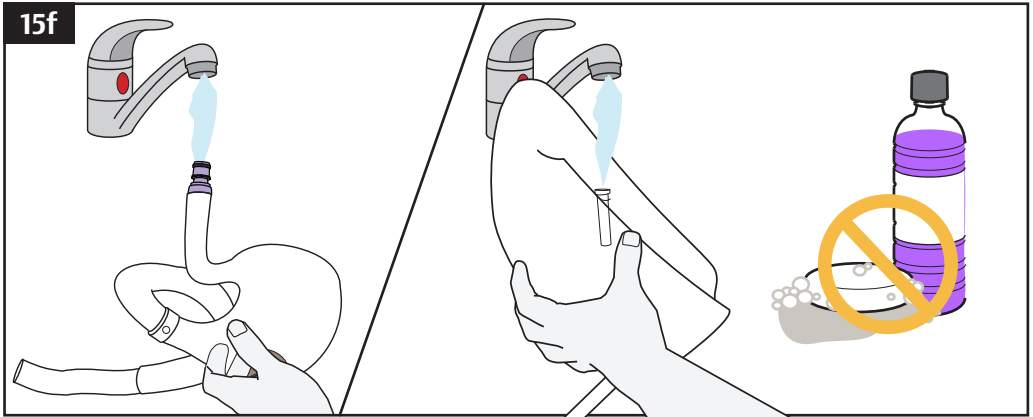
**15e**

Remove the stomach by pressing the white quick-release connector button. Keeping the button depressed, gently pull the stomach down and slightly upwards.

Release the small bowel from the white clips, and feed the drainage tube through the hole in the base.

Continues, please see next page...

## After Use (Continued)



## Cleaning and Replacing the Stomach and Lungs (Continued)

**15f**

The stomach and lungs may now be cleaned using **warm water only** or **Milton Sterilising Fluid**.



**Do not use soap, detergents or any other chemical cleaners to clean the stomach.**

**15g**

To replace the clean stomach, or fit a new stomach, make sure the gastrostomy opening is facing up and the stomach connector is on the top left.

First insert the drainage tube through the base of the simulator and locate the small bowel into the white clips.

**15h**

Verify the pyloric diverter paddle, located underneath the stomach, is positioned correctly its locator on the base. This ensures the diverter will function correctly.

**15i**

Guide the tube at the top of the stomach into the quick release connector, until it clicks into place.

Continues, please see next page...





## Cleaning and Replacing the Stomach and Lungs (Continued)

**15j**

Replace the left lung by first feeding the drainage tube through the hole in the base. Guide the connection on the lung into the bronchial quick-release connector, until it clicks into place.

Press down firmly to ensure that the lung attaches to the velcro fastening on the base.

**15k**

Verify the left/right lung diverter paddle, located underneath the right lung quick release connector, is positioned correctly its locator on the base. This ensures the diverter will function correctly.

**15l**

Replace the right lung by first feeding the drainage tube through the hole in the base. Guide the connection on the lung into the bronchial quick-release connector, until it clicks into place.

Press down firmly to ensure that the lung attaches to the velcro fastening on the base.

**15m**

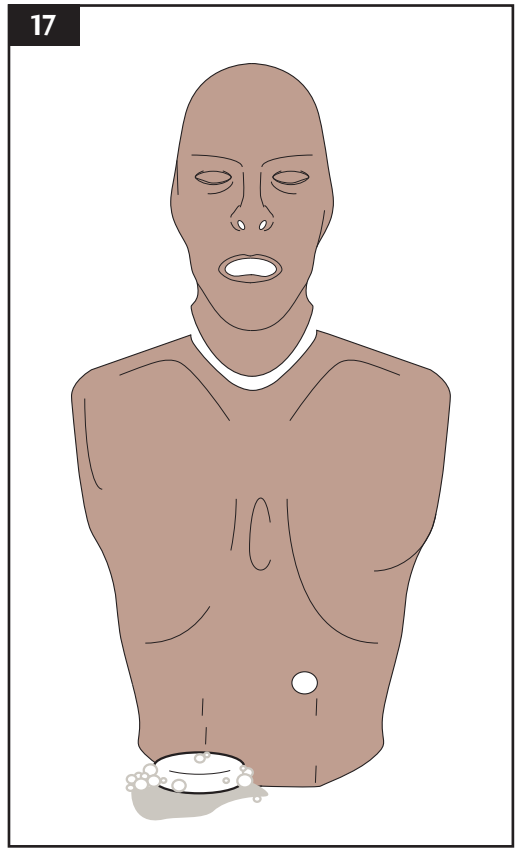
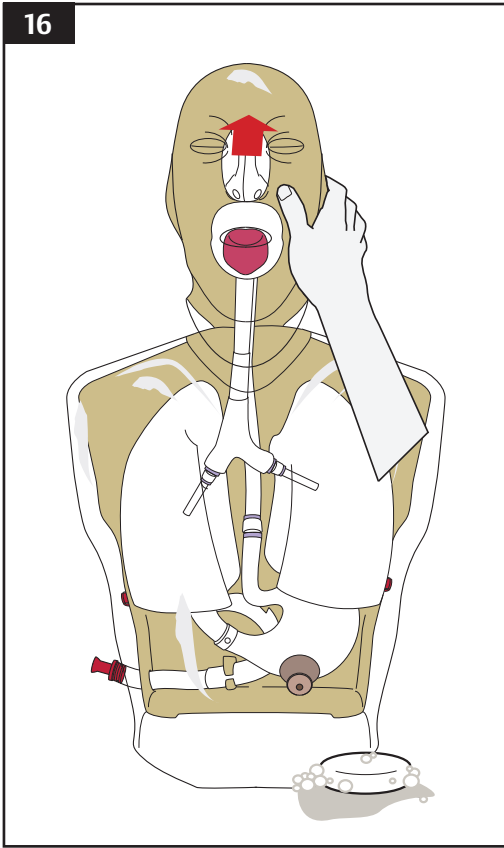
Replace the blue lung drain plugs and stomach/small bowel drain plug.

**15n**

Replace the transparent torso cover onto the base and refit the four thumbscrews.

**The simulator is ready for use again.**

## After Use (Continued)



## Storage and Transportation



## Cleaning the Transparent Manikin Cover and Base

16

The transparent torso and head covers may be wiped with a soft sponge using a mild detergent solution.

## Cleaning the Simulated Torso and Head Skin Coverings

17

The simulated torso and head skin coverings may be wiped with a soft sponge using a mild detergent solution.

## Using the Supplied Rigid Carrying Case

18

After use the simulator should be placed in the supplied **Rigid Carrying Case**.

**Before transportation** the transit packing material must be repositioned before the simulator is placed in the rigid carrying case (see **1a** Page 7).



**Do not store or transport the simulator with liquid inside.**  
**Do not store the simulator near heat or where it may experience extremes in temperature and humidity.**

## 2 Year Guarantee



All products manufactured by Adam,Rouilly are covered by our full 2 Year Guarantee. This guarantee applies to models which have been used correctly and covers durability and functionality.

# Adam,Rouilly

As part of our policy of continual product development, the specification of products may alter without prior notice.

Adam,Rouilly has over 100 year's experience in providing quality medical models and simulators.

Should you require any further information please contact our Sales Department who will be pleased to help with your enquiry.

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