Newborn Anne

ENGLISH Directions for Use

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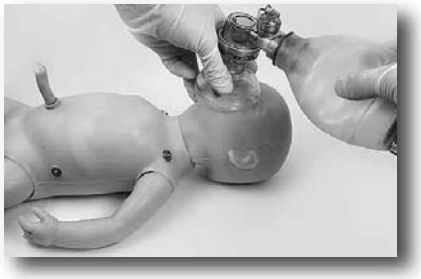


Introduction and Intended Use

Newborn Anne Manikin

Newborn Anne focuses on training in basic neonatal resuscitation skills.

Newborn Anne Manikin **Features**

Airway Features:
- Anatomically accurate, realistic airway
- ET tube insertion
- LMA insertion
- Sellick Maneuver
- Positive pressure ventilation
- Mainstem intubation
- Suctioning
- Gastric tube insertion

Breathing Features:
- Bilateral chest rise and fall with mechanical ventilation

Breathing Complications:
- Unilateral needle thoracentesis - anterior-axillary

Vascular Access:
- Patent, cuttable umbilicus with venous and arterial access for bolus or continuous infusion
- Intraosseous access – bilateral
- Simulated blood flashback upon cannulation

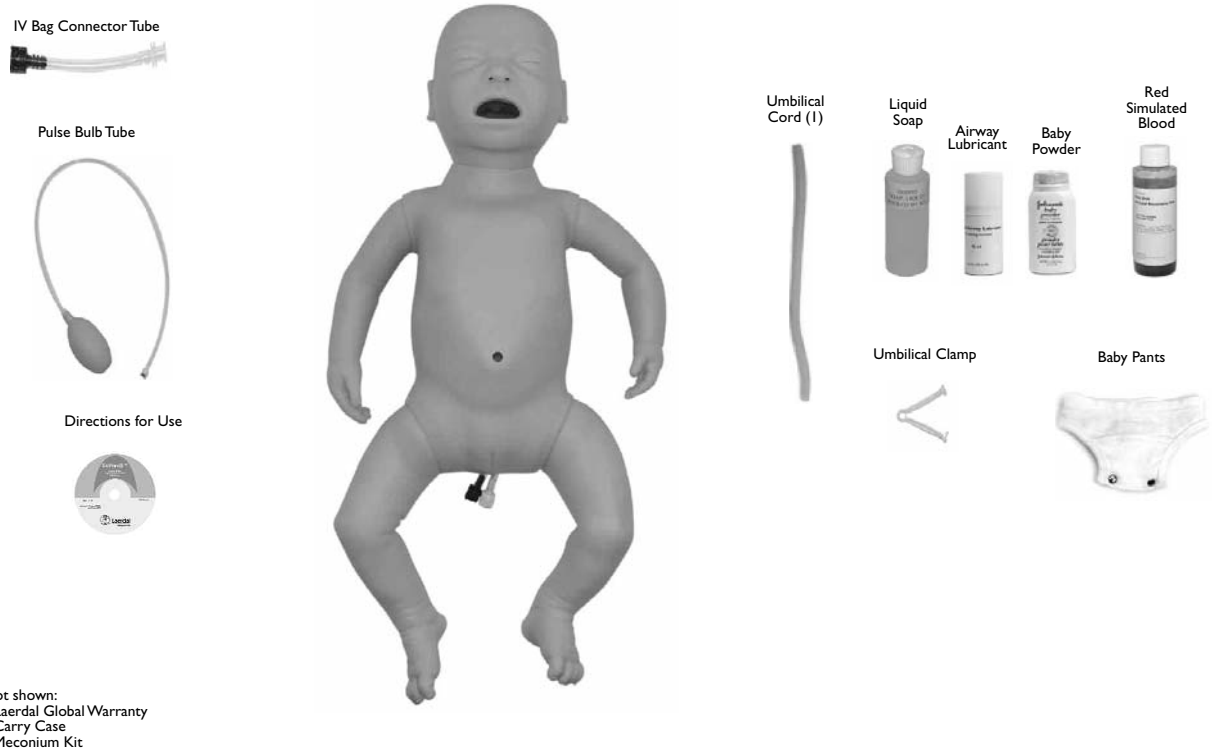
Other Features:
- Interchangeable pupils with normal, dilated and constricted pupils *(optional)*
- Articulation in all four limbs
- Stomach reservoir
- Umbilical reservoir
- Manual umbilical pulse

Setup Guide

Newborn Anne Package Contents

The following parts are included in the Newborn Anne shipping carton.

Newborn Anne Manikin



Cat.no.	Description
220-03650	Meconium Kit
220-00650	Baby Pants
250-21050	Airway Lubricant
300-00750	Red Simulated Blood
276-15550	Liquid Soap
277-00150	Baby Powder

Cat.no.	Description
240-01050	Carry Case
220-05550	Umbilical Pulse Bulb
220-05650	Umbilical Clamp
220-05750	IV Bag Connector Tube
220-19250	Directions for Use CD
5527	Laerdal Global Warrranty

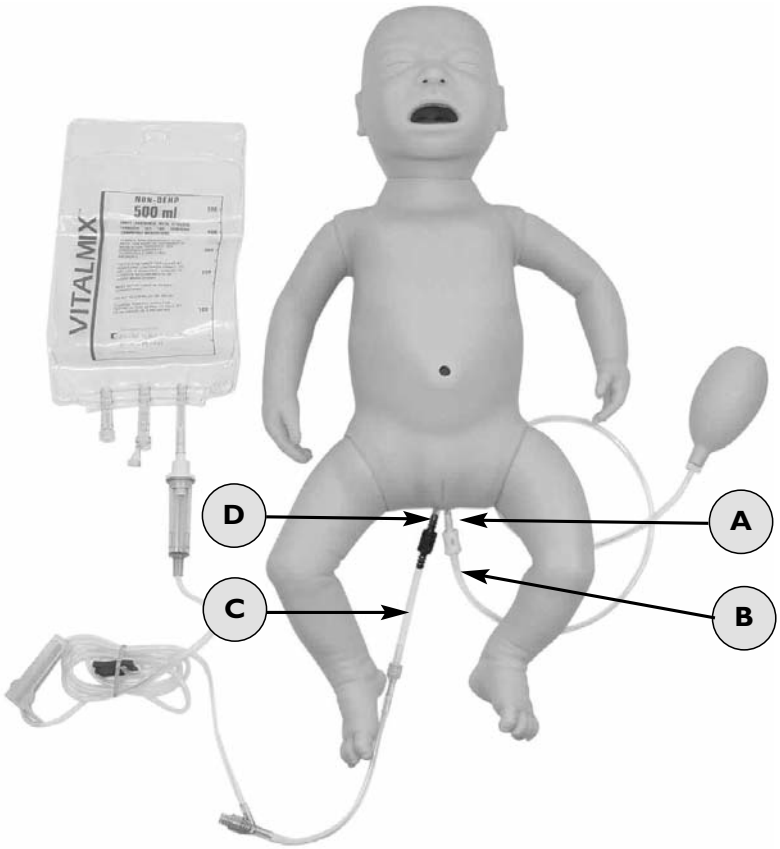
Cat.no.	Description
Optional Accessories: *(Not shown)*	
200-03050	Eye Kit
220-00350	Right & Left IO Mandrel and Leg Skin Kit
220-00150	Umbilical Cord (4)
240-00250	Umbi Simulated Blood
220-00250	IV Bag &Tubing Set

Manikin Connectors

The Newborn Anne manikin is shipped ready for use.

* To attach an empty IV Bag *(not provided)*, connect the IV Bag Connector Tube (C) to the manikin's Umbilical Reservoir Tube Connection (D).
* To attach the Umbilical Pulse Bulb Tube (B), connect to the manikin's Umbilical Pulse Bulb Tube Connection (A).

Note - To attach the tubes, push the connectors together and quarter turn. To detach, reverse the process.



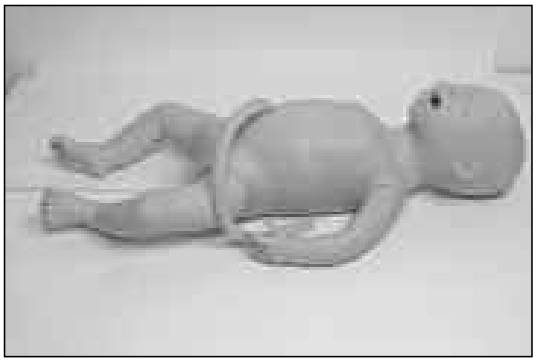
Note - The manikin's Umbilical Reservoir Tube Connection (D) has a valve to prevent leakage from the tube when not attached to an IV-bag set.

Clinical Simulation Using the Newborn Anne Manikin

1. General Handling

Newborn Anne is the size and weight of a newborn baby girl delivered at term with approximately 3.5 kg (7 lbs) body weight and 51 cm (21 inches) length.

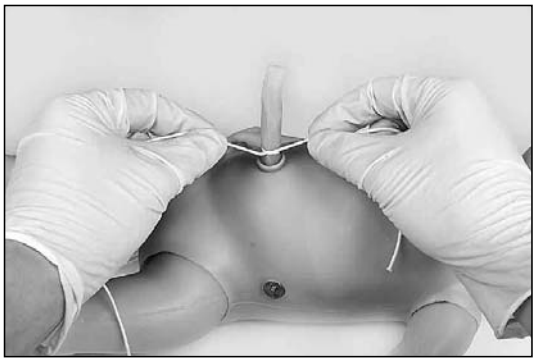
The arms, legs and neck articulate realistically and encourage care and proper handling. The manikin can be handled appropriately for care and resuscitation of a normal newborn.



Umbilical Cord:

The Newborn Anne manikin has a replaceable umbilical cord which can be clamped, tied, cut, sutured, or catheterized, or palpated for umbilical pulse.

IV fluids or medications may be injected into the vein in the umbilical cord up to 40ml if the umbilical reservoir is not filled with fluid to use the manual pulse. Fluids will not flow out to the bag.

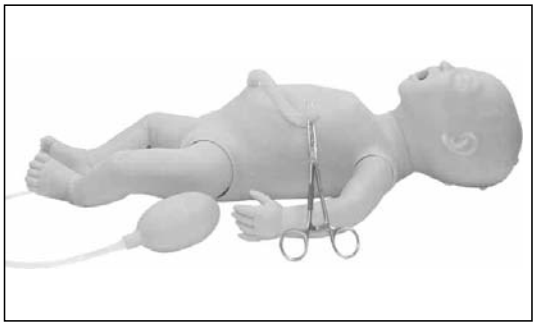


Manual Umbilical Pulse:

Newborn Anne has a manually generated umbilical pulse.

To palpate the umbilical pulse, fill the umbilical reservoir with fluid, clamp the umbilical cord and attach the pulse bulb to the white connector.

It is up to the instructor to select the pulse rate by squeezing the hand held bulb accordingly (see photo).



Interchangeable Pupils:

The Newborn Anne manikin is delivered with normal pupils installed in the head.
A replacement Eye Kit containing 3 sets of plastic pupil inserts (normal, dilated, and constricted) to simulate different patient conditions can be purchased separately (see page 3, Optional Accessories).

Clothing:
The Newborn Anne manikin is delivered with baby pants with snaps at the bottom to allow tubing to pass through.

Powdering:
Newborn Anne manikin is delivered with powder. When needed, apply light dusting of powder externally to the manikin torso (see page 12).

2. Airway Simulation Features

Opening the Airway

The neck of Newborn Anne manikin is realistically flexible, from hyperextension to flexion. The simulation team members may demonstrate correct head position for opening of the airway.

Clearing the Upper Airway

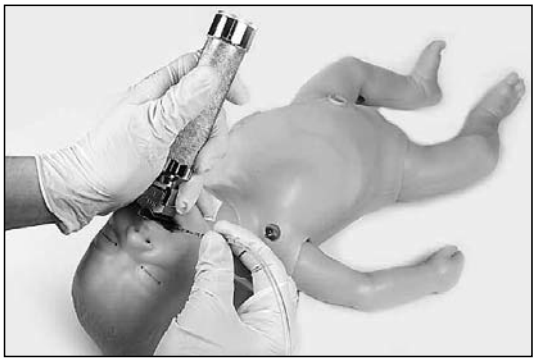
Simulated meconium may be suctioned from the Newborn Anne manikin's mouth and nose with a suction catheter (see page 11).

When using the meconium module, the simulation team members can assume that there is meconium in the trachea, instigating proper procedures for aspiration of meconium matter.

The head can be turned to the side as normal.

Clearing the Lower Airway

One can dry simulate removal of meconium from the Newborn Anne manikin's mouth and trachea by laryngoscopy, using a suction catheter to clear the mouth.



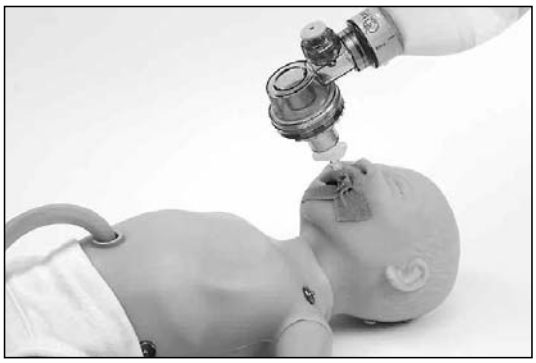
Securing the Airway

The Newborn Anne manikin's neck, jaw and airway are modeled to enable a normal newborn intubation scenario. The airway can be intubated either by direct laryngoscopy (straight blade size #1 recommended) and an uncuffed ET tube (size ID 3.5 mm recommended), or with the LMA (size #1 recommended).

Nasal intubation can be done.

NOTE: *Lubricate the ET tube or LMA with provided Airway Lubricant before insertion.*

The "sniffing" position aligns the trachea for the best view of the glottis and vocal cords when properly using a laryngoscope. Cricoid pressure may be used by the simulation team member.



The Newborn Anne manikin jaw is realistically hinged and flexible, for airway and intubation maneuvers.

The Newborn Anne manikin vocal cords are realistically shaped and at a depth of 9.5 cm from the upper lip. If the ET tube is inserted too far, it will pass into the right main bronchus, giving only right side chestrise during positive-pressure ventilation.

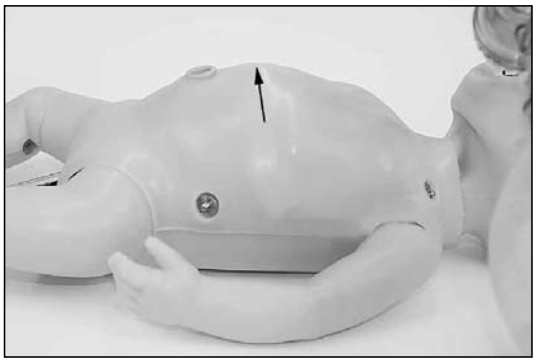
An ET tube may be secured by means suitable for a neonate. Tape residues should be cleaned off the skin with soap and water.

Oropharyngeal or nasopharyngeal airways suitable for neonates may be used.

NOTE: Lubricate the oropharyngeal or pharyngeal airways with provided Airway Lubricant before insertion.

Detection of Esophageal Intubation

If the esophagus is intubated instead of the trachea, the abdomen will then visibly distend for each positive-pressure ventilation.

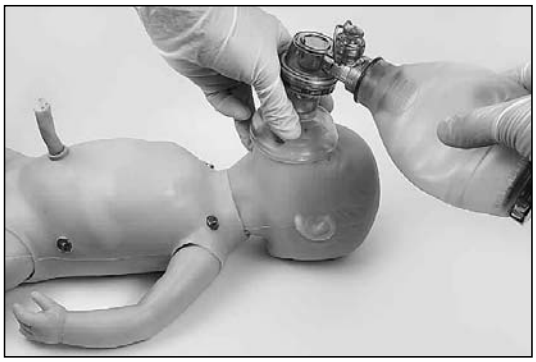


Stomach ventilation is detectable with the stethoscope.

Assisted Breathing

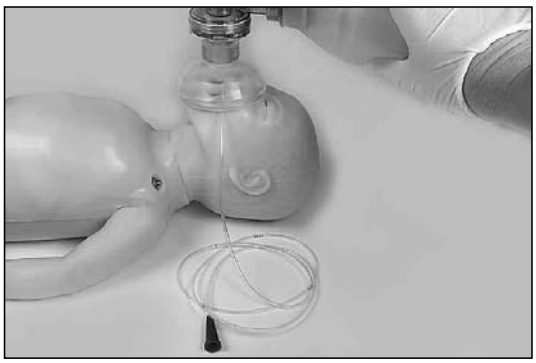
The Newborn Anne manikin is designed for airway devices such as face masks, ET tubes (size ID 3.5mm recommended) and LMAs (size #1 recommended).

The manikin is suitable for use with self-inflating bags and flow-inflating bags. It is not designed for use with automatic ventilators.



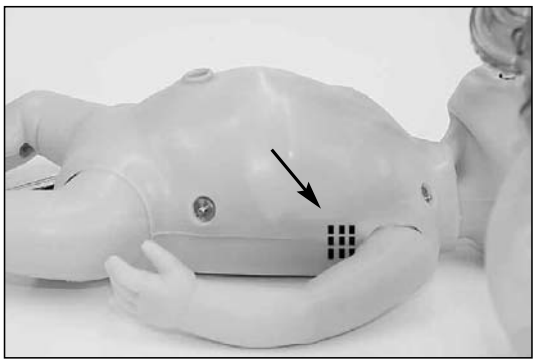
A size 0/1 face mask is recommended for mask-ventilation with the Newborn Anne manikin. During mask ventilation with elevated airway pressure, air may realistically leak through the esophagus to the abdomen, visibly distending the stomach.

To vent out accumulating air from the stomach, an orogastric tube (size 8 FR recommended) can be in place simultaneously with mask ventilation.



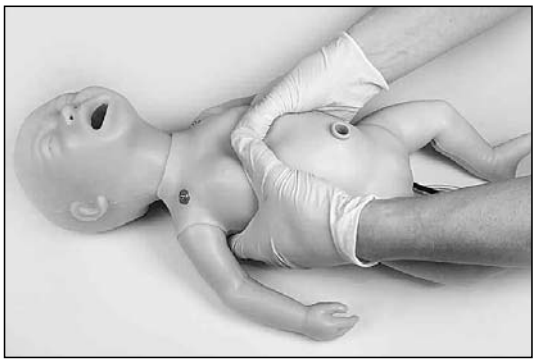
Pneumothorax Decompression

The needle decompression procedure can be performed by inserting a needle at the left chest side (fourth intercostal space) into the pleural space. The rib structure can be palpated through the skin. The Newborn Anne manikin's pleural space is enclosed so that the needle cannot damage the inner components of the manikin.

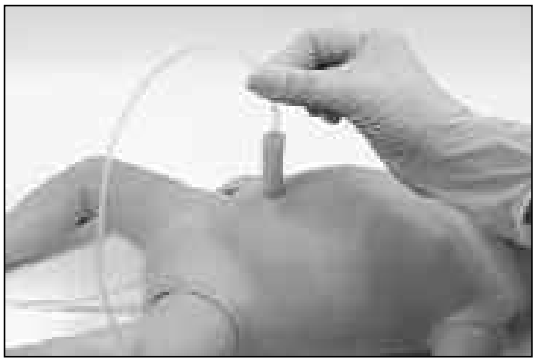


Chest Compressions

The Newborn Anne manikin has normal visible chest landmarks (xyphoid process, nipples) and underlying sternum structure. The Newborn Anne's maximum chest compression depth is one third of the AP distance.



3. Drug & IV Administration

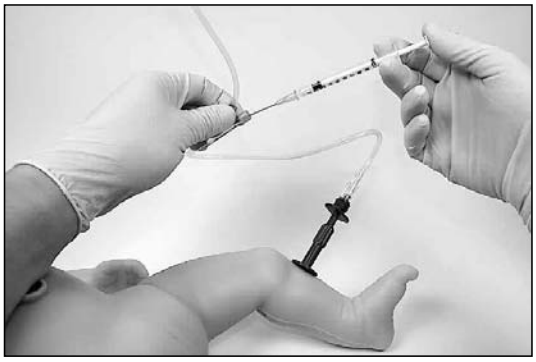


IV Access via the Umbilical Vein

IV fluids or simulated medications may be injected into the vein in the umbilical cord. The fluids will accumulate in an abdominal fluid reservoir (40 ml capacity) if the reservoir is not filled to use the manual pulse. Fluids will not flow out of the reservoir to the IV bag.

Cannulation of the umbilical vein can be performed with an umbilical catheter (size 3.5F or 5F).

Artificial blood can be added to the reservoir, so that team members can draw simulated blood when testing the catheter for proper insertion depth.



Intraosseous Access

Intraosseous access can be established bilaterally in the lower legs.

IV fluids or medications may be injected through the I/O needle. Each leg contains a fluid reservoir of approximately 35 ml.
To prevent leakage, it must be emptied after each use (see page 12).

Stomach Catherization

A feeding tube (size 8FR) can be inserted into the stomach.

A suction catheter (size 10FR) can be inserted into the stomach for stomach content removal. Suction can be applied to the catheter as normal.

Manikin Preparation Before Use

Inserting Fluids into the Umbilical Reservoir

Use a syringe to insert fluid into the abdominal reservoir. Do not fill more than 40 ml.

Attaching the Umbilical Cord

Lubricate the end of the umbilical cord to be inserted with liquid soap. Squeeze and press the umbilical cord into the umbilical opening. The cord should be pressed at least 50mm (2 inches) into the opening, but need not be pushed further down.

To remove, gently pull on the umbilical cord.

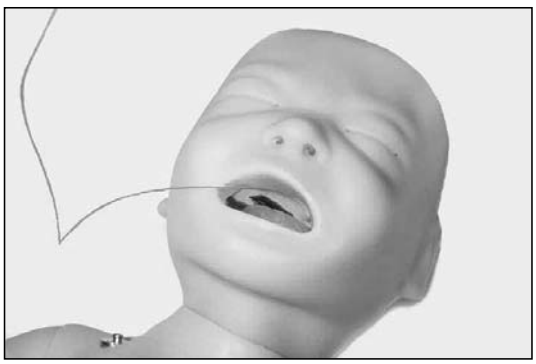
Changing Eye Pupils

1. Open the eyelids wide, taking care not to rip the faceskin.
2. Using the suction cup provided in the Eye Kit (see page 3, Optional Accessories) or the edge of your fingernail, gently remove the pupil from the eye.
3. Replace with the pupil of choice, using the small suction cup provided in the Eye Kit or gently press pupil into place with finger.

Inserting the Meconium Module

1. Insert the module with a finger - do not use force.
   Note: Do not add lubricant to the module.
   Note: Do not insert the meconium module past uvula.
2. A suction catheter @ 100 mmHg will remove the meconium module.
3. A tether line has been added to ensure removal of the object.

For intubation following the removal of the meconium module, add Aiway Lubricant to the ET-tube before intubation.



Maintenance After Use

The maintenance tasks listed below should be performed after the training session.

For other service needs, contact your local Laerdal Technical Service Center.

Tucking in the Neck Skin

If the manikin's neck has been extended, the neck skin's lower edge may need to be tucked in under the body framework's collar line.

To Extend the Cleanliness of Your Manikin

Use a small towel and lightly dust the manikin head and chest with a small amount of powder (provided). Wipe away any excess.

Apply baby powder beneath the body skin at the neck, shoulder and hip joints to prevent sticking.

Emptying the Abdominal Reservoir for Fluid

Remove the umbilical cord, rinse and wipe it clean, and let it dry. Suction fluid from the reservoir.
Add clear or soapy water and suction until the reservoir is clean.

Emptying Legs for Fluid

If fluid is present in the legs, open the plug behind the knee and remove fluid with a syringe.

NOTE: *Always remove fluids from the umbilical and IO reservoirs after use.*

Periodic Maintenance

Changing Lower Leg Mandrels and Skins

After multiple uses with IO needle injections to the lower legs, the lower leg mandrels and skins should be replaced if fluid leakage is prominent during use (see page 3, Optional Accessories).

1. Carefully pull the leg skin off the leg.
2. Unscrew and remove the knee bolt holding the lower leg.
3. Exchange the lower leg with a new one of the same type (right/left foot).
4. Reinsert the knee bolt and tighten carefully.
5. Apply baby powder to the inside surfaces of the leg skin.
6. Pull a new leg skin (same type left/right) over the foot/leg.

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