

Clinical Resource

Surfactant Administration Protocol

Indications for Curosurf®

- GA<26 weeks.
- GA 26-29 weeks with supplemental oxygen requirement ≥ 40%.
- GA>29 weeks with CXR-proven RDS.
- Consider in severe meconium aspiration after consultation with neonatologist.
- Ability to confirm placement of ETT with CXR. (Must be in Bethel or SRC.)

Curosurf® Storage

- Curosurf[®] is stored at 36-46°F.
- If warmed and not opened or used, may be returned to refrigerated storage one time.
- Curosurf® is located in the OB medication refrigerator. If going on a medevac, ask the nurses to get the Curosurf®. It can be stored in a pink thermal bag that is kept next to it in the refrigerator.

Reference:

See this YouTube video for a demonstration of the Y catheter. Please instill as single dose in supine position to decrease chance of inadvertent loss of ETT placement/position.

Troubleshooting

- If ETT cap is stuck, cut the tube as high as possible and then place the Y cap. This will change the number of the desired depth.
- If having trouble switching caps prior to intubation, hold ETT up to warmer to soften the plastic.

Prior to procedure, discuss with neonatologist. Consider using medications for Rapid Sequence Intubation.

If planning to use paralytic, discuss with neonatologist.

Preparation of Curosurf®

- Warm to room temperature and gently invert. Do not shake.
- Choose Curosurf[®] dose using the <u>Neonatal Resuscitation Summary</u> using estimated gestational age. If weight is known, calculate dose to be 2.5 mL/kg.
- Draw up total Curosurf® dose using a 20 gauge or larger needle. Draw up 1-2 mL of air into syringe after dose. This helps the surfactant get pushed out of the catheter when administering dose.

Preparation of Equipment and Patient

- · Prior to intubation, if possible, check the ETT cap and make sure it comes on and off easily.
- Make sure you have the correct size Y cap for the ETT size.
- Check fit of Y cap on ETT. Attach catheter and feed it down the tube until it is at the tip of the ETT. Look for the number or color that will tell you the depth of the catheter at this point. If time, review YouTube video in reference box for demonstration of how to achieve desired depth.
- Intubate patient with ETT cap on tube.
- Verify placement and secure tube.
- Perform CXR to verify tube placement and rule-out pneumothorax.

Administration of Curosurf®

- Infant should be supine.
- · Disconnect Neopuff, bag, or ventilator.
- Remove ETT cap and replace with Y cap. This will change the number of the desired depth.
- Attach the Neopuff or anesthesia bag to the larger port on the Y cap.
- Attach the catheter to the smaller port on the Y cap and advance it until it is at the desired depth.
- Inject the syringe of Curosurf® through the catheter.
- Pull the catheter all the way out but leave attached.
- Bag the baby at a rate of 40-60 breaths/minute for one minute.
- Allow the baby to recover.
- · Resume ventilation.
- Do not suction for one hour after administration unless required for obstruction.
- · Adjust pressure on Neopuff as lung compliance improves.

Note: After discussion with the neonatologists, surfactant is not to be given in villages without CXR ability. It may be given in SRCs after CXR confirms ETT position.

This resource is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.

Approved by Clinical Guideline Committee 7/23/25.

Click here to see the supplemental resources for this resource.

If comments about this resource, please contact Amy_Carson-Strnad@ykhc.org