

SURFACTANT - ADMINISTRATION VIA ENDOTRACHEAL TUBE

This Local Operating Procedure is developed to guide safe clinical practice in Newborn Care Centre (NCC) at The Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this Local Operating Procedure.

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INTRODUCTION

The administration of surfactant to preterm neonates with respiratory distress syndrome is a common therapy in most neonatal centres. Numerous clinical trials involving the administration of exogenous surfactant to infants with or at risk of respiratory distress syndrome demonstrates improvements in blood gas values, ventilation settings and an overall decrease in infant mortality rates.

1. AIM

- To administer surfactant safely via the newborn's ETT

2. PATIENT

- Newborns

3. STAFF

- Medical and nursing staff

4. EQUIPMENT

- Dressing pack
- Size 5 FG intragastric feeding tube
- Sterile scissors or surgical blade
- CUROSURF 240 mg/3ml or 120 mg/1.5ml kept refrigerated in medication room.
- 5 mL syringe (IV)
- 5 mL syringe (oral)
- Interlink vial cannula
- Sterile gloves

NOTE:

Curosulf should be stored at +2-+8 °C.

Before use it should be warmed to room temperature and gently turned upside down in order to obtain a uniform suspension.

DO NOT SHAKE AMPOULE

5. CLINICAL PRACTICE

Procedure:

1. Prior to the procedure:
 - Inform parents
 - Ensure resuscitation equipment is functioning
 - Confirm ETT position
 - Assess infant for equal air entry
 - Assess the need for ETT suctioning
 - Position the infant supine
2. Check the correct amount of surfactant prescribed with medical officer.
3. Clean work surface with neutral detergent.
4. Open dressing pack and the required equipment. (Picture 1)
NB. Intragastric feeding tube and syringe have changed.



Picture 1

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5. Administering medical officer performs hand hygiene and puts on sterile gloves.
6. Measure the ETT from the tip to the end of blue connector - minus 1 cm to obtain the required distance to cut the feeding tube. (Picture 2)
7. Fold back the IGT and use the centimetre marks on the tube as a measurement to determine the required length. Cut with sterile scissors. (Picture 3)
NB. Intra-gastric feeding tube has changed.



Picture 2



Picture 3

8. Draw up surfactant with an interlink vial cannula into IV syringe.
9. Inject surfactant into oral syringe.
10. Prime the IGT until the calculated dose of surfactant remains in the syringe.
11. Disconnect the ventilation circuit from the ETT for administration. (Picture 4)
12. Insert IGT into the ETT. Inject the surfactant in a single bolus dose.
13. Withdraw the IGT and re-connect the ventilation circuit to the ETT.
14. Hold ETT upright to check the administered surfactant has drained.
15. Observe the infant for:
 - Respiratory effort
 - Signs of airway obstruction
 - Changes in heart rate
 - Changes in oxygen saturations
 - Changes in oxygen requirement
 - Changes in colour and perfusion
 - Changes in behaviour
16. Dispose of sharps correctly and clean work surface.
17. Document procedure in:
 - eMR
 - Medication chart
 - NICUS database
18. Monitor for change in the infant's tidal volumes. Take a blood gas 20-40 minutes post-surfactant administration or as prescribed by the medical team.



Picture 4

6. DOCUMENTATION

- eMR
- Neonatal Observation Chart
- Medication Chart
- NICUS database

7. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP

- Minimally invasive surfactant therapy (MIST)

NEONATAL SERVICES DIVISION

Approved by Quality & Patient Care Committee
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8. RISK RATING

- Low

9. NATIONAL STANDARD

- Standard 1 Governance for Safety and quality in Health Service Organisation
- Standard 4 Medication Safety
- Standard 9 Recognising and Responding to Clinical Deterioration in Acute Health Care

10. ABBREVIATIONS AND DEFINITIONS OF TERMS

NCC	Newborn Care Centre	IGT	Intragastric Tube
ETT	Endotracheal Tube		

11. REFERENCES

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