

Royal Hospital for Women (RHW)
NEONATAL BUSINESS RULE
COVER SHEET



Health
South Eastern Sydney
Local Health District

Ref: T25/51961

NAME OF DOCUMENT	Minimally Invasive Surfactant Therapy (MIST) for Neonates
TYPE OF DOCUMENT	Clinical Business Rule
DOCUMENT NUMBER	RHW CLIN170
DATE OF PUBLICATION	Jul 2026
RISK RATING	Low
REVIEW DATE	Jul 2031
FORMER REFERENCE(S)	N/A
EXECUTIVE SPONSOR	Sally Wise, Nursing Co-Director Neonatal Services Srinivas Bolisetty, Medical Co- Director Neonatal Services
AUTHOR	Giannina Tinoco Mendoza (Staff Specialist), Tim Schindler (Senior Staff Specialist), Sarah Jane Tapawan (Career Medical Officer), Srinivas Bolisetty (Medical Co-Director)
SUMMARY	To safely administer surfactant to spontaneously breathing neonates on non-invasive respiratory support in Newborn Care Centre.
Key Words	RDS; nCPAP; Surfactant; Minimally Invasive Surfactant Therapy, MIST, Neonate

Minimally- Invasive Surfactant Therapy (MIST)
for Neonates

RHW CLIN170

Contents

1	BACKGROUND	3
2	RESPONSIBILITIES	3
2.1	Staff	3
3	PROCEDURE	4
3.1	Indication	4
3.2	Equipment	4
3.3	Clinical Practice	5
3.3.1	Preparation	5
3.3.2	Procedure	6
3.3.3	Post-procedure	8
3.4	Documentation.....	9
3.5	Education Notes	9
3.6	Abbreviations	11
3.7	Related Policies/procedures	11
3.8	References	12
4	ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION	13
5	CULTURAL SUPPORT	14
6	NATIONAL STANDARDS	14
7	REVISION AND APPROVAL HISTORY	14

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

This Clinical Business Rule (CBR) is developed to guide safe clinical practice at the Royal Hospital for Women (RHW). Individual patient circumstances may mean that practice diverges from this Clinical Business Rule. Using this document outside RHW or its reproduction in whole or part, is subject to acknowledgement that it is the property of RHW and is valid and applicable for use at the time of publication. RHW is not responsible for consequences that may develop from the use of this document outside RHW.

Within this document we will use the term woman, this is not to exclude those who give birth and do not identify as female. It is crucial to use the preferred language and terminology as described and guided by each individual person when providing care.

1 BACKGROUND

Preterm neonates with respiratory distress syndrome are increasingly being supported with nasal continuous positive airway pressure (nCPAP) at birth instead of routine intubation. Many of these neonates have significant surfactant deficiency and require exogenous surfactant administration. New techniques of minimally invasive surfactant therapy (MIST) have been developed, whereby exogenous surfactant can be administered to spontaneously breathing neonates on non-invasive respiratory support without the need for intubation.

Newborn Care Centre, Royal Hospital for Women utilise the “Hobart method”¹ for administering surfactant, which involves the administration of surfactant via a semi-rigid catheter briefly passed into the trachea.

2 RESPONSIBILITIES

2.1 Staff

- 2.1.1 Medical- identify neonates that may require MIST, inform parent/carer of procedure (if available), prepare required equipment including Neopuff™, safely perform MIST procedure, monitor neonate for any complications or escalation of care required, document procedure in medical record.
- 2.1.2 Nursing- prepare emergency equipment and bring to the bedside, prepare neonate for procedure, assist medical staff with procedure, monitor neonate for any complications or escalation of care required, document procedure in medical record.

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

3 PROCEDURE

3.1 Indication

- Preterm infants < 37 weeks gestation with a diagnosis of respiratory distress syndrome confirmed by clinical findings and/or radiological findings (usually on chest x-ray).
- On non-invasive respiratory support (nCPAP) of 6-8 cmH₂O and FiO₂ ≥ 0.30 to maintain target saturations.
- First dose of surfactant to be given soon after the respiratory criteria for MIST met. The ideal time to give surfactant for infants:
 - < 27⁺⁰ weeks gestation is within 2 hours of life (1)
 - 27⁺⁰ to 31⁺⁶ weeks gestation is within 6 hours of life
 - 32⁺⁰ to 36⁺⁶ weeks gestation is within 24 hours of life (2)

Note

MIST should be used in neonates that are clinically stable on nCPAP where the neonate is not rapidly deteriorating and will not require escalation to invasive respiratory support.

MIST should be used with caution in neonates who have congenital airway anomalies or other respiratory conditions (e.g. pulmonary hypoplasia) contributing to their respiratory status.

3.2 Equipment

- nCPAP interface
- Expressed breast milk (EBM) or oral sucrose 24%
- Video laryngoscope with appropriate size blade (if available)
- Laryngoscope handle and appropriate size blade
- Vygon Surfcath™ 6 Fr 200 mm long catheter, 0.8 x 2 mm, with a 2 cm long black coloured tip (alternative BD Angiocath™ 16 G, 1.7 x 133 mm)
- Surfactant (Curosurf™, Chiesi Farmaceutici, Parma, Italy) - appropriate dose for neonate from fridge in medication room
- 3mL or 5mL intravenous (IV) syringe (slip lock)

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

- Monoject™ needleless med prep cannula (grey needle)
- Vial access cannula
- 5 or 10mL enteral feeding syringe
- Sterile gloves- appropriate size for proceduralist
- Sterile drape
- Fentanyl (intranasal) or dexmedetomidine (intranasal) as per neonatologists discretion (refer to Australasian Neonatal Medicines Formulary [ANMF] for equipment)
- Neopuff™ with tubing and appropriate size face mask
- Drager Babylog® VN500/VN800 ventilator with Fisher and Paykel (F&P) neonatal ventilator dual heated circuit kit – 950N80 **OR**
- Getinge Servo-n® ventilator with F&P Neonatal ventilator dual heated circuit kit- 950N81
- Neonatal Resuscitation Trolley
- Shoulder roll
- Suction catheter (short and long catheter)

3.3 Clinical Practice

3.3.1 Preparation

- Ensure the neonate is suitable for administration of surfactant via MIST. This should always be at the discretion of the neonatologist.
- Inform parent/carer of MIST procedure (if available).
- Administer intranasal fentanyl or dexmedetomidine prior to procedure if neonatologist has requested this. Refer to Australasian Neonatal Medicines Formulary [ANMF] for administration procedures.
- Ensure at least three staff members are available for the procedure (1x proceduralist; 1x airway assistant for surfactant administration; 1x assistant for intragastric tube aspiration prior and during procedure)
- Assemble necessary equipment to perform the procedure.
- Ensure Neopuff™ circuit with appropriate sized face mask is checked and functional.
- Ensure neonatal resuscitation trolley and all necessary equipment required for invasive ventilation is readily available if required.

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

- Draw up surfactant (Curosurf™, Chiesi Farmaceutici, Parma, Italy) in a 3 or 5 mL syringe.
 - For neonates < 2.5 kg: give 200mg/kg (2.5mL/kg) of surfactant
 - For neonates ≥ 2.5 kg: give 100mg/kg (1.25mL/kg) of surfactant

Draw up an additional 0.5 mL of air into the syringe, which allows for the dead space in the instillation catheter (~0.3 mL).

3.3.2 Procedure

- Swaddle the neonate and administer EBM or oral sucrose 24%.
- Position the neonate as for a standard intubation procedure.
 - A shoulder roll may be required to assist with optimal positioning of neonate.
- Ensure intragastric tube is secure and aspirate abdominal contents.
- Ensure nCPAP remains in place during procedure.
 - Direct visualisation of vocal cords may be limited with nCPAP in place.
- Perform a 'Time Out' prior to MIST procedure.

3.2.2.1 Proceduralist

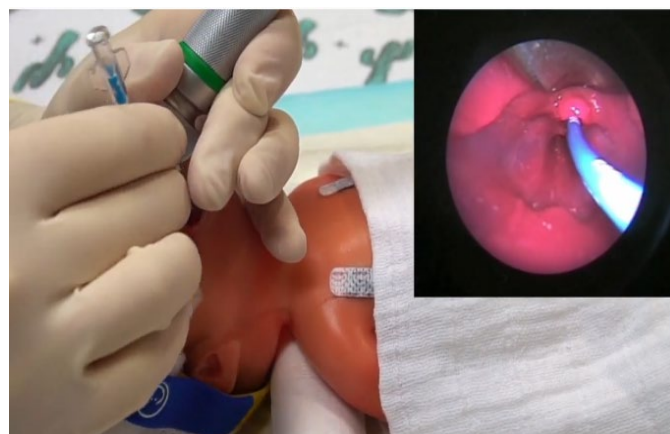
- Perform direct laryngoscopy using either a standard laryngoscope blade or video laryngoscope (Picture 1).
- Insert the Surfcath™ (Picture 2) orally and pass it through the vocal cords until the black marking has been passed below the cords. The following are recommendations for the desired depth of insertion (3):
 - < 27⁺⁰ weeks: 1 cm
 - 27⁺⁰ to 28⁺⁶ weeks: 1.5 cm
 - ≥ 29⁺⁰ weeks: 2 cm
- Immobilise Surfcath™ against hard palate of neonate's mouth. Remove the laryngoscope blade.
- Hold the neonate's mouth closed to maintain Positive End Expiratory Pressure (PEEP) (Picture 3).
- Take note of the measurement at the lips.

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

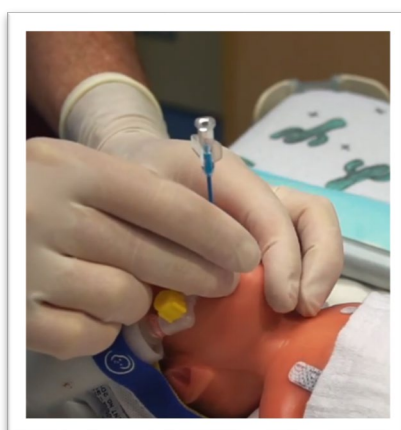
RHW CLIN170



Picture 1



Picture 2



Picture 3

3.2.2.2 Airway Assistant

- Connect the surfactant IV syringe to the catheter hub and instil the surfactant in 2-4 boluses over 15-30 seconds (Pictures 4 and 5).

3.2.2.3 Second Assistant

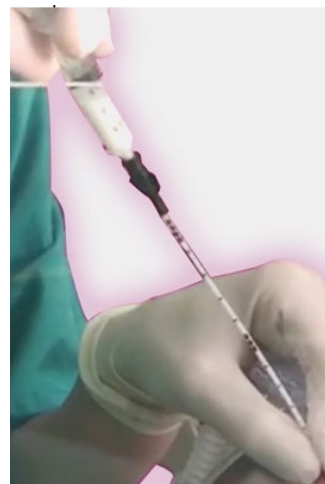
- Aspirate intragastric tube intermittently during the administration of surfactant to ensure Surfcath™ correctly positioned.

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170



Picture 4



Picture 5

3.2.2.4 Proceduralist

- If catheterisation of the trachea is not possible within 20-30 seconds, remove the laryngoscope and allow recovery on nCPAP before attempting tracheal catheterisation again.
 - Consider abandoning the procedure after three unsuccessful attempts or if surfactant aspirated through the intragastric tube.
- Remove the catheter immediately after administering surfactant and continue nCPAP.

3.3.3 Post-procedure

- Remain with neonate until heart rate, oxygen saturations and respiratory effort are close to baseline values.
- Reposition neonate to their previous position.
- Avoid oral suctioning immediately after the procedure to avoid coughing or gagging.
- Document the details of the procedure in the medical record and record as a 'procedure' under NICU medical tab on eRIC.
- Sign medication order(s) on eRIC.
- Provide update to parent/carer of outcome of procedure.

Minimally- Invasive Surfactant Therapy (MIST)
for Neonates

RHW CLIN170

3.4 Documentation

- eRIC

3.5 Education Notes

- Non-invasive respiratory (NIV) support, in particular nasal CPAP, has become the standard primary therapy for most preterm infants with respiratory distress.
- For some infants with more significant respiratory compromise, NIV alone fails to provide sufficient support.
- Minimally invasive surfactant therapy (MIST), also known as less invasive surfactant administration (LISA) administered through a thin catheter while the neonate remains on CPAP/non-invasive respiratory support has been shown to carry a number of benefits in comparison to administration of surfactant through Endotracheal tube (S-ETT). In 2021, a Cochrane review compared MIST with S-ETT.(4) The review demonstrated a significant decrease in risk of the composite outcome of death or bronchopulmonary dysplasia (BPD) at 36 weeks postmenstrual age, need for intubation within 72 hours, severe intraventricular haemorrhage, death during first hospitalisation and BPD among survivors. There was no significant difference in risk of air leak requiring drainage. The OPTIMIST trial was ongoing at the time of publication of Cochrane review.
- The Optimist-A RCT published in 2021 compared 200 mg/kg of curosurf (poractant-alfa) to a sham treatment in 25-28 week gestational age infants on CPAP with $\text{FiO}_2 > 0.3$ within 6 hours of birth.(5) MIST did not significantly reduce the incidence of the composite outcome of death or bronchopulmonary dysplasia at 36 weeks postmenstrual age. Their long term follow-up study found no difference between MIST and control groups in the incidence of death or neurodevelopmental disability by 2 years of age. However, infants who received MIST had lower rates of adverse respiratory outcomes during their first 2 years of life.(6)
- **Respiratory support at the commencement of MIST:** Criteria for MIST varied among studies and CPAP range and FiO_2 were ≥ 5 cmH₂O and 0.30-0.35 respectively.(1, 5, 7)
- **Methods of MIST:** Several methods have been used in trials:
 1. **Hobart Method:** uses a semi-rigid catheter (Angiocath, now rebranded as surfcath).(8) A 16-gauge, 130 mm vascular catheter (16G Angiocath) was originally used and marked to indicate the desired depth of insertion (25–26 weeks: 1 cm, 27–28 weeks: 1.5 cm, 29–32 weeks: 2 cm).(3)
 2. **Cologne Method:** uses a flexible thin catheter and Magill's forceps.(9) This technique uses a 4 fr feeding tube with one orifice at the tip is marked 1.5 cm

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

above the tip with a permanent marker, connected to the syringe and filled with surfactant. The catheter is clamped with Magill forceps in an angle of 120°.(9)

3. **Take care Method:** A 5-6 Fr, flexible, sterile nasogastric tube is used for the procedure without Magill's forceps.(7) The catheter is prepared by shortening at 33cm depth from the catheter hub. Desired depths of insertion beyond the vocal cords for preterm infants 25 to 26, 27 to 28, and 29 to 32 weeks GA are 1.0, 1.5, and 2.0 cm, respectively.(7)

- **Surfactant type and dose:** Majority of studies used porcine derived surfactant (Curosurf) at 200 mg/kg,(10-16) while a small number of trials used 100 mg/kg of curosurf (1, 7) and 100 mg/kg of bovine surfactant (e.g. Surfacta or neosurf).(2, 17-19). A multicentre RCT in Germany allowed any type of surfactant at 100 mg/kg.(20, 21)
- **Gestational age at birth:** Most trials involved preterm infants <37 weeks. Kribs 2015 study was limited to 23-26 weeks gestational age group.(1) Gopel 2011 study involved 26-28 weeks gestational age group.(20) Olivier 2017 study and Yang 2020 study focused on moderate to late preterm infants, (2, 15) while other studies involved preterm infants of various gestational age groups.(5-7, 10-14, 16-19) Data are limited for infants 37 weeks and over.
- **MIST in infants 35 weeks and over:** Respiratory distress in these infants has diverse causes including transient tachypnoea of newborn, meconium aspiration, respiratory distress syndrome and pneumonia. They can all present similarly with respiratory distress immediately after delivery, making it difficult to differentiate between these diagnoses at that time. Often, these patients are managed similarly in the NICU, with their final diagnoses being confirmed a few days later based on their responses to treatment. Respiratory distress in term neonates has diverse causes. Endotracheal surfactant administration has shown mixed results in this group of infants. The evidence for non-invasive surfactant administration (MIST) is even less compelling. Olivier et al showed lower composite incidence of pneumothorax or need for MV within 72 h of life in the MIST group compared to continued CPAP therapy in moderate to late preterm infants,(2) but Yang et al showed no difference for mechanical ventilation with MIST compared to INSURE.(15)

A 2025 quality improvement study showed that adopting a protocol that included CPAP and MIST for infants at ≥ 35 weeks GA requiring $\text{FiO}_2 \geq 0.30$ led to higher use of surfactant and associated improvement in oxygenation, but no decrease in the need for mechanical ventilation or any other outcomes.(22) Currently, a large RCT is enrolling ≤ 24 h old, 34–38 weeks GA infants to compare between early surfactant and expectant management with CPAP alone on the duration of hospital stay and incidence of severe respiratory failure (SURF-ON study). Until further evidence is available, no recommendation can be made on MIST in term neonates.

Minimally- Invasive Surfactant Therapy (MIST) for Neonates

RHW CLIN170

- **Sedation versus no sedation during MIST:** 2021 Cochrane review performed a subgroup analysis that showed significant subgroup effects in favour of S-TC for death or BPD in trials where no sedation was used in the S-TC group.(4)
- **Repeat MIST:** After 6 hours of the first dose via MIST, a second dose of 100 mg/kg can be given via MIST.(1, 7) Published evidence on criteria for the second dose is not clear. Suggested FiO₂ criteria for the second dose of MIST: <27 weeks: ≥0.30 and ≥27 weeks: ≥0.40.
- **Intubation criteria after MIST:** Intubation is considered after MIST if the infant is requiring FiO₂ of 0.45 or greater for about 2 hours or so (or by clinician discretion when requiring FiO₂ >0.40) or if there is severe or recurrent apnea or persistent respiratory acidosis. Once intubated, surfactant could be administered according to clinical judgement. (1, 5)
- **MIST versus INSURE (intubation–surfactant–extubation):** A 2025 meta-analysis of 17 studies showed MIST to be a safer and more effective alternative to INSURE in preterm infants.(23)

3.6 Abbreviations

nCPAP	Nasal Continuous Positive Airway Pressure	MIST	Minimally Invasive Surfactant Therapy
EBM	Expressed Breast Milk	F&P	Fisher and Paykal
PEEP	Positive End Expiratory Pressure	IV	Intravenous
RDS	Respiratory distress syndrome	ANMF	Australasian Neonatal Medicines Formulary

3.7 Related Policies/procedures

- RHW NCC CBR- C-MAC Video Laryngoscope Care and Maintenance
- RHW NCC CBR – Continuous Positive Airway Pressure (CPAP) Therapy (Neonate)
- RHW NCC CBR- Drager Babylog VN500 set up
- RHW NCC CBR- Getinge Servo-n Ventilator set up
- RHW NCC CBR- Immuno-Supportive Oral Care (ISOC)

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

3.8 References

1. Kribs A, Roll C, Göpel W, Wieg C, Groneck P, Laux R, et al. Nonintubated surfactant application vs conventional therapy in extremely preterm infants: a randomized clinical trial. *Jama, Pediatr.* 2015;169(8):723-30.
2. Olivier F, Nadeau S, Bélanger S, Julien A-S, Massé E, Ali N, et al. Efficacy of minimally invasive surfactant therapy in moderate and late preterm infants: a multicentre randomized control trial. *Paediatrics & child health.* 2017;22(3):120-4.
3. Dargaville PA, Aiyappan A, De Paoli AG, Kuschel CA, Kamlin COF, Carlin JB, et al. Minimally-invasive surfactant therapy in preterm infants on continuous positive airway pressure. *Archives of Disease in Childhood-Fetal and Neonatal Edition.* 2013;98(2):F122-F6.
4. Abdel-Latif ME, Davis PG, Wheeler KI, De Paoli AG, Dargaville PA. Surfactant therapy via thin catheter in preterm infants with or at risk of respiratory distress syndrome. *Cochrane Database of Systematic Reviews.* 2021(5).
5. Dargaville PA, Kamlin COF, Orsini F, Wang X, De Paoli AG, Kutman HGK, et al. Effect of minimally invasive surfactant therapy vs sham treatment on death or bronchopulmonary dysplasia in preterm infants with respiratory distress syndrome: the OPTIMIST-A randomized clinical trial. *Jama.* 2021;326(24):2478-87.
6. Dargaville PA, Kamlin COF, Orsini F, Wang X, De Paoli AG, Kutman HGK, et al. Two-year outcomes after minimally invasive surfactant therapy in preterm infants: follow-up of the OPTIMIST-A randomized clinical trial. *JAMA.* 2023;330(11):1054-63.
7. Kanmaz HG, Erdevi O, Canpolat FE, Mutlu B, Dilmen U. Surfactant administration via thin catheter during spontaneous breathing: randomized controlled trial. *Pediatrics.* 2013;131(2):e502-e9.
8. Dargaville PA, Aiyappan A, Cornelius A, Williams C, De Paoli AG. Preliminary evaluation of a new technique of minimally invasive surfactant therapy. *Archives of Disease in Childhood-Fetal and Neonatal Edition.* 2011;96(4):F243-F8.
9. Kribs A, Pillekamp F, Hünseler C, Vierzig A, Roth B. Early administration of surfactant in spontaneous breathing with nCPAP: feasibility and outcome in extremely premature infants (postmenstrual ages ≤ 27 weeks). *Pediatric Anesthesia.* 2007;17(4):364-9.
10. Bao Y, Zhang G, Wu M, Ma L, Zhu J. A pilot study of less invasive surfactant administration in very preterm infants in a Chinese tertiary center. *BMC pediatrics.* 2015;15(1):21.
11. Boskabadi H, Maamouri G, Jomeh RG, Zakerihamidi M. Comparative study of the effect of the administration of surfactant through a thin endotracheal catheter into trachea during spontaneous breathing with intubation (intubation-surfactant-extubation method). *Journal of Clinical Neonatology.* 2019;8(4):227-31.
12. Choupani R, Mashayekhy G, Hmidi M, Kheiri S, Dehkordi MK. A Comparative Study of the Efficacy of Surfactant Administration through a Thin Intratracheal Catheter and its Administration via an Endotracheal Tube in Neonatal Respiratory Distress Syndrome. *Iranian journal of neonatology.* 2018;9(4).
13. Mohammadizadeh M, Ardestani AG, Sadeghnia AR. Early administration of surfactant via a thin intratracheal catheter in preterm infants with respiratory distress syndrome: feasibility and outcome. *Journal of research in pharmacy practice.* 2015;4(1):31-6.
14. Mosayebi Z, Kadivar M, Taheri-Derakhsh N, Nariman S, Marashi SM, Farsi Z. A randomized trial comparing surfactant administration using InSurE technique and the

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

- minimally invasive surfactant therapy in preterm infants (28 to 34 weeks of gestation) with respiratory distress syndrome. *J Compr Ped*. 2017;8(4):60724-29.
15. Yang G, Hei M, Xue Z, Zhao Y, Zhang X, Wang C. Effects of less invasive surfactant administration (LISA) via a gastric tube on the treatment of respiratory distress syndrome in premature infants aged 32 to 36 weeks. *Medicine*. 2020;99(9):e19216.
 16. Gupta BK, Saha AK, Mukherjee S, Saha B. Minimally invasive surfactant therapy versus InSurE in preterm neonates of 28 to 34 weeks with respiratory distress syndrome on non-invasive positive pressure ventilation—a randomized controlled trial. *European journal of pediatrics*. 2020;179(8):1287-93.
 17. Halim A, Shirazi H, Riaz S, Gul SS, Ali W. Less invasive surfactant administration in preterm infants with respiratory distress syndrome. *J Coll Physicians Surg Pak*. 2019;29(3):226-330.
 18. Han T, Liu H, Zhang H, Guo M, Zhang X, Duan Y, et al. Minimally invasive surfactant administration for the treatment of neonatal respiratory distress syndrome: a multicenter randomized study in China. *Frontiers in pediatrics*. 2020;8:182.
 19. Jena SR, Bains HS, Pandita A, Verma A, Gupta V, Kallem VR, et al. Surfactant therapy in premature babies: SurE or InSurE. *Pediatric pulmonology*. 2019;54(11):1747-52.
 20. Göpel W, Kribs A, Ziegler A, Laux R, Hoehn T, Wieg C, et al. Avoidance of mechanical ventilation by surfactant treatment of spontaneously breathing preterm infants (AMV): an open-label, randomised, controlled trial. *The Lancet*. 2011;378(9803):1627-34.
 21. Herting E, Kribs A, Härtel C, von der Wense A, Weller U, Hoehn T, et al. Two-year outcome data suggest that less invasive surfactant administration (LISA) is safe. Results from the follow-up of the randomized controlled AMV (avoid mechanical ventilation) study. *European journal of pediatrics*. 2020;179(8):1309-13.
 22. Chotzoglou E, Prasath A, Desai R, David L, Ornelas N, Burchfield P, et al. Effectiveness of A Respiratory Care Protocol Including Less Invasive Surfactant Administration in ≥ 35 Weeks Gestational Age Infants. *Pediatric Pulmonology*. 2025;60(8):e71257.
 23. Veintemilla-Burgos F, Minchalo-Ochoa G, Balda S, Diaz-Djevoich I, Kronfle R, Panchana-Lascano M, et al. Tiny Lungs, Big Decisions: A Meta-Analysis Comparing Minimally Invasive Surfactant Therapy Versus Intubation–Surfactant–Extubation in Preterm Neonates With Respiratory Distress Syndrome. *International Journal of Pediatrics*. 2025;2025(1):8045343.

4 ABORIGINAL HEALTH IMPACT STATEMENT DOCUMENTATION

- Considerations for culturally safe and appropriate care provision have been made in the development of this Business Rule and will be accounted for in its implementation.
- When clinical risks are identified for an Aboriginal and/or Torres Strait Islander woman or family, they may require additional supports. This may include Aboriginal health professionals such as Aboriginal Liaison Officers, health workers or other culturally specific services

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170

5 CULTURAL SUPPORT

- For a Culturally and Linguistically Diverse CALD woman, notify the nominated cross-cultural health worker during Monday to Friday business hours
- If the woman is from a non-English speaking background, call the interpreter service: NSW Ministry of Health Policy Directive PD2017 044-Interpreters Standard Procedures for Working with Health Care Interpreters.

6 NATIONAL STANDARDS

- Standard 1 Clinical Governance
- Standard 4 Medication Safety
- Standard 5 Comprehensive Care
- Standard 8 Recognising and Responding to Acute Deterioration

7 REVISION AND APPROVAL HISTORY

List all previous revisions below

Date	Revision No.	Author and Approval
15.2.2017	1	T Schindler (Staff Specialist); J Sheils (NE)
17.2.2022	2	T Schindler (Staff Specialist); C Egan (aNUM); S Neale (aNE); R Prasad (Neonatal Fellow); F Perez (Neonatal Fellow)
3.6.2025	3	T Schindler (Staff Specialist), Sarah Jane Tapawan (CMO)
7.8.2025	3	Endorsed by NCC CBR committee
01.09.25	3	RHW BRGC
07.01.26	4	G Tinoco Mendoza (Staff Specialist); T Schindler (Staff Specialist); S Bolisetty (Medical Co-Director) Endorsed by the NCC CBR committee
6.07.26	4	RHW BRGC

**Minimally- Invasive Surfactant Therapy (MIST)
for Neonates**

RHW CLIN170