

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



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SUMMARY	To guide clinicians in the set up and administration of crib humidification for the preterm neonate using the Dräger Babyleo TN500.
KEY WORDS	Humidification, neonate, Dräger BabyLeo, crib humidity, weaning, set up, temperature

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**Humidification – Dräger Babyleo TN500
(Neonate)**

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1 BACKGROUND

Skin immaturity and the large surface area to weight ratio of extreme premature neonates put them at risk of dehydration and hypothermia. It is essential that neonates are nursed within their neutral thermal environment. This is defined as “the environmental air temperature at which a neonate with a normal body temperature has a minimal metabolic rate and therefore minimal oxygen consumption”.

2 RESPONSIBILITIES

2.1 Medical – to identify any neonate that requires humidification utilising Dräger BabyLeo crib.

2.2 Nursing – to set up, apply and manage humidification with the Dräger BabyLeo crib, to wean humidification following protocol and to cease humidification when no longer required.

3 PROCEDURE

3.1 Equipment

- Dräger Babyleo TN500
- 2L bag of water for irrigation
- Dräger transition set
- Skin temperature probe (central)
- Temperature probe covers

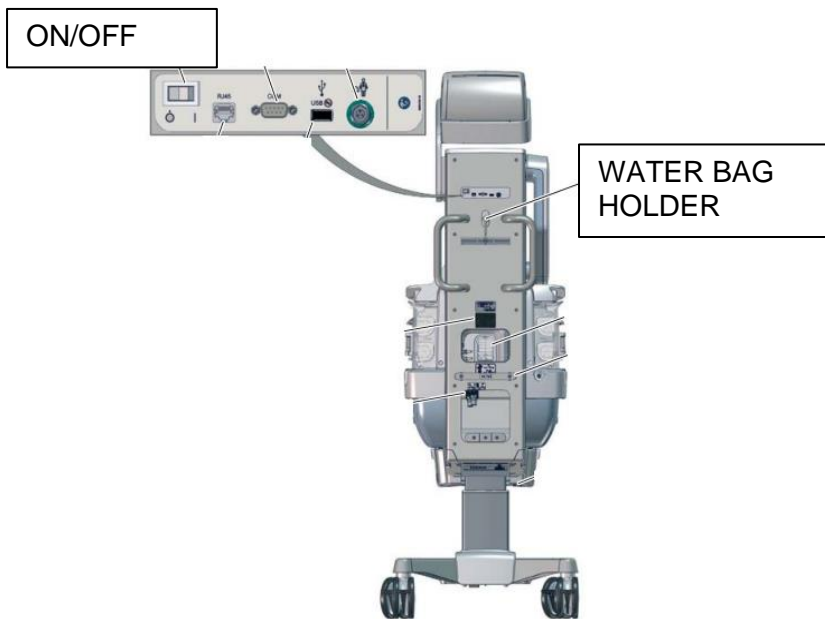
3.2 Clinical Practice

1. Ensure Dräger Babyleo is plugged in and switched on (Picture 1).
2. Select ‘new patient’ and allow device to warm up.
3. Gather equipment.
4. Connect Dräger transition set to back of crib and pierce bag of water, ensuring the set is clamped (Picture 2).
5. Hang bag of water for irrigation at back of crib and unclamp set (Picture 1).
6. Select the ‘skin mode’ in the therapy bar (Picture 5)
7. Connect the skin temperature probe (central skin temperature; YELLOW) at back of the crib into the yellow port. (Picture 3 & 4).

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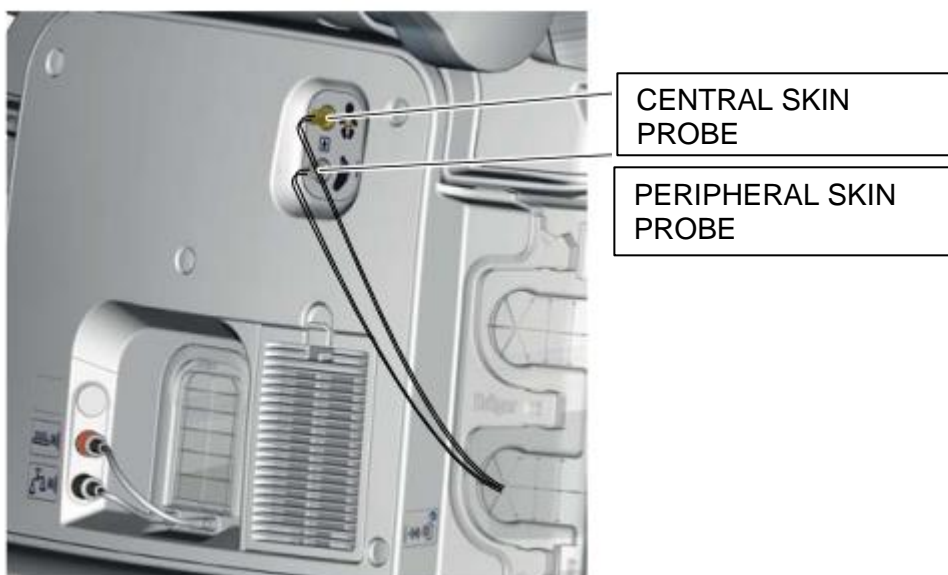
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Picture 1



Picture 2



Picture 3



Picture 4

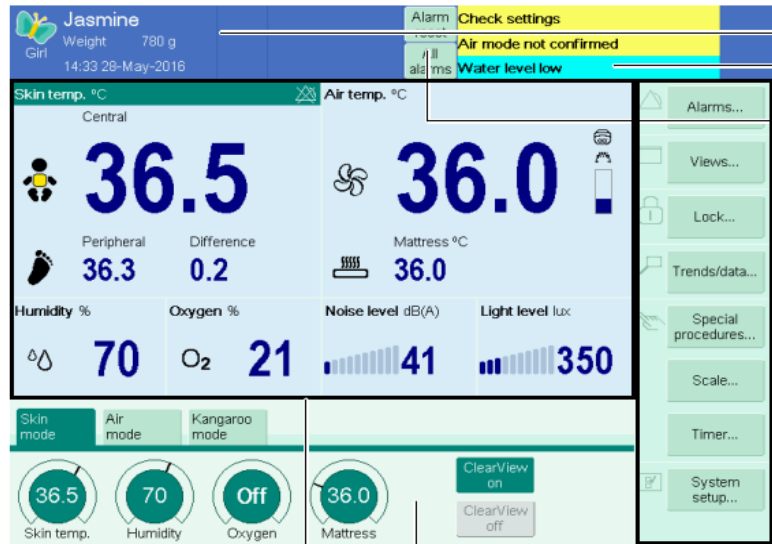
8. Set the skin temperature to 36.5°C by rotating the knob on the front of the crib and confirm set temperature by pushing the knob.

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- Set the humidity by pressing the humidity circle and setting the correct humidity for neonate's gestation and day of life (see table below for protocol), confirm correct humidification by pressing rotatory knob (Picture 5).



Picture 5

- Confirm that the area of skin where the sensor is to be placed is clean and dry.
- Place sensor in appropriate position on either the abdomen or back (Picture 6), depending on the neonate's position and secure sensor with a temperature probe cover (Picture 7).



Picture 6



Picture 7

- Continue to take regular axilla temperatures as per normal care. Assess skin regularly for integrity.
- Ensure documentation of both set humidity and temperatures in eRIC.

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14. Wean humidity as per protocol below.

3.3 Documentation

- eRIC

3.4 Educational Notes

- When to commence and wean humidification

Gestation at birth	Day 1-7 humidity	Day 8-14 humidity	Day 15-21 humidity
≤28 + 6 days	85%	Wean by 5% daily to 50% by day 14	Cease humidity if the air temp is <34°C
29 – 30+6 days	70% from Day 1-3, then wean by 5% daily	Cease humidity	
≥31+0 & <1000g	Humidity is commenced at 50% if the air temperature is >34°C		

- Cribs should be changed every 7 days when a neonate is in humidity. When crib is due to be changed, leave bag of water attached and place crib in sluice room for ward assistants to clean.
- When humidification is ceased, crib should be changed as soon as possible.
- Skin mode (servo) should be used whilst a neonate is humidity.
- The neonate should be nursed naked to ensure optimal skin exposure to humidity.
- The skin temperature sensor should be placed on the liver (supine) or kidney region (prone) and not underneath the patient.
- Neonate's may still come out for kangaroo care despite being in humidity. Refer to the Kangaroo Care CBR for further clarification.
- For further information on using the Dräger Babyleo TN500 refer to the user manual.

3.5 CBR Implementation Plan

The new/ revised CBR will be distributed to all medical, nursing and midwifery staff via @health email. The CBR will be discussed at ward meetings, education and patient quality and safety meetings. Education will occur through in-services, open forum and local ward implementation strategies to address changes to practice. The staff are asked to respond to an email or sign an audit sheet in their clinical area to acknowledge they have read and understood the revised CBR. The CBR will be uploaded to the CBR tab on the intranet and staff are informed how to access

3.6 Related Policies/ Procedures

- RHW NCC Nursing CBR - Humidification - Dräger Isolette
- RHW NCC Nursing CBR - Humidification GE Giraffe Omnibed
- RHW NCC Nursing CBR - Kangaroo Care of Non-Ventilated and Ventilated Neonate/s
- RHW NCC Nursing CBR - Transferring a Neonate from Incubator to a Cot

3.7 References

- Instructions for use Babyleo TN500 [Internet]. [cited 2024 Mar 17]. Available from: <https://www.draeger.com/Content/Documents/Content/babyleo-tn500-ifu-9054863-en.pdf>

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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

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 2 Partnering with Consumers
- Standard 3 Preventing and Controlling Infections
- Standard 5 Comprehensive Care
- Standard 8 Recognising and Responding to Acute Deterioration

7 REVISION AND APPROVAL HISTORY

Date	Revision No.	Author and Approval
22/03/2024	1	E. Deibe (CNS/ACNE)
19/09/2024		Endorsed by NCC CBR Committee
21.10.24		Approved RHW BRGC