

## DRÄGER BABYLOG® VN 500 – SET-UP

*This LOP 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 Operations Procedure (LOP).*

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### INTRODUCTION

Mechanical ventilation refers primarily to assisting the infant move gases in and out of the lungs. The goal is maintaining “physiologic normalcy” to keep arterial blood gas values in a desired range whilst minimising iatrogenic lung injury.

#### 1. AIM

- To set-up the ventilator correctly.

#### 2. PATIENT

- Neonates

#### 3. STAFF

- Medical and nursing staff

#### 4. EQUIPMENT

- VN 500 Ventilator
- Flow Sensor and Flow sensor housing
- 2L bag of Water for Irrigation
- Clean Test Lung
- Humidifier Heater Wire
- VN 500 Block
- F & P Sterile Respiratory Circuit RT 265
- Humidifier base MR 850
- Ventilation Circuit Temperature probe



Picture 1

#### NOTE:

Avoid Key Parts of the ventilation circuit when assembling the circuit. This is a “clean” procedure, not a sterile procedure.

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**5. CLINICAL**

1. Clean trolley with neutral detergent.
2. Perform hand hygiene.
3. Collect equipment onto trolley (See Picture1). Open packets to assemble.
4. Inspect and ensure that the plastic diaphragm is inserted correctly into the block (Pictures 2 & 3).
5. Ensure the “exhaust tube” is correctly attached to the block (Picture 4).
6. Attach the block to the ventilator. Twist to the right until it clicks home to lock (Pictures 5 & 6).



Picture 2



Picture 3



Picture 4



Picture 5



Picture 6



Picture 7

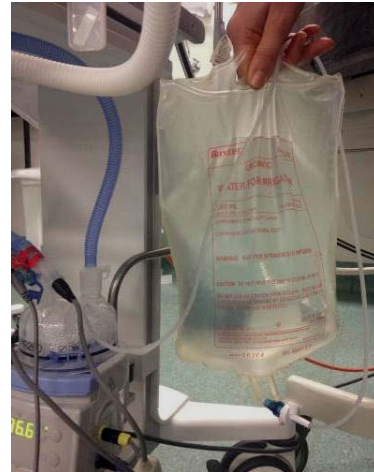
7. Ensure the “exhaust” cover shuts (Picture 7).
8. Attach the ventilation circuit to the VN 500. Check that the white corrugated circuit is connected to the expiratory outlet marked with arrow ↑ and the blue circuit to the inspiratory outlet marked with arrow ↓ (See Picture 8).

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9. Connect blue tubing from the inspiratory outlet to humidifier base (Picture 9).



Picture 8



Picture 9

10. Connect blue tubing from humidifier base to flow sensor housing next to the white expiratory tubing.  
 11. Check all remainder ports in the circuit are closed (Picture 10). (R2)  
 12. Check the heating filament wire in the Flow Sensor is intact (Replace if broken). (R3)  
 13. Connect the Flow Sensor and Flow Sensor House to the ventilation circuit (Pictures 11).  
 Attach the Test lung.



Picture 10

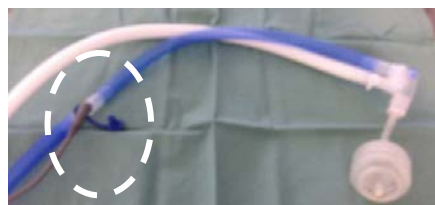


Picture 11

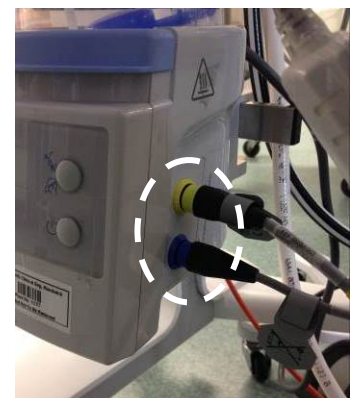
14. Connect temperature probe to ventilation circuit and humidifier base (Picture 12, 13 & 14).  
 Check that the probes are pushed into the correct circuit ports. (R1)



Picture 12



Picture 13



Picture 14

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15. Do not attach the water line from the humidifying chamber to the water bag until the ventilator set-up is needed for patient use.

**NOTE:**

Check the pre-set-up ventilation circuit on VN 500 is dry prior to use.

The set-up of the VN 500 that is already humidified may be left up to 24 hours to be used.

Ventilation Set-up Checklist		
Attach barcode stickers below and double sign to confirm set-up is correct.		
Print Name	Sign	Date
Print Name	Sign	Date
<input type="text"/>		
<input type="text"/>		
<input type="text"/>		
<input type="text"/>		

Picture 15

16. Remove *Barcode Stickers* from equipment packs. Stick them onto the *Ventilation Set-Up Checklist* form (Picture 15). (R4)  
 17. Request another RN to check and confirm the completed set-up of the ventilator is correct.  
 18. Both RNs to sign on the *Ventilation Set-Up Checklist* form. (R5)  
 19. Perform pre-use checks.

**NOTE:**

**Ventilator Circuits are changed weekly. If patient is unstable discuss with senior clinical staff before changing the circuit.**

**6. DOCUMENTATION**

- Nursing Care Plan
- Integrated Clinical Notes
- Observation Chart

**7. EDUCATIONAL NOTES**

- Nil

**8. RELATED POLICIES/PROCEDURES/CLINICAL PRACTICE LOP**

- N/A

**9. RISK RATING**

- Low

**ROYAL HOSPITAL FOR WOMEN**  
 LOCAL OPERATING PROCEDURES  
**NEONATAL SERVICES DIVISION**

Approved by  
 Neonatal Quality & Safety Committee  
 Date: 7/3/16

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**10. NATIONAL STANDARD**

- Comprehensive Care

**11. REFERENCES**

- Nil

**12. ABBREVIATIONS AND DEFINITIONS OF TERMS**

NCC	Newborn Care Centre	F&P	Fisher & Paykel
MO	Medical Officer	L	Litre

<b>RATIONALES</b>	
Rationale 1	To ensure the temperature in the circuit is correctly sensed.
Rationale 2	To exclude any leak in the ventilation circuit.
Rationale 3	Broken filaments of wire in the flow sensor will cause the ventilator to alarm constantly.
Rationale 4	To track and audit sterilisation of equipment.
Rationale 5	To have a record that the ventilator is correctly set-up and was checked by a nurse.

**13. AUTHOR:**

Primary	November 2009	CNC K B Lindrea
Revised	24 <sup>th</sup> November 2015	CNC K. B Lindrea

**REVISION & APPROVAL HISTORY**

Approved Quality & Patient Care Committee 5/5/16

FOR REVIEW : **MAY 2021**