|  | REPLOGLE  | TUBE - SET UP AND          | MANAGEME    | NT       |                                    |              |
|--|---|----------------------------|-------------|----------|------------------------------------|--------------|
|  | THE ROYAL HOSP  | ITASL FOR WOMEN -          | PROCEDURE G | UIDELINE |                                    |              |
| DATE DEVELOPED<br>26/05/2005   | DATE EFFECTIVE<br>13/10/2014  | DATE FOR REVIEW 26/09/2017 | RISK RATING | i        | WRITTEN BY<br>Kwee Bee Lindrea CNC |              |
| DATE REVISED<br>26/09/2014   | REVISED BY Eszter Jozsa CNE   |                            |             |          |                                    |              |
| APPLICABLE TO  | Newborn Care Centre Staff – Nursing & Medical   |                            |             |          |                                    |              |
| IMPLICATIONS   | To be included in induction training of all nursing staff. 15 staff to be randomly audited on the procedure for evidence of knowledge of the procedure.       |                            |             |          |                                    | e of         |
| DATE POSTED ON NCC   | WEBSITE 31/10/14  | l                          |             |          |                                    |              |
| APPROVED BY  |   |                            |             |          |                                    |              |
| NCC Quality Committee  | e on 13/10/2014   |                            |             |          |                                    |              |
| outside NCC. ABBREVIATIONS & DEF                                     | INITIONS OF TERM  | S                          |             |          |                                    |              |
| Replogle tube  | A double lumen tube, where larger one is for<br>drainage of saliva and the smaller one for instillation<br>of 0.9% sodium chloride and serves as an air vent. |                            |             |          | 2                                  |              |
| Oesophageal atresia<br>(OA)/Tracheo-<br>oesophageal Fistula<br>(TOF) | A congenital anomaly in which the oesophagus ends<br>in a blind upper pouch and a possible tracheo-<br>oesophageal fistula (TOF).                             |                            |             | 85%      | 8-10%                              | Summer State |

## INTRODUCTION

Continuous oesophageal pouch suction is used in the management of neonates with unrepaired oesophageal atresia. A double lumen replogle suction catheter is placed into the oesophageal pouch to remove saliva and secretions to prevent aspiration or pneumonia.

## AIM:

To provide the correct and safe drainage of oesophageal pouch using a Replogle Tube.

EQUIPMENT

Replogle suction catheter size Fg10 or Fg8 Atrium Oasis Dry Under Water Seal Drainage (UWSD) Unit Atrium connector Suction regulator unit Suction tube Multidirectional stopcock (3Way tap) 10 mL Syringe Infusion burette and giving set 0.9% Sodium Chloride 500 mL Duoderm/Comfeel Barrier film Non-stretch leukoplast tape

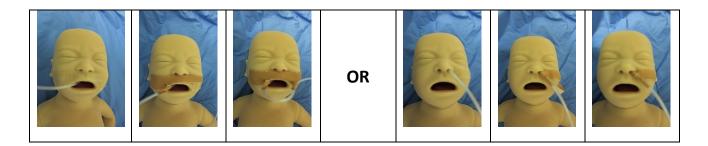
## PROCEDURE

- 1. Clean working surface area with neutral detergent. Collect equipment.
- 2. Perform clinical hand wash.
- 3. Attach suction regulator unit to wall outlet.
- 4. Set up suction tubing and Atrium UWSD unit refer to *Chest Drain Set up of Atrium Oasis Dry Suction* Under-Water Seal Drainage (UWSD) protocol.
- 5. Set suction control dial to **-25cmH<sub>2</sub>0**.<sup>R1</sup> Ensure water seal is filled to 2cm line as per instructions.

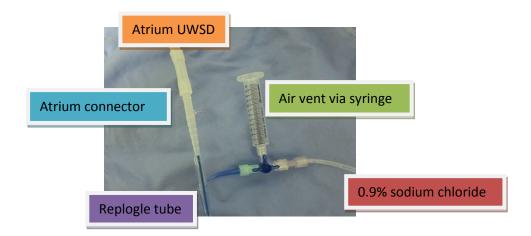
Suction control on -25cmH<sub>2</sub>0



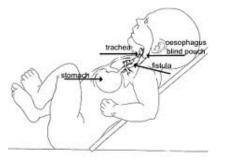
- 6. Attach the infusion giving set to the 500 mL bag of 0.9% sodium chloride.
- 7. Connect the infusion line to the 3-way tap. Prime the line.
- 8. Perform clinical hand wash and use non-sterile gloves.
- 9. Gently, insert the replogle tube via the oro- or naso-pharynx until resistance is met. Withdraw the replogle tube by 0.5 cm.
- 10. Secure the replogle tube with leukoplast after applying barrier film and appropriate size duoderm to skin.



- 11. Attach the infusion line with the 3-way tap to the blue connection of the replogle tube.
- 12. Infuse 0.9% sodium chloride at 5 mls/hour rate via infusion pump.<sup>R2</sup>
- 13. Attach the 10 mL syringe to the remaining third port of the 3-way tap and leave it open to air. <sup>R3</sup>
- 14. Connect the clear connection of the replogle tube to the Atrium UWSD suction apparatus with Atrium connector.



- 15. Turn on the Wall suction unit to **-100mmHg** at the wall **AND** ensure the Atrium suction control dial is set at -25cmH<sub>2</sub>0. <sup>R4</sup>
- 16. Nurse the infant with head elevated at  $30^{\circ}$ . <sup>R5</sup>



OA and TOF digestive system

17. Document procedure in the patient's notes and record suction pressure, colour/consistency of the

secretion and 0.9% sodium chloride infused hourly on the observation chart

NOTES

- Acetylcysteine can be added to 0.9% sodium chloride at the discretion of neonatologist. Refer to medication protocol. <sup>R2</sup>
- Ensure a spare Replogle tube and taping is at the bedside at all times in case of accidental dislodgement.
- If water runs out of the air outlet of the 3-way tap, the replogle tube may be blocked. Inject 0.5mL 1.0mL of air via the air outlet to unblock. If unsuccessful, change the replogle tube.
- Change 0.9% sodium chloride and giving-set every 48hours.
- Change the replogle tube and "Atrium" UWSD unit weekly. Document changes on Nursing Care Plan.

| RATIONALES |  |  |  |  |
|------------|--|--|--|--|
| 1          | Ensure that the below is expanded  |  |  |  |
| 2          | To provide continuous lubrication to the upper pouch of TOF.   |  |  |  |
| 3          | It acts as a safety valve to the infusion system. The 3-way tap is left continuously open to air. If the syringe fills up with fluid it is a sign of blockage. |  |  |  |
| 4          | To be able to maintain adequate negative suction pressure.   |  |  |  |
| 5          | The position assists drainage of the upper pouch to minimise the risk of aspiration pneumonia and the reflux of acid from the stomach through the fistula.     |  |  |  |

## References

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