University Hospitals of Leicester NHS Trust | Nottingham University Hospitals NHS Trust

Transferring a child with a Replogle Tube

This guideline is for use by healthcare staff, at CoMET undertaking critical care retrieval, transport and stabilization of children, and young adults.

CoMET is a Paediatric Critical Care Transport service and is hosted by the University Hospitals of Leicester NHS trust working in partnership with the Nottingham University Hospitals NHS Trust.

The guidance supports decision making by individual healthcare professionals and to make decisions in the best interest of the individual patient.

This guideline represents the view of CoMET, and is produced to be used mainly by healthcare staff working for CoMET, although, professionals, working in similar field will find it useful for easy reference at the bedside.

We are grateful to the many existing paediatric critical care transport services, whose advice and current guidelines have been referred to for preparing this document. Thank You.

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Education and Training

1. Annual Transport team update training days
2. Workshops delivered in Regional Transport Study days/ Outreach

Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
Incident reporting	Review related Datix	Abi Hill – Lead Transport Nurse abi.hill6@nhs.net	Monthly	CoMET Lead Governance Meeting
Documentation Compliance	Documentation Audit	Abi Hill – Lead Transport Nurse abi.hill6@nhs.net	3 Monthly	CoMET Lead Governance Meeting

Key Words
Suction, Replogle tube, Flush, Secretions

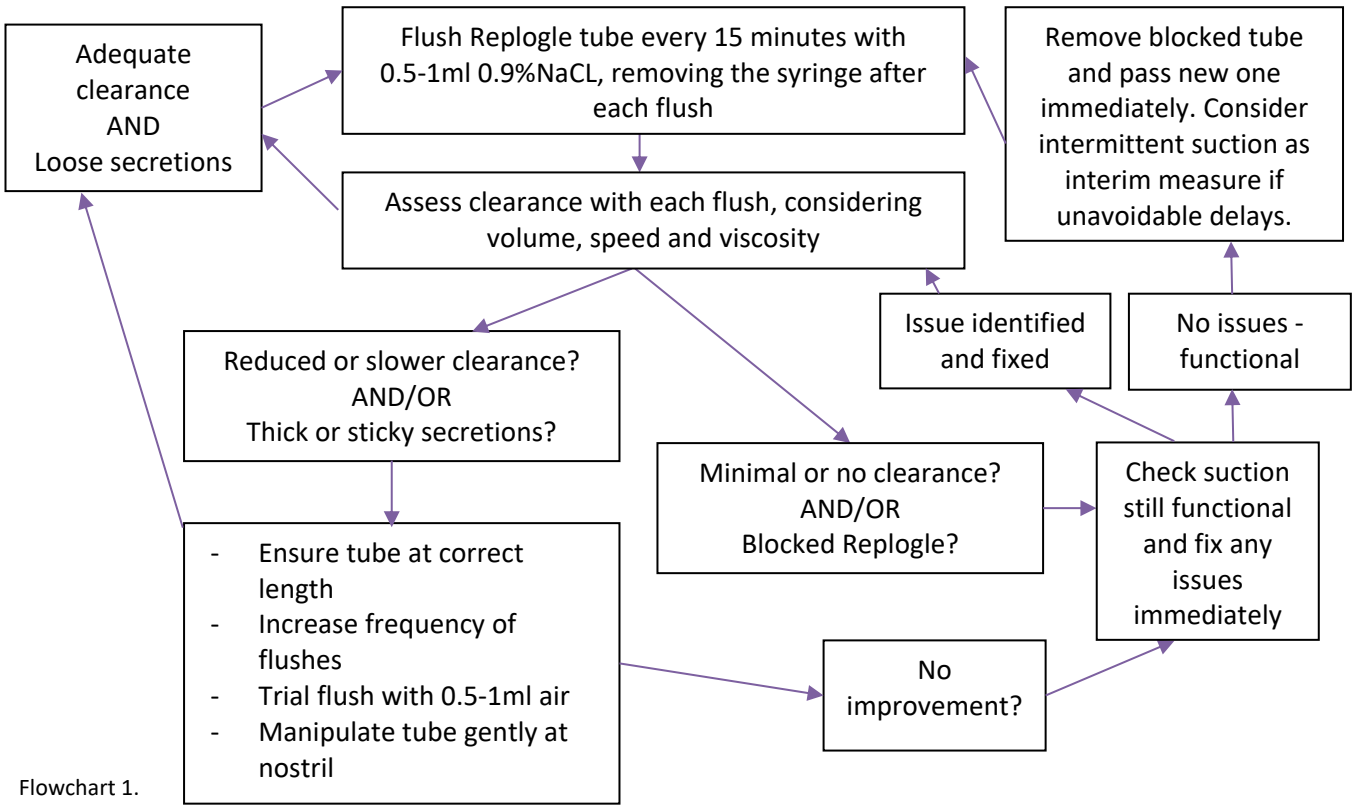
The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

EDI Statement
We are fully committed to being an inclusive employer and oppose all forms of unlawful or unfair discrimination, bullying, harassment and victimisation.
It is our legal and moral duty to provide equity in employment and service delivery to all and to prevent and act upon any forms of discrimination to all people of protected characteristic: Age, Disability (physical, mental and long-term health conditions), Sex, Gender reassignment, Marriage and Civil Partnership, Sexual orientation, Pregnancy and Maternity, Race (including nationality, ethnicity and colour), Religion or Belief, and beyond.
We are also committed to the principles in respect of social deprivation and health inequalities.
Our aim is to create an environment where all staff are able to contribute, develop and progress based on their ability, competence and performance. We recognise that some staff may require specific initiatives and/or assistance to progress and develop within the organisation.
We are also committed to delivering services that ensure our patients are cared for, comfortable and as far as possible meet their individual needs.

Transferring a child with a Replogle tube on Continuous Low Flow Suction

Replogle Tube management

Replogle tubes are used for infants with Oesophageal Atresia (OA) and Tracheoesophageal Fistula (TOF). The Replogle tube is passed into the blind ended 'pouch' where Continuous Low Flow Suction (CLFS) is applied to ensure clearance of collecting saliva. Low flow suction is essential to prevent damage to mucous membranes. Saline flushes are used to reduce the viscosity of saliva and secretions and can be administered alongside CLFS through the double lumen port. The tube should be flushed, as a minimum, every 15 minutes with 0.5-1ml 0.9% NaCL to maintain patency (unless an alternate frequency is advised by the surgeons). Clearance should be assessed with every flush and changes made as necessary (Flowchart 1). The infant should be observed for signs of clearance difficulties, including coughing, cyanosis and desaturations. If there are any concerns with tube patency or blockages, the tube should be changed as a priority, providing intermittent manual suction as an interim measure. The size of Replogle tube and length it should be secured at, should be documented and handed over clearly (size 10fr the most common). If there are any concerns with the length of the tube, this can be checked by passing a new tube until resistance is met and then pulled back slightly, to prevent adherence to the wall (usually 9-11cm in term infants).


Adequate clearance AND Loose secretions
Flush Replogle tube every 15 minutes with 0.5-1ml 0.9%NaCL, removing the syringe after each flush
Assess clearance with each flush, considering volume, speed and viscosity
Remove blocked tube and pass new one immediately. Consider intermittent suction as interim measure if unavoidable delays.
Issue identified and fixed
No issues - functional
Reduced or slower clearance? AND/OR Thick or sticky secretions?
Minimal or no clearance? AND/OR Blocked Replogle?
Check suction still functional and fix any issues immediately
- Ensure tube at correct length
- Increase frequency of flushes
- Trial flush with 0.5-1ml air
- Manipulate tube gently at nostril
No improvement?

Flowchart 1.

CLFS during transport

The Laerdal suction machines used on the CoMET trolleys and Midlands Critical Care Transport Service (MCCTS) ambulances are only able to deliver high flow suction and so are inappropriate for use with Replogle tubes. The Atrium Express 500 regulates suction to approximately 20mmHg/2kPa when attached to a high flow suction machine and can therefore be used to facilitate the transfer patients requiring CLFS.

It is essential that the team are able to visualise the infant, Replogle tube, suction tubing, monitor and Atrium throughout the patient journey. This allows the condition of the infant, patency of the tube and functionality of equipment to be assessed at all times. Careful consideration should therefore be made to where the team sit in the ambulance and how the infant is safely secured to the trolley. An Ambulance Child Restraint (ACR) is preferable in this scenario as it allows complete visibility. However, if the team feel the patient is unable to maintain normothermia in an ACR, use of the Babypod can be considered and must be risk assessed.

Equipment

- Atrium Express 500
- Suction tubing
- 100ml 0.9% NaCl
- 3 ml syringe
- Spare Replogle tube (same size)
- Hydrocolloid dressing e.g. Duoderm
- Transparent dressing e.g. Tegaderm
- Appeel/Adhesive removing wipe
- Water soluble lubricant
- Scissors

Pre-departure considerations

Replogle
- Recheck position and security of tube
- Recheck patency and clearance – do you need to change tube before transport?

Atrium
- Check the packet is sealed prior to opening
- Check for signs of damage
- Check expiry date

Set up and use of the Atrium Express 500 for transport

1. Secure the Atrium near the head of the trolley with the hook and straps provided, so it is visible throughout transport. Location on trolley may vary depending on position of team (next to Hamilton ventilator or in front of gas cylinders). Ensure tick visible at all times.

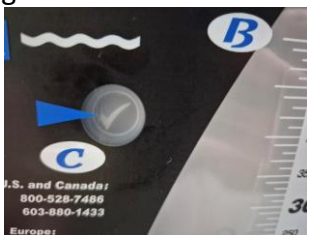



2. Attach one end of the suction tubing to the Laerdal suction unit on the trolley and the other to the Atrium





3. Check the Atrium is working – turn on the Laerdal suction to 100mmHg and observe a tick appear on the Atrium unit, you can also check the suction by applying a clean gloved thumb to the end of the Atrium tubing and feeling for suction



4. Turn off Laerdal suction
5. Place the Atrium tubing at the head of the trolley near head of the infant – consider securing the Atrium tubing to the trolley



6. When ready to mobilise with the patient, turn on the Laerdal suction to 100mmHg and attach to the infant's Replogle tube. Observe tube throughout. If there any concerns regarding suction, return to referring centre suction and reassess



7. Manage the Replogle tube as per Flowchart 1. Ensure to document all flushes and presence of 'tick' on Atrium throughout transfer
8. Plug the Laerdal suction unit into the mains as soon as able – continuous suction will drain the battery quickly, keep a close eye on battery status when not on mains
9. Transfer onto receiving centre suction as soon as safe
10. Document any issues or changes made

The Replogle tube must remain on CLFS at all times - it should NOT be discontinued unless changing the Replogle tube or if the patient needs urgent intermittent suction (it then must be immediately reconnected).

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Replogle tube documentation

Replogle tube size (fr):	Length at nostril (cm):	Flush Replogle with ___ml
Nostril: Left / Right	Suction pressure aim (kPa):	0.9% NaCl every 15 minutes
Tube insertion date:	New tube passed date:	

Name_____ Signature_____Date_____

Name:

Date of birth:

NHS number:

Transport number:

Please initial for all flushes in table below

Date	Time (Hour)												
	Suction pressure (kPa) – Hospital												
	'Tick' present on Atrium – Transport												
	0												
	15												
	30												
	45												

References

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