

## Competency 5: Setting up cold water humidification for patients with a tracheostomy tube



### Trainee

Name: .....

Title: .....

Ward or department: .....

### Clinical assessor

Name: .....

Title: .....

Method of assessment: .....

## Supervision Record

Please detail your clinical supervision activity.

Date	Activity	Suggested learning activities	Clinical assessors signature

**Skill criteria**

- No errors observed 5
- Occasional errors, corrected by trainee 4
- Frequent errors, corrected by trainee 3
- Frequent errors, not corrected by trainee 2
- Trainee unable to proceed without instruction/prompting 1

K= knowledge (minimum level indicated in box \*)

**Knowledge criteria**

- Evaluation: *articulates response, what, when how and why* 5
- Synthesis: *articulates the connections between the parts* 4
- Analysis: *able to examine how parts relate to the whole* 3
- Application: *can relate facts to another situation* 2
- Knowledge and understanding: *provides examples and distinguishes differences between examples* 1

S= skill (minimum level 4)

Observable criteria	Minimum level	Tick level of achievement					Assessment Outcome		Assessors Signature and Date
		1	2	3	4	5	Pass ✓	Fail ✓	
	* State required level i.e. S4, K5								
1. Describe the normal function of the upper respiratory tract	K5								
2. Describe how a tracheostomy can effect this function	K5								
3. Discuss two complications associated with administering medical gases without additional humidification	K5								
4. Identify the equipment needed by the bedside for a patient with a tracheostomy	K5								
5. Name four types of humidification systems used within the Trust	K5								

Observable criteria	Minimum level	Tick level of achievement					Assessment Outcome		Assessors Signature and Date
		1	2	3	4	5	Pass ✓	Fail ✓	
	* State required level i.e. S4, K5								
6. Set up the equipment required for cold water humidification	S5								
7. Identify three complications associated with this system	K5								
8. Identify the indications for warm humidification	K5								
9. Discuss the <i>specific</i> infection control measures related to this procedure	K5								

## Competency Statement

### Practitioner's signature and date:

I am competent in this procedure at this time and understand the standard statement, action and outcome. Having received appropriate training, I accept full responsibility for the maintenance my own competence and have discussed this role as part of my job description with the person to whom I am managerially accountable.

Signature:

Date:

Printed name:

Date:

### Clinical Assessor's signature and date:

I confirm that the above practitioner has achieved the required competency level and is now able to work autonomously in an unsupervised capacity.

Signature:

Date:

Printed name:

Date:

Job role:

Please place one copy of this record in your professional portfolio and give a second copy to your line manager

## Assessors Guidelines

Assessment Criteria	Required knowledge and/or skill	
1. Describe the normal function of the upper respiratory tract	<ul style="list-style-type: none"> <li>- Warms, filters and humidifies inspired air</li> </ul>	
2. Describe how a tracheostomy can effect this function	<ul style="list-style-type: none"> <li>- By passes the above functions</li> </ul>	
3. Discuss three complications associated with administering medical gases without additional humidification	<ul style="list-style-type: none"> <li>- Administration of dry gases will lead to damage and poor function of the ciliated epithelial cells in the trachea</li> <li>- Thickening of secretions leading to tube occlusion</li> <li>- Sputum retention</li> </ul>	
4. Identify the equipment needed by the bedside for a patient with a tracheostomy	<ul style="list-style-type: none"> <li>- Suction unit (portable or wall)</li> <li>- Oxygen or air</li> <li>- Oxygen saturation monitor.</li> <li>- Area to wash hands</li> <li>- Disposable apron, gloves and mask with eye protection.</li> </ul>	<ul style="list-style-type: none"> <li>- Single sterile gloves</li> <li>- Suction catheters</li> <li>- Jug or bowl</li> <li>- Water to flush suction tubing after procedure</li> </ul>
5. Name four types of humidification systems used within the Trust	<ul style="list-style-type: none"> <li>- Cold water (<i>Tyco Respiflow®</i>)</li> <li>- AERODYNE AEROSOL HEATER®</li> <li>- Swedish nose</li> <li>- Heat moisture exchange (HME) <i>Trachphone®</i></li> </ul>	

Assessment Criteria	Required knowledge and/or skill
6. Set up the equipment required for cold water humidification	<ul style="list-style-type: none"> <li>– Explains the procedure to the patient</li> <li>– Identifies the correct medical gas</li> <li>– Attaches the nebuliser unit to the water bottle ensuring that the plastic bottle has been pierced</li> <li>– Attaches the circuit to the correct flow meter ensuring that it is not cross threaded</li> <li>– Connects the elephant tubing ensuring that it is not more than 2 metres in length</li> <li>– Connects the tubing to the tracheostomy mask</li> <li>– Selects the correct oxygen concentration and flow rate</li> <li>– Checks that water is moving in the side arm</li> <li>– Check the system is working effectively. By ensuring that a stream of water vapor can be seen if the elephant tubing is disconnected at the adjustable oxygen device.</li> <li>– Attaches the mask, ensuring that the patient is comfortable</li> </ul>
7. Identify three complications associated with this system	<ul style="list-style-type: none"> <li>– Increased risk of chest infection due to droplets of water accumulating in the tubing allowing bacteria to colonize</li> <li>– Water aspiration if tubing is lifted above the level of the tracheostomy tube</li> <li>– Over humidification causing excessive moisture in the dependent bronchi, resulting in fluid overload and infection.</li> <li>– Bronchospasm</li> </ul>
8. Identify the indications for warm humidification	<ul style="list-style-type: none"> <li>– Warmed humidification should be considered when the secretions become thick, yellow or green that is when they adhere to the suction catheter and are not removed by aspirating water through the catheter.</li> </ul>
9. Discuss the <b>specific</b> infection control measures	<ul style="list-style-type: none"> <li>– Change elephant tubing every 24 hours</li> <li>– Change nebuliser attachment every five days</li> <li>– Dispose of elephant tubing in a yellow bag</li> <li>– Dispose of the nebuliser attachment in the sharps bin</li> <li>– Empty water condensation into a jug and dispose of in the sluice or toilet if in sideward</li> </ul>