

# Laryngectomy Patients with Surgical Voice Restoration (SVR) UHL CSI Policy

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<b>Trust Lead:</b>	Kathryn Sutton Adult Speech and Language Therapy Clinical Service Lead ( Acute )
<b>Director Lead:</b>	Chief Nurse , Julie Hogg
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### REVIEW DATES AND DETAILS OF CHANGES MADE DURING THE REVIEW

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April 2020 - V2

- 4.4: removed - SLT will provide written information and guidance to patients on SVR management and emergency care
- 4.5 and 4.5 Merged and addition of website link
- 5.1 addition -TEP is not being used as a feeding route & The patient has become confident in all other aspects of stoma management
- Section 7: process for monitoring compliance; Table added (previously appendix 6)
- Section 9: Addition of policy for the management of patients with total laryngectomy by specialist Head and Neck Speech and Language Therapists (SLT) (trust ref C41/2018) & Health care Professionals council
- Section 10- updated
- Appendices: Updated leaflet attached and removal of appendix 5 & 6

Sept 2023 Version 3

- 2.3 addition of - 'The MDT should ensure that there are locally agreed procedures for managing out of hours prosthesis problems (prosthesis extrusion, aspiration etc), including access to recent clinical history prior undertaking SVR procedures, and completion of appropriate documentation. NB. Managing emergency out of hours procedures for patients with SVR problems by people not experienced in the technique should be strongly discouraged. Temporary management of prosthesis extrusion should be limited to inserting nasogastric tube, stent or Foley catheter into the TEP while awaiting specialist advice.
- 5.2 Addition of: Deteriorating physical and cognitive status of the patient e.g. discussing ability to self-change if needs or abilities of patient change.

- Addition of -list of adverse effects of SVR
- 6.0 Addition of -botulinum toxin injection and filler injections
- 9 Addition of RCSLT Laryngectomy Position Paper (2023) & Laryngectomy Competency Framework (2023)
- Appendix 1
- Action 7 on table- feeding tube changed for red catheter.
- Action 15- addition of - Check valve placement by ensuring valve is rotating freely and there is resistance to removal. If either check is not successful, remove valve and insert valve again.
- Action 16- green dye change to water and addition of check that the valve has been sited correctly. This can be done by replacing the inserter stick and rotating in situ. If leak continues wait a few minutes and removal of 30 minutes. Green dye changed for water.
- Action 17- Change of not leaking for indwelling valve.
- Action 18- removal of pipette. Addition of: The sizer and dilator are kept in a personal patient folder and stored securely in ENT. Removal of: instruct them to keep for future use.
- Action 23 removed: Allow the valve to settle for at least 24 hours before attempting voice or training patient to clean valve.
- Action 25 removed: The SLT will review the function and viability of the voice prosthesis 24 hours post insertion. If there are no problems the SLT will begin teaching voicing technique to the patient and demonstrate cleaning of the voice prosthesis

#### Appendix 2

- Action 6 removal of dyed green
- Action 8- addition of: Exdwelling valves can be removed with the safety tag: remove tape holding tag in place and pull the valve firmly to remove from the tract. Indwelling valves require forceps to remove the valve with the front flange
- Action 14- removal of words sterile and green food dye
- Action 16 addition of- Exdwelling valve- tape the valve tag securely to the neck with medical tape
- Action 17- addition of word 'folder'

Updated format and version of 'useful information about your valve and emergency care information' leaflet.

## KEY WORDS

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Surgical voice

restoration

Laryngectomy

Trache-oesophageal puncture (TEP)

pharyngo-oesophageal (PE) segment

Speech and Language Therapy

## 1 INTRODUCTION AND OVERVIEW

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**1.1** This document sets out the University Hospitals of Leicester (UHL) NHS Trusts Policy and Procedures for laryngectomy patients with Surgical Voice Restoration (SVR) as carried out by Speech and Language Therapists (SLTs)

achieving and maintaining appropriate clinical competence.

- 1.2 This policy endeavours to ensure that all patients who have SVR are managed in an appropriate and consistent manner.
- 1.3 Surgical Voice Restoration (SVR) is a recognised procedure for post-laryngectomy voice rehabilitation. It involves placing a silicone prosthesis (valve) into a surgically created tract within the tracheo-oesophageal wall. The aim of the prosthesis is to redirect the pulmonary airstream into the oesophagus and by doing this, create vibration of the pharyngo-oesophageal (PE) segment. This vibration produces a sound source for pulmonary powered pseudo voice.

## 2 POLICY SCOPE

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- 2.1 This policy applies to all specialist Head and Neck SLTs who are SVR trained, who are employed by, or working on behalf of Leicestershire Partnership Trust (LPT) and working in UHL as a contracted professional service.
- 2.2 All specialist Head and Neck SLT staff who work within this procedure must demonstrate competence to do so. Details of training and competence required are given in section 6.
- 2.3 This policy does not apply to ENT consultants or senior ENT colleagues however they may wish to adhere to the competencies undertaken by SLT

The MDT should ensure that there are locally agreed procedures for managing out of hours prosthesis problems (prosthesis extrusion, aspiration etc), including access to recent clinical history prior to undertaking SVR procedures, and completion of appropriate documentation. NB. Managing emergency out of hours procedures for patients with SVR problems by people not experienced in the technique should be strongly discouraged. Temporary management of prosthesis extrusion should be limited to inserting a nasogastric tube, stent or Foley catheter into the TEP while awaiting specialist advice.

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## DEFINITIONS AND ABBREVIATIONS

Exdwelling voice prosthesis: A voice prosthesis that can be changed by the patient following training by the clinician.

Indwelling Voice prosthesis: A voice prosthesis that requires a trained clinician to change it.

Laryngectomy: The surgical removal of the larynx

Speaking Voice prosthesis (valve): This is usually known as a valve and is a small device which is used to create speech after laryngectomy. A small surgical puncture (Tracheo-oesophageal puncture) is created just inside the

stoma, from the back wall of the trachea into the oesophageal wall. The valve sits in this puncture to enable speech. Voice is produced by temporarily blocking the stoma, either with a finger or a stoma tube.

Surgical Voice Restoration (SVR): A procedure for post-laryngectomy voice rehabilitation. It involves placing a silicone prosthesis (valve) into a surgically created tract within the tracheo-oesophageal wall.

### **3 ROLES AND RESPONSIBILITIES**

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#### **3.1 The executive lead for this policy is the Chief Nurse**

**3.2 Head of Service for Adult Speech and Language Therapy** is responsible and accountable for ensuring only registered and competent Specialist head and neck SLT's apply this policy

**3.3 SLT Lead in UHL** is responsible for ensuring that the service is suitably structured and that staff have access to appropriate training and supervision.

**3.4 Specialist Head and Neck SLT's** are responsible and accountable for adherence to professional standards as set out by the HCPC.

They will facilitate the patient's knowledge, use and care of the voice prosthesis. This will begin with pre-treatment counseling and continue as long as the patient has a prosthesis in situ. During working hours, SLT will be the key troubleshooters for any issues related to voice prosthesis management.

**3.5 Medical Staff & Nursing Staff** are outside the scope of this policy but can follow the advice provided by SLT on the UHL website : [www.leicesterhospitals.nhs.uk/aboutus/departments-services/speech-and-language/head-and-neck-speech-therapy/](http://www.leicesterhospitals.nhs.uk/aboutus/departments-services/speech-and-language/head-and-neck-speech-therapy/)

### **5. POLICY IMPLEMENTATION AND ASSOCIATED DOCUMENTS**

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#### **5.1 Indications:**

The SLT will identify when the patient is suitable for a voice prosthesis insertion and replacement.

Indications are:

- TEP is not being used as a feeding route
- The patient has become confident in all other aspects of stoma management
- If the voice prosthesis is leaking
- If the voice prosthesis has been insitu for longer than the manufacturers recommendations
- If the voice prosthesis appears deteriorated
- There is peripheral leakage that can not be resolved with a washer
- The patient is unable to voice and the voice prosthesis is suspected to be causing the issue

#### **5.2 Contraindications:**

Contraindications for insertion/changing a voice prosthesis:

- If it is suspected that the back of the puncture has closed over
- A growth is noted around the prosthesis/puncture
- Over granulation around the prosthesis/puncture

- Anything that would prevent insertion/reinsertion of the prosthesis
- The prosthesis is not observed to be leaking
- No available trained staff
- No correct sized prosthesis available for reinsertion
- Stoma shrinkage preventing removal/insertion of a prosthesis without airway compromise. Deteriorating physical and cognitive status of the patient e.g. discussing ability to self change if needs or abilities of patient change
- Exclusion criteria for ex-dwelling voice prosthesis:
  - Visual difficulties, not rectified by corrective lenses
  - Poor manual dexterity/sensory impairment
  - Cognitive difficulties

### 5.3 Cautions:

Specialist head and neck SLT's must be aware of the impact of stoma shrinkage on airway compromise. If there is concern that a prosthesis change may further compromise airway stability, it should be avoided. A compromised chest status may also cause difficulties. In such circumstance, the SLT must assess the patient's suitability for a prosthesis change and avoid it if it is likely to cause significant difficulties. If necessary SLT must seek medical guidance.

Adverse effects of SVR:

SVR is a safe procedure but there are possible medical risks and complications associated with voice prostheses procedures or presence of voice prosthesis, including:

- Stimulation of vagal response during voice prosthesis insertion/ removal, particularly if the patient is anxious, causing, for example hypotension, bradycardia, vasovagal syncope
- Adverse reactions to local anaesthesia
- Tissue trauma, bleeding and discomfort
- Aspiration of foods, fluids and gastric contents via the TEP, into the airway
- Accidental aspiration of the brush, equipment, tissue, prosthesis, tissues into the airway or loss of prosthesis, instruments, etc. into the oesophagus
- Infection of the TEP or mediastinum
- Tracheo-oesophageal wall separation or trauma to TEP
- Adverse reactions to adhesive preparations used in conjunction with the tracheoesophageal puncture
- Creation of false tracheo-oesophageal tract

### 5.4 Procedure

All initial voice prosthesis placements will be carried in a designated outpatient clinic at Leicester Royal Infirmary. Valve selection is based on individual assessment of the patient's fistula size, length and position.

Specialist head and neck SLT will follow initial voice prosthesis placement procedure (appendix 1) when an initial valve is being fitted and then for subsequent voice prosthesis changes a slightly different procedure would be followed (appendix 2)

The Specialist head and neck SLT will perform regular stock checks to ensure all equipment is available for voice prosthesis changes

See appendix 3 for list of equipment required.

## 5.5 Outpatient care

Once valve is placed the Specialist head and neck SLT will go through relevant information again with the patient and give advice leaflets (appendix 4).

Patients are shown how to use and care for the equipment given. Manufacturer's guidelines are given to the patient for advice on how to store the equipment and when to dispose of them.

Patients will be reviewed by specialist head and neck SLT at their next outpatient appointment with their consultant unless indicated earlier. This will include review of voicing technique and voice prosthesis care.

Patients living outside of the Head and neck service catchment area will be referred to and followed up by their local SLT team.

Patients will be given contact details for the specialist head and neck SLT team and will be able to contact the team during working hours if a voice prosthesis change is required or if other advice or support is needed.

The specialist head and neck SLT will provide the patient with information related to voice prosthesis care, how to manage emergency situations e.g. if the voice prosthesis becomes dislodged and when and how to contact the specialist head and neck SLT should problems arise. It is essential that patients are competent to carry out voice prosthesis care effectively to ensure the integrity of the prosthesis and prevent infection.

If patients are stable in a valve type and size, the specialist head and neck SLT may give a spare valve to the patient to bring with them to subsequent valve changes.

## 5.7 Ex-dwelling versus Indwelling voice prostheses:

After patients have become accustomed to their voice prosthesis, they will be given the option to self change.

Written advice on how to care for and change an ex-dwelling voice prosthesis is given to the patient with one to one support on initial voice prosthesis insertion if required.

## 6 EDUCATION AND TRAINING REQUIREMENTS

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SLT staff must undertake education and training which is followed by observation and supervision in the clinical setting as per Royal College Speech and Language Therapy guidelines (RCSLT Laryngectomy position Paper 2023) . Maintenance of skill by demonstrating competence will be through 12 monthly peer review. Evidence of competence will be collected in the staff members personal file and may be recorded on HELM.

Staff new to the Trust who have been performing the skills elsewhere will need to be familiar with the Trust's policy and their standards of care will be reviewed by a recognised trainer/assessor. Evidence of previous education and training will be required. Managers need to ensure staff are aware of and have access to policy guidelines and that the appropriate education, supervision and personal development reviews are in place to ensure safe practice. A record of competencies will be kept for audit and standard purposes.

Specialist head and neck SLT's are responsible for maintaining their competency to

be involved in SVR and to ensure the pre-requisites for practice are in place. It is anticipated this would involve regular practice. Specialist head and neck SLT's have a professional responsibility to review their competencies for SVR if they have not performed the procedure for one year.

Specialist head and neck SLT's must be competent in recognising when onward referral and support is necessary in SVR management and work closely with other members of the multi disciplinary team (MDT).

Specialist head and neck SLT's must be aware of, and be able to identify rationale for a range of trouble troubleshooting procedures and management options. These include:

- Botulinum toxin injection
- Filler injections
- Videofluoroscopy examination
- Use of anti fungal medications (see appendix 4)
- Stomoplasty
- Stricture dilatation
- Range and choice of prosthesis types
- Identifying when a voice prosthesis change is likely to be difficult and managing it effectively
- Dysphagia
- Peripheral leakage
- Management of a voice prosthesis whilst a patient is having radiotherapy
- Changes in voice prosthesis diameter
- 'Buried' prosthesis
- False passage
- Fistula closure
- Abandoning SVR
- Reflux management
- Deteriorating physical and cognitive status of the patient
- Holiday planning

## 6.1 Competencies

*Core pre-requisite knowledge and skills:*

- Evidence of postgraduate education/CPD in head and neck cancer
- Advanced clinical knowledge of post laryngectomy anatomy and physiology for respiration, a laryngeal phonation and swallowing
- Current and regularly updated skills and knowledge in head and neck cancer and laryngectomy management and rehabilitation including safe management of the stoma and optimizing voice.
- Experience in working independently with laryngectomy patients
- SLT's must be working at expert level 3 or 4 as per proposed Cancer Rehabilitation Measures (Moss, 2008)
- Knowledge of the indications and contraindications for different voice prostheses
- Knowledge of local and national laryngectomy policies
- Knowledge of infection control policies

*Knowledge required for voice prosthesis management:*

- Select appropriate patients for SVR as a core member of the head & neck MDT
- Recognise altered anatomy as it relates to voice and swallowing function post treatment-both surgical and non-surgical



- Identify elements of a comprehensive SVR assessment including both voice quality and swallowing
- Detect and interpret abnormal findings during assessment
- Select appropriate prosthesis from the range available
- Apply appropriate treatment interventions
- Make appropriate recommendations to guide management
- Make appropriate referral or request a second opinion
- Request a second opinion from ENT when complications are suspected
- Know when and how to re-evaluate and monitor voice prosthesis use and appropriateness

### 6.2 Regaining competencies:

Professionals who have not performed a voice prosthesis change in over a year will need to regain their competencies by carrying out a voice prosthesis change with a competent colleague present. Continued support will be offered until a voice prosthesis change can be completed without support. When regaining competencies the professional must be able to communicate their knowledge of how to fully assess and manage voice prostheses fully.

### 6.3 Performance Requirements:

- Able to assess a patients voice prosthesis
- Able to prepare the patient for the procedure both physically and psychologically
- Able to obtain consent as per UHL Trust policy
- Able to assemble and prepare equipment
- Able to carry out the procedure according to Trust guidelines
- Able to observe infection control measures thoroughly
- Able to respond to any adverse reactions/complications and report back to the appropriate MDT member
- Able to dispose of equipment and waste material in a safe and correct manner
- Able to complete appropriate documentation

## 7 PROCESS FOR MONITORING COMPLIANCE

Element to be monitored	Lead	Tool	Frequency	Reporting arrangements
Specialist SLT competencies to carry out SVR valve changes	UHL SLT lead	Appraisal	Once per year	Meeting minutes Evidence in personal file
Re-competence process after 6 months not using these skills : Local induction and Specialist head and neck SLT competencies to carry out SVR valve changes	Specialist colleagues	Joint working	As required	Documentation on electronic notes system 1:1 meeting feedback
Monitoring incidents/complaints	Specialist SLTs	Datix, PILS	monthly	

## **8 EQUALITY IMPACT ASSESSMENT**

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- 8.1 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.
- 8.2 As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

## **9 SUPPORTING REFERENCES, EVIDENCE BASE AND RELATED POLICIES**

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Cancer Rehabilitation Measures (Moss, 2008)

Aseptic Non Touch Technique (ANTT) UHL Guideline (Trust ref B20/2013)

Hand Hygiene UHL Policy (Trust ref B32/2003)

Infection Prevention UHL Policy (Trust ref B4/2005)

RCSLT Laryngectomy Position Paper (2023)

Laryngectomy Competency Framework (2023)

Policy for Consent to Examination or Treatment (Trust Ref: A16/2002)

Policy for Laryngectomy Management by Specialist Head and Neck Speech and Language Therapist (SLT) UHL Guideline

(SLT) (Trust ref C41/2018)

Health and Care Professionals Council

## **PROCESS FOR VERSION CONTROL, DOCUMENT ARCHIVING AND REVIEW**

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Review details must be described in the Policy and must give details of timescale and who will be responsible for review and updating of the document.

The updated version of the Policy will then be uploaded and available through INsite Documents and the Trust's externally-accessible Freedom of Information publication scheme. It will be archived through the Trusts PAGL system.

**APPENDIX 1**

**Initial voice prosthesis placement procedure**

	<b>Action</b>	<b>Rationale</b>
1	Prepare the clinical area, ensuring all equipment is available to use.	To minimise the risk of cross contamination.
2	Introduce the patient to the clinical area and discuss with them the procedure that is going to be carried out. Verbal consent is gained as per UHL Trust policy	To establish understanding and ensure valid consent is obtained. To promote dignity.
3	Decontaminate hands as per (UHL) policy	To minimise risk of cross contamination.
4	Apply Personal Protective Equipment (PPE) as per UHL Policy.	To minimise risk of cross contamination.
5	Ask the patient to position themselves appropriately, ensuring the SLT has a good clear view of the puncture site	To ensure that an optimal position for valve insertion is achieved and comfort to the patient
6	Unpackage the dilator and present to the patient, explaining the method of insertion. Then lubricate the end ready for insertion.	To ensure full consent and compliance Lubrication ensures smooth insertion of the dilator into the puncture
7	Remove the red catheter from the puncture slowly, advising the patient not to swallow while this is taking place.	Preventing the patient from swallowing will reduce the amount of saliva that will leak through an open puncture
8	Insert the whole dilator tip into the puncture	The dilator will increase the tract to the desirable diameter size to aid valve insertion
9	Allow the patient to have a look in a mirror at the dilator in the puncture. Encourage the patient to attempt taking out and immediately replacing the dilator into the puncture.	Aids patients understanding of the procedure. Acts as training and helps learning
10	Remove the dilator and place onto the dressing pack. Unpackage the sizer and insert the lubricated tip into the puncture.	Lubrication ensures smooth insertion of the sizer into the puncture.
11	Measure the tract size. Once the size is established, remove the sizer and replace the dilator.	Measuring the puncture will ensure the correct length of valve is inserted.
12	Unpackage the correct sized valve that matches the length of the tract. Show the patient and explain insertion technique.	Reduces waste and prevents early unnecessary valve changes
13	Load the valve as per manufacturers guidelines	Prevents damage to the valve and ensure correct and safe fitting
14	Remove the sizer from the puncture, and insert the valve.	Immediate insertion ensures the tract stays potent Insert as directed by manufacturers guidelines
15	Check valve placement by ensuring valve is rotating freely and there is resistance to removal. If either check is not successful, remove valve and insert valve again. Once the valve is successfully inserted, tape the safety tag to the patients neck	This allows safe testing of the valve without risk of it falling into the airway. It also allows easy removal of the valve if necessary without compromising the reinsertion method.
16	Test the valve for leaks with some water. If the	This ensures the valve is viable and

	<p>valve leaks peripherally, check that the valve has been sited correctly. This can be done by relacing the inserter stick and rotating in situ. If leak continues wait a few minutes to allow the puncture to settle and retest. If still leaking leave the valve insitu and review in a few hours, ensuring the patient remains Nil By Mouth for this time.</p> <p>If the water leaks through the valve, unpackage the valve brush and insert into the valve (whilst insitu) to ensure the flapper is working correctly. Retest.</p> <p><i>If this is not successful, consider removing the valve and inserting a new one</i></p>	<p>working correctly. To minimise the risk of cross contamination</p>
<b>17</b>	<p>If the valve is indwelling unpack the curved scissors and cut off the safety tag. Ensure valveis positioned correctly as per manufacturers guidelines</p>	<p>This ensures the valve will function as expected</p>
<b>18</b>	<p>Thoroughly clean the dilator and sizer and return to the original packaging Supply the patient with a voice prosthesis brush</p> <p>The sizer and dilator are kept in a personal patient folder and stored securely in ENT.</p>	<p>Equipment is one person use only and so should be kept with the patient at all times</p>
<b>19</b>	<p>Dispose of Personal Protective Equipment (PPE) and unused liquids and utensils as per UHL policy</p>	<p>To minimise the risk of cross contamination.</p>
<b>20</b>	<p>Decontaminate hands as per UHL Policy.</p>	<p>To minimise the risk of cross contamination</p>
<b>21</b>	<p>Document findings in SLT clinical electronic notes</p>	<p>To ensure accurate records To maximise understanding of the recommended changes to the patient's eating and drinking. To ensure hypothesis driven care</p>
<b>22</b>	<p>Write up medical notes if applicable.</p>	<p>To ensure accurate records are maintained.To maximise understanding of the recommended changes to the patient/clients communication</p>
<b>23</b>	<p>Give patient written advice on how to achieve voice and clean the valve. Advise the patient NOT to clean or use the voice prosthesis for at least 24 hours. Equipment to be used as per manufacturers guidelines (leaflets from products given to patient)</p>	<p>Written advice will aid patient understanding and reinforce good voicing techniques and correct cleaning procedure. To minimise risk of cross contamination</p>

## APPENDIX 2

### Subsequent voice prosthesis changes procedure

	Action	Rationale
1	Prepare the clinical area, ensuring all equipment is available to use (including equipment the patient has brought with them.)	To minimise the risk of cross contamination
2	Introduce the patient to the clinical area and discuss with them the procedure that is going to be carried out.	To establish understanding and ensure a valid consent is obtained as per UHL Trust policy. To promote dignity.
3	Decontaminate hands as per UHL policy	To minimise risk of cross infection
4	Apply PPE as per UHL Policy.	To minimise the risk of cross contamination
5	Ask the patient to position themselves appropriately, ensuring the SLT has a good clear view of the puncture site	To ensure comfort and dignity and that optimal position for voice prosthesis insertion is achieved
6	Ask the patient to swallow a sip of water and observe any leakage through or around the voice prosthesis If appropriate clean the voice prosthesis and retest for leaks <i>If the voice prosthesis is not leaking then it does not need changing and the clinician may move onto step 18.</i>	Green dye will show clearly if there are any leaks  Ensures the valve is completely clean
7	Ensure patients equipment is clean and appropriate to use. Prepare the dilator by applying lubricating gel to the end, ready for insertion.	Lubrication ensures smooth insertion of the sizer into the puncture.
8	Exdwelling valves can be removed with the safety tag: remove tape holding tag in place and pull the valve firmly to remove from the tract. Indwelling valves require forceps to remove the valve with the front flange: Unpack the lockable mosquito forceps, Grip hold of the voice prosthesis edge and gently pull to assess the length of the valve in situ. Then when ready gently, but firmly pull the prosthesis out. The voice prosthesis is disposed of in a clinical waste bin	Assess if the voice prosthesis is a good fit, may negate the need to resize Ensures the voice prosthesis will not fall into the airway on removal To minimise the risk of cross contamination.
9	Insert the dilator immediately into the open puncture and allow the puncture to stretch up until the dilator is fully inserted. Tape to the neck	The dilator will increase the tract to the desirable diameter size to aid voice prosthesis insertion

10	If it is felt appropriate to resize the puncture tract, remove the dilator and insert the lubricated tip of the sizer. Measure the tract size and once the size is established remove the sizer and replace the dilator.	Measuring the puncture will ensure the correct length of voice prosthesis is inserted. Reduces waste and prevents early unnecessary voice prosthesis changes
11	Find the correct sized voice prosthesis and load the prosthesis as per manufacturers' guidelines.	Prevents damage to the voice prosthesis and ensure correct and safe fitting.
12	Untape and remove the dilator from the puncture, and insert the voice prosthesis as per manufacturers' guidelines.	Ensures correct insertion technique
13	Once the voice prosthesis is successfully inserted, tape the safety tag to the patients neck	This allows safe testing of the voice prosthesis without risk of it falling into the airway. It also allows easy removal of the prosthesis if necessary without compromising the reinsertion method.
14	Test the voice prosthesis for leaks with water.. If the valve leaks peripherally, wait a few minutes to allow the puncture to settle and retest. If still leaking leave the valve in situ and advise the patient to wait a while before drinking. If the water leaks through the valve, clean the valve with the valve brush to ensure the flapper is working correctly. Retest. <i>If this is not successful, consider removing the prosthesis and inserting a new one</i>	This ensures the valve is viable and working correctly
15	Ask the patient to test their voice.	Ensures prosthesis is functioning well for voice
16	If the new prosthesis is working adequately: Exdwelling valve- tape the valve tag securely to the neck with medical tape Indwelling Valve- cut off the safety tag with the curved scissors. Ensure the prosthesis is positioned correctly as per manufacturers guidelines	This ensures the prosthesis will function as expected
17	Thoroughly clean the dilator and sizer and return to the patient folder.	Equipment is one person use only and so should be kept with the patient at all times
18	Dispose of PPE and unused liquids and utensils as per UHL policy	To minimise risk of cross contamination
19	Decontaminate hands as per UHL Guidelines.	To minimise risk of cross contamination.

<p><b>20</b></p>	<p>Document findings in SLT clinical notes</p> <p>Attach the adhesive label to the patients SLT notes</p> <p>Document valve information in patients valve record book</p>	<p>To ensure accurate records</p> <p>To maximise understanding of the recommended changes to the patient/clients eating and drinking.</p> <p>To ensure hypothesis driven care Allows other clinicians evidence of what valve is currently in situ</p>
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## APPENDIX 3

### Equipment required

- Appropriate voice prosthesis (single patient use)
- Appropriate voice prosthesis (single patient use) one size smaller and larger
- Appropriate sized dilator (single patient use)
- Sizer (single patient use)
- Valve brush (single patient use)
- Gauze
- Light source
- Mirror
- Single sachet Lubricant gel
- Gloves
- Medical tape
- Lockable single use mosquito forceps
- Retractable Bladed scalpel
- Cup
- Green food dye
- Water
- Personal protective equipment (PPE)
- Hand decontamination equipment
- Suction equipment specific to patient
- For patients who require desensitisation of the puncture, an ENT consultant must be available to administer lignocaine if needed
- Clinical waste disposal facilities

**Certain equipment will be given to the patient to bring in for each valve change. Dilators and sizers will be kept in the ENT department in a secure cabinet.**



**APPENDIX 4- press ctrl and click to open leaflet 508 Useful information about your valve and emergency care information**

<http://yourhealth.leicestershospitals.nhs.uk/library/musculoskeletal-specialist-surgery-mss/maxillofacial/771-useful-information-about-your-valve-and-emergency-care/file>