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RCSLT GUIDANCE

Speech and language therapist-led endoscopic procedures in the COVID-19 pandemic

ROYAL COLLEGE OF SPEECH & LANGUAGE THERAPISTS

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Advancements through multidisciplinary collaboration

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ENT-UK
National Tracheostomy Safety Project

1. INTRODUCTION

This document has been developed in response to the current coronavirus pandemic and the growing requests from speech and language therapists (SLTs) for a review of the use of SLT-led endoscopic procedures. It therefore temporarily replaces the RCSLT Fibreoptic Endoscopic Evaluation of Swallowing (FEES) Position Paper (2020b) and the RCSLT Speech and language therapy Endoscopic Evaluation of the Larynx (EEL) for clinical voice disorders position paper (2020a).

This is a working document that will be reviewed and revised as further evidence and information becomes available and as the COVID-19 situation develops. The RCSLT expert advisory group responsible for this document will:

- Seek feedback from members to inform a review via this survey (deadline **31 May 2020**)
- Undertake an initial review and update of this document within 4 weeks of the date of publication

2. EXECUTIVE SUMMARY

This document provides interim guidance to support the delivery of urgent and essential care in the context of COVID-19.

In collaboration with the British Laryngological Association, ENT-UK, National Tracheostomy Safety Project and British Thoracic Society, this paper outlines a staged return to SLT-led endoscopy. Endoscopic procedures are to be re-introduced in carefully selected cases only, following consideration and endorsement of the multidisciplinary team as part of the overall management plan for the patient. SLT-led endoscopy procedures include FEES, EEL for voice, chronic cough assessments and provocation laryngoscopy for Inducible Laryngeal Obstruction (ILO).

At the present time, the introduction of SLT-led endoscopy will focus only on the delivery of urgent and essential care for airway and swallowing for carefully selected patient groups. SLT-led endoscopy remains suspended for patient populations who may benefit from SLT-led endoscopy to inform clinical management decisions unrelated to COVID-19 complications (e.g. non-urgent FEES, voice disorders, inducible laryngeal obstruction and chronic cough). This will be reviewed as further evidence emerges regarding levels of risk, and in the context of the NHS supply chain for personal protective equipment (PPE).

3. CONTEXT

COVID-19 has impacted significantly on healthcare delivery worldwide. In the ENT setting, it has become apparent that clinicians in this field are particularly prone to virus exposure given the presence of aerosolised secretions. Endoscopy is a high risk procedure as the nose and nasopharynx have been shown to be reservoirs for high concentrations of the virus (Zou et al, 2020), and upper airway endoscopy is considered an aerosol generating procedure (AGP) (ENT-UK, 2020). The highest risk of transmission of viruses is during AGPs of the respiratory tract, which requires the use of enhanced respiratory protective equipment for healthcare workers performing or assisting in such procedures (PHE, 2020a). This is particularly relevant for SLTs performing either endoscopist or assessor roles, or when attending endoscopic procedures, because direct stimulation and irritation of the aerodigestive tract mucosa by the nasendoscope may provoke unpredictable expulsion of droplets and aerosols through sneezing, gagging and coughing. Viral transmission and infection risks may also occur through surface contact associated with insertion and removal of the nasendoscope (Lui et al, 2020; Rameau et al, 2020; Workman et al, 2020). In addition, there are known risks associated with dysphagia-induced coughing during the procedure. Finally, there are some specific risks to consider with COVID-19 patients. For example, COVID-19 patients have an increased risk of clots and frequently require anticoaglation. This has the potential to increase bleeding risks during endoscopy procedures.

In March 2020, the British Laryngological Association (BLA) and ENT-UK issued statements regarding ENT examinations (BLA, 2020; ENT-UK, 2020). This included a restriction on flexible laryngoscopy in all but selected head and neck cancer 2 week waits, known cancer cases and ENT emergencies (e.g. airway compromise). All therapist-led endoscopic procedures ceased at this point.

As we learn more about COVID-19 recovery trajectories, it has become apparent that patients are requiring tracheostomy to facilitate prolonged mechanical ventilation and due to failed extubation. Glottic and subglottic oedema and laryngeal complications are particular issues with high rates of re-intubation observed (McGrath et al, 2020). Airway and laryngeal complications may also affect tracheostomy weaning and decannulation success, and chronic airway complications such as laryngomalacia and laryngotracheal stenosis are a concern. Swallowing problems are often an inevitable consequence of critical care interventions, neurological impairments and myopathy.

It is increasingly recognised by allied health professionals (AHPs), medical and nursing colleagues that the absence of SLT-led endoscopy to inform patient management, as part of a multidisciplinary approach, may be negatively impacting care pathways and

patient flow. Furthermore, in populations without a primary diagnosis of COVID-19 such as cancer, stroke, ILO or neurological illness, it is acknowledged that the recent lack of SLT-led endoscopy has compromised a critical component of patient care alongside the wider process of multidisciplinary decision-making.

4. RISK IDENTIFICATION, ASSESSMENT AND MITIGATION

It is essential that prior to undertaking any SLT-led endoscopy procedures all risks and options have been considered. This would include logical progression through alternative assessments, such as perceptual and acoustic analysis of the voice, clinical/bedside swallowing evaluation and videofluoroscopy.

It is essential also to ensure that local infection prevention and control (IPC) approval and equipment manufacturer guidance has been sought as part of risk assessment. Wherever possible, and where there is access, disposable patient equipment should be used (PHE, 2020a). Therefore, consideration should be given to the use of disposable nasendoscopy equipment, including the nasendoscope.

5. CLINICAL DECISION-MAKING

The decision to perform SLT-led endoscopy should always be a multidisciplinary one, discussed and planned formally as a team in advance of the procedure, with the risk-benefits clearly identified, understood and mitigated to inform the appropriateness of the procedure.

For the protection of the SLT, other team members and the patient, endoscopy must only be performed if **absolutely necessary** to inform the immediate management of the patient.

There are three steps to be followed to inform clinical decision-making for every SLT-led endoscopy procedure, including repeat assessments. These steps can be found in Annex 2 (on page 14 in this document) in printable format.

Step 1: Prioritisation for SLT-led endoscopies

Only patients meeting the criteria in Level 1 should undergo SLT-led endoscopy procedures. The decision to proceed will be that of the MDT.

Level	Criteria
Level 1: Urgent and essential with MDT approval	1. To inform decision-making where there are concerns regarding laryngeal function/structure leading to airway compromise
	2. To inform weaning and decannulation where there are concerns regarding potential laryngeal oedema leading to airway compromise, and/or poor secretion management, and/or severely compromised swallowing function
	3. To inform decision-making regarding oral feeding where there is no alternative method of nutrition and concerns regarding possible silent aspiration
	4. To inform immediate MDT decisions on admission avoidance or hospital discharge (when all other available assessment modalities have been inconclusive to provide oral intake/airway recommendations)
Level 2: Important but not essential	1. Assessment needs to be scheduled but can be delayed without adversely affecting patient outcomes or safety
Level 3: Not essential	1. Other assessment modalities could be used to answer clinical questions

The RCSLT recommends that members refer to RCSLT PPE clinical decision-making questions and the RCSLT SLT-led endoscopy procedures suitability and safety checklist in Annex 1 (on page 12 of this document in printable format) to support decision-making.

Step 2: Risk factors

If criteria for Level 1 are met, the following risk factors should be considered:

AVOID if the patient is:

- Agitated
- Likely to be a difficult scope insertion
- Haemodynamically unstable
- Desaturating on suctioning or other procedures
- Unable to tolerate removal of the oxygen face mask for nasendoscope insertion

Discuss with the MDT and consider carefully whether to proceed if the patient has:

- Coagulopathy issues and requires anticoagulants (due to bleeding risks on nasendoscope insertion)
- Rapid fatigue
- Ventilation requirements

Step 3: Infection prevention and control

The RCSLT considers SLT-led endoscopy procedures to be AGPs (Bolton et al, 2020). Procedures should be completed with only essential staff present (ENT-UK, 2020) and, where possible, in a single room with the door closed in line with local and national infection prevention and control guidance (PHE, 2020a).

Full PPE is required for all AGPs regardless of the patient's COVID-19 status (PHE, 2020b; RCSLT, 2020). Full PPE comprises:

- Long-sleeved fluid-repellent disposable gown
- A filtering face piece class 3 (FFP3) respirator
- A full face shield or visor
- Gloves

For AGPs performed as a single procedure, PPE is subject to single use with immediate disposal following completion of the procedure. Strict adherence to PPE donning and doffing procedures according to national guidance is required (PHE, 2020b).

In line with the Health and Safety Executive (2020) guidance, "A ***fit test*** should be carried out before people wear respiratory protective equipment (RPE) for the first time. Inadequate fit testing can reduce the protection provided and lead to immediate or long-term ill-health or can even put the RPE wearer's life in danger. A fit test should be repeated whenever there is a change to the RPE type, size, model or material or whenever there is a change to the circumstances of the wearer that could alter the fit of the RPE". In addition to fit testing, a mask ***fit check*** should be conducted by the wearer each time an FFP3 mask is donned at the point of care (PHE, 2020a). Consideration

should also be made regarding mitigating the risk for the patient. This includes appropriate patient PPE and protocols to ensure that the patient understands the procedure. This will reduce anxiety and minimise the duration.

National, local and manufacturer guidance on infection control, decontamination and disposal of equipment and consumables should be followed immediately after the procedure to avoid virus transmission and cross-contamination.

For AGPs such as SLT-led endoscopy, the time required for clearance of aerosols, and thus the time after which the room or area can be entered without a filtering face piece (FFP3) respirator, is determined by the number of room air changes per hour and the setting. This is dependent on the extent of any mechanical or natural ventilation – the greater the number of air changes per hour (ventilation rate), the sooner any aerosol will be cleared (PHE, 2020a). Full PPE should be worn by healthcare workers until the room (or area) is cleared of aerosol. Guidance should be sought from local infection and prevention control teams. For each SLT-led endoscopy completed the procedural end time should be clearly communicated to appropriate staff.

6. SLT-LED ENDOSCOPY PROCEDURES

Step 1: Ensure appropriate staff

In order to maximise protection for both patients and healthcare workers, SLTs performing the endoscopist role must have RCSLT Level 3 competencies (RCSLT, 2020). In the absence of a Level 3 endoscopist, the procedure may proceed jointly with endoscopy performed by an ENT registrar or consultant, or an appropriately trained and experienced intensivist or respiratory consultant. This is to ensure that the endoscopist has the necessary technical skills and experience obtained through high volume procedures to minimise contact with nasal, pharyngeal and laryngeal mucosa and thus reduce the risk of induced coughing and stimulation of the gag reflex (Rameau et al, 2020). Expert endoscopists will facilitate the accurate and prompt insertion, manipulation and withdrawal of the nasendoscope needed to obtain the highest quality images in the shortest possible timeframe (ENT, 2020). The endoscopist must ensure that the nasendoscope is removed carefully to minimise splashes and limit exposure of aerosols.

Step 2: Undertake the procedure

The nasendoscope should be attached to a monitor to facilitate safe and efficient placement for the endoscopist and the patient. A water-based lubricant jelly should be applied to the nasendoscope prior to insertion to reduce irritation to the nasal mucosa and subsequent risk of sneezing. **If nasendoscope insertion is difficult, then have a**

lower threshold to abandon the procedure than in usual practice. To maximise the diagnostic yield and value of the images for wider MDT review, the evaluation should be recorded from the point when the nasendoscope reaches the nasopharynx.

The procedure should be performed in a time-efficient manner in order to minimise exposure whilst addressing the specific clinical question using the following protocol adapted from Langmore (2000).

Step 3: Follow the abbreviated protocol

The abbreviated protocol has been developed to limit risks to both staff and patients. The following should be recorded and subsequently evaluated on completion of the procedure:

Anatomic physiological assessment

- Appearance of structures of the larynx and hypopharynx at rest
- Amount, location and physiological response to secretions
- Phonation (as appropriate)

Oral trials

- Thin liquids (IDDSI Level 0) - 2 trials maximum
- Puree (IDDSI Level 4) or another diet texture as appropriate - 2 trials maximum

Step 4: Report the findings

On completion of the procedure, findings and recommendations should be discussed with the MDT and a management plan agreed and documented. It is recommended that the report includes the following outcome measures:

- New Zealand Secretion Rating Scale (Miles and Hunting, 2019)
- Yale Residue Scale (Neubauer et al, 2015)
- Penetration Aspiration Scale (Rosenbek et al, 1996)

Where indicated and in order to avoid unnecessary repetition of the procedure, recorded images should be jointly reviewed and the opinion sought from ENT or other relevant specialties to facilitate consensus regarding management and follow-up. Any adverse events should be reported using the local incident reporting system.

7. FUTURE DIRECTION

To inform a review of the guidance and the abbreviated protocol, members are encouraged to complete this survey by **31 May 2020**.

In addition, the RCSLT recommends that members collect clinical and outcomes data using the COVID-19 speech and language therapy data collection tools for confirmed COVID-19 patients.

ANNEX 1: COVID-19 SLT-led endoscopy procedures suitability and safety checklist

All SLT-led endoscopy procedures should follow the checklist below to ensure it is safe and appropriate to proceed. It intends to minimise adverse events, risks of harm and virus transmission to patients and healthcare workers.

BEFORE THE PROCEDURE *Boxes marked **NO (!)** indicate SLT-led endoscopy **SHOULD NOT PROCEED** at the present time:* *Delay - If the identified risk can be mitigated* *Avoid - If the identified risk cannot be mitigated*	**YES**	**NO**
● Is this urgent and essential?		!
● Is the COVID-19 status of patient confirmed?		!
● Is documentation of an MDT decision for SLT-led endoscopy completed?		!
● Have all usual contraindications to SLT-led endoscopy been excluded?		!
● Have ***ALL*** the below risk factors been ***EXCLUDED***? ○ Patient agitation ○ Likely to be a difficult scope insertion ○ Patient is haemodynamically unstable ○ Patient desaturates on suctioning or other procedures ○ Patient unable to tolerate removal of oxygen for scope insertion		!
● Have other risk factors been considered? *(e.g. patient is on anticoagulants with bleeding risks, showing signs of fatigue or requires ventilation)*		!
● Is appropriate PPE available?		!
● Are decontamination procedures in place?		!
● Is appropriate vital signs monitoring in place and is the patient stable?		!
● Is an appropriate endoscopist identified to perform the procedure? *(i.e. RCSLT Level 3 endoscopist, ENT registrar/consultant or appropriately trained and experienced intensivist/respiratory consultant)*		!
● Are the endoscopist, assessor and other MDT staff aware of their procedural roles? *(Minimum staff present to reduce exposure)*		!
● Are all required procedural equipment and consumables available?		!
● Is video monitoring and recording available?		!

DURING THE PROCEDURE *Boxes marked **NO (!)** indicate SLT-led endoscopy **SHOULD BE TERMINATED IMMEDIATELY*** Boxes marked **NO** indicate SLT-led endoscopy ***SHOULD BE PAUSED IMMEDIATELY:*** *Recommence - If the identified risk can be mitigated in a timely manner* *Terminate - If the identified risk cannot be mitigated in a timely manner*	**YES**	**NO**
● Have patient identification and consent processes been completed?		
● Is equipment and video monitor position optimised to the side of the patient to reduce risk of contamination?		
● Is video recording switched on?		
● Is the passage of the nasendoscope easily achieved?		
● Is the **abbreviated protocol** being followed to minimise the duration of the procedure and limit exposure risk?		**!**
● Are vital signs being monitored as appropriate?		
AFTER THE PROCEDURE *Boxes marked **NO (!)** indicate adverse events that should be documented using the local incident reporting system if indicated.*	YES	NO
● Was the nasendoscope processed immediately to minimise infection risk?		**!**
● For disposable nasendoscopes, were local disposal processes followed?		**!**
● For re-useable equipment, were decontamination processes followed as per government, manufacturer and local IPC guidelines?		**!**
● Were all staff informed of the time of the end of the procedure to mitigate risk of aerosol exposure on entering the room or area for the required time and with the appropriate level of PPE as per government and local IPC guidelines?		**!**
● Were images saved and reviewed by the MDT?		**!**
● Were findings documented and recommendations handed over to the MDT?		
● Have the patient and their family/carers received feedback?		

Adapted from the FEES Suitability and Safety Checklist (Lee Bolton, Clinical Lead SLT, Imperial College Healthcare NHS Trust)

ANNEX 2: Three steps to inform clinical decision-making

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