

Recognising, Managing & Monitoring Patients with Dysphagia



Christina Connolly, Stroke Unit Clinical Manager & Registered Dietitian, Northwick Park Hospital, London North West University Healthcare NHS Trust & **Danielle Welsh**, Clinical Lead Speech and Language Therapist, Greenwich Neurorehabilitation Team, Oxleas NHS Foundation Trust

Dysphagia describes difficulties swallowing and can be transient, persistent or deteriorating depending on the underlying pathology, which may be neurological, surgical, mechanical or psychological.¹ Dysphagia is related to poor nutrition and weight loss,² impaired quality of life,³ aspiration and respiratory infection^{4,5} and increased mortality.⁶ Recognising and appropriate monitoring of dysphagia is essential to ensure appropriate management that takes into account both safety and quality of life.

Recognising patients with dysphagia

A dysphagia assessment is usually carried out by a speech and language therapist (SLT) following a referral from another healthcare professional or following a failed screening test. **Figure 1** outlines common symptoms of oropharyngeal dysphagia that may trigger a referral.

Figure 1: Symptoms of oropharyngeal dysphagia⁷

- Food/fluids coming out of the mouth
- Difficulty gathering the bolus at the back of the tongue/pushing bolus backwards
- Food sticking in the mouth or throat
- Food/fluids coming out of the nose
- Hesitation or inability to initiate swallow
- Multiple swallows per mouthful
- Frequent throat clearing (at rest on saliva or during/after food/fluids)
- Gurgly voice (at rest on saliva or during/after food/fluids)
- Speech changes - may sound slurred, more nasal or voice may sound hoarse
- Coughing before, during or after swallowing
- Choking episodes
- Weight loss
- Recurrent pneumonia

An initial dysphagia assessment, often referred to as a 'bedside' assessment, usually includes a comprehensive case history, cranial nerve examination and observation of oral intake.⁸ In some settings cough reflex testing (used to assess for the risk of silent aspiration), pulse oximetry (observing oxygen saturation during swallow) or cervical auscultation (using a stethoscope to listen to the swallow) may also be used. However, evidence for some of these tools and for bedside assessment in general is limited.⁹ One study showed as much as 70% of profound aspirators identified on videofluoroscopy, not identified during bedside assessment.¹⁰ Instrumental assessments such as videofluoroscopic swallow study (VFSS) or fiberoptic endoscopic evaluation of swallow (FEES) are more reliable and, although require clinical skill and can be costly, are necessary for planning suitable rehabilitation programmes for patients.

A dietetic assessment should involve assessing the current nutritional status of the patient, as well as considering the future barriers to meeting nutritional requirements. Research has shown the prevalence of malnutrition in patients with dysphagia could be as high as 49%,¹¹ and Rowat *et al.* found that 56% of dysphagic stroke patients suffered dehydration during their hospital admission.¹² Malnutrition screening is therefore essential in this population of patients. In the acute setting, nutrition screening is mandated for all patients admitted into hospital,¹³ however the role of malnutrition screening in the community is less well established and inconsistently used, especially in teams that do not have access to a dietitian.

Managing patients with dysphagia

Management of dysphagia should take into consideration the cause, prognosis, medical and cognitive status of the individual and, most importantly, the individual's wishes. The primary goal is often to identify a safe and comfortable way to maintain nutrition and hydration orally.

There are 3 approaches that can be used to nutritionally manage patients with dysphagia:

- Oral feeding – with or without acknowledged risk
- Enteral feeding – short-term nasogastric tube or longer term gastrostomies
- Combination of oral and enteral feeding.

The approach taken will initially be dictated by the immediate issue at hand – for example, if the patient is nil by mouth (NBM). The National Clinical Guidelines for Stroke recommend that enteral feeding is considered in the first 24 hours of being NBM.¹⁴ However, it is important to consider the ethical implications of initiating enteral feeding, due to the challenges it can pose for withdrawal if the patient's condition does not improve. An MDT discussion with the patient and their caregiver is important to ensure that any intervention is in the patient's best interest, and it is also an opportunity to outline expectations or outcomes that can be reviewed at an agreed later date.

Dysphagia rehabilitation

This should be considered for all patients who can actively engage in rehabilitation and where improvement or restoration of swallow function is the goal. A personalised rehabilitation programme is usually developed following VFSS, where strength and/or skill-based exercises are prescribed targeting areas of weakness or discoordination.

Biofeedback

Biofeedback using surface electromyography (which provides visual feedback of muscle activity), FEES (which provides a 3D endoscopic view of swallow) and/or manometry (which provides information about pharyngeal pressures) can be helpful to support rehabilitation.¹⁵

Compensatory strategies

Where rehabilitation is deemed inappropriate or ineffective, compensatory strategies (either via texture modification or altering patient behaviour) should be identified. Evidence suggests that dependency for feeding is adversely related to aspiration pneumonia,¹⁶ therefore strategies aiming to promote independence are key.

These may include:

- **Postures and manoeuvres** – Postures such as a chin tuck, head turn or head tilt can direct the bolus away from weakness and/or prevent/reduce residue collection. Manoeuvres such as a supra-glottic swallow aim to reduce the risk of aspiration – during this manoeuvre the patient is instructed to hold their breath before and during the swallow, then cough before swallowing again
- **Positioning** – An MDT approach to ensure optimal body and head positioning for oral intake whether in a regular chair, adapted chair, wheelchair or bed
- **Environment adaptations** – Reducing distractions such as the TV, radio or conversation; considering if it is helpful to seat the patient in a dining room surrounded by the sights and smells of food and routine of mealtimes
- **Feeding behaviours** – Ensuring suitable size and rate of bolus delivery, increasing patient awareness (if dependent on others for feeding) by describing the food and action, e.g. “Next we have some peas.”
- **Equipment** – An MDT approach to trialling specialist cutlery, cups or straws to modify bolus size and flow rate and to support independent feeding.

Texture modification

Food texture is often modified according to a patient's oral motor control and impact of fatigue.^{17, 18} Research has shown that patients on a texture-modified diet have a reduced oral intake¹⁹ and thus a higher risk of malnutrition.¹¹ Thickened fluids are thought to increase sensory awareness and delay oral and pharyngeal transit time allowing an individual more time to coordinate a safe swallow.²⁰⁻²² However, there is limited evidence that thickened fluids reduce the incidence of pneumonia,^{20, 23} they are frequently associated with poor patient satisfaction and compliance^{24, 25} and can lead to dehydration.^{26, 27} **Table 1** outlines common causes of malnutrition and dehydration and possible solutions. Modified diets and thickened fluids should only be used when other management approaches have failed and at the least restrictive level.^{20, 27}

Water protocol

This permits and encourages unrestricted oral intake of plain, unthickened water for appropriate dysphagic patients with evidence suggesting improved hydration and quality of life without an increased risk of aspiration.²⁸⁻³⁰

Table 1: Common causes of malnutrition & possible solutions

Common causes	Possible solutions
Reduced nutritional content of texture-modified foods ^{31, 32}	• Use nourishing fluids, such as milk or cream, rather than stock or water, to modify the texture of foods • Ensuring meals have a balance of the macro and micronutrients • Commercially available texture modified meals can be helpful • Food fortification
Palatability ^{32, 33} & taste fatigue ³⁴	• Explore the patients likes and dislikes and possible taste changes • Use strong flavours • Use food moulds to make food visually appealing³⁵ • Avoid mixing foods/flavours together • Regular menu review and rotation • Trial different thickeners – starch based vs. gum-based • Water protocol
Reduced appetite ¹⁹	• Food fortification • Eating little and often • Explore possible taste changes • Oral nutritional supplements – checking thickness suitability or use pre-thickened supplements
Dependency in feeding ³⁶	• Adaptive utensils, cups and straws and other assistive devices to support independence • Working alongside OT and PT to establish feeding position and upper limit movement and dexterity
Sore or dry mouth ³⁷	• Regular mouth care • Artificial saliva • Referral to dentist/hygienist or GP if concerns re. oral thrush

Enteral feeding

If it is felt long-term enteral feeding is appropriate, the MDT should consider the likely prognosis and progression of swallow function as this may influence the type of enteral feeding route/tube that is used. If a patient is likely to be able to meet their nutritional requirements orally in the next few months, a balloon gastrostomy could be considered, as opposed to an endoscopically inserted gastrostomy, as this would allow for the removal of the tube in the community, removing the need for the patient to attend hospital for a procedure.

Transferring between settings

It is vital that when a patient is transferred between settings an adequately detailed handover of the patient's swallowing recommendations and nutritional plan are provided.³⁸ The patient and caregivers should be provided with contact details of the managing team and local community team for any follow-up questions or in case further input is required.

Monitoring patients with dysphagia

Dysphagia can have a significant impact on a patient's quality of life.^{39, 40} Eating has social, cultural and psychological significance for people.^{39, 40} Additionally, managing dysphagia can be burdensome for patients and their caregivers.³⁹ The severity of dysphagia is significantly correlated with poorer quality of life scores, particularly with regards to burden, mental health and social functioning.³⁹ Understanding patient preferences and routines can be helpful in setting appropriate goals and in creating a feeding plan that works for the patient. Regular monitoring of swallow function should be carried out, taking into account the impact of dysphagia on nutrition, hydration, safety and quality of life.

It is important to equip individuals and relevant caregivers with symptoms to monitor for, as outlined in **Figure 1**, so they can be empowered to seek out re-referrals as appropriate. Reassessment of swallow function should be considered when there is observed deterioration, observed improvement or to assess the impact of ongoing rehabilitation. It may also be considered if there are management decisions that need to be made, where an up-to-date assessment is required to support this.

If there is a risk of, or known silent aspiration, instrumental assessment is necessary. In other cases, reassessment at bedside may be suitable, taking into account reliability of this method. The SLT may also use a number of tools to monitor for swallow changes, such as:

- A swallow symptom diary, which enables the individual to document the frequency of their dysphagia symptoms as well as establishing any patterns/trigger foods
- Quality of life measures, such as the SWAL-QOL41
- Other self-rating scales.

The inconsistent swallow

It is important to consider factors that may impact swallow function on a day-to-day basis, for example, fatigue, ill health and medication effects. When there is inconsistency with swallow function, the SLT and dietitian will need to work with the patient to ensure their oral intake is safe and meets their nutritional requirements. This may involve discussions around self-monitoring and adapting oral intake accordingly – for example, if they are particularly fatigued, opting for a more modified diet, or supplementing orally or enterally depending on their circumstance.

The deteriorating swallow

In progressive conditions, such as Parkinson's or motor neurone disease, the patient and relevant caregivers will need

to understand the likely impact the disease will have on their swallow function and nutrition as it progresses. The SLT and dietitian should work together with the MDT to provide education. MDT discussions should happen early to enable patients and caregivers time to consider their wishes, particularly around enteral feeding and the treatment of chest infections.

The improving swallow

If a patient is enterally fed, the weaning process may be short and therefore completed during the acute admission; or it may be a longer process that occurs in the community. An MDT approach is essential and ongoing monitoring of swallow function and nutritional status to ensure stability is required. It is important to understand the challenges that patients may face in meeting their nutritional requirements orally (see **Table 1**) and to discuss any adjustments to the enteral feeding regimen with the patient and their caregivers before changes are made to avoid any adverse effects.⁴²

Conclusion

Dysphagia, as well as some of its management approaches, can have a significant impact on a patient's quality of life^{39, 40} and nutritional status.¹¹ Appropriate management should take this into account, placing the patient at the centre and working alongside relevant members of the MDT to ensure that the management plan is least restrictive on the patient. Effective, open communication with patients and their caregivers,⁴⁰ and between care settings, is key to ensuring dysphagia is managed effectively and safely. Patients and caregivers must be provided with the knowledge and skills to monitor their dysphagia after discharge from SLT to empower them to seek re-referral when appropriate.

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