

The role of the multidisciplinary team in laryngology and airway – the Charing Cross experience

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As the National Centre for Airway Reconstruction, the Charing Cross laryngology MDT provides expert care to patients with airway problems as well as voice and swallowing disorders. In this article, the team explain their *raison d'être* and why the MDT approach is so good for patients.

The multidisciplinary team (MDT) approach in the UK began in the late 1990s in response to the Calman-Hine report which made recommendations regarding cancer services in England and Wales [1]. The report was commissioned in response to the UK's poor oncologic outcomes when compared to other European countries. The crux of this report emphasised teamwork and multidisciplinary discussion of patient management. The goal of the MDT was to engage specialists of different areas with the knowledge, skills and experience to formulate an individualised management plan but with consistent principles of practice. This aimed to reduce inconsistencies in treatment and improve communication and coordination of care whilst optimising outcomes. There are many examples whereby cancer patients treated within the framework of MDT have better survival outcomes [2,3]. Although developed in the context of cancer, the value of the MDT in all areas of modern medicine is ever-present, where evidence-based medicine dictates a higher standard of care, one that patients both deserve and have come to expect.

Laryngology as a subspeciality of ENT is unique in that it covers multiple vital functions that contribute to quality of life. The biopsychosocial burden of voice, breathing and swallowing difficulties is large but often patients suffer in silence. Treatment of these anatomically critical sites can bestow a further burden on function, commonly requiring patients to choose between airway, voice and swallowing, to the detriment of the other two functions. Decisions regarding treatment of these patients can have permanent quality of life consequences. For this reason, our laryngology unit has implemented a head



The Charing Cross laryngology MDT.

and neck cancer model of care with a weekly MDT meeting. This helps confirm the diagnosis, plan management and ultimately prevent complications. For some, it is also an opportunity to identify those needing 'prehabilitation' in the lead up to surgery.

Our department is primarily an airway reconstruction unit, however, the typical caseload coming through our MDT is relatively evenly divided between patients with voice, swallowing and airway difficulties. The MDT approach begins at a weekly ward round, where surgeons, speech and language therapists (SLT) and airway clinical nurse specialists (CNS) review current inpatients together. The MDT ensures that the patient is cared for in a holistic manner. Each member of our MDT has their own unique role and strengths, complementing one another. In the formal MDT meeting, cases are presented by the most appropriate team member, rather than the most junior doctor in the room, as is often the case at oncology MDT meetings. Akin to oncology MDTs reviewing CT, PET and MRI scans, our MDT reviews videofluoroscopic swallowing studies (VFSS), Fiberoptic Endoscopic Evaluation of Swallowing (FEES) assessments and clinical images from clinic and theatre. In oncology,

single-modality treatment is often the goal and a method of reducing morbidity. In laryngology multi-modal treatment is almost always required and encouraged.

As an example, voice disorders often stem from some form of glottal insufficiency. It therefore benefits the patient to have surgeons diagnose and manage these patients in conjunction with SLT. Regardless of whether the patient requires an operation or not, voice therapy is commonly required. Being able to review and discuss laryngoscopy videos allows free flow of expertise and interdisciplinary opinion, whilst also satisfying the educational needs of the junior staff in the MDT. There is evidence that the MDT approach to voice disorders results in better adherence to behavioural therapies and improved outcomes [4]. Furthermore, when patients with voice disorders cannot be seen in a timely fashion in our joint voice clinic, where surgeon and SLT attend simultaneously, the MDT meeting still permits multi-modal management with a shared goal in mind.

Dysphagia is another condition requiring MDT management. It is often poorly understood and managed, as it commonly relates to multi-level dysfunction. For this

reason, having the time to discuss cases in an MDT meeting rather than a busy clinic is imperative to generate accurate diagnoses and management plans. Oropharyngeal dysphagia itself cannot always be treated without understanding the state of the distal oesophagus and stomach. Liaison with gastroenterology and neurology colleagues for further work-up is often required. In the swallowing literature, much of the work is around dysphagia following cerebrovascular accident, although there is a growing body of work reporting functional outcomes following treatment for head and neck cancer. Nonetheless, there is evidence that those with an MDT approach are at reduced risk of pneumonia and improved swallow functionality compared to those receiving conventional care [5].

As the National Centre for Airway Reconstruction, Charing Cross Hospital receives many national and international airway disorder referrals. Patients are referred either due to the complexity of their disease or due to the diagnosis itself, for example subglottic stenosis, for which we are a high-volume centre. Centralising care of uncommon or complex conditions improves outcomes. The key to our treatment programme is our MDT approach. Where patients require major laryngotracheal surgery, such as laryngotracheal reconstruction or tracheal resection, complete preoperative workup is essential. Patients receive baseline multidimensional assessment and counselling on potential functional outcomes with the SLTs. Assessment includes clinician and patient-reported voice and swallowing measures and instrumental assessment using FEES and/or

VFSS. If significant weight loss is a concern, the SLT carries out a nutritional screen and refers the patient on for specialist nutritional support with a dietitian if required. Patients are also counselled by one of our two highly specialist airway CNSs who help them throughout their journey in relation to perioperative education and tracheostomy management. Postoperatively, surgeon, SLT and CNS work together daily to coordinate patient care. A FEES is carried out on day one post-op if the patient is medically stable, to ensure the earliest and safest possible return to oral intake. A repeat FEES is usually carried out one day following stent removal, to guide further oral intake and any swallow rehabilitation which may be required. Voice assessment and management can also occur at this stage. A dedicated MDT coordinator and a psychologist further strengthens our MDT approach.

Airway stenosis is a complex condition to treat, and we must not underestimate the burden on patients with regards to their quality of life. Partnership between clinicians and patients must underpin any service development. At Imperial College London, an NIHR-funded PhD study is evaluating the voice and swallowing concerns and outcomes of patients with airway stenosis who undergo reconstructive surgery, with the aim of developing a robust, evidence-based care pathway for patients. This will take them from their initial appointment with the airway team, through surgery and into the rehabilitative phase. A Patient Concerns Inventory (PCI-AS) will also be

created, through successful post-doctoral funding, in partnership with clinicians and people diagnosed with airway stenosis. The establishment of a bespoke set of multidimensional outcome measures, with patient-led consultations using the PCI-AS, are priorities as we move forward.

For some patients, their airway stenosis will improve, but some will require repeated surgeries to manage a lifelong condition. The role of the MDT often involves managing the expectations, rehabilitation needs and psychological needs of these patients so that they can maintain a quality of life that is acceptable to them. By optimising our MDT approach to these complex cases, we endeavour to give our patients adequate education and support at all times along their journey.

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