



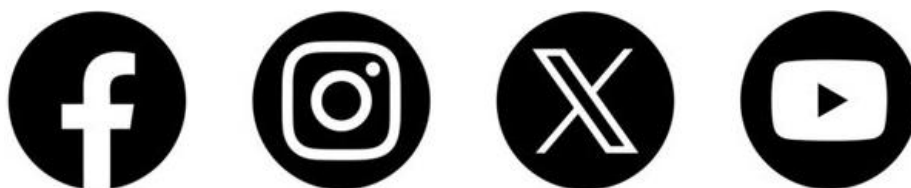
This month's top papers: July 2026

Welcome to the latest blog in the literature podcast from the NTSP. We try to bring you a quick roundup of what is hot in the world of tracheostomy and laryngectomy publications by scouring internationally recognised journals and media and bringing you the highlights.

You can sign up to our community to keep informed of our work here: <https://ntsp-ltd.myklpages.com/l/XTFSzY>

The papers we will discuss this month are detailed below, along with an automated transcript of the podcast. Please note that the transcript is generated by AI and so may not be totally accurate.

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This month's top papers

Safety of Percutaneous Dilatational Tracheostomy Under Uninterrupted Therapeutic Anticoagulation

Zapletal B, Schultz MJ, Brenner MJ, Laengle S, Tschernko EM. *Journal of Clinical Medicine*. 2026;15:4877.

Patient Perspectives on Self-Management of Voice Prostheses in Surgical Voice Restoration After Laryngectomy

Gilbody N, Holch P, Hurren A. *International Journal of Language & Communication Disorders*. 2026;61:e70276.

Assessment of morbidity and mortality in emergency tracheotomy in head-and-neck cancer patients under palliative care

Rey M, Adelou S, Pham Dang N, et al. *European Annals of Otorhinolaryngology, Head and Neck Diseases*. 2026.

Effect of speaking valves on early mobilization of patients in intensive care units following tracheostomy: a prospective randomized controlled trial

Chen Y, Lou Y, Cheng J, et al. *Brazilian Journal of Otorhinolaryngology*. 2026;92:101853.

CT Assessment of Laryngotracheal Changes After Surgical and Percutaneous Tracheostomy

Pinhas S, Bartov N, Adi M, et al. *The Laryngoscope*. 2026.

PAPER 1

Safety of Percutaneous Dilatational Tracheostomy Under Uninterrupted Therapeutic Anticoagulation

Lay Summary

Some critically ill patients need medicines that prevent their blood from clotting. This is particularly important for people receiving treatments such as ECMO or ventricular assist devices, or those with mechanical heart valves.

When these patients require a tracheostomy, doctors face a difficult decision. Continuing anticoagulation could increase bleeding during the procedure, but stopping it could increase the risk of dangerous blood clots.

This study examined 174 patients undergoing percutaneous dilatational tracheostomy in a specialist cardiovascular intensive care unit. Eighty-four patients continued therapeutic anticoagulation throughout the procedure.

There were no severe procedure-related bleeding events in either the therapeutic or lower-dose anticoagulation groups. Minor bleeding occurred at similar rates.

These results are reassuring, but the procedures were performed by experienced teams using careful patient selection, ultrasound assessment and bronchoscopic guidance. The study was also retrospective and came from a single specialist centre.

The findings therefore do not mean that anticoagulation can safely be continued in every patient. Instead, they suggest that stopping anticoagulation automatically may not always be necessary and that the risks of bleeding and thrombosis should be considered for each patient.

Summary for Healthcare Professionals

Zapletal et al. report a retrospective observational cohort of 174 patients undergoing PDT in a tertiary cardiovascular ICU between 2016 and 2024. Eighty-four patients underwent PDT during uninterrupted therapeutic anticoagulation for indications including ECMO, VADs, mechanical valves and arrhythmia; the comparator group received anticoagulation for venous thromboprophylaxis.

No severe procedure-related bleeding occurred in either group. Mild procedure-related bleeding occurred in 6/84 patients receiving therapeutic anticoagulation (7.1%) and 5/90 receiving prophylactic anticoagulation (5.6%; $p=0.67$). Post-hoc multivariable analysis identified BMI, rather than anticoagulation intensity, as the independent predictor of bleeding.

A major strength is the inclusion of a clinically challenging anticoagulated cardiovascular population, including patients receiving LMWH and argatroban. Procedural and anticoagulation management were highly standardised.

This strength is simultaneously important when considering external validity. Procedures involved experienced operators, pre-procedural ultrasound and bronchoscopic guidance, with vascular anatomy influencing patient selection. Selected patients also received peri-cannular sutures.

Limitations include the retrospective single-centre design, residual confounding, lack of a non-anticoagulated comparator and limited granularity in retrospectively classified bleeding events. DOACs and vitamin K antagonists were not represented, and the findings cannot be extrapolated directly to surgical tracheostomy.

Clinical relevance: Therapeutic anticoagulation alone may not necessarily mandate cancellation, conversion to surgical tracheostomy or interruption of anticoagulation in appropriately selected patients undergoing PDT within experienced systems.

Future research: Prospective multicentre studies using standardised bleeding definitions and incorporating different anticoagulant strategies are needed.

PAPER 2

Patient Perspectives on Self-Management of Voice Prostheses in Surgical Voice Restoration After Laryngectomy

Lay Summary

After removal of the larynx, some people regain speech using a small silicone voice prosthesis. These valves eventually need replacing, particularly when they begin to leak.

Most people in the UK rely on healthcare professionals to change their prosthesis, but some people learn to change it themselves.

This study interviewed ten people with laryngectomy: five who changed their own valves and five whose valves were changed by healthcare professionals.

Three major themes emerged: “My valve, my way”, “Unequal relationships” and “A search for normality”.

Participants described very different attitudes towards self-changing. Factors such as eyesight, dexterity, health, fear, confidence, support and personal preference all influenced whether somebody wanted to learn.

For some, self-changing provided independence and reduced the disruption caused by an unexpectedly leaking valve. However, participants were clear that self-changing was not suitable or desirable for everybody.

Some participants felt they had not been given enough information or choice about their valve management.

The study therefore supports personalised discussions in which people with laryngectomy are given information about appropriate options and can participate meaningfully in decisions about their care.

Summary for Healthcare Professionals

Gilbody et al. undertook ten semi-structured interviews with people following laryngectomy and surgical voice restoration. Five participants self-changed their prostheses and five used HCP-led

changes. Reflexive thematic analysis generated three overarching themes: “My valve, my way”, “Unequal relationships” and “A search for normality”.

The findings emphasise the heterogeneous barriers and facilitators to self-changing, including dexterity, vision, general health, previous experience, available support, readiness, fear, personality and individual preference.

Valve leakage and the requirement for sometimes unpredictable HCP-led changes were associated with disruption to daily activity and social participation. Self-changing was perceived by some participants as a mechanism for restoring control and reducing treatment burden.

Importantly, the findings do **not** support universal self-changing. Rather, they support shared decision-making and personalised assessment. Four of the five HCP-led participants reported that self-changing had not formed part of discussions about their care. Participants also expressed interest in peer-supported learning, with all ten identifying discussion with an expert person with laryngectomy as a preferred learning resource.

Strengths include the in-depth exploration of an under-researched patient perspective and inclusion of both self-changing and HCP-led experiences.

Limitations are substantial: only ten participants were included; all were white British; and online recruitment through social media, charities and support networks may preferentially recruit digitally literate and engaged individuals. The authors appropriately caution against broad generalisation.

Clinical relevance: Services should consider whether appropriate patients are routinely informed about self-changing and whether preferences are revisited as rehabilitation progresses. Shared decision-making is more appropriate than assuming either clinician-led or self-managed prosthesis changes are universally preferable.

Future research: More diverse populations are required, alongside work evaluating treatment burden, shared decision-making tools and models of peer-supported education.

PAPER 3

Assessment of morbidity and mortality in emergency tracheotomy in head-and-neck cancer patients under palliative care

Lay Summary

Advanced head and neck cancer can sometimes obstruct the airway and cause severe breathing difficulties. An emergency tracheostomy can bypass the obstruction and prevent immediate death from suffocation.

However, when somebody already has incurable cancer, the decision to perform a tracheostomy can be extremely difficult.

This study reviewed 38 patients with advanced head and neck cancer who underwent emergency tracheostomy while receiving palliative care.

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The tracheostomy successfully addressed the immediate airway emergency and there were no deaths directly caused by the operation. However, 42% of patients experienced complications, and median survival following tracheostomy was only two months.

Less than half of patients were able to return home.

The study cannot tell us whether an individual patient should or should not have an emergency tracheostomy. Instead, it demonstrates why conversations about future airway problems should ideally happen before an emergency develops.

Patients and families need opportunities to discuss what a tracheostomy may achieve, the care it may require and whether it fits with the person's priorities and wishes.

Summary for Healthcare Professionals

Rey et al. conducted a retrospective two-centre analysis of patients with head and neck cancer in a palliative phase who underwent emergency tracheotomy between 2000 and 2023.

Thirty-eight patients were identified. Ninety-five per cent had stage IV disease, approximately 40% had metastatic disease and 71% had recurrence. Tumour-related airway obstruction was the most frequent indication.

Complications occurred in 42.1%, including tracheostomy obstruction, bleeding, worsening dysphagia, pain, infection and accidental decannulation. No death was directly attributed to the tracheotomy.

Median survival following tracheotomy was two months (IQR 1–4 months); mean survival was 4.3 months. Forty-six per cent returned home. Discharge home was independently associated with longer survival, although this should not be interpreted causally because it is likely to reflect underlying patient condition and prognosis.

The study provides rare outcome data for a clinically and ethically difficult population. However, the sample is small, retrospective and drawn from two centres in one city across a 23-year period. A meaningful untreated control group was not feasible.

Perhaps most importantly, survival alone cannot quantify quality of life or determine whether tracheostomy aligned with individual patient goals.

Clinical relevance: Where malignant airway obstruction is foreseeable, anticipatory MDT discussion involving oncology, ENT, palliative care, patients and families may reduce the need to make complex value-based decisions during an airway emergency.

Future research: Patient-reported outcomes, quality of life, place of care or death, communication outcomes and prospective evaluation of advance-care planning are particularly important.

PAPER 4

Effect of speaking valves on early mobilization of patients in intensive care units following tracheostomy

Lay Summary

Speaking valves allow a person with a tracheostomy to breathe in through the tracheostomy tube while redirecting exhaled air through the throat and mouth.

They are commonly associated with restoring speech, but they may have other effects on recovery.

This randomised study included 90 ICU patients with tracheostomies. All received a rehabilitation programme, while 47 also used a speaking valve.

After 21 days, patients using speaking valves had better mobility scores than the control group. Improvements were also reported in swallowing and quality-of-life measures.

These findings suggest that speaking valves may have a role within wider rehabilitation rather than being considered solely as communication devices.

However, the study was conducted in a single centre, involved a relatively small number of patients and followed them for only 21 days. Speaking valves also require appropriate assessment and are not suitable for every patient.

Larger studies are required to determine whether these short-term improvements translate into faster decannulation, shorter hospital stays or better long-term recovery.

Summary for Healthcare Professionals

Chen et al. conducted a prospective randomised controlled trial involving 90 ICU patients following tracheostomy. Participants received conventional rehabilitation, with 47 additionally receiving speaking-valve intervention and 43 acting as controls.

The primary mobility outcome was measured using CPAx. Baseline scores did not differ significantly. Median CPAx scores were significantly higher in the speaking-valve group at day 7, day 14 and day 21, reaching 28 versus 22 at day 21.

At 21 days, the intervention group also demonstrated higher EQ-VAS and EQ-5D scores and better swallowing grades.

The randomised prospective design is an important strength and the study broadens consideration of speaking valves beyond communication alone.

However, interpretation requires caution. This was a single-centre trial with 90 participants and only 21 days of follow-up. Speaking-valve management required additional staff time and nursing input. The study therefore does not establish long-term functional benefit or health-economic effectiveness.

The mechanism also remains uncertain. Restoration of expiratory upper-airway airflow, improved cough, swallowing physiology and enhanced communication could potentially contribute to rehabilitation, but this study does not establish their relative contributions.

Clinical relevance: For appropriately assessed patients, speaking-valve use may reasonably be considered within multidisciplinary rehabilitation rather than solely as a communication intervention. Patient selection, cuff deflation, airway patency and tolerance remain fundamental.

Future research: Larger multicentre trials should examine ventilation duration, ICU and hospital length of stay, decannulation, longer-term physical function, swallowing, communication, patient experience and resource use.

PAPER 5

CT Assessment of Laryngotracheal Changes After Surgical and Percutaneous Tracheostomy

Lay Summary

A tracheostomy creates an opening into the windpipe, but we do not completely understand how the airway changes around that opening over time.

This study examined CT scans from 82 chronically ventilated patients who had undergone either surgical or percutaneous tracheostomy.

The researchers found substantial narrowing around the upper airway and the area immediately above the tracheostomy. Cartilage abnormalities were also common.

One particularly interesting finding involved the position of the tracheostomy. None of the 14 patients whose stoma was positioned at the level of the cricoid cartilage were successfully decannulated.

This does not prove that high placement caused decannulation failure, particularly because the study involved a selected group of chronically ventilated patients. However, it reinforces the importance of accurate tracheostomy positioning.

The findings also suggest that structural airway problems should be considered when a patient unexpectedly or repeatedly fails decannulation. CT or airway endoscopy may be useful in selected cases, although this study does not support routine CT scanning of every patient before decannulation.

Summary for Healthcare Professionals

Pinhas et al. performed a retrospective CT-based cohort study of 82 chronically ventilated patients: 23 following surgical open tracheostomy and 59 following PDT.

CT was performed at least four weeks after tracheostomy. Standardised measurements assessed lumen area, tracheal wall thickness, cartilage injury and stoma position.

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In patients with paired imaging, cricoid lumen area decreased by 37% following tracheostomy, while suprastomal lumen area was 53% smaller than the pre-tracheostomy subglottic measurement. Distal tracheal lumen area did not significantly change. Tracheal wall thickness increased from 1.93 to 2.89 mm.

Cartilage fractures associated with airway narrowing were identified in 63.4% of the cohort.

Twenty-two per cent of stomas were positioned at the cricoid level or above. None of the 14 patients with cricoid-level stoma placement were successfully decannulated, compared with 20 of 68 patients without cricoid-level placement. Suprastomal fibrotic or cartilaginous block was also more frequent among non-decannulated patients. No significant differences in structural outcomes were identified between surgical and percutaneous tracheostomy.

Strengths include systematic CT characterisation and assessment of clinically relevant decannulation outcomes. Important limitations include the retrospective design, selection of chronically ventilated patients undergoing clinically indicated CT, unequal SOT/PDT groups, variable procedural expertise, absence of information about ultrasound or bronchoscopic guidance at insertion and lack of systematic bronchoscopic validation. The long and variable interval between tracheostomy and imaging also makes it difficult to distinguish initial procedural injury from the effects of prolonged cannulation.

Clinical relevance: The findings reinforce avoidance of high/cricoid-level tracheostomy placement. In patients with otherwise unexplained failed decannulation, targeted anatomical investigation should be considered rather than assuming failure is solely related to respiratory or neurological function.

Future research: Prospective studies combining procedural data, CT and endoscopic assessment are needed to establish causality and determine whether imaging-guided interventions improve decannulation outcomes.

OVERALL CLINICAL THEMES — JULY 2026

Taken together, these five papers illustrate the breadth of modern tracheostomy and laryngectomy care.

Procedural safety cannot be reduced to a single variable such as anticoagulation. Patient selection, anatomy, operator experience and systems of care matter.

Successful rehabilitation cannot be reduced to liberation from the ventilator. Communication, swallowing, mobility and psychological recovery interact.

Laryngectomy self-management cannot be reduced to whether a patient technically *can* change a valve. The relevant question is whether they understand their choices and what best fits their circumstances and priorities.

Decannulation failure cannot always be understood through respiratory physiology alone. Structural airway changes may matter.

And finally, successful emergency airway management is not automatically synonymous with a successful patient outcome. In advanced disease, the patient's goals, likely prognosis, communication, function, place of care and treatment burden are fundamental parts of the decision.

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Across all five papers, the recurring message is familiar but important:

Good tracheostomy care is multidisciplinary, individualised and centred on outcomes that matter to the patient.