

# PATIENTS WITH SEVERE ACQUIRED BRAIN INJURY AND A CUFFED TRACHEOSTOMY TUBE

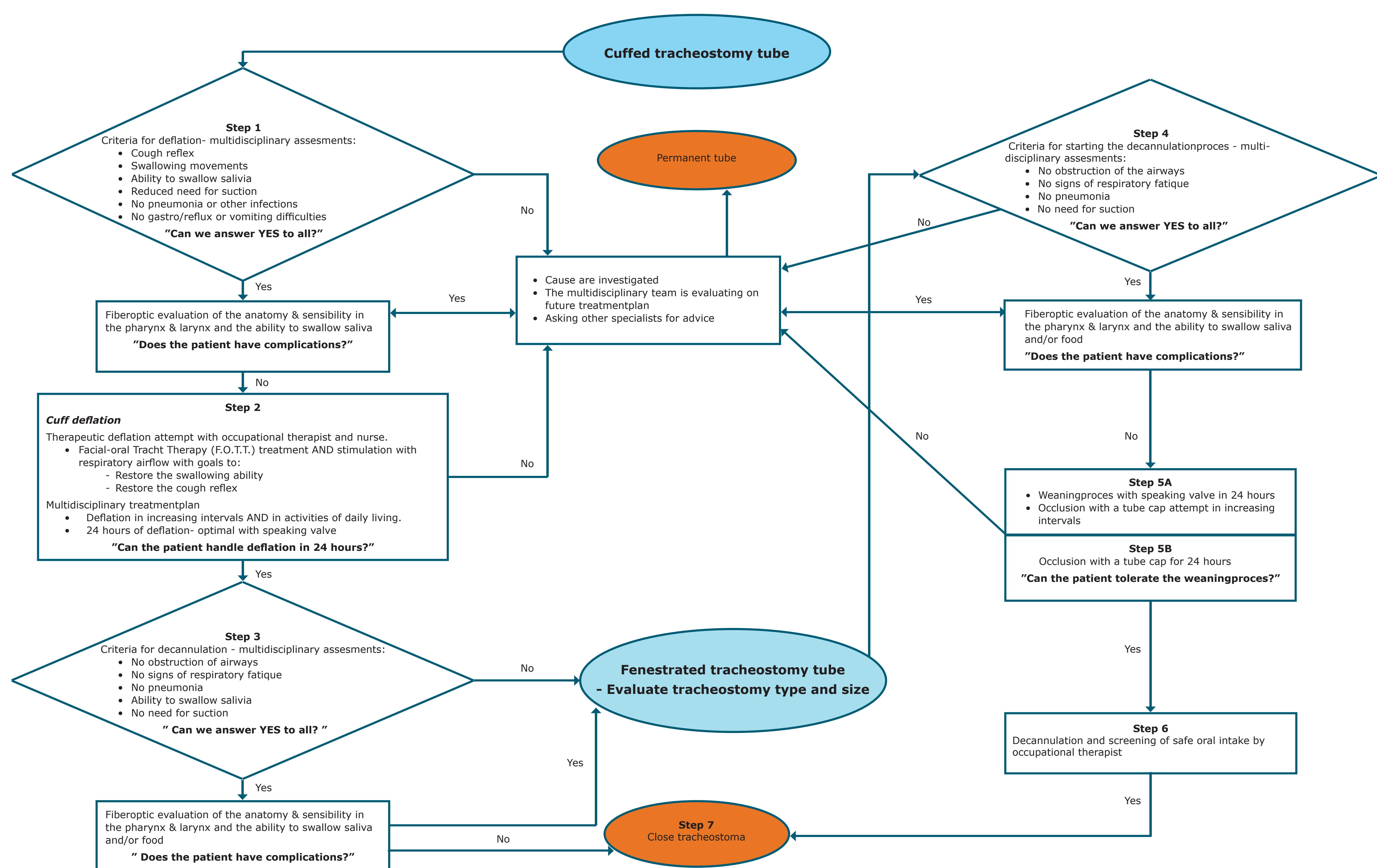
## - A MULTIDISCIPLINARY APPROACH TO DECANNULATION MANAGEMENT

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### INTRODUCTION

The main indication for tracheostomy and application of a cuffed tracheostomy tube is respiratory dysfunction or severe dysphagia with high incidence of saliva aspiration (1). The treatment of those patients is important in neurorehabilitation and safe removal of the cuffed tracheostomy tube is an important treatment goal.

Decannulation management is a complex and multidisciplinary process, which considers various aspects from cognitive to critical issues such as protecting the respiratory tract. Every weaning from tracheostomy is customized to the individual patient, but follows a standardized decannulation protocol based on the Facial-Oral Tract Therapy approach (2,3).



### STEP 2 – CUFF DEFLATION

A main component of decannulation management is the process of cuff deflation and stimulation of swallowing and coughing with the help of increased respiratory airflow through the larynx and upper airway while the cuff is deflated. The treatment goal is a longer expiratory phase and the patient's ability to coordinate breathing and spontaneous swallowing of saliva.

An occupational therapist and a nurse performs the first evaluation of the cuff deflation attempt and the patient's prerequisites for safe and effective swallowing of saliva. When the patient is able to swallow saliva without facilitation the multidisciplinary team prepare a treatment plan with deflation in increasing intervals and in other activities during the day. When the patient can tolerate deflation for 24 hours - with a speaking valve - he will get a fenestrated tube and continue the decannulation protocol.

### CONCLUSION

The main focus of the multidisciplinary team (doctor, occupational therapist, physiotherapist, nurse, speech- and language therapist) is a fast and safe weaning from the cuffed tracheostomy tube and decannulation.

The main treatment goal is to ensure safe and effective swallowing of saliva as the prerequisite for initiation of oral intake and independence of the patient with severe, acquired brain injury.

#### References

- 1) Dikeman KJ, Kazandjian MS: Communication and swallowing management of tracheostomized and ventilator-dependent adults. San Diego, CA: Singular Publishing Group, 1995.
- 2) Frank U, Mäder M, Sticher H: Dysphagic Patients with Tracheostomies: A Multidisciplinary Approach to Treatment and Decannulation Management. Dysphagia 22:20-29 (2007).
- 3) Sticher H, Gratz C: Trachealkanülen-Management in der F.O.T.T.: der Weg zurück zur Physiologie. IN: "Die Therapie des Facio-Oralen Trakts" edited by Nusser-Müller-Busch R. Springer-Verlag Berlin, 2015. 4th edition.

