

# PULMONOLOGY





## LETTER TO THE EDITOR

## Tracheostomy at skilled nursing facilities

Sir,

We read the article by Pereira et al. on tracheostomy prevalence in skilled nursing facilities (SNFs) with great interest.<sup>1</sup> The authors provided us with useful information about the situation of tracheostomized patients admitted to SNFs, showed the relative omissions and insufficiencies of these facilities in performing decannulation safely and effectively and concluded that a coordinated multidisciplinary team is required to favorably perform the weaning process of the considerable size of population of tracheostomized patients admitted to SNFs.

The authors' conclusions reflect our own experience. As a medical director of a SNF in Greece, I am aware of this major deficit in numerous nursing facilities to provide proper tracheostomy care for these patients, not to mention decannulation. This is probably due to several reasons such as inadequate staff to patient ratio, poor training programs and inappropriate nursing facility management. When the above reasons do not exist and a multidisciplinary team handles the tracheostomized patients with care, there is great potential for progress to be made.<sup>2</sup> We report a case of a successfully performed decannulation in a COPD patient admitted to a SNF after a prolonged treatment in an ICU due to acute respiratory failure from mycoplasma pneumoniae infection. He was a kyphosis-scoliotic asthenic tracheostomized man with a suitable level of consciousness, presented with dyspnea, tachypnoea, tachycardia and oxygen saturation of 94% under a FiO2 of 40%.

The physiotherapy planning program included maintaining and improving physical activity, reducing breathlessness and the work of breathing, aid with expectoration and clearance of secretions, walking assistance with a walker and improvement of functional abilities. Evaluation of swallowing function by a speech therapist revealed the presence of effective voluntary cough and a strong coughing reflex but high volume of yellowish orotracheal discharge and wet phonation. Clinical swallowing assessment using 10 ml of water and few drops of methylene blue performed twice on the same day, revealed ability to swallow fluids (no traces of dye appeared in the subsequent bronchoaspiration), but inability to swallow semisolid foods (cream), though immediate aspiration, after administration of semisolid food with methylene blue was provided, revealed colorant material and oxygen desaturation. Needless to say assessment of the ability to swallow solid food was not performed. Therefore, decannulation was postponed and oral intake was considered improbable. In order to restore the swallowing mechanism and prevent other complications caused by nasogastric tube insertion, a surgical gastrostomy was performed a few days later. Three weeks later, following a strict physiotherapy training program, muscle strengthening and high calorie intake according to the dietitian's guidance, the patient gained weight and physical strength. The patient could be fed orally and all the above mentioned swallowing tests were performed without signs of broncho-aspiration. The fiberoptic endoscopic evaluation of swallowing performed by an otolaryngologist revealed no major abnormalities regarding swallowing function, thus attempt at decannulation was decided according to the criteria by Ceriana et al.<sup>3</sup> The method of immediate tube removal-instead of tracheostomy downsizing - was chosen and sterile gauze covered the opening in the neck. His condition progressed gradually, the gastric tube was removed and the patient followed his rehabilitation program until discharge five months after admission to the SNF. During his stay, his psychological state was reinforced by family members as well as by a professional psychologist.

This case highlights the importance and necessity of a coordinated multidisciplinary team dedicated to the care of tracheostomy patients, which can favorably influence the weaning process in acute-care hospitals, rehabilitation centers and last but not least in SNFs.

### **Conflicts of interest**

The authors have no conflicts of interest to declare.

#### References

- 1. Pereira F, Silva AM, Vaz IM, Viamonte S, Winck JC. Tracheostomy prevalence at skilled nursing facilities. Pulmonology. 2019, http://dx.doi.org/10.1016/j.pulmoe.2019.05.011.
- Bonvento B, Wallace S, Lynch J, Coe B, McGrath BA. Role of the multidisciplinary team in the care of the tracheostomy patient. J Multidiscip Healthc. 2017;10:391–8.

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- **3.** Ceriana P, Carlucci A, Navalesi P, Rampulla C, Delmastro M, Piaggi G, et al. Weaning from tracheostomy in long-term mechanically ventilated patients: feasibility of a decisional flowchart and clinical outcome. Intensive Care Med. 2003;29:845–8.
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