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**Title**

Early Tracheostomy Management Varies Across Specialties

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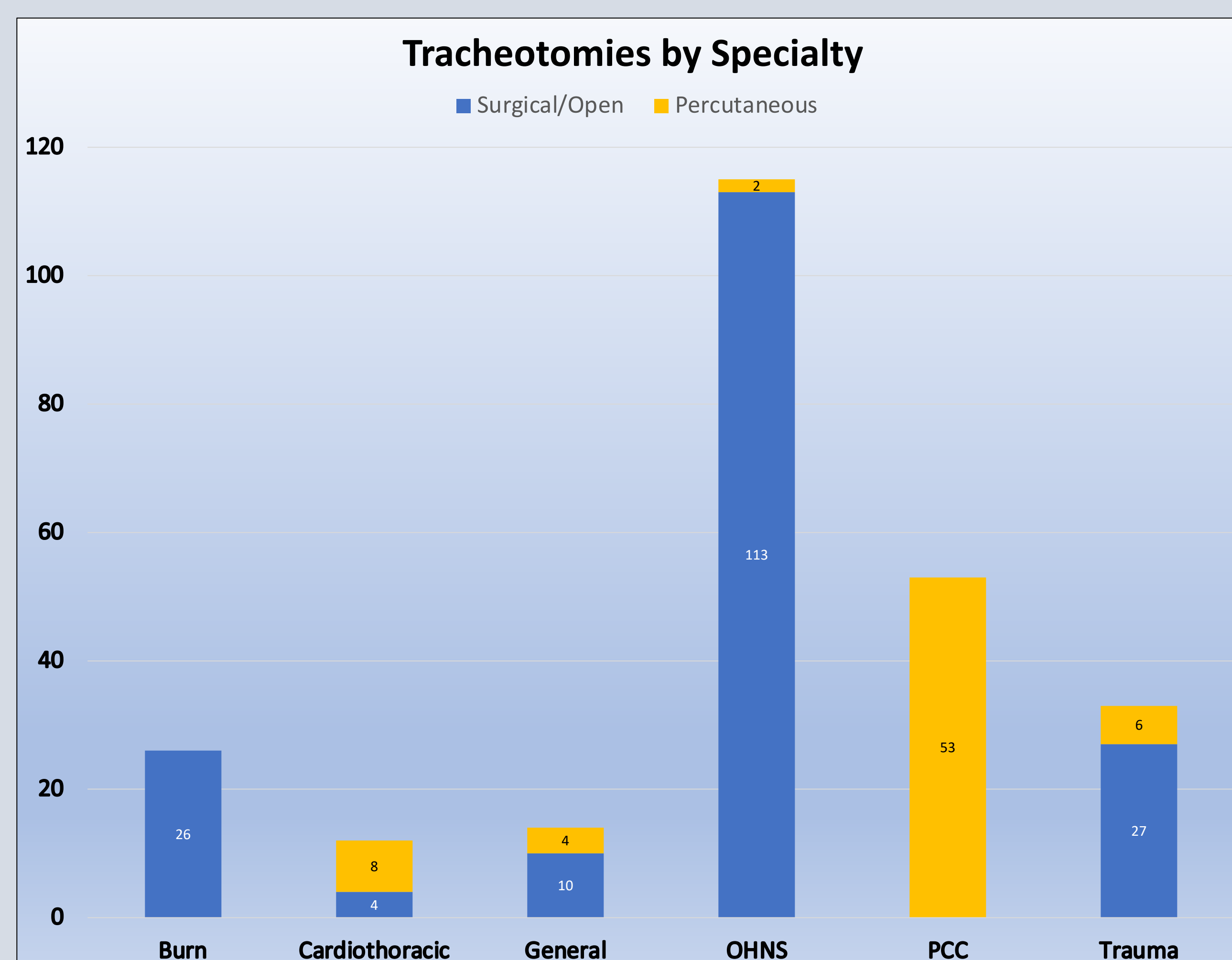
# Early Tracheostomy Management Varies Across Specialties

There are marked differences in post-procedural care among specialties performing tracheotomy, namely documentation of and days to first tracheostomy tube change.

**Table 1. Clinical Characteristics of Patients Undergoing Tracheotomy**

Variable; n (%)	n = 253
Patient age in years, mean (SD)	55.5 (17.4)
Male sex	166 (66)
Race or ethnicity	
White	138 (54.5)
Hispanic	46 (18.2)
Black	32 (12.6)
Asian/Pacific Islander	15 (5.9)
Other	9 (3.6)
Unknown	12 (4.7)
Open surgical tracheotomy	180 (71.4)
Days intubated prior to tracheotomy, mean (SD)	10.1 (11.7)
Performed by OHNS	115 (45.5)
Performed by PCC	53 (20.9)
Performed by Trauma	33 (13)
Days to first trach tube change, mean (SD)	10.6 (10.5)

OHNS = Otolaryngology Head & Neck Surgery; PCC = Pulmonary Critical Care; Trauma = Trauma Surgery.



**Figure 1** Total tracheotomies (surgical/open and/or percutaneous) performed, by specialty. OHNS = Otolaryngology Head & Neck Surgery; PCC = Pulmonary Critical Care.

**BACKGROUND:** Tracheotomy is a common procedure which is uniquely performed by numerous specialties to manage the airway both acutely and chronically. There is limited consensus regarding tracheotomy procedure and tracheostomy tube management. The American Academy of Otolaryngology – Head & Neck Surgery has proposed best practices based on available evidence and expert consensus<sup>1</sup>.

**OBJECTIVE:** To identify discrepancies across different specialties in their early management of tracheotomies.

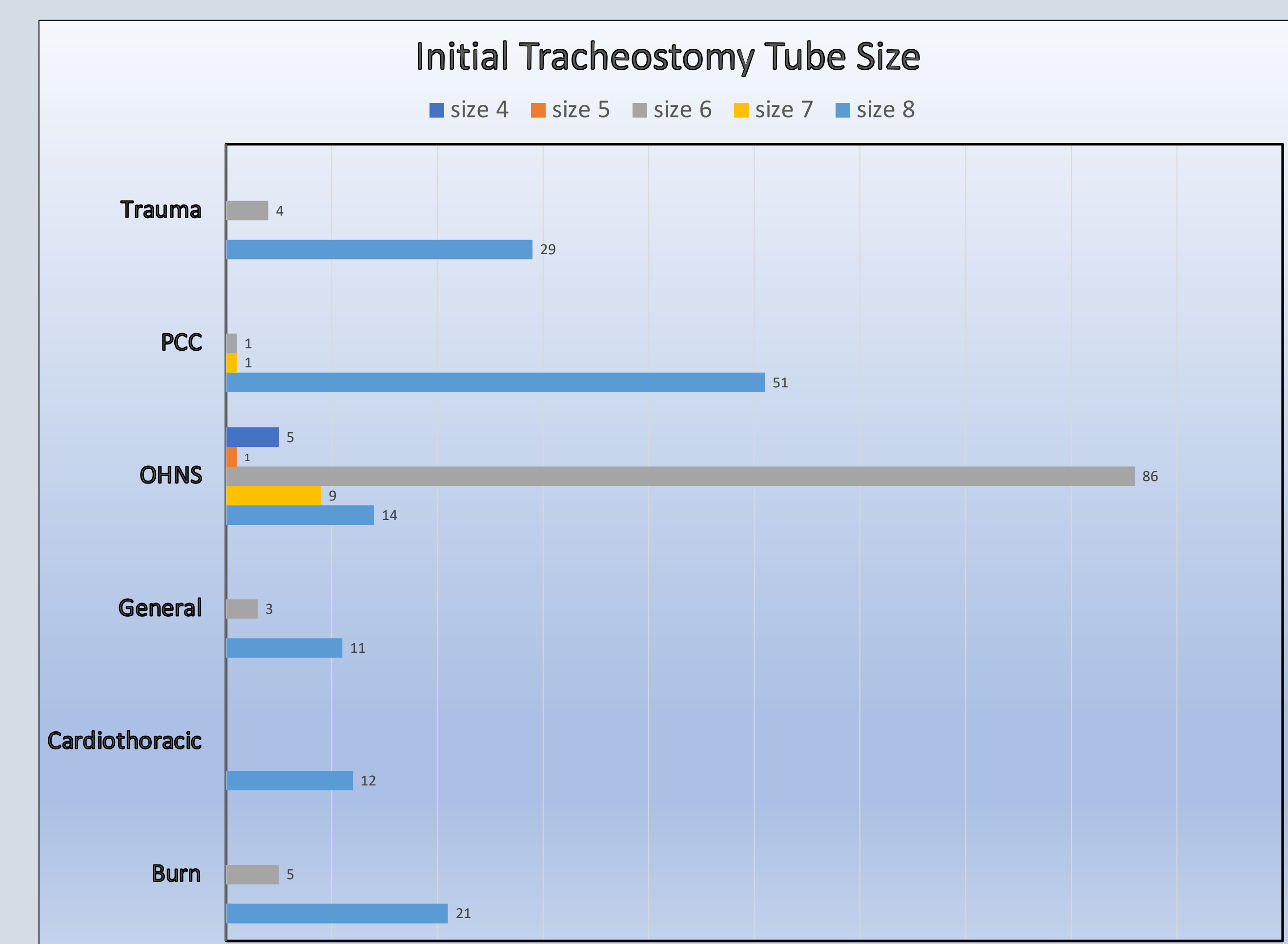
**METHODS:**

- ❖ Inpatients (>17 years) undergoing tracheotomy between January 2017 and December 2019 were included
- ❖ Records were queried for demographics, tracheotomy procedure details and initial tracheostomy tube change
- ❖ Data were analyzed via descriptive statistics and the Kruskal-Wallis test to compare practices across service lines

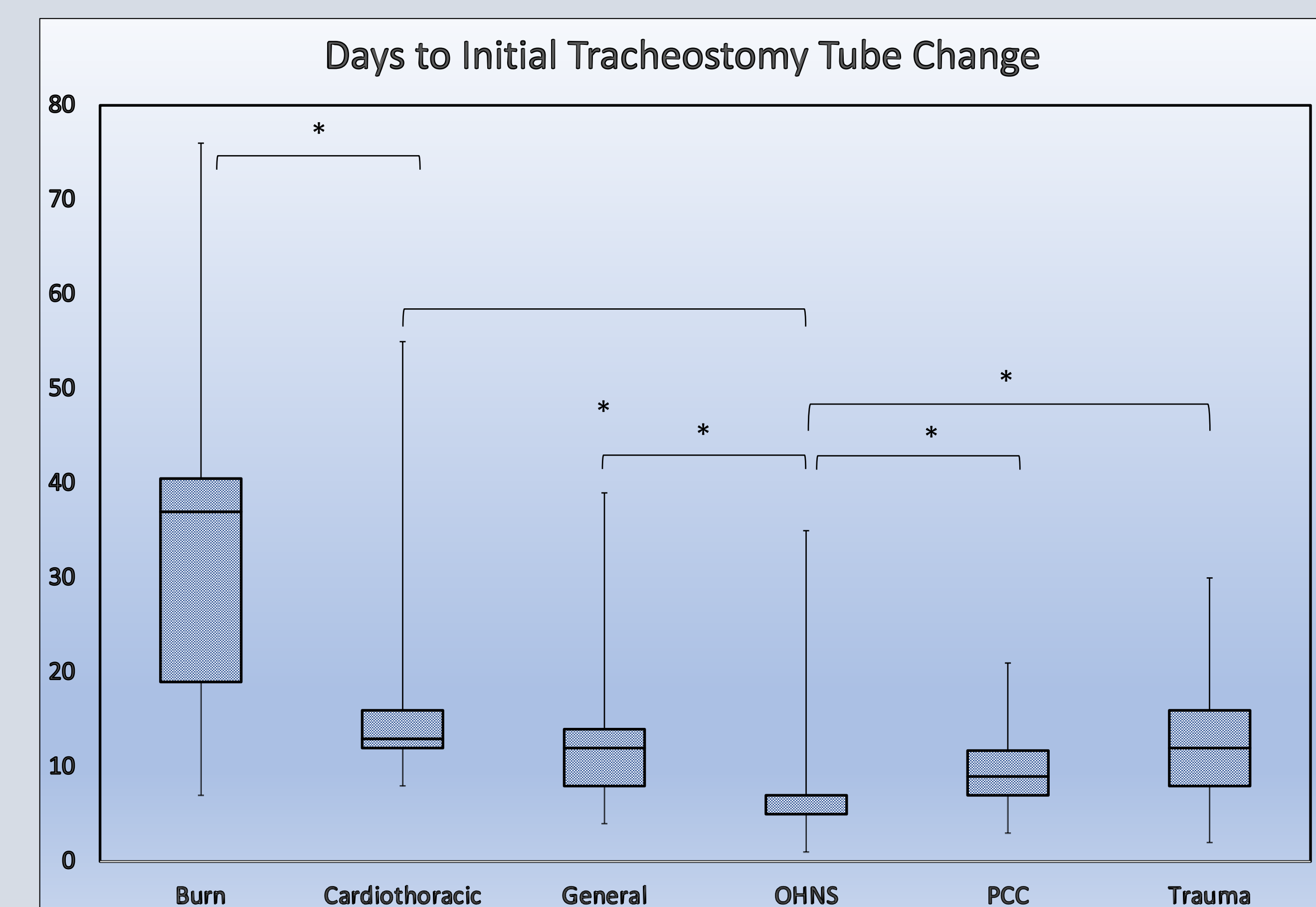
**RESULTS:**

- ❖ Cohort comprised 253 patients with characteristics shown in Table 1.
- ❖ Six specialties performed tracheotomies by open surgical and/or percutaneous approaches (Figure 1).
- ❖ Initial tracheostomy tube size reflected specialty-based preferences (Figure 2).
- ❖ Documentation of and time to first tracheostomy tube change varied significantly across specialties (Figure 3).

**DISCUSSION:** Despite similar indications, appreciable differences exist in tracheotomy approach, tracheostomy tube sizing and time to first tracheostomy tube across specialties. These discrepancies may represent variation of provider preference, patient condition or anticipated clinical course. They may also present an opportunity to reach clinical consensus across specialties, as there is for OHNS<sup>1</sup>, as well as a possible chance to improve certain outcomes<sup>2</sup>.



**Figure 2:** Comparison of initial tracheostomy tube sizes placed by specialty performing tracheotomy. PCC = Pulmonary Critical Care; OHNS = Otolaryngology – Head & Neck Surgery



**Figure 3:** Days to first tracheostomy tube change across specialties, \* = p < 0.05. OHNS = Otolaryngology Head & Neck Surgery; PCC = Pulmonary/Critical Care.

1. Mitchell RB, Hussey HM, Setzen G, et al. Clinical Consensus Statement: Tracheostomy Care. Otolaryngology–Head and Neck Surgery. 2013;148(1):6-20
2. Fisher, et al. Tracheostomy Tube Change Before Day 7 Is Associated With Earlier Use of Speaking Valve and Earlier Oral Intake. Respiratory Care. 2013;58(2):57-263

