

The Global Tracheostomy Collaborative (GTC)



Impact of a Quality Improvement Collaborative in Otolaryngology – Head & Neck Surgery

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Abstract

Objective: The Global Tracheostomy Collaborative (GTC), established in 2013, is an international multidisciplinary Quality Improvement (QI) collaborative established to improve processes and outcomes in adult and pediatric tracheostomy care (www.globaltrach.org). The aim of this study is to evaluate the initial effectiveness of such a collaborative in Otolaryngology – Head & Neck Surgery.

Study Design: Observational. Qualitative Interviews.

Methods: Analysis of GTC membership and attendance at three international kickoff meetings was performed. Qualitative interviews were conducted either face-to-face or via telephone with care teams from GTC member hospitals.

Results: 570 individuals representing 125 institutions attended kickoff meetings in Boston (April 2014), London (July 2014) and Melbourne (October 2014); 1000 additional individuals from more than 20 countries and all continents except Africa attended a kickoff meeting using virtual technology. Attendees were from a range of disciplines; otolaryngology, anesthesia, neonatology, pulmonary, critical care, respiratory therapy/physiotherapy, nursing, speech pathology, and hospital management. As of October 2014, over 35 hospitals in the United States, United Kingdom, Sweden, Singapore, Qatar, and Australia have joined, and another 7 hospitals are considering joining. Preliminary data collection has been successful with >380 new tracheostomy cases entered in an international, HIPAA-compliant REDCap database within the first 6 months of launch. Qualitative interviews reveal that many sites have instituted new practices in response to joining.

Conclusion: It is widely recognized that there is a need to improve the speed at which successful care models disseminate. Quality Improvement collaboratives have been successful at accelerating improvement in many disciplines. The GTC may be an exemplar of this new methodology in Otolaryngology.

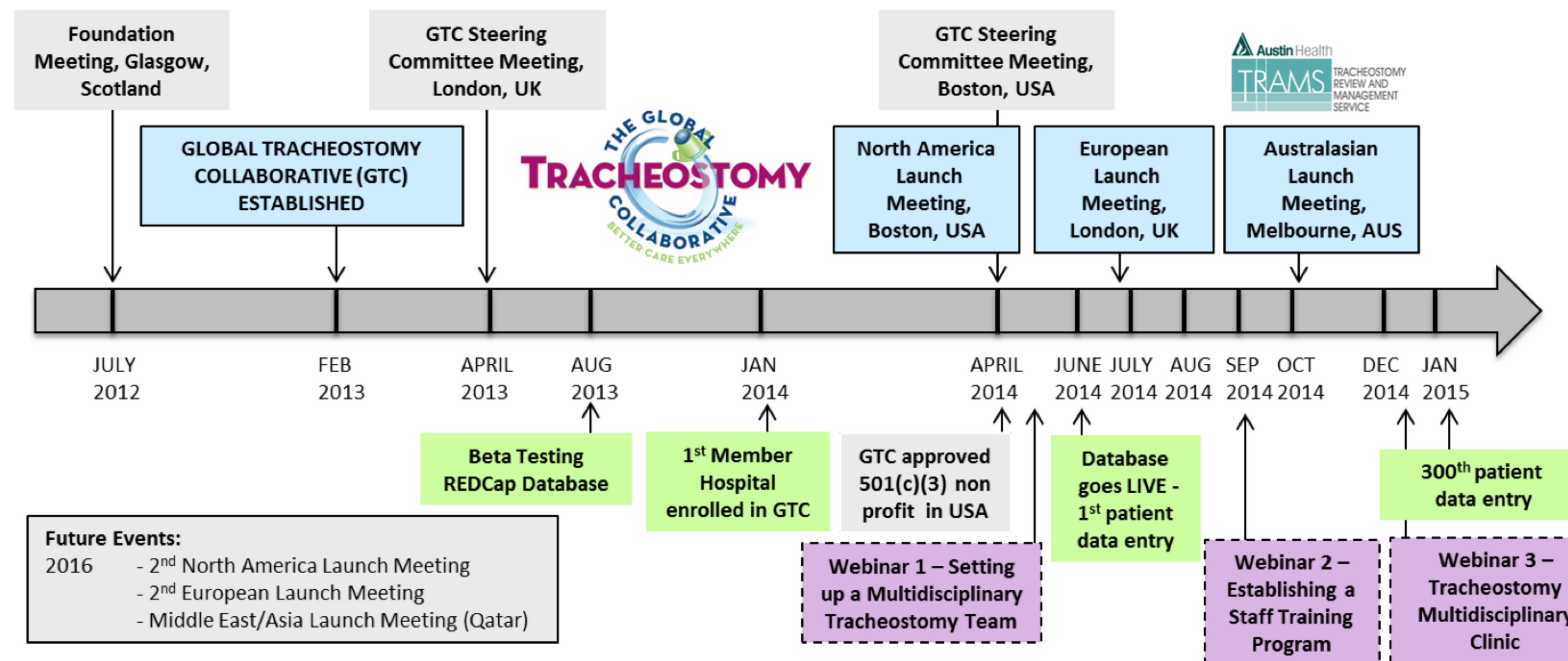


Figure 1: The Global Tracheostomy Collaborative Timeline July 2012 to January 2015

Background

- Tracheostomy care is high risk with significant morbidity and mortality.¹
- Patients and families with tracheostomy experience extremely disorganized, fragmented care.
- The Global Tracheostomy Collaborative (GTC), 2013, is an international multidisciplinary Quality Improvement Collaborative (QIC) initiated to improve patient outcomes in tracheostomy care.

THE GTC WORKS THROUGH 5 KEY DRIVERS;

- Coordinated Multidisciplinary Tracheostomy Care Team
 - Coordinated interdisciplinary staff education
 - Institution-Wide Interdisciplinary Tracheostomy Protocols
 - Patient and Family centered Tracheostomy Care
 - Create outcome-based metrics and gather data using a HIPAA-compliant database
- Exemplar institutions have demonstrated that care can be dramatically improved and tracheostomy related adverse events radically reduced through integrated tracheostomy care teams (Table 1, 2).^{2, 3}

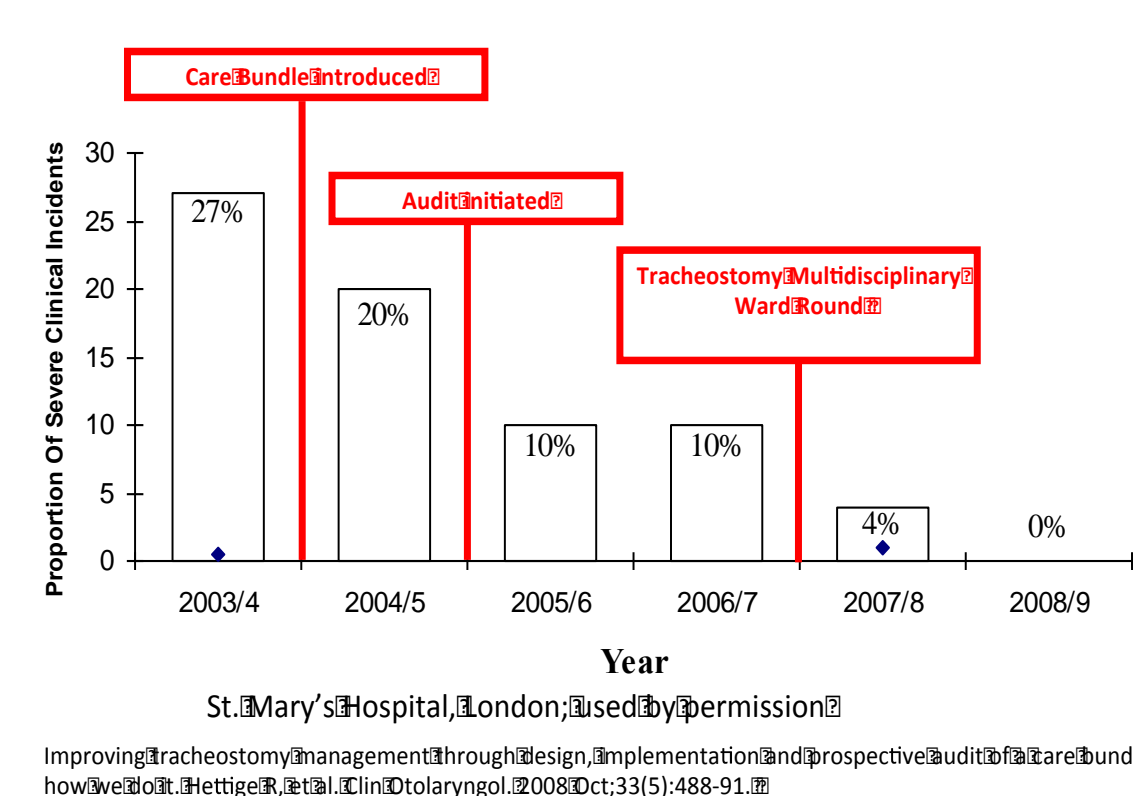


Table 1: Decrease in Critical Tracheostomy Events

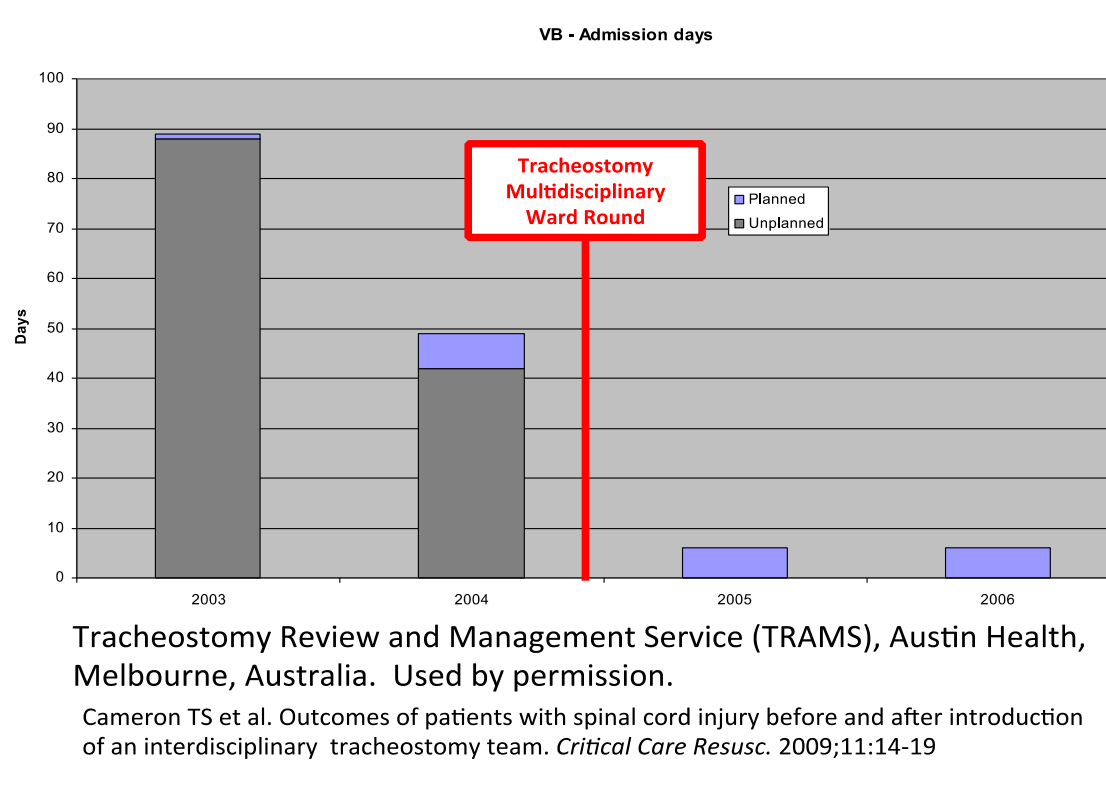


Table 2: Effect of Integrated Tracheostomy Bundle on Adverse Events

Results

GTC Timeline shown in Figure 1.

Kick-Off Meetings:

- 570 individuals from over 125 institutions attended GTC kick-off meeting in Boston (April 2014), London (July 2014) or Melbourne (October 2014)
- 1,000 individuals from 20 countries attended via live webcast
- Disciplines represented - anesthesia, critical care, pulmonary, respiratory care, physiotherapy, speech therapy, nursing, social work, quality/safety, family/patient and hospital management
- 3 webinars and online discussion groups held.

Membership:

- First member hospital enrolled in January 2014
- 35 hospitals have joined (UK, Sweden, United States, Singapore, Qatar, and Australia)
- 75 hospitals preparing to join

Data Collection:

- Data entry went live in August 2014, HIPAA-compliant database
- >380 new tracheostomy cases has been entered

Member Hospital Interviews:

- Interviews with 16 member sites to identify deficiencies and new practices in tracheostomy care

Reasons cited for joining;

- Desire to learn from others and share experiences (88%)
- Need to standardize care (69%)
- Need support for change initiatives (56%)
- Need for maintenance of staff education (50%)
- Recent adverse tracheostomy events (>50%)
- Need to create a Multi-Disciplinary Tracheostomy (MDT) program 56% of interviewed hospitals do not have a MDT program

New tracheostomy practices planned/instituted:

- Weekly MDT ward rounds
- Standardization of protocols
- Mandatory training modules for staff and families
- Improved discharge planning
- Improved patient/family feedback with "Family Tracheostomy Days"
- All member hospitals reported a staff commitment to work for change

Conclusions

- GTC is the first international Quality Improvement Collaborative in Otolaryngology -- Head & Neck Surgery
- GTC has received a robust international response, reflecting the global need for improving tracheostomy care
- Membership of GTC offers the opportunity to standardize tracheostomy processes and improve outcomes
- Qualitative interviews have shown very favorable feedback and that the program makes a positive difference for patients and families

Comments from Member Interviews

"Majority of patients are decannulated before discharge, but those who aren't are a major issue since we don't have a procedure for what happens on discharge with a trach."

"The 2am test—making sure that at 2am there are staff who can sort out problems with trachs,"

"Families don't trust staff when kids are inpatient and stay 24-7 to provide care for their child"

"nursing staff in certain areas of the hospital are still uncomfortable taking care of tracheostomies"

"We constantly evaluate our services, have weekly meetings, have streamlined our care coordination and discharge planning. For example, we're currently developing a protocol for discharging trach patients..."



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Financial Disclosure

The Global Tracheostomy Collaborative has received unrestricted educational grants from Smiths Medical, Boston Medical, and Boston Children's Hospital Department of Otolaryngology.

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This poster has been submitted on behalf of all the members of the Steering Committee of the Global Tracheostomy Collaborative: Asit Arora, Jo Harrison, Linda L Morris, Neil Bateman, Jay G Berry, Melissa Ciardulli, Preeti Das, Stacey Halum, Haytham Kubba, Christine Milano, Melody Paine, Alon Peltz, Rosh Sethi, Margaret Skinner, Joanne Sweeney, Stephen Warrillow, Ralph Woodhouse, Hannah Zhu.