

Global Tracheostomy Collaborative Interventions Reduce The Severity Of Harm From Tracheostomy-related Adverse Events In A Tertiary UK Centre

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Background

Measurable harm occurs in 60-70% of tracheostomy-related incidents

UK NCEPOD enquiry 2014 reports a 25.2% complication rate in a study of over 2,500 tracheostomy patients

Quality Improvement Collaboratives (QICs) are an effective method of rapidly improving healthcare outcomes, especially in diverse situations where direct evidence may be limited.

We report the outcomes of joining the new Global Tracheostomy Collaborative (GTC) at our tertiary teaching hospital with the aim of improving the safety and quality of care.

Methods

A multidisciplinary tracheostomy steering group was formed and oversaw interventions from July 2014 to July 2015.

GTC resources and the expertise and experience of the wider collaborative were used to

- revise protocols and policies
- introduce multidisciplinary tracheostomy ward rounds
- develop mandatory and bespoke education

Dialogue was maintained with other GTC member hospitals through webinars and forums.

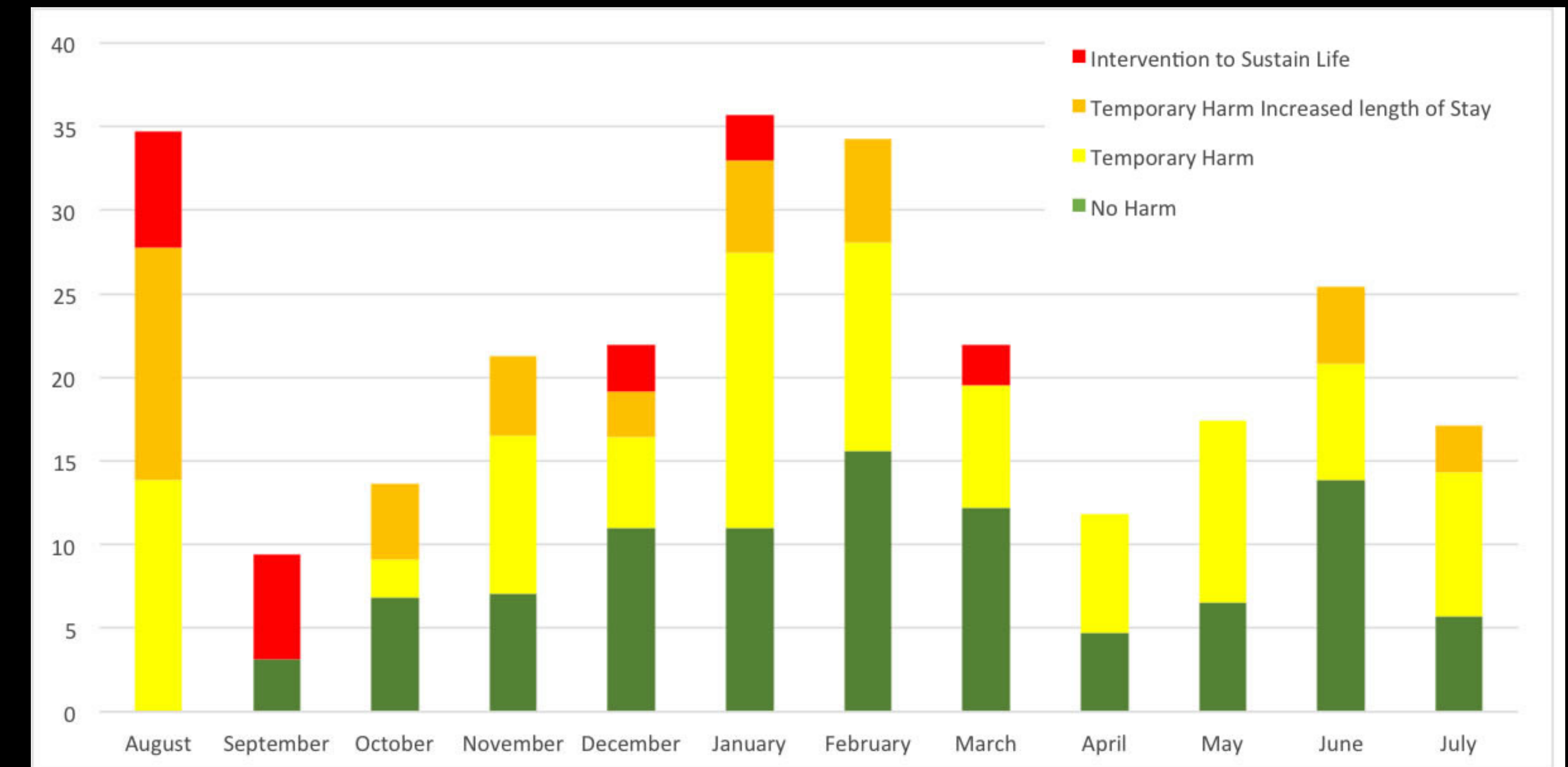
Progress and incidents were tracked using the GTC's REDCap database and staff surveys.

Results

The number of reported tracheostomy-related critical incidents increased as expected during the early stages of QIC participation.

The figure shows the significant trend in the reduction in the nature and severity of harm resulting from incidents over the 12-month study period (sample correlation coefficient $r = -0.35$, Chi-squared trend $p < 0.01$).

As a result of educational initiatives, nursing staff demonstrated significantly greater confidence and familiarity with emergency algorithms (62.1% vs 74.1%, Fisher's exact $p < 0.01$) twelve months after joining the GTC.



Conclusions

Our results suggest that joining the GTC and implementing resources through an institution-wide QIC can result in rapid improvements in the safety and quality of care delivered. The GTC resources are likely to appeal to a wide range of UK hospitals seeking a response to the NCEPOD report, but will be relevant to institutions around the world where tracheostomy care has been shown to be equally problematic.

References

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- Measureable harm occurs in 60-70% of tracheostomy-related incidents
- The Global Tracheostomy (Quality Improvement) Collaborative guides multidisciplinary interventions
- New protocols, policies, multidisciplinary ward rounds and educational resources were supported by the wider Collaborative
- Harm from incidents was significantly reduced with staff significantly more confident with care
- Joining the Global Tracheostomy Collaborative can result in rapid improvements in the safety and quality of care delivered