

Translating evidence into practice; utilising quality analysis data and clinical care guidelines to improve patient care outcomes

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Aims

In response to an initial clinical quality analysis (QA) that identified an unacceptably high rate of surgical correction in patients treated for club foot, a quality improvement (QI) initiative was implemented. Predictors of treatment failure were identified and then utilised to inform outcome targets for a QI initiative and to create momentum for QI changes. The aim of this study is to compare the occurrence of major surgery before and after the QI intervention.

Methods

Data were retrospectively collected from isolated club feet that underwent treatment before (2003–07) and after (2012–14) implementation of the club foot programme driven by clinical care guidelines (CCG) with agreed outcome targets. Variables included treatment patterns (total number of casts during the initial casting period, tendon Achilles lengthening (TAL) procedures, number of different providers that performed castings, and cast-related complications), demographics, and the occurrence of major surgery within the first 2 years of treatment. A generalised logistic regression analysis was used to test the null hypothesis of no difference in the occurrence of major surgery between the two time periods. Generalised estimating equations were used to account for correlation due to the inclusion of multiple feet per patient.

Results

Table 1. Retrospective chart review QA (study phase I – pre-QI)

	Study centre	Leading US national treatment centre
Probability of major surgery	47 %	2 %
Complications with casting	38 %	2 %
Average number of casts to correction	8±3	4±1

Table 2. Post-QI implementation (study phase II)

	Study centre*	Leading US national treatment centre
Probability of major surgery	47 %	2 %
Complications with casting	38 %	2 %
Average number of casts to correction	8±3	4±1

*3 years post-CCG implementation

Conclusions

The implementation of a care pathway which is guided by CCG was associated with a decrease in major club foot surgery. This work exemplifies the use of retrospective QA data to identify treatment failure predictors and then how to utilise them to inform the development of care guidelines can be a powerful tool in improving care outcomes. The implementation of QA/QI process in healthcare is essential to our commitment to improve care outcomes and quality, and safety of our patients. ■

Conflict of interest statement

I certify that to the best of my knowledge, no aspect of my personal or professional situation might reasonably be expected to influence my views on the subject I am presenting.

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