The effect of a national ambulance Quality Improvement Collaborative on performance in care bundles for acute myocardial infarction and stroke

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Background

National ambulance service indicators showed considerable variation in care for acute myocardial infarction (AMI) and stroke.† We aimed to improve reliability of pre-hospital care processes for AMI and stroke using a Quality Improvement Collaborative (QIC). The QIC involved educating ambulance staff in Quality Improvement (QI) methods, and the use of plan-do-study-act cycles (PDSA) to implement changes. Ambulance staff were provided with feedback on the effect of the PDSA cycles and the QIC provided an environment to share successful strategies within and across services to improve care bundles for AMI and stroke.

Objective

Our aim was to improve reliability of pre-hospital care processes for myocardial infarction and stroke using a national Quality Improvement Collaborative (QIC); the Ambulance Services Cardiovascular Quality Initiative (ASCIQI), the first national improvement project for prehospital care.

Methods

We analysed change over time using logistic regression with three predictor variables: time (measured in weeks), sex, and age, to measure the effect of the national QIC on delivery of pre-hospital care bundles for AMI (aspirin, glyceryl trinitrate, pain assessment and analgesia) and stroke (face-arm-speech-test, blood pressure, blood glucose). The coefficient for time and its standard error were then extracted from each fit and plotted using forest plots.

Conclusion and recommendations

Implementing care bundles as part of a national QIC led to significant improvements care for AMI and stroke provided by English ambulance services. We are using a multisite comparative case study to explain why and how the QIC changed care.

†Reference:

1 GWAS 2 WMAS 3 SCAS 4 LAS 5 YAS 6 SEC 7 NEAS 8 EEAS 9 SWAS 10 NWAS 11 EMAS 12 IOW