A Systematic Approach to Promoting Pulse Regularity Checks in General Practice

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Background

Atrial fibrillation (AF) is an important and modifiable risk factor for stroke, with stroke caused by AF twice as likely to be fatal (1). Atrial fibrillation is common in the elderly with a prevalence of 13% in the over 85s (2). Earlier identification may reduce stroke-related morbidity and mortality by providing opportunity to consider anticoagulation for stroke prevention (3). Trial evidence shows opportunistic pulse regularity checks in people aged 65 years or more increases detection of AF and is cost effective (4), however, this is not currently recommended by the National Screening Programme nor implemented by most Clinical Commissioning Groups (CCGs).

Design and Setting

The Clinical Effectiveness Group (CEG) at Queen Mary University of London has access to pseudonymised data from over 1 million registered patients in all practices in three east London CCGs (City and Hackney, Newham and Tower Hamlets) through universal use of the EMIS Web clinical system. The CEG uses this resource to promote quality improvement through evidence based guidelines, standard data entry templates and clinical dashboards. This method follows Mische’s COMB model, which addresses the capability, opportunity and motivation behind behaviour change to support a ‘learning health system’ model of improvement (5). Between 2013 and 2014, a field for pulse regularity check was added to data entry templates and clinicians were reminded about pulse regularity checks through on screen prompts in the clinical system. There were financial incentives for achieving agreed ‘enhanced service’ targets.

Practice performance was assessed by extracting coded data on a quarterly basis and compiled into dashboards which were sent to all practices with funnel plots identifying individual practice trends and the distribution of each practice in the CCG in relation to AF register size. The new programme was endorsed in educational meetings in each CCG.

Method

Retrospective analysis of electronic primary care patient records over 10 years. Rates of pulse regularity checks and prevalence of AF in people aged 65 years or more were compared for the pre-intervention period 2007-2011 to post-intervention 2012-2017. Further analysis was carried out on uptake of pulse checks across age, gender, ethnicity and socio-economic status to assess whether this was equitable, using adjusted odds ratios for pulse check.

Aim

To evaluate the impact of a systematic programme to promote pulse regularity checks in general practice on their uptake and the prevalence of AF using a learning health systems approach, including standardised clinical data entry tools, publication of peer performance dashboards and financial incentivisation.

Results

Across the three CCGs, rates of pulse regularity checks increased from a mean of 7.3% pre-intervention to 66.4% post-intervention, achieving 93.1% in the final year.

Conclusion

The learning health systems model rapidly and generally increased opportunistic screening with pulse regularity checks. This was equitable across age, gender and deprivation (IMD) scores. This was associated with a significant increase in AF prevalence of public health importance.

References


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