



Evaluating the implementation of a cardiovascular prevention programme

Background

- We know that drugs to reduce blood pressure and lower cholesterol can lower the incidence of cardiovascular disease (CVD).
- Currently, high-risk patients who can benefit from treatment to prevent CVD are identified opportunistically in primary care, but patients consulting for other reasons do not always have their risk factors assessed. Therefore, many of those at high risk are not identified or they do not always have drugs prescribed if they are identified.
- One solution is to implement targeted case finding. We automatically search electronic patient records using existing data to identify patients most likely to be at high risk of CVD. They can then be invited for assessment and treatment.
- We are using a stepped wedge trial - a 'naturalistic' but rigid design - to quantify the benefits of such a targeted case finding programme compared to opportunistic assessment.

Mixed methods evaluation of targeted case finding for cardiovascular disease prevention using a stepped wedge cluster randomised controlled trial

Designing the trial

- A pilot was undertaken in six Sandwell general practices. Electronic patient records were searched to identify untreated patients aged 35 - 74 whose 10-year risk of CVD was 20% or higher. They were then invited to their general practice for assessment by a project nurse and offered treatment if appropriate.
- Three times more high-risk patients were started on treatment in intervention practices than in control practices.
- Following the pilot, the project was rolled out across Sandwell general practices which are made up of clusters of patients, making it a cluster study. The order in which practices receive the targeted case finding intervention is randomised.
- Researchers will compare the rate at which patients started treatment during the period of opportunistic assessment with the rate at which they start treatment during the period of targeted case finding.
- Researchers hope to be able to determine if case finding is more effective and cost effective in achieving higher rates of uptake of preventative advice and treatment, if it results in fewer outpatient referrals with admissions to hospital for CVD-related events, and if it is acceptable to clinicians and patients.

Reference

Marshall T, Caley M, Hemming K, Gill P, Gale N, Kolly K. Mixed methods evaluation of targeted case finding for cardiovascular disease prevention using a stepped wedge cluster RCT. BMC Public Health. 2012; Oct 26; 12:908.



Recommendations for practice

It is possible to design a stepped wedge randomised controlled trial using prescription data from electronic patient records to determine the effectiveness of a cardiovascular prevention programme.

What is CLAHRC for Birmingham & Black Country?

The Collaborations for Leadership in Applied Health Research and Care (CLAHRC) is a partnership between the University of Birmingham and a number of NHS organisations in Birmingham and Black Country. We are funded by the National Institute for Health Research with a mission to undertake high-quality applied health research focused on the needs of patients to improve health services locally and beyond.

For further information, visit:
www.clahrc-bbc.nihr.ac.uk



The research was funded by the National Institute for Health Research. The views expressed are those of the author and not necessarily those of the NHS, the NIHR or the Department of Health.