

Protocol design and preliminary evaluation of the REAL-Health Triple Aim, an open-cohort CVD-care optimisation initiative

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Introduction: Effective treatment of cardiovascular disease (CVD) in primary care could be improved. We aim to assess the efficacy of a scalable treatment optimisation programme in unselected community populations in South East England, with the triple aim of improved blood pressure control in people with hypertension, increased high-intensity statin use in people with CVD and reduced gastrointestinal bleeding in patients on antithrombotic medication.

Method: This observational study comprises an open cohort of approximately 200,000 adults at high cardiovascular risk registered with general practitioners in five South East England Clinical Commissioning Groups (CCGs). An intervention programme is planned in four of these CCGs with a further non-intervention CCG acting as a control group. The intervention will consist of: clinical guidelines and educational outreach; virtual patient-reviews software; peer-performance “dashboards” and, where available, financial incentives.

The study will examine 3 primary outcomes: 1. Diagnosed hypertension with a blood pressure <140/90mmHg; 2. Diagnosed CVD on a high-intensity statin; 3. A cardiovascular indication for antithrombotic therapy with one or more factors for increased risk of gastrointestinal bleeding (e.g. age ≥65) on gastroprotection. A further 17 secondary outcomes related to these three aims will be assessed.

Analysis: We will use an interrupted time series analysis over 18 months, representing the pre-implementation, implementation and the post-implementation phases with comparison to the control CCG and applicable national Quality and Outcomes Framework and national prescribing statistics (e.g. OpenPrescribing). Secondary outcomes include an equity impact analysis with results stratified by age, gender, ethnic group and index of deprivation.

Preliminary data: We present preliminary data on Key Performance Indicators (KPIs) collected from 191 GP practices including [percentage achievement on 01/09/2019, on 01/09/2020]: 1. Patients with hypertension and most recent blood pressure ≤140/90mmHg [68.7%, 60.6%]. 2. Patients eligible for treatment with a high-intensity statin on such treatment [53.8%, 55.8%]. 3. Patients on antithrombotics with ≥1 risk factors for gastrointestinal bleeding on gastroprotection [59.0%, 60.1%]. We also present our virtual patient-review software tool and outcome visualisation dashboard.

Conclusion: The REAL-Health Triple Aim initiative is a large-scale primary care cardiovascular risk reduction initiative which was launched almost contemporaneously with the United Kingdom’s first SARS-CoV-2 related lockdown. Preliminary data justify the need for the Triple Aim initiative and give us an insight on the impact of the pandemic on its implementation.