IMPlementing IMProved Asthma self-management as RouTine (IMP²ART): a cluster randomised controlled trial protocol

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Introduction

In the United Kingdom (UK), asthma is responsible for over 6 million primary care consultations, nearly 100,000 hospital admissions (Mukherjee et al., 2016), and over 1,000 deaths per year (20 a year in children under 14 years) (BLF, 2016), at a cost to the NHS in England and Wales of at least £1billion (Mukherjee et al., 2016). Our systematic meta-review, which synthesised evidence from 27 systematic reviews (270 RCTs), concluded that supported self-management reduces hospitalisations, accident and emergency attendances, and unscheduled consultations, and improves markers of control and quality-of-life for people with asthma (Pinnock et al., 2017).

For three decades (BTS, 1990), national and international guidelines have recommended that people with asthma should be provided with self-management education, a written personalised action plan, and supported by regular clinical review (BTS/SIGN, 2016; GINA, 2018). Implementation, however, remains poor in routine clinical practice. Surveys from the UK, reveal that less than a third of people with asthma have an action plan (Asthma UK, 2013; Wiener-Ogilvie et al., 2007).

In response to this, IMP²ART (IMPlementing IMProved Asthma self-management as RouTine) was developed. IMP²ART is a multidisciplinary and theoretically-informed strategy to improve implementation of supported self-management and asthma outcomes in UK primary care.

The IMP²ART strategy includes:
1. patient resources to educate and support self-management
2. asthma self-management training for primary care staff
3. organisational strategies (audit/feedback, asthma review template).

Aim

The aim of this UK-wide cluster randomised implementation trial is to test the impact of a whole systems implementation strategy (IMP²ART), embedding supported asthma self-management in primary care compared with usual care, with clinical (unscheduled asthma care) and implementation (action plan ownership) outcomes determined from routinely collected data. A health economic evaluation will assess the costs from the perspective of the healthcare service but also from a societal perspective. A process evaluation will use mixed-methods to explore feasibility/acceptability of the IMP²ART implementation strategy; and explore how supported self-management was implemented (or not) by primary care practices to aid interpretation, and inform scaling up and sustainability.

Methods

The trial is a parallel, cluster randomised controlled trial. General practices (N=144) will be randomly assigned to either the IMP²ART implementation arm, and provided with the IMP²ART strategy components, or to usual care control. The primary outcome is the between-group difference on unscheduled care in the second year after randomisation (i.e. between 12 and 24 months post-randomisation). Secondary outcomes include the number of asthma reviews conducted, prescribing outcomes (reliever medication, oral steroids), asthma symptom control, confidence in self-management and professional support, and health status and resource use. Additionally, an implementation outcome of action plan ownership at 12 months will be assessed.

Expected Results

We expect that unscheduled asthma care will reduce and personalised asthma action plan ownership will increase in the implementation arm.

Unscheduled Care   Action Plans
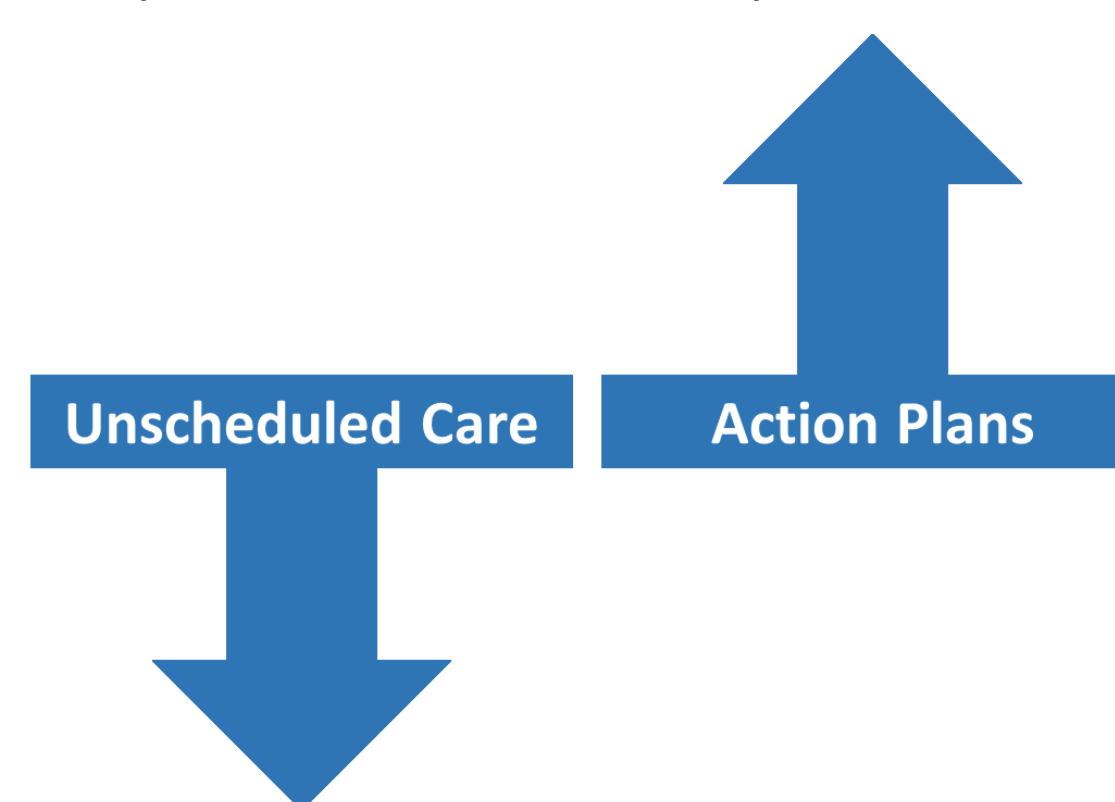
Current Stage of Work

An internal pilot trial (n=12) has been conducted, and main trial recruitment and implementation delivery is underway. The trial is registered with www.isrctn.com (ISRCTN15448074).

Discussion

Findings will add to the literature regarding effective strategies that can be implemented in primary care to improve supported self-management and asthma outcomes.

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