

Shared medical appointments for the management of long-term conditions in primary care: evidence of effectiveness and efficiency

Shared medical appointments (SMAs) are a new way of delivering care in which a group of patients with the same long term health condition(s) (LTC) meet with a healthcare practitioner (HCP), or team of HCPs, for routine care. This policy brief summarises our review of published literature comparing the effectiveness and efficiency of SMAs with standard one-to-one appointments. It also describes three case studies of resource use by practices implementing SMAs in the North East and North Cumbrian region of England.

Introduction

Over 15 million people in the UK have one or more LTC, and their care accounts for a large proportion of NHS services and budget [1]. Shared medical appointments (SMAs), also called group consultations, have been proposed by the NHS Alliance and Primary Care Foundation as a way of supporting patients to self-manage their conditions, and ‘release clinicians time to care’ [2,3]. SMAs are a type of consultation in which a group of patients with a shared LTC meet with a HCP for routine care e.g. medication review, physical examination or other clinical intervention, typically for 60 – 90 minutes. Unlike peer support groups, SMAs also include a one-to one consultation with a HCP during the group session [4]. Compared to the usual primary care consultation appointment, patients attending SMAs tend to spend more time with their HCP(s). In 2018, Health Education England commissioned Experience Led Care group consultations [5] to deliver training in the delivery of SMAs to primary HCPs. To date, over 200 practices across England and Wales have attended this training, yet there is limited understanding of how SMAs compare to usual care are in terms of patient health outcomes, costs, and service demand. There is also limited understanding about resource and support requirements to organise and deliver SMAs in a UK primary setting.

Recommendations

- 1: Consider new and emerging evidence before further SMA roll-out.*
- 2: Develop standardised measures of SMA effectiveness and efficiency and then embed in patient record systems to enable more rigorous and agile evaluations.*
- 3: Identify key SMA activities and implementation processes that contribute to intervention effectiveness so they can be optimised and used to monitor quality of care delivery.*
- 4: Examine the adoption and implementation process further to understand which patient groups SMAs work best for and how roll-out could be optimised.*

About the research programme

The programme of work comprised four work packages (WPs). WP1 was a review of the published literature of effectiveness and efficiency of SMAs in comparison to usual care for to patients with one or more LTCs. WP2 was a series of case studies to examine resource requirements for SMAs delivered in primary care in the North East and North Cumbria. WP3 reviewed the literature that reports patient and HCPs’ views and experiences of SMAs for LTCs in primary care. WP4 involved interviews with patient and HCPs in the North East and North Cumbria to explore their views and experiences of SMAs for LTCs in primary care. This briefing is the second of two briefs presenting the findings from WP1 and WP2 (the brief of WP3 and WP4 can be found [here](#)).

What we did...

We pre-registered our systematic literature review protocol [6] and followed standard methods of searching, study selection and structured data extraction. Our focus was on randomised controlled trials of SMAs for LTCs in primary care settings. We conducted a risk of bias assessment to determine the methodological quality of trials. Data from studies that were sufficiently similar were combined and statistically analysed together (meta-analysed) else were summarised descriptively (narratively synthesised).

We also conducted three case studies of practices in North East and North Cumbria that initiated SMAs in 2019. Practices managers were interviewed about staff time and resource use in the set-up and delivery of SMAs. A proforma was used to ensure the same data were obtained from each practice, enabling descriptive analysis.

What we found...

WP1: Key findings from literature

Characteristics of studies

- We identified 24 unique trials. Nineteen (83%) were conducted in United States, two in China and one each in Australia, Germany and UK.
- Studies were published between 2001 and 2020.
- Most trials recruited patients with a single LTC, mostly commonly diabetes (57%), although some trials (35%) selected patients with multiple LTCs.
- Majority of trial participants were female and aged over 50 years. Approx. one third of trials included people from low-income or uninsured communities.
- Risk of bias across the studies was generally low, except that SMA participants and staff were not blinded to the intervention in most trials (83% of trials).
- Despite variation in SMAs models, key features included: the opportunity for each patient to have individual 1:1 time with a clinician (100% of trials), facilitated group discussion or group question and answer session (65% trials), 'group education' (61% trials), and the opportunity to socialize with peers (48% trials).
- All trials delivered SMAs face-to-face as studies were typically pre-COVID 19 pandemic.

Evidence of effect

We found substantial diversity in the outcome measures that were used to assess effectiveness in different studies (see Table 1).

Table 1: Outcomes reported by studies to measure effectiveness

Health	Behavioural	Resource use
-HbA1C	-Physical activity	Overall costs
-Blood lipids	-Healthcare service use	(provider time in
-Blood pressure	(emergency visits,	group/healthcare service costs
-Body Mass Index	hospital admissions,	e.g. hospitalizations/
-Weight	primary care	outpatient visits/
-Anxiety	appointments)	emergency department visits
-Depression	-Medication adherence	
-Quality of life		
-Patient satisfaction		
-Self-management		
-Self-efficacy		

- Participants in SMA groups had significantly lower diastolic blood pressure than those in usual care indicating SMAs may improve blood pressure.
- However, no statistically significant differences were found across other outcomes. Where individual studies showed significant differences (patient self-efficacy), these trended in favour of SMAs.
- There was no evidence of harm from SMAs.
- Compared with usual care, SMAs had no significant effect on healthcare service use.
- Evidence of potential cost savings was limited. Studies that compared costs were unclear about what activities (e.g. set-up, training) were included in the values reported and conclusions were mixed.

WP2: Resource use case studies

All three NENC case study practices were based in urban areas but varied in terms of: number of registered patients (10,000 to 36,000 patients); level of social deprivation (5th most to 5th least deprived); and experience of delivering SMAs (1 – 18 months). All three had run an SMA for patients with diabetes though they differed with respect to planning and implementation, meaning some practices required more resource than others. Specialist nurses delivered the SMAs in all three practices; administrators or healthcare assistants were the SMA facilitators.

We found that:

- Practices had between 8–10 patients at each SMA (dependent on recruitment and new diagnoses rates)
- SMAs offered by default, 1:1 appointments if patients declined SMA invitation
- SMA invites were sent out by administrators (n=2) or SMA facilitator (n=1)

Table 2: Staff time used in the set-up and delivery of SMAs by practice

	Time (minutes)						TOTALS
	Practice 1		Practice 2		Practice 3		
Member of staff	Set-up	Prep & delivery	Set-up	Prep & delivery	Set-up	Prep & delivery	
Practice Manager	NA	NA	580	NA	390	NA	970
Performance							
Manager	NA	NA	NA	NA	300	NA	300
General Practitioner	330	NA	240	NA	0	NA	570
Specialist Nurse	1590	180	430	120	690	90	3100
Healthcare Assistant	360	270	NA	NA	210	110	950
Administrative Staff	NA	NA	580	180	90		850
Total	2280 (38 hrs)	450 (7.5 hrs)	1830 (30.5 hrs)	300 (5 hrs)	1680 (28 hrs)	200 (3.3 hrs)	

Looking at the cost and resources associated with organizing and delivering SMAs, we found that:

- Set-up took between 28 – 38 hours of staff time (see Table 2 above)
 - Main staff involved: specialist nurse, practice manager and administrative staff
 - Tasks involved included attendance at training, meetings, in-house training and rehearsals
- Preparation and delivery for a single SMA varied between 3.3 and 7.5 hours of staff time
 - Main staff involved: clinician and facilitator
 - Tasks involved preparing patient results, writing up notes after session and making referrals
 - Clinicians attended for part of the session (N=1) for the full session (n=2)
- Other costs incurred: post-it notes, marker pens, refreshments, confidentiality agreements printing, postage, room hire (n=1)
- For SMAs to be more efficient than one-to-one care, in the first year after set-up an average of 12 patients per SMA would be needed.
- If the set-up costs were reduced, or centrally funded, SMAs would result in greater cost savings within primary care sooner or enable them to be cost effective with smaller patient group sizes.

Key recommendations

Recommendation 1: Consider new and emerging evidence before further SMA roll-out. Current evidence does not favour standard care or SMA in terms of outcomes, potential harms and costs. Our evidence shows a combination of no difference and not enough evidence for various outcomes. Policy decisions on whether to support further roll-out of SMA would at this stage need to be based on other considerations.

Recommendation 2: Develop standardised measures of SMA effectiveness and efficiency and then embed in patient record systems to enable more rigorous and agile evaluations. Measures of SMA effectiveness and efficiency have varied between RCTs making interpretation difficult. The first step would be to develop standardised outcome measures of SMA effectiveness and efficiency for a range of long-term conditions. The second step would be to embed these measures in routine data collection systems, such as patient medical records. This will enable natural experiments and more agile evaluation.

Recommendation 3: Identify key SMA activities and implementation processes that contribute to intervention effectiveness so they can be optimised and used to monitor quality of care delivery. Descriptions of SMA models reported in the literature varied making it difficult to draw conclusions about how SMAs work. Reports should specify the target behaviours the SMAs aim to change. They should also use them to measure fidelity to ensure that the session(s) are delivered as intended to achieve optimum effects.

Recommendation 4: Examine the adoption and implementation process further to understand which patient groups SMAs work best for and how roll-out could be optimised. Following the external training, practice staff use different approaches to adopting and using SMAs in practice. Since the pandemic this includes delivering SMA by video link. Further research is needed in the UK NHS setting to establish the most efficient way to set-up and run SMAs, e.g. the optimum number of patients to include in the SMA, which patients should be brought together in a group and which staff should deliver them to ensure they are most effective and cost-effective.

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