



Editorial

Achieving coordinated secondary prevention of coronary heart disease for all in need (SPAN)

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ABSTRACT

Effective disease management after an acute coronary event is essential, but infrequently implemented, due to challenges around the research evidence and its translation. Policy-makers, health professionals and researchers are confronted by the need for increased services, to improve access and equity, but often with finite and reducing resources. There is a clear need to develop innovative ways of delivering ongoing preventative care to the vast and increasing population with coronary disease. However, translation into clinical practice is becoming increasingly difficult while the volume of trial and review evidence of disparate models of delivery expands. Indeed, the prevention literature has evolved into a complex web of differing models offered to diverse patient populations in an array of settings. We describe a united organisation of care that aims to facilitate coordinated secondary prevention for all in need (SPAN). SPAN is inherently flexible yet provides a minimum level of health service standardisation. It can be delivered across any area health service regardless of a patient's age, gender, ethnicity, geographical location, or socioeconomic status. Importantly, the setting, communication technologies and components of each patient's care are governed and woven into continuing care provided by the family physician in concert with a cardiac care facilitator.

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1. Introduction

Effective disease management following a diagnosis of coronary heart disease (CHD) is essential but challenging due to difficulties with research evidence, its translation and resources. What should be done? Recently, availability and success of coronary revascularisation and medical technologies have improved and case-fatality has fallen. Thus, there is an increasing pool of patients who can benefit from disease management services yet funding and availability remains marginalised [1]. Therefore, greater appreciation and application of existing data is now needed to translate the complex but rich, diverse and ever-expanding web of evidence for secondary prevention programs into practice. We propose a care map that synthesises evidence for ongoing preventative care and reconciles consistency of care with flexibility to help improve service delivery, access and quality.

Cardiac rehabilitation, in its traditional form, focuses on providing supervised exercise [2] in hospitals to accelerate functional and well-being outcomes after myocardial infarction and/or coronary revascularisation. These facility-based programs have evolved to include a combination of group exercise and health education delivered from

four to 12 weeks [3,4]. Strikingly, utilisation of these preventive interventions is typically low (15–30%) and ongoing support for patients is uncommon [3–5]. Therefore, this traditional model of rehabilitation faces substantial challenges in terms of cost and access [6] and does not meet the needs of the majority that require secondary prevention or those patient groups most in need of risk factor reduction, such as older adults, women, ethnic groups and low income populations [7].

These challenges have led to the development and evaluation of an array of different program models in recent years [8,9]. These programs, involve (in isolation or combination) in-person visitations, community services, and home manuals with phone/electronic support for flexible and individualised management of CHD [8,9]. They include clinic nurse-coordinated care [10,11], individualised case management and monitoring with periodical follow-up [12–14] and community-based groups with ongoing health practitioner support provided across a range of settings [9]. However, the sheer volume of trial and review evidence of disparate models of delivery, has undermined its translation into clinical practice [15].

Clinicians seeking to develop secondary prevention services now face a complex web of differing models offered by various professionals to diverse patient populations in a variety of settings. Few specific strategies exist to support synthesis and implementation of this complex evidence paradigm into policy and practice. There is no definition or

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simple model for uniting current evidence into a framework that is standardised but also allows flexibility to respond to local needs and resources. We describe such a model that aims to foster debate and dialogue as well as challenge researchers and clinicians to develop a model that improves access and equity locally yet provides a minimum level of standardisation. The model provides an overview of how secondary prevention for all in need (SPAN) could be achieved.

1.1. Achieving coordinated secondary prevention for all in need (SPAN) framework

SPAN includes four core elements for all patients – an assessment, information session, individualised program and ongoing support with follow-up (Fig. 1). Each core element provides flexible alternatives in terms of contact, setting, duration and format. SPAN caters for patients who have been diagnosed with CHD (whether hospitalised or by the family physician) or those whose absolute risk of a cardiovascular event within 5 years is >10% [16]. Patients with advanced disease states, including intractable angina or end stage heart failure should receive intensive direct supervision and monitoring to stabilise their symptoms in the first instance.

The family physician is best placed to be responsible for overseeing, directing and delivering the patient's care with specialist and health professional input as appropriate. Working in concert with the treating physician(s) should be a cardiac care facilitator whose role is to facilitate, guide and enable an effective preventive intervention for each patient.

1.2. Core element 1: Assessment

Assessment includes collecting clinical data, medication details and measurement of biomedical, lifestyle and psychosocial factors as

well as the patient's readiness to change (Fig. 1). Ideally, attendance at an information session and assessment should occur as soon as is practical (<4 weeks where practical) after diagnosis. The assessment should actively engage the patient through two-way discussion and can be conducted in the patient's home or even via the telephone or web-based communication. Each assessment takes approximately 30 min, is individualised and ideally with family/carers present. Appropriate short (weeks), medium (months) and long-term (years) targets can be mutually agreed, then addressed through the individualised intervention.

1.3. Core element 2: Information session

All patients should receive education into the chronic nature of CHD, a symptom management plan, possible psychosocial impairment, and the importance of medication adherence and lifestyle therapies (Fig. 1). The session should help patients initiate efforts to manage CHD now or later if their readiness to change is pre-contemplative. Using multi-media (e.g., Powerpoint, DVDs) and other resources (e.g. flipcharts, leaflets, verified websites), patients can access lifestyle information on being active, healthy eating, role resumption, employment where appropriate, and functional independence. The session can be delivered as a group or individually, at home or even remotely via the telephone or Internet and should take around 30 min. Lay supplementary material to reinforce key information points should also be provided.

1.4. Core element 3: Individualised program

To support long-term adherence to lifestyle change, medications and risk factor control, all patients should be offered an individualised

	Diagnosis and assessment	Risk reduction	Ongoing prevention	
GENERAL CONTENT	ASSESSMENT <ul style="list-style-type: none"> • Biomedical, physical, behavioural and psychosocial factors • Medications • Readiness to change and beliefs 	INFORMATION SESSION <ul style="list-style-type: none"> • Heart disease • Symptom management plan • Medication adherence • Being active • Healthy eating • Role/work resumption 	INDIVIDUAL PROGRAM <ul style="list-style-type: none"> • Based on preference*, need and goals • Target relevant risk factors and psychosocial issues • Ongoing care and support to encourage, reinforce and achieve behavioural change 	REASSESSMENT <ul style="list-style-type: none"> • Repeat baseline measures • Assess adherence
CONTACT	<i>With patient to support and actively engage</i> <ul style="list-style-type: none"> • in-person/phone/electronic/hard copy, flipchart <i>With treating physician(s) to engage, support and collaborate</i> <ul style="list-style-type: none"> • telephone/written/electronic[§] 			
SETTING	Home (eg, BRUM)	Hospital (eg, CR, CHOICE,	COACH) Community†(eg, CHOICE, COACH)	
DURATION	30 minutes (if separate sessions) – 60 minutes (if combined)		5-30 minutes	
FORMAT	Individual	Individual (eg, CHOICE, SCRIP), group (eg CR), or family gathering (eg, in remote communities using flipcharts)	Individual (eg, COACH, CHOICE, SCRIP, BRUM), group (eg CR), or combination based on resources	
Can be prescriptive (eg EuroAction, COACH) or patient-centred (eg, CHOICE, SCRIP)				

*risk factors can be addressed individually in a stepwise fashion or multiple concurrently; †includes General Practice and community "clinics"
[§]Electronic communication includes phone, personal digital assistants, facsimile, internet; Dr (doctor); BP (blood pressure); CR (facility cardiac rehabilitation); CHOICE¹² (Choice of Health Options In prevention of Cardiovascular Events); SCRIP¹¹ (Stanford Coronary Risk Intervention Project); COACH¹³ (Coaching patients On Achieving Cardiovascular Health); BRUM¹⁴ (Birmingham Rehabilitation Uptake Maximisation study); EuroAction¹⁰ (Nurse-coordinated multidisciplinary, family-based cardiovascular disease prevention programme).

Fig. 1. Secondary prevention for all in need (SPAN) organisation of care.

preventive intervention, according to their risk factor modification preferences, needs, and goals (Fig. 1). Some patients may prefer to manage risk in a stepwise fashion while others manage multiple risk determinants concurrently. The setting, format and time spent will vary considerably between individuals and subject to local resources, individually tailored. Importantly, for patients to be aware of their own risk factor levels they should be involved in setting personalised targets and be given a clearly documented action plan. Managing risk factors requires a combination of pharmacotherapy, lifestyle changes and potential referral to a medical specialist (e.g., Lipidologist, Endocrinologist). Support can be provided from the range of health professionals (including: specialist nurse, dietitian, pharmacist, physical therapist, exercise physiologist), be provided via a specific clinic education program (e.g., in general practice, diabetes clinic) or supervised cardiac rehabilitation program. Lifestyle factors can be managed in the longer term through participation in community initiatives (e.g., local walking or weight loss groups), self-help (e.g., high quality Internet-based smoking cessation or weight loss program) and with the assistance of family and friends (e.g., dietary changes).

1.5. Core element 4: Reassessment and follow-up

Reassess within 2–3 months of initial assessment to allow patients to instigate, achieve and enter a maintenance phase of adherence to changes. Where possible this should duplicate the initial assessment and cover medication adherence, hospital readmissions, and quality of life. Where resources permit, determine patients' survival status at one year, and in survivors, conduct a formal reassessment (in-person, by telephone) to ascertain long-term behaviour change and disease recurrence.

To promote long-term adherence to lifestyle change, medications adherence and risk reduction preventive interventions should provide the patient with ongoing reinforcement, encouragement and support. This can take the form of in-person appointments in any setting, by telephone (average of 4–5 calls), Internet or other electronic means. Each contact should last 5–10 min and occur approximately once a month initially [12,13] and thereafter less often. Although the optimal duration of the ongoing support is yet to be established, regular contact provides an opportunity to reassess each patient's goals and strategies so they can be mutually changed if necessary to enhance success and adherence.

2. Implications for practice

SPAN provides an organisation of care with an inherent minimum level of standardisation, that can be delivered across area health services regardless of a patient's age, gender, ethnicity, geographical location, or socioeconomic status and based on different resources. SPAN is a unified vehicle for delivery of evidence and is designed for use in concert with national guidelines. In SPAN, patient–provider partnership(s) are the foundation of care underpinned by mandatory assessment, an information session and an individualised program with follow-up. Importantly, the setting, format and components of each patient's care are governed and woven into the continuing care by the family physician and the cardiac care facilitator. Finally, availability of standardised data could be collected and used at the provider level to guide quality improvement as well as at the system level to inform access, equity, utilisation and outcomes.

3. Conclusion

People with established CHD are at substantially higher risk for recurrent clinical events compared with the general population. Contemporary evidence suggests preventive interventions in addition

to standard medical care must be flexible and tailored to the individual's preferences, needs, and values to achieve optimal and sustainable benefits for the majority with CHD. We have synthesised scientific evidence and have detailed a patient care map, termed SPAN, that aims to provide an organisation of care by which health services and providers can improve the current evidence–practice gap and meet future demands. SPAN is inherently flexible but also provides a minimum level of standardisation.

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