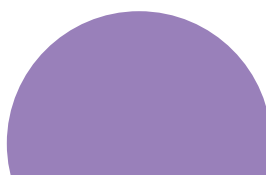
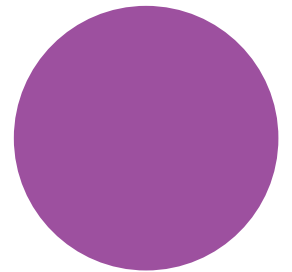
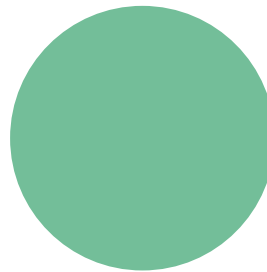
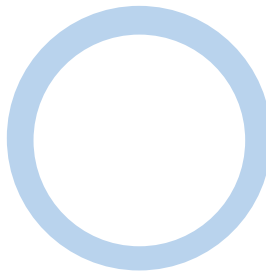
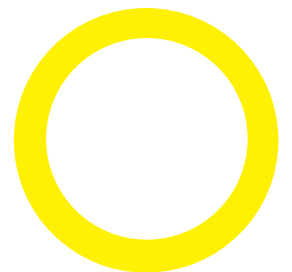
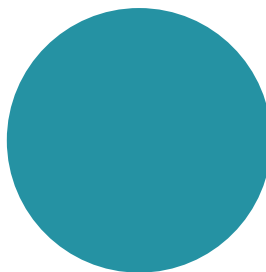
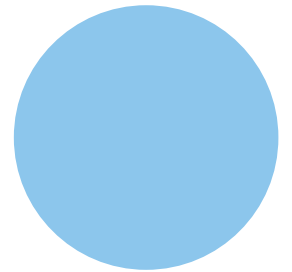
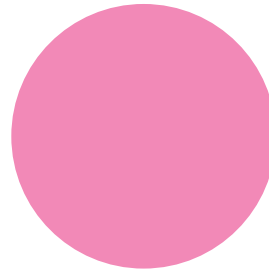
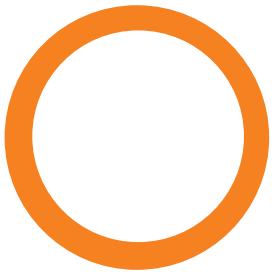




Collaborative Research Hub:

RESEARCH BRIEFING SERIES





These briefings were prepared as part of a primary health research collaboration between Griffith University and General Practice Queensland

This work was made possible by funding from Queensland Health and the Motor Accident Insurance Commission.



Research Briefing Series

General Practice Queensland and Griffith University recognise that significant gains can be made through collaborative research that focuses on the translation of knowledge into practice.

General Practice Queensland and Griffith University formed a partnership to support the development of a research-practice health agenda. A Memorandum of Understanding (MoU) was signed on 11 November 2007 and is a commitment to a collaboration between both organisations to support the establishment of a Collaborative Research Hub (CRH) focusing on the translation of evidence into practice.

Collaborative Research Hub: Research Briefing Series

The Collaborative Research Hub has a key focus on increasing the relevance and use of health service research to inform decision-making by facilitating knowledge transfer and exchange - bridging the gap between research and practice. The Collaborative Research Hub provides an important nexus between the university and division concerns, maintaining a focus on collaborative projects that engage relevant sectors of the community in the pursuit of solutions. Knowledge transfer and exchange occurs through "linkage and exchange" - the interaction, collaboration, and exchange of ideas.

The aim is to support effective links, remove duplication of effort and to work together with Divisions of General Practice, government and non-government agencies, primary health care organisations, consumers and research networks to identify and prioritise key research initiatives to inform policy development. This also includes working closely with other Universities and the PHCRED program, which already operates using a collaborative network model.

Translational Research

The Collaborative Research Hub through research focused on chronic disease management developed the research briefing series as a forum for practitioners, divisional staff, researchers, policy makers and associates.

The purpose of the Research Briefing Series is:

- ⚙ To promote the rapid dissemination of research results prior to publication in academic journals, in order to generate comment and to seek feedback.
- ⚙ To provide an avenue to present preliminary findings intended to stimulate discussion and critical comment on the broad range of issues associated with the research agenda.
- ⚙ To make informed and evidence-based contributions to critical policy debates affecting the health of Queensland people and communities.
- ⚙ To provide an avenue for the Collaborative Research Hub researchers and associates to draw out key issues in primary health care and chronic disease research through literature reviews and critical analysis of the implications for policy and practice.

Research Informing Practice

A series of literature reviews and projects were completed in partnership under the auspice of the partnership agreement between November 2007 and June 2008. These initial projects aimed to capture the latest evidence around each identified priority area including 1) Uptake of Clinical Guidelines, 2) Coordinated Care Concept Analysis, 3) A Review of Self Management 4) Predictors of Hospital Avoidance – Systematic Review. Another project was conducted with the Gold Coast Division of General Practice to investigate *A Practice-Based Model of Care Coordination for Chronic Disease Management: The Role of Nurses in General Practice*.

These reviews form the basis of an ongoing research agenda as well as informing the development of the research briefing series for dissemination to stakeholders, development of evidenced based models of care, research papers and profiling activity across Queensland through the website, health forums and workshops.

All papers and research briefing series can be found at http://www.gpqld.com.au/page/Programs/Collaborative_Research_Hub.

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Background

This briefing provides a summary of key issues affecting the uptake of clinical guidelines by general practitioners in Australia and internationally. This briefing is part of a research review paper, which identifies considerations and strategies for improving the adoption of chronic disease clinical guideline evidence by General Practitioners. The full article (in review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Barriers to Adoption

Practitioners have been overloaded with information available in decision-making around the development of guidelines and pathways to support the management of chronic conditions. The adoption of guidelines in practice varies considerably and dissemination alone does not guarantee uptake.

Guidelines do not always meet the clinical realities experienced by practitioners who need accessible, on demand knowledge at the point of care. Guidelines aim to provide access to evidenced-based information, to improve the benefits to the patient by standardisation of good practice across practitioners. However, the research suggests that there are a significant number of barriers and issues, which need to be addressed to improve the adoption and uptake in practice. It is an important first step in identifying the key elements which impact on adoption, to inform potential solutions in addressing these barriers, and how best to improve dissemination and communication processes.

In a systematic review, Majumdar et al. (2004) identified four clusters of barriers, namely the evidence, the clinician, the consumer and the context. They concluded that the nature of evidence is often uncertain, inconsistent, limited and complex, leading to an unwillingness or inability to apply it. Practitioners can also lack motivation, awareness or self-efficacy to apply evidence, irrespective of its quality. Further, there are often competing influences (i.e., pharmaceutical incentives and promotions) that take precedence over evidence-based knowledge. Consumer demand or preference can also take precedence over evidence-based knowledge, particularly in this era when practitioners are encouraged to develop treatment regimes in conjunction with consumers. Practitioners must also take into account the context of the consumer (i.e., ability to afford treatments, access to healthcare). Other features of the context that were found to influence adoption of guidelines included lack of time, resources and incentives, an emphasis on acute symptoms and the absence of opinion leaders to influence change.

Practitioners regard access to quality, reliable and credible information in a useable form as essential aspects to support the adoption and uptake of guidelines and pathways in practice. They need to be practical in their application and from a trustworthy source. Flexibility in decision-making is regarded as critical, in combination with clinical judgement, being able to adapt to the patient needs, case knowledge, advice from other health professionals and experience to make the complex clinical decisions.

The following summarises the key barriers to the adoption of evidence around clinical guidelines (part of a systematic review, Majumdar et al. (2003)¹

Summary of Barriers to the Adoption of Evidence

- 1 Evidence is uncertain or inconclusive in some areas (i.e., not enough evidence is available)
- 2 Evidence is often inconsistent (i.e., contradictory evidence)
- 3 Evidence has a limited scope or focus (i.e., focus on only one condition)
- 4 Evidence is limited to particular populations (e.g., lacking in relation to young people with multiple chronic conditions)
- 5 Evidence has not been synthesised into useable form (i.e., clear summaries are absent)
- 6 Evidence-based interventions are often too costly or complex
- 7 Practitioners may lack the necessary motivation to use evidence
- 8 Practitioners may lack the skills to use or critically review evidence
- 9 Practitioners may lack awareness of the evidence
- 10 Practitioners may disagree with the evidence as a result of their practical knowledge and experience
- 11 Practitioners may lack self-efficacy (i.e., a belief in their ability to implement treatments)
- 12 Practitioners may be over cautious about or over-emphasise the potential negative side effects of an evidence-based treatment
- 13 Consumer preferences, expectations and knowledge can take precedence even if they contradict evidence

14 Consumer may fail to comply with evidence-based recommendations

15 There is a lack of resources to support patients and practitioners to adopt evidence-based treatments

16 Limited access to healthcare restricts the ability to apply evidence (i.e., limited likelihood of follow-up visits)

17 Evidence-based treatments are often unaffordable (i.e., due to patients' lack of private health insurance, need for expensive diagnostic tests)

18 Evidence usually focuses on acute rather than ongoing management

19 There is a lack of time to implement evidence

20 There is a lack of incentives to change practice

21 There is a lack of opinion leaders among physicians to lead change

22 Evidence fails to address broader issues (i.e., how to treat a particular patient in a particular situation in a way that is efficient and equitable).

Adapted from Majumdar et al. (2003)¹

Briefing number 2 in the series explores dissemination practices and provides options for consideration in improving the processes to support the uptake of evidence in future practice.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **When guidelines need guidance: Considerations and strategies for improving the adoption of chronic disease evidence by General Practitioners**

Available at: http://www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

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1. Majumdar, S., McAlister, F. & Furberg, C. (2003). From knowledge to practice in chronic cardiovascular disease: a long and winding road. *Journal of the American College of Cardiology*, 43(10), 1738-42.

Background

This briefing provides a summary of key issues affecting the uptake of clinical guidelines by General Practitioners in Australia and internationally. This briefing is part of a research review paper, which identifies strategies for improving the adoption of chronic disease clinical guideline evidence. The full article (in review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

A number of areas were identified as key aspects to support the uptake and adoption of guidelines and pathways in practice. This includes improving the quality, the dissemination and uptake strategies. Supporting GPs in the practice setting in deciphering and adapting clinical guidelines and proposing a change framework around developing 'learning communities' to support development of localised guidelines that can more flexibly cater to the full spectrum of GP knowledge.

Improving Quality

Practitioners value guidelines which involve straightforward measurable action, which are simple, on demand and require little effort to implement. Trusted sources of information are critical (e.g., advice of a colleague) and flexibility to meet the individual style of the practitioner are all essential in supporting uptake and dissemination of guidelines for chronic disease management.

The Guideline Elements Model (GEM)¹ was developed to support evidenced based strategies to improve quality improvement practices. The GEM contains logical fields for systematically translating guidelines into consistent useable electronic documents. The same research team in 2002 at the Conference of Guideline Standardisation developed a framework² that could be applied to guideline development to improve quality. A checklist of 18 components was developed. To support the 18 components, it was recommended that a graphical description (algorithm) of the stages and decision points were identified and include a plan for updating the guidelines according to new evidence and an implementation plan to support adoption.

Improving Dissemination Practices

The passive dissemination alone is generally ineffective in altering practice or policy translation. The opportunities for adoption are increased if practitioner motivation, skills, attitude and behaviours around guideline use are increased. A two phase approach³ has been recommended.

Phase One

Guideline must:

- ⊗ Be developed in response to locally driven need
- ⊗ Approved by a credible body
- ⊗ Disseminated as widely as possible

Phase Two

Guideline must:

- ⊗ Enable and reinforce change in the practice setting (including training & support in the practice setting)

Approach to Guideline Uptake

Traditional approaches to knowledge transfer apply a linear model as a one-way, teacher learner interaction (e.g., continuing professional development)⁴. The realistic practice setting for GP's knowledge is developed over time, with non-linear processes of learning and reflection that flow in multiple directions to and from physicians, patients, policy makers and health care providers. This reinforces the notion that clinical guidelines are but one of many tools used by clinicians in their daily practice, and supports Falzer et al (2008)⁵ proposed process-focused model which supports implementation strategies which provide clinicians with useful processes for making complex decisions.

"Learning Communities"

Learning communities are made up of people who share a common purpose and collaborate to draw on individual strengths, respect a variety of perspectives, and actively promote learning opportunities. They are voluntary, self-organising and focused groups of individuals and organisations that work towards a common understanding of an issue, focus on the efficient use of resources and develop knowledge that is grounded in the specific context.

Systematic reviews have confirmed that the most successful form of knowledge transfer involves complex, multi-faceted approaches based on active learning, outreach and interaction, such as that occurring in learning communities.⁶ A learning community might be comprised of GPs and/or practice staff within one practice, a network of practices, or a district. Learning communities can be virtual or physical and may cross sectors, even engaging consumers as an integral part of the learning environment.

Supporting GP's to Evaluate Guidelines

In an attempt to overcome some of the persistent barriers to guideline usage (such as limited applicability to individual patients; local prevalence of chronic illness; cultural factors; economic limitations, etc.), Graham et al. (2002)⁷ developed a framework for evaluating and adapting existing clinical

guidelines for local use. The framework is operationalised at a local level, through a learning community or network that includes a range of local representatives and stakeholders. Graham et al. developed a ten step process via which learning communities can “determine which existing guidelines are worthy of adoption” (p. 599) and facilitate local use. The emphasis of this framework is on creating an ongoing group process for evaluating guidelines in a systematic and localised way. (See Briefing Number 3 which has the 10 steps for evaluating guideline use and endorsed by the World Health Organisation).

The framework and guideline whilst a time-intensive process, aims to ultimately save time at the individual practitioner level in deciphering and adapting clinical guidelines. To support ‘normalisation’ of knowledge and guideline adoption, partnerships, consensus and engagement are essential and underpinned by communication strategies, technology and a learning orientation. It is also necessary to recognise that change as a result of innovation can occur at three levels, macro-level change (e.g., adaptive learning systems that respond to new knowledge), meso-level change (e.g., embedding of new concepts into systems and processes) and micro-level change (e.g., modified practices or attitudes among practitioners and policy-makers). For knowledge to be transferred into practice or health system change, each of these levels must be addressed.

Change Framework – Facilitating Normalisation

Sustainable change can be facilitated if it is generated from the ground up and in incremental steps (ie small changes over sustained period of time)⁸. To effect change within a health system and to influence policy into practice change needs to occur at:

- ✧ Individual (micro-level) – strategies aimed at individual change (eg. Education, leadership and competency development)
- ✧ Group (meso-level) – team development, task re-design and collaboratives. Organisational development based on capacity building strategies and partnership development
- ✧ System (macro-level) – Health system, policy and political environment.

To deliver health system change and reform, individual-level change is critical. To influence change and sustainable success, there needs to be alignment between individual goals and group/organisational/system goals. Leadership, advocacy and opinion leaders play a critical role during this process.

A sequence of change events supports the change process. The Primary Care Collaboratives are example of the circular process which aims to ultimately influence and strengthen the delivery of care, the consumer experience, improved health outcomes and improved health system costs.

The core task of any guideline uptake strategy should not only be to ensure the efficacy of guidelines and diffusion strategies themselves, but also to provide strategies that will assist GPs to effectively filter and evaluate the array of communications that come their way. Thus, the question becomes not “how can we increase GPs’ use of guidelines?” but, rather, “how can we help GPs to identify effective guidelines and use them effectively?” The answer to this latter question comes from the “naturalistic” approach to knowledge transfer through localised learning communities. This approach to guideline dissemination can promote suitable adaptation and uptake of guidelines by involving key members of the learning community in evaluation processes. Any guideline dissemination strategy needs to attend to local learning variables such as:

1 How GPs develop knowledge via dialogic interaction with multiple sources and forms of information and experience;

2 How GPs retain new information as part of an already expansive and constantly growing narrative knowledge base; and

3 How GPs manipulate and incorporate multiple knowledge forms and sources to make complex clinical decisions.

Professional associations and peak bodies are in a prime position to facilitate guideline uptake in a localised way due to their ongoing role in network development at the district level. A naturalistic learning community approach to guideline uptake will produce localised guidelines that can more flexibly cater to the full spectrum of GP knowledge sources such as consumer experiences and preferences; advice from other health professionals; GPs’ case knowledge; and local insight, wisdom, and experience.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **When guidelines need guidance: Considerations and strategies for improving the adoption of chronic disease evidence by General Practitioners**

Available at: www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Authors: Elizabeth Kendall¹, Naomi Sunderland¹, Heidi Muenchberger^{1,3}, Kylie Armstrong^{1,2}

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Brief 3: 10 Steps for Evaluating Guidelines

Background

This briefing provides a summary of the 10 steps for evaluating guidelines as endorsed by the World Health Organisation. This briefing is part of a series of briefings and review paper, which identifies strategies for improving the adoption of chronic disease clinical guideline evidence. The other briefings (1 & 2) and full article (in review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

In an attempt to overcome some of the persistent barriers to guideline usage (such as limited applicability to individual patients; local prevalence of chronic illness; cultural factors; economic limitations, etc.), Graham et al. (2002)¹ developed a framework for evaluating and adapting existing clinical guidelines for local use. The framework is operationalised at a local level, through a learning community or network that includes a range of local representatives and stakeholders. Graham et al. developed a ten step process via which learning communities can “determine which existing guidelines are worthy of adoption” (p. 599) and facilitate local use. The emphasis of this framework is on creating an ongoing group process for evaluating guidelines in a systematic and localised way.

Ten Steps for Guideline Evaluation

Graham et al.'s *ten steps for guideline evaluation and localisation*^{1,2} are summarised as:

- 1 Identify a clinical area in which to promote best practice;
- 2 Establish a local interdisciplinary guideline evaluation group or taskforce (ideally a learning community);
- 3 Establish a guideline appraisal process using one of several recommended guideline appraisal instruments such as the Appraisal of Guidelines Research and Evaluation (AGREE) endorsed by the World Health Organisation (see www.agreecollaboration.org).² The AGREE instrument involves 23 Likert-type scale items across six domains that capture different dimensions of guideline quality including: 'scope', 'purpose', 'stakeholder involvement', 'rigour of development', 'clarity of presentation', 'applicability', and 'editorial independence' (Graham et al., 2002, p. 602);
- 4 Searching and retrieval of guidelines. Graham et al. recommend that organisations conduct a systematic search for all relevant guidelines using existing databases such as MEDLINE and EMBASE (p.602). All relevant guidelines should be included in the guideline appraisal process;

5 Guideline appraisal. Graham et al. recommend that the guideline evaluation group should then systematically evaluate all available guidelines on a specific topic using the selected guideline evaluation instrument (p. 603). Once the available guidelines are rated using the Guideline evaluation instrument, Graham et al. (2002, p. 603) recommend that the group conducts a clinical 'content analysis' of the recommendations included in the highest rating guidelines. Graham et al. provide helpful information on how evaluation groups can compare various recommendations in a 'recommendations matrix' (see Graham et al., 2002, p. 605);

6 Adaptation of existing guidelines for local use. This step determines whether there is sufficient justification for local uptake of any of the recommendations included in highly ranked guidelines. The evaluation group endorses select recommendations that are perceived as being highly relevant and applicable for local variables (such as prevalence of chronic disease, patient demographics, etc.). Graham et al. note that 'once local recommendations are decided upon, other activities can be undertaken to facilitate eventual guideline uptake' (p. 606);

7 External review of the proposed local guideline. In this step local GPs, policy makers, consumer groups, and other stakeholders are asked to provide feedback on the guidelines prior to their final publication;

8 Finalise the local guideline following response to any feedback arising from Step 7;

9 Official endorsement and adoption of the guideline by the evaluation group and other organisations (e.g. General Practitioners State or District level representative bodies);

10 Scheduled review and revision of guidelines. Graham et al.'s overall approach is intended to be cyclical in nature. They emphasise that updating and reviewing localised guidelines is an essential step of the ongoing work of the evaluation group.

While the above evaluation process in itself is involved and time-intensive, it may save considerable time at the individual practitioner level in searching for, deciphering, and adapting clinical guidelines. The methods of uptake discussed in Step 6 of Graham et al.'s model can be facilitated via a number of avenues associated with learning communities and peak bodies representing members. Fluidity and flexibility in selected delivery modes to individual GPs can facilitate ease of use in clinical contexts and allow further adaptation to patient variables in treatment settings. Uptake strategies that aim to slot new information into GPs' existing processes of learning and decision making

in a sustainable and naturalistic way are perhaps most favourable given the sheer amount of information that GPs are exposed to on any given day.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **When guidelines need guidance: Considerations and strategies for improving the adoption of chronic disease evidence by General Practitioners**

Available at: www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

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References

1. Graham, I., Harrison, M., Brouwers, M., Davies, B., & Dunn, S. (2002). Facilitating the use of evidence in practice: Evaluating and adapting clinical practice guidelines for local use by health care organisations. *JOGNN*, 31, 599-611.
2. Appraisal of Guidelines Research and Evaluation (AGREE) endorsed by the World Health Organisation. Retrieved July 25, 2008, from, <http://www.agreecollaboration.org>

Brief 4: Understanding Coordinated Care, A Concept Analysis

Background

This briefing provides a summary of findings from a concept analysis which aims to establish a clear and shared understanding of the concept and purpose of coordinated care. The full article (in journal publication review) describes the methodology and the concept analysis findings which aim to develop an understanding of the attributes that constitute coordinated care. This also included systematically defining the attributes of associated concepts including continuity of care, integrated care, and chronic disease management. The full article can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Results

The coordinated care terminology has become all-inclusive, and is not well defined or described. The multi-layered, non-linear interaction of the health system within which coordination of care to patients is provided has underlying complexity and challenges.

The findings from the systematic concept analysis review confirmed that activities associated with coordinated care occurred at three levels, including namely, the client, service delivery and the system.

At the level of client, coordinated care involves:

- 1 Person-centred care
- 2 Identification of a target group with complex needs and undertaking holistic health, social and risk assessments
- 3 Relevant and shared care planning
- 4 Regular reassessment, monitoring and review
- 5 Engagement with clients and caregivers to support self-management

At the level of service delivery, coordinated care involves:

- 1 A cooperative multidisciplinary primary care team with a clearly identified coordinator and defined team roles
- 2 Communication processes that facilitate timely interactions among all care partners – including clients and families
- 3 Learning communities among health care providers
- 4 Evidence based policies, guidelines and protocols
- 5 Flexible care provision

At the level of the system, care coordination involves:

- 1 Effective resource coordination including fund pooling and the involvement of senior and middle management
- 2 Mechanisms for efficient and effective transfer of synchronised information across settings, between clinicians, and between clinicians and clients
- 3 Integrated networks of organisations that include linkages between all components of the system.
- 4 Collaboration among elements of the system.

Conceptual Definition

A full **concept analysis** of coordinated care reveals a multi-faceted concept that exists in many forms. In its fullest form, *coordinated care can be conceptualised as consisting of (1) coordination and management of health care services for an individual client to create a comprehensive and continuous experience; (2) coordination of the providers to encourage team work and shared knowledge; and (3) coordination of service delivery organisations to create a network of integrated entities.*

Implications for Practice

Coordinated care involves horizontal aspects at the client, service level and system level and also at the vertical level in facilitating interaction between levels to ensure smooth operation of the health care system over time and across contexts. Further investigation is required in the areas of partnerships and networks within and between health professionals and collaborative groups.

Achieving person-centered care coordination for people with complex health care needs is multifaceted. Subsequently, it is unlikely that all identified components of coordinated care will be achievable at all levels and in every context. It is important for organisations and health care providers to recognise those elements of coordinated care that are missing and establish the cause of their absence. Additionally, it is appropriate that clients who receive complex health care coordination are supported to identify missing elements, and are involved in establishing the cause and consequence of their absence. There is also an at least equal need to establish which components of coordinated care are key elements, the relationship between key elements and actual or perceived health care outcomes, and the cost-effectiveness of providing or not providing the key elements. However, in doing so, it is essential that already fragmented care delivery is not further fractured.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **Coordinated care: What does that really mean?**

Available at: www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Authors: Carolyn Ehrlich¹, Elizabeth Kendall¹, Heidi Muenchberger^{1,3}, Kylie Armstrong^{1,2}

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Background

This briefing provides an overview of the current knowledge of self management and explores the broader context of embedding self management practices within the health system. The full article (in journal publication review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

This briefing highlights the most significant issues impacting on self-management as it is understood in health practice, identifies the current frameworks that describe how self-management is supported in practice and explores approaches that can help facilitate self-management in practice. Briefing (6) explores how self-management is supported in the general practice environment and theoretical perspectives that could inform self-management support.

Current Knowledge

Greatest amount of evidence in the literature has focused on self management education programs, which is only one aspect of self management. A review by Griffiths (2007)¹ identified 36 studies of self management education programs and identified 13 different components within these programs (general education/information, facilitated discussion, skills training, behaviour therapy, problem-solving, cognitive therapy, social support, relaxation, biofeedback techniques, relapse prevention skills, diet or exercise instruction and miscellaneous activities such as stress management). This highlights the substantial variation between the various self-management interventions available.

However, little is known about how self management is conceptualised and how it can be supported effectively other than education programs. In the general practice setting, most interventions lacked external validity and feasibility in the practice setting, were too complex and few attempted to influence GP behaviour (see review by Leeman, 2006²). Primary recommendations were that self management interventions needed to be simplified.

Self Management in the Health Setting

Self management is broadly conceptualised with inconsistent definitions and unwritten assumptions creating broad interpretation and confusion. Understanding of self management has been explored extensively (e.g. by Lorig and Wagner). In a recent concept analysis³ five essential components appeared in the literature definition, including:

- ⊗ Knowledge: The ability to acquire, understand and evaluate information necessary to manage one's health and to use that information in decision making.
- ⊗ Goal Setting and Problem Solving: The ability to monitor the impact of illness on one's life, and plan, prioritise, problem-solve, set goals and make decisions in response to that impact.
- ⊗ Mobilising Resources: The ability to identify and activate resources in a timely manner, and to recognise one's personal limitations or needs for support.
- ⊗ Self-efficacy: Having confidence in one's ability to cope, manage and respond to disease and its impact and a belief in one's ability to adapt one's behaviour, lifestyle and cognitions in response to challenges.
- ⊗ Collaboration: The ability to communicate with professionals, services and systems to make decisions collaboratively and negotiate to get one's needs met successfully.

These components highlighted the fact that self-management involves a complex and diverse set of skills and activities, combined with attitudinal variables, such as confidence, that enable individuals to apply their skills. The concept of self-management is clearly multi-faceted and requires further definition to facilitate its use in practice and policy.

Self Management: Client Perspective

The research suggests that although there are common elements of self management, it is individually constructed with ongoing fine tuning and understanding of the illness to adjust within their social context and lifestyle of the individual. This makes it difficult to describe, predict or understand self management.⁴

Supporting Self Management

Despite the fact that self-management features as a priority in almost every call for primary care reform, the complexities involved in delivering the necessary supports to promote self-management are poorly understood.⁴ Little is known about how to integrate self-management into the daily activity of the health system and the practices of health professionals.

To date, self-management support has been defined in a fairly narrow way, namely as the systematic provision of education and supportive interventions by health care staff to increase patients' skills and confidence in managing

their health problems, including regular assessment of progress and problems, goal setting, and problem-solving support".⁵ Much of the available evidence in this area pertains to the delivery of educational courses, such as the chronic disease self-management course (Lorig et al., 1993)⁶. The RACGP⁷ also conceptualised self-management interventions as consisting of education and information, motivational interviewing, peer support, structured programs led by health professionals or lay people, symptom diaries and community-based skills training. They noted that to assist people to self-manage, it was necessary to develop their skills, guide lifestyle and behaviour changes, develop knowledge about disease and symptom management and support the effective use of community resources.

However, self-management support is much more complicated than simply providing skills and knowledge. It involves engaging in processes that foster people's opportunities to apply problem-solving skills, experience self-efficacy and apply their knowledge in real-life situations.⁸ In one of the few attempts to systematically

explore self-management support, Spearing, Eakin and Wilson (2005)⁹ developed a process framework for professional practice. They noted that to support self-management, health professionals would need to engage in:

- ⊗ Collaborative planning and goal setting
- ⊗ Information provision and skill development
- ⊗ Supports for behaviour change
- ⊗ Planned follow-up and monitoring

The follow up briefing (6) explores self management practices in the general practice environment.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **Supporting Self-Management in General Practice: An Overview**

Available at: www.gpqld.com.au/Programs/Collaborative_Research_Hub

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Background

This briefing explores how self-management is supported in the general practice environment and theoretical perspectives that could inform self-management support. The full article (in journal publication review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Self Management in the General Practice Environment

The general practice setting provides an environment which supports self management principles, but must be adapted to meet the demands of the practice and pressure on the GP. This section will propose a workable model of self management support which allows for the complex social and environmental context for people living with chronic disease and the context within which health professionals provide care. To support this environment a set of eight characteristics were proposed¹ which included: a care team that works collaboratively; continuity of care across service providers; coordination of referrals; documentation of goals, plans and services; ongoing quality improvement; patient input; staff training and education; and integration of self-management into the fabric of the practice. To support this process at the practice level the following activities need to occur:²

- ⊗ Systematic follow-up
- ⊗ Time to address self management tasks during consultancy
- ⊗ Practice setting needed space for group education and peer support group
- ⊗ Shift from clinical outcomes towards a focus on the day-to-day problems of living with a chronic illness.

Integration of self management strategies within the practice setting have shown to influence behavioural change and improved health outcomes.³ These strategies included committed senior leaders, more than one self-management champion, designated roles associated with self-management and inclusion of self-management as a regular agenda item for discussion, a local social marketing campaign and behaviour change tools/materials in the practice, training for staff members, modelling of self-management for clients, multiple methods and sites of client engagement and active prescription of self-management activities.

Creating a person-centred approach which assists consumers to self-regulate their behaviour, whilst a challenge for the general practice setting, provides a humanistic approach. This approach would need to be

facilitated with the support and integration strategies outlined above.

Theory behind the Support Techniques

Self-determination theory (SDT) is a theory of self-motivated behaviour change that has been under development for more than 30 years⁴. Research has confirmed a place for SDT in the health system in that internalised motivation, when well supported by others, is associated with higher levels of treatment attendance, less drop-out, less relapse, and enhanced well-being.⁴ Research in diabetic patients has shown that autonomous motivation for adaptive self-management behaviours (diet, exercise, and medication compliance) predicted greater glycemic control.⁵ According to some researchers, the principles of self-determination theory, when combined with scientifically supported treatments,⁶ should maximise the ability of people with chronic conditions to achieve substantial and lasting health outcomes.

SDT provides clear guidance about how to support people to thrive and, therefore, provides a potential framework for self-management support. For instance, competence will be facilitated through structure, such as clear expectations, achievable goals, and tangible feedback. In conjunction with structure, however, autonomy support is provided by maximising opportunities to exercise choice. Researchers have suggested that this involves (a) developing a personally meaningful rationale for engaging in a behaviour; (b) minimising reliance on external controls; (c) providing opportunities for participation; and (d) acknowledging negative feelings associated with engaging in difficult tasks.⁷ Pressure to engage in behaviour change is minimised, and individuals are encouraged to initiate actions themselves. To facilitate competence, the link between the behaviour and valued outcomes is made apparent, expectations are clear, and positive feedback is provided. The entire interaction occurs within a warm environment which capitalises on the personal relationship between the professional and the person with the condition.

Motivational interviewing⁴ is an example of this, and includes mutual goal setting and agreement, open-ended questions that allow clients to express their concerns freely, reflective listening to ensure understanding and summarising to clarify conclusions. The most critical aspect of motivational interviewing is the need for neutrality and suspension of any stereotypes or assumptions. However, motivational interviewing in its entirety is time-consuming and may not be possible within the short general practice consultation. Although the technique does provide some simple strategies that could facilitate self-management, self-management support strategies must be workable in the

practice context.

System Enablers

In attempting to simplify self-management support in the practice setting, Coleman and Newton (2005)² designed a cycle of steps to create an interactive feedback loop between clients and GPs. These steps involve:

- 1 The collaborative selection of a self-management strategy or desired behaviour change;
- 2 The provision of information about the topic;
- 3 The exploration of barriers to that outcome;
- 4 The setting of goals and action plans;
- 5 Determination of confidence level; and
- 6 The provision of support for the plan to be implemented.

Coleman and Newton also discussed the importance of a consistent rating system to allow people to engage in monitoring their condition and symptoms. They described a system of green, yellow and red zones of management to enable people to make sense of when they should contact a health professional for input.

In acknowledging this broader view of self-management, Spearing et al. (2005)⁸ included system enablers in their framework of self-management supports. Specifically, they noted that self-management is more easily promoted in the presence of:

- 1 Integration across services and sectors;
- 2 Supportive policies;
- 3 Individualised, disease-specific, culturally competent and interdisciplinary services; and
- 4 Capacity building around healthy lifestyles.

Relationships with general practitioners was cited as a critical factor in determining whether or not they enacted and maintained self management activities following training. An individualistic approach to self management is insufficient to bring about change. Broader self management supports recommended include:

- ⊗ collaborative planning and goal setting
- ⊗ development of applied skills
- ⊗ follow-up and support in the person's own setting

- ⊗ continuity of care across settings and
- ⊗ access to sufficient community resources and supportive environments

Information Communication Framework (ICF)

The ecological approach to health has been translated into a well-known framework which may provide a useful mechanism for promoting self-management, namely the World Health Organisation International Classification of Functioning, Disability, and Health (WHO, 2001).⁹ This framework is being utilised across the world to facilitate a consistent approach to health and functioning. The ICF provides a structure by which to present information and a coding system that ensures attention is given to contextual factors. The ICF is divided into two parts, 1) functioning and disability and 2) context. Functioning and disability is classified according to two dimensions, namely body functions and structures, and activities and participation. Context is classified according to two dimensions, namely environmental factors and personal factors. Codes and scores, ranging from positive to negative, can be assigned to enable a full evaluation of the person and their context. Using the ICF as a guide, Steiner et al. (2002)¹⁰ have developed a **Clinical Problem-Solving Form** that enables practitioners and their clients to apply the ICF in *problem-identification, goal-setting and understanding capacity of individuals to self-manage*. With space for responses from both the person and the practitioner across the ICF dimensions, the tool is used in an interactive way to facilitate open communication and shared understanding. This type of assessment and communication is likely to facilitate a supportive context for autonomy, structure for a sense of competence, a connection between practitioner and client and attention to context. Thus, this tool is likely to support self-management, but is brief, easy to use and meaningful to both parties.

Conclusions for a way forward

A system wide shift (paradigm shift) is needed to adopt an integrated self management approach. Sufficient self management evidence is accumulating, however to date, the process of change has relied on the education of people with chronic conditions, but little attention has been given to a comprehensive multi-level approach to change.

Through the use of simple tools like the **Clinical Problem-Solving Form**, following strategies to support the interactive loop between clients and GPs and developing broader self-management supports will help patients towards managing their illness in the context of their lives.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **Supporting Self-Management in General Practice: An Overview**

Available at: www.gpqld.com.au/Programs/Collaborative_Research_Hub

Authors: Elizabeth Kendall¹, Heidi Muenchberger^{1,3}, Carolyn Ehrlich¹, Kylie Armstrong^{1,2}

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Background

This briefing is summary of the key findings, which emerged out of the systematic review of published papers that identify significant predictors of hospitalisation. The study aimed to identify the key modifiable determinants of avoidable hospitalisation in chronic disease to inform the development of a coherent framework from which to interpret findings and for consideration in the development of preventative approaches to disease management and understanding processes associated with chronic disease management (see briefing 8). The full article (in journal publication review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Avoidable admissions are defined as admissions that might ordinarily have been controlled or avoided.¹ In Australia it is estimated that the number of avoidable admissions in a calendar year is approximately more than half a million admissions.² A disproportionate number of avoidable hospital admissions occur in relation to chronic conditions, usually due to an acute exacerbation of one or more symptoms and often as a result of the absence of preventative measures or timely access to primary health care services.^{2,3,4}

Systematic Review and Findings

The systematic review methodology and process for identifying the key research findings which influence predictors of hospitalisation can be found in the full paper. The findings includes a summary of predictive factors which influence hospitalisation outlined below.

Summary of Predictive Factors

31 unique factors were identified as determinants of avoidable hospitalisation. These were grouped into three categories according to the individual, health service system and environmental factors.

Individual Factors

Age

Age was the most frequent predictor for hospitalisation, particularly those older than 65 years. A U- shaped distribution finding was also identified with both older (>64 years) and younger patients (<19 years) who were at higher risk of avoidable hospitalisation, particularly those who lived in urban areas, were of low socio-economic status, have access to Medicaid and who have 'tertiary' education.¹

Gender

Findings within studies vary considerably and highlight that the risk of hospitalisation with regard to age is dependent on age related to the specific chronic disease. The implications for practice and communities addressing hospitalisation suggests that investigation into the major chronic illness impacting on hospitalisation, needs to include reviewing disease specific approaches impacting at the local level.

Socioeconomic Status

Socioeconomic status (including the combined effect of education and income) was found to be a strong predictor of hospitalisation in nearly half of the studies selected (n=23, 39%). Social disadvantage, defined by Census Collection District Index of Relative Disadvantage, which included qualifications, income, unemployment, type of job, home ownership, single parent families, marital status, car ownership, school leaving age, Aboriginal and Torres Strait Islander descent, number of families per household and english proficiency according to Brameld et al. (2006)⁵ confirmed that individuals with low levels of socio-economic status incurred more hospital admissions for avoidable conditions.

Race and Ethnicity

Race and ethnicity contributed to predicting avoidable hospitalisation in almost one quarter of the studies (n=18, 23%). Variables impacting on the predicted use of hospital resources were difficult to distinguish between ethnic or racial origin and lower socioeconomic status, access to services, and the variation in cultural origins and how different ethnic groups behave and respond in different ways.^{6,7}

Social Support

A limited number of studies (n=4, 5%) reported on the important role of social support in avoidable hospitalisation. Risk factors associated with social support include people with limited social contact causing social isolation, marital status, whether they lived at home alone and family contact whilst takes may forms with the broader definition of social support, were found to impact on hospital admission rates.

Living Arrangements

A small number of studies reported on the association between living arrangements and hospitalisation (n=6, 7%). Household crowding was related to hospitalisation,⁸ however the overall results were conflicting and the

conclusion indicated that living arrangements were not significantly related to hospitalisation risk for chronic conditions.

Biomedical Markers and Treatment

Bio-medical markers were frequent and significant predictors of hospitalisation for chronic disease (n=24, 30%). These factors were usually condition specific, and most often included FEV (Forced Expiratory Volume), dyspnea, hypertension, body mass index, and blood pressure (systolic). Other clinical indicators were identified as predictors of hospitalisation (e.g. chronic mucus hypersecretion, airflow obstruction, nephropathy) and treatment and therapy indicators (e.g. Insulin treatments, home oxygen therapy, steroid treatment) were also identified as predictors of hospitalisation for chronic disease.

Medication

Five studies (6%) identified medication use associated with hospitalisation for avoidable conditions. Medication use was found to be associated with the complexity of the illness and the treatment of co-morbid conditions,⁹ along with non-compliance with medication.¹⁰

Health Status

Multiple studies (n=27, 33%) identified the important role of health status (including physical and mental health) and health quality of life in the prevention of hospitalisation. In fact, current health status (incorporating physical and mental health) was the second most frequent indicator of hospitalisation reported. The overall research findings suggest that the consequences of a chronic condition for a person's life may be more important than the actual condition in predicting hospitalisation.

The complexity of mental health issues was identified as a predictor for hospitalisation and one researcher reporting that depressed people from rural communities were three times more likely to be admitted for physical problems due to their rurality.¹¹

Co-Morbidity

Co-morbidity was consistently associated with avoidable hospitalisation, with the risk of hospitalisation increasing alarmingly for every additional co-morbid chronic condition. The severity of the chronic condition is also associated with the risk of hospitalisation, which highlights that both the complexity of an individual's condition in relation to their disease profile and the severity impact on risk associated with hospitalisation.

Health Service System Factors

Prior Hospitalisation

Prior hospitalisation for the same condition was found to be a significant predictor of hospitalisation among people with chronic disease. Prior hospitalisation was usually measured as any admissions to hospital within the last 12 months, and did not necessarily include emergency department visits, although this was also a significant predictor outcome in all studies reporting this factor (n=5). Providing primary care sector strategies to support care in the community (e.g. Asthma Action Plan, problem-focused coping strategies) were associated with reduced hospitalisation rates.¹²

Availability of Health Services

Availability of health services was related to hospitalisation and included physician availability as well as hospital bed availability. Findings confirmed that in areas where there are fewer General Practitioners per capita, this impacted on people being forced to seek treatment as an inpatient, noting that such treatment could have been offered in the community.³

Integrated Services and Coordinated Care

The coordination or integration of primary care services emerged as a consistent predictor of hospitalisation in the chronic disease population. The findings support the delivery of an integrated care intervention with enhanced self-management and increased access to the health care professional, helping to control symptom management and early identification in reduced episodes requiring hospitalisation.¹³ A multidisciplinary approach in providing community care and implementing a managed care program was associated with reduction in hospital admissions.¹⁴

Physician Characteristics

The findings suggest that practitioners use both clinical and social information (e.g. socio-demographic concerns for patients, insufficient financial or self-care resources) to guide their decisions about hospital admission. Practitioners who practice in more socially disadvantaged areas, where there is a higher proportion of revenue, which comes from the government-sponsored (USA) Medicaid program¹⁵ may impact on the greater likelihood of hospitalisation due to the lower rate of reimbursement for services. This potentially impacts on resources, which could be directed toward supporting the care process through education or self management to help prevent hospitalisation.¹⁵

Self Management Supports

The impact of self-management on avoidable hospitalisation was reported in a small number of studies (n=7, 9%). Similar to continuity of care, findings across almost all studies reported that an increased focus on self-management for patients resulted in less likelihood of avoidable hospital admission. Although hospitalisation is not often used as an outcome indicator of self-management education, there are findings that disease-specific education can improve specific clinical indicators (e.g. in diabetes, COPD and asthma) and the extent to which a physician has the capacity in accessing self-management resources, such as health counsellors, management programs and community-based treatments, has been associated with reduced risk of hospitalisation (e.g. in COPD).¹⁵ These risk factors are associated with an increase in acute episodes if ignored, and provides the potential for self-management training to support the management and prevention of people with chronic disease and potentially contribute to hospital avoidance.

Environmental Factors

Atmospheric Conditions

Atmospheric conditions (including air quality, atmospheric temperature, air pollutants) were predictive of hospitalisation, but were only reported in a small number of studies. A four year large sample study found seasonal variation rates of hospitalisation (i.e., highest in spring months) was significantly associated with the presence of air pollutants (levels of ozone, carbon monoxide, sulphur dioxide and nitrogen dioxide respectively). Variation was negatively correlated with climactic factors (i.e., low temperature, reduced hours of sun exposure and low barometric pressure).¹⁶ The findings highlight the need for early warning systems and pollutant monitoring devices to support individuals to manage their conditions more effectively.

Geographical Factors

A small number of studies reported significant relationships between hospitalisation and geographical factors. Factors included distance from home to hospital (n=2), topographical barriers to access (n=2), and rurality/urbanisation (n=7). Physical accessibility emerged as a predictor of hospitalisation, but was associated with an unexpected pattern.

Physical barriers (e.g. hills, lakes or inlets, mountain or river crossing) increased the likelihood of an avoidable hospitalisation, presumably due to the lack of primary care

facilities and lack of ambulatory services. Likewise the influence of remoteness and rurality increased the likelihood of hospitalisation for chronic disease.

Multiple factors impact on the geographical interaction between socio-economic status and residential area. Low-income neighbourhoods (e.g. those from ethnic minority groups or Aboriginal and Torres Strait Islander backgrounds) were more than 40% more likely to be hospitalised for an acute complication (diabetes in this study).¹⁷ Fewer services per capita and a limited capacity to use the services, which could have been prevented through ambulatory care, resulted in a circular effect on hospitalisation that is distinct from the issue of distance. Regional settings-based response that seeks to balance the tensions between multiple factors including the combined effect of the person-place interaction must be addressed to improve hospitalisation rates associated with geographical factors.¹⁷

Briefing number 8 identifies a possible framework to understand avoidable hospital admissions.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **Determinants of avoidable hospitalisation in chronic disease: Development of a predictor matrix**

Available at: www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

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Background

This briefing follows on from briefing 7 which identified through a systematic review the significant predictors of hospitalisation. This briefing presents the development of a framework from which to interpret findings and for consideration in the development of preventative approaches to understanding processes associated with chronic disease management. The full article (in journal publication review) can be found at www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Overall Health System Trends and Challenges

Current trends impacting on the health system in Australia include:

- ⊗ Increased life expectancy
- ⊗ A shift from acute to chronic conditions
- ⊗ Higher levels of anxiety and depression
- ⊗ Obesity
- ⊗ Drug use
- ⊗ Increasingly market-driven healthcare

These associated challenges are complicated by workforce shortages, geographical dispersion, changing demographics and technological innovation.

Health Reform has re-orientated thinking from a disease-focused (crisis orientated) model of service provision to a greater emphasis on health promotion, well-being and the maintenance of good health.

Summary of Predictive Factors

31 unique factors were identified as determinants of avoidable hospitalisation. These were grouped into three categories according to the individual, health service system and environmental factors.

Table 1: Summary of Predictive Factors

| Individual Factors | Health Service System Factors | Environmental Factors |
|--------------------------------|--|------------------------|
| Age | Prior hospitalisation | Atmospheric Conditions |
| Gender | Availability of Health Services | Geographic Factors |
| Socioeconomic Status | Integrated Services & Coordinated Care | |
| Race and Ethnicity | Physician Characteristics | |
| Social Support | Self Management Supports | |
| Living Arrangements | | |
| Biomedical Markers & Treatment | | |
| Medication | | |
| Health Status | | |
| Co-morbidity | | |

Table 2: Challenges and Potential Preventive Strategies for Hospital Avoidance

| Challenges | Potential Strategies |
|---|--|
| Hospitalisation is the result of a complex interplay of factors at all levels (i.e., person-related factors, physician factors, health system, geographical and environmental factors) | <p>No single factor in isolation contributes to hospitalisation and requires a multi-faceted response.*</p> <ul style="list-style-type: none"> ▪ Multi-level response required supported by positive policy development |
| Equitable access to health services | <p>Can be partially addressed through a comprehensive understanding of complex processes, which impact on unavoidable hospitalisation.</p> <ul style="list-style-type: none"> ▪ Address complexity through multi-level response with defined strategies and approaches. Supports required at the system level, organisational and practitioner level. |
| Individual (e.g. age, gender, marital status, socioeconomic status and race) and illness variables (disease type, disease duration and the number and nature of co-occurring illnesses and presence of co-morbidity) are difficult in influencing health outcomes | <p>Highlights the importance of modifiable health service system enablers including:</p> <ul style="list-style-type: none"> ▪ Self-management supports ▪ Continuity of Care (i.e., integrated services, care plans, management plans, emergency action plans) ▪ Physician qualities (e.g. use of guidelines, practice location, practice resources, physician experience) |
| Environmental and geographical considerations – e.g. distance to health services and practical strategies in accessing those services | <ul style="list-style-type: none"> ▪ Localised services and approaches to respond to the needs of a particular area ▪ Population-based projects and region-based health system planning required ▪ Data utilisation to inform health system planning ▪ Increased community capacity ▪ Accessible transport systems |
| Complexity of hospitalisation and multiple factors impacting on improved outcomes (at all levels, patient, practice setting, organisational and system level). | <ul style="list-style-type: none"> ▪ Use the Social Determinants of Health Model (Schulz and Northbridge, 2004)¹ as a framework to respond to fundamental factors which all interact to address the complexity and to address the determinants, processes and outcomes needed to meet the reform required to address avoidable hospitalisation. ▪ According to the mapping of the Model¹ (see table 3) the broader determinants of health provide potential solutions (e.g. systems to support access to services, community & natural social connections, opportunities for civic participation, public and fiscal policies to support a strong primary health care system). ▪ These system level solutions need to be fundamental to the supports for proximate factors (i.e. stressors, social supports and health behaviours) and the fundamental inequalities that underpin the model. |

* Note that the most studied predictors of age, gender and race are the least modifiable, yet continue to be a focus in prognostic health research.

Table 3: Factor matrix of significant predictors reported in the studies (n=82)

| <i>Risks to avoidable hospitalisation</i> | <i>Individual Health and Well-being</i> n (%) | <i>Interpersonal-Proximal</i> n (%) | <i>Service System-Intermediate</i> n (%) | <i>Environmental-Fundamental</i> n (%) |
|---|--|--|---|---|
| Stressors (increased risk) | | | | |
| Age | 22/28 (78%) | | | |
| Gender | 16/21 (76%) | | | |
| Non-white race | 13/18 (72%) | | | |
| Socio-economic status | 22/23 (96%) | | | |
| Lower education | 5/9 (55%) | | | |
| Unemployment | 2/2 (100%) | | | |
| Bio-medical markers | 17/19 (89%) | | | |
| Infectious processes | 2/3 (66%) | | | |
| Disease history | 2/2 (100%) | | | |
| Severity of condition | 13/14 (93%) | | | |
| Smoking | 2/6 (33%) | | | |
| Body mass index (obesity) | 3/5 (79%) | | | |
| Co-morbidity | 16/18 (88%) | | | |
| Hypertension | 5/6 (83%) | | | |
| Treatment and therapy | | 9/10 (90%) | | |
| General health status | | 6/6 (100%) | | |
| Physical health status | | 13/14 (93%) | | |
| Mental health status | | 7/7 (100%) | | |
| Previous hospitalisations | | 11/11 (100%) | | |
| Emergency dept. visits | | 4/4 (100%) | | |
| Medication | | 4/5 (80%) | | |
| Length of stay | | 2/3 (66%) | | |
| Access/ availability | | | 7/9 (78%) | |
| Geographical topography | | | | 3/4 (75%) |
| Rurality | | | 4/4 (100%) | |
| Urbanisation | | | 2/3 (66%) | |
| Atmospheric conditions | | | | 5/6 (83%) |
| Supports (decreased risk) | | | | |
| Treatment and therapy | 9/10 (90%) | | | |
| Autonomy/coping | 3/3 (100%) | | | |
| Social support | | 3/3 (100%) | | |
| Living arrangements | | 4/6 (66%) | | |
| Insurance | | 6/8 (75%) | | |
| Integrated care | | 10/10 (100%) | | |
| Self-management | | 6/7 (86%) | | |
| GP characteristics | | 1/2 (50%) | | |
| Strategies for the future | | | | |
| Centralised systems | | | | |
| Place-based approaches | | | | |
| Increased community capacity | | | | |
| Positive health policies (including reducing social inequities) | | | | |
| Accessible transportation systems | | | | |

Brief 8: Development of a Framework to Address Preventive Approaches to Hospital Avoidance

According to this model, findings from this review confirmed that much of the research investigating hospitalisation in chronic disease is largely focussed on personal (individual health and well being) or inter-personal (proximal) factors in hospitalisation and associated risk. There is also a trend in the existing literature to focus on stressors rather than supports that can buffer effects of competing variables, or help to overcome limitations.

Strategies which have multiple long-term benefits need to be addressed to optimise health service delivery and coordination at the same time as promoting a preventative approach to managing complex comorbidities.²

The findings of the current review have emphasised the interplay between the individual, his or her physical condition and the social and physical environment. The availability of resources and services at each level and the imposition of stressors or agents of harm at each level can alter the outcome. When the balance between supports and stressors is managed for individuals and for specific areas/populations, a quality health system is produced. In terms of hospital avoidance, the aim of any health system should be to minimise stressors that deplete from health and wellbeing, reduce social inequities in health access and maximise population-wide supports or resources that can keep people healthy.

The systematic review of predictive factors identified 31 unique factors which influence avoidable hospitalisation. The review highlighted that there has been a trend to focus on stressor predictors (e.g. age, socio-economic factors) rather than support predictors (e.g. integrated care) and on personal and inter-personal factors (e.g. treatment and therapy) rather than service system or environmental predictors. It is clear that hospitalisation is not a consequence of any single factor in isolation and, accordingly, warrants a complex and multi-faceted response. Overall, the review indicated that hospitalisation is the result of a complex interplay of factors at all levels (i.e., person-related factors, physician factors, health system, geographical and environmental factors).

The opportunity exists to develop a multi-level response which focuses on the modifiable health system enablers. This could include the development of a broader Social Determinants of Health framework which defines strategies and approaches at the system, service and practitioner level which focuses on supports rather than stressors to create a positive health climate focused on well-being.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **Determinants of avoidable hospitalisation in chronic disease: Development of a predictor matrix**

Available at: www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

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Background

This briefing explores the role of the practice nurse in the coordination of care for people with chronic conditions. Focus groups were conducted with general practitioners and practice nurses to gain an understanding of the specific tasks that might be conducted by practice nurses. Five themes emerged that indicated the need for a developmental and well supported implementation process. This research was conducted at the Gold Coast Division of General Practice. The full article (in journal publication review) can be found at http://www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

The Role of the Nurse in Care Coordination

Both information provided by the consumer and documented information related to the medical condition and treatment are equally important to continuous service provision, providing the link from one service episode to another.¹ The role of the team in the practice setting has been shown to provide consistent and coordinated service integration.

Clarity around the role of practice nurses is required to improve chronic care expertise and to respond to workforce pressures.² A system wide change must incorporate a change in skill-mix with the creation of new roles and new workers.³ To improve the effectiveness, efficiency and responsiveness of the health system, the competencies within and across teams of health professionals needs to change, and will require considerable education and attitude change. The Australian Coordinated Care Demonstration Trials⁴ and similar trials in the United Kingdom⁵ identified the need for structures and strategies to support their practice in the area of chronic disease management.

The Task of Coordinated Care

To improve outcomes for people with chronic disease, interventions must simultaneously implement strategies to change GP behaviour, re-organise general practice, improve information systems and deliver high quality patient education/support. A systematic review⁶ of coordination strategies identified two major categories which fell across the continuum from the service practitioner and individual with the chronic condition (micro-level) to the system level (macro-level). These categories are focussed on the process to facilitate coordination (e.g., communication strategies, supports for service providers and supports for individual consumers) and those focussed on structures for coordinating activities (e.g., shared information systems, referral proformas, care plans, decision support systems and so forth). The most successful strategies in terms of

outcomes for consumers were those that involved a re-organisation of structures to strengthen relationships between organisations and the provision of tools to actively support coordination (e.g., a shared care plan and records).



In reality, however, few models of care have been found to address all these components or activities. Indeed, some evidence has suggested that they may not need to contain all these activities, as long as they contain a set of key elements. For instance, Wagner⁷ and his colleagues concluded that successful comprehensive coordination programs typically contained four essential elements, namely,

- 1 Collaborative problem definition;
- 2 Targeting, goal setting and planning;
- 3 A continuum of information, self-management training and support services; and
- 4 Active and sustained follow-up.

In most studies, the actual tasks of a care coordinator mirrored these components,⁸ namely assessing and planning, implementing plans and delivering services, re-assessing and adjusting plans (see Table 1 for detailed description of these activities). Similarly, Woolf, Glasgow et al. (2005)⁹ found that across 17 practice-based coordination interventions, five common elements could be identified. They categorised these elements according to a model of health psychology used extensively in counselling (the 5As model). The five components included:

Assess: Identify chronic conditions and unhealthy behaviours;

Advise: Offer brief advice;

Agree: Set collaborative goals and action plans (e.g., behaviour “prescriptions”);

Assist: Provide more extensive education (e.g., training), counselling (e.g., coaching, case management), and self-help tools (e.g., pedometers, activity logs, food diaries); and

Arrange: Organise services, follow-up and reinforcement (e.g., e-mail or telephone follow-up, patient-held health diaries).

Research Project

The aim of this research was to:

- ✿ Identify the activities that nurses could engage in to support care coordination in general practice;
- ✿ Understand and address the barriers experienced (or likely to be experienced) by general practices and nurses in general practice in delivering care coordination for patients with chronic conditions;
- ✿ Identify the types of supports that are considered necessary to assist nurses in general practice to deliver extended care.

Thirteen participants engaged in three stakeholder focus groups. The participants consisted of 4 male GPs, 5 female Nurses, 2 female Practice Facilitators and 2 male Division Representatives (i.e., a coordinating body for general practice). Across these participants, seven practices were represented (i.e., the sample included 3 GP/Nurse pairs) and one Nurse was employed at an Indigenous Health Service. The data collection and analysis is explained in detail in the full article review. Overall the aim of the analysis identified the key themes that emerged in relation to activities that were currently (or could be) undertaken by practices nurses, barriers and issues faced (or expected to face) and possible solutions.

Findings of Focus Groups

Five major themes emerged that would require attention prior to the implementation of coordinated care interventions in the general practice setting. The five themes include:

- 1 conceptual confusion;
- 2 internal and external partnerships;
- 3 culture change;
- 4 financial models for a business context and;
- 5 professional definition, development and recognition.

Briefing number 10 outlines the findings in more detail. The results suggest that any model of care coordination would need to be supported by a developmental process which supports the themes. This includes developing an understanding and clarity around the definition of coordinated care, developing a whole of practice approach to address cultural change, developing the capacity to support internal and external partnerships, development and recognition of the role of the nurse and a full understanding of the financial models that could support care coordination.

Recommendations and Implementation of a Trial

Using the activities identified in the themes as a framework, the Gold Coast Division of General Practice has begun a trial with a group of participating practices. This includes creating a localised practice-based model that represents each of the five themes/components of care coordination. To support implementation of the model, support structures have been developed which includes: Care Coordination Practice Facilitator, a Primary Health Nurse Network, a Developmental Implementation System (focusing on cultural change, readiness, protocol development and process design) and a Care Coordination Resource Kit.

This study has highlighted the need for a supportive developmental process that incorporates a range of broad structures to assist practices to engage in the delivery of coordinated care, ensuring “practice readiness” and maximising both capacity and sustainability of the model. This includes providing ongoing mentorship to negotiate roles and requirements within the practice, provide administrative assistance with financial, procedural and other aspects of care coordination, and guidance/advocacy for practices as needed.

Acknowledgments

This briefing is a summary of a research paper (in journal publication review)

Paper Title: **A Practice-Based Model of Care Coordination for Chronic Disease Management: The Role of Nurses in General Practice**

Available at: http://www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

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The work was made possible by funding from the Gold Coast Division of General Practice, Queensland Health and the Motor Accident Insurance Commission

Gold Coast Division of General Practice website: www.gcdgp.com.au

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Table 1: Activities of a Care Coordinator identified by Chen et al. (2000)⁸

Assess and Plan: Identify all important problems and goals, produce a clear, practical plan that addresses these problems and list specific goals.

- 1 Identify people with chronic conditions who require assistance and uncover all important problems. These are the problems that can keep the person from better health and lead to unplanned hospitalisations. These problems vary for each patient.
- 2 Address all important problems and goals. Every important problem and goal should have a plan and an intervention or interventions to address it.
- 3 Draw from a comprehensive arsenal of proven interventions. A care coordinator must have a broad array of appropriate, proven interventions available in order to choose the best ones to meet a patient's needs.
- 4 Produce a clear, practical plan of care, with specific goals. The first step concludes with a written, individualised plan of care. It is important that all concerned--patient, care coordinator, GP - have a common, agreed-upon set of goals for the patient, and when and how the patient is going to achieve them.

Implement and Deliver: In the second step, Implement and Deliver, the care coordinator must implement the plan and deliver the services outlined in the plan of care. Care coordinators provide services of care coordination and communication, patient education, oversight of the care plan and assurance that interventions happen as planned.

- 1 Build ongoing relationships with the GPs and with other providers. This task enables care coordinators to coordinate care and facilitate communication among providers.
- 2 Build ongoing relationships with patients and families. The foundation for this relationship is often laid during the initial assessment in the first step.
- 3 Provide patient education. This intervention must be part of every plan of care. Programs must teach patients crucial self-care skills, such as proper diet for their condition, medical compliance, self-monitoring, emergency action plans, and skills to cope with the stresses of chronic illnesses.
- 4 Make certain that planned interventions get done. This task involves monitoring to make sure each intervention gets done.

Reassess and Adjust: Determine whether the interventions are working and, if they are not, adjust the plan. This step has five tasks:

- 1 Perform periodic reassessments. Contact patients on a regular basis to make sure they continue to progress and have not encountered new problems.
- 2 Be accessible. Patients must have an easy way to reach a care coordinator.
- 3 Nurture the relationship with GPs and providers.
- 4 Nurture the relationship with patient and family.
- 5 Make prompt adjustments to the plan of care as needed. If the reassessment in the first task reveals a lack of progress, the plan of care may need to be changed. Several interventions may have to be tried and discarded before a successful solution is discovered. Changes in the plan of care also need to be made promptly, sometimes even urgently. Patients' level of risk for complications may change, necessitating a change in follow-up frequency.

Background

This briefing presents the findings of the five themes/ components which emerged through focus group discussions with general practitioners and practice nurses to determine the role of the practice nurse in care coordination. Briefing number 9 provides the background information which led to the development of the five components which emerged from the study. A proposed model of care is presented to support an implementation process for a practice-based model of care. This study was conducted at the Gold Coast Division of General Practice. The full article (in journal publication review) can be found at http://www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Results and Challenges of Practice-Based Care Coordination

Five major themes emerged that would require attention prior to the implementation of coordinated care interventions in the general practice setting. The five themes include: conceptual confusion; internal and external partnerships; culture change; financial models for a business context and; professional definition, development and recognition. The results suggest that any model of care coordination would need to be supported by a developmental process which supports the themes. This includes developing an understanding and clarity around the definition of coordinated care, developing a whole of practice approach to address cultural change, developing the capacity to support internal and external partnerships, development and recognition of the role of the nurse and a full understanding of the financial models that could support care coordination.

Theme One: Conceptual Confusion

Coordinated care was a “fuzzy” term that meant different things to everyone and raised considerable confusion in discussions. There was no single model or understanding of coordinated care or an approach that would suit everyone. The data clearly indicated that practices all worked in different ways, even in relation to the same activity, concept or process. Further, within-practice variability was evident across individual patients and populations (e.g., Indigenous, Nursing Homes). The nature and extent of care coordination undertaken at the practice level varied considerably, along with the views about the possibility of an extended nurse role. Even within practices, views varied considerably, suggesting the need for extensive cultural change and communication prior to the development of new models of care.

Practice Enablers (to support implementation and future engagement) included:

- ⊗ The capability of the practice (including internal and external communication systems);
- ⊗ Workforce capacity, and;
- ⊗ Knowledge of primary and allied health processes.



Practices that had implemented some form of coordinated care for patients with chronic conditions had generally used one of four approaches:

- 1 an internal model (i.e., extending the role of an existing nurse);
- 2 an external model (i.e., employing an external service coordinator to work with practice clients);
- 3 a practice cluster model, where several practices shared staffing or resources or;
- 4 an unspecified model, which involved the inclusion of some aspects of coordination and planned follow-up but was not labelled as a specific approach.

Each model had significant advantages and disadvantages.

Practice Implications

Without a clear definition and a shared model of coordinated care, there was confusion about how to evaluate its outcomes in comparison to ‘usual care’. This confusion had obvious implications for:

- ⊗ Quality improvement
- ⊗ Workload allocation
- ⊗ Workforce autonomy
- ⊗ What skills and resources would be needed for it to work.

Theme Two: Internal and External Partnerships

Nurses relied heavily on personal relationships with their peers, GP’s, service providers and patients. So much so that it was believed that the success of any model was thought to hinge on the GP-Nurse relationship. The knowledge around how the practices operated varied between the GPs and nurses and indicated the need for more formal communication strategies to create a stronger sense of understanding about coordinated care. Trust from both the GP and the nurse was an important element and interaction within the practice.

Relationships with external providers presented many challenges for nurses. An example of this was the difficulty nurses faced in trying to liaise with external providers (e.g. specialist, allied health practitioners) who did not respond and report in a timely manner. It was identified that a systematic approach to locating local health service providers and the patient attendance and experience would provide continuity and value add to current practice. Currently approaches are ad hoc, there is a lack of awareness of services and it is a time consuming process.

Information sharing and providing continuity of care between practices and hospitals was problematic, adding to the intensive process of tracking patients. Strong partnerships between practices and external providers and effective communication protocols were considered important to ensure referrals preceded smoothly.

Theme Three: Cultural Change

The need for cultural change and the gradual shift to extended roles and practice-based care coordination were highlighted repeatedly. Within practices this would require the role of the nurse to be fully understood and for attitudinal change that would enable the GP to trust nurses to engage in extended activities. Patients also needed to be educated to understand the value of extended care, although it was identified that this was a choice and that patients could decide whether to engage or not.

Theme Four: Financial Models for a Business Context

There was a clear need for the financial viability of the model to identify the economic returns for general practice. A summary of key areas identified included:

- ⊗ The need for education around the financial viability;
- ⊗ Summaries of MBS item numbers and how to use them effectively;
- ⊗ Need to demonstrate the affordability (and income earning potential);
- ⊗ Need to address the barriers associated with the financial viability including:
 - consistency in applying for standard MBS items due to excess paperwork;
 - Unnecessary complicated process (through enhanced primary care MBS item numbers).

For clients, clear guidelines about funding opportunities were considered to be an incentive for participating in coordinated care. Nurses carried a sense of responsibility to ensure that patients maximised the benefit of their private health insurance or had access to a small pot of funds to purchase essential services. For patients with complex

chronic diseases, it was difficult to meet their health-related needs without additional funding or by relying on the non-government sector. Funded services were also seen as an incentive for patients to engage in their health care needs and increasing the capacity of nurses to work collaboratively with patients.

Theme Five: Professional Definition, Development and Recognition

Barriers for nurses in the practice setting included:

- ⊗ Time as the greatest challenge;
- ⊗ The coordination of the care required a dedicated role;
- ⊗ The level of commitment was not possible in all types of practices;
- ⊗ Workforce included many part-time nurses;
- ⊗ Other non-work responsibilities (such as parenting);
- ⊗ Highly dedicated to extra-curricular professional skill development such as education sessions, networks and conferences;
- ⊗ Administrative demands (both existing and those bought on by the extended level of care) – particularly those nurses without access to a receptionist.

Despite these barriers raised, nurse-led coordination activity was viewed positively and was overwhelming welcomed. It was stressed however, that to achieve the desired outcomes and any extension to their role, could only be achieved through a whole-of-practice commitment. The potential positive outcomes included:

- ⊗ Team based approach including significant change and education;
- ⊗ More time to build relationships and consult with patients;
- ⊗ Greater role in patient education;
- ⊗ Time allocated to the preparation of documents, assessments and reviews and organising time for review with the GP;
- ⊗ Allocated office space for meeting with patients privately;
- ⊗ Skills required include – time management, business planning, organisation and a 'natural aptitude'.

It was identified that not all nurses would want to take on this extended role of care coordination and to take a greater responsibility in 'treatment only', 'coordination only' or a 'mix' of the two.

Support at the organisational level from networks and Divisions of General Practice were seen to be important to the role. Examples include:

- ⊗ A network of "Primary Health Nurses" (similar to the GP collaborative networks)
- ⊗ Divisions role in:
 - Providing facilitator/mentor (e.g. Care Coordination Practice Facilitator);
 - Developing and distributing resources;
 - Potentially – funding for services or for support at the practice level;
 - Guidance and advocacy.

The follow up briefing (11) highlights the potential implementation of a system framework to support processes that incorporate a range of structures to assist practices to engage in the delivery of coordinated care.

Acknowledgments

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Gold Coast Division of General Practice Website: www.gcdgp.com.au

Background

This briefing presents a developmental framework which has the potential to be trialled in the general practice setting. This model is currently being trialled by participating practices supported by the Gold Coast Division of General Practice. Briefings 9 and 10 provide the background to the development of the Implementation Framework. The full article (in journal publication review) can be found at http://www.gpqld.com.au/page/Programs/Collaborative_Research_Hub/

Developmental Implementation Framework (Based on the AHRQ Framework)

The current study reported in briefings (9-11) has indicated the need for a supportive developmental process that incorporates a range of broad structures to assist practices to engage in the delivery of coordinated care. An appropriate developmental implementation system could be based on the Putting Prevention into Practice framework (Agency for Healthcare Research and Quality [AHRQ], 2002)¹ that has been used successfully to increase the prevention orientation of general practice. The AHRQ framework has a staged approach to systematically supporting the care coordination process.

Stage One

To improve the systems within the practice, the model needs to integrate all aspects. This will involve firstly identifying:

- ⊗ Practice Readiness – Assess readiness for change including staff values and beliefs and patient opinion;
- ⊗ Consensus about the concept of care coordination;
 - Definitions of care coordination;
 - Presentations on culture change;
 - Resources including practice-specific business modelling;
 - Consumer stories.

Stage Two

Practices need to audit their current care processes, systems and patient flow to inform:

- ⊗ Areas of need.
- ⊗ Gaps and flaws that could be rectified through a care coordination model.

Stage Three

Create a supportive process in determining their own localised model of care coordination. Appendix 1 provides a

step by step process (which can be adapted to meet the capacity of the practice) to help develop localised standards, goals, processes and tools for their practices.



To further support practices, a range of resources should be developed using either existing repositories or developed collaboratively (all staff should be involved in this process to help support the adoption of the tools in practice). Examples include:

- ⊗ Templates for referral and reporting.
- ⊗ Planning tools.
- ⊗ Health checklists.
- ⊗ Service directories.

Stage Four

Practices should develop tasks, responsibilities and flow charts to define how they will operate. Tasks should include:

- ⊗ Participatory evaluation process – involves:
 - Sharing information with other practices.
 - Collecting a minimum data set for process and outcome evaluation.
 - Engaging in quality improvement activities.

AHRQ system is supported by a range of checklists and worksheets which supports data collection and evaluation processes with minimal impact to practice staff.

Partnerships and Networks

Partnerships

To support the implementation and adoption of the AHRQ system and proposed framework, partnerships and networks are emerging as important links. Higher-level support with Divisions, District Health Services, NGO services and agencies within government are required to support partnership development and negotiation with key external services.

Networks

Inter-organisational networks have developed in a range of clinical areas. Chronic disease related networks are beginning to emerge and it is recommended that more formalised networks are established. The Divisions Network, SBO and other inter-agency and government sectors are well placed to support chronic disease networks. Advantages of networks include:

- ⊗ Responsiveness
- ⊗ Service flexibility
- ⊗ Robustness
- ⊗ Cross-disciplinary opportunities across sectors and organisations to seed innovation
- ⊗ Connection between agencies
- ⊗ Coordination of resources
- ⊗ Advocacy and lobbying

Acknowledgments

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Gold Coast Division of General Practice website: www.gcdgp.com.au


Localised Solutions

This series of briefings highlight strategies to support the adoption of localised approaches to models of care coordination. Nurses need to be supported through the process of cultural change, defining their roles, providing support resources and tool kits and mentoring them through the practice change. Practices also need to be supported in the broader context by Divisions of General Practice through partnership approaches and collaborative networks.

CDM Task 1: Assess (Identify chronic conditions and risk behaviours)

| | Practice-based Actions | Patient-based Actions |
|---|--|--|
| Increasing level of engagement and effort  | File audit to identify all active patients who have been diagnosed with an “in-scope ” condition, are at risk of a chronic disease or require review. Maintain an active register of patients with chronic conditions for future review. | Brochures and posters to encourage patients to identify themselves to the nurse if they are at risk of having an in-scope condition. |
| | Passive screening of risk behaviours and chronic conditions among patient population (i.e., survey mail-out, phone call, email/SMS, or in practice waiting room. | A chronic disease website for patients containing a screening tool to self-identify symptoms of in-scope conditions and risk behaviours – prompt to contact nurse. |
| | Active screening of risk and condition in the practice waiting room (i.e., BMI calculations, blood-glucose tests while waiting etc.). | |
| | Diagnosis of a chronic disease automatically triggers a referral to the nurse for assessment of symptom management, risk behaviour and needs. | |

CDM Task 2: Advise (offer brief advice)

| | Practice-based Actions | Patient-based Actions |
|--|--|---|
| Increasing level of engagement and effort  | Generic checklists for healthy behaviours and diet. | Relevant videos, posters, brochures or books in waiting rooms to provide brief information. |
| | Designated “question time” sessions with nurse for diagnosed patients immediately following diagnosis. | Provision of a “Recommended Readings” sheet for patients following diagnosis. |
| | Health Prescriptions completed by nurses for exercise, diet changes and self-management strategies. | |
| | Advertised information sessions conducted by peak organisations such as Heart Foundation. | Provision of self-directed guidebooks or manuals. |

¹In-scope refers to the specific chronic condition that has been selected by the practice as its focus for CD Management by nurses

CDM Task 3: Agree (Set collaborative goals and action plans)

| Increasing level of engagement and effort | Practice-based Actions | Patient-based Actions |
|---|---|---|
| | Capitalise on opportunities for nurses to get to know patients and their goals. | Relevant videos, posters, brochures or books in waiting rooms to provide brief information about in-scope conditions and healthy behaviour. |
| | A needs and barriers assessment tool or checklist to help patients and nurses to identify areas for action/support. | Provision of a "Recommended Readings" sheet for patients following diagnosis. |
| | A planning and goal-setting process and template for working with patients to set collaborative goals. | A "Readiness for Change" checklist and resources to support patients to monitor their commitment to goals. |
| | Regular "case conference" times between nurse and GP to discuss Plans. | A summary sheet for patients containing their agreed goals and strategies for achieving goals. |
| | Guidelines to support the use of MBS item numbers that pertain to CDM. | |

CDM Task 4: Assist (Provide intensive education, coaching or case management)

| Increasing level of engagement and effort | Practice-based Actions | Patient-based Actions |
|---|--|---|
| | Practice hosts seminar/workshop series by local support groups/ specialists/allied health practitioners. | Checklist for patient on Reasons to Contact your GP. |
| | Practice-based self-management training, activity/diet support group with nurse and/or peer leaders. | Checklists for patients about self-care behaviours and healthy living, Practical suggestions for healthy cooking, daily exercise. |
| | Engagement of families in treatment discussions and solutions with consent of patient. | Education sessions or brochures for family about how to support patients – engagement of natural supports. |
| | Weekly/monthly telephone coaching with patients around specific goals. | Coordination and dissemination of information about local self-management courses, support groups and education sessions. |
| | Motivational interviewing sessions to assist patients to address barriers in their goal achievement. | Illness calendars/activity logs or health and diet diaries for active monitoring of CD. |
| | Workbooks and active homework assignments for guided self-management of CD. | Provide devices for self-monitoring symptoms and risk behaviours (i.e., pedometers, BP etc.). |

CDM Task 5: Arrange (Organise services, follow-up and reinforce change)

| Increasing level of engagement and effort | Practice-based Actions | Patient-based Actions |
|---|---|--|
| | Planned networking opportunities with NGO services. | Waiting-room displays of brochures from NGOs and community organisations/available services. |
| | Specialist, allied health and service registers/databases. | Regular advance-booked schedule of check-up appointments following diagnosis/identification of risk. |
| | Agreed communication systems and templates between practice and specialists/allied health/hospitals regarding referral, reminder and reporting. | Patient hand-held diary of health-related activities and outcomes record to be up-dated regularly with nurse. |
| | Telephone/SMS/Email follow-up with patients immediately following referral/appointment with specialist/allied health/hospital or NGO. | Patient feedback sheets conducted by email/SMS/ website/phone and satisfaction surveys following appointments at practice and referral to specialist/external service. |
| | Documentation of patient achievements for GP and patient – celebrations of success. | Patient progress charts or goal attainment scales for patients to reflect on progress and report to nurses (via email surveys, SMS, phone). |

¹ AHRQ, Agency for Healthcare Research and Quality. (2002). Put Prevention into Practice: A step-by-step guide to delivering clinical preventive services: a systems approach. AHRQ Pub. No. APPIPO1-0001.

Further information

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