



The Royal Australian College of
General Practitioners

Chronic Condition Self-Management Guidelines

Summary for General Practitioners

Section 1 Introduction

Section 2 Problem definition

Section 3 Planning (Goals)

Section 4 Management strategies

Section 5 Monitoring

Section 6 Organisation of the practice

Section 7 Underlying theories

Section 8 Evidence levels

Designed for use with practical guide & desktop guide

Contents

Chronic Condition Self-management Guideline for General Practitioners Working with Chronic Conditions

Section 1	Introduction	3
Section 2	Problem definition	4
Section 3	Planning (Goals)	7
Section 4	Management strategies	9
Section 5	Monitoring	11
Section 6	Organisation of the practice	13
Section 7	Underlying theories	15
Section 8	Evidence levels	21

Improving health outcomes for people with chronic disease by:	Quality of evidence	Strength of Recommendation
Promoting and encouraging self-management	II	A
Reducing life style risk factors of obesity, physical inactivity and smoking	I	A
Defining problems, setting goals and developing plans through a collaborative approach between providers and the patient	III	B
Regular follow up at timed intervals to monitor health status	III	B
Educational programs directed at patient to improve knowledge relating to the condition	II	B
Targeting interventions using the Stages of Change approach	III	B

Section 1 - Introduction

The purpose of this guideline is to assist GPs in facilitating self-management in patients with a chronic condition by providing a framework for effective interactions and management strategies. A chronic condition is one that presents itself for longer than six months, and that has slow changes. self-management concerns patients being responsible for managing some aspects of the condition themselves in partnership with their GP.

- *self-management* has been shown to improve quality of life as well as reducing hospitalisations and visits to health care providers ¹ (Lorig et al 1993)
- *self-management* requires a patient-centred approach that is generic in nature, rather than condition-focussed
- The '*stages of change*' model, together with a *patient-centred approach* and *informed decision-making* can be used as a framework upon which theory about self-management can be built

It is always important to listen to patients' ideas and feelings about their illness, but this is especially true when the patient has a chronic or longstanding condition. Because patients live with the illness on a daily basis over a long period of time, their ideas, thoughts and behaviours will have an impact on how successfully they and their GP are able to work together to manage it.

Greater time may be required during the consultation to discuss such issues with patients, and in turn to develop an effective treatment plan with them. With the limitations of the current fee for service system, the use of the Enhanced Primary Care (EPC) Medicare Benefit Schedule (MBS) items, specifically community care planning and case conferencing, may complement strategies for chronic condition self-management. The principles outlined in this summary do not need to be completed in their entirety in one consultation, but rather as a process over time.

When treatment is jointly planned and negotiated, and information is shared between doctor and patient, the patient is assisted to exercise autonomy and follow an agreed plan.

Chronic condition self-management

involves the person with the chronic disease engaging in activities that protect and promote health, monitoring and managing of symptoms and signs of illness, managing the impacts of illness on functioning, emotions and interpersonal relationships and adhering to treatment regimes. ^{2p1} (Centre for Advancement in Health 1996: p.1).

Due to the geographical and cultural diversity of Australia, these guidelines will require modification and adaptation by local primary care providers to reflect their community's unique needs.

Section 2 - Problem Definition

Chronic condition self-management becomes possible, when the GP and patient work together. Clear definitions of what the patient sees as problems are required. This ensures that the areas identified for action are those that are significant to the patient and his or her lifestyle. This process may be initiated by providing the patient with, and discussing, a self-management information pamphlet.

Assessment begins with a definition of needs and acknowledgment of strengths

1. Identify the impact of illness (FIFE) Determine patients' illness experience:

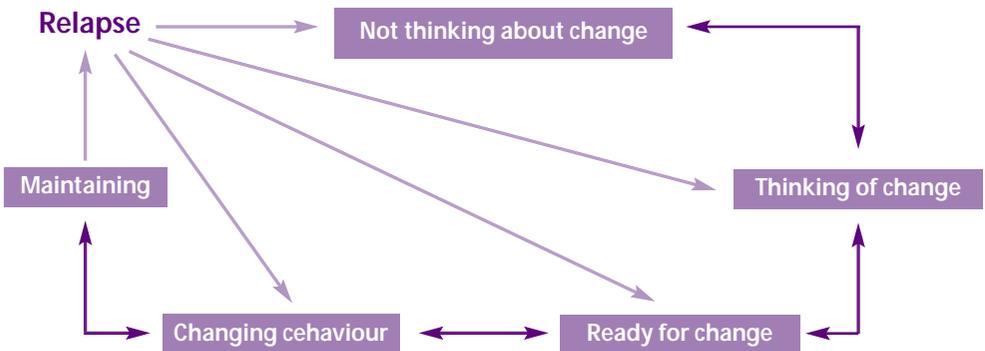
- **Feelings:** anger, fear, guilt, or relief
- **Ideas:** about disease and the meaning of illness to the person
- Effect on **Function:** daily activities, family relationships, requirement of lifestyle change
- **Expectations:** patients' expectations of the GP ie action or just listen

2. Identify the specific symptoms and signs of illness

- With the patient, identify the target symptoms of the existing illness, eg pain, SOB
- Use objective measures for assessment if possible, e.g. pain scales

3. Identify factors leading to the preservation and promotion of health (lifestyle)

- Consider factors that may be related to and affect the presentation and subsequent course of the illness ie diet/nutrition, weight, smoking, stress and exercise
- Use specific guidelines relating to these lifestyle conditions (see the Guidelines for Preventative Activities in General Practice – The Red Book ³) [RACGP 2001]
- Determine which stage of change the patient is at by asking "How do you feel about your ____ (e.g. weight)?" ⁴ (Richmond et al 1998)



Determine strengths of and barriers to the capacity to self manage

Patients' self-management skills need to be identified to determine their ability to self-manage. This is performed alongside previous assessments rather than in isolation, and the information may be obtained over a series of visits.

Key aspects relating to the patient's ability to take on a self-management role		
<i>Factors affecting self-management</i>	<i>How can these factors be modified</i>	<i>Practical points to consider</i>
Motivation	This will be affected by the stage of change that the patient is currently experiencing.	What stage of change is the patient in? Is the patient concerned about lifestyle behaviours? Does the patient recognise the benefits that may come with change?
Knowledge of condition	It is generally accepted that programs that seek to improve health by increasing patient knowledge <i>alone</i> are rarely successful. It does help the patient, though, in the process of decision-making.	Does the patient want information related to the illness?
Knowledge of symptom management plan	Information on managing a crisis or emergency is important eg what should the patient or carers do? The management capacity of carers and others in the immediate social environment should be considered.	Does the patient have a symptom action plan? Is there a need to consider the management capacity of carers and others in the immediate social environment as well?

Key aspects relating to the patient's ability to take on a self-management role		
Factors affecting self-management	How can these factors be modified	Practical points to consider
Co-morbidities	Consideration of other conditions that may affect self-management such as sensory or cognitive impairments (eg hearing or visual loss, dementia).	Are there sensory or cognitive impairments that may affect the patient's ability to self-manage?
Health beliefs	Understanding the religious, cultural and familial beliefs that may influence the effect of management interventions.	What effect do religious, cultural and family beliefs have on the patient's thoughts about self-management?
Self-efficacy	The extent of the patients' confidence in their capacity to self-manage, the extent to which patients value themselves and extent to which they feel they have some control over their ability and desire to assume a self-management role.	Is the patient confident in his or her ability to self-manage? Does the patient feel that he or she has the skills to make changes and control the illness?
Social context	Consideration of such things as access to services and cultural aspects of the patient's life.	What aspects of life ie family, friends, literacy, access, employment, culture need to be considered?

There are currently no validated tools available to assess capacity for self-management, and the need for a formalised assessment is not widely acknowledged in the literature related to chronic condition self-management. An assessment tool is being developed in Australia to assist the practitioner in identifying areas that may require intervention to improve self-management behaviours. Refer to section 3.7 in the theory and evidence overview.

Section 3 - Planning (Goals)

A patient centred approach must be used for management to be truly shared. This enhances self efficacy (patients' confidence in their ability), encourages greater responsibility and fosters a partnership approach between the GP and patient. A plan that incorporates patient preferences has the best chance of resulting in concordance and thus improved quality of life for the patient.

In the case of patients who may be unable to fully participate in the planning process due to dementia or reduced cognitive abilities, family and caregivers need to be involved to increase the likelihood that patient preferences are included. This becomes 'family focussed medicine' rather than 'patient centred medicine'. It may also be used at times when the assistance of the whole family or social environment is needed to help bring about motivation and change.⁵ (Fisher and Weihs 2000)

Goals should be determined as specific objectives, and these objectives should be **SMART**:

- **S**pecific
- **M**easurable
- **A**chievable
- **R**ealistic
- **T**imely

This enables easier monitoring of the plan and also provides a useful tool for motivation. It is essential that the goals are understood and agreed to by the patient. Initiating too many changes at once may result in poor concordance and the patient may become discouraged.⁶ (Von Korff et al 1997)



1. **Determine specific goals** according to the problems and in line with the capacity of the patient to self manage. These goals can be categorised as:
 - Increased knowledge concerning the illness, lifestyle factors and treatment options
 - Reduced symptoms relating to the illness
 - Use of symptom action plan and diaries
 - Concordance with medication and other management strategies
 - Reduction in lifestyle risk factors
 - Improved function
 - Reduced impact on social, emotional and personal life
2. **Prioritise** goals in collaboration with the patient. Patient preferences are central but are influenced by the capacity for self-management and the resources that are available.
3. **Determine outcomes** for each of the goals using the SMART principles.
4. **Decide on time frame and responsibility** for achievement of goals and/or monitoring. Where multiple health professionals are involved it is necessary to clearly identify the roles and responsibilities of each person. The control of this process must rest with the patient. This will also include the means of monitoring progress including frequency of review (see Monitoring section).
5. **Select appropriate interventions** to achieve goals using the decision making principles outlined earlier.
6. **Document the plan.** The plan should be documented in the patient's notes and a copy given to the patient. An example of incorporating the process into a care plan format, along with standards for care planning, are contained in the practical guide. The patient's consent for treatment should also be documented as part of the plan.

Section 4 - Management Strategies

Choose the most appropriate mix of strategies for Chronic Condition Self-Management depending on the goals, availability of resources, quality of resources and patient self-management skills.

Successful self-management interventions for people with chronic conditions should include:

1. A focus on the patient's perceived needs
2. Practise and feedback in new skills, including *decision-making and problem-solving*
3. Attention to emotional and social management in addition to medical management
4. Use of techniques to increase patients' confidence in their ability to manage their conditions
5. Emphasis on the patient being active in the GP/patient relationship

Categories of Intervention

- **Education and information** (consumer guides and handbooks) - provide each person with information about the illness.
- **Motivational interviewing** - involves patients examining the pros and cons of change with the assistance of the GP and then making the decisions for themselves.
- **Peer support and motivation** - groups that exist within the community for common interests such as weight loss and fitness, eg community walking groups.
- **Structured condition specific programs** - groups and programs that are run by organisations such as Asthma Foundation and Arthritis Foundation.
- **Self-management programs led by lay people** - where they teach techniques for illness management (such as relaxation and stress management), provide inspiration from role models and offer mutual support.
- **Symptom diaries** - used to help patients monitor their illness and generate information that can be used in the management plan.
- **Community based skill groups** - groups that exist to enhance skills for healthy lifestyles such as fitness, nutrition (food purchasing and cooking) and life skills.

- **Referral to another health provider** - the expertise of another health provider may be required to enhance another area of self-management performance eg chronic pain management, medication review, stress management or ADL adaptation for independence. This may be done utilising the Care Plan and Case Conference items of the EPC Package (see Appendix 2 of the practical guide).

To assist patients to be effective in managing their own condition, a range of management options may be used to:

- **Develop self-management skills**
 - Medication use
 - Pain control
 - Adjustment to change
 - Coping with emotional reactions
- **Guide behaviour change related to lifestyle and activities**
- **Develop knowledge**
 - Monitor changes in disease and symptoms
- **Provide social support**
 - Effective use of community resources

It is important to understand that a strategy that is successful for one person may not be for another, for example, group programs, condition specific literature or a symptom diary have varying effects depending on the person. These self-management components can be used to improve a person's management of the condition by putting the patient at the centre around which treatments are built.

Section 5 - Monitoring

Why monitor?

Monitoring the effect of a chosen intervention is important for several reasons:

- Enables a mechanism to determine the effectiveness of interventions
- Provides information that can be used to motivate patients to continue with the intervention
- Provides an opportunity to review progress and adjust the management plan if necessary

How the outcomes are to be measured needs to be determined *prior* to commencing the intervention. Ideally this should occur at the planning stage when the goals are decided upon. Furthermore it is essential that the way in which they are measured is determined jointly with the patient, and the parameters for success or failure are agreed upon and documented.

Selecting the measures

The selection of what outcomes to measure often relates directly to the selected goal. These indices should be valid and reliable as well as easy to measure and easily understood.

The selection of the indices can be broadly categorised into three main groups:

1. **Physiologic measures.** This may relate to illness specific disease markers and are best used for goals reflecting aspects of illness or lifestyle. Examples include blood sugar levels, blood pressure, PEFr and weight. They are things that can be measured by the patient at home, or specific biological markers that can be measured at appropriate intervals such as Hb A1c, cholesterol and LFTs.
2. **Clinical measures.** Judgements made by the doctor and patient concerning overall progress. As it involves a degree of judgement these are not as precise as the objective measures but rely on an overall assessment of the condition. A systematic approach can be taken by using a scaling system to grade this.
3. **Quality of life measures.** Can be used to measure functional improvements. Patient assessment is central in this measurement and various validated instruments or simpler scales can be used depending on the goal. They are best used for goals involving symptom control (eg pain) and functional improvement (mobility).

When to measure

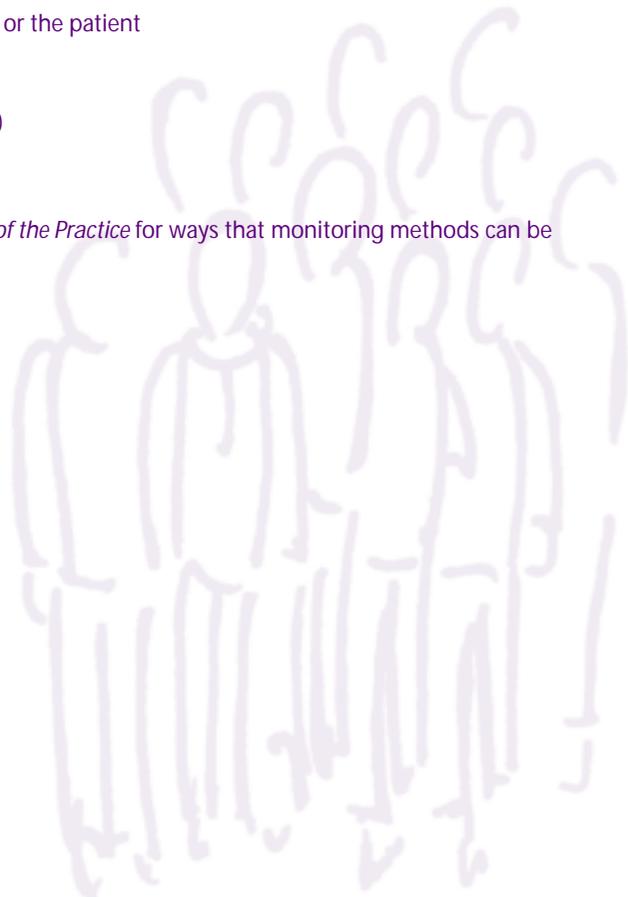
Deciding how often to measure should also occur at the planning stage. The monitoring intervals will depend on what is being measured and how quickly change is wanted or required. Evidence based principles should be used when deciding on monitoring time while still keeping in mind individual circumstance. This is particularly relevant for disease-specific objective indices.

How to measure

Measurement and review can take many different forms and shouldn't be confined to a clinical visit with the doctor. These can include:

- Regular visits to the GP
- Regular visits to the nurse at the practice
- Phone contact initiated by the GP or the patient
- Laboratory investigations
- Electronic reviews (through email)
- Letter/postcard contact

Refer to Section 6 on *Organisation of the Practice* for ways that monitoring methods can be developed and enhanced.



Section 6 - Organisation of the Practice

The following provides suggestions for ways in which a general practice setting can be organised to promote the facilitation of self-management for patients with chronic conditions. A review of the structure within which the GP operates will enable the guideline to be put into practice more easily eg scheduling longer appointments to determine the needs and develop a management plan with a patient.

1. Practice staff -with training and an increased awareness of the unique needs of those with chronic conditions, practice staff can assist with the following:

- Booking longer appointment times
- Booking appointments with both the GP and Practice Nurse when required
- Operating an effective recall system
- Knowing where the appropriate forms and information are when needed eg Health Assessment, Care Plans, disease specific literature
- Keeping up to date contact details of other health care providers in the area in the Practice Manual. This may also be coordinated through the local Division of General Practice
- Assisting in the organisation of a case conference or care plan
- Maintaining current information regarding MBS items that can be used for longer consultations, care planning and case conferencing
- Using Carelink as a central source of information for agencies providing community care and support

2. Practice nurse/s - depending on the individual skills and training levels of the practice nurse, they can provide a complimentary role within the practice in the following areas:

- Assist with screening and population health activities
- Assist with the information collection component and/or the environmental assessment for the health assessment in the elderly
- Assist with the organisational and liaison components of care planning and case conferencing
- Provide disease specific education and lifestyle counselling if appropriately informed/educated
- Ensure educational resources are up to date
- Using Carelink as a central source of information for agencies providing community care and support

- 3. Other health Care Providers** - as patients with chronic conditions are more likely to require multidisciplinary care, it is important to develop two way communication with other health providers in the area. This may be done either formally or informally and will assist with the development of care plans if required.
- 4. Information technology** - effective patient identification (for risk factors) and recall is made easier using an appropriate IT based system. This enables systems to be maintained for the care and monitoring of those with chronic conditions.
- 5. Screening and recall systems** - the recent SNAP framework (Department of Health and Aged Care 2001), which is a systems approach to managing the risk factors of smoking, nutrition, alcohol and physical activity, identifies that targeting common risk factors within a primary care setting can impact on a number of chronic conditions. Strategies to implement these initiatives within general practice are most effective when there are systems in place to provide both health promotion and primary and secondary prevention screening. The RACGP "Putting Prevention into Practice: a Guide for the Implementation of Prevention in the General Practice Setting (The Green Book)" (RACGP 1998) provides an excellent overview and guidance on these approaches.



Section 7 - Underlying theories

The nature of illness is changing as the world's population is aging. A growth in age as well as improvements in health and treatment of medical conditions, have resulted in a greater number of people living with chronic conditions. The implication of this on health service delivery, patient care and health resources is vast, increasing the importance of introducing and sustaining new methods in the management of health care. One method for enhancing chronic condition management is the expansion of *self-management*.

Patients' attitudes to health and knowledge of their condition are significant factors in understanding their health-related behaviours. Following is a brief summary of theories that relate to the way in which patients may present to their GP, and the rationale for the way they approach and adopt self-management.

The importance of following treatment

Not all patients follow their treatment even if it has been set up to meet their needs and wants. This should not be seen as a difficult behaviour, but rather that person's decision. A patient's wish to follow treatment can be seen as whether the benefits of changing a behaviour (eg taking medication properly or taking exercise) is greater than the costs of not doing these things. A patient's decision not to follow treatment should be seen as part of his or her freedom to make a choice about management. (Centre for Advancement in Health 1996). It might not be seen as the correct choice, but it is the patient's right.

This does not always happen on an all or nothing basis as a patient may choose to stay with certain parts of management over others. Three different types of behaviour have been categorised where patients may not follow what the health provider wants them to do (Thorne 1990):

- Changing the treatment plan without talking with the health provider
- Choosing certain parts of the treatment plan to follow
- Agreeing to treatment suggestions without actually meaning it

It is important to know what patients think about their health and to consider this when planning treatment. To explain how these thoughts turn into health behaviours there are behaviour theories such as the Health Belief Model (Rosenstock 1974), and the Stages of Change theory (Prochaska et al 1992).

Theories of Health Behaviour

1. Benefits of Health Behaviour (Health Belief Model)

Patients weigh up the perceived benefits and costs when deciding on their ability to carry out a behaviour (Rosenstock 1974). These benefits and costs include:

- perceived **susceptibility** to the problem
- perceived **severity** of the possible consequences
- perceived **benefits** of specific actions
- perceived **barriers** to taking action

The perceived threat or the expectation of outcome of adopting or changing a behaviour relates directly to patients' self efficacy, or their perceived ability to carry out the action.

2. Stages of Change

Health interventions should be timed to coincide with a patient's cognitive behavioural stage. The Transtheoretical Model (Procheska et al 1992) identifies five basic stages of change, which are viewed as a sequential, ongoing process. During this process of change, the patient may have differing levels of motivation or readiness to change and may repeat a stage or relapse (Cassidy 1999). Each time a stage is repeated, the person learns from the experience and gains skills to help move on to the next stage.



Stages of Change and approaches that are most appropriate at each stage

Stage	Explanation of Stage	Approach Suitable to Stage
Pre-contemplation (Not thinking of change)	<p><i>Stage during which a person does not even consider the need to change:</i></p> <ul style="list-style-type: none"> • Have not had sufficient experience with negative consequences • Tipped toward negatives of change 	<ul style="list-style-type: none"> • Reflective listening • Empathy • Effective questioning • Provide objective information in a non-judgmental manner • Explore barriers <p><i>(Action-oriented messages are not appropriate)</i></p>
Contemplation (Thinking of Change)	<p><i>In this stage, a person considers changing a specific behaviour:</i></p> <ul style="list-style-type: none"> • Beginning to seek relevant information • Re-evaluating behaviour • Obtaining help of others to support future attempts • Still weighing up options • Not ready to take action 	<ul style="list-style-type: none"> • Reflective listening • Empathy • Effective questioning • Provide non-judgmental objective information that may be taken away • Encourage the patient to accept ownership of the problem • Increase awareness of negative questions • Recognise how situations effect illness
Preparation/ Determination (Ready for change)	<p><i>The stage where a person makes a serious commitment to change</i></p> <ul style="list-style-type: none"> • Ready to take action in the next 30 days • Need to set goals and develop priorities in order to manage illness 	<ul style="list-style-type: none"> • Encouragement • Empathy • Goal setting • Support of self-efficacious behaviour

Stage	Explanation of Stage	Approach Suitable to Stage
Action (Changing Behaviour)	<p><i>Change begins (this can be large or small changes)</i></p> <ul style="list-style-type: none"> • Efforts made to modify habits and environment • Increased use of behavioural processes of change (eg restructuring one's environment, removing alcohol) 	<ul style="list-style-type: none"> • Encourage stimulus control • Skills training interventions • Encourage support from others
Maintenance (Maintaining change)	<p><i>Change is sustained over a period of time</i></p> <ul style="list-style-type: none"> • Substituting alternatives for problem behaviours eg relaxation • Taking responsibility for actions • Susceptible to relapse. Need to remain aware of stimuli that may trigger problem behaviours 	<ul style="list-style-type: none"> • Do not view relapse as failure, but as a way to gain knowledge of triggers • Decrease environmental and internal stimuli that trigger problem behaviours



Principles for effective management

1. Patient-centred approach

The promotion of chronic condition self-management requires a patient-centred approach, as the core principle involves the patient contributing to and driving the process. A *disease-centred* approach assumes the disease to be fully accounted for by deviations from the norm of measurable biological variables. This approach is limited as it does not take into account the whole person, and therefore will only allow partial enlistment of the patient in the process (Stewart et al 1995). The patient-centred approach uses a biopsychosocial approach to the provision of primary care and underpins self-management.

There are six interactive components involved with a patient-centred approach.

- 1. Exploring both the condition and the illness experience** including:
 - Their **feelings**, such as fear about being ill
 - Their **ideas** about what is wrong with them
 - The **functional** impact of their problems
 - Their **expectations** about what should be done
- 2. Understanding the whole person.** Over time the GP will come to know the patient.
- 3. Finding common ground.** To develop an effective management plan, the patient and GP must come to an agreement in three areas:
 - The nature of the **problems** and priorities
 - The **goals** of treatment
 - The **part** of the GP, the patient and other health care providers
- 4. Incorporating prevention and health promotion.** Finding common ground for opportunities for disease prevention and health promotion.
- 5. Enhancing the patient-doctor relationship.** The long-term nature of the GP/patient relationship is essential.
- 6. Being realistic.** While recognising that GPs have competing demands on their time, the skills of priority setting, resource allocation and teamwork can be used to improve efficient time management. It is also important to make goals and timeframes for their achievement realistic.

2. Decision-making

Patients are consumers who have a right to make informed decisions about their health care. This is facilitated when the patient and the GP form a partnership.¹⁴ Health care choices should be based on:

- GP's clinical skills
- Best evidence from literature
- Preferences based on the chance of benefits and harm.

The GP and the patient can work together to determine an appropriate course of action and solve problems that arise within the management plan by:

- Understanding the problem and goals clearly, considering a wide variety of courses of action
- Creating multiple solutions to the problem
- Collecting all available information to use in a combined solution
- Weighing the pros and cons of each solution to determine depth of commitment to each

3. Motivational Interactions

There are eight interaction technique strategies that can be used to motivate patients to change or adopt healthful lifestyles (Compton et al 1999):

- Giving **Advice**
- Removing **Barriers**
- Providing **Choice**
- Decreasing **Desirability**
- Practising **Empathy**
- Providing **Feedback**
- Clarifying **Goals**
- Active **Helping**

Although motivational interviewing may be seen as a time consuming activity that does not fit easily within the confines of the regular consultation, the effect that a GP can have on a patient with even a brief encounter should not be overlooked. Motivation can be built upon over time and within the development of the therapeutic relationship.

Section 8 - Level and Strength of Evidence

Where given, the level of evidence is based on the following criteria ¹⁶:

Level	Explanation
I	Evidence obtained from a systematic review of all relevant randomised controlled trials.
II	Evidence obtained from at least one properly-designed randomised controlled trial.
III	Evidence obtained from any of the following: <ul style="list-style-type: none"> • Well-designed pseudo randomised controlled trials (alternate allocation or some other method). • Comparative studies with concurrent controls and allocation not randomised (cohort studies), case controlled studies or interrupted time series with a control group. • Comparative studies with historical control, two or more single arm studies or interrupted time series without a parallel control group.
IV	Evidence obtained from case series, either post-test or pre-test and post-test.
V	Opinions of respected authorities, based on clinical experience, descriptive studies or reports of expert committees
No evidence	After thorough searching, no evidence was found regarding recommendations in general practice for the target disease or condition.

Where given, the strength of evidence is based on the following criteria:

- A: The recommendation is supported by scientific evidence from properly designed and implemented controlled trials providing statistical results that consistently support the guideline statement.
- B: The recommendation is supported by scientific evidence from properly designed and implemented clinical series that support the guideline statement.
- C: The recommendation is supported by expert opinion.

Section 9 - References

- Cassidy CA (1999) *Using the Transtheoretical Model to Facilitate Behaviour Change in Patients with Chronic Illness. Journal of American Academic Nurse Practice* 11: 281.
- Compton P, Monahan G, Simmons-Cody H (1999) *Motivational interviewing: an effective brief intervention for alcohol and drug abuse clients. The Nurse Practitioner* November 1999: 27–49.
- Fisher L & Weihs KL (2000) *Can addressing family relationships improve outcomes in chronic disease? The Journal of Family Practise* 49: 561–66.
- Irwig J, Irwig L, Sweet M (1999) *Smart Health Choices: How to Make Informed Health Decisions. Allen & Unwin, St Leonards, NSW.*
- Lorig K, Sobel D, Stewart A et al (1999) *Evidence suggesting that a chronic disease self-management program can improve health status whilst reducing hospitalisation. Medical Care* 37: 5–14.
- Prochaska J, DiClemente C, Norcross J (1992) *In Search of How People Change. Applications to Addictive Behaviours. American Psychologist* 47: 1102–14.
- Richmond RL, Novak K, Kehoe L et al (1998) *Effect of training on general practitioners' use of a brief intervention for excessive drinkers. Australian and New Zealand Journal of Public Health* 22: 206–09.
- Rosenstock I (1974) *The Health Belief Model and Preventive Health Behaviour. Health Education Monographs* 2: 27–57.
- Stewart MA, Brown JB, Weston WW et al (1995) *Patient-Centred Medicine: Transforming the Clinical Method. Sage Publications, California.*
- Von Korff M, Gruman J, Schaefer J et al (1997) *Collaborative Management of Chronic Illness. Annals of Internal Medicine* 127: 1097–02.



**The Royal Australian College of
General Practitioners**

*Developed by the Royal Australian College of General Practitioners
Funded by Commonwealth Department of Health and Ageing*