MyHealth: Managing complex multimorbidity in general practice

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<th>Description</th>
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<tr>
<td>5 As</td>
<td>Ask, Assess, Advise, Assist, Arrange</td>
</tr>
<tr>
<td>ACEi</td>
<td>Angiotensin-Converting-Enzyme Inhibitor</td>
</tr>
<tr>
<td>AQoL-6D</td>
<td>Australian Quality of Life Version 6D</td>
</tr>
<tr>
<td>ATAP</td>
<td>Access to Allied Psychological Service</td>
</tr>
<tr>
<td>BP</td>
<td>Blood Pressure</td>
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<tr>
<td>eGFR</td>
<td>Estimated Glomerular Filtration Rate</td>
</tr>
<tr>
<td>ED</td>
<td>Emergency Department</td>
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<tr>
<td>EMR</td>
<td>Electronic Medical Record</td>
</tr>
<tr>
<td>GP</td>
<td>General Practitioner</td>
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<tr>
<td>GPMP</td>
<td>General Practice Management Plan</td>
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<tr>
<td>HbA1c</td>
<td>Glycated Haemoglobin</td>
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<tr>
<td>HMR</td>
<td>Home Medicine Review</td>
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<tr>
<td>LDL</td>
<td>Low-Density Lipoprotein</td>
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<tr>
<td>MI</td>
<td>Myocardial Infarction</td>
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<tr>
<td>NSAID</td>
<td>Nonsteroidal Anti-Inflammatory Drug</td>
</tr>
<tr>
<td>NNT</td>
<td>Number Needed to Treat</td>
</tr>
<tr>
<td>PHI</td>
<td>Private Health Insurance</td>
</tr>
<tr>
<td>PN</td>
<td>Practice nurse</td>
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<tr>
<td>PPI</td>
<td>Proton-Pump Inhibitor</td>
</tr>
<tr>
<td>PRN</td>
<td>Pro re nata: “as the situation arises”</td>
</tr>
<tr>
<td>SMART</td>
<td>Specific, Measurable, Attainable, Realistic and Time-bound goal</td>
</tr>
<tr>
<td>SSRI</td>
<td>Serotonin-Specific Re-uptake Inhibitor</td>
</tr>
<tr>
<td>TCA</td>
<td>Team Care Arrangement</td>
</tr>
<tr>
<td>TIA</td>
<td>Transient Ischemic Attack</td>
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Introduction

Multimorbidity is generally defined as the concurrent presence of two or more clinical conditions. The complex interactions of co-existing diseases means that medical management based on single-disease guidelines generally does not optimise care. However, there is little scientific knowledge available for appropriate diagnostic reasoning, care and treatment for multimorbidity patients due to their regular exclusion from participating in clinical trials. In addition, patients with an increased number of health conditions tend to be older, taking more medicines, are more susceptible to adverse drug events, and more likely to be admitted to hospital. The current fragmented health care system does not meet these complex needs of patients with multimorbidity. Integrated health care models with well-balanced treatment plans, tailored toward the needs of the individual person, are required.

The development of a systematic approach to chronic disease management has been challenging in Australia despite the introduction of such initiatives as the Enhanced Primary Care package (1999); Medicare items for Chronic Disease Management (2005), Practice Nurse support items (2007) and practice incentive programs for the management of diabetes, asthma and mental health (2001). There are challenges in obtaining a complete and accurate list of medicines. There is little information available for GPs to decide which parts of single-disease guidelines are relevant for patients with multimorbidity and less information available about which medicines can be safely tapered off and ceased.

In practice, most patients make appointments with GP for management of relatively acute needs such as the development of new symptoms or renewal of a prescription. Monitoring and management of underlying chronic disease is often confined to a few minutes at the end of the consult, if there is time to spare. As with previous collaborative waves, the challenge is to develop a systematic approach to managing patients with chronic diseases making best use of the practice team and community services. Figure 1 illustrates such an approach.

The MyHealth approach to multimorbidity management described in this report is an extension of the TrueBlue model of collaborative-care developed for the management of co-morbid depression in general practice for patients with diabetes or cardiovascular disease or both. The TrueBlue model successfully improved a number of key health outcomes for these patients, such as reduced depression, reduced cardiovascular-disease risk and improved physical exercise, when tested with a randomised controlled trial (Morgan et al. 2009, 2013). It also led to near perfect recording of guideline-recommended checks (Morgan et al. 2015) and proved acceptable and highly feasible to implement in routine general practice (Schlicht et al. 2013).

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**System redesign utilising the Practice Team includes:**

- Co-ordination of treatment planning
- The role of the GP and Practice Nurse
- Adoption of change ideas
- Decision support and clinical information systems
- Community resources

**Multimorbidity Target Group:**

- 75 years or older
- Two or more chronic conditions
- On greater than 5 medications or more than 12 doses per day

**Referral coordination and follow up:**

- Engagement and follow-up by private and public services

**The Role of the GP:**

- Leadership role
- Optimisation of GP Management Plan
- Medication safety monitoring

**The Role of the Patient:**

- Identify patient values and priorities in healthcare
- Assessment of function and the quality of life

**The Role Practice Nurse:**

- Clarify patient goals, values and priorities
- Complete requirements for over 75 health assessment
- Self management support and education
- Summarise the outcome of nurse visit in a draft GPMP

**Polypharmacy Management:**

- Medication reconciliation utilising community pharmacies
- Identify opportunities for de-prescribing

**Figure 1. The elements of successful multimorbidity management. The order of events may vary.**

**AIM**

The aim of this manual is to support those general practices engaged in the systematic management of patients with complex multimorbidity to provide safer routine effective care.

**BACKGROUND**

**Overview**

*MyHealth* is a proposed system redesign to improve the management of multimorbidity in general practice. It promotes the use of existing Medicare rebates for Home Medicine Reviews (HMRs), General Practice Management Plans (GPMPs), Team Care Arrangements (TCAs) and Over 75 Health Assessments. It incorporates an initial screening phase to identify at-risk patients within general practice and to establish a routine review of this cohort to better manage their multimorbidity. Either the patient’s community pharmacist, a practice-based pharmacist (if present) or a pharmacist accredited to undertake HMRs has the role of medicines reconciliation, and identifying which medicines might warrant consideration by the GP and the patient for removal (de-prescribing) or additional monitoring. The practice nurse has a dual role of identifying the values and priorities of the patient, developing goals with them, and case management. The GP has ultimate responsibility to confirm and endorse the management plan as appropriate in collaboration with the patient and to implement agreed changes to management based on the patient’s values and attitudes and clinical decisions. This system redesign recommends some tools to identify areas for improvement and some information on the level of evidence for use of medicines in the elderly to facilitate de-prescribing.
The aging population and the impact on service provision

The prevalence of multimorbidity within Australia is significant and has been reported in a number of population and clinical studies. Summarising these studies, the overall prevalence rates for multimorbidity were approximately half of all adults aged between 45 and 65 years, two of every three adults aged 60 years or older, and approaching four of every five adults aged 75 years and older (Figure 2). A consistent finding among the Australian studies, irrespective of design, was that multimorbidity prevalence increases with age but is not restricted to the elderly.

Compared with patients who have a single chronic condition, those affected by multimorbidities are exposed to greater risks of mortality, hospitalisation, longer hospital stays, and reduced quality of life. A recent Australian study of people with multimorbidity found the median monthly time spent on health related activity was 5-16 hours per month, and up to two to three hours per day for those with five or more chronic conditions. A report based on 1990s data found that the health care costs for multiple morbidities are greater than the combined cost of the component single conditions. With respect to out-of-pocket expenses, a survey of older Australians found that individuals with five or more chronic conditions spend on average five to six times more than those with no chronic conditions. In addition to this, a small study of private health insurance (PHI) among older Australians found that many individuals with multiple chronic conditions struggle financially to maintain PHI at the expense of their quality of life.

Long-term disorders constitute the main burden of illness facing health-care systems worldwide, but guidelines for these disorders are largely configured for individual diseases in isolation. The reality is that multiple diseases are the norm (Figure 2). Consequently, MyHealth will focus on patients who are 75 years and older and who have enough complex multimorbidity to require multiple medicines. These are the patients who are most at risk of hospitalisation and who have most to gain from coordinated care that reduces duplication and rationalisation of care. Annual Over 75 Health Assessments are funded by Medicare and will provide income to practices to make this work sustainable.

Figure 2: Number of chronic disorders by age group (from Barnett et al., 2012).
The role of the patient in medical decisions

Patients should be educated about the essential role that they play in many decisions. This is particularly relevant to situations where insufficient evidence exists to determine the likely benefit for an individual patient if they embark on a given management strategy or where there are trade-offs involved with each option available. In such cases, patient values and preferences might be the key determinant of ‘correct’ treatment. Determining such values and preferences may involve the use of effective tools to help patients understand their options and the consequences of their decisions. They should also receive the emotional support they need to express their values and preferences and be able to ask questions without censure from their clinicians.

Clinicians, in turn, need to become more effective coaches or partners to achieve this – learning, in other words, how to ask, “What matters to you?” and not just “What is the matter?” In addition, novel patient-centred health information technologies that deliver information in a more timely fashion can help clinicians to identify patients who are facing fateful health care decisions and to more efficiently elicit their preferences.

It is difficult to achieve significant and sustained changes in daily routines and lifestyle. Patient adherence to medical advice is challenging, particularly where multiple medicines are prescribed. There are, however, strategies that can help. A ‘patient centred’ approach based on establishing a shared understanding of the chronic diseases can help. The 5As approach to achieving change (Ask, Assess, Advise, Assist, Arrange) has been promoted by the Royal Australian College of General Practice. The MyHealth model trains the practice nurse to take a lead role in this process, particularly through problem-solving techniques and providing advice on the patient’s individual risk. The use of patient education, through selected literature, web-based resources, regular reviews by the same team, and established referral pathways can help achieve change.

CHANGE CONCEPTS

The multimorbidity manual involves three change concepts, (1) a system redesign, (2) incorporating the patient’s values and priorities into the GPMP and (3) managing polypharmacy in primary care.

The first change concept sets up a structure to implement the MyHealth collaborative-care model through a five-phase system redesign that aims to develop a routine system within the general practice setting for Over 75 Health Assessments and a cycle of quarterly reviews for eligible patients. The five phases are,

- Phase One: Setting up the clinic
- Phase Two: Identifying the patient cohort
- Phase Three: Inviting patients to the clinic
- Phase Four: Assessing patients and identifying their values and priorities
- Phase Five: Collaborative Care – repeat the cycle of care

Supporting practice nurses to become the patient’s case coordinator is the first change concept. As part of this role, nurses will be entrusted with ensuring that tests and referrals are accurate, up to date and entered into their clinics’ medical records, as well as assisting patients with goal setting and prioritisation. The GPs retain their role as the health leader.

The second change concept involves a process to assist in the identification of the patient’s values and incorporating them into the overall treatment plan for the individual. Values are principles, standards or qualities that an individual or group of people hold in high regard. These values guide the way we live our lives and the decisions we make. A value may be defined as something that we hold dear, those things/qualities which we consider to be of worth. It is important for health care decisions about what services to access and which medicines to prioritise for these values to be documented.
The third change concept involves adopting a system to ensure that the patient’s medicine record is as accurate as possible to improve medicine safety. Subject to the resources available, a medicine review will be undertaken utilising either the Home Medicines Review, community pharmacy MedsCheck, or a medicine-reconciliation by the practice nurse/in-house pharmacist. The review should document all current medicines and identify possibilities for improved medicines management, including de-prescribing. These data will be used in a medicine safety review by the GP of potential side effects in this age group and necessary monitoring. The GP will review opportunities for de-prescribing in line with patients’ documented values. GPs may use the de-prescribing guide in this manual to assist in this process.

**CHANGE CONCEPT 1 – A SYSTEM REDESIGN**

**Aims**

- Annual Over 75 Health Assessment
- Identify and record patient values and priorities
- Complete GPMP and team care arrangement
- Improve the patients’ self-management capabilities
- Improve the quality of life experienced by this group
- Decrease hospital admissions for this cohort.

**Change Ideas**

- Agreement to routine Over 75 Health Assessment for eligible patients
- Adopting a standard GPMP
- Use standardised measures of physical, mental and social function incorporated into the senior health check (the *MyHealth* quality-of-life assessment which has the Australian Quality of Life – 6D embedded within it)
- Gain an understanding of patient values and priorities with regards to their health
- Improve patient participation in medical decisions

**The Leadership Role of the General Practitioner**

One of the main difficulties in the management of multimorbidity is that there are often multiple services involved in the management of the differing disorders with no responsibility allocated to a single agent to facilitate and monitor the outcomes achieved with the patient. The GP is appropriately placed to provide leadership and facilitate optimisation and implementation of the treatment plan in conjunction with the patient, practice nurse and any other healthcare professionals involved. With the GP providing leadership and clinical judgement for the overall management, the practice nurse can facilitate exploration and monitoring of goals, review progress and act as an advocate for the patient.

**The Role of the Practice Nurse**

The role of the practice nurse (PN) is integral to the successful coordination and management of multimorbidity in general practice. The PN plays a pivotal role as a case manager in assessing patients with multiple morbidities, working with the patient to set achievable goals, developing self-management support systems with the patient, monitoring outcomes, completing management plans in consultation with the GP and coordinating and monitoring the interventions of other service providers. A key element is identifying the patient’s values, attitudes and preferences in their treatment options.
Phase One – Setting up the clinic

It is important to set up a space and equipment to run the clinic and the system design within the practice. Each practice needs to identify what resources are available with their region. For example, if you cannot access HMRs for your patients in a timely manner, an alternative, such as MedsCheck, will be required. MedsChecks are pharmacy-based reviews and are not as exhaustive in scope as HMRs. They typically entail medicines reconciliation, medicines education, and assessment of adherence. Consequently, GPs would need to either request extra input from the community pharmacist (e.g. around de-prescribing) or review the medicines list themselves. A small but growing number of practices directly employ pharmacists within the practice. If no form of pharmacist review is available then the clinic may decide to complete medicine reconciliation by requesting the patient to bring all of their medicines to the review to ensure that the medical record has an up-to-date list of medicines, including over the counter medicine. If the resources for a MedsCheck or HMR are available, the practice team will need to develop a system with the local pharmacy and discuss the scheduling and timing for these to be completed prior to scheduling appointments in the GP clinic.

Set up a system at reception to provide forms to the patient on attendance

Negotiate with reception staff to arrange the following:

- Patients, and their family or carers if they wish, will be requested to arrive 10 minutes before their appointment with the practice nurse.
- At arrival, reception staff to provide the patient with a clip board and a pen containing the MyHealth quality-of-life assessment.
- Request reception staff to ask each patient to complete the questionnaire whilst waiting for the Practice Nurse appointment. Patients with low levels of literacy or issues with dexterity or impaired vision may require assistance. In the absence of any prior evidence of the patient’s ability to complete the form, it may be appropriate for each patient to be offered the option of assisted completion. (Reception staff may need some basic orientation to the contents to assist with this process.)

Develop a resource folder

Develop a resource folder for educational material on the different diseases, patient education aids and local resources which could involve district nursing services, health agencies, community service groups, clubs, facilities, etc.

![Figure 3. Phase 1: Setting up the clinic](image-url)
Phase Two – Identifying the Patient Cohort

Identify patients that meet the criteria for an annual Over 75 Health Assessment from the practice electronic or other medical records.

1. The practice team is to identify, via their existing system, all patients eligible or due to have an annual Over 75 Health Assessment.
2. Check the database to determine if the patient has had a previous Over 75 Health Assessment, GPMP or TCA within the last 12 months. Give priority to those that do not have one. Create a list of patients in visit order and determine if the patient needs a review or a new GPMP.
3. Begin by selecting the first four patients to invite for an assessment.
4. Print and store a copy of the patient’s current medicine list for the reconciliation process.
5. Review pathology test results and determine if further tests, such as glucose, HbA1c and eGFR, are required. Arrange for the GP to complete the required pathology orders and request the patient to have the tests completed prior to attendance for the PN review.

Phase Three – Inviting Patients to participate in the clinic

1. Contact the first four patients and provide an explanation of the new service model and the potential benefits for the person.
2. Obtain verbal consent from the patient to participate and record this in the Electronic Medical Record (EMR).
3. Dependent on the model adopted by the practice, explain the reason for the medicines review with the patient’s agreement or request that the patient bring all medicines with them. Arrange for a HMR or other medicines review (with the local pharmacy if relevant).
4. Schedule the initial appointment in the clinic with the practice nurse and then with the GP.
5. The appointments will include completion of a medicine review and a GP Management Plan, Team Care Arrangement and Over 75 Health Assessment.
6. Identify if the patient would like a family member or significant other to attend with them.
7. Ask the patient to attend ten minutes early to complete the MyHealth quality of life assessment.

Figure 4. Phase 2: Identifying the patient cohort.
Example script 1: Inviting patients to participate in the clinic

PN: Hello, is this Mr Smith?

P: Yes.

PN: I am (Name), the practice nurse at the (Name) clinic. The reason I am contacting you is that you are eligible for an Over-75 Health Assessment and our clinic is offering this to all eligible people in our clinic. There will not be any cost to you. It is designed to provide you with a comprehensive health assessment and follow up. Would you be interested in this new service?

P: What does this involve?

PN: The initial assessment phase involves a medicine review, spending an hour with me or another practice nurse to discuss your health assessment and then a review with your GP. The aim of this program is to get an up-to-date medicine list and to reduce any unnecessary risk of harm from the medicines that you take. We will also do an assessment of your daily activities and see if we can provide you with some strategies to improve your daily activities.

P: What do you mean by medicine being harmful?

PN: Many patients get different medicines prescribed by different people as well as over-the-counter medicines. Some medicines can interact with each other and make some side effects that can increase risks of falls for example. Sometimes we can reduce the number of medicines that you are taking to reduce this problem. We want to make sure that we have an up to date list of the medicines that you are taking. We can arrange for your GP to review this or maybe involve the pharmacy. When we review lists, we can check if some medicines are no longer necessary, or we might suggest a or reduced dose or a different drug if there have been changes to your health or lab results over time, or a better medicine has become available. *(Inform the patient which medicine review process your clinic will use. HMR, MedsCheck or reconciliation)*

Continued over …
Example script 1: Inviting patients to participate in the clinic … continued.

P: That sounds good, I take so many medicines it is hard to keep track of them all. What else is involved?
PN: Is it okay if I call you Bill?
P: Yes, that’s fine.
PN: A part of our new program is to also evaluate if it provides effective support to patients. This may involve anonymously sharing details of your medical records and the care we provide with other health organisations. We would of course remove all personal details such as your name and contact. Do you consent for this to occur?
P: Yes, that’s okay by me.
PN: Bill, we will discuss some of your values and what is important to you and then look at any lifestyles modifications that can be made to help you manage and improve your health. A component of this is that we would catch up every three months for another appointment to monitor your progress.
P: What sort of lifestyle modifications do you mean?
PN: Often there are a range of services and community groups that you may be interested in participating in that can help with any areas that you may be having difficulty with which we will be able to discuss on the day. Would you like to bring anyone with you to the appointment?
P: Yes, I would like my daughter to come with me.
PN: Schedule the patient to attend the clinic.

Phase Four – Assessing patients and identifying their values and attitudes

Request the reception staff to ask each patient to complete the MyHealth questionnaire whilst waiting for the PN appointment. Also advise the patient to ask the PN if they have any difficulty or questions in relation to the questionnaires.

Using the MyHealth quality of life assessment

For the purposes of this manual, the MyHealth quality of life assessment (Appendices 2 and 4) has been reformatted for ease of use for the practice nurse. It is not intended to be scored with individual patients as a research tool but more as a guide for the practice nurse to initiate conversations with the patient to identify problem areas and negotiate solutions and goals for the GPMP. The form has been arranged into two columns. Anything that is ticked in the right column should prompt the nurse to initiate a discussion and assist in the planning of goals to improve and manage the area.

Figure 5 outlines some MyHealth health assessment options to consider when negotiating goals and strategies.
**Assessing patients**

**Timing** | **Actions**
---|---
Pre-appointment | Reception staff to provide the patient with the *MyHealth* health assessment form and consent form, and arranges for a medicines review (or at minimum, medicines reconciliation) to be performed in advance of the patient interview.

0-10 minutes | PN to review the *MyHealth* quality of life assessment form and collect the consent form. If there is a positive response to questions 11 to 14 on the *MyHealth* assessment (depression and anxiety), request the patient to complete a Geriatric Depression Scale (GDS) and liaise with the GP to conduct a risk assessment.

10-20 minutes | Review the HMR, MedsCheck or complete a medicines reconciliation. Assist the patient with any questions they have.

20-25 minutes | Take the patients physical measures as per Over 75 Health Assessment. Directly record this in the EMR and on the
suggested GPMP template.

25-35 minutes Discuss with the patient their values and attitudes in relation to what is important to them. *(See example script 2)*

35-45 minutes Suggest and negotiate goals based on the values of the person. *(See example script 3)*

45-55 minutes Discuss with the patient self-management and education opportunities to improve their health.

55-60 minutes Suggest other services that will help the patients,

> Referrals to psychology focussed counselling, Access to Allied Psychological Services (ATAPs)
> Diabetic educator
> Exercise physiologist
> Podiatrist
> Optometrist or ophthalmologist etc.

Identify and provide educational material relevant to the three goals negotiated

Set the date for the next appointment (three calendar months and one day or 13 weeks)

Identify future pathology test requirements for the next visit.

The practice nurse is to send the following information to the research team

> GPMP with the updated goals
> the most current medicine list, and
> the *MyHealth* health assessment.
Example script 2: Coaching the patient

PN: What information do you want to make a decision about your health?

P: I'm not sure. The doctor usually tells me what I need to do or what tablets to take.

PN: Okay, what about when you have made a decision in the past like buying a car or changing jobs or something important to you?

P: Yes, I can relate to that. I did change jobs before I retired from the work force.

PN: So how did you come to the decision to change jobs? What things did you do that helped you to make the choice?

P: I looked at lots of things, the benefits and negatives of changing jobs like the location as far as travelling to work, the pay, the type of work and a whole range of other things. In the end, it was closer to home, the money was a little bit less but the boss seemed like a good bloke and I wouldn't be treated the way I was at the last job. So I changed and it was the best thing I ever did.

PN: So you looked at all the options that were available to you to assist in making the decision. You looked at the information about the job, whether it suited you, what were the plusses and negatives, what were the things that you valued and were important to you.

P: Yes that's right.

PN: Making decisions about your health is important, or perhaps even more important than changing jobs.

P: Yes, but the doctor knows what he is doing.

PN: Yes he does, but he sometimes needs to know what's important to you. A bit like in the workplace, some people prefer to work public holidays for the overtime pay but others would prefer to spend that time with your family. Your boss needs to know your preferences before he or she can make a decision about the best roster for everybody. The same is true for medical treatment – the doctor sometimes needs to know if you have a preference, for example about how many consultant appointments you want to make. Some people want to see as many consultants as necessary, but for others it simply takes too much of their time, or they have to make sacrifices to pay for everything. Some patients will prioritise pain relief over everything, whereas others will accept some pain if it means not taking medicines that can make you drowsy. You have a voice in the decision to be made as it will directly affect you. What if you looked at the doctor as if he were the boss of your health? He is there to give you the information about your health, the pros and cons, what matters for you, so you can agree on the best way forward.

P: I hadn't thought of it that way, but it makes sense.

PN: There are three key questions that that you should ask the boss of your health:

1. What are my options?
2. What are the benefits and harms? and
3. How likely are these?

Do you intend to ask these questions the next time you see the doctor.

P: Yes, I will.
Negotiating goals and recommendations

It is important to ask the patient what goals they would like to achieve and how they think they can achieve them. These goals should be in alignment with the patient’s values. Hence it is valuable to have these discussions together. It is important to ask the patient, “Which area is the most important for you to make some changes in”, taking into consideration the values, preferences, and expressed needs. The patient may identify that their social life and leisure activities is the area they wish to address first. Utilising a problem solving approach and Specific, Measurable, Attainable, Realistic and Time-bound (SMART) goals assists in this process. For example the conversation that may take place could be as follows:

Example script 3: Negotiating goals and recommendations

PN: Bill, what are the things that have impacted most on your social and leisure activities?
P: Well, I used to be in a walking group that met once a week, but since I have started having breathing problems, I have found that it is too difficult to do this anymore and I have lost contact with them. I used to really enjoy this.

PN: Have you considered joining other types of activities to meet your needs?
P: Yes, but everything I think of will probably be just the same, too physical for my condition and I have started to get arthritis in my knees. So I just sit at home doing nothing. It kind of gets you down.

PN: What are some of the things that interest you and what have you enjoyed doing in the past?
P: As I said, I really enjoyed the walking group but it was really about catching up with people and having a cuppa and chat afterwards and every now and then we would go out for lunch for birthdays and things like that.

PN: I have a list of activities here that a lot of people enjoy. Would you like to have a look at them and see if anything is of interest to you?
P: Okay, but I don’t think there is anything that I will be able to do?

PN: Is there anything there that appeals to you?
P: I used to like swimming when I was younger but that isn’t going to meet my needs.

PN: I have a range of resources available locally that are provided by several services and community groups. One of the activities is a swimming group at the Archie Graham centre. I understand that they provide a low impact exercise group in the pool. It’s not like swimming laps and I understand that it is quite fun and they often go out for coffee afterwards. Would you like to some more information about this program and see if you would like to try it? (It is important that each practice develop resource kits of what is available in their area)
P: I like that idea?

Continued…
First SMART goal
For example, if the goal is to attend aqua-exercise, to make the goals SMART,

S = SPECIFIC: Which classes and where?
M = MEASURABLE How often will you attend?
A= ATTAINABLE Will you be able or eligible to attend these classes?
R= REALISTIC How confident are you about achieving this goal?
T = TIME BOUND When will you start and which sessions will you go to/

Goal: To attend the senior aqua-exercise classes at the Archie Graham Centre on Mondays and Wednesdays when a volunteer driver is available starting next week.

Self-Management and Education
Self-management involves ensuring the person is the focal point of their care, working in partnership with them and acknowledging the important role that families and carers can play in multimorbidity management. Self-management leads to improved quality of life as well as reducing the incidence of exacerbation and progression of chronic diseases. The 5 As approach to achieving change (Ask, Assess, Advise, Assist, Arrange) have been promoted by the Royal Australian College of General Practice.

Self-Management Principles means that the patient can be supported to,

- Understand the nature of their condition including risk factors and co-morbidities
- Have knowledge of their treatment options and be able to make informed choices regarding treatments
- Actively participate in decision making with health professionals, family and carers, and other supports in terms of continuing care
- Follow a treatment or care plan that has been negotiated and agreed with their health care providers, family and carers, and other agencies including non-government and consumer organisations
- Monitor signs and symptoms of change in their health condition and have an action plan to respond to identified changes
- Manage the impact of the condition on their physical, emotional and social life and have better mental health and wellbeing as a result
> Adopt a lifestyle that reduces risk and promotes health through prevention and early intervention
> Have confidence in their ability to use support services and make decisions regarding their health and quality of life.

**Phase Five - Collaborative Care – repeat the cycle of care**

> A recall date will be made for the Practice Nurse and GP visit at three monthly intervals, billed using the Practice Nurse Item number and review of GPMP and TCA.
> At each recall, the patient goals updated, physical checks and pathology results reviewed, and the impact of any changes in medicine can be monitored.
> At each recall the practice nurse is to print out the
  o GPMP with the updated goals and
  o the most current medicine list.
> At twelve months after the completion of the first *MyHealth* Over 75 Health Assessment, the cycle is repeated and a new GPMP is completed.

**Medicare Items that can be claimed as part of the Multimorbidity Collaborative**

> GP Management plan - yearly unless significant new diagnosis occurs
> GP Management plan review - Minimum claiming interval every three months and at least three months since GP Management plan
> Team Care Arrangements - yearly unless significant new diagnosis
> Team Care Arrangements Review - Minimum claiming interval every three months and at least three months since Team Care Arrangements
> Nurse contribution to chronic disease management as specified in the plan - for telephone or face-to-face activities - five per calendar year
> Domiciliary Medicine Management Review - yearly unless significant change
> Over 75 Health Assessment - yearly
> GP Mental Treatment plan for patients with a mental illness - yearly
> Review of GP Mental Treatment plan after one month then every three months.

It is anticipated that scheduled visits at three monthly intervals will allow practices to claim sufficient Medicare rebates to pay for any additional administrative, nurse and GP time.

**Outcome measures**

Table 1 lists the outcome data collected by each clinic and uploaded every three months to the Improvement Foundation portal. At each review, hospital and emergency data are added to the GPMP and so practices need only refer to these GPMPs to provide this information.

**Table 1: Change Concept One – System Redesign**

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of completed <em>MyHealth</em> Over 75 Health Assessments</td>
<td>Measures activity in each practice</td>
</tr>
<tr>
<td>Medicare rebates claimed for enrolled patients for: GPMP, TCA, Review of GPMP Review TCA, HMR, nurse assist with chronic disease, Over 75 Health Assessments</td>
<td>Measures sustainability of <em>MyHealth</em></td>
</tr>
<tr>
<td>Proportion of <em>MyHealth</em> patients who had eGFR recorded in the previous 12 months</td>
<td>A measure of medicines monitoring for patient safety.</td>
</tr>
<tr>
<td>Outcome measure</td>
<td>Comment</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Proportion of <em>MyHealth</em> patients who have had a standing BP recorded in the last 12 months</td>
<td>A measure of monitoring for patient safety</td>
</tr>
<tr>
<td>Hospital ED attendance in the last year</td>
<td>Reduced hospital, Emergency Department, After Hours calls are an outcome measure of better management of multimorbidity.</td>
</tr>
<tr>
<td>Hospital unplanned admissions in the last year</td>
<td></td>
</tr>
<tr>
<td>After hours call outs in the last year</td>
<td></td>
</tr>
</tbody>
</table>

CHANGE CONCEPT 2 – INCORPORATING PATIENT VALUES AND PRIORITIES

Aims:
> To identify the patient’s values and to align the treatment plans and goals to these values.

Change Ideas:
> To have an active awareness of the patient’s values and openly discuss them with the patient.
> To incorporate the patient’s values into clinical decision making.
> To align the patient values with the Over 75 Health Assessment /GPMP document.
> To provide an opportunity to help the patient to resolve any conflicting values.

Values in Multimorbidity
Values are the things that we believe are important in the way we live and work. These values determine a patient’s priorities, and, deep down, they’re probably the measures that they use to tell them if their life is turning out the way in which they want.

You could highlight to the patient that, “When the things that you do and the way that you behave matches your values, life is usually good, you’re satisfied and content. But when these don't align with your personal values, that's when things feel wrong of generate some level of internal conflict. This can be a real source of unhappiness. This is why making a conscious effort to identify the patients values is important.”

How values help the patient
Values exist, whether the patient recognizes them or not. Life can be much easier when the patient can acknowledge their values and when they can make plans and decisions that synchronise with their values.

If the patient values their ability to have choice in their treatment plan, but there is limited opportunity for them to have input, they may be less likely to be actively involved in their health journey.

Defining the patient’s values
Start by asking the patient to define their personal values. A good way of starting to do this is to ask the patient to look back on their life and to identify when you felt really good, and really confident that you were making good choices.
Step 1: Ask the patient to identify the times when they were the happiest
Ask the patient to give examples from both their career and personal life. This will ensure some balance in their answers.

> What were you doing?
> Were you with other people? Who?
> What other factors contributed to your happiness?

Step 2: Ask the patient to identify the times when they were most proud
Ask them to give examples from their career and personal life.

> Why were you proud?
> Did other people share your pride? Who?
> What other factors contributed to your feelings of pride?

Step 3: Ask the patient to identify the times when they were most fulfilled and satisfied
Again, use both work and personal examples.

> What need or desire was fulfilled?
> How and why did the experience give your life meaning?
> What other factors contributed to your feelings of fulfilment?

Step 4: Help the patient determine their top values, based on their experiences of happiness, pride, and fulfilment
Ask questions such as why is each experience truly important and memorable? Use the following list of common personal values to help you get started and aim for about 10 top values. (As you work through, you may find that some of these naturally combine. For instance, if you value philanthropy, community, and generosity, you might say that service to others is one of your top values.)

Step 5: Ask the patient to prioritize their top values
This step is probably the most difficult. It’s also the most important step, because, when making a decision, they will have to choose between solutions that may satisfy different values. This highlights which values are more important to the patient.

> Ask the patient to write down their top values, not in any particular order.
> Ask the patient to look at the first two values and ask yourself, “If I could satisfy only one of these, which would I choose?” Explain it might help to visualize a situation in which you would have to make that choice. For example, if you compare the values of service and stability, imagine that you must decide whether to sell your house and move to another country to do valuable foreign aid work, or keep your house and volunteer to do charity work closer to home.
> Ask the patient to keep working through the list, by comparing each value with each other value, until the list is in the correct order.

Step 6: Ask the patient to reaffirm their values
Check the patient’s top-priority values, and make sure they fit with their life and their vision for themselves. Ask the patient.

> Do these values make you feel good about yourself?
> Are you proud of your top three values?
> Would you be comfortable and proud to tell your values to people you respect and admire?
> Do these values represent things you would support, even if your choice isn't popular, and it puts you in the minority?

Also advise your patient, when they consider their values in decision making, the patient should be sure to keep their sense of integrity and what they know is right, and approach decisions with confidence and clarity. The patient should also know that what you're doing is best for your current and future happiness and satisfaction.

Making value-based choices may not always be easy. However, making a choice that they know is right is a lot less difficult in the long run.

**Key Points to remind the patient**

Identifying and understanding your values is a challenging and important exercise. Your personal values are a central part of who you are and who you want to be. By becoming more aware of these important factors in your life, you can use them as a guide to make the best choice in any situation. Some of life's decisions are really about determining what you value most. When many options seem reasonable, it's helpful and comforting to rely on your values – and use them as a strong guiding force to point you in the right direction.

The two following examples are very similar clinical pictures but with two different value structures and hence two different outcomes.
Case study 1: Identifying values and attitudes

Mr Head is a 75 year old man, diagnosed with cardio/ peripheral vascular disease, diabetes and depression. Mr Head is married and his wife is extremely supportive with managing his medical conditions. His wife Joan takes responsibility for his diet and medicine. They both value their relationship and work hard at remaining independent. Mr Head has had coronary artery bypass grafts (CABGs) in the past and had a difficult recovery and rehabilitation. Recently Mr Head has started to develop increased pain in his legs and it was suggested that he could benefit from some revascularisation procedure in hospital. Mr Head was not happy about going back into hospital and was concerned that if he had more surgery he may have another CVA as he had in the past.

Mr Head decided at this stage against the procedure and opted to manage his pain at home with medicine and monitoring. His rationale for making this decision was, he really wanted to stay home and he valued his independence, he thought if something went wrong that he may become a burden on his family, he didn’t mind a bit of pain as he has been dealing with it most of his life.

This is in contrast to Mr Edwards who had a very similar clinical picture but differing values and social environment. Mr Edwards is a 75 year old man, his wife died 20 years ago of breast cancer. He has two sons who are very supportive but he decided he would move into a nursing home when he was 70. He has been very happy in the nursing home and has made good friends, and they go bowling every Tuesday and Thursday. Like Mr Head, Mr Edwards has had CABGs but his recovery went smoothly and he was able to attend a rehabilitation program. Mr Edwards also values his independence but he values his mobility and being pain free (as much as possible). Mr Edwards also does not like to take any “unnecessary medicine”.

Mr Edwards decided he would have the procedure because he wanted to be as pain free as possible, he did not wish to take any more medicine, he wanted to be as mobile as possible for as long as possible and he wanted to keep playing bowls.
The ten most common values for people aged 75 and above

The ten common values highlight the importance of involving the elderly in their health care. It is stated on several occasions that the elderly really value having choice and control over how they live their lives. The audit also states that independence “is a central component of older people’s wellbeing”. Independence does not necessarily mean not having any help, in fact having some help may enable the elderly to remain independent in other areas. “They also value good housing in safe, friendly neighbourhoods; getting out and about and keeping busy; an adequate income, good information and good access to healthcare”.

1 Family: Having contact with the family
2 Independence: Being able to make decisions
3 Respect: Not being treated “like a child”
4 Health: Not being sick
5 Mobility: Personally and in public
6 Financial: Security particularly in relation to pension
7 Security: About accommodation, either own home or nursing home
8 Choice: Being able to choose between options available
9 Friends: Maintaining and developing friendships
10 Healthy behaviours: Good diet and keeping physically active

The ten common values come were partially taken from work done in the UK and can be referenced at www.audit-commission.gov.uk/olderpeople.

Conflicting values

Sometimes the patient will have conflicting values. The challenge with having conflicting values is working out which value is more important to the individual, i.e. physiotherapy might help mobility but at the expense of needing to make financial savings elsewhere.

The other challenge with conflicting values is that it may be very obvious for us as health professionals about which may be the most appropriate health choice but if it does fit with the patients values then have are unlikely to engage in the change/ treatment.

Table 2 presents a few examples of some common conflicting values.

| I would like to maintain my mobility, and learn what is the best set of exercises for me to do   | I don’t want to spend any more money on the physio.   |
| (value = mobility)                                                                                                               | (value = finances)                                      |
| I really want to get some good sleep. I only sleep for about four hours a night and I toss and turn for the rest of the night. | I don’t want to give up my afternoon nap because it allows me to catch up on my sleep. |
| (value = Sleep)                                                                                                                   | I also really like having a coffee at night after dinner. |
| (value = pleasures, i.e. coffee)                                                                                                 |
| I want to be healthy                                                                                                              | I don’t want to have any screening or testing done because they might find something and then I would have to do something about it. |
| (value = being healthy)                                                                                                          | (value = not knowing, ignorance)                       |
| I really value my family and would like to see them a lot more than I do as they live too far away.                                 | I don’t want to move from where I am because I know it and it is my home. |
| (value = seeing family)                                                                                                          | (value = staying at home)                              |
| I am sick of not being able to breathe at night when I lie down to sleep                                                         | I don’t like taking the extra “water tablet” because it makes me need to go the toilet |
| (Value = breathing ok)                                                                                                            | (value = independence and not having to find a toilet) |
Outcome measures

Table 3: Change concept two – Incorporating patient values and priorities

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>MyHealth assessment responses as part of the annual Over 75 Health Assessment.</td>
<td>De-identified copy of the MyHealth assessment which has embedded within it the validated AQoL6D (Australian Quality of Life version 6D, Appendix 2) to allow changes in quality of life and functioning to be assessed annually.</td>
</tr>
</tbody>
</table>

Proportion of goals set that are completed and the proportion renegotiated. | A process measure that looks at how SMART the goals were |

CHANGE CONCEPT 3 – MANAGING POLYPHARMACY IN PRIMARY CARE

Aims:

> Reduction in potentially inappropriate medicines
> Improved medicine monitoring
> Accurate medicine list

Change Ideas:

> Medicine reconciliation including over the counter medicines
> Verified list entered into GP software and patient’s GPMP
> Identification of potentially inappropriate medicine in the elderly
> Identification of side effects
> Develop de-prescribing plan in line with patient values
> Systematic monitoring of medicine for harms and risks

A team-based approach to managing multimorbidity and polypharmacy

Managing multimorbidity is an extensive undertaking, and requires the marshalling of all relevant resources in primary care. In addition to polypharmacy, the intervention must address a diverse range of other concerns. These might include whether or not a patient should continue to visit multiple specialists (e.g. if cost/time affects quality of life), how healthcare goals might be adjusted to meet life goals for the patient (e.g. taking an anti-inflammatory NSAID to improve mobility, even if it worsens blood pressure), advance planning for end-of-life care, desire to be consulted about changes to treatment etc. All these considerations require the appropriate time, skills, remuneration and setting for the health professionals involved.

Current Medicare items allow for funding of practice nurses to conduct a detailed assessment of these issues with input from GPs. The feasibility and sustainability of conducting these reviews, which will often be quite onerous, will be improved if we can draw upon the skills of pharmacists to conduct periodic reviews of medicine use. We envisage this being funded through the existing Home Medicine Review and MedsCheck programs.

Table 4 shows the general process for completion of polypharmacy reviews.
Table 4: Process for completion of polypharmacy reviews

<table>
<thead>
<tr>
<th>Step</th>
<th>Responsible health professional</th>
<th>Activities/roles</th>
</tr>
</thead>
</table>
| 1    | Community or accredited pharmacist | > Compile a complete medicines list, including non-prescription and complementary items  
> Review patient knowledge and adherence to treatments  
> Review patient concerns/preferences for medicines use  
> Review appropriateness of each medicine in accordance with instructions in this document  
> Establish patient willingness to consider altering potentially inappropriate treatment (or initiate necessary treatment); identify pharmacy support available  
> Report medicines list and management options to GP |
| 2    | Practice Nurse | > Conduct an Over 75 Health Assessment.  
> Confirm patient goals for healthcare, and desire to be involved with healthcare decisions.  
> Identify particular patient concerns/preferences around medicines use |
| 3    | GP | > Discuss priorities for change with the patient considering the patient values  
> Explore the potential harms and benefits of each issue  
> Develop a plan for incremental changes to medicine use, with provisions for monitoring patient safety  
> Confirm and document decisions and plan for implementation, communicate this with nurse and community pharmacist. Plans should include safety monitoring and role allocation. |
| 4    | Nurse/GP/community pharmacist | > Each implements their part of the plan  
> Nurse and pharmacist engage in feedback about decisions/information provision until satisfied that the process is working and they understand each other. |

1. Compile a comprehensive medicines list

Complete medications review as per MedsChecks or HMR expected standards. Please ask the patient to bring all medicines in a bag and compare against patient-reported usage and your own records. Identify prescribed and non-prescription products – include inhalers, topical products, as-needed medicines, patches, over-the-counter remedies and complementary and alternative medicines.
2. Review patient knowledge and adherence to treatments, confirm indication

This is a standard component of any medicines review. It is particularly important for us to identify if there are medicines that the patient may no longer need. Check with the patient (a) why they are using each remedy, (b) for how long, (c) who prescribed it and (d) if its use has been reviewed in the past year. Table 2 identifies a number of products which sometimes are continued for years despite a condition having resolved. Anxiolytics, antidepressants, antipsychotics, proton pump inhibitors, and systemic corticosteroids can regularly fall into this category. This might be particularly relevant if the patient’s regular GP has changed, or if prescribing has been initiated by a consultant/specialist service some time ago. If the patient cannot clearly articulate a definite ongoing need for the product, alert their GP to review.

3. Review potential for withdrawing, changing or reducing other therapies

There are a few circumstances where withdrawal of valid therapies in elderly patients might be warranted for review. Key considerations include:

a. If the patient’s life expectancy is short, they may be unlikely to live long enough to see a benefit from therapy (see Table 2 for a list of drugs). If a patient is nearing end-of-life, it might be reasonable to slowly withdraw all chronic preventative therapies, keeping only symptom relievers.

b. If increasing frailty (including diminishing renal function) means that the risks associated with adverse events are increasing to the point where they might outweigh the benefits (e.g. antihypertensive pose an increasing falls risk, and evidence suggests many patients can, with monitoring, safely withdraw use without affecting blood pressure). All of the drugs in Table 2 should be considered in this light. Bear in mind that each patient’s should be considered on an individual basis, not all elderly patients are frail. Appendix 1 provides more details about classes of medicine commonly warranting review in aged patients.

c. If the patient has/develops symptoms (e.g. dizziness, constipation) or a condition that is either caused or worsened by a medicine in use. See Table 6 (Appendix 1) for examples. Kidney disease is a prime example of a silent disease that affects suitability of drugs and doses, but which is sometimes overlooked.

d. Look for opportunities to simplify the regimen. For example, many patients are prescribed morning doses simply as a matter of course, or because it is assumed to be more suitable for the patient – not because it is essential for efficacy. Reducing the frequency of dosing is a key promoter of adherence.
4. Review patient concerns/preferences for medicines use

You may develop quite a list of opportunities to alter therapies for some patients. As mentioned previously, individual clinical considerations will regularly be very complex and the 'correct' approach cannot be determined from clinical trial results or guidelines. We may not know how increasing age, frailty and co-morbidities affect the potential for both benefit and harm in an individual patient. Equally, it is generally advisable to make changes slowly and one drug at a time. In such instances, it is worth engaging the patient to see if they have particular preferences, or if particular side effects or other consequences of therapy (e.g. cost) are having a greater effect on quality of life than others. For example, many patients find their morning diuretics a major inconvenience if they are out and about during the day, and will opt not to take them. Others may view the risk of a cardiac event as a greater concern.

5. Establish patient willingness to change regimen

a. In light of patient preferences and concerns, formally establish patient willingness to consider altering individual treatments that are potentially inappropriate (or initiate necessary treatment); identify pharmacy support available.

b. Effective communication with the patient at this stage is essential. Do not express any unequivocal judgment to the patient about a regimen change - keep the patient open-minded to the fact that their GP might be aware of other perspectives that makes your recommendation inappropriate, or less of a priority. Ultimate authority for coordination of care and final decision-making needs to rest with the patient and their GP. Literature suggests that when different healthcare professionals send the patient mixed messages, patients start to lose trust and increasingly will make their own decisions about management without the benefit of health professional input. This should be avoided at all costs.

**Example script 4: De-prescribing**

**GP:** Thank you for working out your priorities with our practice nurse. She has written that one of your priorities is to reduce the number of pills you take each day.

**Pt:** Yes – I rattle in the mornings.

**GP:** Looking at your medicine list, there is one here you have been taking for a long time called Nexium. Do you know why you were prescribed it?

**Pt:** It was given to me in hospital when I was taking Indocid for my gout.

**GP:** If you don’t suffer from indigestion we could try stopping Nexium. It is easy enough to start again if you get heart burn or indigestion back again. Now you don’t take Indocid it might be that you do not need Nexium.

**Pt:** Sounds good, can I keep some at home to use if I do get indigestion

**GP:** Yes of course, please let me know if you restart them. We can have a look at reducing or stopping another medicine next time you are here.

**Pt:** Thanks Doc, I will also be able to save some money by not having to buy the Nexium.
Example script 5: De-prescribing conversation between pharmacist and patient.

Scenario: Margaret Stewart (MS), aged 82, has just completed the medicines reconciliation component of her medicines review, and has had her knowledge of medicines, and medicines adherence, assessed. Margaret is reasonably healthy for her age, but is becoming frailer and suffered from a fall last year.

PT: Margaret, having assessed everything it would appear that you are pretty confident about taking your medicines correctly. Is that a fair assessment?

MS: Yes.

PT: That’s great. Given there are not many issues in that respect, this meeting is a good opportunity to explore just a small number of issues where there might be an opportunity to make improvements if you’re in favour.

MS: I don’t think that’s necessary. My doctor looks after all my medicines, and everything is going fine.

PT: I’m sure it is, and I don’t want to fix anything that’s not broken. However, your doctor asked me to do this review because she felt she needed a more detailed picture about your medicines use. You’re quite healthy which is great, but as we all age our response to different medicines and combinations of medicines can change. For example, because our kidneys don’t process some drugs as quickly, side effects might be more likely if it accumulates in the bloodstream. On the positive side, this also presents an opportunity to get the same health benefit from a reduced dose. So I’ve identified a couple of areas where it might be worth having another look at the balance between risks and benefits posed by your medicines.

MS: I’m really not sure.

PT: Let me reassure you – nothing will be changed until you have discussed this with your doctor, and you are both satisfied that the change is worthwhile exploring.

MS: OK. What sort of things are you talking about?

PT: Well the first thing that I noticed was that you are taking a couple of drugs for your blood pressure, and this seems to be well under control.

MS: Yes that’s right – I know it’s important to control my blood pressure and never skip a tablet.

PT: That’s great. And your doctor was right about needing to take them. However, you are also taking a couple of medicines that increase the likelihood of feeling faint or dizzy. Your blood pressure medicines can add to this risk, which is a worry because of your fall last year. What would you think if I suggested you might be able to reduce use, or stop using these drugs?

MS: I’d be a bit concerned. My doctor told me that I would need to take blood pressure tablets for life.

Continued…
6. Report medicines list and management options to GP

A written report should be sent to the GP and also provided to the patient, in advance of the patient's follow up visit to the GP.

Pharmacological classes that merit special attention

**Proton Pump Inhibitors**

These have the potential to increase the risk of fracture, pneumonia, bacterial gastrointestinal infections, reduced magnesium and reduced B12 absorption. Eighty percent of patients can reduce to maintenance or as-required doses and 30% can stop all together without recurrence of symptoms. However, they should be continued in Barrett’s oesophagitis and for patients on long term NSAIDs.

**Statins**

High-potency (atorvastatin such as Lipitor and Rosuvostatin such as Crestor) or high-dose statins are associated with muscle aches and damage, particularly in the elderly. Eighty percent of the LDL lowering effect can be obtained at half the maximum dose as can be seen from the graph below the lowest dose achieves the majority of the effect.

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Continued…

PT: That was certainly correct advice at the time, and may still be the case. However, in the past few years there has been increasing evidence that many patients in their 70’s and 80’s can safely reduce the dose or stop taking these medicines, without losing control of blood pressure, if done slowly and under medical supervision. So it might be that you could reduce your risk of falls without impacting on your blood pressure.

MS: Well if that’s the case it might be okay. I guess it would also mean a couple less pills to swallow.

PT: Are you happy then for me to raise this as a discussion point with your doctor? It’s not a black and white issue, and best decision will be the one you and your doctor are most comfortable with in light of your full medical review currently underway.

MS: Okay then.

PT: Great. I’ll make a note then for your doctor indicating that you would like to have a further discussion to decide if you should attempt to reduce your use of these medicines.
Aspirin, Clopidogrel and anticoagulants

Aspirin use is associated with gastrointestinal bleeding risk and admission to hospital. In combination with other antiplatelet or anticoagulation the dangers increase. Co-prescribing with antidepressant medicines (e.g. SSRIs) or anti-inflammatory medicines increases bleeding risk. Aspirin is no longer recommended for primary prevention so should be stopped. For patients with a history of stroke or transient ischemic attack (TIA), one hundred patients need to be treated for one year to prevent further stroke or myocardial infarction (MI). In atrial fibrillation 40 patients must be treated with warfarin instead of aspirin for one year to prevent a first stroke whereas 16 patients must be treated with warfarin instead of aspirin to prevent a subsequent stroke.

Warfarin plus aspirin almost doubles bleeding risk. Warfarin plus Clopidogrel almost triples bleeding risk and so the chance of serious bleeding becomes 13.9% per year.

Antihypertensives

Many elderly patients can reduce or stop antihypertensives to reduce the risk of postural hypotension and falls. Eighty low-risk elderly patients must be treated for two years to prevent a cardiovascular event and 122 to prevent a stroke. In higher risk patients who have already had an event NNT is 32 for cardiovascular events and NNT is 107 for stroke.

Diabetes treatments

The graphs below suggest that glycaemic targets in diabetes can be relaxed in the elderly without increasing risk of mortality.
NSAIDS

The use of these medicines is a common cause of admission to hospital in the elderly. Particularly avoid a triple whammy with ACEi/ARB and diuretics or in association with warfarin, heart failure or chronic kidney disease (eGFR<60) or without PPI ‘cover’.

Main resources include

1. Polypharmacy Guidance (NHS Scotland October 2012)
2. Therapeutic Brief (Veterans Mates various)
3. Older, wiser, safer (NPS Medicineswise 2013)

Outcome measures

Table 5 summarises the outcomes for Change Concept 3. Practices will need to submit de-identified medication lists to the Improvement Foundation so that they can calculate the impact of the medication review.

Table 5: Change Concept Three – Managing inappropriate polypharmacy in primary care

<table>
<thead>
<tr>
<th>Outcome measure</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients with a verified medicines list constructed by a) HMR, b) MedsCheck or c) Practice nurse/practice pharmacist reconciliation or review</td>
<td>Process measure relating to patient safety</td>
</tr>
<tr>
<td>Number of listed medicines identified as ceased for each patient following medicines reconciliation at first visit</td>
<td>This will measure the level of discrepancy between GP records and patients consumption of medicines. Discrepancy should reduce with subsequent visits</td>
</tr>
<tr>
<td>Outcome measure</td>
<td>Comment</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Number of listed medicines newly identified as a current treatment following medicines reconciliation at first visit</td>
<td>This also measure level of discrepancy</td>
</tr>
<tr>
<td>Number of medicines and type of medicines de-prescribed during the previous three month interval</td>
<td>An outcome measure for de-prescribing but also linked to improved safety and reduced side effect burden</td>
</tr>
<tr>
<td>Medicine Regimen Complexity Index as calculated by data collection team at time 0 and each 3 months.</td>
<td>Reduction in score is a composite outcome measure for de-prescribing and a more manageable regimen</td>
</tr>
<tr>
<td>Count of number of &quot;potentially inappropriate drugs&quot; prescribed for each patient either regular or prn. Again this could be done by data collection team</td>
<td>Outcome measure for de-prescribing, relating directly to patient safety</td>
</tr>
</tbody>
</table>


References


Department of Veteran Affairs, Veterans Mates 36, September 2013, accessed from www.veteransmates.net.au.
# Appendix 1

**Table 6. Medicines inappropriate for prescribing in older people and recommended to be avoided based on the Beers and McLeod criteria and revised to be relevant for medicines available in Australia.** (Adapted from table 2, American Geriatrics Society 2012, and NPS 2013.)

<table>
<thead>
<tr>
<th>Medicines</th>
<th>General comments</th>
<th>High risk of continued prescribing despite resolved condition?</th>
<th>If frail or very elderly, consider potential for benefit within life expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generally inappropriate in elderly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amitriptyline and other TCAs</td>
<td>Anticholinergic side effects (may worsens cognitive impairment; glaucoma, constipation)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Amiodarone</td>
<td>Rate control for AF safer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antihistamines</td>
<td>Anticholinergic side effects, falls</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>More harms than benefits for insomnia</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Dextropropoxyphene</td>
<td>Toxic cardiac metabolites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digoxin &gt;125mcg</td>
<td>Reduced renal clearance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>Safer alternatives</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Indomethacin</td>
<td>Most potent NSAID cause of GI bleeds</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Methyldopa</td>
<td>Confusion and falls</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>NSAIDs</td>
<td>GI bleeding risk and in CCF</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Nitrofurantoin</td>
<td>Ineffective in renal impairment, pulmonary toxicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Class</td>
<td>Effect/Indication</td>
<td>Consideration</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>Oxybutynin</td>
<td>Anticholinergic side effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prochlorperazine (Stemetil)</td>
<td>Parkinsonism and anticholinergic side effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prazosin and a-blockers</td>
<td>Postural hypotension</td>
<td>Yes (for hypertension)</td>
<td></td>
</tr>
<tr>
<td>Antipsychotics</td>
<td>Stroke risk and increased mortality and parkinsonism</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ADE risk and often unnecessary or no longer necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proton pump inhibitors</td>
<td>Several key risks with continuation, but sometimes necessary (note #1)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statins</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need to balance CVD risk and muscle problems – dose can often be lowered (note #2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspirin, clopidogrel or anticoagulants</td>
<td>Need to consider against bleeding risk (see note #3). Not recommended for primary prevention.</td>
<td>Yes – especially combination antiplatelet/anticoagulant</td>
<td></td>
</tr>
<tr>
<td>Antihypertensives</td>
<td>Most elderly patients can reduce or stop antihypertensives to reduce the risk of postural hypotension and falls. Also see methyldopa, alpha blockers listed above.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Systemic corticosteroids</td>
<td>Often unnecessary for long-term maintenance therapy in COPD, can used inhaled version; or use for &gt;3 months for rheumatoid arthritis or osteoarthritis.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Any duplication of a drug class</td>
<td>e.g. two or more concurrent opiates, NSAIDs, SSRIs, RAS agents (ACEI or ARB)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ask patient what they are taking it for, and when they last experienced symptoms or had the condition assessed with regard to the treatment need. If they don't remember, or if no symptoms for more than 12 months, continued use merits a GP review
Appendix 2 (AQoL 6D Plus)

This enhanced version of the AQoL 6D has five additional questions (Q4, Q6, Q9, Q15 and Q25) to assess aspects relevant to the study.

<table>
<thead>
<tr>
<th>Independent Living</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1</strong> How much help do you need with jobs around the house (e.g., cooking, cleaning the house or washing clothes):</td>
</tr>
<tr>
<td>- I can do all these tasks very quickly and efficiently without any help</td>
</tr>
<tr>
<td>- I cannot do most of these tasks unless I have help</td>
</tr>
<tr>
<td>- I can do these tasks relatively easily without help</td>
</tr>
<tr>
<td>- I can do none of these tasks by myself</td>
</tr>
<tr>
<td>- I can do these tasks only very slowly without help</td>
</tr>
</tbody>
</table>

| **Q2** Thinking about how easy or difficult it is for you to get around by yourself outside your house (e.g. shopping, visiting) |
| - getting around is enjoyable and easy |
| - I have no difficulty getting around outside my house |
| - a little difficulty |
| - moderate difficulty |
| - a lot of difficulty |
| - I cannot get around unless somebody is there to help me |

| **Q3** Thinking about your mobility, including using any aids or equipment such as wheelchairs, frames, sticks: |
| - I am very mobile |
| - I have difficulty with mobility. I can go short distances only |
| - I have no difficulty with mobility |
| - I have a lot of difficulty with mobility. I need someone to help me |
| - I have some difficulty with mobility (for example, going uphill) |
| - I am bedridden |

| **Q4** Again, thinking about your mobility, have you experienced a fall in the last three months: |
| - No |
| - Yes |

| **Q5** Thinking about dressing, washing yourself, eating or looking after your appearance: |
| - these tasks are very easy for me |
| - many of these tasks are difficult, and I need help to do them |
| - I have no real difficulty in carrying out these tasks |
| - I cannot do these tasks by myself at all |
| - I find some of these tasks difficult, but I manage to do them on my own |

| **Q6** Have you experienced any form of incontinence in the last month: |
| - None |
| - Weekly |
| - Infrequently |
| - Daily |
### Relationships

**Q7** Your close and intimate relationships (including any sexual relationships) make you:
- Not applicable
- Very happy
- Generally happy
- neither happy nor unhappy
- generally unhappy
- very unhappy

**Q8** Thinking about your health and your relationship with your family:
- my role in the family is unaffected by my health
- there are some parts of my family role I cannot carry out
- there are many parts of my family role I cannot carry out
- I cannot carry out any part of my family role

**Q9** Thinking about your health and your carer role with your family:
- There is no-one that I need to care for
- my role as a carer is unaffected by my health
- there are some parts of my role as a carer I cannot carry out
- there are many parts of my role as a carer I cannot carry out
- I cannot carry out any part of my carer role

**Q10** Thinking about your health and your role in your community (that is to say neighbourhood, sporting, work, church or cultural groups):
- my role in the community is unaffected by my health
- there are some parts of my community role I cannot carry out
- there are many parts of my community role I cannot carry out
- I cannot carry out any part of my community role

### Mental Health

**Q11** How often did you feel in despair over the last seven days?
- never
- occasionally
- sometimes
- often
- all the time

**Q12** And still thinking about the last seven days, how often did you feel worried?
- never
- occasionally
- sometimes
- often
- all the time

**Q13** How often do you feel sad?
- never
- occasionally
- sometimes
- often
- nearly all the time
Q14  When you think about whether you are calm and tranquil or agitated: I am

- always calm and tranquil
- usually calm and tranquil
- sometimes calm and tranquil, sometimes agitated
- usually agitated
- always agitated

Q15  Thinking about your memory, have you experienced any increased forgetfulness:

- No
- Yes

Coping

Q16  Thinking about how much energy you have to do the things you want to do:

- always full of energy
- usually full of energy
- occasionally energetic
- usually tired and lacking energy
- always tired and lacking energy

Q17  How often do you feel in control of your life?

- always
- mostly
- sometimes
- only occasionally
- never

Q18  How much do you feel you can cope with life’s problems?

- Completely
- mostly
- partly
- very little
- not at all

Pain

Q19  Thinking about how often you experience serious pain: I experience it

- very rarely
- less than once a week
- three to four times a week
- most of the time

Q20  How much pain or discomfort do you experience:

- none at all
- I have moderate pain
- I suffer from severe pain
- I suffer unbearable pain

Q21  How often does pain interfere with your usual activities?

- Never
- rarely
- sometimes
- often
- always
Senses

Q22 Thinking about your vision (using your glasses or contact lenses if needed):

- I have a lot of difficulty seeing things. *My vision is blurred. I can see just enough to get by with.*
- I only see general shapes. *I need a guide to move around*
- I am completely blind

Q23 Thinking about your hearing (using your hearing aid if needed):

- I have difficulty hearing things clearly. *Often I do not understand what is said. I usually do not take part in conversations because I cannot hear what is said.*
- I hear very little indeed. *I cannot fully understand loud voices speaking directly to me.*
- I am completely deaf

Q24 When you communicate with others, e.g. by talking, listening, writing or signing:

- I am understood only by people who know me well. I have great trouble understanding what others are saying to me.
- I cannot adequately communicate with others

Hospital visits

Q25 Thinking about the past three months, have you a hospital emergency visit, unplanned hospital admission, after hours call or call out by your GP"

- No
- Yes
Appendix 3 (GPMP template)

Items within the angle brackets <> are populated automatically from the electronic medical record.

<PracticeLetterhead>

MyHealth Plan for multiple long-term medical conditions prepared on <FormattedDate> for

<PtName>
(Born <PtDoB>)

Key values
<Key value 1>
<Key value 2>
<Key value 3>
<Other key value (leave blank if none)>

Personal goals:
<First S.M.A.R.T. goal>
<Second S.M.A.R.T goal>
<Third S.M.A.R..T goal>

Medical Medical Goals
<Add Management goals for hypertension>
<Add management goal for arthritis>
<Add management goal for diabetes>
<Add management goal for lung conditions>
<Add management goal for heart disease/CCF>
<Add management goal for impaired renal function>
<Add management goal for anxiety/depression>
<Add management goal for osteoporosis>
<Add management goal for high risk of Stroke>
<Add management goal for cancer monitoring>
<Add management goal for dementia>
<Add another management goal>
<Add another management goal>

Measurements

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Blood pressure sitting(standing)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kidneys [eGFR]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Medical History
<PMHActive>

Past Medical History
<PMHInactive>

Medication List
<RegularRx>

Medication review suggestions

<table>
<thead>
<tr>
<th>Medication</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Allergies
<Reactions>

Comment/Warnings
<Comment>

Clinic record of smoking status:
<SmkStatus>

Clinic record of alcohol
<AlcHx>

Referrals

<table>
<thead>
<tr>
<th>Type of specialist or Allied health</th>
<th>Name</th>
<th>Frequency or next appt</th>
<th>Comments/potential to reduce visits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Plan review Date
-<review date - 3 months>

<DrName>
<DrQualifications>
Appendix 4 (Clinic Health Assessment template)

Items within the angle brackets <> are populated automatically from the electronic medical record.

**Annual Health Assessment**
For patients 75 and over

**GP details:**
<DrName>

**Date:** <TodaysDate>

**Nurse:** <UsrName>

**Patient's Name:**
<PtDetails>

**Next of Kin:**
<NOKName> (<NOKRelation>)

**Ambulance Cover:** <Ambulance Cover>

**Personal Care Alarm:** <Personal care alarm>

**Medical History:**
<PMHActive>

**Past Medical History:**
<PMHInactive>

**Allergies and reactions:**
<Reactions>

**Significant Family History:**
<FamilyHx>

**Social History:**
<SocialHx>

**Clinic record of smoking:**
<SmkStatus>

**Medications:**
<CurrentRx>

**Comments about medications**
<comments about medication list - up to date? HMR needed?>

**Last blood test monitoring:**
<when last renal function check> eGFR <Latest eGFR>

**Immunisations:**
<Imm>

**Health Assessment - See attached MyHealth Questionnaire**

<table>
<thead>
<tr>
<th>Assessment of memory</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the year, season, date, day, month?</td>
<td>Score 1 point for each correct answer /5</td>
</tr>
<tr>
<td>Where do you live? State, country, town, street number, street name</td>
<td>Score 1 point for each correct answer /5</td>
</tr>
<tr>
<td>Repeat 3 objects- house, bus, dog</td>
<td>Score 1 point per word on first trial only /3</td>
</tr>
<tr>
<td>Spell &quot;WORLD&quot; backwards</td>
<td>Score 1 point for each correct letter /5</td>
</tr>
<tr>
<td>Comments:</td>
<td>Total Score /18</td>
</tr>
</tbody>
</table>

**Is there adequate support and help:**
<Social supports paid/unpaid adequate, comments>
Driving licence?
<Has current driving licence?>

Examination/Observations: BP sitting <Blood pressure>, BP standing <BP standing>, Pulse <Pulse, rhythm>, Weight <Weight>, Height <Height in cm>

Comments and recommendations: (nutrition, urine test, Webster packs, Anticipatory direction, Home OT needs, podiatry needs, GPMP 1.

GP signature ______________________ Name ______________________________