A round one in six adult patients has multimorbidity, presenting challenges for all involved in their care. The publication of the NICE guideline Multimorbidity: Clinical Assessment and Management offers an opportunity to fundamentally reconsider the approach to optimising the care of these patients. With the epidemiology of multimorbidity showing an association between deprivation and increasing prevalence, the collective burden on clinicians is intensified. Achieving incentivised clinical goals set in the context of one condition within limited consultation time can be exhausting and may feel increasingly unachievable.

Patients with multimorbidity are faced with multiple clinical and social care encounters and polypharmacy, and their care is fragmented by specialisms each driven by individual priorities. Soon patients become enmeshed in a web of tests, consultations and targets where their real expectations and priorities are often lost.

With an evidence base dominated by single conditions, where those with multimorbidity often are excluded in trial design, how could relevant guidance be developed? In the absence of this evidence, combined with few trials following patients after a drug is stopped, commencing or withdrawing individual treatments based on any model of complexity is a tall order. Adding unproven processes of assessment or planning has clear economic costs and while research is underway to determine the best model, there is currently no firm evidence.

From this maelstrom of ambiguity, a NICE guideline has been produced, which recognises these differing priorities and burdens, and liberates clinical judgement and patient prioritisation within a framework of shared decision making and holistic planning. This was not without its challenges: addressing an individual’s variation from the spectrum of physical and mental health conditions.
and encompassing their needs, be they young, old, frail or strong, demanded a flexible approach built around core principles and pragmatism.

**The recommendations**

So what does the guidance actually say? Firstly, NICE has taken a relatively straightforward approach to defining multimorbidity as “the presence of two or more long-term health conditions”. This includes physical and mental health problems, and other conditions arguably not readily classified as either, such as learning disability or symptom complexes, eg frailty.

The guidance advocates tailoring care for those multimorbid individuals who have difficulties with day-to-day activities, those who receive care from multiple services, and those with both physical and mental health problems. It also recommends considering tailored care for those patients identified through factors such as frailty, frequent use of unplanned or emergency care, or the prescription of multiple medicines. Patients should be identified either opportunistically during routine care, or proactively using electronic records, and the guidance suggests the use of approaches such as validated frailty or admission risk assessment tools, or numbers of regular medications prescribed. In general, the guideline does not differentiate management in primary and secondary care, although it does specifically recommend a comprehensive assessment of older people with complex needs at the point of hospital admission.

A number of key principles are outlined when considering an approach to care that accounts for multimorbidity. These include focusing on:
- Interactions of conditions and treatments, and the effect on quality of life
- The affected person’s individual needs and preferences
- The benefits and risks of single-condition guideline recommendations
- Improving quality of life by reducing the burden of care
- Optimising co-ordination of care.

NICE advocates following the existing guidance in *Patient Experience in Adult NHS Services* with respect to delivery of care to those with multimorbidity, and outlines five key steps in delivery.

The first step is discussion of the purpose of the approach to care, emphasising improvement in quality of life. A number of suggestions are made with regard to optimising current treatment and considering alternative arrangements for follow-up and care co-ordination. Second, clinicians are advised to establish the disease and treatment burden, and the effects of these on day-to-day life. Being alert to the possibility of

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**Table 1. Factors for healthcare organisations to consider when managing multimorbidity**

- Focus on the individual person’s goals, values and priorities – enquire how the person views their own health, how treatments affect them and what they want from their treatment
- When reviewing medicines:  
  - use the NICE database of treatment effects to explain potential benefits  
  - use locally agreed tools, such as STOPP/START, to identify safety issues  
  - discuss what it might mean for the patient if they stop taking a medicine and agree a date for review of any changes  
  - discuss the evidence base and treatment options with a person who has been taking bisphosphonates for at least three years  
  - avoid high-risk medication combinations
- Be alert to the possibility of depression, anxiety or chronic pain. Are they being diagnosed and optimally managed?
- Do an assessment of frailty using locally agreed tools
- Agree an individualised care plan, considering what form will this take and how will it be shared
- If you are planning specific multimorbidity consultations:
  - What information should patients be given before the consultation?
  - Consider adapting the NICE ‘Information for the public’ resource as a starting point for an invitation letter, particularly the ‘Things to think about before your appointment’ section
  - Tell patients in advance that the idea is to bring together all of the care issues into a shared single plan that they will also keep

**Table 2. Factors to consider during a dedicated review for someone with multimorbidity**

- Identify local champion(s). Remember this applies to adults (over 18 years), not just older people who meet the multimorbidity criteria. Ensure mental health is considered in selection
- Consider and agree tools that are going to be used to help assess and prioritise those for multimorbidity review (for example, tools for identifying frailty or increased risk of admission)
- Identify those patients with multimorbidity most likely to benefit from review, such as care home patients, patients with 15 or more medicines, and other patients identified using the aforementioned tools
- Confirm with secondary care the review of those on bisphosphonates for more than three years
- Consider and develop resources that could be used to manage reviews, for example template letters and plans
- Explore how this guidance interacts with, and can potentially build upon, existing policy frameworks such as unplanned admissions
- Raise awareness of the guideline through all communication channels

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Note: If a person with multimorbidity attends for an acute condition, neither party is likely to be prepared to consider in detail issues beyond the acute problem. Instead, use the opportunity to advocate subsequent dedicated time to consider holistic multimorbidity issues.
depression, anxiety and chronic pain are specifically highlighted.

The third step relates to the need to establish patient goals, values and priorities; for example, maintaining independence, participation in social activities, or reducing the harms or burden of treatment. Specific reference is made to clarifying the nature of involvement of other third parties, eg carers and family, and exploring the attitudes to, and understanding of, treatments, in line with the NICE guidance on medicines adherence.3

Fourth, recommendations are made around reviewing medicines and other treatments. This is supported by a new database of treatment effects. The use of a medication appropriateness screening tool, eg STOPP/START, is encouraged and clinicians are advised to consider starting treatments as well as stopping them. It is necessary to identify current benefits or harms and to account for potentially reduced benefits in those with frailty or approaching the end of life. Again, patients’ personal views need to be central to discussions. Perhaps the most striking and specific recommendation is to discuss stopping bisphosphonate treatment after three years. The trial evidence identified during guideline development suggested no consistent evidence of benefit of continuing for a further three years, or of harms from stopping at this stage of treatment; similar evidence for withdrawal of other drug therapies was not found.

The final recommendation concerning delivery of care relates to agreeing an individualised management plan that is patient-centred and shared with all parties, detailing what will be recorded and the actions to be taken. Examples provided include changes to treatments, prioritising appointments, anticipating changes to health, establishing responsibility for co-ordination of care, and arranging follow-up plans, as well as other patient-specific areas.

The guideline developer perspective

The guideline development group (GDG) faced an unusual challenge compared with other GDGs, because of the current lack of evidence in the area. The

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**Case study 1**

Marjorie is 83 years old, widowed and lives alone in a small market town. She has family in France, with whom she keeps in touch using an iPad. She has had rheumatoid arthritis for over 30 years, which is causing increasing disability with significant mobility and dexterity problems, as well as difficulties with activities of daily living. Her arthritis is complicated by anaemia and dry eyes. She also has type 2 diabetes, hypertension and dyslipidemia, all of which are moderately well controlled. Depression has also been a recurrent problem. She has never been assessed for frailty.

Marjorie is dependent on volunteers to help her get to the GP surgery a mile away for monthly blood tests, six-monthly diabetes checks and annual medication reviews. She has to book a taxi to get to a six-monthly hospital rheumatology appointment. A podiatrist visits every six weeks as Marjorie is regarded as being at high risk of diabetic foot problems. A physiotherapist has been visiting every two weeks for the last couple of months. She has self-funded homecare twice a day, and concerns have been raised about how she is coping.

Her medication is in line with the local formulary and individual national guidelines, although in some cases if managed individually in line with guidance, this would merit treatment intensification. She uses a range of analgesics and, as well as specific treatments for the conditions listed above, takes a bisphosphonate and calcium following a fractured wrist three years previously. With 11 different drugs in the form of 23 tablets to take each day, and an additional three weekly drugs (a further seven tablets), the burden of medication is heavy.

When Marjorie came for her most recent blood test, she was quite tearful with the nurse and said that she was “tired of all of these tests, results, appointments and fuss” and that she “wanted just to enjoy her old age and not be chasing targets all the time”.

The nurse has arranged for her to see you next week in a double appointment. When Marjorie comes to the appointment, she has quite a few questions written down:

- I don’t feel I’m making progress with my health problems. Is there anything else that might help?
- What can I do to stay as independent as possible?
- Where can I get reliable information about help and support?
- I know I need some of my medicines to keep me alive. But I feel so tired all the time and I’m sleeping so much in the day. If I cut back on some of my treatments, would this improve how I feel and by how much? Would it shorten my life and if so, by how much?
- I’m still having some symptoms that I had not expected. For example, I have dry eyes, little appetite and problems sleeping. Could these be anything to do with my treatments?
- I’m finding it really difficult to get to all my appointments. Are there other options?

It is clear that Marjorie thinks some things need to change, and the questions she asks are typical of what might be raised in such a complex situation. How might you approach this case?

- Consider how you might address the specific concerns and work with her in prioritising the issues to manage first.
- How might you discuss the disease and treatment burden, and Marjorie’s personal goals, values and priorities?
- Consider how you might develop and agree an individualised management plan. How might you discuss what to record? Who might take what actions? How can you ensure the plan is accessible and understandable, facilitates communication between all parties, and is shared with family and carers?
group members offered a wealth of clinical experience from all sectors, with expertise in innovative research; the participation of two patients was extremely helpful in challenging clinician-centred thinking. At the GDG meetings we focused on a common-sense approach, given the absence of strong scientific evidence, and the guideline was designed to empower clinicians to tailor their approach to patient need.

Terminology has been an interesting challenge. Rather than a ‘one-size-fits-all’ approach, we wanted to convey that the management of multimorbidity must be aligned with what the patient needs, and be holistic and patient centred. The GDG had many conversations to find a word that reflected this, and considered terms such as tailored, bespoke, individualised, personalised and many more. We ended up not using one term but referring to “an approach to care that takes account of multimorbidity”. We also wanted to convey the critical importance of planning future care with the patient, taking into account not only clinical conditions but patient priorities, which might focus around appointment location or frequency. We toyed with the term “care planning” but decided against this given its different meaning to different professionals; phrases such as “individualised management plan” and “goals and plans for the future (including advance care planning)” have been used instead.

As the guideline was developed both for clinicians and patients, we wanted to provide some data that clinicians and patients could share in a consultation, if required. The guidance therefore includes a spreadsheet of clinical trial outcomes for different drug treatments (database of treatment effects) produced to help collaborative decision making – this is currently in Excel format (available under ‘Tools and resources’ on the NICE multimorbidity guideline site1) but hopefully a more user-friendly version will be developed soon. Although there is unlikely to be a specific trial that matches a patient’s specific condition, we hope that these data will nonetheless support clinicians and patients in identifying optimal treatment choices.

The multimorbidity guidance is purposefully linked with a number of other NICE guidance documents. For example, there are clear links with the NICE medicines optimisation guidance.4 However, rather than focusing on the right medicine for a particular condition, it focuses on overall medicines prescribed and medicines burden in the context of the patient. The multimorbidity guideline’s patient focus aligns with the NICE patient experience guidance,5 in promoting collaboration that supports patient empowerment and ownership of their condition. NICE has also produced a guideline for older people with social care needs and multiple long-term conditions6 and we were careful not to make the multimorbidity guideline specific for older people. The multimorbidity guideline covers the care of people over the age of 18 years because multimorbidity, though more common in older people, can affect people of any age.

The GDG met challenges with regard to the inclusion of certain specific data.

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**Case study 2**

Saul is 51 years old and lives with his wife in the suburbs of a major city about two miles from your surgery. He works shifts at a local distribution centre and has two grown up children who have left home. Saul has type 2 diabetes, hypertension and dyslipidemia, and also has a long-standing history of bipolar disorder. He was diagnosed with COPD last year.

His drug therapy – 12 drugs, including 17 daily tablets and two inhalers – is in line with NICE guidance and local formulary choices. According to the GP computer systems, his adherence to mood-stabilising treatment is 100 per cent, but he overuses his short-acting beta-agonist inhaler and underuses a combination inhaler. His adherence to his diabetes, antihypertensive and lipid-modifying medications is around 70 to 80 per cent; his treatment was intensified a year ago due to suboptimal blood results.

Until a year ago, Saul’s attendance at appointments and clinical reviews was satisfactory. However, he failed to respond to repeated letters inviting him for routine diabetes and COPD reviews and a recent letter from his mental health nurse reported that he did not attend two of his bimonthly reviews in the last six months. Saul has attended accident and emergency three times in the last year: for painkillers to treat backache; when he ran out of salbutamol; and following his return from holiday with diarrhoea. His record shows that he was disqualified from driving for a year and is due to get his licence back in three months.

Saul has booked the last appointment of the day today, telling the receptionist the reason for the appointment was headaches. You will not have time to discuss the wider issues of multimorbidity but want to use this as an opportunity to advocate a longer appointment.

What issues relating to multimorbidity might you raise with him? What do you think concerns him? You might want to think about:

- What Saul’s health beliefs are and what the biggest health concern is for him.
- His adherence to his bipolar treatment is good but suboptimal for his other medicines – why might this be, and what is the potential impact of nonadherence?
- How much is each medicine likely to help him over time? Are there other medicines he might prefer?
- Could work be a factor in nonattendance? How can this be overcome?
- What drives his use of accident and emergency? Does he need better access to information?
- Does there need to be a fresh look at issues such as blood tests, clinical targets, frequency and co-ordination of reviews, eg one annual review, and mechanisms of accessing services, eg phone consultations?
- How can the care of his physical and mental health conditions be best integrated?
- What information does he need before coming in to enable him to secure best value from a future extended consultation?
We had good enough evidence to make a specific recommendation about stopping bisphosphonates. However, while there were a number of other medicines that we would have liked to have included in the same section on stopping preventative medicines, none had robust enough evidence to meet NICE criteria for inclusion. We realise this makes the bisphosphonate section look like an anomaly, and so created a specific research recommendation to address the need for further evidence on stopping preventative medicines. While that does not satisfy the immediate need for evidence-based guidelines on what to stop or how, it directs future work to provide this.

**Implementation**

With any guideline, a key aspect is how recommendations are implemented in practice. This is particularly true of the multimorbidity guideline, which is not readily transformed into a protocol. In order to provide some pointers, we have listed some of our thoughts on approaches that could be considered, both at an organisational level (see Table 1) and at the patient level as part of a dedicated review appointment (see Table 2).

We have also described two hypothetical clinical case studies, which challenge the reader to consider, in the context of the new guidance, some of the key problems presented by typical cases of multimorbidity. The cases deliberately avoid giving specific details such as test results or prescriptions to maintain focus on the more holistic multimorbidity issues. We have not provided solutions to either case, as patients’ priorities vary; addressing needs is about the ‘art of medicine’, and shifting the dynamic of care to a holistic and pragmatic model rooted in shared decision making, prioritisation and the acceptance of clinical uncertainty.

**Conclusions**

Summarising the guidance could be condensed to: “It’s all about the person.” The patient’s expectations, ambitions and beliefs; the clinician’s openness to explaining uncertainty, truly sharing decision making and building an individualised management plan; the manager’s understanding that effective implementation goes beyond clinical targets, such as accepting that exception coding will increase as personal decisions are respected. Translating the holistic and pragmatic approach of this guidance into reality will require a cultural shift for both patients and clinicians, in which patients accept and assert their responsibility in decision making and clinicians explore with them uncertainty in medicine. Together, as true partners, we will all benefit from a fresh, simpler approach to care.

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**Declaration of interests**

All authors were members of the NICE Multimorbidity Guideline Committee.

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