Factoring in frailty when optimising medication

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The relationship between polypharmacy and frailty was the subject of the 2018 Annual Scientific Meeting of PRIMM (Prescribing and Research in Medicines Management), held in London in January. Professor Janet Krska reports on some of the advice given at the meeting, including identifying frailty and adopting a patient-centred approach to medicines optimisation.

Polypharmacy – the use of multiple medicines – is increasing, driven by ageing populations, increases in chronic diseases and clinical guidelines.¹ In England, 26 million people have at least one chronic disease.² Polypharmacy is associated with various adverse outcomes, including increased hospitalisation, cognitive impairment, falls and drug interactions.³⁻⁵ The trend is of growing concern, leading to multiple initiatives to reduce overprescribing.

There is therefore an urgent need for a much greater focus on the management of multimorbidity and NICE guidance advocates a person-centred approach, tailoring medicines optimisation to the needs of individuals.⁶ This proposes providing individually tailored care for patients using at least 10 medicines or for patients who use fewer than 10 medicines but who have an increased risk of adverse events, including those having difficulty managing their treatment. Thus, NICE now includes the overall demands of medicine-taking, or ‘pill burden’, being unacceptable to the patient within the definition of ‘problematic polypharmacy’.⁶⁻⁷

Older people are particularly at risk of polypharmacy. A recent study found that almost a third of patients over 60 years took five or more medicines regularly and that increasing polypharmacy was associated with decreasing socioeconomic status.⁵ However, older people may also suffer from frailty. Frailty is a condition characterised by loss of biological reserves, failure of homeostatic mechanisms and vulnerability to adverse outcomes.⁸ Frailty increases the risk of disability, hospitalisation, nursing home admission and mortality in older people,⁹ but is potentially modifiable.⁸ Many studies, such as that of Ng et al.,¹⁰ have demonstrated the effect of exercise on reducing frailty. Other work has considered community actions and resources as a means of reversing and preventing frailty in older people.¹¹

Identifying frailty

Speaking at the 2018 Annual Scientific Meeting of PRIMM, Dr Andy Clegg,
Consultant Geriatrician and Senior Lecturer at the University of Leeds, presented his work on identifying frailty. In frail patients, who have reduced biological reserves across multiple organ systems, a seemingly small event (stressor) can precipitate a disproportionately large decrease in physiological function. A stressor could be the addition of a new drug or an adverse drug reaction, which in other patients may have little or no consequence. Hence, it is important to factor in frailty when considering initiatives to reduce polypharmacy in older people.

Consensus guidance now recommends that practices identify patients with frailty and record it as a condition during routine encounters, but identification of frailty through population screening could also help in planning services designed to reduce polypharmacy, as research confirms the close association between polypharmacy and frailty. Indeed, this French study showed that frail people using 10 or more regular medicines were six times more likely to die than non-frail people not using polypharmacy.

Clegg and colleagues’ work in developing the electronic frailty index (eFI) is key to such screening. The eFI uses 30 variables available in routine medical record data to identify patients with frailty and categorise them along the frailty spectrum. It is now available as part of commonly used general practice prescribing systems, and uses the categories: mild, moderate and severe to identify older people at increased risk of mortality, hospitalisation and nursing home admission at one, three and five years. It is now a contractual requirement for practices in England to identify frailty in their patients.

Recent data show that the overall prevalence of frailty in people aged over 60 is 14%, but it is more common in women and likely to increase as the population ages. Guidance suggests an annual medication review is needed for those identified as having severe frailty, recognising the link with medicines, and advocates using the STOPP START criteria, which can identify potentially inappropriate prescribing (PIP).

### 1. Undertake medication mapping
### 2. Prescribe in the current clinical context of what the patient is actually doing with their medicines
### 3. Confirm evidence of the diagnosis for all medicines (often there isn’t one!)
### 4. Ensure risk-benefit balance is still appropriate, remembering that it changes over time (a medicine that presented little risk when it was started may be too risky to continue in the same patient 10 years later)
### 5. Review the evidence in the context of the patient – frail older patients may not be included in trial evidence
### 6. Remember that function and cognition may be more important to the patient than ‘health’
### 7. Think about side-effects and interactions – don’t start a prescribing cascade
### 8. Consider symptom control as opposed to prognostic benefit – the former may be more important to the patient
### 9. Individualise dose regimens and overall management
### 10. Monitor responses regularly

### Table 1. Ten top tips for managing frail older patients

The group responsible for STOPP START have found that frailty is strongly associated with PIP. They suggest that the eFI could highlight patients at risk of PIP, especially if combined with the number of medicines taken, so could help to reduce inappropriate medicines use and prevent adverse drug reactions (ADRs). Reducing PIP could therefore help to reverse frailty.

### Optimising medicines

Another speaker at the PRIMM conference, Professor Adrian Blundell, Consultant Geriatrician and Honorary Associate Professor at Nottingham University, described polypharmacy and frailty as “the perfect paradox”. Frail older people need drugs to manage their (usually multiple) conditions. On the other hand, these same drugs cause problems for these patients, such as ADRs which, as described above, can further contribute to frailty.

Optimising medicines in older patients with frailty needs a careful approach. Professor Blundell’s suggestion was to develop a stratified problem list and map the medicines to it, then formulate a bespoke management plan with goals. He classified problems as acute, subacute or chronic and highlighted that plans must be developed jointly with patients and their carers. He suggested 10 top tips for managing frail older patients (see Table 1).

Of course, reviewing medication in older people is far from new. Many initiatives have involved pharmacists in the process, but GPs also need to ensure they have the skills to carry out reviews. The NO TEARS tool (see Table 2) developed by Dr Tessa Lewis, GP and Medical Adviser in Wales, who also presented at the PRIMM meeting, reminds GPs (and others) of what they need to consider in a consultation about medicines with frail older people (or indeed any patient).

Dr Lewis has also developed another strategy for prioritising actions during a consultation by dividing medicines into three categories: ‘stop, sorted, special’. In terms of the first category, ‘stop’, often patients are prescribed medicines that can obviously be stopped immediately. These include any that the patient is not actually taking, and any indicated for short-term use or for conditions that have resolved. The second category includes medicines you can consider as having been ‘sorted’, because the monitoring of these is the responsibility of another clinician, such as diabetes or asthma treatments. However, it is important to find out if the patient is actually attending appointments and that monitoring data are being recorded before using this category. What remains are classed as ‘specials’ – these are the medicines that need attention and that should be prioritised in a medication review consultation, in which you can use the approaches outlined here.
Need and indication
Open questions
Tests and monitoring
Evidence and guidelines
Adverse events
Risk reduction or prevention
Simplification and switches

Table 2. The NO TEARS medication review tool

Listening to patients
Factoring frailty into medicines optimisation consultations requires listening to the patient to understand their perspective and supporting them to identify their personal goals, then ensuring that these form part of the overall plan. The patient’s problems and goals will change over time and are likely to differ considerably in an acute situation compared with a stable one. Taking the patient’s perspective into account means that the problems and goals they see as most important and needing attention are those dealt with first.

Patients’ perspectives on their medicines may differ considerably from those of health professionals and the factors that affect their views are many-fold. My own research, presented at the PRIMM conference, which won the Hugh McGavock bursary, has found that older people perceive they have less burden arising from their medicines than younger people, despite using more medicines. However, those who needed support with using medicines reported higher medicines burden.

Nothing beats knowing your patient. They may have priorities beyond just living longer, often the goal of treatment with medicines. But you won’t know unless you ask.

References

Declaration of interests
None to declare.

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