Polypharmacy – essential, but also to be avoided

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Polypharmacy is not new – it was first described and discussed in the medical literature at least 150 years ago. Despite this, other than the dictionary definition of prescribing more than one drug at the same time to an individual, it is has been poorly characterised and under-researched.

When I started training in medicine, a long time ago, the medical profession was snooty about polypharmacy: it was considered a sign of poor prescribing and a failure of common sense. In some instances this is still the case, but things have changed and for an increasing number of patients it is considered good practice to use all evidence-based medicines deemed necessary to improve outcome. In the UK, the Quality and Outcomes Framework (QOF) rewards GPs to do this.

King’s Fund report

With my colleagues Tony Avery from Nottingham and Rupert Payne from Cambridge, we set about reviewing the literature on polypharmacy and how best to optimise medicines used in this context for a King’s Fund report (also see pages 26–8 of this issue).1

After a lot of pontificating and discussion with many colleagues we separated polypharmacy into two components – appropriate polypharmacy and problematic polypharmacy.

In the report appropriate polypharmacy is defined as prescribing for an individual for complex conditions or for multiple conditions in circumstances where medicines use has been optimised and where the medicines are prescribed according to best evidence.

Problematic polypharmacy is defined as the prescribing of multiple medications inappropriately, or where the intended benefit of the medication is not realised. These problems increase as drug regimens become more complex. The reality is that people often do not take medicines in the way that prescribers intend and there is considerable evidence that many dispensed medicines remain unused or are wasted.

The numbers of interventions have mushroomed in the last few decades, the population is living longer with chronic conditions and the number of treatable conditions an individual carries has increased. In the real world it is more common to have more than one long-term condition than it is to only have one, but a paradox is that most of the evidence is gleaned from randomised, controlled trials where patients are carefully selected to only have one, and who are unlikely to be frail.

In this context it is not clear that piling more pills into an individual will give the benefits seen in clinical trials and this could be harmful by increasing the risk of adverse drug reactions and interactions, together with impairing quality of life for patients; the pill burden itself may be distressing. The more frail the patient the more likely they are to suffer such harm. How do we resolve this?

Suggested remedies

Many suggestions are obvious but some are worth stating explicitly. For example, it is clear that we need research that is more pragmatic and assesses outcome in the context of multimorbidity and multiple medicines. Alongside this we need guidelines that can describe the best treatment options where diseases commonly overlap, eg diabetes, coronary heart disease, heart failure and COPD. NICE has started to look at this.

When initiating a treatment the rationale for choosing it should be clearly stated. A tip to enhance understanding and adherence is to describe the purpose of the drug on the prescription, eg ‘ramipril 10mg daily to lower the blood pressure and help the heart’. It also makes sense for prescribers to describe in the medical record the reasons to step aside from the evidence, particularly if the patient chooses not to take a treatment.

Multimorbidity and polypharmacy increase clinical workload. Doctors, nurses and pharmacists need to work coherently in teams to tackle medicines optimisation. Our view is that we all need more training in managing complex multimorbidity, polypharmacy and other aspects of medicines management.

Alongside this we need to develop systems that optimise medicines use so that people gain maximum benefit from their medication with the least harm and waste, for example through improved electronic decision support for clinicians and patients, better patient-friendly information systems and judicious use of monitored-dose systems.

If polypharmacy is such a big problem, and we believe it is, where do we start? In the report we suggested some thresholds after reviewing the literature. A pragmatic approach is to focus resources on patients at particularly high risk: for example, those receiving 10 or more regular medicines, or those receiving four to nine regular medicines together with other unfavourable factors (examples of the latter include a contraindicated drug, where there is potential for drug-drug interaction, or where medicine taking has proved a problem in the past).

Knowing when to stop

Perhaps the toughest challenge is deciding when to stop. Many people stay on medicines beyond the point where they are...
deriving optimal benefit from an intervention. I recently encountered a moribund patient being administered a statin via a feeding tube. When reviewing medications, always consider if treatment can be stopped and recognise that ‘end-of-life’ considerations apply to many chronic diseases as well as cancer-related conditions.

Reference

Declaration of interests
None to declare.

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