Changing the script

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Should any elderly patient be taking 36 different drugs? Experts say many medications can be safely withdrawn, but how should GPs go about it?

By Jane McCredie

THE elderly man always became violently agitated at shower time, hitting out at anybody within reach. Frightened and distressed, nursing home staff begged the visiting GP to increase the man’s dose of psychotropic drugs so he would be easier to manage.

But Professor Dimity Pond, a GP with a special interest in dementia, watched the man calmly eating his lunch and wondered if there were a better solution. Because the elderly resident’s dementia prevented him from explaining the cause of his distress, she sat down to comb through his notes.

Noticing that severe osteoarthritis was listed among his conditions, she asked herself could the showering procedure be causing pain that was prompting the aggressive behaviour? Sure enough, a trial of paracetamol half an hour before showers fixed the problem.

For this nursing home resident, a potentially harmful increase in his medication was averted, but not all elderly people are as fortunate. Despite the numerous established risks of multiple medications in the elderly — ranging from cognitive effects to drug interactions — many continue to take large numbers of drugs that may be doing more harm than good, according to geriatrician Professor David Le Couteur, the director of the University of Sydney’s centre for education and research on ageing.

“In most cases, there is no evidence of benefit for polypharmacy, and there is clear evidence of harm,” he says. “The risk of adverse drug reactions increases exponentially in people taking four or more medications.”

In Australia, up to 40% of people aged over 65 years are on five or more medications, the generally accepted definition of polypharmacy, Professor Le Couteur says.

In residential aged care, the picture is even more disturbing, with the average number of medications per resident about 10.

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“The most drugs I have seen someone on is 36,” Professor Le Couteur says.

His own research suggests medications can be safely withdrawn in elderly people — even those such as benzodiazepines that are known to be addictive. Professor Le Couteur and three co-authors conducted a review of 31 trials of medication with withdrawal where the average age was 65 or more and found many patients could be safely taken off antihypertensive, benzodiazepines and psychotropic agents.

The study found with withdrawal of psychotropic drugs was associated with improved cognition and a reduction in falls.

While some patients may benefit from being on multiple medications, some patients are on too many drugs because several doctors prescribe drugs for different conditions, with no one doctor feeling able to take responsibility for withdrawing the treatments.

Add to that medications used to treat the side effects of other drugs, those pre
scribed for a transient problem that nobody remembers to discontinue once
the problem has passed, and preventive treatments that are no longer likely
to benefit a patient who is in a terminal phase of life, and you can end up with
quite a cocktail.

"I see a tremendous number of very disabled people in nursing homes who are
still taking a statin," says geriatrician Professor Richard Lindley from the
University of Sydney.

"Yes, sure, they have ischaemic heart disease, but the main problem now is
that they are bed-bound, with a terminal disease that is called dementia, and I
would really question whether a statin is appropriate in that patient."

GPs are usually well aware of the hazards that arise when patients take
multiple medications, but determining the optimal regimen for a patient with
multiple comorbidities who may not be able to express their own wishes clearly
can be a difficult and time-consuming task, says Professor Pond, who also
teaches at the University of Newcastle, NSW.

"A lot of GPs who go to nursing homes are quite overburdened with the num-
ers of patients because a lot of [their colleagues] don't want to do it," she
says. "They don't always have time to mull it all over."

The number of other stakeholders the time-pressed GP has to deal with can
add to the problem.

Nursing home workers sometimes apply pressure for increased medication,
especially if a resident is disturbing others with their disruptive or aggressive
behaviour.

And then there is what Sydney GP Dr Damian Bray calls the "daughter from
Melbourne" — the relative who rarely sees the elderly patient but has strong
views about what is wrong with the treatment they are receiving.

As if these pressures were not difficult enough, decisions about which
medications are providing a benefit and which ones are causing harm have to
be made in the absence of adequate evidence for many treatments in the
elderly. In some cases, there is no evidence at all.

Clinical trials have generally excluded the very elderly for fear of increased
risk of adverse events and the poten tial confounding caused by multiple
comorbidities.

When older people are included, they tend to be "the very fit elderly", who are
not necessarily representative of the population most likely to be treated with
the drug being trialled, according to Professor Lindley, who has been
researching ways of including more elderly people in trials without com-
promising findings.

"It is extremely rare to find clinical trials that have actually recruited people
who live in nursing homes and are very frail," he says.

Professor Le Couteur questions the usefulness of many clinical guidelines when
it comes to elderly patients, saying recommendations often extrapolate
unreasonably from findings in a younger, healthier population.

"Somehow, the guidelines convert [the findings from such trials] into
‘everybody should be treated all of the time’," he says.

Heart failure medications are a good example.

In the real world, about half of people with heart failure are over 75, and the
typical patient is a woman with multifactorial heart disease and diastolic
dysfunction.

Yet most patients in clinical trials are men aged about 60 with ischaemic heart
disease and systolic dysfunction.

A sub-group analysis of data from seven heart failure studies showed that
treatment benefits seen in younger patients were not statistically significant in
those aged over 75 years for all but one of the studies, and that one was
observational, Professor Le Couteur says.2

The gaps in the evidence base highlight the importance of tailoring medication
regimens to the individual patient.

"As a doctor, for each individual patient you have to balance the risks and the
benefits. Which of these drugs are absolutely essential in terms of quality of
life, longevity, or the outcomes that are important to the patient?"
“That’s what the guidelines take away: that the doctor knows the patient. I am trying to give the decision-making process back to the doctor, not the ‘experts’,” says Professor Le Couteur, who was a solo rural GP for five years before turning to geriatrics.

Professor Lindley agrees the key is tailoring the medication regime to the individual.

He is a great believer in the “n-of-one” trial to determine which medications are providing a benefit and which can be withdrawn, although he acknowledges the approach requires close monitoring and can be time-consuming for busy GPs.

The evidence base in the elderly may be sparse, but Professor Lindley says the situation is improving, as more trials include older participants.

To assist in that process he has trialled a “frailty index” designed to allow researchers to adjust for confounders in the very elderly.3

The downside is that trials recruiting patients with multiple comorbidities have to be larger to ensure they are adequately powered, thereby increasing costs.

Nonetheless, he urges researchers to “embrace confounding” because their results will be more likely to apply to a real-world population.

Researchers are also working on new tools that could simplify medication management for GPs.

Associate Professor Sarah Hilmer, a geriatrician from the University of Sydney, has worked with US colleagues to develop a “drug burden index” that could eventually be integrated with prescribing software, alerting prescribers to the level of risk posed by a particular combination of medications.

Preliminary results show that the tool is effective in predicting risk, at least in community-dwelling older people.4

A study in 3000 well-functioning, community-dwelling people in their 70s showed that the major risks to both physical and cognitive performance were posed by drugs with sedative and anticholinergic properties (see box).

The findings mean doctors should be particularly cautious about use of such drugs in the elderly, Professor Hilmer says.

“The sedatives have had a lot of press, but I don’t know that we think as much about the anticholinergics, particularly when it comes to drugs like antihistamines, which may be [over-the-counter],” she says.

Professor Pond agrees that there needs to be more awareness of the risk posed by anticholinergics and over-the-counter products.

One of her own patients had resistant high blood pressure that had failed to respond to treatment despite referral to several specialists and an intensive drug regime. It was a pharmacy review that discovered the woman was habitually taking liquorice (which raises blood pressure) for her bowels. When the liquorice was removed from her diet, she could cut down from five to two blood pressure medications.

But the solutions are not always so simple. Perhaps the most difficult conundrum for GPs is the treatment of elderly dementia patients with behavioural disturbance, particularly when desperate nursing home workers apply pressure for a quick solution.

Professor Hilmer is emphatic that piling on the medication is not the answer in such cases.

“There’s nothing you can do that will actually help with drugs,” she says. “Drugs will hurt.”

Behavioural interventions that identify and address the source of the patient’s agitation are more effective, she says, although she acknowledges they are also more time-consuming and more expensive.

“Say the person was a gardener and spent their life digging the soil. You let them go outside and dig a hole, rather than locking them up and letting them get agitated.”

Professor Le Couteur agrees.

“[Patient] screaming is the issue,” he says. “That’s the thing that really upsets
people. And none of the [drug] treatments work — except anaesthetic and a lot of these medications are given at anaesthetic dose.”

Although he has sympathy for desperate nursing home staff and relatives, he does not believe there is any justification for anaesthetising a patient to prevent them from disturbing others.

“Treating someone in order to make someone else’s life better doesn’t gel with me very well, particularly when the person receiving the medications is at risk of death.”

Professor Pond believes the only real solution is for society to re-evaluate how we care for our old people and an injection of resources that would allow for more and better trained staff in residential care.

A garden to walk in, exposure to sunlight, a better diet and use of calming therapies such as essential oils, could all improve the quality of life for aged care residents, she says.

“As I get older, these things seem more salient to me,” she says, with a self-deprecating laugh.

“And I really want lavender oil. And to go and sit in the garden. Ultimately, it’s a question of values: how we, as a society, treat our old people.”

**DRUGS TO WATCH**

Commonly used medications that can impair function in the elderly include:

- Benzodiazepines
- Antipsychotics
- Antidepressants
- Antihistamines (often over-the-counter)
- Anticholinergics for detrusor instability
- Opioids

**References**


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