NPS
National Prescribing Service Limited

9 July 2004

000001
Dr Sam Sample
99 Sample Street
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Prescribing Practice Review

Dear Dr Sample,

No. 26 Drug use in the elderly

Drug use in the elderly

People aged over 65 years are the greatest users of medicines. They are more at risk of experiencing medicine-related adverse effects because they are more likely to be taking multiple medicines. Polypharmacy, non-compliance, physiological changes that make older people more sensitive to the effects of medicines, and systems issues like the hospital–primary care interface all affect medicine use by older people.

This *Prescribing Practice Review* outlines some of the principles of good prescribing in older people and offers practical tips to improve use. The limited role of drug therapy in managing difficult behaviour and sleep problems is clarified.

Keep an up-to-date list of all medicines your patient is using

What is a medicine? You and your patient might not understand 'medicine' to mean the same thing so they may not think to tell you about all the medicines they are using. Ensure your record of your patient's medicines includes prescription, over-the-counter and complementary medicines.

Formal medication review can help to avoid medicine-related problems in older people

There is good evidence that structured medication review, often conducted by an accredited pharmacist, can improve use of medicines in both the community and aged-care facility settings. Older people can benefit greatly from medication review: they have many of the risk factors which predispose to medicine-related problems.

Non-drug measures should always be first-line for managing sleep problems

Trying to correct sleep problems with non-drug measures is essential. Hypnotics must only be used short-term (no more than 2 weeks). Drug therapy is not a long-term solution as it exacerbates the problem.

Using antipsychotics to control difficult behaviour is of questionable efficacy but is definitely associated with adverse effects

The use of antipsychotics to manage behaviour disturbances, such as agitation, calling out, wandering or aggression, in older people is growing. Yet there is little evidence to suggest drug therapy is effective in these situations. However, serious adverse effects can occur: extrapyramidal effects are recognised with older antipsychotics, while the newer atypical antipsychotics carry a risk of stroke, diabetes and death in this older population.

For further information on medicine use in older people, refer to the June 2004 *NPS News 34.*

Continued over...

An independent, Australian organisation for Quality Use of Medicines

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Common colds need common sense consumer campaign

This winter, NPS will repeat the message to consumers that *common colds need common sense: they don't need antibiotics* to further improve appropriate use of antibiotics and maintain the momentum of a downward trend in antibiotic prescribing. The campaign is designed to assist you by improving consumer knowledge of the role of antibiotics and decreasing the pressure to prescribe antibiotics for viral respiratory tract infections.

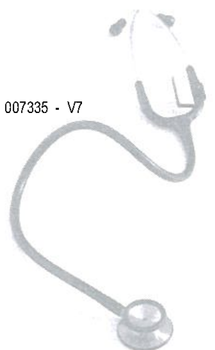
You may order copies of the *Symptomatic management of URTI pad* (available in six languages), and the *Antibiotics won't help a common cold* brochure from NPS on phone 02 8217 8700. Other patient leaflets, *I've got a sore throat, I've got a troublesome cough,* and *Coughs and colds in children* are available from www.nps.org.au/healthpro then click on 'Topics and resources' > 'Products' > 'Patient materials'.

Subscribe to RADAR (Rational Assessment of Drugs and Research)

Please complete the enclosed subscription form if you wish to receive quarterly updates on new drugs.

Yours sincerely,

Dr Stephen Phillips
Chair, National Prescribing Service



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NPS
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PPR twenty six

Prescribing Practice Review—*PPR* For General Practice

Drug use in the elderly

Key messages

- Keep an up-to-date list of all medicines your patient is using —prescription, over-the-counter and complementary.
- Formal medication review can help to avoid medicine-related problems in older people.
- Non-drug measures should always be first-line for managing sleep problems.
- Using antipsychotics to control difficult behaviour is of questionable efficacy but is definitely associated with adverse effects.

Principles of good prescribing in older people

People aged over 65 years are more at risk of experiencing medicine-related adverse effects:

higher rates of chronic illness

more likely to be taking multiple medicines

more sensitive to the effects of medicines, particularly psychoactive drugs

Practice points when prescribing for the elderly[1]:

- use non-drug treatment whenever possible; do not substitute a drug for effective social care measures
- prescribe the lowest feasible dose (often less than half usual adult dose)
- prescribe the smallest number of medications with the simplest dose regimens
- provide simple verbal and written instructions for every medication, including what it is for
- be aware that presenting symptoms may be a result of existing medications
- regularly review chronic treatment; it may be possible to stop medications or reduce the dose where necessary.

(cont'd p.2)

Principles of good prescribing in older people (cont'd)

Obtain a full medication record of all your patient's medicines—prescription, over-the-counter and complementary

Both prescribers and patients should keep a written list of all current medications. The list can be used as a tool to discuss any issues the patient may be having with their medicines.

The NPS brochure, *Medimate*, includes a 'Medicines List' for patients to do this. A blank Medicines List can be printed from the NPS websites www.nps.org.au or www.medimate.org.au.

Prescribers can ask patients to bring all their medicines to the consultation to update their medication record. Alternatively, some clinical software systems will print a list of current medications in a patient-friendly format. First check that the current record is up-to-date. Some systems have the facility to include medication from other prescribers as well as self-medication. Instructions for various clinical software systems can be found at www.nps.org.au/healthpro then click on 'Therapeutic Resources' > 'Products' > 'Using Prescribing Software'.

Medication review promotes quality use of medicines[2,3]

Structured medication reviews can detect and address medicine-related problems. Home Medicines Reviews (HMRs) are available to patients in the community and are conducted by accredited pharmacists who collaborate with others involved in the care of the patient. A report is generated to provide the GP with maximum information to inform decisions. A similar process—Residential Medication Management Review—is available for people in aged-care facilities.

The June 2004 issue of *NPS News* provides more complete information about prescribing in older people, how to obtain full medication records and the benefits of medication review.

Look first: What are the triggers for sleep or behavioural disturbances?

Assess for potential triggers for sleep or behavioural disturbance

A person's behaviour can be divided into three components: an antecedent, the behaviour itself, and the consequence, known as the 'ABC' of behaviour analysis.

Observe and document behavioural symptoms and signs—learning to recognise, anticipate and avoid situations which provoke unwanted behaviour can reduce the number of incidents

Antecedent: an observable stimulus or condition in the person's environment leading up to a behaviour. The antecedent may be external (e.g. lighting, noise, verbal instructions, particular people) or specific to the person (e.g. pain, medication or loneliness).

Behaviour: an observable response/action to the antecedents. Behaviour can be categorised as occurring too often (in excess), not occurring often enough (in deficit), or not occurring in the correct context.

Consequence: the result of the behaviour for the person. Consequences are either reinforcing or punishing. Reinforcement teaches people what to do and is generally more effective for long-term maintenance of the desired behaviour. Reinforcement should be tried before implementing a punishment strategy.

Managing sleep problems in older people

Non-drug therapy should always be first-line for managing insomnia[1]

Improve the patient's understanding of sleep patterns: everyone has different sleep requirements. Address any underlying medical problems that can cause disturbed sleep.

Completing a sleep diary* can assist patients to ascertain what their average sleep requirements are and what activities may affect their sleep.

Encourage

- getting up at the same time each day
- relaxation techniques
- using bed only for sleep and sex
- maintaining comfortable temperature and quiet environment

Avoid

- daytime naps
- alcohol and stimulants such as caffeine close to bedtime
- eating, smoking or watching television in bed

If hypnotics are prescribed, use low doses and preferably for no more than 2 weeks

Avoid hypnotics where possible because they affect the quality of sleep. If hypnotics are prescribed, use short-acting agents, restrict use to no more than 2 weeks and agree on a definite time limit with the patient.[1,4] This will reduce the risk of falls, incontinence, developing tolerance or dependence, and rebound insomnia.

There is no difference in efficacy or safety between short-acting benzodiazepines and zolpidem or zopiclone (the so-called 'Z-drugs')

Recent guidance[5] from the National Institute for Clinical Excellence (NICE) in the UK concluded there was no compelling evidence of a clinically useful difference between the Z-drugs and shorter-acting benzodiazepine hypnotics (e.g. triazolam, temazepam) from the point of view of their effectiveness, adverse effects, or potential for dependence or abuse. They also state that 'switching' between these hypnotics is not appropriate.

Managing problem behaviours in older people

Look first: assess potential triggers for problem behaviour

Conduct a detailed clinical assessment to see whether there is a preventable cause for the patient's behaviour, such as delirium, urinary-tract infection, pain, nocturia, constipation, hyperglycaemia or adverse effects of medication.

Note that 'problem behaviour' is usually framed from a carer's perspective so it can be subjective. Behaviour should be judged against what was typical of the person previously.

* A sleep diary and other patient booklets on sleep and managing insomnia are available from the South Australian Department of Human Services. Tel: (08) 8226 7123.

Supportive environmental measures can assist in resolving and preventing behavioural disturbances

The person's environment can also contribute to their behaviour. Creating a reassuring environment is an essential first step[6]:

- surround the person with personal belongings and familiar objects
- provide orientation cues (clock, calendar)
- give attention to noise, lighting, ease of mobility
- correct any sensory impairments (e.g. eye glasses, hearing aids, dentures)
- use television, radio and music for relaxation
- maintain activity levels
- ensure basic physical needs are met (are they clean, fed, and warm or cool enough?)
- consider pet therapy.

Evidence of antipsychotic efficacy in these circumstances is limited yet risk of adverse effects is significant

Use drug therapy only after non-drug measures have failed or have been insufficient.[1] Antipsychotics are only moderately effective in treating disturbed behaviour.[7,8] Older people are more sensitive to the effects of antipsychotics, particularly extrapyramidal side-effects, tardive dyskinesia, postural hypotension, and anticholinergic effects that can cause worsening cognitive function.

Oral administration is preferred whenever possible.[4]

Less extrapyramidal side-effects with atypical antipsychotic drugs but...

There is no compelling evidence that atypical antipsychotics[#] are more effective than older antipsychotics (e.g. haloperidol), although a lower incidence of extrapyramidal side-effects has generally made atypical antipsychotics preferred.

...increased risk of stroke or death in older people with dementia...

However, new evidence is emerging that atypical antipsychotic drugs should not be used in older people with dementia. Two European agencies have examined trial data for risperidone and olanzapine used in people aged over 65 years and found[9,10]:

- a threefold increase in cerebrovascular adverse events (including stroke and transient ischaemic attacks)
- a twofold increase in the incidence of death.

...and possible onset of diabetes

Furthermore, there is growing concern that weight gain in people using atypical antipsychotics is causing diabetes to develop.[11] In older people, this is an additional cardiovascular risk factor in a group already at high-risk.

If antipsychotics are prescribed, apply the lowest effective dose: most elderly patients respond to much lower doses than those used in younger patients or for psychotic episodes. Review the need for ongoing drug therapy regularly. Remember that maintenance doses of antipsychotic agents may be lower than the doses required during acute treatment.

[#]Amisulpride (Solian), aripiprazole (Abilify), olanzapine (Zyprexa), quetiapine (Seroquel), risperidone (Risperdal).

Note: only risperidone and olanzapine are TGA-approved for behavioural disturbances; none of these agents are PBS-subsidised for this indication.

Influencing quality use of medicines in aged-care facilities

In addition to the usual medicine-related problems experienced by older people (such as polypharmacy and compliance), aged-care facilities introduce systemic barriers to appropriate medicine use[12]:

- facility attended by a number of GPs potentially creating inconsistent approach to the same problem
- untrained or unqualified staff administering medication
- excessive use of psychotropic agents
  - a survey of nursing homes in Sydney's eastern suburbs found 59% of the residents were prescribed regular or 'prn' psychotropic medications.[13]

Combining an education program for staff with pharmacist medication review improves medicines use without affecting survival or morbidity

A randomised controlled trial in 52 Australian aged-care facilities[3] demonstrated that providing an education program for staff[Δ] in combination with pharmacist-conducted medication review reduced medicines use without affecting patient survival, hospitalisations, or quality of life:

- reduced overall administration of drugs to residents
  - 24% fewer antipsychotic agents
  - 21% fewer sedative/hypnotics
- a trend toward longer survival in residents of facilities where the intervention was applied
- the intervention was found to be cost-effective.

Δ Program included sessions on geriatric pharmacology, common problems in long-term care, and telephone and face-to-face contact between aged-care facility staff and pharmacists.

'When required' (prn) prescribing

No evidence to support 'when required' (prn) prescribing

Medication use in aged-care facilities is strongly influenced by caregivers and medications are commonly prescribed for administration at the registered nurses' discretion (prn)[3] using their clinical judgement.

Be clear about the purpose for which the drug is being used, and annotate the full dosage regimen on the medication chart

A Cochrane review of 'as required' prescribing in hospital in-patients with schizophrenia or schizophrenia-like illnesses could not find evidence of its efficacy. They state that current practice is based on clinical experience and habit rather than evidence.[14]

If prescribing on a 'when required' basis, ensure the reason for administering the drug is clear (e.g. for agitation) and that the dose and frequency is provided. Including the duration of therapy (e.g. for 2 days) is useful as it provides an opportunity to review the situation.

Medication Advisory Committees

...promote a coordinated approach to common problems in aged-care facilities

Cooperation between pharmacist, registered nurse and GP is important in prescribing and administering drugs in aged-care facilities. One way of achieving this is through a Medication Advisory Committee.

The Australian Pharmaceutical Advisory Council's *Guidelines for medication management in residential aged-care facilities* recommend that each residential aged-care facility should establish, or have direct access to, a Medication Advisory Committee to facilitate quality use of medicines.

...provide a quality improvement and safety framework to facilitate quality use of medicines

Medication Advisory Committees are responsible for creating standards (in line with State or Territory legislation) for prescribing on medication charts, standing orders, nurse-initiated medication, drugs that can be prescribed 'prn', administration of medications (including altering dosage forms to facilitate administration [e.g. crushing tablets] and self-administration by residents), use of complementary and alternative medicines, storage and emergency supply.[13]

They have multi-disciplinary involvement representing management, general practitioners, registered nurses, pharmacists, and resident advocates as a minimum.

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The information contained in this material is derived from a critical analysis of a wide range of authoritative evidence. Any treatment decisions based on this information should be made in the context of the individual clinical circumstances of each patient.

National Prescribing Service Limited

Our goal To improve health outcomes for Australians through prescribing that is: safe, effective, cost-effective

Our programs To enable prescribers to make the best prescribing decisions for their patients, the NPS provides information, education, support, resources

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