Psychotropics in the elderly

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Abstract

Psychotropic medications are commonly administered to the elderly to treat neurological and psychiatric illnesses. These drugs potentially have serious side effects, to which older adults are more vulnerable due to changes in their pharmacodynamic and pharmacokinetic parameters. Agents with risks exceeding their benefits are generally deemed inappropriate in this population. These guidelines describe the dosing principles of hypnotic, antidepressant, neuroleptic, anticonvulsant, mood stabilising, cognitive enhancing, and anti-androgen agents.

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General
- General treatment principles follow those of younger adults.
- Exceptions are highlighted below.
- 1/2 to 2/3 of adult dose.
- Start low, go slow, review frequently.
- Elderly are more sensitive to a given medication side-effect than younger adults.
- Polypharmacy may be necessary.
- Psychoeducation of illness and supervision of medication is essential.
- Data on medication is, in general, controversial.
- The list of medications below is by no means comprehensive.
- Medications marked with an asterisk (*) are not currently available in the public sector.
- A pill cutter is essential.

Acute sedation
Lorazepam (Ativan) 1–2 mg po/imi
0.5–1.5 mg ivi
Do not exceed 8 mg over 24 hours
Haloperidol (Serenace) 2.5 mg imi/ivi
Do not exceed 10 mg over 24 hours

Hypnotics
Avoid benzodiazepines on account of the frequent occurrences of daytime somnolence, emotional lability, confusion, incoordination, ataxia, memory impairment and incontinence.

Implementation of measures of sleep hygiene are a prerequisite.

If required for insomnia:
a) Melatonin
Melatonin* (Circadin®) 2 mg
b) Benzodiazepine-related
1. Zolpidem* (Stilnox®) 5–10 mg
2. Zopiclone* (Imovane®) 3.75–7.5 mg
c) Antidepressants
Sedating agents such as citalopram (Cipramil®) 10–20 mg, mirtazepine* (Remeron®) 7.5–15 mg or agomelatine* (Valdoxane®) 25 mg at night.
d) Neuroleptics
Sedating agents such as chlorpromazine (Largactil®) 25 mg, olanzapine* (Zyprexa®) 2.5 mg (given at 17h00) or quetiapine* (Seroquel®) 25 mg at night.

Antidepressants
- Avoid tricyclic antidepressants on account of cardiotoxicity (QTc lengthening) and anticholinergic effects.
- Titrate upwards slowly in small increments.
- Cessation of antidepressant treatment within less than a two-year period is associated with an 80% relapse rate of depression.
- The use of antidepressants for depression in Alzheimer's disease below a Mini-Mental score (MMSE) of some 22/30 is questionable.

Use sedating agents such as citalopram (Cipramil®) 20–30 mg, mirtazapine* (Remeron®) 15–30 mg or agomelatine* (Valdoxane®) 25–50 mg at night. Also, escitalopram* (Cipralex®) 5–10 mg, and sertraline* (Zoloft®) 50–150 mg.
Patients with treatment-resistant depression; consider a trial of venlafaxine (Efexor®) XR 150–225 mg given in the morning.

**Neuroleptics**

*Note:* increased “all causes” morbidity and mortality in the elderly, including cerebrovascular adverse events (TIAs and CVAs). These figures have now been disputed.

**European Union recommendations when using antipsychotics:**
- Psychoeducate patient, caregiver and staff.
- Obtain valid consent.
- Start low, go slow, review frequently.
- Use of antipsychotics must be on individual merit.
- Review at a minimum of six weeks, and re-evaluate the need for continuation of treatment.
- Atypicals are safer than typical.
- In the case of dementing illnesses (such as Alzheimer’s disease) current opinion favours the first-line use of a cognitive-enhancer.
- Many patients with vascular dementia will require chlorpromazine/quetiapine 25–50 mg at night to combat disruptive nocturnal urinary frequency and urgency.

**Example of a neuroleptic regimen:**

**Haloperidol (Serenace)/risperidone (Risperdal)**

0.5 mg/0.25–0.5 mg resp twice daily. Increase the dose to 0.75 mg, 1.0 mg and 1.5 mg twice-daily, if necessary, for daytime control. Wait a day or two between increases.

Together with:

**Chlorpromazine (Largactil®)/quetiapine* (Seroquel®) 25 mg at night.** Increase the dose to 50 mg, 75 mg and 100 mg at night, if necessary, for nocturnal control. Wait a day or two between increases.

Or: Olanzapine (Zyprexa) 2.5–10 mg at 17h00.

**Anticonvulsants/mood stabilisers and neuropsychiatric symptoms**

- ‘Graduates’ should be kept on the treatment that stabilised them previously, but will require closer monitoring in keeping with the effects of ageing.
- Maintenance levels of lithium should be between 0.4–0.6 mmol/L.
- Note that trials in non-bipolar patients show no convincing evidence advocating the routine use of anticonvulsants/mood stabilisers.

**Cognitive-enhancers**

Recommended first-line treatment for Alzheimer’s disease, but also effective in vascular dementia, Lewy body dementia and Parkinson’s disease. Additional neuroleptic medication may additionally be indicated for neuropsychiatric symptoms. Control of cardiovascular risk factors is essential. Advise patients to use a pill-cutter to obtain the correct dosage and reduce costs.

a) Acetylcholinesterase inhibitors (AChEIs)

1) Donepezil* (Aricept®) 5–10 mg at night
2) Rivastigmine* (Exelon®) 3–6 mg twice-daily
3) Galantamine* (Reminyl®) 16–24 mg in the morning

- Start treatment as soon as possible e.g. Donepezil.
- Start all patients on 2.5 mg (1/4 tablet) at night.
- Increase to 5 mg (1/2 tablet) the following month.
- 5 mg is often the limit for very early dementia, vascular dementia, Lewy body dementia and Parkinson’s disease with dementia.
- Increase in increments of 2.5 mg at 4-weekly intervals to 7.5 mg and 10 mg.

- Transient side-effects include midday somnolence, anorexia, nausea (and vomiting), diarrhoea, dizziness and hypotension.

b) NMDA – receptor antagonist

**Memantine* (Ebixa®) 10 mg twice daily/or 20 mg once a day**

- Start as soon as possible with 5 mg in the morning.
- Titrate upwards with 5 mg the following month.
- 10 mg is often the limit for very early dementia, vascular dementia and Lewy body disease.
- Transient adverse events include confusion, dizziness, headache and fatigue.
- Treatment efficacy ceases around MMSE 8/30. Withdraw patient in reverse order over 3–4 months.

**Clozapine/Amisulpiride regimen**

For the treatment-resistant psychoses and vocalisers:

**Initiate:** Clozapine (Leponex®)

- Start with 12.5 mg (in very frail, sensitive NMS)
- increase in 12.5 mg increments
- Start with 25 mg (in more robust patients)
- increase 25 mg increments

**Memantine is an amantadine derivative and thus enhances L-dopa and dopaminergic agonists.**
• If response is good continue to near-intolerance level
• Split dose with night-time weighting then drop one level
• Total daily dose 125–300 mg
• Watch out for: sedation, hypotension, urinary incontinence and drooling

Add: Amisulpiride (Solian®)
• Start with 50 mg
• Increase in 50 mg increments
• Split dose with night-time weighting
• Total daily dose 150–200 mg
• Watch out for: sedation and dystonia

Anti-androgen agents
• Indicated in paraphilias, notably hypersexuality.
• Effective in both men and women.
Cyproterone acetate (Androcur®) 300 mg imi 4-weekly
• Symptoms diminish within a few days.
• A few patients may require their injection at three-weekly or even two-weekly intervals.
• Check baseline ALT and AST levels and repeat at six-monthly intervals.
• In patients with dementia treat for six months.
• A few patients may require their injection at three-weekly or even two-weekly intervals.
• Check baseline ALT and AST levels and repeat at six monthly intervals.

Paraphrenia (late onset schizophrenia)
• Extremely prone to develop extrapyramidal side-effects.
• Start with low dose newer generation antipsychotics (NGA) such as risperidone (Risperdal®) 0.25–0.5 mg 2 x daily or preferably quetiapine (Seroquel®) XR 50–100 mg given at night, or weighted at night-time.
• The delusional symptoms are very entrenched; treat until they ‘stop’; do not attempt to ‘eradicate’.
• In more than half the patients mood symptoms (usually depression) will emerge within 1–3 months of neuroleptic therapy; treat accordingly.
• As a rule of thumb they do not tolerate depot injections such as zuclopenthixol decanoate (Clopixol Depot), but will tolerate risperidone (Risperdal®).

Maximum daily dosaging
The suggested maximum daily dose of some neuroleptics in use in the elderly is as follows:
• Risperidone (Risperdal®) 4 mg
• Clozapine (Leponex®) 300 mg
• Quetiapine* (Seroquel®) 400 mg
• Olanzapine* (Zyprexa®) 10 mg
• Amisulpiride* (Solian®) 300 mg
• Aripiprazole* (Abilify®) 10 mg
• Ziprasidone* (Geodon®) 80 mg
• Haloperidol (Serenace®) 10 mg
• Chlorpromazine (Largactil®) 200 mg