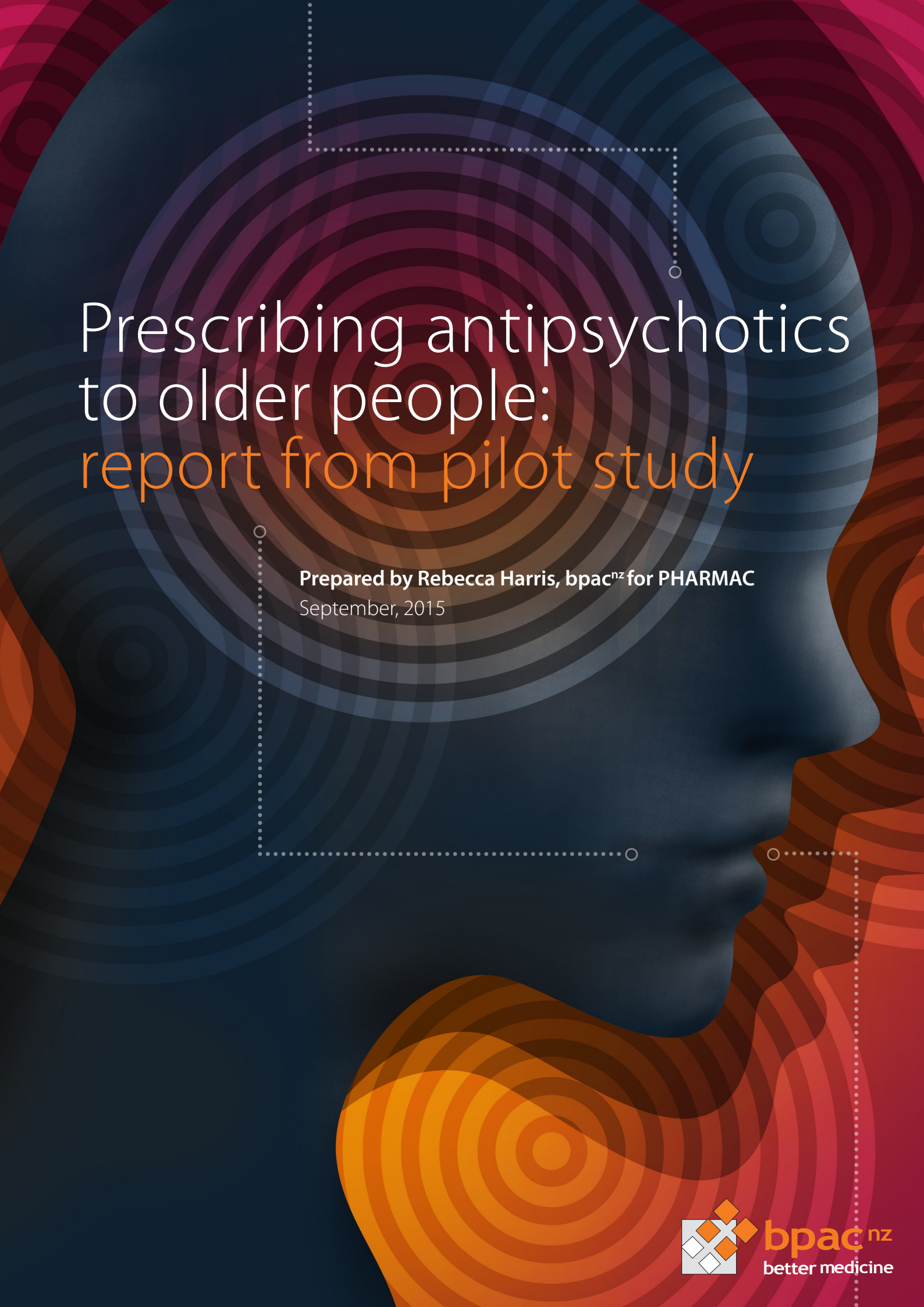

Prescribing antipsychotics to older people: report from pilot study

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Introduction

The volume of antipsychotics prescribed for older people has been growing in recent years. There is increasing concern that some older people are medicated with antipsychotics for inappropriate indications, e.g. "chemical restraint" in people with dementia. In addition, older people represent a vulnerable population who are particularly susceptible to the serious adverse effects associated with antipsychotic medicines. Antipsychotics should be prescribed at the lowest effective dose, for the shortest possible time, and only for the specific indications in which they have proven benefit. Review of continuing benefit, and monitoring for serious or intolerable adverse effects, should take place regularly.

Antipsychotics are only useful for managing specific behaviours in people with dementia, after non-pharmacological strategies have been tried. Identifying the target behaviour(s) that requires management allows an appropriate response to be implemented, which may or may not involve medicines. Underlying medical conditions, other medicines the patient is taking and factors in the patient's environment may contribute to the behavioural and psychological symptoms of dementia (BPSD) that the patient is experiencing. Therefore managing contributing factors is essential before considering antipsychotics.

Antipsychotics may be considered for managing psychosis, aggression or agitation which is causing a patient with dementia severe distress or posing a risk of immediate harm to themselves or others.[1, 2] Antipsychotics are not appropriate for patients with mild to moderate BPSD,[2] and are not useful for managing wandering, shouting, pacing, touching, social withdrawal or incontinence.[3] Antipsychotics are only modestly effective in treating BPSD, and do not generally improve overall functioning, quality of life or requirements of care in patients with dementia.[4]

Risperidone is the only antipsychotic approved for use in BPSD and therefore is the first-line choice; other antipsychotics such as quetiapine, olanzapine and aripiprazole are used for BPSD off-label if risperidone is not tolerated or appropriate.

To investigate whether the use of antipsychotics in older people in New Zealand is appropriate a pilot study was conducted at two aged-care facilities in Wellington. General practitioners responsible for the care of elderly residents in these facilities were asked to complete a clinical review of patients who had been prescribed antipsychotic medicines.

Results of the clinical review

Clinical reviews were completed for a total of 42 patients; 30 patients from Sprott House and 12 from Malvina Major Retirement Village. Five patients (all from Sprott House) were not prescribed antipsychotics so were ineligible for this clinical review; their results have been removed from analysis. This left a final sample of 37 patients.

Part 1: Demographic information

Sex: female (27), male (10)

Age: < 65 years (1), 65-80 years (13), > 80 years (23)

Ethnicity: New Zealand European (33), Other ethnicity – not including Maori or Pacific (4)

Part 2: Antipsychotic medicines prescribed

Use of an antipsychotic was discussed with 26 patients or their families and not discussed with one patient. This information was unknown for 10 patients.

Table 1: Reason for prescribing an antipsychotic

Reason	No. patients
Major psychiatric illness, e.g. schizophrenia, psychosis, bipolar disorder	9
Behavioural and psychological symptoms of dementia (BPSD)	27
Agitation, aggression, psychosis or other symptoms not associated with a clear diagnosis	3
Insomnia	2
Anxiety	6
Other/unknown	0

Of the 27 patients prescribed an antipsychotic for BPSD (Table 1), additional reasons for prescribing an antipsychotic were listed for four patients:

1. BPSD + agitation, aggression, psychosis or other symptoms not associated with a clear diagnosis + anxiety
2. BPSD + anxiety
3. BPSD + agitation, aggression, psychosis or other symptoms not associated with a clear diagnosis
4. BPSD + major psychiatric illness

Table 2: Length of time patient prescribed an antipsychotic

Time	No. patients
< 3 months	5
3–6 months	3
> 6 months	29

Table 3: Prescriber who initiated the antipsychotic

Initial prescriber	No. patients
Myself (i.e. GP completing review)	14
Another general practitioner	15
Geriatrician	0
Psychiatrist	7
Another medical specialist	1
Other/unknown	0

Three patients were prescribed more than one antipsychotic (Table 4):

1. Quetiapine (125 mg) + risperidone (2.5 mg)
2. Quetiapine (175 mg) + risperidone (2.5 mg)
3. Quetiapine (25 mg + 25 mg p.r.n) + ziprasidone (1 mg)

Of the 23 patients prescribed an antipsychotic for BPSD alone:

- 11 were prescribed risperidone (0.25 – 2.5 mg, average 1 mg daily)
- 10 were prescribed quetiapine (12.5 – 175 mg, average 47 mg daily)
- 1 was prescribed risperidone (2.5 mg) + quetiapine (175 mg)
- 1 was prescribed haloperidol (2.5 mg)

Table 4: Type and dose of antipsychotics prescribed

Antipsychotic	No. Patients*	Range of daily doses	Average daily dose	Range of as needed doses	Average as needed dose
Amisulpride	0	-	-	-	-
Aripiprazole	0	-	-	-	-
Chlorpromazine	0	-	-	-	-
Clozapine	0	-	-	-	-
Haloperidol	2	1 – 2.5 mg	1.8 mg	-	-
Levomepromazine	0	-	-	-	-
Olanzapine	0	-	-	-	-
Quetiapine	22	12.5 – 225 mg	53 mg	12.5 – 50 mg	28 mg
Risperidone	15	0.25 – 6 mg	1.5 mg	-	-
Trifluoperazine	0	-	-	-	-
Ziprasidone	1	-	-	1 mg	1 mg
Other†	0	-	-	-	-

* Numbers add to greater than 37 as some patients were taking more than one type of antipsychotic

† One patient was noted to be taking mirtazapine in addition to another antipsychotic – however, mirtazapine is not classified as an antipsychotic.

Part 3: Review of clinical notes

Table 5: Evidence recorded in clinical notes

Evidence	Yes	No	Unknown	Not applicable*
Dose reviewed since starting medicine	27	7	3	-
Target BPSD identified before prescribing	25	6	-	6
Target behaviours responding to antipsychotic	25	5	-	7
Differential diagnosis considered before prescribing an antipsychotic for BPSD	21	7	-	9
Non-pharmacological treatments trialled	15	7	15	-
Monitoring or review for adverse effects	23	10	4	-
Withdrawal attempt in last three to six months	16	19	2	-
Regular review of ongoing need for antipsychotic	26	9	2	-

* 10 patients were listed as being prescribed an antipsychotic for reasons not including BPSD

Severity of symptoms

The symptoms for which an antipsychotic was prescribed were documented as:

Mild-moderate – 11 patients

Severe – 23 patients

Not documented – 3 patients

Of the 25 patients who responded to an antipsychotic, 6 had mild-moderate symptoms and 19 had severe symptoms.

Of the 5 patients who did not respond to an antipsychotic, 3 had mild-moderate symptoms and 2 had severe symptoms.

Other sedating medicines

18 patients were taking one or more sedating medicines concurrently with an antipsychotic (Table 6).

Table 6: Other sedating medicines being taken by patients using antipsychotics

Sedating medicine	No. patients
Zopiclone	6
Fentanyl	5
Fluoxetine	3
Citalopram/escitalopram	2
Lithium	2
Nortriptyline	2
Sodium valproate	2
Venlafaxine	2
Diazepam	1
Doxepin	1
Mirtazapine	1
Moclobemide	1

Discussion

Based on the demographic profile of patients included in this pilot study, the results are most representative and applicable to New Zealand European females, aged over 80 years.

Use of antipsychotics

For inclusion in the study, all patients were currently taking an antipsychotic medicine. However, antipsychotic use may not have been discussed with up to 11 of the 37 patients or their families.

The majority of antipsychotics prescribed for the patients in the study were initiated by a general practitioner (31 out of 37 patients). Most of the patients (27 out of 37) were being prescribed an antipsychotic to manage BPSD. An antipsychotic medicine should only be considered to manage specific symptoms of BPSD which are moderate to severe in nature, such as psychosis, aggression or agitation, and only after other non-pharmacological interventions have been trialled.[1, 2] Target symptoms were identified in 25 patients before prescribing an antipsychotic, but it is not known what these symptoms were. Interestingly, 11 patients were prescribed an antipsychotic for mild to moderate symptoms, and of this group six responded to the antipsychotic (55%) and three did not (27%). Of the 23 patients prescribed an antipsychotic for moderate to severe symptoms, 19 responded (83%) and two did not (9%). This reinforces that antipsychotics are more successful in managing symptoms in people with moderate to severe target behaviours, than mild behaviours. Non-pharmacological treatments were only trialled in 15 patients before prescribing them an antipsychotic, and a differential diagnosis was not considered in seven patients. If these considerations had been made, it may have resulted in fewer patients being prescribed antipsychotics.

Antipsychotics should be prescribed at the lowest effective dose for the shortest possible time. Of the 37 patients, 29 had been prescribed an antipsychotic for more than six months. Although the ongoing need for an antipsychotic was assessed in 26 patients, withdrawal was only attempted in the last three to six months in 16 patients. Ten patients had no evidence of monitoring or review for adverse effects of antipsychotics. It is important that patients, especially those in a residential care setting, are not given antipsychotics indefinitely without review.

Selection of antipsychotic medicine

The majority of patients were prescribed quetiapine, followed by risperidone, with a small number of patients prescribed haloperidol or ziprasidone. Approximately equivalent numbers of patients were prescribed quetiapine or risperidone for BPSD. As risperidone is the only antipsychotic indicated for the management of some patients with BPSD, it is the recommended first-line choice. In theory, patients with BPSD should only be prescribed quetiapine if they have been unable to tolerate risperidone or it has been ineffective.

Risperidone is indicated for the treatment of aggression in patients with moderate to severe Alzheimer's dementia unresponsive to non-pharmacological interventions and when there is a risk of harm to self or others.[5] The recommended dose is 0.25 – 0.5 mg initially, titrated to 0.5 – 1 mg, twice daily.[5] The maximum recommended daily dose of risperidone for elderly people for any indication is 4 mg.[5] Daily doses of risperidone prescribed to the patients in the study ranged from 0.25 – 6 mg. The average daily dose was 1.5 mg, daily, which is within the recommended daily dose range. Only three of the 15 patients prescribed risperidone were prescribed more than 2 mg daily, including one patient prescribed more than the maximum recommended 4 mg.

Quetiapine is not indicated for use in people with dementia, therefore there is no listed recommended dose for this use. A generally accepted regimen for prescribing quetiapine in older people with dementia is 12.5 mg initially, titrated to a maximum of 100 mg, daily. Daily doses of quetiapine prescribed to the patients in the study ranged from 12.5 – 225 mg, with an average dose of 53 mg, daily. The three patients prescribed more than 100 mg quetiapine daily had

their antipsychotic initiated by a psychiatrist for a major psychiatric illness (in addition to BPSD for two of the patients); recommended daily doses of quetiapine for indications such as schizophrenia and bipolar disorder range from 300 – 800 mg, although lower doses are recommended for elderly people.[5]

Three patients were prescribed more than one antipsychotic medicine. This increases the risk of seizure and QT prolongation.[5]

Of the 37 patients prescribed an antipsychotic, 18 were also taking another sedating medicine, increasing the risk of adverse events. Of these 18 patients, ten were taking one additional sedating medicine, six were taking two additional medicines and two were taking three sedating medicines in addition to an antipsychotic. In addition to an increased sedative effect, some combinations of these medicines have listed interactions, e.g. fluoxetine increases risperidone concentrations, increasing the potential for extrapyramidal symptoms, dystonia and gynaecomastia, and many of these combinations may cause QT prolongation.[5]

Conclusion

The results of this pilot study indicate that some of the prescribing practices for using antipsychotics in elderly people are in accordance with recommendations. There is, however, room for improvement in certain areas.

Patients with mild to moderate symptoms of BPSD are likely to be better managed with non-pharmacological techniques, including behavioural interventions, interactive tasks and environmental changes, rather than prescribing antipsychotics. Even if patients do require an antipsychotic to be trialled, these non-pharmacological techniques should be continued throughout. Non-pharmacological strategies were trialled in less than half of the patients.

Most patients had been taking an antipsychotic for more than six months – it is likely that many patients will have been taking this medication long-term. When an antipsychotic is prescribed for a patient with BPSD, specific target symptoms should be identified (that are appropriate to be treated with an antipsychotic) and response of these symptoms to the antipsychotic, along with adverse effects, regularly monitored. The aim should be for the antipsychotic to be a short-term treatment only. If improvements in target behaviours are not observed, the antipsychotic should be withdrawn.

Further reading

bpac[nz]. Managing patients with dementia: what is the role of antipsychotics? Best Practice Journal 2013;57. Available from: **www.bpac.org.nz/BPJ/2013/December/dementia.aspx**

Appendix 1: Clinical review tool

Review data collection form **Prescribing antipsychotics to older people: a special edition clinical review**

For instructions or help filling in this form please refer to the **Audit Guide** document or the bpac website: **www.bpac.org.nz/a4e**

Data collection date: / /

Patient name or NHI Number:
For your records only, not required for online data entry

Patient ID:
Provided when data is entered online

Demographic information

1.

Gender: ○ Male ○ Female

Age: ○ <65 ○ 65 – 80 ○ >80

Ethnicity: ○ NZ European ○ Māori ○ Pacific ○ Other

Place of residence: ○ Malvina Major Retirement Village ○ Sprott House

2. Has the use of antipsychotics been discussed with the patient/patient's familiy?

○ Yes ○ No ○ Unknown

Antipsychotic medicines prescribed

3. What is the antipsychotic medicine prescribed for?

- ☐ Major psychiatric illness, e.g. schizophrenia, major psychoses, bipolar disorder
- ☐ Behavioural and psychological symptoms of dementia (BPSD)
- ☐ Agitation, aggression, psychosis or other symptoms not associated with a clear diagnosis
- ☐ Insomnia
- ☐ Anxiety
- ☐ Other indication(s): (please specify)
- ☐ Unknown

4. How long has the patient been prescribed an antipsychotic for?

○ < 3 months ○ 3 – 6 months ○ > 6 months

5. Who initiated the antipsychotic medicine(s)?

☐ Myself ☐ Another GP ☐ Geriatrician ☐ Psychiatrist

☐ Another medical specialist ☐ Other ☐ Unknown

6. What antipsychotic are prescribed and at what daily dose?

Medicine	Regular daily use Total dose (mg)	"As needed" use Total dose (mg)	Medicine	Regular daily use Total dose (mg)	"As needed" use Total dose (mg)
Amisulpride			Olanzapine		
Aripiprazole			Quetiapine		
Chlorpromazine			Risperidone		
Clozapine			Trifluoperazine		
Haloperidol			Ziprasidone		
Levomepromazine (methotrimeprazine)			Other (please specify below):		

Form continues over page

Review of clinical notes

7. Is there evidence recorded in the notes that the dose has been reviewed since starting the medicine?

○ Yes ○ No ○ Unknown

8. Are the symptoms for which the antipsychotic medicine was prescribed documented as:

○ Mild-moderate

○ Severe (symptoms cause severe distress or immediate risk of harm to patient or others)

○ Not documented

9. Is there evidence recorded in the notes that specific target behaviours of BPSD were identified before an antipsychotic was prescribed?

○ Yes ○ No ○ Unknown ○ Not applicable (not prescribed for BPSD)

10. Is there evidence recorded in the notes that target behaviours are responding to antipsychotics?

○ Yes ○ No ○ Unknown ○ Not applicable (not prescribed for BPSD)

11. Is there evidence recorded in the notes that differential diagnoses such as delirium and depression were considered before starting an antipsychotic for target behaviors of BPSD?

○ Yes ○ No ○ Unknown ○ Not applicable (not prescribed for BPSD)

12. Is there evidence recorded in the notes that non-pharmacological treatments have been or are being tried?

○ Yes ○ No ○ Unknown

13. Is there evidence recorded in the notes of monitoring and/or regular review for adverse medicine effects, e.g. increase in falls or increasing obvious confusion?

○ Yes ○ No ○ Unknown

14. Is the patient taking any other sedating medicines, e.g. tricylic antidepressants, SSRIs, benzodiazepines, zopiclone?

○ Yes (please list below) ○ No

15. Is there evidence recorded in the notes that withdrawal of the antipsychotic been attempted within the last three to six months?

○ Yes ○ No ○ Unknown

16. Is there evidence recorded in the notes of regular review (e.g. every three months) of on-going need for the antipsychotic?

○ Yes ○ No ○ Unknown

17. Do you have any further comments about prescribing antipsychotics to older people?

Upload data on completed forms at: **www.bpac.org.nz/a4e**

References

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