Antidepressant use in older people

Family physicians' knowledge, attitudes, and practices

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ABSTRACT

OBJECTIVE To explore the knowledge, attitudes, and practices of primary care physicians regarding treatment of depression in older people.

DESIGN Mailed survey.

SETTING Offices of primary care physicians.

PARTICIPANTS Random sample of 11% of the primary care physicians in Ontario.

MAIN OUTCOME MEASURES Most commonly prescribed antidepressant, maximum dose of this antidepressant, antidepressants avoided, and duration of maintenance therapy.

RESULTS Response rate was 67%. Maximum doses of antidepressants physicians were willing to prescribe were below maximum doses recommended in the *2001 Compendium of Pharmaceuticals and Specialties*. Many physicians were not willing to consider titrating the dose of their most commonly prescribed antidepressant beyond the lower half of the therapeutic range even when patients were tolerating the medications without side effects but were not responding to treatment. Two thirds (65%) indicated they would attempt to discontinue antidepressants after 9 months of therapy or less; 50% would discontinue therapy after 6 months or less. This is in contrast to published guidelines recommending maintenance periods of 1 to 2 years. Although fluoxetine is generally avoided in geriatric populations because of its markedly prolonged half-life and potential for drug-drug interactions, 6% of respondents reported prescribing it as a first-line antidepressant.

CONCLUSION With the exception of fluoxetine, most Ontario-based primary care physicians choose appropriate first-line antidepressant medications for their older patients. This study demonstrates that primary care physicians are extremely careful, if not overly cautious, in titrating the dose of antidepressants. Many restrict treatment to lower doses and shorter courses of therapy than dosages and durations recommended for full clinical effect and prevention of relapse. This practice could limit the therapeutic efficacy of that first medication trial, exposing patients to unnecessary medication switches or incomplete therapeutic response when an increased dose might have resulted in a complete resolution of depressive symptoms. Suboptimal management might be the result of ineffective dissemination of guidelines that are often published in subspecialty literature not readily available to primary care physicians.

EDITOR'S KEY POINTS

- This survey of Ontario family physicians, which had a 67% response rate, indicated that physicians generally feel comfortable treating depression in elderly people and usually prescribe recommended first-line antidepressants.
- Physicians often restricted their theoretical maximum doses to less than half the recommended doses.
- They tended to stop treatment after 9 months; guidelines indicate treatment should continue for 1 to 2 years after remission.

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Major depression in older adults is serious and common. Its prevalence is 5% to 17% in primary care.[1-7] A meta-analysis of outcomes of depression at 24-month follow up of community and primary care patients documented unresolved depression in 33% of them.[7] Further analysis of primary care samples has demonstrated recurrence rates of more than 30% to 40% in older adults.[8]

Both physician and patient factors contribute to poor patient outcomes. Physician factors include the ability to detect, diagnose, and manage depression in older people; selection of antidepressant medication; dosing strategies; and length of maintenance therapy.[9-35] Physician factors are often influenced by patient factors, such as multiple comorbid conditions, drug-drug interactions, and sensitivity to medications.

What is unclear in the literature is whether physicians routinely adopt therapeutic limits for all older patients before they consider individual patient factors. These limits, applied to all older patients, include targeted length of maintenance therapy and maximum dose of antidepressant physicians would ever consider prescribing.

To explore physicians' intentions with regard to optimal duration of maintenance therapy and the maximum antidepressant doses they are willing to prescribe (eg, in situations where patients are tolerating therapy but are not responding) for older people with depression, we conducted a survey. To date, surveys[9-11,18,21,25-27] have studied physicians' attitudes,[9,11,18,25,26] general approaches to depression,[9,21,25] and medication selection,[10] but have not explored a priori dosing maximums or planned duration of treatment.

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Our study surveyed the knowledge, attitudes, and self-reported clinical practice of a random sample of Ontario primary care physicians regarding their treatment of depression in people 65 years and older. The survey focused on physicians' intentions for treatment once major depression had been diagnosed.

METHODS

The study questionnaire was mailed to a random sample of 11% (n = 978) of family physicians and general practitioners in Ontario listed in the Canadian Medical Directory.[36] No further inclusion or exclusion criteria were applied. A pilot survey was conducted among 10 family medicine colleagues to test face validity and ease of interpretation of questions. The survey took 5 to 10 minutes to complete. It contained questions on demographics, academic affiliations, and size of community and practice. A questionnaire previously developed by Callahan et al[11] was modified to focus on care of older patients and was used to survey respondents' attitudes and beliefs regarding treatment of depression in older people. We asked four questions.

- What single antidepressant did they most commonly prescribe to older patients?
- What was the maximum dose of this antidepressant they would prescribe?
- Which antidepressants did they try to avoid prescribing to older people?
- How long did they plan to continue maintenance therapy after full relief of symptoms?

Responses to the first three questions were compared with Canadian clinical guidelines for treatment of depression in older people[37] that list the following as recommended first-line therapy: bupropion (eg, Wellbutrin), citalopram (Celexa), fluvoxamine (eg, Luvox), mirtazapine (Remeron), moclobemide (eg, Manerix), nefazodone (Serzone), paroxetine (Paxil), sertraline (eg, Zoloft), and venlafaxine (Effexor). The guidelines predate Health Canada's recent withdrawal of nefazodone from the market.

Responses to the fourth question were compared with the recommendations of an American panel of

geriatric psychiatrists[38] who suggested a minimum of 1 year of maintenance therapy. Responses were also compared with Canadian guidelines[37] that recommended continuing antidepressant medications for at least 2 years after full remission of symptoms after older patients' first uncomplicated episode of major depression.

The package, mailed in a University of Ottawa envelope, included a cover letter on university letterhead, a stamped, self-addressed return envelope, and the questionnaire. Three mailings were sent between March and November 2001. Physicians who did not respond were mailed a second and, if necessary, a third copy of the survey. Frequency of responses was analyzed using SPSS version 10.0. The study design was reviewed by the Chair of the Ottawa Hospital Research Ethics Board.

RESULTS

More than two thirds of the questionnaires were returned (67.4%, 659/978); 4.4% (43/978) of those surveyed were identified as having moved or retired. Of physicians who completed surveys, 79.1% (487/616) reported having patients older than 65 in their practices. We report on the responses of these 487 physicians.

Demographics

Demographic information is summarized in **Table 1**. Two thirds of respondents were male (65.7%, 312/475), with an increasing proportion of female respondents among more recent graduates. Respondents' years of graduation ranged from 1948 to 1999. Median size of practice was 2000 patients; smaller practices were reported by the earliest and most recent graduates. Most respondents reported being in private practice (93.5%, 430/460); the highest percentage of academic practices was found among more recent graduates. The median reported estimate of percentage of older patients (>65 years) in their practices was 25% (range 1% to 100%); higher percentages were reported by the earliest graduates. Respondents estimated a median of 9% (range 0% to 50%) of their older patients were currently receiving antidepressant therapy for mood disorders.

Knowledge and attitudes

Responses to the modified questionnaire of Callahan et al[11] regarding knowledge and attitudes are shown in **Table 2**. Most respondents reported feeling confident about diagnosing and managing depression in older people. Most indicated that if dementia and depression coexist, depression should be treated.

Choice of antidepressants

Most respondents identified the single medication they most commonly prescribed for major depression in older people (93.0%, 453/487); 85% of these respondents identified one of the recommended first-line antidepressants[37] as their choice. The most commonly prescribed antidepressants were sertraline (31.1%, 141); paroxetine (26.0%, 118); citalopram (12.4%, 56); venlafaxine (9.9%, 45); fluoxetine (eg, Prozac) (6.0%, 27); and fluvoxamine (5.3%, 24).

Most respondents (78.2%, 381/487) provided a list of antidepressant medications they particularly avoided prescribing for older people. The most common of these were tricyclic antidepressants as a class

Table 1. Demographics of respondents and descriptions of their practice by decade of graduation (1950s to 1990s):
Some respondents did not answer some questions.

CHARACTERISTICS	1950s	1960s	1970s	1980s	1990s
Total respondents: N (%)	23 (5)	63 (13)	111 (24)	169 (36)	102 (22)
Female respondents (%)	17	19	24	40	51
Respondents in academic practice (%)	0	2	2	8	14
Median practice size	1500	2000	2000	2000	1500
Practice population >65 y: median %	46	35	20	20	25
Patients >65 y taking antidepressants: median %	6	7.5	10	5	10

Table 2. Physicians' knowledge and attitudes regarding major depression in older people: *Respondents could choose strongly disagree, disagree, agree, or strongly agree with the statements.*

STATEMENT	AGREE OR STRONGLY AGREE N (%)
1. Depression is a normal part of aging	47 (10)
2. When depression and dementia coexist, depression should be treated	465 (96)
3. I feel confident that I can accurately diagnose depression in elderly patients	368 (77)
4. I will refer patients to a psychiatrist rather than diagnose and treat depression myself	52 (11)
5. Psychotherapy provides additional benefit to patients who are taking antidepressant medication	451 (94)
6. I am too pressed for time to take a routine history of depression in my elderly patients	89 (18)
7. I feel reluctant to probe the emotional concerns of my patients	34 (7)
8. Assigning psychiatric diagnoses to elderly patients negatively affects their overall medical care	42 (9)
9. If I diagnose depression in elderly patients, they will likely reject the diagnosis	89 (18)
10. If I diagnose depression in elderly patients, they will likely fail to comply with treatment	59 (12)
11. With my elderly patients, I do not focus on depression as a diagnosis until I have ruled out organic disease	343 (71)
12. If depression is likely due to chronic illness, I would not treat with antidepressants	26 (5)
13. Concerns about drug-drug interactions affect my willingness to prescribe antidepressant therapy	198 (41)
14. Concerns about drug side effects affect my willingness to prescribe antidepressant therapy	193 (40)
15. Antidepressant therapy has lower treatment efficacy in older, compared with younger, patients	52 (11)
16. I prescribe lifelong antidepressant therapy to elderly patients who have had multiple episodes of major depression	405 (86)
17. I feel that electroconvulsive therapy is an important alternative treatment for depression in elderly people	225 (51)

(44%, 168); monoamine oxidase inhibitors as a class (38%, 144); fluoxetine (30%, 116); amitriptyline (29%, 110); paroxetine (6.8%, 26); and imipramine (5%, 20).

Antidepressant doses

Table 3[39] lists maximum doses to which respondents would be willing to titrate their single, most commonly prescribed antidepressant agent to obtain a therapeutic response. This assumes patients are tolerating the medications without dose-limiting side effects (ie, maximum therapeutic dose they are willing to consider). In many instances, these maximum therapeutic doses were low compared with published dose ranges found in the Compendium of Pharmaceuticals and Specialties (CPS).[39] The notable exception was fluoxetine; many respondents who use this medication as first-line therapy (59%, 27) were willing to titrate above the CPS's 20-mg/d recommended maximum dose for older people.[39]

Duration of antidepressant therapy

Figure 1 shows the duration of respondents' maintenance phase of treatment for a first

Table 3. Maximum dose of physicians' most commonly prescribed antidepressants that they were willing to prescribe for depression in older patients (relative to therapeutic ranges recommended in the *Compendium of Pharmaceuticals and Specialties*[39]): *The most commonly prescribed antidepressants were sertraline (141, 31.1%), paroxetine (118, 26.0%), citalopram (56, 12.4%), venlafaxine (45, 9.9%), fluoxetine (27, 6%), and fluvoxamine (24, 5.3%).*

PRESCRIPTION PRACTICE	SERTRALINE (EG, ZOLOFT)	PAROXETINE (PAXIL)	CITALOPRAM (CELEXA)	VENLAFAXINE (EFFEXOR)	FLUOXETINE (EG, PROZAC)
Therapeutic range (mg/d)	50-200	10-40*	10-40*	75-225*	≤20*
Respondents who prescribe below therapeutic range (%)	3	0	0	5	N/A
Respondents who prescribe within therapeutic range (%)	95	87	85	77	41
Respondents who prescribe in lower half of therapeutic range (%)	50	31	40	30	N/A
Respondents who prescribe above therapeutic range (%)	2	13	15	18	59

**Dose range specified for geriatric populations in 2001* Compendium of Pharmaceuticals and Specialties.[39]

uncomplicated episode of major depression once complete response to the antidepressant medication had been achieved. About 65% indicated they would attempt to discontinue antidepressants after 9 months or less, 50% after 6 months or less, and 11% after 3 months or less.

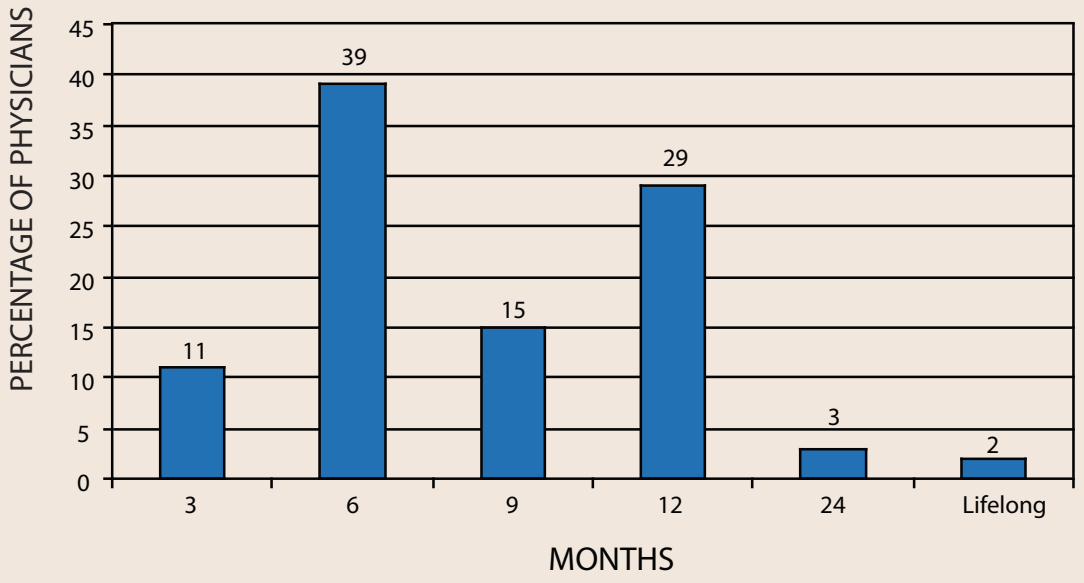
DISCUSSION

Results of this survey suggest that most primary care physicians in Ontario are generally confident in their ability to screen for and diagnose depression in older patients. They select appropriate first-line medications for major depression in older people as identified in the psychiatric literature.[37,40,41]

One notable exception was fluoxetine, which in our study 6.0% of respondents reported using as first-line therapy for older people despite warnings against its use in older populations.[40,41] Concerns about fluoxetine include its markedly prolonged half-life, the potential for drug-drug interactions, and the prolonged withdrawal period required if side effects occur.[39-44] As a direct result of these concerns, fluoxetine is not listed as first-line therapy in either Canadian[37] or American[38] guidelines. It is reassuring that other medications that are relatively contraindicated for older people due to their anticholinergic side effects[37,40,42] (eg, imipramine, amitriptyline) are not being prescribed as first-line therapy.

Survey results also indicate that, in situations where patients are tolerating medications but are not yet responding, many primary care physicians are not willing to titrate doses of antidepressants beyond the lower half of the therapeutic range. This might reflect medical education encouraging gradual titration from small doses (ie, the "start low, go slow" principle), too much emphasis on concerns about drug-drug interactions and side effects, or a response to the image of physicians as being overly liberal in prescribing medications. In contrast, this study demonstrates that primary care physicians are extremely careful, if not too careful, in titrating doses of antidepressants. Unfortunately, this might limit the therapeutic efficacy of a first medication trial, increasing the likelihood of medication

Figure 1. Duration of maintenance therapy for a first episode of depression for people 65 years and older: *Canadian guidelines recommend 2 years of maintenance antidepressant therapy after recovery from an initial episode.*



switches or incomplete therapeutic response when increasing the dose of the first medication might have resulted in complete resolution of symptoms.

The finding that primary care physicians are using shorter maintenance phases of treatment than are currently recommended should be interpreted with caution, given the divergent recommendations for treatment in the literature. Earlier guidelines[45] advised physicians to continue maintenance antidepressants for 6 months after symptom resolution. About 39% of our respondents indicated they would generally target 6 months of maintenance treatment; only 12% intended to continue maintenance treatment for less than 6 months. In response to studies documenting high rates of relapse when antidepressant medications were discontinued at 6 months, and great improvements in relapse rates with longer maintenance therapy,[46,47] an American panel of geriatric psychiatrists[38] concluded that longer maintenance treatment is required. They suggested a minimum of 1 year; 18% of panel experts recommended 2 years or more.

Recent Canadian guidelines[37] recommend continuing antidepressant medications for at least 2 years after full remission of symptoms for a first uncomplicated episode of major depression in older patients. Patients who experience a first episode of depression after age 60 are at high risk of recurrence.[46,48] The longer duration of maintenance therapy is supported by a recent systematic review.[49] The fact that such guidelines[37] are published in specialty journals that are not generally available to primary care physicians is worrying because these recommendations need to be disseminated and implemented in primary care.

The short maintenance phases reported by our respondents might reflect the fact that they did not see the guidelines. We encourage specialist societies to consider their audience and to publish clinical practice guidelines in journals that target a broader range of readers outside of their own specialties.

Limitations

An important limitation of our findings is that we do not know whether the attitudes and practices of those who chose not to respond are systematically different from those who did, although our response rate of 67% exceeds that of many similar surveys.[9,10,21] It is likely that the respondents are the most informed and motivated of the physicians who received the survey, and that their practices would lie closer to the ideal than nonrespondents. There is, however, no way of directly testing this assumption. In any case, the practice of nonrespondents would not alter the general findings of this study indicating that a substantial proportion of physicians employ low dose maximums and short maintenance phases.

Conclusion

To further improve patient outcomes, we recommend that primary care physicians become more comfortable titrating doses of their most commonly prescribed antidepressants through the full therapeutic range when patients are tolerating the medication but are not yet demonstrating full clinical response. We also recommend that they review Canadian guidelines for treatment of depression in older people and adopt the 2-year maintenance phase recommended by these guidelines.

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Contributors

Drs Fitch, Molnar, Power, Wilkins, *and* **Man-Son-Hing** *contributed to the concept and design of the study, gathered and analyzed the data, and prepared the article for publication.*

Competing interests

None declared

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