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What is This?

### ORIGINAL RESEARCH

PEER-REVIEWED



Polypharmacy and insomnia are 2 of many problems today's seniors may face. As pharmacists, how we address these issues can significantly impact a patient's daily life. This study describes an interdisciplinary team's approach to benzodiazepine tapering. I contributed to this as my residency project for its focus on an important issue and its qualitative methods.

La polypharmacie et l'insomnie sont deux des nombreux problèmes que les personnes âgées peuvent rencontrer aujourd'hui. En tant que pharmaciens, la manière dont nous nous attaquons à ces problèmes peut avoir un effet non négligeable sur la vie quotidienne d'un patient. Cette étude décrit l'approche d'une équipe interdisciplinaire concernant la diminution progressive de la benzodiazépine.

## Discontinuing benzodiazepine therapy: An interdisciplinary approach at a geriatric day hospital

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### **Abstract**

Background: Despite the known adverse effects of benzodiazepines, elderly people commonly use these drugs over long periods to treat insomnia and anxiety. This qualitative study was conducted to examine the experiences of patients and care providers in a geriatric day hospital (GDH) as patients participated in a benzodiazepine tapering process, to identify the components and processes of the benzodiazepine tapering intervention, and to begin exploring how they influence patient outcomes.

Methods: The study was conducted in a GDH in a Canadian city. Data were gathered from a discussion group and from individual semistructured interviews with 13 health care providers and 5 patients. Charts were reviewed to gather demographic data and confirm provider activities. A reflexive approach was conducted whereby each care provider reviewed and modified the role description created from information provided during his or her interview. Themes were determined through constant comparative analysis

of transcripts, which included 5 meetings of the research team.

Results: The tapering of benzodiazepines at the GDH was effected primarily by 3 people: the physician, the pharmacist and the nurse. Other members of the interdisciplinary team were not always aware of which patients were tapering their benzodiazepine therapy, but they supported patients in a variety of ways. The patients included in this analysis were willing to taper their benzodiazepines and did not consider the experience significant in any way.

Conclusion: The health care provider roles, processes and tools described here could be replicated in other environments to assist patients who are tapering benzodiazepine therapy. Further research is needed to understand the interrelationships of all components of GDH care to determine their relative importance in facilitating behaviour change related to benzodiazepine tapering. Can Pharm J 2010;143:286-295.e1.

### Introduction

The overuse of benzodiazepines is a commonly recognized problem among elderly patients. Between 22% and 27% of adults over age 65 use benzodiazepines regularly.<sup>1,2</sup> This rate rises to over 30% among those above age 85.<sup>2,3</sup> Up to 50% of people taking benzodiazepines do so over the long

term, sometimes for decades.<sup>4</sup> This practice is contradictory to evidence showing that benzodiazepines are effective for treatment of insomnia only for short periods (up to 6 weeks).<sup>5,6</sup> Health Canada has recommended that benzodiazepine treatment for anxiety not exceed 2 months, including the tapering-off period.<sup>7-9</sup>

The use of benzodiazepines by elderly patients has been associated with sedation, cognitive impairment, dizziness, confusion and motor vehicle crashes. <sup>6,10,11</sup> Patients using benzodiazepines are exposed to a 3-fold greater risk of falls, and their risk of hip fractures is 80% greater than for people not taking benzodiazepines. <sup>10,12-18</sup>

Despite the risks of continuing to take benzodiazepines, patients have difficulty discontinuing these drugs, 19,20 and they may be reluctant to do so. Linden et al.19 found that 68.8% of patients taking benzodiazepines for more than 6 months were unwilling to take a "drug holiday." Furthermore, reports of withdrawal symptoms, some of them severe (e.g., seizures, psychosis, perceptual changes), may be frightening for both patients and health care providers.<sup>21,22</sup> Health care providers often have difficulty helping patients to taper these drugs. 20,23 Physicians prescribe benzodiazepines for their short-term efficacy in treating insomnia, but hesitate to discontinue them because of the aforementioned concerns about withdrawal symptoms and the more pressing health care issues that many elderly patients experience.<sup>23</sup>

A variety of approaches have been used to help people discontinue benzodiazepines. The most consistently effective methods include tapering the drug slowly over many weeks and providing support through cognitive behavioural therapy, psychological counselling and self-help approaches. <sup>5,24-29</sup> Simply providing written information to patients or giving audit feedback to physicians has not been very effective in previous studies. <sup>30,31</sup>

Geriatric day hospitals (GDHs) are founded on the principle of helping elderly people regain and maintain their independence, in part by improving their cognition and reducing the risk of falls and fractures. We perceived that many patients had successfully discontinued their benzodiazepine therapy while receiving care in our GDH. However, it was not clear which interventions and processes were most effective. Given the inherent challenges in discontinuing these medications, we sought an improved understanding of the reasons for our apparent success. This study was designed, according to the Medical Research Council framework for building a research program for complex interventions,32 as the beginning of a multistage program to address key issues related to the use of medications, including benzodiazepines, that adversely affect both cognition and mobility in elderly patients. Our goals were to examine the experiences of patients and care providers during benzodiazepine tapering, to identify the components of our benzodiazepine tapering intervention and to begin exploring the mechanisms by which they influence outcomes.

In this paper we describe the roles of health care providers and the processes of care and patients' experiences as they taper benzodiazepines. A companion paper will address other components of care, including interactions between providers and patients, team functioning and the role of the GDH environment itself (manuscript in preparation).

### Methods

Design

This qualitative study used semistructured interviews, group discussion and a chart review to examine the experience of GDH patients and providers in the cessation of benzodiazepine therapy in the GDH setting. Approval was granted by the Élisabeth Bruyère Research Ethics Board and the study was funded by the Élisabeth Bruyère Research Institute.

### Setting

The study GDH, located in a large Ontario city, served a frail, community-dwelling elderly population with chronic medical problems and functional, social and cognitive impairments. The program's goals were to optimize the functioning of these patients, through early identification and treatment of geriatric issues and to prevent admission to hospital or premature admission to a long-term care facility, through team-based interdisciplinary assessment, planning of care and treatment. The team consisted of nurses, physicians, physiotherapists, occupational therapists, a recreation therapist, a psychometrist, a social worker, a speech language pathologist, a dietitian, a general aide, a secretary, volunteers and a consultant pharmacist (BF). At the time of the study, this outpatient program served a total of about 50 patients each week, with 20 spaces available each day. Most patients attended twice weekly for 5 hours at a time, for an average of 13 visits.

### Knowledge into practice

- The use of benzodiazepines in elderly patients has been associated with sedation, cognitive impairment, dizziness, confusion and motor vehicle accidents.
- Discontinuing benzodiazepine therapy is difficult for patients and for the practitioners who care for them.
- Intensive therapies (e.g., tapering combined with cognitive behavioural therapy and continual support) are more successful than simply providing information.
- This study provides examples of interdisciplinary roles, processes and tools that help patients to discontinue benzodiazepine therapy. These roles, processes and tools can be applied in day hospitals, primary care practices and other settings.
- We show that patients can have positive experiences with tapering, which in turn reassures pharmacists that tapering is tolerable and possible.

### Financial acknowledgement:

This study was funded by the Élisabeth Bruyère Research Institute.

### **Participants**

All members of the GDH team (excluding the manager and volunteers) were eligible to participate in the study. In addition, English-speaking patients over 65 years of age who had been referred to the pharmacist for assistance with benzodiazepine tapering were also recruited. Patients were excluded if a physician recommended that they not participate in the study. We aimed to recruit 10 patients over 3 months (February to April 2008).

### Recruitment

All eligible providers were invited to attend an information session about the study and were offered the opportunity to participate in a discussion group, an interview, or both. After the information session, the research associate (NW) or pharmacy resident (LC) approached each person individually to request participation and consent.

Six weeks after the admission of an eligible patient to the GDH, the GDH physician asked the patient (or a substitute decision-maker, if the patient had cognitive impairment), whether researchers could contact him or her with information about the study. If the patient or substitute decision-maker agreed, the research associate or pharmacy resident explained the study, reviewed the information and consent forms, and obtained consent for an interview and chart review.

### Data collection

Consenting providers first attended a group ses-

sion, the goals of which are listed in Figure 1. This session was recorded and transcribed. The research associate or pharmacy resident then carried out semistructured interviews with individual team members. The interview guide used elements of the PRECEDE framework (Predisposing, Reinforcing and Enabling factors and Causes in Educational Diagnosis and Evaluation), which assists in guiding identification of appropriate interventions.<sup>33</sup> Team members were asked to pay particular attention to their usual processes for documenting the details of interactions with patients, especially with regard to withdrawal of benzodiazepines and associated symptoms, to assist with subsequent chart review.

The research associate or pharmacy resident used a similar structured interview guide for the interviews with patients, which were also recorded and transcribed (Figure 1). After discharge, each patient's chart was reviewed for information pertinent to benzodiazepine withdrawal.

### Data analysis

The data analysis was performed by an interdisciplinary team consisting of a pharmacist (BF), a family physician specializing in care of the elderly (PE-P), an academic family physician (GR), a pharmacy resident (LC) and a research associate (NW). Transcripts and field notes were coded and entered into NVIVO software (QSR International Pty Ltd., Doncaster, Australia) to organize analysis. The principal investigator (BF), resident and

TABLE 1 Demographic and medication-related characte	eristics of patients*
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Characteristic	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
Age (yr)	85	79	91	88	87
Benzodiazepine and starting dose	Lorazepam 1 mg every night	Diazepam 5 mg tid Flurazepam 30 mg every night as needed	Oxazepam 25 mg every night	Lorazepam 1 mg daily (taken in the morning)	Lorazepam 0.5 mg every night
Approximate duration of use (years)	6	30	2 (intermittent)	4	NA (recent initiation of therapy)
Tapering schedule	Dose decreased by 50% (1 mg to 0.5 mg to 0.25 mg) weekly for 2 weeks, then discontinued	NA (stopped abruptly, without tapering)	Dose decreased to 15 mg, then to 7.5 mg 1 week later, then switched to temazepam (because of insomnia)	Dose decreased by 50% (1 mg to 0.5 mg) for 1 month, then discontinued	NA (stopped abruptly, without tapering)
Final medication	None for sleeping	Trazodone 50 mg every night as needed	Temazepam 15 mg every night	None for sleeping or anxiety	None for sleeping

NA = not applicable.

<sup>\*</sup>All patients were women.

research associate reviewed all transcripts. They also prepared summaries, which were reviewed by the rest of the team. Data analysis was an iterative process involving constant comparative analysis to determine common themes, variations, explanations and meanings and included 5 full team meetings in the later phases of the project (April through June 2008). A pharmacy student (ND) assisted with analyzing patient data for discussion by the research team.

### **Results**

Eighteen providers and 9 patients were eligible, and 13 providers and 5 patients participated (Figure 2, Table 1). This study identified provider roles and processes, as well as emerging patient themes.

### Usual approach of the GDH team

The GDH team worked closely together, with the philosophy of providing patient-centred care. Figure 3 outlines the usual process of admission, assessment and care of patients employed by the team. With regard to benzodiazepine tapering, providers combined tapering with support and counselling, often provided on a weekly basis, over an 8- to 12-week GDH admission.

Roles and processes of individual providers

The physicians, pharmacist and nurses discussed

benzodiazepines directly with patients, whereas other health care providers were often unaware that individual patients were tapering their benzodiazepines. The roles of various providers are detailed in Table 2.

### Physicians' role

During the initial assessment, physicians identified patients who should stop taking benzodiazepines. Tapering was often mentioned at this time but was generally not initiated until several weeks after admission. Although some patients were able to stop benzodiazepines with the aid of the physician alone, the most pharmacologically complex cases were referred to the pharmacist for assistance.

### Pharmacist's role

The pharmacist was a central figure in benzodiazepine tapering. She helped facilitate patient buy-in by providing information and motivation specific to each patient's situation. She explained the tapering process and met at least once a week with patients who were tapering their medication, to discuss concerns and provide reassurance and education about withdrawal symptoms. Each patient received a personalized tapering schedule. Some cut each dose in half at weekly intervals, whereas others decreased the frequency of doses. If the patient was taking more than one benzodiazep-

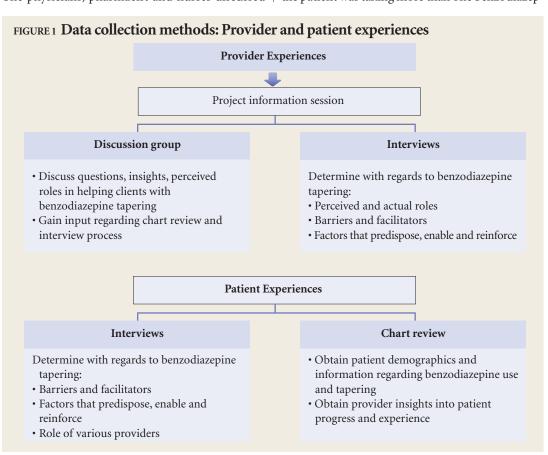


TABLE 2 Summary of provider roles in benzodiazepine tapering in a geriatric day hospital (GDH)

Provider	Overall role in GDH*	Role in benzodiazepine tapering
Physician	Assesses, provides medical care to and monitors patients; refers patients to other providers as required.  Part-time positions; attends rounds once weekly.	Discusses concerns about benzodiazepines with patients, using examples related to the patient's reason for admission to GDH, to emphasize importance of stopping the drug (may require multiple attempts).
		Involves other providers in tapering process as needed.
		Initiates, educates patients about and monitors tapering.
		Communicates with professionals in the community (e.g., other physicians, other health care providers) about patient's progress.
Nurse	Assesses, provides nursing care to, and routinely monitors patients' progress and concerns throughout	May discuss effects of benzodiazepines and tapering at initial assessment.
the GDH stay; acts as liaison among various GDH providers.  Full-time and part-time positions; attends rounds.	providers.	Monitors and supports patients throughout their GDH stay for dosage changes, adverse effects and withdrawal symptoms, including provision of objective and subjective measures of improvement to encourage and reinforce patients' progress.
	Refers patients to other providers as needs are identified throughout GDH stay.	
Pharmacist	Interviews and develops rapport with referred patients (usually focusing on the most pharmacologically complex admissions); obtains	Discusses concerns about benzodiazepines with patients, using patient's reason for GDH admission to emphasize importance of stopping these drugs.
medication history from patient, family, and/or community providers; identifies and addresses DRPs; provides comprehensive written and verbal	community providers; identifies and addresses	Initiates, educates about, and monitors tapering by meeting frequently with patients and providing written information about coping strategies (see Table 3).
	solve them; prepares and updates patient medication chart (see Table 3); provides frequent (often weekly)	Negotiates and provides specific written and verbal directions for tapering; provides weekly support.
	follow-up and monitoring of medication changes and their effects; facilitates and communicates medication changes with community providers; conducts home	Helps patients to acquire resources for tapering (e.g., pill cutters, dosettes) by liaising with community providers (e.g., community pharmacists).
	visits if needed.  Consultant to GDH (no funded pharmacist position at GDH at the time of this study)†; does not attend rounds.	Liaises with family members as needed to educate them about helping the patient to achieve tapering goals.
Social worker	Learns about patients' issues and personalizes care plan; tries to find root cause of insomnia, anxiety, falls and cognitive impairment and, in conjunction	Not generally aware of which patients are tapering, but regularly tries to find nonpharmacological approaches to address insomnia and anxiety.
	with other health care professionals, tries to devise solutions to these problems; helps to implement	Discourages polypharmacy.
	recommendations at home and to connect the patient with community resources.	Refers patients to other providers as needs are identified throughout GDH stay.
	Full-time position; attends rounds.	
Physiotherapist	Helps patients to improve their balance and/ or increase their confidence after a fall; creates individualized physiotherapy programs; continually monitors for falls during GDH stay; observes patients with cognitive impairment more carefully than other patients; encourages anxious patients to be active and use relaxation exercises.	Not generally aware of which patients are tapering, but appears to address issues related to tapering, particularly falls.
	Part-time positions; attends rounds.	
Occupational therapist	Assesses referred patients on the basis of GDH visits and home visits, if required and patient provides consent; performs thorough home visits, reviewing patient's home routine, environment and	Not generally aware of which patients are tapering but appears to address issues related to tapering, through counselling on insomnia, anxiety and prevention of falls.
	(sometimes) medications; counsels patients with insomnia and anxiety; addresses potential causes of	Looks at patient's home medications during home visits, upon pharmacist's request.
	falls and suggests solutions; uses repetition to teach patients with cognitive impairment.	Feels that knowing which patients are tapering would allow a greater contribution to the GDH tapering approach.
	Part-time positions; tries to attend rounds.	

TA	DI	10	3	cont'd

Provider	Overall role in GDH*	Role in benzodiazepine tapering
Dietitian	Evaluates and discusses nutrition with referred patients; listens to and supports anxious patients; writes down instructions for patients with cognitive impairment and communicates with family members.  Part-time consultant to GDH; does not attend rounds.	Not generally aware of which patients are tapering but appears to address issues related to tapering, through support of anxious patients.  Would like to know about all patients who are tapering.
Psychologist	Conducts cognitive assessments over 2–3 weeks for selected patients referred by physicians; determines cognitive abilities (e.g., memory, attention, concentration, language, executive functions, visuospatial processing, problem-solving and reasoning); may discuss strategies to help improve memory and concentration.  Part-time position; usually attends rounds.	Not aware of which patients are tapering.  Does not suggest medication changes.
Speech language pathologist	Provides interventions related to communication and swallowing (assessment, therapy, education, counselling); discusses sleep hygiene with patients who have insomnia; lets anxious patients talk about their worries; individualizes the care of patients with confusion and/or cognitive impairment.  Part-time position; sometimes attends rounds.	Not generally aware of which patients are tapering but appears to address issues related to tapering, through discussions about sleep hygiene and anxiety.  Would like to know which patients are having trouble tapering.
General aide	Greets patients when they arrive at GDH and accompanies them to GDH gym; waits with patients at end of day for their transportation; conducts daily exercise group; develops excellent rapport with patients, providing support and reassurance and monitoring patients' progress at GDH; communicates findings and suggestions to other team members.  Full-time position; does not attend rounds.	Not aware of which patients are tapering but very aware of how patients are affected by sleeping pills (e.g., falls, confusion) and tapering (e.g., insomnia, anxiety); helps team members monitor for these effects; notifies team members, particularly the nurse, when signs and symptoms of concern are observed.

DRP = drug-related problem.

ine, usually only one of the drugs was tapered at a time. Information was provided verbally and was also available in written form (e.g., in a file folder) in a central location accessible to both patients and their families. A variety of resources were used to help patients with the tapering process (Table 3). The pharmacist documented information about tapering (e.g., schedule, progress, patient's concerns) in the patient's chart.

Access to supplies (e.g., tablet cutters, new prescriptions) was coordinated among the pharmacist, physicians and the patient's community pharmacist. Sometimes the GDH pharmacist also attended the final family conference or spoke directly to the family members of patients with substantial cognitive impairment. It usually took several weeks to months to completely discontinue a benzodiazepine, and this represented a time-consuming portion of the pharmacist's work at the GDH.

### Nurses' role

The nurses monitored patients' progress and provided continual support and advice related directly to the benzodiazepine tapering, as well as other issues. The nurses represented a key information source for other team members and referred patients to providers as appropriate for assistance with problems such as withdrawal symptoms or management of the symptoms that triggered the prescription in the first place.

### <u>Involvement of other team members</u>

Other team members were not always aware of which patients were tapering benzodiazepines; however, they regularly provided supportive care to patients who experienced potential benzodiazepine-related effects (e.g., insomnia, anxiety, cognitive impairment, falls). There was no clear guidance about the type of care or advice, outside of their specific area of expertise, that each team member should provide to patients in relation to

<sup>\*</sup>Especially with regard to patients with insomnia, anxiety, risk of falls or cognitive impairment.

<sup>†</sup>A 0.5 full-time equivalent pharmacist position has since been funded through the Local Health Integration Network's Aging at Home funding.

## TABLE 3 Resources commonly used by pharmacist to facilitate tapering of benzodiazepines

Resource	Comments		
Patient-specific medication chart			
<ul> <li>List of current and past medications</li> <li>Rationale for and progress with medications</li> <li>Relevant medication information sheets</li> <li>Specific instructions about making medication</li> </ul>	Created and maintained by pharmacist  Updated regularly		
changes (e.g., tapering, switching) and why this is being done	throughout patient's stay		
Pamphlets about benzodiazepine tapering and sleep hygiene			
• The Why and How of Stopping Sleeping Pills	Verbal and written		
(B. Farrell) (see Appendix 1 online)	information provided and		
<ul> <li>Seniors, Sleeping Pills and Tranquilizers</li> </ul>	reiterated throughout GDH		
(Health Canada) <sup>35</sup>	stay		
<ul> <li>Wake Refreshed! How to Get a Good Night's</li> </ul>			
Sleep (Sleep Wake Disorders Canada)36			

benzodiazepine tapering. Some providers stated that they could provide reinforcement and consistent support to patients if more specific guidelines were available about each provider's role.

### Patients' experience

The 5 patients recalled that they had generally started taking benzodiazepines for relief of insomnia or anxiety. The patients reported that during their benzodiazepine therapy, they experienced symptoms that could be attributed to these drugs, such as daytime drowsiness, confusion, memory impairment and falls.

Three of the patients tapered off their benzodiazepines slowly, but 2 were able to stop without tapering. All 5 patients succeeded in stopping their original benzodiazepine therapy, and 2 of the patients switched to other medications for sleep (one from a combination of diazepam and flurazepam to trazodone and the other from oxazepam to temazepam). Patients' motivations and experiences with tapering are detailed below.

### Willingness to taper

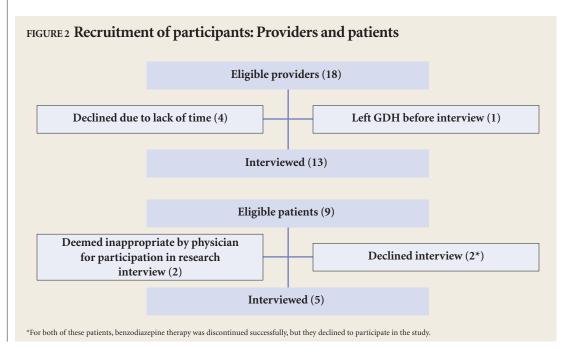
Several factors appeared to facilitate patients' willingness to taper. Most patients wanted to decrease their use of medications, to give up sleeping pills and to get a better, "more natural" sleep. Also, none of the patients had known about the adverse effects of benzodiazepines before their admission to the GDH. All were more willing to taper once adverse effects relevant to their complaints were described. When asked if anyone had described the adverse effects of sleeping pills before this study, one patient said, "No, no, I've never heard anything bad about it, except it was very much in use."

Another patient remarked, "[The GDH pharmacist] said it was a very dangerous drug, 'I wish you'd be off it,' and I said, 'All right.' So, when she told me how dangerous it was, you know, I said, 'That's fine.'"

Sometimes, initial resistance gave way to a willingness to undertake tapering: "I thought to myself, no way [will I taper] and then I thought about it and I thought, well, there's no reason why you shouldn't try."

### Tolerance of tapering

Tapering was generally well tolerated, and most patients did not find the process difficult, nor did they consider it a significant aspect of their GDH admission.



Some patients had mild, transient insomnia. Others commented that they were so tired from the daytime activity at the GDH that they were able to sleep without taking a sleeping pill.

After stopping their original benzodiazepines, several of the patients noticed positive changes, such as an increase in daytime clarity and improvement in balance. One patient had experienced morning drowsiness while taking oxazepam. Upon switching to temazepam — which she had previously used — she stated, "I'm so happy and I feel good enough that I went out Saturday night and they made me dance and I danced." In this case, the patient clearly understood the risks of continued benzodiazepine use, but had not wanted to experience even the short duration of insomnia that would result as part of the withdrawal, stating, "For heaven's sakes! I'm going to be 91 years old. What difference does it make if you give me something that . . . will hurt me in the future? How long do you think my future is?"

Most of the patients had come to view their benzodiazepines as a comfort. They liked the idea of having a "security blanket" and were hesitant to relinquish it. Nevertheless, overall, patients did not view the process of discontinuing these drugs as a significant event during their GDH admission.

### Discussion

The discontinuation of benzodiazepines is viewed as difficult because of potential withdrawal effects and reluctance on the part of both provider and patient. <sup>19,20,23</sup> Success rates have been higher with intensive approaches. <sup>27-29</sup> Over a period of many years, our GDH has succeeded in helping many patients to taper their benzodiazepine therapy. We set out to describe the components of care related to benzodiazepine tapering, as well as patients' experiences with the process, to better understand what we were doing that was helping patients with this change in medication-taking behaviour.

We discovered that many members of our interdisciplinary team appeared to be involved in supporting patients through benzodiazepine withdrawal. Care providers both knowingly (on the part of the physicians, pharmacist and nurses involved in initiating and monitoring tapering) and unknowingly (on the part of the other care providers providing support and counselling about possible withdrawal effects and coping strategies) contributed to supporting patients through the benzodiazepine tapering process. Collectively, their approaches appeared to mimic the combination of tapering and cognitive behavioural therapy (CBT) that is already known to be effective

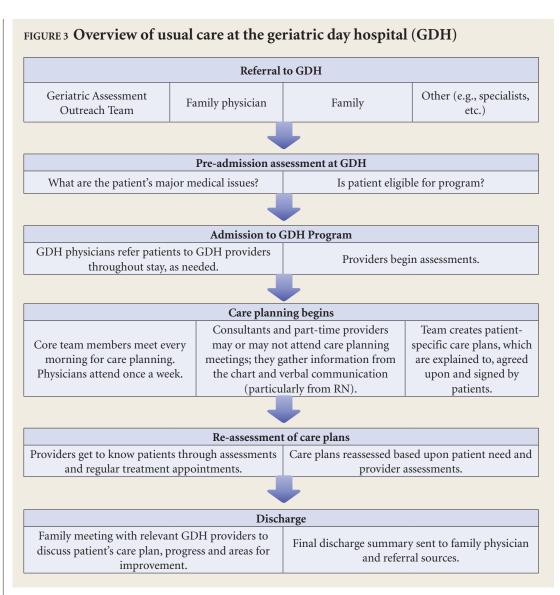
in helping patients to stop benzodiazepines.5,24,25,27-29 When provided by psychologists, this type of therapy involves behavioural, cognitive and educational components that address stimulus control and procedures for sleep restriction, thoughts that may exacerbate sleep disorders and information about sleep hygiene and benzodiazepine effects, respectively. The support of social workers in dealing with anxiety and insomnia is probably an important aspect of the CBT-like approach. The provision by a pharmacist of written information about tapering and about potential withdrawal effects and their duration is likely also an important component of a CBT-like approach.

The involvement of many members of the health care team in the process of benzodiazepine tapering goes beyond the typical activities of CBT. Similar messaging from a physician, a nurse and a pharmacist may encourage behaviour change; in fact, these providers may be seen as champions of the intervention. Nevertheless, other team members employ practices that may help patients as well. A physiotherapist's observation of and comments on improvements in balance, as well as the focus of physiotherapy on fall prevention, may provide reinforcement to patients to continue tapering. In addition, a physiotherapist's recommendations about activity and relaxation exercises may help with the management of anxiety. Similarly, occupational therapists focus on fall prevention and often offer counselling about insomnia and anxiety. The speech language pathologist allows anxious patients to talk about their worries. The psychometrist discusses strategies to improve memory and concentration. The general aide identifies patients who are particularly anxious or who have had a bad night's sleep and informs the nurse, who will know if the patient is tapering medication and who can provide support through the withdrawal process.

Our findings suggest that health care providers can share tapering tasks and CBT-like supportive

## La connaissance en pratique

- Arrêter un traitement par les benzodiazépines est difficile pour les patients et pour les praticiens qui les soignent, même si des études publiées ont montré que ces traitements avaient des effets indésirables potentiellement dangereux.
- Les thérapies intensives (p. ex., diminution progressive combinée à une thérapie cognitivo-comportementale et à un soutien continu) se révèlent plus efficaces que la simple communication d'information.
- Cette étude fournit des exemples de rôles, de processus et d'outils interdisciplinaires qui aident les patients à arrêter leur traitement par les benzodiazépines. Ces rôles, processus et outils peuvent être utilisés dans les hôpitaux de jour, dans le cadre de soins primaires et d'autres situations.
- Nous montrons que les patients peuvent avoir des expériences positives avec la diminution progressive, ce qui incite les pharmaciens à penser que la diminution progressive est tolérable et possible.



care and may thus achieve satisfactory results in helping patients to taper their benzodiazepines. We further hypothesize that such interventions may be even more successful if all team members are made aware of benzodiazepine tapering and provide support through a programmatic approach.

Although we knew that many GDH patients had successfully discontinued their benzodiazepines in the past, we did not know much about their individual experiences. Our findings, albeit for a small group of patients, suggest that patients who had been taking benzodiazepines over the long term for insomnia or mild anxiety were able to stop these drugs. Initially, most of the patients had taken benzodiazepines without knowing the potential risks; however, once the risks were explained, the patients were willing to stop or, if their insomnia did not resolve, to change to a potentially safer agent with fewer apparent adverse effects. Patients and providers have traditionally perceived tapering as a difficult process, but the

patients in this study tolerated weaning well. The tolerability and potential benefit of tapering indicates that patients eligible to stop benzodiazepines should be encouraged to try doing so.

Practitioners can use the results of this study to design their own benzodiazepine tapering interventions. Spending time informing patients of the risks of benzodiazepine use, in particular those relevant to their personal situations, can be useful in motivating behavioural change. Providing written information about tapering, the expected symptoms and their short duration can help to alleviate fears related to withdrawal. Providing counselling on sleep hygiene and anxiety can be useful in addressing the symptoms that might have originally prompted the benzodiazepine prescription or those that might recur with tapering. Offering frequent follow-up and involving other members of the health care team can keep patients motivated.

Although we were able to identify specific roles, processes and tools used by members of our team

in tapering benzodiazepines, we believe that a more intensive observation of their activities will allow us to better understand the relative impact of each component of the intervention. Our chart review did not allow us to capture as many details as we had hoped, because some providers did not document their actions in much detail. Regarding patient experiences, single interviews helped to highlight some important aspects of the tapering experience but limited the validity of the themes that we identified. Future research using ethnographic methods (e.g., shadowing, diaries), combined with longitudinal observation of patients and providers, should bring more depth and clarity to the record of their experiences.<sup>34</sup> These methods will also help us to understand the interrelationships of all components of GDH care (i.e., provider roles and processes, provider-patient interaction, team function and the GDH environment). We plan to use the findings of our current study (described in this and a companion paper, in preparation) to develop a detailed model for tapering benzodiazepines. In this model, we will respond to providers' requests that they be informed as to which patients are tapering their medications and what "messaging" they should use with individual patients. Once we have implemented the model, we will use ethnographic methods, as described above, to evaluate its effectiveness.

### Conclusion

Health care providers in a GDH team environment appeared to contribute both knowingly and unknowingly to care associated with benzodiazepine tapering, by providing appropriate information and dedicated and ongoing support to patients. In our GDH setting, the pharmacist provided pertinent information and support in collaboration with physician and nurse colleagues and patients received support regarding their symptoms from other team members. Patients appeared to find the combination of a structured approach to benzodiazepine tapering and support from an interdisciplinary team acceptable and tolerable. A companion article (currently in preparation) will outline components of care related to providers' work with individual patients, aspects of team functioning and the GDH environment as they relate to the benzodiazepine-tapering intervention. Future work will identify the relative significance of these various components of care, as well as additional details about the success of this intervention.

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### **APPENDIX 1 Patient Information Pamphlet**

### Why stop taking sleeping pills?

- Sleeping pills are usually helpful only for a short period of nightly use.
- After a few weeks, your brain gets used to having the sleeping pill, and the sleeping pill may not work as well as it did at first.
- Sleeping pills can cause morning tiredness (like a hangover), dizziness, confusion, memory loss, vision problems, daytime anxiety, accidents and falls (sometimes resulting in broken bones).
- Therefore, because sleeping pills don't work as well after a few weeks and because they can cause significant side effects, it's reasonable to try to stop taking them and learn to fall asleep on your own again.

### Why is the dose of my sleeping pill being slowly reduced?

- Slowly reducing the dose of the sleeping pill helps to reduce the severity of any withdrawal effects that you may have.
- People are more successful in stopping their sleeping pills if they slowly reduce the dose over several weeks instead of just suddenly stopping it.

### What can I expect to happen?

- Usually, people do not notice anything until the dose of the drug has been reduced by at least 75%.
- About half of people have a little difficulty sleeping at this point; this problem is worse in the
  first 1 to 3 days and resolves within a few weeks; during this time, it's important to use nondrug methods of trying to fall asleep; remember, your body needs to learn to fall asleep by
  itself again.
- A few people also have other symptoms of withdrawal; they tend to be most severe in the first few days and get better within a few weeks; call your pharmacist or family doctor for reassurance if anything odd happens.

### How can I get through this?

- Remember that you are not alone.
- You have the support of your doctor and pharmacist; call if you have questions.
- You are slowly stopping your sleeping pill because it can have side effects.
- Remember that it is OK to use a sleeping pill occasionally when you are having a particularly difficult night; just be aware of the possibility of side effects during the night and in the morning.

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### Supplemental information for the family physician, community pharmacist and patient

Gradually reducing the dose of short-acting benzodiazepines (e.g., by 25% each week) is an effective withdrawal method. It is not necessary to switch to a long-acting benzodiazepine. Patients are more successful in the withdrawal process if they are educated about possible withdrawal effects and their timing (especially resolution) and if they receive support and reassurance during the process.

Most people do not experience withdrawal effects until the dose has been reduced by at least 75% of the original dose. Studies have shown that only about half of patients experience insomnia as a withdrawal effect. This information can be reassuring for people.

A few people have also experienced other problems when their benzodiazepine is suddenly or gradually stopped. Gradually stopping the drug has been shown to reduce the severity of these withdrawal effects, but not to completely prevent them. These other withdrawal effects include tremors, anxiety, headache, difficulty concentrating, nervousness, sweating, tension, twitching, tinnitus (ringing in the ears), vision disturbances (sensitivity to light, blurred vision), perceptual changes, confusion, irritability, nausea or loss of appetite, fatigue or weakness, restlessness or agitation, increased sensitivity to sound and smell, numbness or burning sensation and fast heart rate. Sometimes reassurance is all that is needed, but any significant symptoms should be reported to the family doctor. It's possible that some patients will have some of these symptoms as an indication that an anxiety disorder is being uncovered. They may need counselling or other medication therapy. Very rarely, seizures and psychosis have been reported in people at risk for these disorders.

Many patients have no withdrawal symptoms at all.

If withdrawal symptoms do appear, they tend to be most severe in the first 1–3 days after the 75%–100% dose reduction and gradually resolve within 4–6 weeks (the amount of time it takes the brain receptors to return to their normal functioning). Reassurance during this period can be very helpful to patients.

With long-acting benzodiazepines, the only difference in withdrawal is that symptoms usually appear only after 100% dose reduction and are most severe within 7–10 days later. Resolution is the same.

This handout has been prepared to assist community pharmacists in monitoring benzodiazepine withdrawal. Please call if you are interested in the references or more detailed articles.

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