# Canadian Guidelines on Benzodiazepine Receptor Agonist Use Disorder Among Older Adults

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Canadian Coalition for Seniors' Mental Health

Coalition Canadienne pour la Santé Mentale des Personnes Âgées

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## Disclaimer:



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Guideline Methodology and Introduction to Substance Use Disorder Guidelines documents can be found on our website at **ccsmh.ca**

# Canadian Guidelines on Benzodiazepine Receptor Agonist Use Disorder Among Older Adults

## Scope

The Canadian Coalition for Seniors Mental Health (CCSMH) received a grant from the Substance Use and Addictions Program (SUAP) of Health Canada to create a set of four guidelines on the prevention, assessment, and management of **substance use disorders** among older adults for alcohol, BZRAs, cannabis, and opioids. The GRADE approach was utilized in the creation of these guidelines. The methodology can be found in a separate document at ccsmh.ca.

An introduction to these guidelines which highlights issues of relevance to all four can also be found at ccsmh.ca.

These guidelines are not intended to provide a comprehensive guide on the use of these substances either by medical prescription or recreationally. Rather, the goal of this document is to provide useful guidance for clinicians on either preventing the development of **BZRA use disorder** or optimally assessing and treating older individuals who have developed such a disorder. It is important to note that clinicians will often wish to deprescribe BZRAs in older patients because of the risk of side effects, rather than because of evidence of a BZRA use disorder. Recommendations in the management section of this document, such as those dealing with gradual dose reduction, are also relevant to this group. Although our guidelines are described in four separate documents, multiple substance use is common. Clinicians are encouraged to utilize all of the guidelines when relevant.

## Definition of Key Terms

**Benzodiazepine Receptor Agonists:** Drugs referred to as BZRAs act as allosteric modulators of gamma-aminobutyric acid (GABA) activity by binding to inotropic benzodiazepine receptors at the GABA A receptor complex. BZRAs increase GABA binding and chloride ion channel opening, facilitating inhibitory activity. Some of these drugs have a benzodiazepine chemical structure (i.e., alprazolam, bromazepam, chlordiazepoxide, clobazam, clonazepam, clorazepate, diazepam, flurazepam, lorazepam, midazolam, nitrazepam, oxazepam, temazepam, triazolam) while others, referred to as non-benzodiazepine receptor agonists, novel benzodiazepine receptor agonists, or z-drugs (i.e., zolpidem, zopiclone), do not. We use the term BZRAs for both. Our recommendations deal with all BRZAs as they have similar benefits, side effects, and risks. These drugs have regulatory approval for the management of anxiety and panic disorders, short-term treatment of insomnia, seizures, alcohol withdrawal, sedation, and spasticity. They are also often used in an off-label manner (i.e., any use of a drug beyond what Health Canada has reviewed and authorized to be marketed in Canada and as indicated on the product label), for example to treat anxious depression or the behavioural and psychological symptoms of dementia (BPSD), which are also described as responsive behaviours.

**BZRA Use Disorder:** This refers to a problematic pattern of BZRA use leading to clinically significant impairment or distress. According to DSM-5 criteria BZRA use disorder is manifested by at least two of the criteria below occurring within a 12-month period (American Psychiatric Association, 2013). It is important to note that among older adults, some of these criteria may be modified by the aging process or their social roles (e.g., retirement from work), resulting in more subtle presentations (Kuerbis et al., 2014).

- The BZRA is taken in larger amounts or over a longer period of time than intended.
- Persistent desire or unsuccessful efforts to cut down or control BZRA use.
- A great deal of time is spent in activities to obtain BZRAs, use them, or recover from their effects.
- Craving, or a strong desire or urge to use a BZRA.
- Recurrent BZRA use resulting in a failure to fulfill major role obligations at work, school, or home.
- Continued use of the BZRA despite persistent or recurrent social or interpersonal problems caused or exacerbated by their effects.
- Important social, occupational, or recreational activities are given up or reduced because of BZRA use.
- Recurrent BZRA use in situations in which it is physically hazardous.
- Continued use of the BZRA despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by drug use.
- Tolerance as defined by either a need for markedly increased amounts of the BZRA to achieve intoxication or desired effect OR a markedly diminished effect with continued use of the same amount of the BZRA (**note:** criterion not considered to be met for an individual taking the drug under medical supervision).
- Withdrawal as manifested by either characteristic withdrawal symptoms (i.e., autonomic hyperactivity, hand tremor, insomnia, nausea or vomiting, transient sensory hallucinations or illusions, psychomotor agitation, anxiety, and/or seizures) OR the BZRA (or a closely related substance such as alcohol) is taken to relieve or avoid withdrawal symptoms.

**Diagnosis**

- 1 symptom or less, no diagnosis
- 2–3 symptoms, mild BZRA Use Disorder
- 4–5 symptoms, moderate BZRA Use Disorder
- 6 or more symptoms, severe BZRA Use Disorder

**Remission**

- 3–12 months with no criteria other than craving is considered early remission.
- More than 12 months is considered sustained remission.

# Summary of Recommendations and Grades

We used the GRADE approach (Grading of Recommendations, Assessment, Development and Evaluation) as a method of grading the quality of evidence and the strength of recommendations. In following the GRADE process, the initial step was to grade the quality of available evidence supporting each recommendation. Subsequently, we identified the overall strength of the recommendation taking into account the quality of the evidence but also other factors such as the potential to do harm, the cost and feasibility.

We have also developed a separate category for recommendations which are not primarily based on empirical evidence; but have agreement that they represent best clinical practice. Examples would include: optimal assessment processes and those related to education and/or policy. These recommendations have been categorized as "C" for consensus. We did not use the GRADE process for these recommendations. Other guideline groups have used a similar approach e.g. British Association for Psychopharmacology Guidelines (Lingford-Hughes et al., 2012). While such recommendations lack empirical evidence, we believe they are also useful and important.

## GRADE

| QUALITY OF EVIDENCE | STRENGTH OF RECOMMENDATION |
|---|---|
| The quality of evidence for each recommendation is determined through an examination of the following factors: (1) Study design and the quality of the studies that were included, (2) the directness of the evidence (generalizability or applicability) and (3) the confidence that patients will benefit from the treatment. | The strength of each recommendation is determined through an examination of the following factors: (1) The balance between benefits and undesirable effects/ risks, (2) uncertainty or variability of patient values and preferences and (3) the resources associated with management options. |

****High quality evidence doesn't necessarily imply strong recommendations, and strong recommendations can arise from low quality evidence.*

### QUALITY OF EVIDENCE

| | |
|---|---|
| **HIGH** | Further research is unlikely to change confidence in the estimate of effect |
| **MODERATE** | Further research is likely to have an important impact on the confidence in the estimate of effect and may change the estimate |
| **LOW** | Further research is very likely to have an important impact on the confidence in the estimate of effect and is likely to change the estimate |

***Note:*** *Meta analyses and Randomized Controlled Trials are considered high quality vs. Observational studies which are considered low quality*

### STRENGTH OF RECOMMENDATION

| | |
|---|---|
| **STRONG** | Strong recommendations indicate high confidence that desirable consequences of the proposed course of action outweigh the undesirable consequences or vice versa. |
| **WEAK** | Weak recommendations indicate that there is either a close balance between benefits and down sides (including adverse effects and burden of treatment), uncertainty regarding the magnitude of benefits and down sides, uncertainty or great variability in patients' values and preferences, or that the cost or burden of the proposed intervention may not be justified. |

(adapted from Guyatt et al, 2008)

### RECOMMENDATION #1:

Long-term use of BZRAs (> 4 weeks) in older adults should be avoided for most indications because of their minimal efficacy and risk of harm. Older adults have increased sensitivity to BZRAs and decreased ability to metabolize some longer-acting agents, such as diazepam. All BZRAs increase the risk of cognitive impairment, delirium, falls, fractures, hospitalizations, and motor vehicle crashes. Alternative management strategies for insomnia, anxiety disorders, and the behavioural and psychological symptoms of dementia (BPSD) are recommended. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #2:

Appropriate first-line non-pharmacological options for the treatment of insomnia and anxiety disorders include cognitive behaviour therapies (CBTs) provided in various formats. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #3:

A BZRA should only be considered in the management of insomnia or anxiety after failing adequate trials of non-pharmacological interventions or safer pharmacological alternatives OR for short-term bridging until more appropriate treatment becomes effective. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #4:

An assessment of risk for BZRA use disorder and other potential adverse effects from these agents should be done prior to prescribing a BZRA. [**Consensus**]

### RECOMMENDATION #5:

If a BZRA is being considered, the older adult should be informed of both the limited benefits and risks associated with use, as well as alternatives, prior to deciding on a management plan. [**Consensus**]

### RECOMMENDATION #6:

Initiating treatment with a BZRA should be a shared decision between the prescriber and the older adult (or their substitute decision-maker). There should be agreement and understanding on how the BZRA is to be used (including planned duration of no more than 2 to 4 weeks) and monitored. [**Consensus**]

### RECOMMENDATION #7:

Older adults who are receiving a BZRA should be:

a. Educated and provided the opportunity to discuss the ongoing risks of taking BZRAs. [**GRADE: Evidence: Moderate; Strength: Strong**]

b. Encouraged to only take the BZRA for a short period of time (2 to 4 weeks or less) at the minimally effective dose. [**GRADE: Evidence: Moderate; Strength: Strong**]

c. Monitored during the course of their prescription for evidence of treatment response and effectiveness, current and potential adverse effects, concordance with the treatment plan, and/or the development of a BZRA use disorder. [**Consensus**]

d. Supported in stopping the drug, which may require a gradual reduction until discontinued. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #8:

Health care providers and organizations should consider implementing interventions to decrease inappropriate use of BZRAs in their practice settings. These include medication reviews, prescribing feedback, audits and alerts, multidisciplinary case conferences, and brief educational sessions. Regulators, health authorities, and professional organizations should consult with clinical leaders and older adults to develop and implement policies that aim to minimize inappropriate use of BZRAs. [**GRADE: Evidence: Low; Strength: Strong**]

### RECOMMENDATION #9:

Health care institutions, including acute care hospitals and long-term care facilities, should implement protocols that minimize new prescriptions for BZRAs because of the potential for harm and the risk of this leading to long-term use following discharge to the community or other transitions in care. [**GRADE: Evidence: Low; Strength: Strong**]

### RECOMMENDATION #10:

Health care practitioners, older adults, and their families should advocate for adequate access and funding of effective non-pharmacological alternatives for the management of insomnia, anxiety disorders, and BPSD. [**GRADE: Evidence: Low; Strength: Strong**]

### RECOMMENDATION #11:

Clinicians should be aware that BZRAs are prescribed more frequently to women and the potential implicit bias that may lead to inappropriate use. [**GRADE: Evidence: Low; Strength: Weak**]

### RECOMMENDATION #12:

All older adults should be asked about current and past consumption of substances that might lead to substance use disorders, including BZRAs, during periodic health examinations, admissions to facilities or services, perioperative assessments, when considering the prescription of a BZRA, and at transitions in care. [**Consensus**]

### RECOMMENDATION #13:
Health care practitioners should be aware of and vigilant to the symptoms and signs of substance use disorders, including BZRA use disorder. Particular attention should be paid to this possibility when assessing common conditions encountered in older adults, such as falls and cognitive impairment. [**Consensus**]

### RECOMMENDATION #14:
Assessment of older adults suspected of having a BZRA use disorder should include indication, dose, duration, features indicative of BZRA use disorder, readiness to change, and presence of both medical and psychiatric comorbidities, including any other past or current substance use or misuse. [**Consensus**]

### RECOMMENDATION #15:
a. Multiple substance use is common and should be considered and inquired about in all older adults with a BZRA use disorder. [**GRADE: Evidence: Moderate; Strength: Strong**]

b. Health care practitioners should avoid prescribing BZRAs concurrently with opioids whenever possible. [**GRADE: Evidence: Moderate; Strength: Strong**]

c. The combination of a BZRA with alcohol should be avoided. [**GRADE: Evidence: Low; Strength: Weak**]

### RECOMMENDATION #16:
A person-centred, stepped-care approach to enable the gradual withdrawal and discontinuation of BZRAs should be used. Clinicians and patients should share in: a) planning and applying a gradual dose reduction scheme supported by appropriate education of the patient; b) identifying and optimizing alternatives to manage the underlying health issue(s) that initiated or perpetuated the use of BZRAs; c) developing strategies to minimize acute withdrawal and managing rebound symptoms as needed; and d) establishing a schedule of visits for reviewing progress. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #17:
Abrupt discontinuation of a BZRA after intermediate to long-term use (> 4 weeks) in individuals with BZRA use disorder should be avoided due to the risk of withdrawal symptoms, substance dependence reinforcement, rebound phenomena, and/or higher likelihood of relapse with resumption of BZRA use. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #18:
Management of acute BZRA withdrawal symptoms should be monitored carefully and can be guided by a validated tool [e.g. Benzodiazepine Withdrawal Symptom Questionnaire, Clinical Institute Withdrawal Assessment-Benzodiazepine (CIWA-B)] and managed with symptom-driven judicious use of an appropriate BZRA. [**GRADE: Evidence: Low; Strength: Weak**]

### RECOMMENDATION #19:
Regimens involving multiple BZRAs should be simplified and converted to a single BZRA. [**Consensus**]

### RECOMMENDATION #20:
The routine switching of a short half-life BZRA with one having a long half-life to aid in withdrawing BZRAs is not generally recommended in older adults. Switching may have a role in certain situations, such as when withdrawal is being hindered by a limited number of available BZRA pill strengths or when alprazolam is the agent of dependence or misuse. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #21:
Psychological interventions such as CBT should be considered during efforts to withdraw BZRAs as they can improve the older adult's experiences and increase the likelihood of stopping the BZRA. [**GRADE: Evidence: High; Strength: Strong**]

### RECOMMENDATION #22:
Substituting a pharmacologically different drug as a specific intervention to mitigate BZRA withdrawal symptoms during gradual dose reduction is not routinely recommended. [**GRADE: Evidence: Moderate; Strength: Strong**]

### RECOMMENDATION #23:
Older adults with a BZRA use disorder whose drug use is escalating in spite of medical supervision, have failed prior efforts to withdraw their BZRA, are at high risk for relapse or harm, and/or suffer from significant psychopathology should be considered for referral to a specialty addiction or mental health service. [**Consensus**]

# Canadian Guidelines on Benzodiazepine Receptor Agonist Use Disorder Among Older Adults

## Rationale

Despite consensus that benzodiazepine receptor agonists (BZRAs) should be avoided whenever possible in older adults (Kuhn-Thiel et al., 2014; American Geriatrics Society, 2019), clinicians continue to frequently prescribe these medications in this patient population. Recent Canadian data suggest high rates of use persist among older adults, especially females, with 18.7% of females reporting past-year use (Statistics Canada, 2016). There is evidence, however, that the overall rate of use of BZRAs is gradually dropping in Canada. Davies et al. (2018) reported that the prescription rate for benzodiazepines among Ontario residents aged 65 and over declined from 23.2% in 1998 to 14.9% in 2013. A Quebec study of older adults reported that 9.5% of those taking benzodiazepines met Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria for substance dependence (Voyer et al., 2010).

## Minimizing BZRA Use and Preventing BZRA Use Disorder

Strategies to prevent BZRA use disorder include avoiding the initial prescription of BZRAs, particularly if consumption of these agents would place the older adult at high risk for harm, and following good prescribing practices when they are used. Informed older patients and well-trained prescribers, supported by a health care system that offers ready access to non-pharmacological alternatives, are required to achieve these aims.

**RECOMMENDATION #1:**

**Long-term use of BZRAs (> 4 weeks) in older adults should be avoided for most indications because of their minimal efficacy and risk of harm. Older adults have increased sensitivity to BZRAs and decreased ability to metabolize some longer-acting agents, such as diazepam. All BZRAs increase the risk of cognitive impairment, delirium, falls, fractures, hospitalizations, and motor vehicle crashes. Alternative management strategies for insomnia, anxiety disorders, and the behavioural and psychological symptoms of dementia (BPSD) are recommended.**
[GRADE: Evidence: Moderate; Strength: Strong]

BZRAs are not first-line agents for the treatment of anxiety, insomnia, or BPSD in older adults because of their minimal efficacy and concerns about adverse effects (el-Guebaly et al., 2010; Vaapio et al., 2015; Gage, 2016; Jansen et al., 2016). These drugs are included in commonly used lists of medications to avoid in older adults (Hamilton et al., 2011; Kuhn-Thiel et al., 2014; American Geriatrics Society, 2019).

Age-related changes in pharmacokinetics and pharmacodynamics result in a greater risk of adverse effects with BZRAs in older adults at doses lower than cited as effective (Tamblyn et al., 2005; Vaapio et al., 2015). Adverse effects include falls, fractures, cognitive impairment, delirium, incontinence, respiratory depression, and unplanned hospitalization (American Geriatrics Society, 2009; Assem-Hilger et al., 2009; Lin et al., 2017). BZRAs can also negatively affect driving skills and are associated with higher motor vehicle crash rates at all ages (Leufkens & Vermeeren, 2009; Kang et al., 2012).

Prescribers need to be aware of how frequently and quickly dependency on BZRAs can develop. As many as 15% of regular users have been found to be dependent after 4 months and 50% after 2 years of use, with some sources citing even higher rates (el-Guebaly et al., 2010). Efforts to reduce physiological dependency would include minimizing dosages, prescribing only for short periods of time, and/or only using intermittently (Ibid). It should be noted that there are a few conditions, such as REM sleep disorder, for which longer-term use of a BZRA might be appropriate (Aurora et al., 2010).

### RECOMMENDATION #2:

**Appropriate first-line non-pharmacological options for the treatment of insomnia and anxiety disorders include cognitive behaviour therapies (CBTs) provided in various formats.** [GRADE: Evidence: Moderate; Strength: Strong]

Both the American College of Physicians (2016) and the European Sleep Research Society (2017) recommend CBT for insomnia (CBTi) as the first-line treatment for insomnia, with BZRAs and other sedative-hypnotics reserved for use in patients who fail to benefit from CBTi (Qaseem et al., 2016; Riemann et al., 2017). This recommendation is based on the results of numerous randomized controlled trials involving a wide range of patients (including older adults with multiple comorbidities) and the poor risk/benefit ratio of pharmacotherapies for insomnia. Both CBTi provided by a therapist (individually or as a group) or using a self-help approach (e.g., CBTi-based books, online services, and apps) has been shown to be effective. Sleepwell (Sleepwell.ca, 2018) provides information about and links to self-help CBTi resources. Simple sleep hygiene approaches can be attempted, although the evidence in support of this approach is limited and equivocal (Irish et al., 2015).

A meta-analysis by Hendricks et al. (2008) showed that CBT provided in a group or individually is an effective treatment for anxiety (Hendriks et al., 2008; Ursuliak et al., 2008; Soyka, 2017). Enhanced CBT modifies the standard approach to CBT to better meet the needs of an older population (Mohlman et al., 2003; Cassidy & Rector, 2008; Ursuliak et al., 2008) and significantly improves measures of depression, anxiety, and quality of life in depressed and anxious seniors (Ursuliak et al., 2008). Exposure and response prevention can be used in CBT to reduce anxiety symptoms and redress the underlying avoidance that perpetuates anxiety disorders (Davis et al., 2012).

### RECOMMENDATION #3:

**A BZRA should only be considered in the management of insomnia or anxiety after failing adequate trials of non-pharmacological interventions or safer pharmacological alternatives OR for short-term bridging until more appropriate treatment becomes effective.**
[GRADE: Evidence: Moderate; Strength: Strong]

The most effective approach to minimizing BZRA use disorders is avoiding their use. Strategies for this include: primary prevention of conditions in which BZRAs are often prescribed (e.g., insomnia, anxiety disorders, and depressive disorders); greater use of non-pharmacological alternatives; preferential use of recommended first-line pharmacological treatments for anxiety and depression; and, ongoing education about the risks of BZRA use (Glass et al., 2005; Sithamparanathan et al., 2012; Gage, 2016).

Antidepressants (Selective serotonin reuptake inhibitors [SSRIs] and Serotonin and norepinephrine reuptake inhibitors [SNRIs]) are recommended first-line pharmacotherapy for anxiety and depressive disorders in older adults (Katzman et al., 2014; Kok, 2014; Thorlund et al., 2015). BZRAs are not recommended for these indications other than for short-term use to relieve severe anxiety (Qaseem et al., 2016). As noted, insomnia should not be treated with BZRAs or other sedative-hypnotics options unless more effective and safer non-pharmacological options have been tried and shown to be ineffective. The 2017 practice guideline by the American Academy of Sleep Medicine for the pharmacological treatment of insomnia provides no strong recommendation for any medication currently approved or commonly used to treat insomnia in the United States (Qaseem et al., 2016; Riemann et al., 2017).

### RECOMMENDATION #4:

**An assessment of risk for BZRA use disorder and other potential adverse effects from these agents should be done prior to prescribing a BZRA.** [Consensus]

Awareness of risk factors for developing dependence on a BZRA and BZRA use disorder can help avoid inappropriate use. Identified risk factors include: older age, female gender, dependent personality, and concurrent or previous substance use disorder (Gage, 2016). As the dose of BZRA can affect the likelihood of success with tapering (more likely if < 10 mg diazepam equivalent/day equivalent), use of lower doses might help decrease rates of BZRA use disorders overall (J. Brett & Murnion, 2015).

### RECOMMENDATION #5:

**If a BZRA is being considered, the older adult should be informed of both the limited benefits and risks associated with use, as well as alternatives, prior to deciding on a management plan.** [Consensus]

Awareness of the risks of BZRAs is important both for patients and prescribers (Cook et al., 2007; Canham et al., 2014). Patient knowledge has been shown to correlate with successful tapering of medications, while the attitudes and skills of primary care physicians have an impact on efforts to reduce doses among chronic users of BZRAs. Lack of awareness of the risks of use can limit efforts to optimize use and lead to delayed recognition of use disorder and other adverse effects, such as fatigue, falls, and depression. Older patients are less likely to recognize dependency or bring concerns to their physicians, whose own lack of awareness might make it even more difficult to identify the presence of a disorder (Kuerbis et al., 2014). It is recommended that clinicians offer patients education about the risks of BZRAs and make greater use of non-pharmacological and alternative pharmacological therapies. Physicians often describe having limited skills in reducing BZRA dosages or knowledge of alternative treatments (Cook et al., 2007).

### RECOMMENDATION #6:

**Initiating treatment with a BZRA should be a shared decision between the prescriber and the older adult (or their substitute decision-maker). There should be agreement and understanding on how the BZRA is to be used (including planned duration of no more than 2 to 4 weeks) and monitored.** [Consensus]

BZRAs are high-risk medications in older adults. As a result, their prescription should follow the same principles used with other high-risk medication (please see narrative for recommendations #5 and #7). Prescriptions should be limited to 14 to 28 days.

### RECOMMENDATION #7:

**Older adults who are receiving a BZRA should be:**

**a. Educated and provided the opportunity to discuss the ongoing risks of taking BZRAs.** [GRADE: Evidence: Moderate; Strength: Strong]

Awareness among older adults of BZRA risks allows them to make informed decisions and may improve outcomes (Funk, 2004; Say et al., 2006; Moreau et al., 2012; Turner & Tannenbaum, 2017). Pharmacist-led educational interventions consisting of a patient brochure about the risks of BZRAs and alternatives (Tannenbaum et al., 2014; Martin & Tannenbaum, 2017) coupled with an evidence-based pharmaceutical opinion recommending deprescription that is communicated to the prescribing physician (Martin et al., 2018) and one-time counselling of patients (Salonoja et al., 2010) have been shown to decrease the use of BZRAs in community dwelling older adults.

**b. Encouraged to only take the BZRA for a short period of time (2 to 4 weeks or less) at the minimally effective dose.** [GRADE: Evidence: Moderate; Strength: Strong]

BZRA product monographs for the treatment of insomnia recommend short treatment durations (i.e., 2 to 4 weeks or less). When BZRAs are used as a bridging medication for anxiety disorders, it may take 4 to 6 weeks for patients to begin to respond to the first-line treatment. Longer-term use should only be considered in exceptional circumstances (e.g., end-of-life care).

**c. Monitored during the course of their prescription for evidence of treatment response and effectiveness, current and potential adverse effects, concordance with the treatment plan, and/or the development of a BZRA use disorder.** [Consensus]

As with any medication, the prescribing health care practitioners must provide appropriate follow-up care. Patients should be monitored for evidence of effectiveness and signs of any complications. Drug therapy should be stopped if it is not effective or the risks of continued use outweigh the benefits.

**d. Supported in stopping the drug, which may require a gradual reduction until discontinued.** [GRADE: Evidence: Moderate; Strength: Strong]

See the narratives for recommendations #16 and #17.

### RECOMMENDATION #8:

**Health care providers and organizations should consider implementing interventions to decrease inappropriate use of BZRAs in their practice settings. These include medication reviews, prescribing feedback, audits and alerts, multidisciplinary case conferences, and brief educational sessions. Regulators, health authorities, and professional organizations should consult with clinical leaders and older adults to develop and implement policies that aim to minimize inappropriate use of BZRAs.** [GRADE: Evidence: Low; Strength: Strong]

A variety of strategies to improve prescribing practices, with the goal of reducing BZRA use, have been studied. Although the effect sizes are variable, relatively modest interventions not requiring large financial or human resource commitments have been shown to be helpful. Increasing awareness and education have been the focus of most interventions, rather than structural changes such as formulary restriction. Brief interventions, such as lectures about adverse drug effects, have also been shown to reduce use (Salonoja et al., 2010; Mugunthan et al., 2011; Soyka, 2017). Organizational strategies in care facilities that are useful in BZRA reduction include pharmacist-led chart audits, medication reviews, interdisciplinary care conferences, and educational sessions for staff (Westbury et al., 2010). Some strategies to improve BZRA prescribing practices have also successfully focused on optimizing the use of other psychotropic medications, such as reducing the use of antipsychotics. (Westbury et al., 2018).

### RECOMMENDATION #9:

**Health care institutions, including acute care hospitals and long-term care facilities, should implement protocols that minimize new prescriptions for BZRAs because of the potential for harm and the risk of this leading to long-term use following discharge to the community or other transitions in care.** [GRADE: Evidence: Low; Strength: Strong]

Transitions of care are high-risk periods for older adults. BZRAs are frequently used during hospital admissions, often with the intent of short-term use. However, database studies have found that a small but significant percentage of the long-term use of BZRAs in the community start during hospitalizations. A Canadian study found that 3.5% of older hospitalized patients had a BZRA prescription that lasted beyond the hospital stay, with 1.5% still receiving BZRAs 6 months after discharge (Bell et al., 2007). Risks for long-term use included concurrent alcohol use, intensive care unit (ICU) stay, comorbid medical conditions, and use of multiple other medications.

Choosing Wisely Canada (CWC) is a national voice for reducing unnecessary tests and treatments in health care. A Psychiatry CWC recommendation is to avoid routine continued use of BZRAs that were initiated during an acute care hospital admission without a careful review and plan for tapering and discontinuing, ideally prior to hospital discharge. Medication reconciliation (the systematic and comprehensive review of all the medications a patient is taking to ensure that medications being added, changed, or discontinued are carefully evaluated) is a Required Organizational Practice of Accreditation Canada and should be done when older adults are admitted, transferred, and discharged from a health care facility (Accreditation Canada et al., 2012). There are a variety of approaches to medication reconciliation. We recommend that it include a comprehensive review of the appropriateness of current medications and development of a management plan related to ongoing use. Such an approach offers opportunities to critically review the indications for BZRAs, consider the risk/benefits of continued use for individual patients, and optimize BZRA use.

**RECOMMENDATION #10:**

**Health care practitioners, older adults, and their families should advocate for adequate access and funding of effective non-pharmacological alternatives for the management of insomnia, anxiety disorders, and BPSD.** [GRADE: Evidence: Low; Strength: Strong]

There is good evidence that the first-line treatments for most patients with these conditions are non-pharmacological. Even when pharmacological treatment is indicated, it should be used along with non-pharmacological interventions. However, there is limited access to and provincial coverage for non-pharmacological treatments, especially if not provided by a physician. Even when provided by a physician, there are often limits placed on the frequency and duration of therapy. Advocacy by individuals, seniors' groups, and national organizations and associations can potentially help to change rules for the provincial funding of non-pharmacological treatments (CMPA, Arya, 2013; 2017). Individual clinicians may suggest to those they care for that they write letters to their Member of Parliament (MP) or provincial representative. The limitations to access and to funding are unlikely to change without effort from providers, those in need of care, and the organizations that advocate for them.

**RECOMMENDATION #11:**

**Clinicians should be aware that BZRAs are prescribed more frequently to women and the potential implicit bias that may lead to inappropriate use.** [GRADE: Evidence: Low; Strength: Weak]

Historically, marketing of psychiatric medications has tended to emphasize their use by women. Women are more frequently portrayed in print advertisements for antidepressants or anti-anxiety medications targeted at prescribers (Munce et al., 2004). The concept of implicit bias (the attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner) has affected perspectives in a variety of fields, including health care. The association between gender and use of BZRAs has been shown in multiple drug database studies and reports (CIHI, 2018). Implicit bias may be contributing to this greater likelihood of BZRA use among women in the management of anxiety and insomnia. Clinicians should minimize use of BZRAs regardless of the gender of the person being treated but should be aware of the higher use among women and the potential role of implicit bias in their prescribing practices.

# Recognition and Assessment of BZRA Use Disorder

Clinicians may underestimate the likelihood of substance misuse or a substance use disorder among older adults. It is therefore important to conduct a comprehensive history of current and past use of substances, including BZRAs. Although our Guidelines are described in four separate documents, multiple substance use is common. A comprehensive assessment is recommended when substance use disorder is suspected.

**RECOMMENDATION #12:**

**All older adults should be asked about current and past consumption of substances that might lead to substance use disorders, including BZRAs, during periodic health examinations, admissions to facilities or services, perioperative assessments, when considering the prescription of a BZRA, and at transitions in care.** [Consensus]

Substance use (e.g., alcohol, BZRAs [and other sedatives, hypnotics, or anxiolytics], cannabis, hallucinogens, inhalants, opioids, stimulants, tobacco) is common among older Canadians (Patten, 2018) but often remains unrecognized by their health care providers (Saitz et al., 1997). Inquiring about current and prior use of these substances in a non-judgmental, non-ageist manner will normalize conversations about them and help determine if use is or was present. This information is a necessary first step in the detection of substance use disorders and can aid in the assessment of presentations where their use may be a contributing factor to other medical concerns (e.g., confusion, falls). Detection of use can also lead to the avoidance of adverse drug interactions and provide opportunities for education, counselling, and/or referral of the older adult to treatment programs.

**RECOMMENDATION #13:**

**Health care practitioners should be aware of and vigilant to the symptoms and signs of substance use disorders, including BZRA use disorder. Particular attention should be paid to this possibility when assessing common conditions encountered in older adults, such as falls and cognitive impairment.** [Consensus]

Lack of awareness or recognition of BZRA use disorders among both older adults and their clinicians is of concern. Use of DSM-5 criteria are recommended for the detection of a BZRA use disorder (the 11 DSM-5 criteria for BZRA use disorder are listed on page 5 above). The number of diagnostic criteria present can be used to gauge the severity of the substance use disorder: 2 to 3 indicates mild severity, while 4 to 5 would be indicative of moderate severity, and 6+ would indicate the presence of a severe substance use disorder. There are unique challenges (e.g., higher likelihood of impaired cognition interfering with ability to self-monitor, sensitivity to BZRAs, changes in activity and role obligations, attributing manifestations to other known health issues) in the diagnosis of a substance use disorder in an older adult using these criteria (Rao & Crome, 2016; Han & Moore, 2018).

Another diagnostic system used in some countries is the International Classification of Diseases (ICD-10), which separates Harmful Use from Dependence. The latter includes cravings, tolerance, evidence of withdrawal, difficulties controlling use, neglect of alternative pleasures or interests, and persisting use despite evidence of harm. The five-item Severity of Dependence Scale is a recommended instrument for the detection of BZRA psychological dependency in the community (de las Cuevas et al., 2000).

A single screening question ("How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?") was validated for the detection of substance use disorders in an American primary care setting (Smith et al., 2010), but is not recommended for use in Canada prior to testing in our country. A two-question pre-screen (a positive response to either having tried to cut down or having used more than intended over the last year) has been suggested as a way to detect individuals who require a more in-depth assessment for a possible substance use disorder (Schonfeld et al., 2015).

**RECOMMENDATION #14:**

**Assessment of older adults suspected of having a BZRA use disorder should include indication, dose, duration, features indicative of BZRA use disorder, readiness to change, and presence of both medical and psychiatric comorbidities, including any other past or current substance use or misuse.** [Consensus]

The assessment should be done in a nonjudgmental, non-ageist manner, taking into account the values and experiences of the older adult (Royal College of Psychiatrists, 2015). A systematic evaluation of BZRA use as well as the characteristics of the older adult, including their environment are required. Inquiry about the BZRA would include onset of consumption, indication(s) for use, name of agent(s), manner taken (dose, route, duration), how BZRA was obtained (including whether aberrant drug-taking behaviours are present), pattern of intake (e.g., escalating vs. stable), and use of other substances.

The presence of substance use disorder criteria, severity of the disorder (if present), prior interventions, and readiness to change should also be determined. The characteristics of the older adult that must be noted include age, gender, personal and family psychiatric history (including past history of substance use disorders), medical history (including potential BZRA adverse effects, such as anterograde amnesia, inattention, delirium, disinhibition, sedation, motor impairment, imbalance, and falls), other medication use (including potential adverse interactions), intake of caffeine, and functional status (Griffin et al., 2013).

Patient assessment should include vital signs, indications of possible withdrawal, focused physical examination including balance and gait, and a mental status exam including an objective brief assessment of cognition. Living arrangements (including stability) and social support, both currently and potentially available, should be determined. When possible, collateral information should be obtained (J. Brett & Murnion, 2015). The information gathered should then be used to construct a treatment plan with the older adult.

**RECOMMENDATION #15:**

**a. Multiple substance use is common and should be considered and inquired about in all older adults with a BZRA use disorder.** [GRADE: Evidence: Moderate; Strength: Strong]

Among U.S. veterans, more than 25% of those with one substance use disorder had an additional substance use disorder (Bhalla et al., 2017). Rounsaville et al. (2003) wrote in their review of the topic that, "Substance abusing patients who exclusively abuse a single substance have become progressively scarce and unrepresentative of the general population of substance abusers in community and clinical settings".

Both population and clinical surveys indicate that the majority of those with a current substance use disorder are taking multiple psychoactive substances and meet current or lifetime criteria for multiple substance use disorders. Data from the United States indicate that the odds of past-year multiple substance use disorders are greater among males, younger adults, African-Americans, and those with mood, personality, posttraumatic stress, or multiple psychiatric disorders (McCabe et al., 2017).

**b. Health care practitioners should avoid prescribing BZRAs concurrently with opioids whenever possible.** [GRADE: Evidence: Moderate; Strength: Strong]

Narcotic overdoses are significantly more likely to occur if an opioid is combined with a BZRA (Karaca-Mandic et al., 2017; Sun et al., 2017). In the United States, benzodiazepines are present in more than 30% of overdoses involving prescription opioids (Karaca-Mandic et al., 2017). There is also a higher mortality rate with an opioid overdose if the two are combined (Dasgupta et al., 2016). The Center for Disease Control and Prevention (CDC) 2016 Guideline for prescribing opioids for chronic pain recommends avoidance of concurrent prescription of opioid pain medication and benzodiazepines whenever possible (Dowell et al., 2016). Canadian guidelines on the management of chronic non-cancer pain state that opioids and benzodiazepines should be prescribed together only rarely (Busse et al., 2017).

**c. The combination of a BZRA with alcohol should be avoided.** [GRADE: Evidence: Low; Strength: Weak]

Alcohol can potentiate and worsen sedation when combined with a variety of medications, including BZRAs. As with opioids, there are observational studies that suggest that the combination of alcohol and benzodiazepines is common among patients who are admitted with overdoses and is associated with a higher risk of death (Koski et al., 2003; Jones et al., 2014; Zanjani et al., 2016).

# Management of BZRA Use Disorder

This section focuses on the management of individuals who have developed a BZRA use disorder. Even without evidence of a BZRA use disorder, clinicians will often wish to deprescribe BZRAs in older patients because of the risk of side effects. Many of the recommendations in this section of the document, such as those focusing on gradual dose reduction, are also relevant to this group.

**RECOMMENDATION #16:**

**A person-centred, stepped-care approach to enable the gradual withdrawal and discontinuation of BZRAs should be used. Clinicians and patients should share in: a) planning and applying a gradual dose reduction scheme supported by appropriate education of the patient; b) identifying and optimizing alternatives to manage the underlying health issue(s) that initiated or perpetuated the use of BZRAs; c) developing strategies to minimize acute withdrawal and managing rebound symptoms as needed; and d) establishing a schedule of visits for reviewing progress.** [GRADE: Evidence: Moderate; Strength: Strong]

A stepped care approach to deprescribing BZRAs, starting with brief interventions and then progressing to multicomponent approaches, was pioneered by Lader and Russel (1993) and remains the standard of care (Lingford-Hughes et al., 2012). The stepped care approach emphasizes patient involvement in developing and modifying the treatment plan. Jansen and colleagues summarize the importance of shared decision-making in reducing inappropriate

drug therapy in older adults, highlighting the need to respect patient goals and values (Jansen et al., 2016). A large study of older adult BZRAs users given instructions to reduce use coupled with a lecture about risks by a geriatrician revealed a sustained decrease in regular use by 35% (Salonoja et al., 2010).

Self-efficacy (an individual's belief in their ability to achieve goals) is a predictor of adherence with a tapering protocol (Belanger et al., 2005). Canadian print and online educational resources include the Sleepwell website, deprescribing.org, and the Canadian Deprescribing Network. A Canadian guideline on deprescribing BZRAs used primarily for insomnia was published recently (Pottie et al., 2018).

Gradual dose reduction (GDR) is the central tenet in discontinuing long-term BZRA use. A pharmacist working together with the older adult and prescriber can assist in the development of a practicable dose reduction plan, making modifications as necessary. Establishing a plan is required for regular meetings to both monitor progress of deprescription and assess and manage underlying health issue(s) that may have instigated or perpetuated BZRA use. An approach to overcoming resistance is important and can include: involving the family, explaining that tapering is a therapeutic trial that can be halted, and emphasizing that tapering often results in the person having better mood, energy, and function, with reduced risk of falls and other adverse events.

### RECOMMENDATION #17:

**Abrupt discontinuation of a BZRA after intermediate to long-term use (> 4 weeks) in individuals with BZRA use disorder should be avoided due to the risk of withdrawal symptoms, substance dependence reinforcement, rebound phenomena, and/or higher likelihood of relapse with resumption of BZRA use.** [GRADE: Evidence: Moderate; Strength: Strong]

BZRA withdrawal is characterized by a constellation of physical, emotional, and cognitive symptoms that range in severity. They include hypertension, tachycardia, agitation, depressive or anxiety symptoms, tremor, headache, and paresthesias. Less commonly, they include psychosis, depersonalization, delirium, seizures, and rarely death (Hoffman et al., 2014). Onset varies with the elimination half-life of the BZRA (1 to 2 days for short-acting agents and up to several weeks for long-acting ones) (Naranjo et al., 1981; Greenblatt et al., 1983; Leslie & Inouye, 2011; White et al., 2012; Hoffman et al., 2014). A small number of patients may experience a protracted withdrawal syndrome lasting months.

As a result of age-related decreases in drug clearance, withdrawal symptoms may be less acute in older adults (Schweizer et al., 1989; Cantopher et al., 1990), but these individuals may be more prone to cognitive effects such as confusion (Foy et al., 1986). Risk factors for BZRA withdrawal include greater daily doses of the BZRA, use of short-acting agents, and chronic sustained use. Symptoms of depression and anxiety, less education, and certain personality traits increase the risk of severe withdrawal symptoms (Rickels et al., 1990; Nelson & Chouinard, 1999). The greater prevalence of cardiovascular disease and cognitive impairment among older adults predisposes them to experiencing delirium or demand-related cardiovascular ischemia during withdrawal, especially in the postoperative setting (Biswas et al., 2005; Brown & Deiner, 2016). Older adults with BZRA use disorders may require increased doses of anaesthetic agents for induction (White et al., 2012; Moran et al., 2015).

Supervised GDR is the preferred tapering strategy. The ideal rate of tapering has not been established, although initially decreasing the dosage by 10% to 25% every 1 to 2 weeks is a reasonable strategy for most older adults, though the type of BZRA, dosage used, and duration of therapy will influence this. With GDR, withdrawal symptoms are usually mild or absent (Paquin et al., 2014; Ng et al., 2018; Pottie et al., 2018).

Various rates of tapering have been studied but not compared head-to-head. During the earlier stages of withdrawal, dose reductions are generally better tolerated than in the latter stages, when the pace of tapering may have to be slowed. It may take up to 6 months to successfully wean an older adult off a BZRA (Lader & Russell, 1993; Voshaar et al., 2006; Lingford-Hughes et al., 2012; RACGP, 2017).

Please see Table 1 for suggestions on tapering. Knowing the indication for the BZRA may aid in the identification of likely relapse symptoms. Inpatient admission should be a consideration for patients withdrawing from very high doses. Patients who have had a short duration of use or have been taking very low dosage of a BZRA may not require tapering.

| DURATION OF USE | RECOMMENDED TAPER RATE | RECOMMENDED TAPER DURATIONS | COMMENTS |
|---|---|---|---|
| **< 2 to 4 weeks** | N/A | N/A | Tapering may not be required unless there are signs of (or multiple risk factors for) withdrawal syndrome |
| **4 weeks to 6 months** | 10% to 25% of current BZRA dose every 1 to 2 weeks (consider slower rate at end) | 1 to 3 months | Factors to be considered in deciding on rate of tapering include current BZRA dose, half-life of the agent, severity of substance use disorder or other BZRA adverse effects, emergence of withdrawal symptoms, presence of polysubstance use, drug formulation and ease of dividing/ compounding, and patient preference |
| **> 6 months** | 10% of current BZRA dose every 2 to 4 weeks (slower rate at end) | 3 to 6 months | |

Table 1. Recommended BZRA tapering schedule

### RECOMMENDATION #18:

**Management of acute BZRA withdrawal symptoms should be monitored carefully and can be guided by a validated tool [e.g. Benzodiazepine Withdrawal Symptom Questionnaire, Clinical Institute Withdrawal Assessment-Benzodiazepine (CIWA-B)] and managed with symptom-driven judicious use of an appropriate BZRA.** [GRADE: Evidence: Low; Strength: Weak]

BZRA withdrawal is triggered by an abrupt discontinuation or marked dose reduction of a BZRA in an individual on chronic therapy. While there are a variety of tools for assessing benzodiazepine withdrawal, only the CIWA-B, Benzodiazepine Withdrawal Symptom Questionnaire, and Physician Withdrawal Checklist have been validated among adults (Busto et al., 1986; Tyrer et al., 1990; Rickels et al., 2008). While these scales have been used to monitor older patients in deprescribing programs and clinical trials, they have not been specifically validated among adults at an advanced age or those with cognitive impairment. In order to manage distressing symptoms during withdrawal, judicious use of a BZRA guided by symptoms may be required.

### RECOMMENDATION #19:

**Regimens involving multiple BZRAs should be simplified and converted to a single BZRA.** [Consensus]

The risks (e.g., adverse drug events, non-adherence, drug interactions) of the simultaneous use of multiple medications in older people are well documented (Cooper et al., 2015). Therapeutic duplication (i.e., concurrent use of more than one drug from a class) represents potentially inappropriate medication use. The concurrent consumption of multiple BZRAs can result in exaggerated pharmacological effects, unintended overdosing, and other potential adverse reactions. While concurrent use of two or more BZRAs may be intentional, it often arises when patients have multiple prescribers and/or pharmacies. In an effort to minimize the risk of adverse effects and also to set the stage for an attempt to wean the older adult off BZRAs, it is recommended that multiple BZRA regimens be simplified to the use of a single BZRA. This will require a dosage of the BZRA used that is equipotent to the sum of the multiple BZRAs that the older adult had been taking (Ashton, 2007). Various BZRA equivalency tables are available in print and online, for example: https://www.benzo.org.uk/bzequiv.htm.

### RECOMMENDATION #20:

**The routine switching of a short half-life BZRA with one having a long half-life to aid in withdrawing BZRAs is not generally recommended in older adults. Switching may have a role in certain situations, such as when withdrawal is being hindered by a limited number of available BZRA pill strengths or when alprazolam is the agent of dependence or misuse.** [GRADE: Evidence: Moderate; Strength: Strong]

There is limited evidence to support switching from a short- to a long half-life BZRA before beginning GDR (Denis et al., 2006). It may be useful if reduction of the short half-life BZRA causes problematic withdrawal symptoms. Avoidance of routine replacement with long half-life BZRA is prudent in older adults because they are prone to drug accumulation with long half-life agents due to age-related changes in pharmacokinetic processes. Alprazolam is considered to have some unique properties that increase its misuse liability (Ait-Daoud et al., 2018). As a result, it should be tapered very slowly, and substitution with a longer half-life BZRA, such as clonazepam could be considered with this drug. Advice from a specialty service may be required in dealing with alprazolam, especially if it has been used at a high dose and/or a prolonged period of time.

### RECOMMENDATION #21:

**Psychological interventions such as CBT should be considered during efforts to withdraw BZRAs as they can improve the older adult's experiences and increase the likelihood of stopping the BZRA.** [GRADE: Evidence: High; Strength: Strong]

The enhancement of Gradual Dose Reduction (GDR) with psychological interventions is among the most studied multicomponent interventions to reduce benzodiazepine use in older adults. High-quality evidence has emerged with the use of CBT in particular. A meta-analysis of adults aged 50+ in various treatment settings by Gould et al. (2014) found odds ratios for not using benzodiazepines at the completion of the intervention and then 3 and 12 months afterwards of 5.06, 3.90, and 3.00, respectively, when GDR was combined with psychological interventions(Gould et al., 2014.) Systematic reviews by Reeve (2017) and Paquin (2014) provided similar support. A Cochrane Review (Darker et al., 2015) of mixed-age benzodiazepine users reported that GDR plus CBT was more likely to result in discontinuation of benzodiazepines at the completion of treatment (relative risk [RR] 1.40) and at 3-month follow-up (RR 1.51) but with unclear longer-term benefits.

Research to date has focused on benzodiazepines. It is likely similar benefits would apply to withdrawal from z-drugs, but this requires extrapolation from the available data. There are few (if any) potential risks, durable effects beyond the end of the intervention, and secondary benefits (i.e., dealing with emotional distress, sleep, quality of life). Access, feasibility in individuals with moderate-to-severe cognitive impairment, and the need for a motivated patient may be limiting. Further work is needed to better define the specific cognitive and/or behavioural elements that are most beneficial.

### RECOMMENDATION #22:

**Substituting a pharmacologically different drug as a specific intervention to mitigate BZRA withdrawal symptoms during gradual dose reduction is not routinely recommended.** [GRADE: Evidence: Moderate; Strength: Strong]

Adding a pharmacologically different medication when withdrawing a BZRA has been studied in a small number of trials involving older adults. Melatonin, trazodone, carbamazepine, paroxetine, divalproex, buspirone, and progesterone have been examined as agents either prescribed on a temporary or permanent basis (Gould et al., 2014; Paquin et al., 2014; Wright et al., 2015; Reeve et al., 2017). Their routine use cannot be recommended because of the lack of consistent benefit and the heterogeneity of these studies.

Other considerations include potential toxicity of replacement agents, risks of polypharmacy, and misalignment with the desire of most patients to avoid unnecessary medications. Gabapentinoids (gabapentin and pregabalin) have been considered potentially helpful because they are GABA analogs. However, they cannot be recommended, as they have not been well-studied in BZRA withdrawal (Fluyau et al., 2018). These drugs are not approved for the indication of BZRA withdrawal and carry their own risk for misuse (Mayor, 2018; Peckham et al., 2018).

A recent review (Markota et al., 2016) advises against the routine use of another pharmacological agent to support efforts to discontinue BZRAs. The British Association for Psychopharmacology (Lingford-Hughes et al., 2012) likewise cautions against routinely using another drug but notes that this can be considered for individual patients. The use of pharmacologically distinct medications may be appropriate when being used for the treatment of an ongoing condition that instigated or is perpetuating the use of the BZRA.

**RECOMMENDATION #23:**

**Older adults with a BZRA use disorder whose drug use is escalating in spite of medical supervision, have failed prior efforts to withdraw their BZRA, are at high risk for relapse or harm, and/or suffer from significant psychopathology should be considered for referral to a specialty addiction or mental health service.** [Consensus]

Many older adults with BZRA use disorders can be successfully treated as outpatients in a primary care setting. Those who have failed previous attempts of withdrawal or are at high risk of relapse, including individuals with severe concurrent psychopathology, should be referred for specialty care (Lader & Russell, 1993; Welsh Government, 2011; Paquin et al., 2014; Yokoi et al., 2014; J. Brett & Murnion, 2015). The ideal specialty program would take a holistic interdisciplinary approach consisting of medical, addiction, and psychiatric expertise, with access to support from pharmacists, case managers, and peer support workers working collectively to translate the treatment plan into action. Unfortunately, few centres can offer such a comprehensive "one-stop" service, able to address the unique needs of older adults. In the treatment of concurrent disorders, addiction and mental health conditions should be treated in parallel as opposed to sequentially. Strategies such as very short dispensing periods or daily witnessed ingestion may be helpful for patients who have significant difficulty controlling their intake of BZRAs. Individuals withdrawing from high doses of BZRAs or multiple substances, those who are physically frail, and those who lack community supports should be considered for inpatient treatment in a suitable facility.

# Ethical Challenges in Deprescribing

Clinical Practice Guidelines (CPGs) can inform appropriate care but do not, in isolation, define it (College of Physicians & Surgeons of Ontario (CPSO, 2017). Good care can deviate from CPGs given the nuances and complexities of individual cases. An older adult's perception of the balance between benefits versus risks of BZRA use is dependent upon being fully informed of such considerations and alternatives by their physician. The older adult's personal values and other factors further delineate the clinician's assessment of whether withdrawal of the BZRA is indicated.

Proposing that a BZRA be discontinued may be met with resistance, particularly when the older adult perceives the BZRA to be beneficial. The perception of benefit is likely related to the degree to which the older adult was impacted by the original target symptoms, as well as the degree to which these symptoms improved with the BZRA. The clinician must consider the possibility of harm from continued use, which would include the development of a substance use disorder arising from the BZRA. Although avoiding or discontinuing the long-term use of a BZRA is in general the recommended course of action for the majority of older adults, it does not follow that this is indicated for each individual. Discontinuing a medication is an active intervention, the ethics of which can be informed by several bioethical models. Shared decision-making should incorporate clinical judgment, patient values, and lived experience but must also be made within the confines of professional standards of practice.

After considering all perspectives, if the clinician believes that the harms of continuing BZRA therapy significantly outweigh the benefits, deprescribing should be actively encouraged and adopted. Prescribers who are uncomfortable continuing to prescribe a BZRA to an older adult do not have a duty to do so, as it is ethically indefensible to provide treatment against sound medical judgement, though it is emphasized that discontinuing a BZRA being used long-term should never be done abruptly (Weijer et al., 1998; Lantos et al., 2011; A. Brett & McCullough, 2012; Kapoor et al., 2018).

# Future Directions

Concern about the risks of BZRAs for older adults has grown in recent years. The developers of these guidelines hope to inspire prescribers and health care team members, as well as older adults and their families, to consider, implement, and support alternatives to these medications. This document bridges the gap between knowledge and practice and is designed to facilitate change at personal, institutional, and system levels.

These guideline developers advocate for integration of policies and specialized clinical education that supports progressive models of care, to empower older adults to participate in shared decision-making when the prescribing and deprescribing of BZRAs is being considered. It is also important to ensure access to clinicians who are able to offer non-pharmacological therapies such as CBT and CBTi to older adults, in order to both prevent the inappropriate use of BZRAs and to aid those who are experiencing symptoms of a substance use disorder. We encourage hospitals, other health care facilities, community-based agencies, and their quality improvement teams to routinely explore the impact of care transitions on prescribing patterns.

The health care system is striving to provide holistic, person-centred care to older adults with substance use disorders. However, more education is required to support primary care physicians and other clinicians caring for these individuals. Unfortunately, in some regions of Canada, access to specialized addiction and/or mental health services for older adults is limited or non-existent. To this end, we encourage the development of comprehensive, evidence-based, interprofessional models of care that support the full scope of practice of all team members. It is important to emphasize that more research is needed to determine the optimal treatment and models of care for older adults with substance use disorders (Lehmann & Fingerhood, 2018). Over time, it will be increasingly important to develop systems of care able to meet the complex health needs of diverse groups of older adults, including the growing number of baby boomers.

The CCSMH welcomes your feedback and requests both your support and active participation in the wide dissemination of these important guidelines.

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