Benzodiazepine and z-hypnotic:
Quality prescribing advice for adults

Foreword

Benzodiazepine and z-hypnotic prescribing continues to slowly reduce across Scotland. In part this has been due to a range of work carried out over the years, at practice, health and social care and health board levels; some of which has further enabled greater reductions in inappropriate use and prescribing since 2005/06.

Therefore this benzodiazepine and z-hypnotic prescribing advice is primarily intended to support healthcare professionals and others in the appropriate use of benzodiazepines and z-hypnotics; supporting and enabling proactive patient-centred reviews, and appropriate continuation, reduction and stopping.

This advice is not intended to override other prescribing and treatment advice such as NICE, British Association for Psychopharmacology (BAP), Polypharmacy: Realistic Prescribing Guidance [link] or the principles outline in the Realising Realistic Medicines report, but to complement and add practical advice and options for tailoring care to the needs and preferences of individual's by providing pragmatic and practical advice.

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[Consider adding as appropriate]

Abbreviations

A&A	Ayrshire and Arran Health Board
BAP	British Association for Psychopharmacology
B-Z	Benzodiazepines and/or z-hypnotics
CBT	Cognitive Behavioural Therapy
cCBT	computerised Cognitive Behavioural Therapy
D&G	Dumfries and Galloway Health Board
DOAC	Direct oral anticoagulant
FV	Fourth Valley Health Board
GGC	Greater Glasgow and Clyde Health Board
HSCP	Health and Social Care Partnership
ISD	Information Service Division
MR	Modified Release
MAOI	Monoamine oxidase inhibitor
NICE	National Institute for Clinical Excellence
NSAID	Non-steroidal anti-inflammatory drug
QOF	Quality and Outcomes Framework
SNRI	Serotonin and noradrenaline re-uptake inhibitor
SSRI	Selective serotonin re-uptake inhibitor
TCA	Tricyclic antidepressant
WI	Western Isles Health Board

Executive Summary

Benzodiazepine and z-hypnotic prescribing and use remains a challenge in Scotland and elsewhere. Over the last 40 years however, prescribers have managed to reverse the significant growth that was seen in the 1970s and 80s when more than 1 in 10 people in the UK received a benzodiazepine. In part this has been due to the continued efforts and initiatives at general practice, health and social care partnership, and health board levels, as well as individual service users engaging with these initiatives.

Benzodiazepines and z-hypnotics demonstrate only marginal benefits for the short-term relief of severe insomnia and some anxiety disorders. People quickly become tolerant to the therapeutic effects of benzodiazepines and z-hypnotics, rendering them ineffective. Nonetheless chronic use is common, exposing people to avoidable adverse drug effects and harms, and possibly exposing people to the increased mortality risks associated with their use.

While we have come a long way in minimising inappropriate use, there is still work to be done to further reduce chronic benzodiazepine and z-hypnotic use.. Therefore, this quality prescribing advice is intended to support key stakeholders and prescribers to deliver proactive patient-centred reviews to ensure the appropriate use of benzodiazepines and/or z-hypnotics and minimise the inappropriate use and the avoidable drug-related harms caused by these drugs.

Contents

1. Main points

This prescribing advice:

- Does not override existing local and national guidelines for the treatment and management of pain or common mental health disorders [see Background].

- Recommends that non-medicalised and evidence based psychological interventions should be considered, where appropriate and in line with current clinical guidelines [see Recommendations].

- Recommends that supportive and constructive discussions are had between patients and prescribers when reviewing antidepressants and ongoing needs, and where appropriate consider the fears and apprehensions associated with reducing/stopping benzodiazepines and/or z-hypnotics are considered in order to tailor individualised treatment plans [see Recommendations].

And that:

- The indication for benzodiazepines and/or z-hypnotics use should be recorded (Read coded and auditable electronically) in people's clinical records [see Recommendations].

- Electronic clinical systems to be used as part of routine practice to enable easy identification of people for proactive medication reviews with a pre-planned review date [see Recommendations].

- People prescribed benzodiazepines and/or z-hypnotics, or any other medicine, are encouraged to initiate discussions regarding the appropriate continuation, reduction and discontinuation of pharmacological treatment [see Recommendations].

- Practitioners should proactively review benzodiazepine and/or z-hypnotic use and need when individuals are stable and well. The following groups of people may be appropriate for proactive reviews, Table 1 [see Targeting reviews].

- The 7-steps medication review process may support clinicians with proactive person-centred medication review [see 7-steps].

- Different strategies for reducing and stopping benzodiazepines and/or z-hypnotics should be considered and applied depending on an individual's preferences and needs [see Reducing and stopping]

Table 1 Potential groups of people that receive B-Zs and may benefit from being prioritised for a proactive medicines review

- People recently discharged from hospital on new B-Zs
- People receiving long-term (≥8 weeks) treatment
- Older (≥65 years) and/or frail adults
    - Care home residents
    - People with dementia and/or receiving other medicines that may cause cognitive dysfunction e.g. anticholinergic medicines
    - People receiving polypharmacy
    - Higher risk of falls
- People receiving other psychotropic medicines e.g. antidepressants, antipsychotics, gabapentinoids etc.
- High dose combination use: >30mg per day diazepam equivalent
- People receiving diazepam 10mg tablets – 'blues'
- People who report/present with street/ non-prescribed B-Z use

2. Background

[Return to Main points]

2.1 What is the purpose of this advice?

This advice is intended to support healthcare professionals and others to support the appropriate use of benzodiazepines and/or z-hypnotics (B-Zs); supporting and enabling proactive patient-centred reviews, and appropriate continuation, reduction and stopping of B-Zs.

This advice is not intended to override other prescribing and treatment advice such as NICE, British Association for Psychopharmacology (BAP), Polypharmacy: Realistic Prescribing Guidance [link] or the principles outline in the Realising Realistic Medicines report, but to complement and add practical advice and options for tailoring care to the needs and preferences of individual's.

As B-Zs are used for a variety of conditions and are commonly prescribed for people experiencing a range of co-morbidities and diseases, the advice provides general principles to support patient-centred reviews from B-Z initiation to cessation and post-treatment follow up period, and includes advice for treatment plans, managed reductions, and stopping as appropriate for adults.

2.2 What are the benefits to the person receiving benzodiazepine and/or z-hypnotics?

This quality prescribing advice is intended to encourage supportive and constructive discussions between individual's and prescribers when reviewing B-Zs and ongoing need, and where appropriate consider the fears and apprehensions associated with reducing/stopping B-Zs and tailoring treatment to individual's needs.

It is important to routinely and proactively monitor and review the ongoing need for continued B-Z use, see 7-step process. Even although B-Z prescribing has slowly reduced over the last 40 years, and continues to decrease; 1 in 15 (6.8%) adults, and 1 in 11 older adults (≥65 years) being prescribed a B-Z in 2020/21.

The majority of B-Zs are prescribed by GPs in primary care, however some of these prescriptions are initiated and continued by the GPs on the advice of neurologist, psychiatrists and other specialists, and may result in deliberate or inadvertent long-term use.[1-4] For a very small minority of people deliberate long-term (≥8weeks) use may be considered appropriate, such as for some people with Parkinson's disease or multiple sclerosis.[5,6] For the vast majority long-term use raises concerns and runs contrary to current clinical guidelines and drug licensing, as B-Zs are only licensed for a maximum of 4 weeks use,[1,7-10] and demonstrate limited therapeutic effects for the short-term treatment of back pain, insomnia, and some anxiety disorders (e.g. generalised anxiety disorder, panic disorder).[10-13]

B-Z use is associated with tolerance, dependence and avoidable drug-related harms. Such harms, include but are not limited to: cognitive dysfunction (i.e. confusion, impaired concentration, memory impairment, impair ability to drive and increased

accidents etc.); falls, and associated increased risk of hip fractures; depressive symptoms; and paradoxical effects i.e. disinhibition, anxiety and impulsivity.[9,14] More recently however, studies have reported increased mortality associated with B-Z use in a range of populations.[15-17]

In the short-term (less than 2 weeks) B-Z can provide some benefits for back pain, insomnia, and some anxiety disorders.[11-13] They are associated with reducing the effectiveness of psychological therapies and worsening depressive symptoms, causing cognitive dysfunction which may prolong symptoms and slow recovery.[9,18-20] On a more practical day-to-day note, B-Z are associated with a 60-80% increased risk of road traffic accidents,[21,22] which lead the Department of Transport 2015 to make *'it illegal to drive in Scotland, England and Wales with legal drugs in your body if it impairs your driving'* with certain legally prescribed controlled drugs; including benzodiazepines [Drugs and Driving: the law].

There are also concerns regarding B-Zs role in drug-related deaths.[17,23] This is complicated however by more than one drug being used (polydrug use), the use of high B-Z doses ('mega-dose'), aging populations, and a lack of evidence that B-Zs are currently being routinely diverted from primary care prescriptions. Nonetheless anecdotally and historically however, small quantities of B-Zs have previously been diverted by some patients, but the greater use of instalment dispensing and supervised consumptions has reduced this, and the electronic transfer of prescriptions in Scotland has reduced the risk of prescriptions being forged or amended by people. While these methods have been successful in restricting licensed B-Zs, it is harder to restrict ease of access from the Internet and 'street' sources for phenazepam, etizolam, and other B-Zs that are licensed outside of the UK, or street preparations with varying concentrations of diazepam.[17,24]

While we are limited in minimising the use of unlicensed and illegally sourced B-Zs, proactively reviewing prescribed B-Z use will help to minimise avoidable drug-related and associated harms, and help optimise individual's care.

Benefits to reviewing benzodiazepines and/or z-hypnotics:

- Assess appropriateness of prescribing
- Reduce inappropriate prescribing e.g. long-term prescribing
- Minimise the risk of avoidable adverse drug effects and harms associated with their use:
  - Depression
  - Emotional blunting
  - Memory loss and dementia
  - Paradoxical effects: anxiety, insomnia, aggression, etc.
  - Falls and hip fractures
  - Road traffic accidents
  - Addiction and dependence
- Creates an opportunity to consider more effective methods for treating symptoms

2.3 What are the benefits to healthcare professionals?

Prescribers have acknowledged that it can be,

'…easier to start [psychotropic medicines] than to stop [them].' [25].

and that

'… we're [prescribers] probably not good enough, at the moment, is sort of the long-term managing and the coming-off part.'[26]

In part this may be due to a range of perceived and actual barriers, such as some healthcare professionals lacking confidence, knowledge and skills to support and enable proactive B-Z review and discontinuation, as well as individuals getting lost in 'the system'.[25,26] Some electronic clinical systems routinely used in clinical practice may be limited in enabling prescribers to proactively identify people for review. However the Scottish Therapeutics Utility (STU) has been developed for use in general practice, in Scotland, to help identify people who may benefit from a proactive medication review. General practice staff can routinely use STU to identify and plan B-Z review work.

This prescribing advice therefore provides a practical resource and examples of good practice approaches and options for identifying individuals, reviewing B-Zs and supporting people in our care.

2.4 What are the benefits to organisations

Implementation and use of this advice will help improve patient care, outcomes and minimise avoidable drug-related harm. Included within this document is a range of prescribing indicators and measures which can help focus attention and resources on areas that would benefit from proactive action. These measures will be of use to Health Boards, Health and Social Care Partnerships (HSCPs), General Practice Clusters and individual general practices. The resources are available within this document, as well as case studies and examples of what has already been trialled.

2.5 Why is reviewing B-Z use important?

As already acknowledged, B-Z use is associated with a range of avoidable adverse drug effects such cognitive dysfunction (i.e. confusion, impaired concentration, memory impairment, impair ability to drive and increased accidents etc.); falls, and associated increased risk of hip fractures; depressive symptoms; emotional blunting; and paradoxical effects i.e. disinhibition, anxiety and impulsivity.[9,14] More recently however, studies have reported increased mortality associated with B-Z use in a range of populations.[15-17]

B-Zs prescribing has reduced over the years in Scotland (Figure 1), with less than 7% of adults receiving B-Zs in 2020/21 (Figure 2). Long-term (≥8 weeks) use remains common with 43% of adults receiving treatment (Figure 3), which is outwith drug license and runs contrary to current guidelines and prescribing advice.[1,10,13]

Current anxiety guidelines advise that prescribers *'Do not offer a benzodiazepine for the treatment of Generalised Anxiety Disorder (GAD) in primary or secondary care except as a short-term measure during crises'*. However where their use is considered appropriate for the short-term treatment of severe back pain, insomnia, and/or some anxiety disorders use should be limited to less than 2 weeks on an as required basis.[11-13]

Proactively reviewing B-Z prescribing and use, creates an opportunity to reduce and stop inappropriate medicines, and has been shown to be effective.[27-31] The use of such proactive reviews across Scotland has helped practices and health boards reduce inappropriate B-Z use, specifically Greater Glasgow and Clyde, Forth Valley and Fife , Figure 2 and 3.

Figure 1. Benzodiazepine and z-hypnotic prescribing trends by health board, by defined daily dose (DDD) per 1000 list size per day, by health board, by financial year.

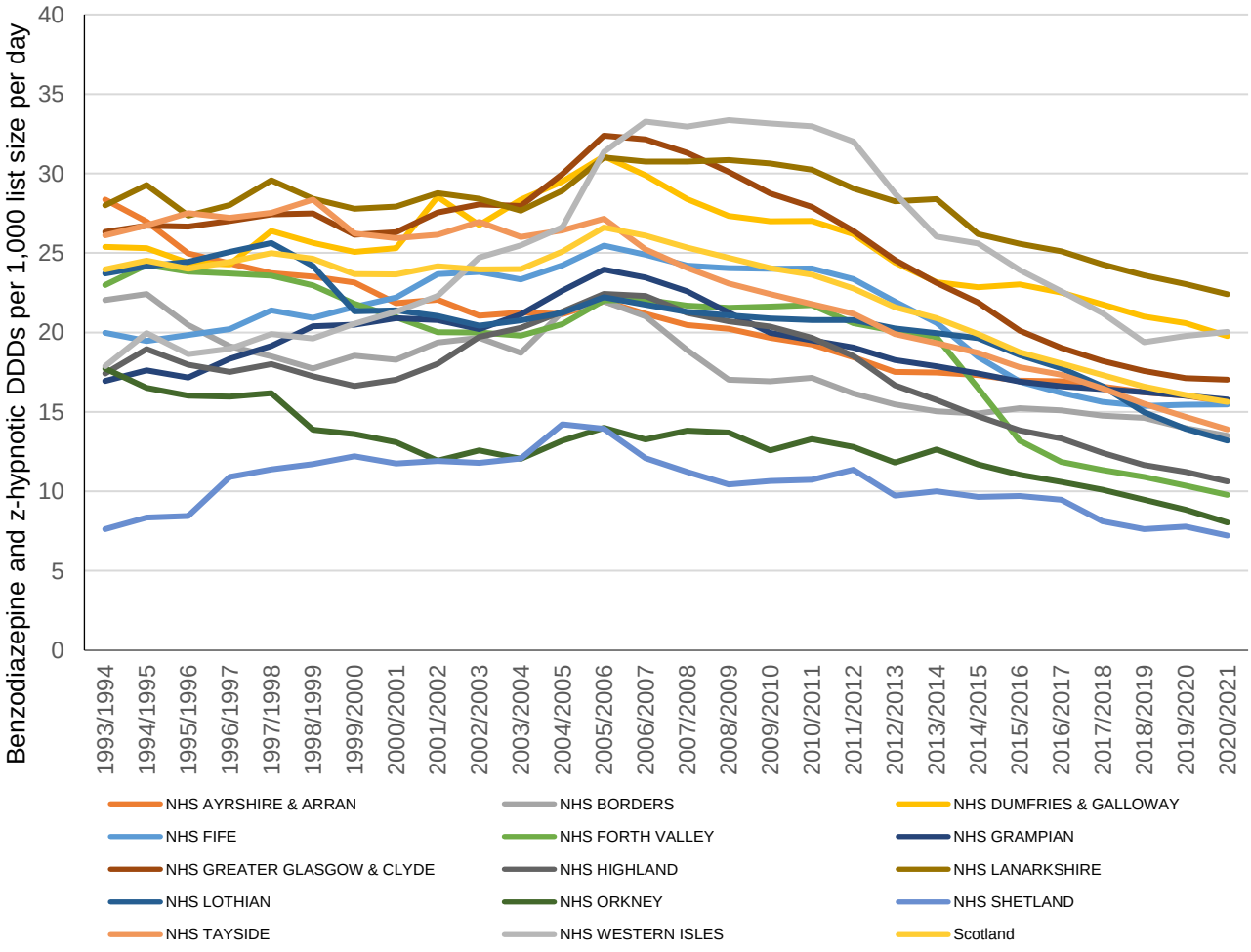


Figure 2. Proportion of adults prescribed a benzodiazepine or z-hypnotic (B-Z) long-term (≥8 weeks) and short-term (<8 weeks), by health board, Scotland 2020/21.

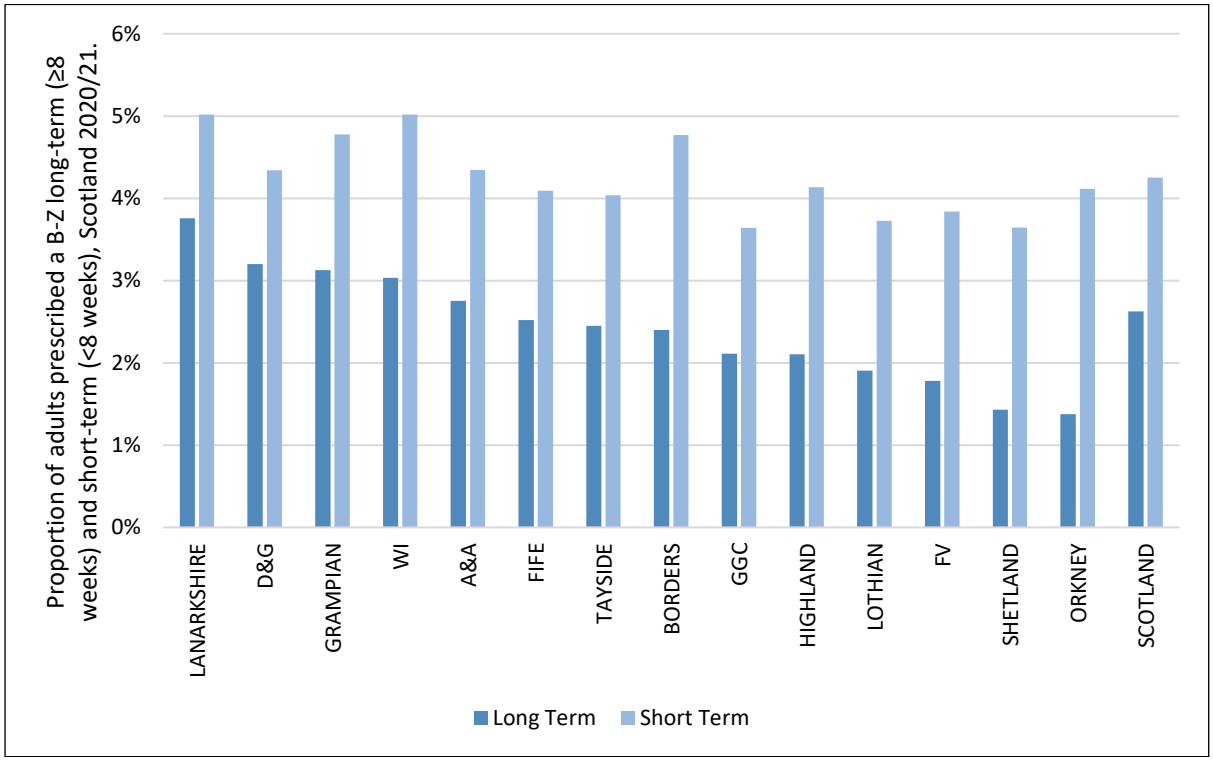
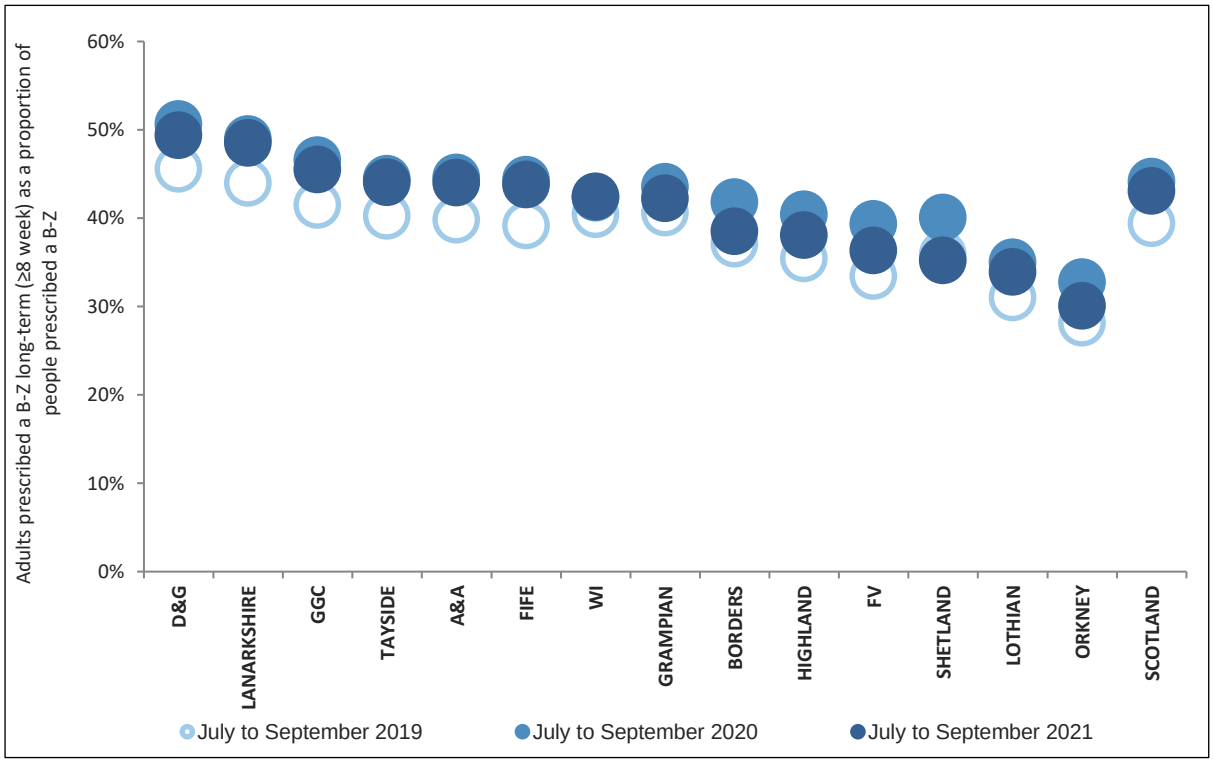


Figure 3. Adults prescribed a benzodiazepine or z-hypnotic (B-Z) long-term (≥8 week) as a proportion of adults prescribed a B-Z.



3. Recommendations and guidance for healthcare professionals

3.1 Healthcare professionals should…

Ensure individuals are assessed and Read Coded for the condition being treated

Appropriately Read Coding individuals' records may enable and support proactive medication reviews and follow up in the short and long-term in primary and secondary care, as prescribers have indicated that:

'...patients can get lost in the system, and that systems which adequately prompt medication reviews would be useful in broaching discontinuation with patients.' [26]

Although current guidelines do not recommend the routine use of B-Z for the treatment or management of anxiety disorders,[13,32,33] appropriately coding individual's electronic clinical records may help to identify people for review and routine follow up:

- Anxiety disorder such as GAD (E2002), post-traumatic stress disorder (PTSD, Eu431), Restless legs syndrome etc.
- Where the condition has resolve and the B-Z has been stopped please use the appropriate Read Code e.g. anxiety resolved (2126J)[a].

Collaboratively develop a clear management plan with the individual, and/or carer(s) if appropriate.

Aim to develop mutually supportive and constructive discussions between individual's and prescribers when reviewing B-Zs and ongoing need, and where appropriate consider the fears and apprehensions associated with reducing/stopping B-Zs and tailoring treatment to individual's needs.

A Stepped-Care approach should be considered and used to help tailor the most appropriate intervention to individuals needs according to the severity of the condition being treated such as self-help, non-pharmacological with or without pharmacological treatments.

Including realistic expectations and review dates which can be Read Coded for recall and follow up.

[a] Other Read Codes for resolution of symptoms are not currently available on general practice systems

Non-medicalised and non-pharmacological options, including psychosocial and/or psychological interventions, should be encouraged and pursued where appropriate.

Non-medicalised[34-36]

- Exercise and regular physical activity e.g. 30 minute walks.
- Debt advice and/or money management e.g. seeking advice from appropriate agencies such as Citizens Advice.
- Hobbies and interests e.g. gardening, crafts, etc.
- Work life balance.
- Lunch clubs and other activities which may help to reduce social isolation.
- Discussing problems, where appropriate, with a close friend or confidante that is willing and able to listen.

Psychosocial and psychological Interventions

The Psychological Therapies Matrix (2015) [link] outlines a matched care approach to support the safe and effective delivery of evidence based psychological interventions. Both the Matrix and clinical guidelines advocate decisions regarding psychological interventions should be based on a comprehensive assessment of need and consider suitability, individual's preferences, availability of trained practitioners and be culturally appropriate.[13,32,33] This matched care model considers 'high volume' interventions, low intensity interventions for mild to moderate symptoms, in addition to high intensity and highly specialist interventions delivered by practitioners with additional competences with access to appropriate supervision for those presenting with more complex presentations. The Matrix acknowledges those in general practice and primary care regularly identify and support those presenting with psychological issues and mental health disorders and are therefore in a position to provide support for low intensity interventions and referral to specialist mental health services where indicated.

A range of activities can be helpful for people with common mental health problems and pain conditions. Decisions however for signposting and/or referral for psychological interventions should be informed by a comprehensive assessment and shared understanding of the reasons for the underlying anxiety and/or sleep problem. Some of the following may be useful for people with anxiety and should be considered and discussed before initiating a B-Z for a severe crisis, or continuing a B-Z. Where appropriate and available Links workers may be able to support and enable individuals to access some of these options.

Low Intensity Interventions

Low intensity interventions for mild to moderate symptoms of insomnia, anxiety include guided self-help and computerised Cognitive Behavioural Therapy (cCBT). Psychoeducation regarding the specific condition (anxiety, insomnia) can support self-management. A range of evidence based cCBT programmes and telephone supports are available to support general mental wellbeing, sleep problems (including insomnia) and mild to moderate symptoms of anxiety. Links to these programmes can be accessed via NHS Inform (Mental Health) please refer to Appendix 1 for a detailed description and links to resources.

High Intensity and Highly Specialist interventions

For those individuals who present with moderate to severe symptoms of anxiety and more complex presentations including those set within the context of co-occurring substance use, a referral for High Intensity and/or Highly Specialist Interventions (including Cognitive Behaviour Therapy (CBT)) are indicated. These interventions are usually delivered within NHS or non-NHS[b] secondary and/or specialist services.

Follow a clinically appropriate approach to initiating and limiting B-Zs supply:

In order to provide consistency and continuity for all individuals under the care of a practice, prescribers working in a practice should develop a practice policy. A holistic, bio-psycho-social assessment that includes an assessment of the risks, benefits and limitations of prescribing, should inform decisions to initiate B-Zs, no matter what condition is being treated. Please consider the following:

- **Assess risk, benefits and limitations,** no matter what condition is being treated, see Table 1. B-Z are limited in their effectiveness for management of:

    - Insomnia, the majority of studies have been for 7 days or less of treatment. The effects were small, with an increased risks of adverse drug effects; the number needed to treat for improved sleep quality was 13 and the number needed to harm for any adverse event was 6, Figure 4.[37] Where any adverse events were defined as cognitive (memory loss, confusion, disorientation); psychomotor (reports of dizziness, loss of balance, or falls); and morning hangover effects (residual morning sedation).
    - Anxiety disorders: Benzodiazepines are not recommended for the routine treatment of general anxiety disorder (GAD), panic disorder, post-traumatic stress disorder (PTSD) or panic disorder.[11,13,32] Whereas a stepped-care approach including psychological treatment and/or self-help is advised. Pharmacological treatment if assessed as being appropriate should be with an selective serotonin re-uptake inhibitor e.g. GAD: step 3 where there is marked functional impairment or that has not improved after step 2.[11,13,32]
    - Back pain: NICE recommends '*Do not offer gabapentinoids, other antiepileptics, oral corticosteroids or benzodiazepines for managing sciatica as there is no overall evidence of benefit and there is evidence of harm'* [12]
    - Depression: Antidepressant may be effective for moderate to severe depression.[33,38] While NICE and BAP advise that it may be appropriate to,

      'consider short-term concomitant treatment with a benzodiazepine if anxiety, agitation and/or insomnia are problematic (except in people with chronic symptoms of anxiety); this should usually be for no longer than 2 weeks in order to prevent the development of dependence' [33]

[b] Non-NHS services: Ensure Non-NHS practitioners providing psychological therapies are registered with appropriate professional bodies e.g. Health and Care Professions Council, British Association of Behavioural and Cognitive Psychotherapy, British Association of Counselling and Psychotherapy.

'Combining benzodiazepines with antidepressants early in treatment speeds response and reduces drop-outs and may be useful for managing early agitation/anxiety and insomnia, but needs to be balanced against the risk of long-term use' .[38]

It is known that regular B-Z use is associated with reducing the effectiveness of psychological therapies (interfering with new memory formation), worsening depressive symptoms, and causing cognitive dysfunction which may prolong symptoms and slow recovery.[9,18-20] It is advised that co-prescribing B-Zs should be avoided where ever possible, as a recent Cochrane Review indicated that the evidence for benefit was marginal and there was no difference in the dropouts due to any reason between combined therapy (antidepressant plus B-Z) and antidepressants alone in the first two weeks of treatment.[39]

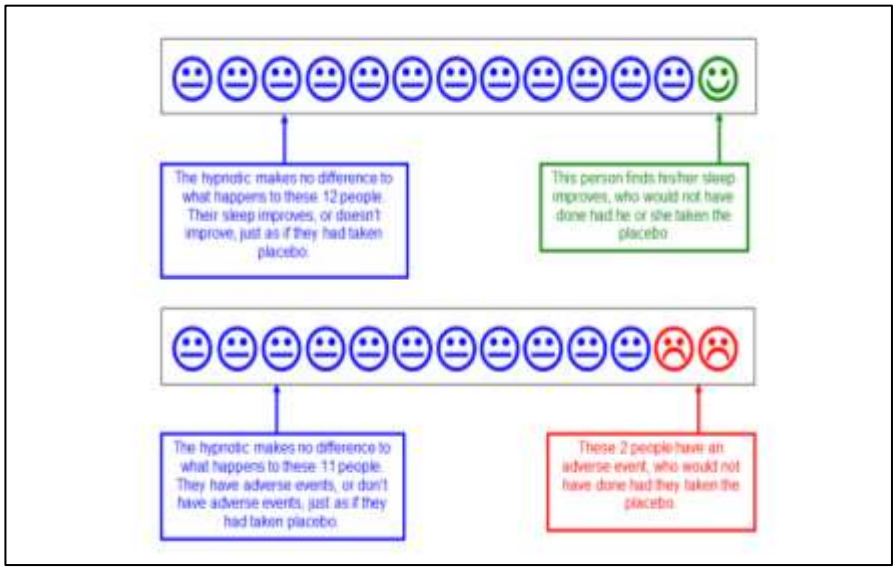
- **Discuss:** Individual's and prescriber expectations; Stepped-Care and Watchful-waiting for common mental health conditions; effective non-pharmacological interventions (e.g. exercise and physical activity, self-help, etc.); drug limitations e.g. marginal effects during crises but adverse effects are common.

- **Provide** appropriate information about the condition (NHS Inform), B-Z treatment and stopping. The Choice and Medications website contains a variety of information and leaflets which might be helpful.

- **Plan and agree follow up** in relation to condition being treated.

- **Review effectiveness, tolerability and concordance** on an ongoing basis, and where appropriate reduce the number and doses of medicines to minimise avoidable adverse effects and optimise compliance.

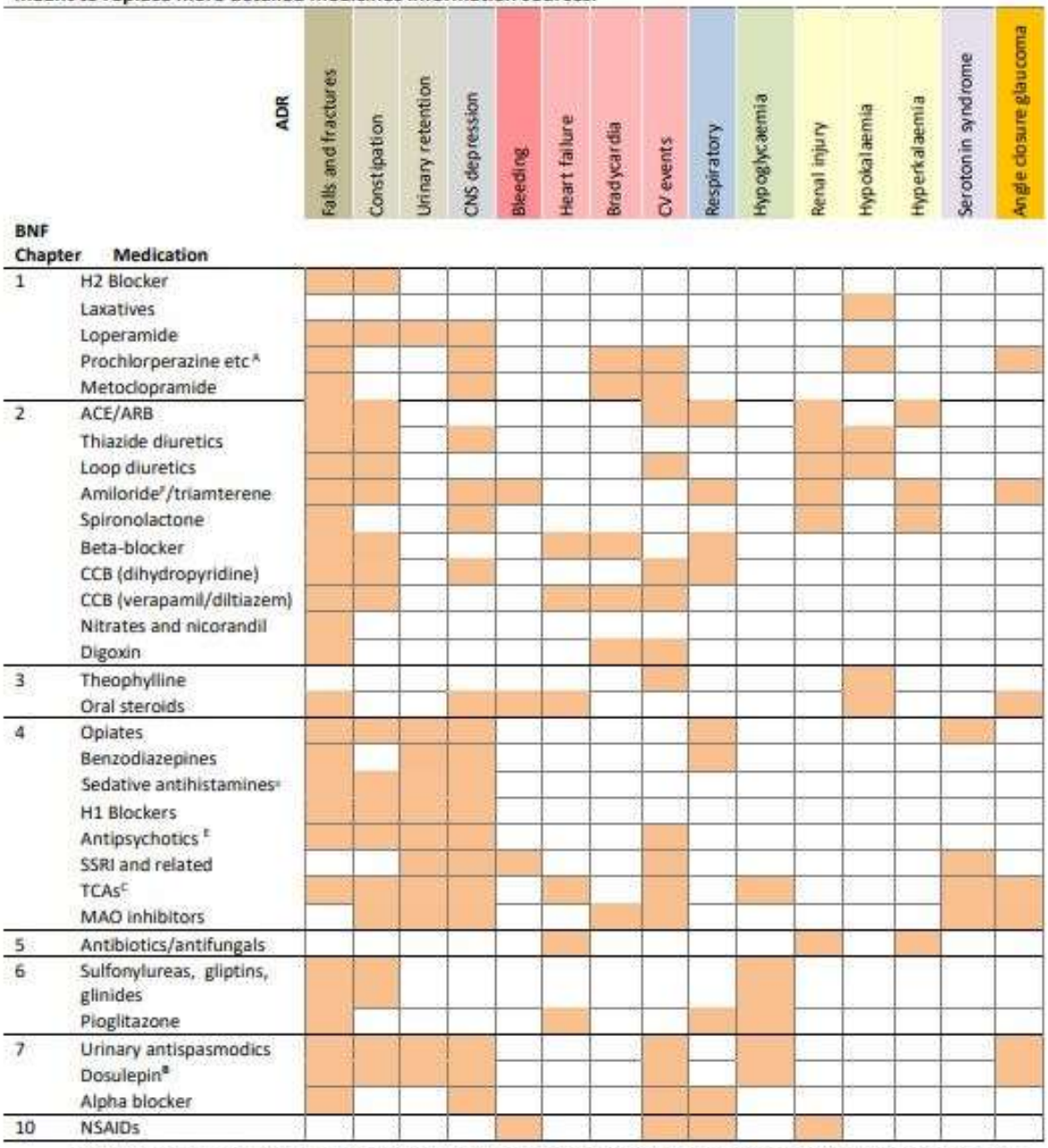
Figure 4. Numbers needed to treat and harm



Note: Population: adults (≥60 years old) prescribed a benzodiazepine or z-hypnotic for insomnia; 18 (75%) of studies meeting inclusion criteria were for ≤14 days of treatment.[37]

Consider risk of Cumulative Toxicity in relation to co-prescribed medicines.[40]

The chart below cross-tabulates medication and ADR risks associated with them. It can help identify actual ADRs and the risk of developing them. It identifies where an ADR may be due to a cumulative effect. Generally, the shaded areas represent side effects which are listed in SPCs as having an incidence greater than 1 in 10,000 (where the incidence is listed), or from knowledge of the mode of action of a medicine. **Please, note that the list focuses on commonly used drugs and commonly preventable ADRs, and is not meant to replace more detailed medicines information sources.**



A- STRONG anticholinergics are: dimenhydrinate, scopolamine, dicyclomine, hyoscyamine, propantheline; B- STRONG anticholinergics are: tolterodine, oxybutynin, flavoxate; C- STRONG anticholinergics are: amitriptyline, desipramine, doxepine, imipramine, nortriptyline, trimipramine, protriptyline; D- STRONG anticholinergics are: promethazine; E- STRONG anticholinergics are: diphenhydramine, clemastine, chlorphenamine, hydroxyzine. Full list of anticholinergics. Full list of medicines linked to falls. F- Amiloride side effect frequency unknown

3.2 Boards and HSCPs should…

Consider the prescribing advice within this document alongside local prescribing and clinical data; positions and trends, to plan, resource and drive quality improvement and prescribing initiatives.

Nominate local leads/champions – one medical and one within or with strong links to medicines management teams or equivalent – to drive delivery and recommendations within this document.

Consider and engage a whole system approach to delivering quality improvements in prescribing

- **Ensure primary and secondary care are informed**, to support continuity care and overall goals of reviewing and minimising inappropriate prescribing. Especially given the significant influence of secondary care. HSCPs should consider locality work targeting B-Z prescribing.
- **Work with third sector (non-medicalised) organisations** to further develop support and capacity for self-management.
- **Developing capacity within services to support individuals and services.**

3.3 Hospitals

Secondary care should establish and communicate a reduction plan for B-Z prescriptions started in hospital, if they cannot be stopped before discharge.

Where appropriate hospitals should develop and implement a ‘no hypnotic on discharge policy’ for B-Z initiated in hospital.

3.4 General practice clusters

Engage with local Prescribing Support Teams, who have a wealth of experience improving the quality of prescribing through use of local and national measures, datasets and tools.

Consider developing and implementing practice and/or cluster policy, that includes principles Figure 5, below. This may help to reduce ‘doctor shopping’ within localities, as all practices will be applying the same policy.

Figure 5. An example of a practice policy that has been effective in routine practice:

Anxiolytic & Hypnotic Prescribing Practice Policy

Starting individuals on benzodiazepine or z-hypnotic (B-Z-drugs)

• **Restrict B-Z-drugs use:** to individuals in whom alternative options have been tried and failed or considered inappropriate.
• **Acute prescription only.** For symptomatic use on an as needed basis. NOT regular basis. • For a **maximum of 7 days** and advise the individual that it **cannot be repeated within 4 weeks** from the date of issue.
• **Do not** add B-Z-drugs to the repeat prescription list.
• **Do not** prescribe 5mg or 10mg strength of diazepam tablets due to their black-market value. Only use diazepam 2mg tablets
• If B-Z-drugs are to be initiated, then **include a caution message on the label: "Warning this drug may cause dependence on long-term use"**
• Display a poster to inform individuals of the practice policy in the waiting area (Appendix 3)
• Encourage practice staff to make individuals aware of the new policy when requests are made for B-Z-drugs

Existing practice individuals that are currently prescribed a B-Z-drug

• **Should be informed of policy** as outlined above
• **Remove B-Z from repeat prescription list.** Send a letter to the individual informing them that their B-Z will now need to be ordered as an acute prescription. Invite individual for review (Appendix 4).
• **Individuals will be reviewed** by one of the GPs (and/or general practice clinical pharmacist[c]) to discuss implementing a plan to reduce and stop the drug(s) in a structured and supported manner, if safe and appropriate to do so. NB Remember to refer to exclusion list
• **Arrange and agree follow up** at a time that is suitable to the individual, e.g. phone review during the individual's working day may help individuals engage with supported review and reduction.
• **Continued issuing of prescriptions** should be informed by the individual's progress
• **Poor individual engagement with practice policy (without good reason).** Arrange regular contact with the individual to reinforce the message at every opportunity.
• **Over ordering.** Restrict quantities. Consider weekly dispense.

Newly registered individuals already taking B-Z drug

• Should be informed of policy as outlined above
• **Individual's will be reviewed by one of the GPs** (and/or general practice clinical pharmacist) to discuss implementing a reduce and discontinue drug(s) in a structured and supported manner if safe and appropriate to do so. NB Remember to refer to exclusion list

[c] The majority of patients should be reviewed by their own GP. Where patients have had their B-Z reviewed, reduced and discontinued by their GP they are more likely to stay off. Proactively reviewing and reducing B-Z creates an opportunity to reflect on prescribing practice, change behaviours and improve sustainability. Where it is appropriate for pharmacists to review patients, the reviews should be split: 80% GP and 20% pharmacist.

4. Which groups of people should be targeted for review?

[Return to Main points]

A multidisciplinary whole system approach should be used to identifying and including people for review, including: reception staff, practice nurse and GPs.

Table 1. Potential groups of people that receive B-Zs and may benefit from being prioritised for a proactive medicines review.

- People recently discharged from hospital on new B-Zs
- People receiving long-term (≥8 weeks) treatment
- Older adults (≥65 years)
    - Care home residents
    - People with dementia and/or receiving other medicines that may cause cognitive dysfunction e.g. anticholinergic medicines
    - People receiving polypharmacy
    - Higher risk of falls
- People receiving other psychotropic medicines e.g. antidepressants, antipsychotics, gabapentinoids etc.
- High dose combination use: >30mg per day diazepam equivalent
- People receiving diazepam 10mg tablets – 'blues'
- People who report/present with street/ non-prescribed B-Z use

4.1 People recently discharged from hospital

Some people may be initiated on B-Zs in hospital as part of crises management in line with guidelines, however other may be initiated on such medicines due to environmental factors which have cause insomnia e.g. busy noisy wards. Studies relating to psychiatric admission have shown that up to 1 in 3 individuals are discharged on a B-Z, with 1 in 5 continuing long-term treatment for 12 months.[3,41,42] Proactively reviewing and stopping B-Z therefore, should be considered to reduce avoidable drug related harms.[9,15,43] Where appropriate hospitals should develop a 'no hypnotic on discharge policy', for B-Z initiated in hospital.

4.2 People receiving long-term treatment (≥8weeks)

B-Z are only licensed for 28 days maximum use. Most studies are for short-term use (7 days or less),[10,37] and guidelines only recommend their use for management of short-term crises.[11-13,32,33,38]

A very small minority of people may require be considered appropriate for longer-term (≥8weeks) treatment e.g. some people with Parkinson's disease or multiple sclerosis, and as part of harm reduction strategies (see Section 4.3).[5,6] However, long-term use is inappropriate for the vast majority of people.

4.2 Older adults and/or frail patients: avoidable adverse drug events/harms and polypharmacy

It is known that up to 1 in 8 older adults in Scotland receive one or more B-Z prescription annually, and care home residents are twice as likely to receive these drugs than non-care home residents.[7]

Older adults and/or frail people are more susceptible to the adverse effects and harms of B-Z drugs: cognitive dysfunction (i.e. confusion, impaired concentration, memory impairment, impair ability to drive and increased accidents etc.); falls, and associated increased risk of hip fractures; depressive symptoms; and paradoxical effects i.e. disinhibition, anxiety and impulsivity.[9,14] They may also experience liver impairment and/or reduced kidney function which can reduce B-Z excretion, increasing the amount of drug(s) in the individual's body, that may increase the risk of adverse drug effects.[44,45] Therefore proactively reviewing, reducing and stopping B-Zs will help to reduce avoidable B-Z-related harms.[46,47]

4.3 People receiving combination treatment

'Benzo-burden': Prescribers should consider the 'benzo-burden' – the total benzodiazepine-type drug load prescribed per day – as benzodiazepines, z-hypnotics and gabapentinoids have similar effects which provide synergistic effects: sedation, respiratory depression, etc.[10] All of which may interact with the individuals disease and conditions to cause more adverse effects and avoidable drug-related harms e.g. increased breathlessness, fatigue, respiratory depression which can be potentially fatal.

Opioids: The effects of B-Zs and the 'benzo-burden' can be further be exacerbated by the addition of a range of opioids, and even reduce the protective ceiling effects of buprenorphine.[48] In line with Medicines and Health care products Regulatory Agency advice [link]: *Only prescribe B-Zs and opioids together if there is no alternative and closely monitor patients for signs of respiratory depression.*

People who report/present with street/non-prescribed B-Z use, often set within the context of polysubstance use, are arguably at greatest risk of combination effects. To respond to what is recognised as a public health crisis recent guidance including key principles of care are outlined in the Scottish Drug Deaths Taskforce and Public Health Scotland's: Medication Assisted Treatment (MAT) standards informed response for benzodiazepine harm reduction The MAT guidance highlights that we all have a responsibility to respond to B-Z-related harms which is underpinned by a

willingness to have supportive, collaborative conversations regarding B-Zs. This guidance supports a comprehensive, holistic assessment of need to develop a psychological formulation of the presenting issues to inform highly intensive, flexible and individualised care plans. This may include prescribing interventions (e.g. a small minority of individuals may require longer-term B-Z treatment with regular review to optimise care and minimise street B-Z use), in addition to psychological components of care, to support harm reduction and stabilisation.

Antipsychotics: B-Z use is associated with a higher mortality risk for people with schizophrenia,[16] and although some have argued that B-Z provide antipsychotic sparing effects,[49] this is not supported by current evidence.[50]

Antidepressants: B-Z use is associated with the use of SSRIs, and the use of higher SSRI doses for the treatment of depression.[51,52] In part this may be due to higher SSRI doses causing more avoidable adverse effects and harms such as anxiety, agitation and insomnia.[53,54] However, B-Z is also associated with an increased incidence of depressive symptoms,[18,19] so reviewing and reducing B-Z use may help to optimise patient care and recovery.

Psychological therapies: B-Z may limit the efficacy of psychological therapies such as CBT due to their negative effects on cognitive function; impairing memory function, amnesia, etc.[20]

4.4 High dose combination B-Z use

As highlighted above the use of more than one B-Z will increase the 'benzo-burden' and provide synergistic effects which may lead to more avoidable adverse drug effects and harms. Minimising the use of such combinations and high doses will help to minimise adverse drug effects, see Reduction schedules.

4.5 Diazepam 10mg tablets

Historically these have been enabled people to take higher doses with fewer tablets, and have been desirable for substance misuse.[17] Due in part to these issues the National Therapeutic Indicators for Scotland advise that where diazepam is required that the 2mg tablets are the preferred choice.[55]

4.6 Potential exclusions and cautions

It has already been acknowledged that a small minority of individuals may require long-term treatment, it would still be good practice to routinely review ongoing need, e.g. as part of their routine annual medicines review. It may be appropriate for general practices to consider excluding some people from proactive B-Z reduction reviews: palliative care; people under the care of drug treatment services; those with intractable epilepsy; etc. However, closer working with specialist services may in some cases support the appropriate use and reduction in use of B-Zs e.g. community mental health teams and minimising B-Z use for people with schizophrenia due to the association with increased mortality risk and prescribed B-Zs.[43] Or where appropriate for those presenting at greatest risk of harm from street B-Z use both psychosocial and prescribing interventions may support harm reduction and establish stability with regular monitoring and review throughout.[56,57]

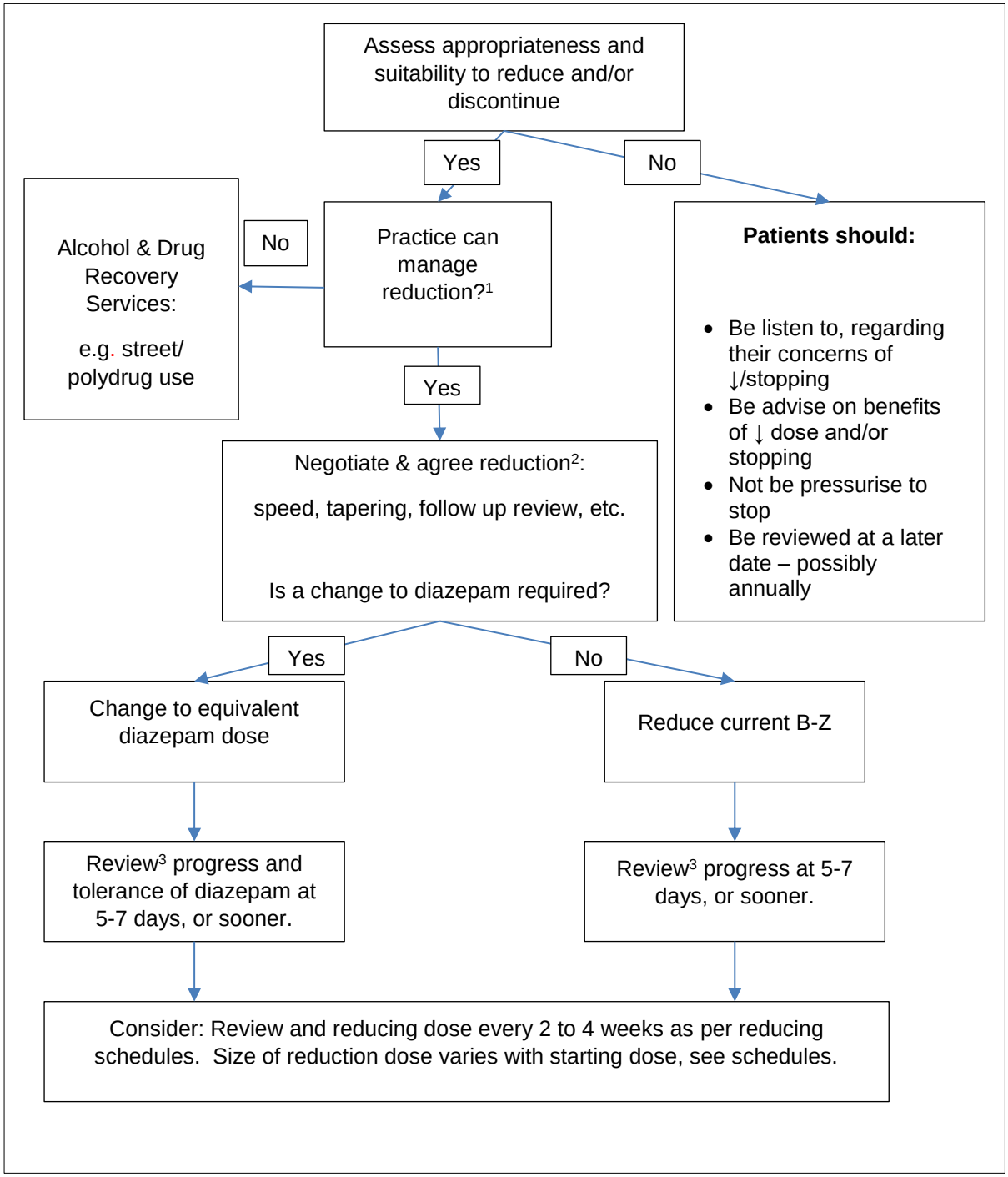
5. The 7-Steps medication review

Domain	Steps	Process
Aims	1. What matters to the patient?	**Review diagnoses and identify therapeutic objectives with respect to:** • What matters to me (the patient)? • Understanding of objectives and limitations of drug therapy • Management of existing health problems • Prevention of future health problems
Need	2. Identify essential drug therapy	**Identify essential drugs (not to be stopped without specialist advice):** • Drugs that have essential replacement functions (e.g. levothyroxine) • Drugs to prevent rapid symptomatic decline (e.g. heart failure)
	3. Does the patient take unnecessary drug therapy?	**Identify and review the (continued) need for drugs:** • Have non-pharmacological approaches been considered/used • With temporary indications e.g. 3-7 days for anxiety/insomnia • Long-term (≥8weeks) use, consider managed reduction • Higher than licensed dose e.g. zopiclone 15mg at night, or total B-Z burden >30mg diazepam equivalent dose per day • May limiting the efficacy of other medicines or non-pharmacological treatment e.g. B-Z with an antidepressant, or B-Z with psychotherapy • With limited benefit in the patient under review *Drug Efficacy (NNT)*
Effectiveness	4. Are therapeutic objectives being achieved?	**Identify the need for adding/intensifying drug therapy in order to achieve therapeutic objectives:** • To achieve symptom control/clinical targets • To prevent disease progression/exacerbation
Safety	5. Does the patient have ADE/Side Effects or is at risk of ADEs/Side Effects? Does the patient know what to do if they're ill?	**Identify patient safety risks by checking for:** • Drug-disease interactions • Drug-drug interactions (see *Cumulative Toxicity* tool) • Robustness of monitoring mechanisms for high-risk drugs • Drug-drug and drug-disease interactions • Risk of accidental overdosing (Yellow Card Scheme) **Identify adverse drug effects/harms by checking for** • Specific symptoms e.g. disinhibition, cognitive dysfunction etc • Cumulative adverse drug effects/harms (see *Cumulative Toxicity* tool) • Drugs that may be used to treat adverse drug effects caused by other drugs e.g. B-Zs insomnia associated with high dose SSRI use
Cost-effectiveness	6. Is drug therapy cost-effective?	**Identify unnecessarily costly drug therapy by:** • Consider more cost-effective alternatives (but balance against effectiveness, safety, convenience) e.g. nitrazepam/temazepam liquid versus tablets

Patient centeredness	**7.**	Is the patient willing and able to take drug therapy as intended?	**Does the patient understand the outcomes of the review?** • Does the patient understand why they need to take or reduce and stop their medication? **Ensure drug therapy changes are tailored to patient preferences** • Is the medication in a form the patient can take? • Is the dosing schedule convenient? • Consider what assistance the patient might have and when this is available • Is the patient able to take medicines as intended? **Agree and Communicate Plan** • Discuss with the patient/carer/welfare proxy therapeutic objectives and treatment priorities • Decide with the patient/carer/welfare proxies what medicines have an effect of sufficient magnitude to consider continuation or discontinuation • Inform relevant healthcare and social care carers change in treatments across the care interfaces Add the READ code **8B31B** to the patients record so that when they move across transitions of care it is clear their medication has been reviewed

6. Reducing and stopping

Figure 6, Assessing suitability reduce and discontinue B-Z drugs



1. From previous work general practices should be able to manage the reduction of prescribed B-Zs for the majority of their own patients, see section 7 Case studies.[27,30]
2. A gradual drug withdrawal schedule (dose tapering) that is flexible should be negotiated. The person should guide adjustments so that they remain comfortable with the withdrawal.
3. Reviews should be frequent to detect and manage problems early and to provide advice and encouragement during and after the drug withdrawal. If a person does not succeed on their first attempt, they should be encouraged to try again.

Assess the individual's readiness to reduce and/or stop
It is important that an individual's motivation and readiness for reductions and/or discontinuation is adequately assessed, and where appropriate agreed and tailored dose reductions are planned and where implemented, regularly reviewed. Signposting/referral for interventions to support changes to prescribing including psychosocial and/or psychological interventions should also be considered.

What is the risk-benefit balance of continuing current B-Z and doses? For example, continuing to prescribe beyond 4 weeks is unlicensed use versus risk of falls for older adults, or negative cognitive effects for people with depression and/or other common mental health considerations, as well as tolerance and a loss of effect within 2-4 weeks for the treatment of insomnia/anxiety.[45]

Has the individual completed the planned and agreed course or trial of treatment? For example was the B-Z initiated for short-term use and has evolved into long-term use. Has a prescriber discuss the potential harms of continuing treatment and that B-Zs are only licensed for maximum of 4 weeks use, and therefore it may be appropriate to plan and agree gradual reduction.

Discontinuation/withdrawal symptoms: B-Z dependence is recognised as a major clinical problem.[58] B-Z reduction should be gradual and tapered – for some this will mean 'low and slow reductions'.[45,59] Abrupt cessation may produce confusion, toxic psychosis, convulsions or a condition resembling delirium tremors.

Withdrawal symptoms may occur within a day of stopping a short-acting B-Z such as lorazepam which is associated with more severe withdrawal than longer acting B-Zs ones. However, withdrawal symptoms may occur at any time up to 3 weeks after stopping a long-acting B-Z (see Table 2 and 3).[45] Withdrawals effects may include: insomnia, anxiety, depression, cognitive impairment etc, and can be similar to the original complaint. Some withdrawal symptoms may continue for weeks or months after stopping the drug. Most people may experience only infrequent, mild or no withdrawal symptoms if the withdrawal is slow and tapered to their needs. However if they do experience withdrawals, consider increasing back up to the previous doses that caused no withdrawal effects. Stabilise on the higher dose, then reduce more slowly, using smaller dose reduction steps. Smaller reduction steps may require the use of liquid preparations in some cases.[45,58]

Table 2, Clinical presentation of discontinuation/withdrawal symptoms

	Symptoms	
Acute	**Most commonly anxiety** • Panic attacks, agoraphobia • Insomnia, nightmares • Depression • Poor memory, loss of concentration • Tremor, sweating, palpitations **Others specific to B-Zs** • Perceptual distortions, depersonalisation • Tingling and loss of sensation, formication (a feeling of ants crawling all over the skin) • Sensory hypersensitivity • Muscle twitches and fasciculations (flickering or writhing muscles) • Hallucinations (visual and auditory - rare and usually with rapid withdrawal from high doses), • Psychotic symptoms, confusion, convulsions (rare and usually with rapid withdrawal from high doses).	
Protracted Symptoms	**May affect up to 15% of people**	
	• Anxiety	Gradually recedes over a year
	• Depression	Maybe a few months
	• Insomnia	Gradually recedes over 6-12 months
	• Sensory symptoms	Gradually recedes but maybe a year and occasionally several years
	• Motor symptoms	Gradually recedes but maybe a year and occasionally several years
	• Poor memory & cognition	Gradually recedes but maybe a year and occasionally several years
	• GI symptoms	Gradually recedes but maybe a year and occasionally several years

Adapted from the Ashton Manual and Maudsley Prescribing guidelines.[58]

Switching to diazepam

Approximate dose equivalents and switching considerations:

- Due to inter-patient variability and differing half-lives (Table 3) this means that these are approximate dose equivalents, not exact equivalence.
- Inter-patient variability may be due a range of effects, e.g. liver impairment reducing/slowing drug excretion, which can increase B-Z half-lives and increase the risk of accumulation and drug effects.
- The drug and dose equivalents can never be exact, and should be interpreted considering your clinical knowledge and the individual patient's needs. Such as older adults and/or frail people may experience next day sedation due to diazepam's long-half life.
- Drug interactions and drug-disease interactions.
- Dose equivalents vary between authors, they are based on clinical experience but may vary between individuals.[60]

Table 3, Approximate equivalent doses

Drug	Approximate equivalent dose	Half-life (hours) (active metabolite)
Diazepam	5mg	20 – 100 (36 – 200)
Chlordiazepoxide	12.5mg	5 – 30 (36 – 200)
Clobazam*	10mg	12-60
Clonazepam*	0.25mg (250mcg)	18 – 50
Loprazolam	0.5mg (500mcg) -1mg	6 – 12
Lorazepam	0.5mg (500mcg) -1mg	10 – 20
Lormetazepam	0.5mg (500mcg) -1mg	10 – 12
Oxazepam	15mg	4 – 15
Nitrazepam	5mg	15 – 38
Temazepam	10mg	8 – 22
Zolpidem	10mg	2
Zopiclone	7.5mg	5 – 6
Zaleplon	10mg	2

Adapted from the Ashton Manual, Maudsley Prescribing guidelines, UK Medicines Information Question and Answer [45,58,60]

* Clobazam and clonazepam may be prescribed for intractable epilepsy consider caution if considering reducing dose.

Reduction schedules

When reducing B-Z do not prescribe other psychotropics to compensate unless a specific condition/disorder is being treated.

There are multiple tapering schedules, due to variations in drugs, doses and dose frequency, see Ashton for examples [link]. There is also a need to tailor reductions to individuals needs and preferences such as stopping a morning dose rather than a lunch time dose.

Reduction dose varies with starting dose. Reduce by:

- 10mg/day every 2-4 weeks, down to a total daily dose of 50mg
- 5mg/day every 2-4 weeks, down to a total daily dose of 30mg
- 2mg/day every 2-4 weeks, down to a total daily dose of 20mg
- 1mg/day every 2-4 weeks, until stopped.

Diazepam 5mg three times a day

	Morning (mg)	Lunch (mg)	Night (mg)	Total daily dose
Starting dose	5	5	5	15
Step 1	5	4	5	14
Step 2	5	3	5	13
Step 3	5	2	5	12
Step 4	5	1	5	11
Step 5	4	Stop	5	9
Step 6	3		5	8
Step 7	2		5	7
Step 8	1		5	6
Step 9	Stop		5	5
Step 10			4	4
Step 11			3	3
Step 12			2	2
Step 13			1	1
Step 14	Stop	Stop	Stop	0

Diazepam 5mg twice daily and temazepam 20mg at night

	Morning (mg)	Tea (mg)	Night (mg)	Total daily dose (Diazepam)
Starting dose	Diazepam 5	Diazepam 5	Temazepam 20	20
Step 1	Diazepam 5	Diazepam 5	Diazepam 10	20
Step 2	5	4	10	19
Step 3	5	3	10	18
Step 4	5	2	10	17
Step 5	5	1	10	16
Step 6	4	Stop	10	14
Step 7	3		10	13
Step 8	2		10	12
Step 9	1		10	11
Step 10	Stop		9	9
Step 11			8	8
Step 12			7	7
Step 13			6	6
Step 14			5	5
Step 15			4	4
Step 16			3	3
Step 17			2	2
Step 18			1	1
Step 19	Stop	Stop	Stop	0

7. Examples from practice and case studies

NHS Greater Glasgow and Clyde [27,30]

Over the last 20 years the health board has used a variety of strategies to help general practice and others to minimise inappropriate B-Zs prescribing.

Practice-level:
2002 seen the introduction of general practice clinical pharmacist-led interventions. Initially facilitation involving: baseline audits; developing, agreeing and implementing practice B-Z prescribing policy; identifying patients for review; creating individualised B-Z reduction schedules for patients; updating and educating prescribers; re-auditing, monitoring and feedback on B-Z prescribing achieved. Then in 2004 prescribing pharmacist-led face-to-face clinics with patients. Both methods have proved to be effective. However, pharmacist-led clinics have demonstrated to more reluctant prescribers that a reduction in inappropriate B-Z prescribing can be achieved. For patients that are identified as appropriate for review, a third continue their current B-Z and dose, a third reduce their dose, and a third stop treatment. Referrals to specialist Alcohol and Drug Recovery Services were not required.

General practice clinical pharmacists who piloted the initial work supported and mentored their pharmacist and pharmacy technician colleagues. Cascading and sharing their experiences enabling >40 general practice pharmacists to deliver B-Z reduction clinics in numerous practices, by 2014.

Community Pharmacy
Pharmacist prescribers who worked in general practices and community pharmacy located close to their practices started the review process in the practice, and continued to manage reviews and reductions with patients that routinely attended their pharmacies. This was well received by patients as it saved them time making appointments at their general practice.

HSCPs and Board
2013 seen the introduction of board wide B-Z review quality prescribing indicators: 1) Preferred preparation - 2mg diazepam tablets instead of 5mg/10mg tablets. 2) Review and potential reduction targets. 3) Board wide voluntary ban on the prescribing of diazepam 10mg tablets (blues) in primary and secondary care due to their street value and abuse potential. The indicator work was incentivised and funded via the Quality and Outcomes Framework general practice contract; however, many practices were interested and willing to review their B-Z prescribing, and wanted to understand and share in the successes that neighbouring practices achieved.

Locality work with 11 general practices (the Dumbarton corridor project) February to May 2013. Feb 2013, 15 GPs from the practices attended a workshop. Backfill was paid to allow attendance. At the workshop a brief presentation was given by the HSCP lead pharmacist outlining current B-Z prescribing, guidelines, best practice and long-term risks associated with B-Z use. GPs were then given the opportunity to reflect on the content of the presentation. This was followed by discussion regarding 1) When it is appropriate to prescribe short-term 2) Possible responses to patients when a B-Z is not indicated 3) Approaches to reducing and/or stopping B-Zs 4) Alternative pharmaceutical options. Then GPs discussed recommending their next steps in practice and their immediate actions. Practices then contributed to an evaluation of this workshop and its early outcomes, by the end of May, 2013. This achieved an overall reduction in B-Z prescribing (Reduction in defined daily doses per 1000 patients).

Opportunistically, in 2016, the central prescribing team encouraged practices and HSCP to review B-Z use due to cost-efficiency work to address the extreme price hikes for lormetazepam, nitrazepam liquid and temazepam.

The general practice clinical pharmacists have shared their learning and experiences with practice pharmacists and primary care teams working in other Scottish health boards and at national events and workshops within boards.

NHS Forth Valley

Anxiolytic and hypnotic workstream medicines management target was introduce in 2014/15 and continued in 2015/16. Practices could chose to participate as one of the three prescribing options, which were was incentivised via the general practice contracted and QOF.

The Anxiolytic and hypnotic workstream required three actions. The practice will:

1. **Draw up a practice policy on the prescribing of anxiolytics and hypnotics.** All partners in the practice were to be in agreement with the policy and have read the Forth Valley Primary Care Guidance on Benzodiazepines. All locums and reception staff made aware of the policy.
2. **Then ensure that patients know about the new practice policy for prescribing of anxiolytics and hypnotics.** Practices were advised to identify all patients who had received the following medicines in the previous three months: diazepam, lorazepam, loprazolam, lormetazepam, oxazepam, nitrazepam, temazepam, zopiclone, zolpidem and zapelon for review, with suggestions given on prioritisation. Patients were contacted by the practice and appropriately informed of the risks associated with the hypnotic/anxiolytic and the new practice policy.
3. **Make a ≥20% reduction in DDDs/1000 patients** (from an Oct-Dec 2013 baseline). This was to be achieved through flexible reduction regimes and no new patients were to be started on a hypnotic or anxiolytic unless they met the licensed indications. New patients were informed that they would review a short-term course, that would not be repeated. The ≥20% reduction would be achieved by Oct-Dec 2014.

Practices were provided with an anxiolytic and hypnotic pack containing sample: patient information leaflets, practice policy, poster, a reviewing B-Z flowchart, link to the local primary care benzodiazepine guidelines, invite letters and a management plan agreement.

The National Therapeutic Indicator (NTI) data was provided to practices, and used to monitor the outcomes. Baseline starting points were as below

NTI Monitoring	Time Period	Lower Quartile	Median	Upper Quartile
NHS Forth Valley	Oct-Dec 2013	*12.84*	*18.26*	*22.37*
NHS Forth Valley	Oct-Dec 2015	*8.72*	*13.84*	*17.23*

Case summary 1

Patient Details Age/sex/ Occupation

- 57 year old lady
- Nursery manager

History of presenting complaint/ reason for review

- Memory problems for last 6 months. Goes to shop and forgets what is needed. Family and friends have commented on memory. Reviewed by psychiatry short-term memory impairment.

Current Medical History and Relevant Co Morbidities

- Problems with memory for approximately 6 months
- Low mood – 2 years
- Brian injury due to road traffic accident 4 years ago

Current Medication and drug allergies (Drug History)

- Diazepam 5mg twice daily if needed for anxiety. Ordering 56 tablets regularly every month, but states taking as required. >2 years.
- Allergies: states 'bad reaction to fluoxetine' – unclear symptoms.

Lifestyle and Current Function (Psychosocial history) inc. alcohol/ smoking/ diet/ exercise etc

- Ex-smoker
- Alcohol – approximately 10 units/week

"What matters to me" (Patient Ideas, Concerns and Expectations of treatment)

- Memory function

Results e.g biochemistry, other relevant investigations or monitoring

- All blood tests within normal ranges (U&Es, LFTs, FBC, B_{12}, folate, ferritin, TFTs, bone profile, TFTs)
- MMSE 26/30 – normal
- Addenbrooke's cognitive test 96/100

Most recent consultations

4 months prior to review

- Attending physio for neck pains with good effect. Managed to stop ibuprofen. Will aim to reduce diazepam use.

Domain	Steps		Process	Patient specific issues to address
Aims	**1.**	What matters to the patient problems	**Review diagnoses and identify therapeutic objectives with respect to:** • Identify objectives of drug therapy • Management of existing health problems. Prevention of future health	• Diazepam: Minimise actual and potential drug related harms
Need	**2.**	Identify essential drug therapy	**Identify essential drugs (not to be stopped without specialist advice)** • Drugs that have essential replacement functions (e.g. thyroxine) • Drugs to prevent rapid symptomatic decline (e.g. drugs for Parkinson's disease, heart failure)	• None
	3.	Does the patient take unnecessary drug therapy?	**Identify and review the (continued) need for drugs** • What is medication for? • with temporary indications • with higher than usual maintenance doses • with limited benefit/evidence of its use in general • with limited benefit in the patient under review (see Drug efficacy & applicability (NNT) table)	• Diazepam – anxiety for more than 2 years. Takes regularly 10mg daily.
Effectiveness	**4.**	Are therapeutic objectives being achieved?	**Identify the need for adding/intensifying drug therapy in order to achieve therapeutic objectives** • to achieve symptom control • to achieve biochemical/clinical targets • to prevent disease progression/exacerbation • is there a more appropriate medication that would help achieve goals	• No – continues diazepam which may cause/worsen memory impairment.
Safety	**5** •	Does the patient have ADR/ Side effects or is at risk of ADRs/ side effects?	**Identify patient safety risks by checking for** • if the targets set for the individual appropriate ? • drug-disease interactions • drug-drug interactions (see ADR table) • monitoring mechanisms for high-risk drugs • risk of accidental overdosing	• Diazepam – lack of efficacy? Questionable effects may be contributing to anxiety, and causing short-term memory impairment.

		Does the patient know what to do if they're ill?	**Identify adverse drug effects/harms by checking for** • specific symptoms/laboratory markers (e.g. hypokalaemia) • cumulative adverse drug effects (see ADR table) • drugs that may be used to treat side effects caused by other drugs **Sick Day rule cards**	
Cost-effectiveness	**6.**	Is drug therapy cost-effective?	**Identify unnecessarily costly drug therapy by** • Consider more cost-effective alternatives (but balance against effectiveness, safety, convenience)	• Not appropriate
Patient centeredness	**7.**	Is the patient willing and able to take drug therapy as intended?	**Does the patient understand the outcomes of the review?** • Consider Teach back **Ensure drug therapy changes are tailored to patient preferences by** • Is the medication in a form the patient can take? • Is the dosing schedule convenient? • Consider what assistance the patient might have and when this is available • Is the patient able to take medicines as intended **Agree and communicate plan** • Discuss with the patient/carer/welfare proxy therapeutic objectives and treatment priorities • Decide with the patient/ carer/ welfare proxies what medicines have an effect of sufficient magnitude to consider continuation or discontinuation • Inform relevant healthcare and social care carers, changes in treatments across the care interfaces	**Agreed plan** • Go slow and low reduction of diazepam. Planned reduction schedule discussed and agreed. • Diazepam to reduce by 1mg every 4 weeks with follow up reviews as agreed and need. • Prescription to be supplied as special request (acute) with planned reduction steps recorded in patients clinical notes.

Key Concepts in this case

Summaries key points here

- Diazepam and other benzodiazepines/z-hypnotics can worsen memory impairment and anxiety symptoms.
- Reducing long-term diazepam use and dose may help to minimize avoidable drug related harms such as memory impairment and anxiety.

Case summary

Patient Details Age/sex/ Occupation

- 49 year old lady
- Works 2 part-time jobs: school cleaner and dinner lady at different schools
- Lives with adult daughter (pregnant) and daughters partner.
- 2 adult sons one local one lives away.
- Very active helping others – multiple brothers.

History of presenting complaint/ reason for review

- Proactively called for review of benzodiazepine

Current Medical History and Relevant Co Morbidities

- Mixed depression anxiety – 20 years
- Asthma – 20 years
- Dry eyes – 2 years

Current Medication and drug allergies (Drug History)

- Diazepam 10mg (2x5mg) three times a day
- Salbutamol 100mcg mdi 1-2 puffs four times a day if needed
- Venlafaxine MR 150mg daily – 3 years
- Clenil 200mcg 2puffs twice daily
- Temazepam 20mg at night
- Paracetamol 500mg 2 four times a day if needed
- Carbomer eye gel as required
- Hypromellose drops as required

Lifestyle and Current Function (Psychosocial history) inc. alcohol/ smoking/ diet/exercise etc

- Walks between jobs does not drive.
- Smoker 10 cigarettes per day
- Alcohol – avoids as does not like
- Number of episodes of deliberate self-harm last overdose 5 years ago

"What matters to me" (Patient Ideas, Concerns and Expectations of treatment)

- What matters to me? Main focus is being there for and being able to help her family.
- At review agrees to reduce diazepam but not temazepam.
- Managing well with other medicines, reports:
    - Good asthma control (ordered 4 salbutamol in last 12 months). Demonstrates good inhaler technique
    - Depression and anxiety mood stable, less depression symptoms over the last 2-3 years. PHQ-9 score 8. Denies thoughts of deliberate self-harm or suicide.

Results e.g. biochemistry, other relevant investigations or monitoring

- BMI 19
- BP 134/84

Most recent consultations

- Rarely attends GP. Last consultation 18 months ago for dry eyes

Domain	Steps		Process	Patient specific issues to address
Aims	1.	What matters to the patient problems	**Review diagnoses and identify therapeutic objectives with respect to:** • Identify objectives of drug therapy • Management of existing health problems. Prevention of future health	• Reduce total daily benzodiazepine dose to <30mg diazepam equivalent; Currently 40mg daily (diazepam 10mg three times a day + temazepam 20mg at night) • Maintain good control of depression and anxiety • Dry eyes which preparation
Need	2.	Identify essential drug therapy	**Identify essential drugs (not to be stopped without specialist advice)** • Drugs that have essential replacement functions (e.g. thyroxine) • Drugs to prevent rapid symptomatic decline (e.g. drugs for Parkinson's disease, heart failure)	• Asthma meds: clenil and salbutamol. • Venlafaxine mood stable
	3.	Does the patient take unnecessary drug therapy?	**Identify and review the (continued) need for drugs** • What is medication for? • with temporary indications • with higher than usual maintenance doses • with limited benefit/evidence of its use in general • with limited benefit in the patient under review (see Drug efficacy & applicability (NNT) table)	• Hypromellose v carbomer for dry eyes. Prefers carbomer. Stop Hypromellose. • Paracetamol – uses irregularly • Diazepam and temazepam continued for >4 weeks. May worsen depression/anxiety symptoms, etc.
Effectiveness	4.	Are therapeutic objectives being achieved ?	**Identify the need for adding/intensifying drug therapy in order to achieve therapeutic objectives** • to achieve symptom control • to achieve biochemical/clinical targets • to prevent disease progression/exacerbation • is there a more appropriate medication that would help achieve goals	• Total daily dose as diazepam equivalent is 40mg. Diazepam reduction agreed (see table below).
Safety	5.	Does the patient have ADR/ Side effects or is at risk of ADRs/	**Identify patient safety risks by checking for** • if the targets set for the individual appropriate ? • drug-disease interactions • drug-drug interactions (see ADR table) • monitoring mechanisms for high-risk drugs	• No clear indication for long-term diazepam and temazepam. • Previous history of self-harm

		side effects? Does the patient know what to do if they're ill?	• risk of accidental overdosing **Identify adverse drug effects/harms by checking for** • specific symptoms/laboratory markers (e.g. hypokalaemia) • cumulative adverse drug effects/harms (see ADR table) • drugs that may be used to treat side effects caused by other drugs **Sick Day rule cards**	• None
Cost-effectiveness	**6.**	Is drug therapy cost-effective ?	**Identify unnecessarily costly drug therapy by** • Consider more cost-effective alternatives (but balance against effectiveness, safety, convenience)	• Prescribe carbomer as clinitas as per health board formulary • Venlafaxine MR to ordinary release considered inappropriate
Patient centeredness	**7.**	Is the patient willing and able to take drug therapy as intended ?	**Does the patient understand the outcomes of the review?** • Consider Teach back **Ensure drug therapy changes are tailored to patient preferences by** • Is the medication in a form the patient can take? • Is the dosing schedule convenient? • Consider what assistance the patient might have and when this is available • Is the patient able to take medicines as intended **Agree and communicate plan** • Discuss with the patient/carer/welfare proxy therapeutic objectives and treatment priorities • Decide with the patient/ carer/ welfare proxies what medicines have an effect of sufficient magnitude to consider continuation or discontinuation • Inform relevant healthcare and social care carers, changes in treatments across the care interfaces	**Agreed plan** • Low and slow reduction. Start to reduce diazepam dose as per table below.. At third review agrees to reduce temazepam at 3rd review. • Follow up agreed at a suitable time by phone between jobs e.g. between 2-3pm week days. • Prescription changed to special request (acute).

Key Concepts in this case

Summaries key points here

- Work with patients and their willingness to engage. After initial diazepam dose reduction went well, this lady was ready to engage with reducing her temazepam dose.

	Diazepam			Temazepam 20mg (as diazepam equivalent dose)	
	Morning (mg)	Lunch (mg)	Tea (mg)	Night (mg)	Total daily dose: diazepam
Starting dose	10	10	10	10	40
Step 1	10	5	10	10	35
Step 2	10	5	5	10	30
Step 3	10	4	4	10	28
Step 4	8	4	4	10	26
Step 5	6	4	4	10	24
Step 6	4	4	4	10	22
Step 7	4	2	4	10	20
Step 8	4	1	4	10	19
Step 9	4	Nil	4	10	18
Step 10	4		3	10	17
Step 11	4		2	10	16
Step 12	4		1	10	15
Step 13	4		Nil	10	14
Step 14	4			9	13
Step 15	4			8	12
Step 16	4			6	10
Step 17	3			6	9
Step 18	2			6	8
Step 19	1			6	7
Step 20	Nil			5	5
Step 21				4	4
Step 22				3	3
Step 23				2	2
Step 24				1	1
	Stop	Stop	Stop	Stop	0

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Appendix 1 – Sleep hygiene – Patient information leaflet

Things to consider that can help and improve your quality of sleep and reduces anxiety.

- **How much caffeine do you take?** Remember that caffeine is a stimulant which is alerting and will affect your sleep quality and any anxiety. Common products that contain caffeine are tea, coffee, Irn-Bru, Cola, Red Bull, Proplus tablets and some energy drinks. Some pain medicines also contain caffeine Solpadeine, Propain, Panadol plus, Veganin etc. Therefore try to avoid all caffeine containing products after 6pm in the evening.

- **Alcohol** will affect the quality of your sleep, which may add to problems of anxiety and depression

- **Other things that affect sleep**
    - Watching television stimulates your brain with sound, light and motion. All of these stimulate your body and reduce fatigue.
    - Watching television in your bedroom. This can affect sleep quality as your body gets out of the habit of being trained to go to bed to sleep. Therefore remove TV from bedroom.
    - Noisy neighbours – difficult to deal with but ear plugs may help.

- **How to improve sleep**
    - **Establish a routine.** Go to bed and get up at the same time each day.
    - **No naps.** Try not to sleep during the day.
    - **Unwind the mind.** May help writing down problems and filing them away until the next morning. Address problems the next day, eg money/family problems.
    - **Take regular exercise**, such as a brisk 20 minute walk. Natural chemicals (endorphins) produced during exercise have a calming and relaxing affect after you have exercised. Do not exercise before going to bed or for 3 hours before going to bed as this can have the opposite effect.
    - Hot **caffeine free drinks** will warm you and help your body relax.
    - **Make time to relax.** Quiet time reflecting, listening to calming music such as classical, transient house, etc. 20-30 minutes a day would be enough. Watching TV does not help as it can be over stimulating.
    - Consider using ear plugs for noise that is affecting you which you cannot control.
    - If all else fails get out of bed and do something (read, etc) and then go back to bed.

Other information:

- NHS Inform: Sleep problems and insomnia self-help guide [link] https://www.nhsinform.scot/illnesses-and-conditions/mental-health/mental-health-self-help-guides/sleep-problems-and-insomnia-self-help-guide
- NHS How to get to sleep: Sleep and tiredness [link] https://www.nhs.uk/live-well/sleep-and-tiredness/how-to-get-to-sleep/
- The Sleep Charity: Adults [link]. https://thesleepcharity.org.uk/information-support/
- The Sleep Charity: Teen Sleep Hub [link] https://teensleephub.org.uk/

Appendix 2 – Resources to support low intensity psychosocial/opsychological interventions

The NHS Inform (Mental Health) website provides information regarding a range of mental health difficulties. In addition to self-help guides NHS Inform provides links to evidence based digital/online resources and telephone support based on CBT principles, see options below. Decisions regarding interventions should be based on an assessment of need and consider both suitability and acceptability for the individual[4]. Regular review is necessary to monitor progress and to step up care as and when required. There may also be a number of wellbeing resources available across localities.

Beating the Blues	cCBT programme for mild to moderate symptoms of depression and/or anxiety: 8 sessions	Link
Living Life	Appointment based telephone support for anxiety and depression for ≥16 years: 4-9 sessions	Link Tel: 0800 328 9655
Silvercloud	Range of online psychoeducational programmes to support wellbeing, stress and mild to moderate anxiety and low mood	Link
Sleepio	Online resource for Insomnia	Link
Daylight	Online resource for Anxiety	Link

[4] Silvercloud see 'How to assess for patient suitability for online mental health and wellbeing programs' for more detail

Appendix 3 – Practice policy poster

As referred to in Practice Policy.

The Surgery
The Road
The City

Notice to All Patients

In line with Health Board* and National Guidance the practice is currently reviewing individuals prescribed:

Chlordiazepoxide
Diazepam
Lorazepam
Loprazolam
Lormetazepam
Oxazepam
Nitrazepam
Temazepam
Zaleplon
Zopiclone
Zolpidem

Please note that these tablets will **NO LONGER** routinely be commenced. If you require any further information, please discuss with your doctor.

Dr A Dr B Dr C Practice Manager

Appendix 4 – Practice invitation letter for review

PRACTICE LETTERHEAD

Private & Confidential

Patient Name
Patient Address

Date

Dear

From reviewing your records, we note that you are currently prescribed *[drug name(s)]*. With all medicines it is important that your *[drug name(s)]* is routinely reviewed in line with current guidelines and safety advice, due to the risk of adverse effects and avoidable harms:

- Depression
- Memory loss and dementia
- Falls and hip fractures
- Increase in road traffic accidents
- Addiction

We are now inviting you to contact the practice to arrange a routine appointment where we can discuss your current use of *[drug name(s)]*. No further routine repeat prescription supplies will be made until *[drug name(s)]* is reviewed.

Yours sincerely

Drs A, B and C

Appendix 5 – Patient information leaflet

Background
Benzodiazepines and z-hypnotics, also known as sedatives, anxiolytics and sleeping tablets, have limited therapeutic effects, and are known to cause a range of avoidable adverse drug effects and harms. Dependence (both physical and psychological) and tolerance (loss of effect) develops quickly within weeks of starting them. Therefore when they are needed they should only be prescribed for a short course (e.g. maximum of 7 days). However, some individuals may have received longer courses of treatment which may lead to difficulty withdrawing the drug after taking it regularly for more than a few weeks. It also exposes individual's to avoidable drug-related harms which can be reduced by reviewing, reducing and stopping treatment where appropriate.

What is the purpose of the benzodiazepines and z-hypnotic quality prescribing advice?
It is intended to:

- Empower and help people who receive benzodiazepines and/or z-hypnotics, and prescribers to review these drugs, and get the best out of the medicines for individual's.
- Improve the support available from the healthcare system for individual's experiencing dependence on, or withdrawal from, prescribed medicines.
- Help prescribers identify individuals who may benefit from a benzodiazepine and/or z-hypnotic review, and support routine medicines reviews.
- Provide a range of options, where appropriate, for individual's that have completed their course of benzodiazepines and/or z-hypnotic treatment, and are appropriate to reduce and stop their benzodiazepine and/or z-hypnotic.

Do I need to have my benzodiazepines and z-hypnotic reviewed?

- Yes, as benzodiazepines and z-hypnotics:
    - Have limited effects for reducing anxiety, insomnia and muscles spasms.
    - Are known to be associated with a range of avoidable adverse effects and harms:
        - Depression and low mood
        - Memory loss and dementia
        - Falls and hip fractures
        - Increase in road traffic accidents
        - Paradoxical effects: insomnia, anxiety, irritability, etc.
        - Addiction
- Having medicines reviewed regularly creates an opportunity to discuss if a medicine needs to continue, and consider effective non-drug treatments and lifestyle changes that may help.

Do I need to stop my benzodiazepines and z-hypnotic?

- It may be appropriate for some individual's to stop, but not for others.
- Continuing treatment maybe appropriate because there are more benefits to continuing than risks of stopping treatment e.g. epilepsy, Parkinson's.
- Reducing and/or stopping may be necessary to reduce the risk of avoidable adverse drug effects and harms e.g. falls, confusion, sedation, etc.

How should I stop my benzodiazepines and z-hypnotic?
If you are ready to stop your benzodiazepines and z-hypnotic

- Arrange a review with your general practice doctor, pharmacist or nurse.
- Discuss stopping your medicine and agree if this is appropriate.

- If appropriate to stop, then plan and agree the best way to do this for you considering the options outlined in the benzodiazepines and z-hypnotic quality prescribing advice.