Benzodiazepines:

Good Practice Guidelines for Clinicians

DEPARTMENT
OF HEALTH AND
CHILDREN
AN RIONN
SLAINTE AGUS LEANAI

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Good Practice Guidelines for Clinicians

The advice on benzodiazepine prescribing given in this document is based on the personal opinions of the benzodiazepine committee. The opinions expressed do not relieve clinicians of the responsibility of exercising their own medical judgement.

Contents

Introduction

Benzodiazepines are one of the most widely used prescription medicinal products in the world. Benzodiazepines may be prescribed safely in the short-term and are a highly effective treatment for anxiety, insomnia and some forms of epilepsy and spasticity. Benzodiazepines are only indicated when the disorder is severe, disabling or subjecting the individual to extreme distress. Dependence is now recognised as a significant risk in patients receiving treatment for longer than one month and the practitioner has to be conscious of this when evaluating the relative benefits and risks of continued prescription. It is recommended that every clinician examines the benefit:risk ratio in each individual case early in treatment, so that if

dependence occurs, it is anticipated by therapist and patient alike. The decision to allow dependence to develop is sometimes defensible, but it must be appreciated that, once dependence has become established, it is often extremely difficult to treat and may become a long-term or even permanent state.

While this document deals with benzodiazepines, the information and recommendations made can also refer to other mood modifying medications, such as Zopiclone, Zolpidem and Zaleplon which have similar effects to benzodiazepines.

Prescribing recommendations

Before looking at the use of benzodiazepines some general rules about the use of tranquillisers, and the benzodiazepines in particular are listed below

General rules for treatment with tranquillisers/benzodiazepines

1. Benzodiazepine prescribing should never be purely symptom-orientated. A careful analysis of the causes of the symptoms must be undertaken before benzodiazepines or other tranquillisers are prescribed.
2. Over and above the prescribing of the medication, some sort of psychotherapeutic guidance is required. It is important to spend time with the patient, and pay attention to what he/she is saying.
3. It is vital always to check carefully whether the patient might have a tendency to misuse drugs or, alcohol.
4. It is important to individualise the dose for each patient, to ensure that there is neither under-dosage nor over-dosage.
5. Benzodiazepines should be prescribed only for as long as is necessary, aiming for the shortest possible time but no longer than 4 weeks.
6. If the medication is withdrawn abruptly, rebound anxiety or insomnia can occur. This should not be confused with recurrence of the original symptoms. The patient may require a tapering-off of medication, with ongoing support.
7. Reduction of the dose and discontinuation of benzodiazepine therapy should take place under careful medical observation and with appropriate psychological intervention.

So, before prescribing:

Take a full history including an alcohol and licit and illicit drug history.
Inform the patient of the side-effect profile of benzodiazepines and offer an information leaflet.
Consider and treat, if possible, any underlying causes.
Consider referral to other services.
Consider alternative therapies.
Consider delaying prescribing until a subsequent visit.

When prescribing for the first time:

Initiate with the lowest recommended dose, but this may need to be adjusted depending on patient's response.
Do not prescribe for longer than 4 weeks.
Use phased dispensing where possible.
Ensure that agreements between doctor and patient are documented.
Record all details of medication prescribed and duration of treatment.
Clear, effective and speedy communication concerning benzo diazepine usage should always take place between the prescribing professionals both within and between services.

For patients dependent upon benzodiazepines or patients in receipt of continuing prescribing

Issue small quantities at a time (usually not more than one week).
Review regularly (usually monthly).
Use a long acting benzodiazepine in dosages no higher than diazepam 5 mg three times daily or equivalent.
Ensure that all patients are made aware of the risks of long term benzodiazepine use and document this communication.
Signed consent forms should be used where appropriate.

Encourage all patients with dependency to withdraw and offer them a detoxification programme at regular intervals (at least annually) and document all communication. A significant number of requests for repeat benzodiazepine prescribing are associated with addiction problems, primarily alcohol, or in urban areas, opiate misuse. A doctor who suspects this is the case should seek specialist advice.

Indications

Anxiety

Benzodiazepine anxiolytics should be prescribed primarily for the short-term relief of anxiety and related symptoms when it is disabling and severe resulting in significant distress or problems in social functioning. Other forms of anxiety may be treated by psychological means or pharmacological treatments suitable for long-term use. The underlying cause should be determined and addressed.

Benzodiazepines should not usually be prescribed for longer than one month.

There are circumstances in which longer-term prescription of benzodiazepines may be considered desirable because the alternative is considered less beneficial. This may be in conditions such as chronic treatment-resistant anxiety or in patients who have established dependency and are unable to withdraw successfully. There are other situations where anxiety is complicated by other illnesses and where the risk of dependence may be considered acceptable because of the severity of the other disorders.

Sleep

Benzodiazepines are effective, safe and approved hypnotics for the short-term treatment of insomnia. The following guidelines should be noted:

Prescription should be:

- limited to between 2 and 4 weeks;
- at the lowest effective dose; and
- prescribed intermittently.

Care should be taken to exclude any other primary condition such as depression or substance misuse as a cause for insomnia. It may be useful to inform the patient when treatment is started that it will be of limited duration, and explain precisely how the dosage will be progressively decreased. Moreover, it is important that the patient be made aware of the possibility of rebound insomnia, thereby minimising anxiety over such symptoms should they occur while the medication is being discontinued.

Before starting any pharmacological treatment it is important to discuss sleep problems with patients and present them with information which may help them to overcome their sleep difficulties:

- the normal amount of sleep varies widely and usually decreases with age
- temporary sleep problems are common at times of stress or physical illness
- worry about not being able to sleep can worsen insomnia
- alcohol may help in falling asleep, but can lead to restless sleep
- stimulants (including tea and coffee) can cause or worsen insomnia

Because sleep disorders are often caused by inappropriate sleep habits, it is important to give careful advice about a healthy sleep routine (sleep hygiene). For sleep hygiene recommendations and adjunctive / alternative strategies, see Appendix 1.

The choice of benzodiazepine (and dose) depends on the type of sleep disorder:

- Patients who have difficulty in falling asleep can be treated effectively with short or intermediate-acting benzodiazepines.
- Patients experiencing situational insomnia or periods of wakefulness during the night, or early awakening, need a benzodiazepine with an intermediate half-life. Long-acting benzodiazepines, in general, should not be prescribed, to ensure there is no sedative hangover during the day.

Unwanted Effects

Withdrawal Symptoms

Withdrawal symptoms may occur on cessation or reduction of benzodiazepine and are characterised by anxiety/nervousness, irritability, depressed mood, insomnia, fatigue or lethargy, lack of energy, restlessness and agitation, tremors, dizziness, headaches, muscle aches or stiffness, weakness and difficulty concentrating and remembering. These symptoms may be difficult to distinguish from the original presenting symptoms. Occasionally, withdrawal phenomenon is so severe that the patient may experience seizures.

The incidence and severity of withdrawal symptoms are dependent on speed of tapering-off, the elimination half-life of the drug, the duration of benzodiazepine therapy and the daily dose. Although the general principles of pharmacology suggest that withdrawal symptoms are linked to a rapid fall in blood concentrations, the clinical emergence of withdrawal symptoms is complex, and is modulated by a number of important factors, including, personality, concurrent diagnoses, patient expectation, social situation, lifestyle and peer influences.

The withdrawal syndrome is more likely if: (a) the benzodiazepine has been taken in regular dosage for more than several months; (b) higher dosages have been used; (c) the drug is stopped suddenly; and (d) a benzodiazepine with a short elimination half-life has been taken (systemic kinetics determine the intensity and time-course of discontinuation phenomena, with these being more florid and more intense in those who were abruptly switched off short elimination half-life drugs such as lorazepam and alprazolam). The true pharmacological withdrawal syndrome is most likely to occur when there is a rapid fall in blood benzodiazepine concentrations.

The syndrome can best be avoided by the prescription of a benzodiazepine for less than 4 weeks with an intermediate or long elimination half-life and by gradual reduction of dosage when a decision is made to discontinue treatment.

Recommendations on the management of benzodiazepine withdrawal are given at Appendix 2.

Dependence

Dependence on benzodiazepines is mainly manifest by withdrawal symptoms on cessation, which may sometimes be prolonged and result in symptoms which may be hard to distinguish from other anxiety related disorders such as panic disorder. In general, withdrawal reactions are short-lived, lasting for up to a month, but there is controversy about whether symptoms persisting longer are really withdrawal reactions or the manifestations of a chronic underlying neurosis or an exacerbation of the underlying condition triggered by tranquilliser withdrawal.

During therapeutic use, the risk of developing benzodiazepine dependence increases with the dose and duration of treatment, the nature of the illness, the severity of symptoms, the expectation of beneficial effect and the intensity of stress factors.

Patients especially at risk are those with:

- a history of addiction
- chronic physical illness, especially if associated with pain
- dysthymic and personality disorders
- chronic sleep disorders.

Long-term dependence should be treated by gradual withdrawal. Psychological support with the addition of cognitive-behavioural therapy should be offered where appropriate and where services are available in order to attenuate any symptoms which may occur. Contact should be made with local health board psychiatric services for assistance in assessing treatment options for difficult cases.

Pharmacological and psychological aids may only have limited benefit and many patients are unable to stop their drugs, or show persistent symptoms after withdrawal. In patients with persistent symptoms, a decision needs to be taken about whether they are generally better off with or without the medication. This decision needs to be taken in conjunction with the patient.

The long-term risks of using benzodiazepines need to be balanced against the benefits. If a decision to prescribe maintenance benzodiazepines is made then the following recommendations are suggested;

- Use a long acting benzodiazepine
- Do not exceed the equivalent of diazepam 5 mg tds
- Issue small quantities at a time (usually not more than one-week)
- Review regularly (usually monthly)
- Ensure that all patients are made aware of the risks of long-term benzodiazepine use and document this communication
- Signed consent forms should be used where appropriate
- Encourage all patients with dependency to withdraw and offer themawithdrawal programme at regular intervals (at least annually) and document all communication

Seek specialist advice before prescribing to patients who have become dependent as a result of substance abuse.

Anterograde amnesia

All benzodiazepines may induce anterograde amnesia. This means that someone given a benzodiazepine may remember information before benzodiazepine administration, but there may be difficulties in later recall of information received after the benzodiazepine was given, until the effects of the drug have worn off.

Anterograde amnesia usually occurs several hours after the drug is taken: to reduce the risk, patients given benzodiazepines as hypnotics should ensure that they will be able to have 7-8 hours uninterrupted sleep.

Paradoxical reactions

Paradoxical reactions such as restlessness, agitation, irritability, aggressiveness, delusion, rages, nightmares, hallucinations, psychoses, inappropriate behaviour and other adverse behavioural effects are known to occur when using benzodiazepines. Should any of these occur, the drug should be stopped. They are more likely to occur in children and the elderly. Another group to pay particular attention to in relation to paradoxical reactions are drug misusers who may take high and fluctuating amounts of benzodiazepines.

Drowsiness and other effects

Drowsiness during the day, 'flat' emotions, reduced alertness, confusion, fatigue, headache, dizziness, muscle weakness, ataxia or double vision are all possible unwanted effects of benzodiazepine treatment. Such phenomena occur predominantly at the start of therapy but usually disappear with repeated administration. Other side-effects, such as gastrointestinal disturbances, changes in libido or skin reactions have been reported occasionally.

Overdosage

Symptoms

Benzodiazepine overdose usually results in central nervous system depression, ranging from drowsiness to coma. In mild cases, symptoms include drowsiness, mental confusion and lethargy. In more serious cases, symptoms may include ataxia, hypotonia, hypotension, respiratory depression, coma (rarely) and death (very rarely). However, overdose does not usually present a threat to life unless combined with other CNS depressants (e.g. alcohol).

Treatment

In the management of overdose with any medicinal product, it should be borne in mind that multiple agents may have been taken. Following overdose with oral benzodiazepines, vomiting should be induced (within 1 hour) if the patient is conscious or gastric lavage undertaken with the airway protected if the patient is unconscious. If there is no advantage in emptying the stomach, activated charcoal should be given to reduce absorption. Special attention should be paid to respiratory and cardiac function in intensive care. Flumazenil may be useful as an antagonist. Caution should be observed in the use of flumazenil in epileptics treated with benzodiazepines.

Interactions

If benzodiazepines are taken in combination with other CNS depressants (including alcohol), the central depressant effect may be enhanced. This can occur with antipsychotics (neuroleptics), hypnotics, anxiolytics /sedatives, antidepressant agents, opioid compounds, antiepileptic drugs ,anaesthetics and sedative antihistamines. In the case of opioid compounds, enhancement of euphoric effects may also occur.

Compounds which affect certain hepatic enzymes may alter the effect of benzodiazepines. Such reactions are known to occur with a wide variety of medications.

Precautions and contraindications

Precautions

Effects on ability to drive or use machines

Sedation, amnesia, impaired concentration and impaired muscle function may adversely affect the ability to drive or use machines. This effect may be greatly enhanced if other drugs such as opioid compounds are being taken by the patient. Patients should be advised not to drive or operate machinery if they experience drowsiness or are on opioid compounds.

Depression

Benzodiazepines should not be used alone to treat depression or anxiety associated with depression, as they may mask the symptoms of depression. This can have serious consequences, denying the patient the opportunity of effective antidepressant medication, or resulting in disinhibition which may lead to suicide attempts. Withdrawal from benzodiazepines may, in other cases, precipitate a depression. The need for an anti-depressant is best judged when benzodiazepine issues have been settled either by withdrawal or maintenance therapy.

A lower dose is recommended in patients with chronic respiratory insufficiency, due to the risk of respiratory depression. Patients with impaired liver function should also receive a reduced dose.

Street Diversion

Doctors should be aware that medication they prescribe may be diverted from the intended patient and fall into the wrong hands and be abused. It is not always possible to know which of our patients will divert some or indeed all of their medication to unintended sources. For instance it is known that patients, even in the older age group, may sell on their prescribed medication. For this reason supplies of benzodiazepines should be dispensed in limited quantities, ideally weekly aliquots. By writing "phased dispensing weekly/daily" as appropriate the pharmacist will dispense as requested for both GMS and non GMS prescriptions. There is a provision for phased dispensing which is budget neutral under the Indicative Drug Budget Scheme for GPs. It is recognised, however, that this recommendation may be more appropriate in younger rather than older people.

Contraindications

Benzodiazepines are generally contraindicated in patients with:

myasthenia gravis
hypersensitivity to benzodiazepines
severe respiratory insufficiency
sleep apnoea syndrome
severe hepatic insufficiency

Benzodiazepines are not recommended for the primary treatment of psychotic illness. They are contraindicated for use as hypnotics in children.

Special Patient Groups

1) Elderly Patients

Benzodiazepines are the most commonly used psychotropic drug in older people and can be very effective anti anxiety agents. However, adverse effects in this group include impaired cognition and gait and the development of tolerance dependence and withdrawal. Reduced drug clearance with consequent higher plasma levels may be responsible for increased adverse effects in older people. Benzodiazepines with a long duration of action are particularly likely to accumulate and therefore have an even greater potential for sedative effects and psychomotor impairment. Long acting benzodiazepines, therefore, with active metabolites should usually be avoided in the elderly e.g. diazepam, chlordiazepoxide, flurazepam, nitrazepam. When benzodiazepines are prescribed in older people, short acting benzodiazepines with few active metabolites are preferable e.g. lorazepam 0.5mg bd/tid, temazepam 10-20mg nocte, alprazolam 0.25mg bd/tid.

Older people should be checked regularly at the start of treatment in order to minimize the dosage and/or the frequency of administration to prevent undesirable effects due to accumulation.

Older people who are taking benzodiazepines with a long elimination half-life have been shown to have an increased risk of falls and involvement in road traffic accidents compared to users of short-acting benzodiazepines.

Late life depression can present with anxiety symptoms and should primarily be treated with antidepressant medication rather than benzodiazepines. Benzodiazepines may also be used on a time limited period for the short term treatment of severe insomnia.

Many elderly patients have been taking benzodiazepines on a long term basis and are physiologically and psychologically dependent. It is appropriate to try and taper and discontinue benzodiazepines in these cases; however it may be very difficult to discontinue benzodiazepine use completely. Best practice would be to discuss the issue with the patient and see if the patient will agree to a slow taper and possible discontinuation.

It is important for physicians to read the prescribing information for a particular benzodiazepine very carefully and to observe the relevant warnings.

2) Use During Pregnancy and Lactation

If a product is prescribed to a woman of child bearing potential, she should be warned to contact the prescriber regarding discontinuance of the product if she intends to become, or suspects she is pregnant.

If, for compelling medical reasons, the product is administered during the late stage of pregnancy, or during labour at high doses, effects on the neonate, such as hypothermia, hypotonia and moderate respiratory depression, can be expected, due the pharmacological action of the compound.

Infants born to mothers who took benzodiazepines chronically during the later stages of pregnancy may have developed physical dependence and may be at risk of developing withdrawal symptoms in the postnatal period.

Since benzodiazepines are found in breast milk, they should not be prescribed to breastfeeding mothers.

3) Hospitals and Institutions

Many patients find admission to hospital a traumatic experience which causes understandable anxiety. The unfamiliar surrounding and noise of a busy hospital ward may also cause loss of sleep. In some hospitals, the prescription of benzodiazepines to overcome anxiety and loss of sleep has become a routine practice and can lead to patients who have not previously received these drugs being prescribed them during the admission and stay and then subsequently discharged on them. Therefore, where patients are prescribed benzodiazepines during a hospital admission this should be for a short period only (say, up to five days).

The short-term nature of the treatment should be explained to the patient and the continued need for benzodiazepines reviewed at discharge. Patients should be advised of the risk of dependency if drug treatment is continued following discharge from the hospital. Where drug treatment is continued following discharge the general practitioner should be fully informed of the indication for the new prescription and the proposed duration.

The creation of new chronic benzodiazepine users by a hospital admission must be considered unacceptable.

The opposite problem can also occur whereby chronic benzodiazepine users may not be prescribed their usual medicines on admission and their illness may be then complicated unnecessarily by withdrawal symptoms.

In order to avoid this problem, at each hospital admission, it should be determined whether the patient is a non-user, occasional user or routine user of benzodiazepines. Regular users should not have their treatment suddenly stopped but it should be recognised that the hospital admission presents an opportunity to encourage withdrawal or dose reduction in all users of benzodiazepines.

Special problems can arise during long-term care where routine prescribing and administration of benzodiazepines (especially as hypnotics on long stay hospital wards such as elderly care units) may cause problems of dependence. In such cases, patients receiving benzodiazepines should be regularly reviewed, as the only clinical justification for continuing use is dependence. Planned withdrawal of patients dependent on benzodiazepines should be considered. Attempts should be made to improve levels of mental stimulation and physical activity on long stay wards.

Alternative strategies for reducing anxiety and insomnia during an admission other than by the prescription of benzodiazepines should be considered. Suggestions include the reduction of unnecessary noise on wards during normal sleeping hours and the availability of counselling for patients suffering from anxiety. The prescription of alternative hypnotics and sedatives with similar dependence potential to benzodiazepines (e.g. chloral products) and the inappropriate use of antidepressants and anti-psychotics should be discouraged.

4) Alcohol Withdrawal and Benzodiazepines

In an individual with an established alcohol dependence syndrome, the sudden cessation of alcohol can precipitate the onset of an alcohol withdrawal syndrome. The withdrawal syndrome can vary in intensity from mild symptoms of anxiety and sweating to a severe delirium state with associated seizures and mortality. Effectively controlling the symptoms of withdrawal is an important intervention carried out to reduce morbidity. Traditionally benzodiazepines have been used to alleviate the symptoms of withdrawal. These compounds act on specific receptors in the brain called GABA receptors.

These are the principal inhibitory receptors in the brain and action on these results in decreasing noradrenaline release which is thought to be responsible for at least some of the symptoms of withdrawals experienced by alcohol dependent individuals. Benzodiazepines may affect, at least in part, the alcohol related mental confusion, depression and fatigue.

Thus benzodiazepines are safe and effective drugs to use in alcohol withdrawals, however the side effects of memory impairment, drowsiness and lethargy as well as the potential for dependence means that they may interfere with other therapeutic approaches dealing with stress management, coping behaviour or drinking behaviour modification. Therefore benzodiazepines used for this purpose should be in reducing dosages over a relatively short period of time, usually for no more than two weeks.Cross dependence between benzodiazepines and alcohol is also a recognised complication presenting to those dealing with both groups of patients.

5) Substance Misusers

Benzodiazepine prescribing would normally not be initiated in this group. It is recommended that before maintenance benzodiazepine is prescribed specialist advice be sought. (See list of health board contacts at Appendix 3). Benzodiazepine misuse is a great problem amongst the drug misusing community. It is often taken in large quantities in order to achieve an altered state of consciousness and euphoric effect. This is often associated with disinhibition which may lead to aggressive and irresponsible behaviour. It is also taken to help the addict tolerate heroin or cocaine withdrawal.

Very often benzodiazepine dependency develops and compounds the problem, leading to a continuous pattern of benzodiazepine misuse. It should be remembered however that there is a high incidence of mental illness, sexual abuse and social deprivation amongst this group that often contributed to their drug problem.

The use of maintenance benzodiazepines amongst this group, however, remains controversial as they are often used to supplement benzodiazepines acquired illegally.

It is recommended that before maintenance benzodiazepine is prescribed specialist advice be sought. See Appendix 4 for Guidelines for drug misuse treatment services.

(These guidelines are based on the Report of the Royal College of Psychiatrists- Benzodiazepines: Risks, Benefits or Dependence, January 1997 and also use a number of reference sources, most notably the submissions received by the Benzodiazepine Committee. The Committee would, however, like to particularly acknowledge the submission by the Irish Medicines Board).

Appendices

1) Alternative therapies

2) Guidelines on withdrawal from benzodiazepines (Roche Pharmaceuticals)

3) Health board contacts

4) Guidelines for drug misuse treatment services

Appendix 1

Alternative Strategies to the Prescribing of Benzodiazepines
(This is taken from the document produced by the Sandwell Health Authority in the U.K.)

Insomnia

a) Discussion - frequently talking about what is keeping a person from sleeping is sufficient to address the problem.

b) Relaxation therapy.

c) Avoidance of stimulant drugs and beverages during the evening e.g. coffee, tea, alcohol.

d) Increased physical activity.

e) Increased mental stimulation during the day.

f) Explanation that some people (particularly the elderly) require less than a 'full' night's sleep and that five hours is often sufficient.

g) Avoidance of 'catnapping' during the day.

h) A relaxing bath or a good book can facilitate sleep.

i) It is important to rule out the presence of a depressive illness, the treatment of which is commonly with anti-depressant medication.

j) Yoga -transcendental meditation- exercise.

k) Consider alternative medication ref: British National Formulary. Caution should be used particularly in the prescribing of Chlormethiazole (Heminevrin).

l) If an hypnotic must be prescribed it should be used intermittently, e.g. on only 2 - 3 nights per week.

Anxiety

a) Discussion.

b) Relaxation.

c) Exposure.

d) Increased physical activity.

e) Yoga - transcendental meditation- exercise.

f) Self help books - local library, book shops.

Appendix 2

Methods for benzodiazepine withdrawal

Any benzodiazepine withdrawal programme should be carefully planned and structured, the aim being to gradually reduce to zero the amount of drug being taken.

There is no single best technique for withdrawal, but simple dose reduction is successful for most patients. Equally there are no specific data relating to the rate of withdrawal or the total time involved. Nevertheless, whichever technique is used, the regimen must be discussed with the patient, and the goals must be simple and attainable.

Withdrawal can be achieved by many methods. Each involves regular supervision by the general practitioner. For example, the general practitioner can simply gradually reduce the daily dose of the patient's current benzodiazepine over a period of several weeks; or the general practitioner can switch the patient's short-acting benzodiazepine for a long-acting one before attempting withdrawal; alternatively, the withdrawal programme can be supplemented with concomitant therapy.

Listed below are four methods which follow the general structure discussed above. They should be regarded purely as guidelines; the exact withdrawal programme should be tailored to the individual's response due to the wide variation in subjective response.

Method 1
Gradual reduction in dosage

This is the simplest and most common method for withdrawing a benzodiazepine. For example, it is recommended that temazepam be gradually withdrawn, taking 10mg for 2 weeks, 5mg for 2 weeks and then 2.5mg for 2 weeks. Some authorities feel, however, the method is more appropriate for long-acting benzodiazepines, and for short-acting compounds they would recommend method 2.

Method 2
Substitution

1. Substitute the short-acting benzodiazepine with an approximately equivalent dose of a long-acting drug such as diazepam. Because of diazepam's long elimination half-life, the withdrawal symptoms appear to be less severe with little associated 'craving'. However, there may be a problem with daytime sedation if the short-acting benzodiazepine was for night sedation.
2. Substitution should be gradual and the benzodiazepines replaced in increments of one dose per day. This can usually be accomplished within one week but should be tailored to the individual patient. Some patients require a slightly higher dose than the approximate equivalent.
3. Once substitution is achieved, a gradual reduction of the diazepam dosage should follow. Diazepam is available in 2mg, 5mg, and 10mg tablets, all of which can be halved, and in an elixir 2mg in 5ml, which can be diluted.

4. Stepwise reductions in dosage should be made every week or fortnight, or even monthly, depending upon the patient's response. Suggested reductions are:

- Reduce by 2mg if daily dose 15mg to 20mg
- Reduce by 1mg if daily dose 10mg to 15mg
- Reduce by 0.5mg if daily dose 5mg

Tailor the dose reduction to patient response, i.e. weekly, fortnightly or monthly.
Once patient is at a dosage of 0.5mg daily the dose interval can be increased to every two to three days.

Example

Replace the drug being used by equivalent doses of diazepam at the rate of one dose per day.

Patient's dosage: lorazepam 1mg three times daily

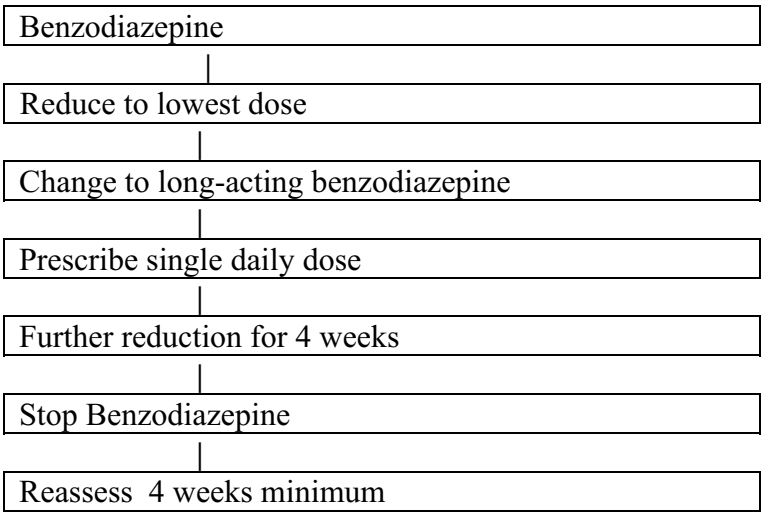
Day 1	Morning	Afternoon	Night
1	Lorazepam	Lorazepam	Lorazepam
2	Lorazepam	Lorazepam	Diazepam 10mg
3	Lorazepam	Diazepam 10mg	Diazepam 10mg
4	Lorazepam	Diazepam 10mg	Diazepam 10mg
5	Diazepam 10mg	Diazepam 10mg	Diazepam 10mg
6	Diazepam 10mg	Diazepam 10mg	Diazepam 10mg

A few patients have difficulties in changeover and may need to achieve this over a longer period of time.

Method 3

Dose reduction then immediate substitution to long-acting benzodiazepine followed by reduction

This approach combines Methods 1 and 2 and will make use of the greater flexibility in dosing of the longer acting preparations such as diazepam.



Whichever method is chosen, if the patient experiences troublesome abstinence effects after a reduction of dosage, the dose should be held at that level for a longer period before continuing the reduction at a slower rate. Try to avoid, if possible, increasing the dose at any stage.

Method 4

Adjuvant pharmacotherapy

Pharmacotherapy does not help with the psychological problems associated with benzodiazepine withdrawal, although it may help to reduce tension and anxiety with low doses of a sedative type antipsychotic drug.

However, it is possible to reduce some of the physical symptoms of withdrawal. The Table below shows the pharmacotherapy which is accepted by many general practitioners as valuable.

Manifestation	Proposed drug or drug group
Sympathetic overactivity, e.g. tremor, sweating	Propranolol for up to 3 weeks
Insomnia	A short course (about 2 weeks) of an effective hypnotic, e.g. antihistamines, sedative antidepressants, the dose of which is gradually reduced.
To avoid the risk of convulsions	Carbamazepine, or other anticonvulsants for up to 2 weeks may be necessary in rare cases

Adjuvant pharmacotherapy which helps to reduce the physical symptoms of benzodiazepine withdrawal.

Appendix 3

Eastern Regional Health Authority Region

Northern Area Health Board Dr Des Crowley	Address The Thompson Centre, 53 Mountjoy St, Dublin 7. Ph. 01 8820300
Dr Ide Delargy	c/o 37 Seapoint Avenue, Blackrock, Co Dublin. Ph. 01 8820300
South Western Area Health Board Dr Margaret Bourke	37 Castle Street, Castle Street, Clinic, Dublin 8. Ph. 01 4785574
Dr John O'Grady	Aisling Clinic Cherry Orchard Hospital, Ballyfermot, Dublin 10. Ph. 01 6232200
East Coast Area Health Board Dr Cathal O'Sullivan	35 York Road, Dunlaoghaire, Co Dublin. Ph. 01 2803335

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Appendix 4

Guidelines for Drug Misuse Treatment Services

It is recommended that;

- Each health board should draw up guidelines for the management of benzodiazepine misuse within its own area. Ideally these guidelines should be drawn up via a consultative process of all relevant staff
- Ongoing evaluation of the implementation of these guidelines should take place
- Due to the complexity of the problems, a multidisciplinary approach should be used to create an individual care plan
- The objective of treatment shall normally be abstinence
- All patients who are considered to be dependent upon benzo diazepine be offered a detoxification programme by a multidisciplinary team
- Education and support including group support/therapy should form the mainstay of treatment
- Prescribed benzodiazepine should be dispensed daily when possible
- Urine metabolites should be monitored to evaluate compliance
- It is recognised that a small group of patients may require benzodiazepine maintenance prescribing. It is recommended that the general guidelines of the main document inform the decision as to which patients fall into this category. Cognisance should be taken of the duration and extent of benzodiazepine use, psychological status and other psycho- social stressors.

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