Managing presenting problems with benzodiazepines

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OUTLINE OF PRESENTATION

- Why Benzodiazepines (BDZ's) are used
- Mechanism of Action
- Uses of BDZ
- Adverse effects of BDZ use
- Outline of Common BDZ's in use
- Management of the Adverse effects of BDZ use

EXCLUSION CRITERIA

- Presentation restricted to psychiatric use of BDZ only.
- Reduction driven by recovery agenda
- A patient may not be reduced if directed by another medical specialist. In this case, CRI will liaise with the appropriate specialist involved.

WHY

- Benzodiazepines increasingly replaced barbiturates as hypnotic of choice which led to widespread usage across all specialties .
- Less toxic than barbiturates in overdose so high doses given
- Well tolerated
- Easy available from legal and illicit sources (£3-£8 per 5mg tablet)

Mechanism of Action

- Potentiate the action of GABA-a receptors which opens Chloride channels, resulting in hyperpolarisation(making cell more negative) so that it is much harder for cell to generate action potential
- Barbiturates prolonged GABA action which was more dangerous

More MOA

GABA(inhibitory) in balance with Glutamate(excitatory)

GABA-b inhibits Glutamate as opposed to hyperpolarisation

E.g. Pregabalin

Therapeutic uses of BDZ's

- Anxiolytic
- Sedative
- Muscle relaxant
- Anti-epileptic
- Prophylaxis against Delirium Tremens

Dangers of BDZ use

- Additively toxic when combined with Opiates and alcohol (re Sid Vicious)-potentiates respiratory depression+++
- Tolerance inducing-made worse by ability to raise doses
- Discontinuation symptoms

Discontinuation symptoms

- Rebound symptoms – Return of original symptoms that the BDZ was prescribed to treat. E.g. Insomnia, anxiety, raised seizure threshold, muscle cramps

- Withdrawal symptoms – Previously unseen symptoms which appear after BDZ stopped

Withdrawal Symptoms

- Increased anxiety
- Depression
- Agitation
- Psychosis
- Depersonalisation
- Derealisation
- Formication

Discontinuation symptoms – risk factors

- Marked in elderly due to poorer renal/hepatic clearance
- Worse in co-morbid addictions due to marked increase in inhibitory neurotransmitter involvement
- Worse if higher starting dose and/or length of time on script

Appropriate psychiatric use of BDZ

- Short term anxiolytic in treatment of panic disorder +/- agoraphobia, GAD , PTSD etc
- Ward based tranquilisation
- Alcohol detox – both planned and medical
- Addiction probability increases if > 1/12 use

THE PROBLEMS

TOLERANCE – the more drug prescribed, the greater the number of receptors created, leading to unsatisfied receptors

WITHDRAWAL SYMPTOMS-Insufficient quantity of drug to satisfy number of receptors

OTHER PROBLEMS

- INTOXICATION describes altered behaviour secondary to drug – E.g. Altered gait, dizziness, poor coordination.

- ADDICTION is pt's behaviour in acquiring drug to stave off withdrawals-ie how the prime focus of the patient's day is the acquisition of drug

ADDICTIVE POTENTIAL

- Shorter acting and higher potency raises addiction potential as withdrawals most noticeable
- Longer acting is less addictive

LIST OF COMMONLY USED BDZ's

- Clonazepam
- Lorazepam
- Chlordiazepoxide (Librium)
- Temazepam
- Oxazepam
- Diazepam

PARTICULAR BDZ's

- Clonazepam-Treats agitated patients in secure settings
- Lorazepam-used on Ward for Rapid Tranquilisation-Very addictive and shorter acting
- Chlordiazepoxide(librium) – Treats alcohol dependence and DT prophylaxis
- Oxazepam-Most renally cleared so useful if liver ds

MORE BDZ's

- Temazepam- hypnotic, shorter t1/2(12-48hrs) and more addictive

- Diazepam- Most available.Long t1/2 (2/7-7/7), longer acting, least addictive. Comes in small preparations 10,5,2mg tablets

AIM

- To get patient from the more addictive BDZ to the lesser addictive one
- ALL ROADS LEAD TO DIAZEPAM!!

- Aim is to get BDZ addicted patient on a stable dose of diazepam and instigate a reduction from that point.

CONVERSION TO DIAZEPAM

- 10mg of diazepam =

- 1mg of lorazepam
- 0.5 mg of clonazepam
- 30mg of chlordiazepoxide
- 10mg of Temazepam

MANAGEMENT OF BDZ ADDICTION

- Get pt on stable dose of diazepam
- Reduce dose by 10% every 10-14 days
- Psycho-social interventions have a significant prognostic effect on the reduction
- Explain the need for reduction as Harm Minimisation agenda superseded.
- Major challenges are the many different and sometimes iatrogenic routes into addiction

NON BDZ ALTERNATIVES

- Trazadone – anxiolytic antidepressant, particularly useful in elderly,nursing homes

- Pregabalin – longer acting anxiolytic
- + massive dose range 25-600mg per day
- -Expensive, needs slow reduction plan
- Antipsychotic prescribing is off-label

HOW TO MANAGE A BDZ SCRIPT

- Always confirm that they are on a script if possible
- Do a urine test to see if pt actually dependent
- Get them on diazepam and reduce

MULTIPLE ADDICTIONS

- If a patient is on a methadone and diazepam script, take a rounded view of patient in terms of his motivation.
- If patient very motivated and positively engaged then you may try and reduce both substances.
- More caution is needed for BDZ reduction as withdrawals more severe

Scenario 1

- 33 yo new patient , on a diazepam script of 40mg from previous GP practice-You obtain evidence from old GP letters. You are not happy with this dose but patient insistent.

SOLUTION 1

- Explain the need to reduce in terms of recovery ethos. Give patient initial script for 2 weeks only and then explain that he will be reduced at a rate of 10% every 2-3 weeks .
- Refer for psychosocial work
- Aim that next script will be at 36mg.

Scenario 2

- You try reducing to 36mg, patient then comes in for a new script and states that he can't cope and used illicit diazepam this morning-he describes irritability and anxiety.
- What are your treatment options?

SOLUTION 2

- If he used today, then script him from the next day.

- Start at 39mg and explain that the next script in 2/52 time will be 36 mg. Explain the need for engaging in recovery work.Reinforce recovery agenda.

Scenario 3

- The same patient receives his 2 weekly script of 36mg diazepam. He rings in 1 week later demanding to see a Dr stating that he has used all his diazepam as he heard bad news and he could not cope.

- What are the options?

SOLUTION 3

- Dangerous scenario-Patient could be trading medications and should not be given large take outs.
- Establish other drug/etoh use
- Rescripting will create problems in the future
- After KW feedback on attendance , explore coping strategies

SOLUTION 3 (cont)

- Try and establish what the triggers for each extra usage eg – was it worse in evening
- Can refer to CMHT for specialised psychological therapies-possible medical management
- Cannot stop scripting but I would reinstate script in 4 days time at 36mg.
- Give 3 day scripts to stop diverting-
- Consider daily pick up

Scenario 4

- A patient who was recently admitted to a psychiatric ward following a crisis and discharged after 3 days over the weekend. He was given 1 weeks worth of lorazepam at 1mg tds and has no CMHT follow up. He attends your practice requesting more lorazepam.

SOLUTION 4

- Lorazepam very addictive. Work out that he has had 3mg lorazepam daily
- Equivalent to 30mg diazepam
- Get patient on 30mg diazepam script
- Consider daily pick up
- Weekly scripting
- Refer for psychosocial recovery work.

Scenario 5

- A patient who is alcohol dependent was recently admitted to General Hospital following a chest infection. Whilst in hospital he was placed on a librium detox starting at 120mg in divided doses.
- His infection resolves in 4 days and he is discharged and is given librium 20mg qds as a take out script for 4 days
- He attends wanting continuation

SOLUTION 5

- Dangerous practice as librium needs to be reduced
- However patient only been on short course
- Pt less likely to develop DT's
- Hospital admission deemed not necessary
- Possible to do home detox by reducing librium at a rate of 10mg reduction per day in 4 divided doses

Scenario 6

- Same scenario as above but patient given librium 20mg qds take out for 2 weeks
- Patient attends requesting further continuation at this dose

SOLUTION 6

- More common than expected
- Dangerous practice as patient has a new iatrogenic addiction!
- Too late for librium detox
- Convert to diazepam (3:1) ratio
- Thus 80mg librium is equivalent to approximately 27mg diazepam.
- Put in bd divided doses and reduce by 10%

Scenario 7

- A recently referred patient has a neurological disorder but discharged by neurology team on 30 mg diazepam daily and 60 mg DH Codeine qds. You speak to the neurologist who confirms that there is no medical reason for these high doses.

- How do you proceed

SOLUTION 7

- Patient has 2 addictions.
- Reducing the diazepam is the more difficult
- The Codeine can be managed like any other opiate
- Engaging in recovery work essential for psycho-social interventions
- Health psychology for CBT an option

Scenario 8

- A patient has been recently discharged from a private practice who are no longer willing to prescribe his 60mg daily dose of diazepam. You are also very unwilling to script him at this level
- What are your treatment options

SOLUTION 8

- 60mg is high!!
- Patient must be informed that this dosage cannot be maintained
- Options are to start at 45mg diazepam and use adjunctive therapy with anti-depressant
- Pt needs referral into CMHT to manage underlying psychiatric cause
- Psychological therapies needed

SCENARIO 9

- A 42 yo M attends the shared care surgery prescribed Methadone 45mls od and diazepam 20mg od. He admits to using more cocaine and is asking for an increase in both his methadone and diazepam as he is more ‘anxious’ and is using both illicitly acquired heroin and diazepam.
- You dont want to increase any of these as you are nervous about toxicity

Solution 9

- You need to consider transferring to CRI. He needs acute psychosocial interventions to address his cocaine use and short scripts to encourage engagement.
- You can consider adjunctive anti-depressant therapy (TCI's) if an underlying depression suspected as there is weak evidence for this.
- CRI dr will try and explore effect of each drug.

SCENARIO 10

- 48F arrives after being on clonazepam 1mg qds which she was prescribed overseas.

SOLUTION 10

- Although 4mg clonazepam ‘equates’ to 80mg diazepam, often starting at 50mg with sedative antidepressant can be effective. Eg starting trazodone at 150mg alongside the diazepam and uptitrating the trazodone rather than the diazepam

SCENARIO 11

- A 33 yo F self reports using 60 mg of internet acquired diazepam for the last 3/12. You don't want to continue this. She c/o anxiety and states that she gets shakes every time she tries to self reduce.

SOLUTION

Don’t start the diazepam dose too high as it is better to under-dose and titrate upwards

Set a top limit of 30mg with the option of going up to 40mg – in very small titration increases.