The Management of Alcohol Withdrawals

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Introduction

• Case presentation
  • 48 year old male,
  • few previous attendances at A&E.

• Summary of care episode
• Identification of issues raised
• Recommendations for prescribing of Chlordiazepoxide
Case presentation  DAY 1

• 48 year old male
• Admitted at 13:37, post fit, “known epileptic”
• “known ETOH, but not had a drink for a while”
• Vomited in department

• Presenting Medical History (14:15)
  • Seizure witnessed by carer
  • Previous fit two days earlier
  • Arrived via London Ambulance Service
  • “Usually drinks ½ to 1 bottle gin”
  • None for >24 hours
Case presentation  DAY 1

• Past medical History
  • Known to psychiatry, deliberate self harm & depression, not recently, no current thoughts
  • Fits – under specialist, but poor compliance

• Social setting
  • Unable to mobilise, uses wheelchair
  • Lives alone, with daily carer
Case presentation  

D A Y  1

- Examination
  - Pulse = 140 bpm
  - BP = 123 / 86
  - Resp. = 15
  - $\text{SaO}_2$ = 98%
  - Temp = 37.4°C
  - GCS = 15

- No nystagmus, no upper limb signs, unable to stand but “? left leg clumsiness”
Diagnosis & Immediate Management

• Withdrawal fit?
• Fast Atrial Fibrillation?
  • IV fluids
  • Pabrinex
  • ECG
  • Bloods
  • Cardiology referral

• 15:00 medication:
  • 5% dextrose, Pabrinex I & II, metaclopramide
Cardiology

DAYS 1

• 19:45
  • “Atrial Fibrillation secondary to alcohol withdrawals”
  • Obs now stabilized
  • Refer to medics

• 20:20
  • Chlordiazepoxide (CDZ) 30mg stat
Further investigations

- LFTs
  - MCV = 106 (normal range = 82-98)
  - ALT = 77 (normal range = 5-50)
  - Alk.Phos. = 61 (normal range = 40-280)
  - Bilirubin = 29 (normal range < 17)

- May be indicative of inflamed liver (alcoholic hepatitis or cirrhosis) among other things.
Medical on-take  DAY 2

• 00:05
  • Drinking +++ over past two weeks
  • MS & epilepsy diagnosed 5 – 7 years ago
  • Sometimes MS remits and he can walk short
distances in his flat. Care worker visits.
  • 2003 admitted St Mary’s ITU, severe
bronchopneumonia, but he does not remember
  • Started drinking at University
  • switched from super strength lagers to gin
  • AF? pulse now 85bpm, BP 91/63
Management

D AY 2

• 2x Pabrinex I & II tds for three days
• CDZ 30mg qds (PRN available)

• Referred to Alcohol Nurse Specialist (12:00)
  • Had cut down, but then increased past 2 weeks
  • Alcohol helps him cope with psychological issues
  • Ambivalent about onward referral
  • Recommend reduction regime from tomorrow if stable
Management DAY 3

- **01:10**
  - Restless, fell, BP 115/75, Pulse 111
  - PRN dose 30mg CDZ
  - Settled somewhat until 03:00
- **05:15**
  - “aggressive, shouting, paranoid, hallucinating”
  - Advised against more CDZ at this point, but Lorazepam PRN available
- **18:00**
  - “confused, disoriented, hallucinating, tremulous”
  - “Stat dose 20mg CDZ to be given with regular dose”
  - Further medical review before night time CDZ given
Management

DAY 4

• 01:15
  • PRN dose 30mg CDZ
• 04:30
  • PRN dose 30mg CDZ

• Alcohol nurse specialist review (12:00)
  • No further signs of confusion, aggression or withdrawal
  • Attitude to follow up changed, will accept referral

• DAY 5 Physio review carried out for discharge planning.
• DAY 6 one dose CDZ omitted due to over-sedation.
• DAY 9 CDZ reduction regime ends without incident.
Delirium tremens

- about 5% of patients undergoing alcohol withdrawal but highest morbidity and mortality.
- Fatal in up to 20% of inappropriately managed patients.
- Onset is 2 to 5 days (most commonly at 2 to 3 days) after last drink and is a medical emergency.

- Characteristic symptoms.
  - Auditory and visual illusions and hallucinations – insects etc
  - Severe tremor
  - Confusion and disorientation. Agitation. Delusions. Paranoia
  - Clouding of consciousness
  - Profound symptoms of autonomic overactivity
  - Tachycardia, > 100/min
  - Fever, with or without infection, temperature > 38.3°C
Nursing Timeline

• DAY 1
  – ?  Seizure at home
  – 13:37  Admitted
  – 14:15  A&E Medical History
  – 19:45  Cardiology
  – 20:20  First dose of Chlordiazepoxide 30 stat
  – 22:00  10mg CDZ stat

• DAY 2
  – 00:05  Medical on-take clerking
  – 08:00  Chlordiazepoxide 30mg qds
  – 12:00  Alcohol health work session #1
  – 14:00  Chlordiazepoxide 30mg
  – 16:30  “Confused, trying to leave, removing venflon”
  – 18:00  Chlordiazepoxide 30mg
  – 22:00  Chlordiazepoxide 30mg
Nursing Timeline

• DAY 3
  – 01:10 PRN Chlordiazepoxide 30mg
  – 03:00 “Crawling on floor”, paranoid, did not sleep
  – 08:00 Chlordiazepoxide 30mg
  – 14:00 Chlordiazepoxide 30mg
  – 17:15 “Very confused”, 1 to 1 nursing, double incontinence
  – 18:00 Chlordiazepoxide 30mg + 20mg stat
  – 22:00 Chlordiazepoxide 30mg

• DAY 4
  – 01:15 PRN Chlordiazepoxide 30mg
  – 04:30 PRN Chlordiazepoxide 30mg
  – 08:00 Chlordiazepoxide 30mg qds
  – 12:00 Alcohol health work session #2
  – 14:00 Chlordiazepoxide 30mg
  – 18:00 Chlordiazepoxide 30mg
  – 22:00 Chlordiazepoxide 30mg
Issues for concern

• First dose chlordiazepoxide given 8hrs after incident – according to patient, this was more than 24 hrs since his last drink.
• CDZ not prescribed until 10pm, and only stat.
• Treated with high dose of chlordiazepoxide rather than lower dose given more frequently.

• Became more confused despite medication.
• When confusion continues, consider alternative medication, as benzos can increase confusion.
Recommendations

• Hospital guidance to be completed in two parts:
  • Short “care pathway” with basic information
  • Longer guidance with detail and references

• Standard regime to start at 20mg qds once alcohol consumption identified, 30mg for higher levels of drinking – can be modified later subject to withdrawal symptoms.

• PRN dose to be available as soon as possible and for first four days - if used more than twice in 24 hours, consider increasing regular dose (NB may be desirable to use 5 or 6 doses per day rather than high single dose)
# Recommended regime

<table>
<thead>
<tr>
<th>Time</th>
<th>Stabilise 1-3 days</th>
<th>&quot;Detox&quot; DAY 1</th>
<th>DAY 2</th>
<th>DAY 3</th>
<th>DAY 4</th>
<th>DAY 5</th>
<th>DAY 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00 am</td>
<td>20-30 mg</td>
<td>20 mg</td>
<td>20 mg</td>
<td>10 mg</td>
<td>10 mg</td>
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<tr>
<td>12.00 noon</td>
<td>20-30 mg</td>
<td>20 mg</td>
<td>10 mg</td>
<td>10 mg</td>
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<td></td>
<td>END</td>
</tr>
<tr>
<td>6.00 pm</td>
<td>20-30 mg</td>
<td>20 mg</td>
<td>10 mg</td>
<td>10 mg</td>
<td>10 mg</td>
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<td>END</td>
</tr>
<tr>
<td>10.00 pm</td>
<td>20-30 mg</td>
<td>20 mg</td>
<td>20 mg</td>
<td>10 mg</td>
<td>10 mg</td>
<td>10 mg</td>
<td>END</td>
</tr>
</tbody>
</table>

End of regime after 10 mg on DAY 6.
Recommendations

• Do not reduce dosage within the first 24 hours, unless over-sedation is indicated.
• Stabilization may need to be prolonged for the first three days, but usually doses can be reduced within 48 hours.
• Once “detox” starts, reduce by 10-40mg per daily total subject to planned duration of admission and monitoring of patient response (nocte dose ends last).

• For any clarification, consult full guidance (current version available on intranet, new version due)
• If in doubt contact Alcohol Nurse Specialist or duty psychiatrist
AHW at St Mary’s

- Anyone can contact Adrian Brown for an alcohol assessment or review, by calling ext 7663.

- This is available to all in-patients. Some A&E patients are asked to return for 10am clinic.

- Ward or team-based alcohol awareness sessions can be arranged for any staff.
Audit of Clinical Decisions Unit

- Alcohol interest in St Mary’s
- CDU is useful for observation and management of these complex patients
- To investigate prescribing regimens used in the management of these patients
- To investigate whether patients develop alcohol withdrawal symptoms while in hospital
- To aid in standardising the management of these patients in the future i.e: development of a protocol
What we looked at:

All patients admitted to CDU during May & June 2006 who were identified as having alcohol-related problems.

- There were ~12000 patients seen in the A&E
- There were ~1000 patients admitted to CDU
  - 24 were triaged as “apparently drunk”
  - 11 as “fits” of whom 4 had prior AHW referrals
  - 29 as “collapsed adult” of whom 10 had prior AHW

- 71 cases identified alcohol-related problems
Audit Findings

• 35 patients accepted AHW referral
  • 8 of these left without being seen
• 10 declined AHW referral
• 6 left before referral could be made
• 20 not referred
Audit Findings

• Adequate alcohol history (type of drink, number of units drunk per day) available for 27 out of 71 patients = 38%
Pabrinex

- 54 given stat dose
- 49 patients were given 2 pairs
- 5 patients were only given 1 pair
### Chlordiazepoxide

<table>
<thead>
<tr>
<th>Dosage</th>
<th>No. of pts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stat dose</strong></td>
<td></td>
</tr>
<tr>
<td>10 mg</td>
<td>2</td>
</tr>
<tr>
<td>20 mg</td>
<td>2</td>
</tr>
<tr>
<td>30 mg</td>
<td>3</td>
</tr>
<tr>
<td>40 mg</td>
<td>2</td>
</tr>
<tr>
<td><strong>Regular doses</strong></td>
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<tr>
<td>30mg qds</td>
<td>5</td>
</tr>
<tr>
<td>40 mg tds</td>
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<tr>
<td><strong>Total prescribed</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>Not prescribed</strong></td>
<td><strong>56</strong></td>
</tr>
</tbody>
</table>
Conclusions of A&E audit team

- CDU serves to prevent medical admissions for many of these patients, who may only need short-term obs.

- Pabrinex given as stat dose in the majority of patients - ?
  - suggestion: tds as BNF dose

- Prescribing of CDZ is not standardised - ?
  - suggestion: use of “variable section of prescription chart”

- Symptoms of alcohol withdrawal are not documented - ?
  - suggestion: a CIWA scale to aid this – this would aid dosage

- Majority were seen by AHW – ‘the teachable moment’
Conclusions from this presentation

• Alcohol guidance to be completed in two phases:
  • short care pathway with key points
  • full document with details & references
  • to tie in with A&E “Doctors Handbook”

• A more extensive audit:
  • CDU & DAAU,
  • possibly Thistle and Almroth Wright (medical admission and hepatology wards)?