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 DAY 1

- Examination
  - Pulse = 140 bpm
  - BP = 123 / 86
  - Resp. = 15
  - SaO_2 = 98%
  - Temp = 37.4^{o}
  - 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 DAY 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 DAY 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

	Stabilise 1-3 days	“Detox” DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	
8.00 am	20-30 mg	20 mg	20 mg	10 mg	10 mg	10 mg		
12.00 noon	20-30 mg	20 mg	10 mg	10 mg				E
6.00 pm	20-30 mg	20 mg	10 mg	10 mg	10 mg			N
10.00 pm	20-30 mg	20 mg	20 mg	10 mg	10 mg	10 mg	10 mg	D

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

	Dosage	No. of pts
Stat dose	10 mg	2
	20 mg	2
	30 mg	3
	40 mg	2
Regular doses	30mg qds	5
	40 mg tds	1
Total prescribed		**15**
Not prescribed		56

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)?