SA Health

Management of seizures occurring in the context of harmful drinking Clinical Guideline

Version 1.2

Approval date: 24/01/2023

Government of South Australia

SA Health

Contents

1. Name of clinical guideline ... 3
2. Introduction ... 3
3. Background ... 3
4. Definitions ... 3
5. Prinicples of the standard ... 4
6. General ... 4
7. Determing risk factors ... 6
8. Models of care ... 6
9. Workforce implications ... 7
10. Safety, quality and risk management ... 7
11. Pathway / protocol ... 7
12. General considerations ... 7
13. Eligibility criteria ... 7
14. Administration ... 7
15. Observations ... 7
16. Implementation and monitoring ... 8
17. Appendices ... 8
Flow chart for management of seizures occurring in the context of harmful drinking ... 9
18. Associated policies / guidelines / clinical guidelines / resources ... 10
19. Reference ... 10
20. Document Ownership and History ... 10

1. Name of clinical guideline

Management of seizures occurring in the context of harmful drinking.

2. Introduction

This procedure describes safe management of people presenting having had a seizure, but who are drinking in a harmful manner. The aim of safe management is to ensure appropriate investigation of the seizures, to ensure appropriate secondary prophylaxis and to prevent premature discharge.

These guidelines were developed by Drug and Alcohol Services South Australia, in consultation with clinicians in all Local Health Networks, with oversight by Dr Chris Holmwood, Director, Clinical Consultation Liaison, Drug and Alcohol Services South Australia.

3. Background

Heavy long term harmful use of alcohol is associated with the development of seizures. While in many instances these seizures occur during episodes of withdrawal, chronic long term alcohol use also reduces seizure thresholds and seizures can develop even in the absence of abstinence or withdrawal.

In addition, people drinking at this level are also at risk of developing Wernicke's encephalopathy [WE]. WE can be prevented through the appropriate use of parenteral thiamine.

Re-seizure rates in these settings have been found to be between 13-24% in the 24 hour period after the initial seizure.

Re-seizure rates can be significantly reduced with the use of prophylactic benzodiazepines.

Therefore all patients with a history of long term harmful level alcohol use experiencing a seizure should be appropriately assessed and investigated for the seizure, administered benzodiazepines (both prophylactic and treatment as per protocol) and should be observed for at least 24 hours.

4. Definitions

In the context of this document:

alcohol withdrawal means: a physiological response to abrupt cessation or significant reduction in alcohol intake in a person who has been drinking alcohol heavily for a prolonged period of time and who is dependent. The signs and symptoms of alcohol withdrawal may be grouped into three major classes – autonomic hyperactivity, gastrointestinal, and cognitive and perceptual changes – and may feature uncomplicated or complicated withdrawal.

alcohol withdrawal seizures mean: generalised tonic-clonic type seizures that can occur in the setting of alcohol withdrawal. Their occurrence is somewhat independent of the severity of the withdrawal. They usually occur within 6 to 48 hours of the person's last drink. They tend to be recurrent and become more frequent with successive episodes of alcohol withdrawal.

CIWA-Ar (Clinical Institute Withdrawal Assessment for Alcohol – Revised) means: a revised version observation scale used to monitor patients withdrawing from alcohol or at risk of withdrawal. Refer to the Alcohol Withdrawal Monitoring Chart for details of the CIWA-Ar.

Wernicke's encephalopathy (WE) means: a form of acute brain injury resulting from a lack of thiamine (vitamin B1) that most commonly occurs in alcohol-dependent people with poor nutrition. In alcohol-dependent patients thiamine deficiency occurs due to poor dietary intake and/or intestinal malabsorption. Its features include confusion [most commonly], ataxia and abnormal eye signs (ophthalmoplegia).

5. Prinicples of the standard

The principle of this guideline is to ensure appropriate systems and processes are in place to ensure appropriate assessment and treatment for patients experiencing seizures in the context of harmful drinking and alcohol withdrawal in all SA Health acute hospitals. This will allow for safe and timely patient care.

6. General

This guideline should be used with extreme caution when a patient has severe medical and/or psychiatric comorbidities that may mimic alcohol withdrawal such as sepsis, hypoxia, hypoglycaemia, severe pain, or encephalopathy. Similar signs and symptoms may be seen in some patients after surgery or trauma.

In these circumstances discuss management with the Drug and Alcohol Clinical Advisory service (DACAS) (08 7087 1742 830am - 10pm every day) OR ICU registrar OR physician/medical registrar OR in country areas a specialist physician [metropolitan based if not available within region].

6.1 Assessment of first presentation seizures

Patients presenting with their first presentation seizure in the context of heavy drinking, should be assessed and investigated appropriately.

Heavy alcohol use is associated with a variety of conditions which may predispose to seizures [eg head trauma and acquired brain injury, systemic sepsis, metabolic disturbances] so assessment should exclude these causes, before the seizure is attributed to alcohol *per se*.

6.2 Re-presentation with recent seizure in patient with a history of alcohol related seizures

Patients with a history of alcohol related seizures should be assessed and investigated as any other patient with recurrent seizures.

6.3 Observation and ongoing management

Re-seizure rates in patients using alcohol at harmful levels are between 13% and 24% within the first 24 hours from the initial seizure.

Observations

> Neuro-observations as indicated
> Alcohol withdrawal observations should also be commenced.
> Sedation scores at time of administration of diazepam [see below] and 1 hour post dose.

Management

Initial management of an acute seizure is as per usual emergency management guidelines for seizures

In addition, these patients with alcohol related seizures should receive:

- Diazepam 10 mg every 8 hours orally (on a regular basis) for 48 hours
- Thiamine 100 mg IV TDS for 48 hours

This is regardless of whether they are withdrawing from alcohol or not.

If elderly or frail or being administered opioids or other sedative drugs then halve dose of diazepam.

Also:

- Notify doctor if sedation score ≥ 2; do not administer further doses of diazepam (or opioid, if ordered).
- Oxygen is recommended and must be given if patient also receiving an opioid or if sedation score ≥ 2.
- Manage alcohol withdrawal as per guideline *Management of patients at risk of alcohol withdrawal in the acute hospital sector*.

NOTE:

If there are concerns about hepatic impairment then use lorazepam instead of diazepam. [Diazepam 5 mg is approximately equivalent to lorazepam 0.5 mg]

Seek advice from Drug and Alcohol Consultation Liaison Service if available or from the Drug and Alcohol Clinical Advisory Service, 7087 1742 [a telephone based 24 hr-7 day service].

Planning discharge

The development of seizures signifies ongoing high risk drinking and is associated with a range of adverse outcomes.

All patients in this situation should be counselled to cease drinking and referred accordingly for support and follow up.

All patients with a recent seizure regardless of cause must be notified to the Registrar of Motor Vehicles and advised not to drive.

If the patient wishes to cease drinking and is medically cleared then they may be suitable for transfer to DASSA Withdrawal Services. They need to:

- be able to attend to their activities of daily living
- not require further IV treatment
- not be subject to an Inpatient Treatment Order [not at high risk of self harm and of committing harm to others].

If this is the case then ring DASSA Withdrawal Services on 7087 1700 to discuss.

If the patient does not wish to cease drinking then they can be discharged after 48 hours, if medically cleared.

- They can be given the phone number for the Alcohol and Drug Information Service [1300 13 13 40] which provides telephone counselling and information about services for people with substance use problems and their families.

If the patient is competent and self-discharges early against advice then:

- provide 24 hours of seizure prophylaxis diazepam [or other benzodiazepine];
- Ensure the patient has had the risks clearly explained and request the patient sign a risk form.

7. Determing risk factors

Appropriate assessment and investigation initially and subsequently post seizure

Appropriate monitoring of alcohol withdrawal and institution of timely and evidence based care

Appropriate monitoring of sedation score

8. Models of care

Home teams or ED teams are responsible for management of seizures occurring in the context of harmful drinking in patients in their care.

DASSA advice can be obtained through the Drug and Alcohol Clinical Advisory Service 7087 1742.

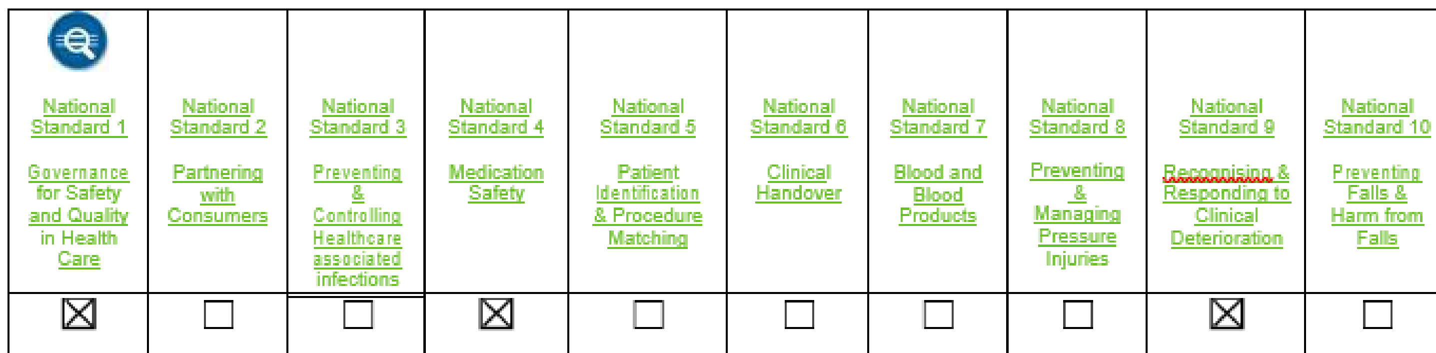
In hospitals where a DASSA Consultation Liaison Service is available, home teams can seek advice through this service if management becomes complex.

All patients who have completed an alcohol withdrawal episode of care should be Considered for a referral to either DASSA, an NGO or peer support group such as AA or Smart Recovery.

9. Workforce implications

This management can be undertaken with current staffing.

10. Safety, quality and risk management



National Standard 1 Governance for Safety and Quality in Health Care	National Standard 2 Partnering with Consumers	National Standard 3 Preventing & Controlling Healthcare associated infections	National Standard 4 Medication Safety	National Standard 5 Patient Identification & Procedure Matching	National Standard 6 Clinical Handover	National Standard 7 Blood and Blood Products	National Standard 8 Preventing & Managing Pressure Injuries	National Standard 9 Recognising & Responding to Clinical Deterioration	National Standard 10 Preventing Falls & Harm from Falls
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11. Pathway / protocol

See main guideline section 6

12. General considerations

See main guideline section 6

13. Eligibility criteria

People presenting with seizures in the context of harmful drinking

14. Administration

This Clinical Guideline (as previous version) will be available on LHN intranets.

15. Observations

See main guideline section 6.3.

16. Implementation and monitoring

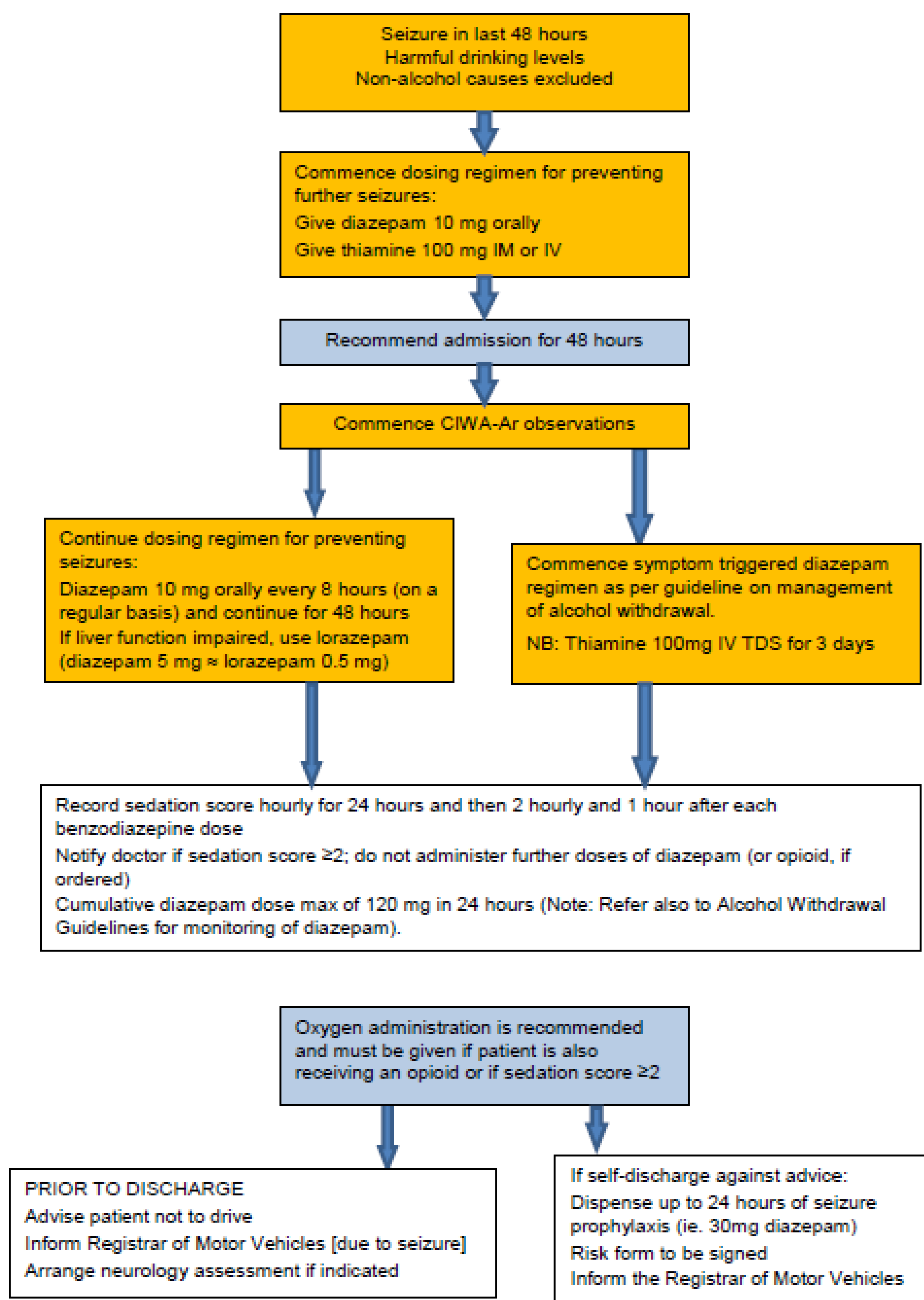
Implementation of the new Clinical Guideline will be assisted by in-service training of nursing and medical staff by DASSA's Consultation Liaison Service.

The Consultation Liaison Service also monitors adherence to the guideline and regularly reviews any critical incidents relating to this.

17. Appendices

Appendix A: Flow chart for management of seizures occurring in the context of harmful drinking

Flow chart for management of seizures occurring in the context of harmful drinking



18. Associated policies / guidelines / clinical guidelines / resources

Management of patients at risk of alcohol withdrawal in acute hospitals Clinical Guideline

Mental Health Act

Consent to Medical Treatment and Palliative Care Act

Medical and Palliative Care Act

Motor Vehicles Act

SA Health Policy Directive Providing Medical Assessment and or Treatment Where Patient Consent Cannot be Obtained

SA Health Policy Guideline Management of seizures in the context of harmful drinking

19. Reference

D'Onofrio G, Rathlev NK, Ulrich AS, Fish SS, Freedland ES (1999). Lorazepam for the prevention of recurrent seizures related to alcohol. N Engl J Med 340(12): 915-9.

Cook CH, Thompson AD (1997). B-complex vitamins in the prophylaxis and treatment of Wernicke-Korsakoff syndrome. Br J Hosp Med 57:461-465.

Haber PS, Riordan BC (2021). Guidelines for the Treatment of Alcohol Problems (4th edition). Sydney: Specialty of Addiction Medicine, Faculty of Medicine and Health, The University of Sydney.

Australia_guidelines-for-the-treatment-of-alcohol-problems.pdf (drugsandalcohol.ie)

20. Document Ownership and History

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If so, which clinical guideline (title)?

Approval Date	Version	Who approved New/Revised Version	Reason for Change
24/01/2023	V1.2	Domain Custodian, Clinical Governance, Safety and Quality	Revised and updated
16/08/2016	V1.1	SA Health Safety and Quality Strategic Governance Committee	Revised
04/2016	V1	SA Health Safety and Quality Strategic Governance Committee	Original