

Alcohol-related problems in General Practice

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BACKGROUND

Public Health England PHE Local Alcohol Profiles for England

In April 2014, PHE issued their Local Alcohol Profiles. National alcohol-related mortality has reduced by 7.3% over 5 years for men and by 6.8% for women.

Change in alcohol-related death rates

	5 year reduction in alcohol-related mortality	1 year reduction in alcohol-related mortality
men	7.3%	1.9%
women	6.8%	1.4%

However, around half of local authorities have seen an increase in alcohol-related deaths for both men and women.

There are 26 alcohol-related indicators.

There appears to be a relationship between worsening alcohol-related mortality data and social deprivation. It is likely that alcohol-- problems are contributing to widening social and health inequality.

Change in alcohol- deaths for Merseyside and part of Greater Manchester

	Indicators improving	Indicators no change	Indicators worsening
Liverpool	0	4	17
Knowsley	1	10	10
Sefton	0	6	15
St Helens	0	7	14
Warrington	1	7	13
Halton	1	9	11
Cheshire East	5	14	2
Cheshire West and Chester	2	17	2
Wirral	0	7	14
Trafford	2	13	6
Manchester	1	4	15

Capacity and alcohol

There are issues about a person's capacity in acute situations

- If they are intoxicated
- If they have an acute confusional state; Wernicke's encephalopathy, delirium tremens.
- If they are unconscious ; fits, acute head injury

There are also issues about a person's capacity in chronic situations

- If they have alcohol related brain damage (Korsakoffs)
- If they have alcohol related dementia

It will be necessary to make a best interests decision (in the acute situation). In the chronic situation, awareness of capacity issues is very important and often overlooked. If there is a reasonable belief that someone lacks capacity, consider getting a formal mental capacity assessment

HISTORY AND EXAMINATION

in a patient with alcohol-related problems

The aim is to put the patient's alcohol use into the context of their mental health, physical health and social situation.

Alcohol use

Duration and pattern of use • *binge drinking /continuous drinking, periods of abstinence and how were they achieved, recent precipitating events*

Quantity of alcohol • *increasing in amount and earlier drinking in the day indicates development of tolerance*

Type of alcohol • *drift towards cheaper alcohol*

Withdrawal symptoms • *anxiety, depression, insomnia, headache, nausea/vomiting, cramp, sweating. The severity of dependence can be judged by the speed of onset of the withdrawal symptoms after stopping drinking, and the severity of symptoms*

Other drug use • *young people: new psychoactive substances, cannabis, cocaine, cigarettes. Older people: cocaine, cigarettes/tobacco. Alcohol misuse may be part of severe addiction with a history of opiate dependency, current methadone/buprenorphine treatment, crack cocaine use, benzodiazepine misuse.*

Nutrition • *increased alcohol intake is associated with decreased food intake*

Recovery ambition • *What do you want to do about your drinking? Many people don't want to be abstinent but to have control. This may or may not be achievable*

Associated physical health problems

Obesity • *alcohol is very calorific and may be associated with developing type 2 diabetes in older people*

Hypertension

Gastritis, gastro-oesophageal reflux *heartburn, nausea/vomiting*

Cardiomyopathy, IHD • *dyspnoea on exertion, palpitations*

Any history of liver problems /abnormal LFTs

Any history of pancreatitis

Peripheral neuropathy • *parasthesiae*

Proximal myopathy • *difficulty getting out of a chair*

Cerebellar ataxia • *difficulty walking*

Alcohol-related cognitive impairment• *loss of memory, less 'on top', associated dementia in older people*

Recent trauma, head injury • *In older people consider associated osteoporosis, fractured NOF*

Mental health

Alcohol misuse is often an attempt at self-medication for underlying mental health issues. It can be difficult to establish issues which predated the alcohol misuse.

Depression/low mood

Generalised anxiety disorder • *including panic attacks, agoraphobia, chronic insomnia, ruminations, hypervigilance and mild paranoia*

PTSD

Undiagnosed adult ADHD

Obsessive-compulsive disorder

Severe and enduring mental illness is relatively uncommon and most of these patients have CMHT involvement and are well-known to the practice.

Medication

Current medication which may interact • *nsaids, opiate based analgesia, pregabalin and gabapentin have abuse potential, omeprazole and vitamins are helpful*

Consider effect on work, family relationships, social interaction, housing, employment

Physical examination

Conscious level, intoxication

Pulse, blood pressure, temperature and respiratory rate • *tachycardia, tachypnoea, hypertension and pyrexia may indicate sympathetic overactivity*

Mouth • *poor dentition, oral cancers*

Chest examination • *alcohol misuse frequently co-exists with COPD*

Abdominal exam • *epigastric tenderness, hepatomegaly, stigmata of chronic liver disease*

External ocular movements • *nystagmus in acute intoxication, ophthalmoplegia in Wernicke's encephalopathy*

Loss of sensation • *peripheral neuropathy, mainly in feet*

Proximal myopathy • *standing up out of chair with folded arms, shoulder abduction*

Coordination, speech and gait • *cerebellar damage, intoxication*

Short-term memory, general concentration, learning, abstract ideas and understanding, insight, behavior • *cognitive impairment, may be acute or chronic*

Mood and affect • *self assessment on a scale of 1 to 10 is a useful snapshot, suicidal ideation/plans, history of deliberate self-harm*

Hallucinations

Skin • *bruising associated with falls, petechiae, bruising, spider naevi in advanced liver failure, jaundice*

Investigations

Consider FBC, LFTs, eGFR and electrolytes, glucose, folic acid/B12, iron studies, serum magnesium. calcium

CXR in heavy smokers

ECG

Management

As well as managing medical problems, consider an overall **recovery approach**. This does not equate with abstinence. However, signposting the patient to relevant agencies is a key part of preventing future problems.

CASE STUDIES

1. Alcohol withdrawal

Case summary

36 year old man attended the surgery, requesting 'Librium for a detox'. He had a history of alcohol dependency about 5 years ago and had done a successful community detox. Over the last 12 months he had been drinking daily. He woke up with withdrawal symptoms and was in danger of losing his job.

He presented well and physical examination was unremarkable.

Management

Community detoxification can only be done with the support of the specialist alcohol service. Referral to this service is therefore the next step.

Alcohol withdrawal

Many people seem able to drink large amounts of alcohol but not develop dependence.

A significant percentage of people (possibly 50%) who are heavy drinkers can stop drinking without any physical withdrawal symptoms. They are unlikely to present to the GP wanting 'Librium'.

However, there may be psychological dependency and craving. These problems are likely to be associated with mental health problems such as anxiety and depression.

In severe dependency the patient will experience withdrawal symptoms on first waking up and dependent drinkers will drink at regular intervals through the day to prevent withdrawal.

The physical symptoms of alcohol withdrawal are insomnia, anxiety and agitation, depression, sweating, cramp, tremor, nausea, vomiting and transient hallucinations. These are usually visual of insects or mice moving quickly or tactile of insects crawling under the skin (formication). Physical symptoms start 12 to 24 hours after the last drink and will get worse over the next few days. They usually resolve after around 7 to 10 days.

However, psychological symptoms such as anxiety, mood changes and insomnia may last for weeks.

Serious complications of alcohol withdrawal occur in about 1 in 20 people with withdrawal symptoms.

The main serious complications are withdrawal seizures and delirium tremens. These both carry significant mortality if untreated.

There is the possibility of serious complications for up to 2 weeks after stopping drinking although they usually occur around 2 to 5 days.

2. Wernickes encephalopathy

Case summary

47 year old woman accompanied by her brother. She had been drinking heavily for some time (not seen by GP for years) and over the last 48 hours had become increasingly confused.

She was cachexic and fully conscious, p120, bp 160/90, t 37, obvious ophthalmoplegia and diplopia, confabulation, impaired dysmetria and broad based ataxic gait.

Management

The history from the patient is unreliable and needs a witness account if at all possible.

Confabulation may be difficult to spot.

Recognise that this is a neurological emergency and get 999 ambulance to the surgery.

The main problem is not to assume that they are intoxicated and send them away.

With parenteral thiamine the prognosis is reasonable (20% full recovery).

Without treatment the prognosis is poor (30% mortality probably from seizures and delirium tremens, with high risk of Korsakoffs syndrome in survivors).

Long -term care is likely to be needed.

The impact on family will be significant and GP can offer very valuable support.

Wenrickes encephalopathy

This is a sudden onset of severe confusion (disoriented in time, place and person), diplopia due to ophthalmoplegia, ataxia and often interesting confabulation. Numerous other neurological symptoms and signs have been described. There is evidence of poor nutrition.

Wenrickes encephalopathy affects less than 5% alcoholics. Usually occurs between ages 40 to 60 in long-term drinkers.

It is caused by thiamine (B1) deficiency. In chronic alcoholism, this is due to a combination of poor dietary intake, reduced absorption and impaired utilization.

Thiamine has an important role in several biochemical processes, in particular, glucose metabolism, neuroreceptor activity and neuromodulation.

The body has only 3 weeks' store of thiamine. It is found in fruit, vegetable, wholegrain cereals (foods perhaps not featuring strongly in the average alcoholic's diet).

The lesions are in the thalamus, hypothalamus, brainstem and cerebellar vermis.

The pathophysiology is a combination of neuronal oedema, capillary bleeding and breakdown of the blood-brain barrier.

3. Korsakoffs syndrome

Case summary

52 year old man seen on a home visit. He lived in sheltered accommodation and the warden had found that he was living in squalor. He was not well-known to the practice.

There was some difficulty gaining access. The patient was self-neglected and the flat very unclean. There was no food but many empty bottles. No reliable history was obtainable.

He was conscious but 'rambling'. He had significant impairment of short-term memory and was disoriented in time and place. Examination was otherwise unremarkable.

Management

This isn't clear-cut. This isn't a medical emergency. The situation is highly unsatisfactory but has been going on for a long time.

He needs thiamine, general care and the possibility of a detoxification regime should be considered. The risk of relapse is very high and he would need a package of Recovery measures to minimize the risk of relapse.

In fact, he did go into hospital, had a chlordiazpoxide detoxification, a dietary assessment and treatment with thiamine. His flat was spring-cleaned and he returned home. He went back to drinking alcohol immediately but the improved care package enabled him to stay in the community. Improving his nutrition was a key part of his treatment.

Korsakoffs syndrome

The prevalence of Korsakoffs syndrome can be difficult to assess as there are clinical difficulties in diagnosing cognitive impairment in alcoholics. There is probably considerable overlap with dementia (alcohol is a risk factor for both neurovascular and Alzheimers-type dementias). Co-existent depression and generalized anxiety disorder further complicate the assessment.

This clinical overlap is reflected in the **alcohol-related cognitive impairment** or alcohol-related brain damage.

Korsakoffs syndrome usually presents between 45 and 65 years and is commoner in men.

It is thought to be caused by thiamine deficiency although it is probably multifactorial. MRI scan changes mainly affect the thalamus and mammillary bodies.

There is both neuronal damage and capillary bleeding.

There is loss of short-term memory. Other types of memory, including working memory are relatively well preserved.

Loss of short-memory leads to poor concentration, impaired learning, impaired abstract thought and impaired decision -making.

Korsakoffs syndrome is associated with confabulation, apathetic affect and lack of insight.

There is considerable debate about the degree to which the apathetic affect reflects impaired perception or impaired ability to demonstrate emotion.

Treatment is with thiamine (100mg tds). Long-term treatment is probably needed but compliance tends to be poor.

This group is likely to continue drinking.

There is increasing self-neglect and overall care needs steadily increase.

This group is also likely to develop end-organ damage eg cardiomyopathy, neuropathy, proximal myopathy and cirrhosis.

The lack of insight can make care very difficult.

The GP has a key role in ensuring integrated care in the community and preventing avoidable hospital admissions especially related to concurrent illnesses eg pneumonia.

The GP can also be very helpful in having honest discussions with family members.

Sequential alcohol detoxifications are probably unhelpful.

Overall prognosis is poor.

4. Delirium tremens

Case summary

The sister of a 45 year old man recently registered with the surgery (and living on the furthest boundary of the practice) requested a home visit. On arrival there was a lot of litter around the house and a pitbull-type dog in the hall.

He was in the back bedroom and over the last 3 days had been unable to get his alcohol as he had developed a bad cough and dyspnoea on exertion.

He was severely agitated and globally confused –'bouncing off the walls'. His sister gave the history that he had 'been drinking for years' but over that last few days had become bedbound due to his coughing.

He smoked 20 cigarettes per day.

He was sweating, t 38, p120,190/110, rr 30 with global polyphonic wheezes and coarse creps at the left base, marked tremor and obvious hallucinations. No focal neurological signs. Glucose was 3.

Management

This is a medical emergency and needs a 999 ambulance.

After 2 weeks the patient came out of hospital and a significant degree of cognitive impairment was present. This was likely to have been present before admission but masked by his heavy drinking. He was cared for by his sister and last heard of, had not gone back to drinking.

Delirium tremens

About 5% people with acute alcohol withdrawal develop delirium tremens and untreated delirium tremens carries a 35% mortality.

Delirium tremens occurs between 1 and 10 days after stopping drinking, but usually around 3 days. It is characterized by rapid onset of severe acute confusion, hallucinations (usually visual of small things moving like mice or insects rather than the legendary pink elephants) and severe tremor.

Delirium tremens is often associated with acute illnesses especially pneumonia and head injuries (which means the alcoholic can't get their alcohol.) and it is important to look for underlying treatable conditions

The mechanism of delirium tremens is unclear but appears to be related to the direct effects of alcohol on the GABA receptor. Long-term alcohol damage causes down-regulation of the receptor. If alcohol suddenly

'disappears' the effect is a rebound of excitatory neurotransmitters especially glutamate. This also causes neuro-modulation in the direction of excitation.

This leads to **sympathetic overactivity** .

Sympathetic overactivity causes fever (in 35% people), agitation and irritability, sweating, tachycardia , hypertension , cardiac arrhythmias, tachypnea and tremor.

It contributes to hypoglycaemia.

Hypokalaemia often co-exists (due to associated hypomagnesaemia).

Dehydration is common.

Treatment has to be in hospital and is a combination of sedation, rehydration, nutritional support and treatment of any underlying conditions.

Long-term prognosis is uncertain and has to be assessed on a case-by-case basis. In long term, it is likely that the patient will develop alcohol-related cognitive impairment.

An integrated care approach is likely to be needed with the aim of keeping the person in the community and avoiding hospital admission.

5. Withdrawal seizures

Case summary

A 30 year old man attended the surgery in an intoxicated state. He had a history of binge drinking and had had numerous hospital admissions for withdrawal seizures.

He had frequently been on ICU and on his last admission had taken his own discharge, pulling out various drips and central lines and walking out of the hospital despite the attempts of the staff to persuade him to stay in. He was fully conscious but intoxicated. Pulse 90, blood pressure 145/95, temperature 37, horizontal nystagmus, impaired dysmetria and mild ataxia.

Management

He was too intoxicated to be safe even crossing the road and had a history of recurrent withdrawal seizures. A 999 ambulance was called to the surgery.

Although treatment was successful on this occasion, 6 months later this young man died in ICU of cardiac arrest during uncontrolled status epilepticus

Withdrawal seizures

Although figure widely quoted for withdrawal seizures is 5% of people who have stopped drinking heavily, clinical experience suggests that it may be higher and seems to be commoner than delirium tremens.

There is a significant mortality from withdrawal seizures due to status epilepticus.

There is some evidence that frequent alcohol detoxifications using benzodiazepines lead to increasingly severe withdrawal syndromes including a lower threshold for seizures and increased probability of developing status epilepticus. This phenomenon is known as kindling.

6. Alcohol as part of polydrug use

Case summary

A 44 year old woman on 40ml methadone gave a history of progressively increasing her alcohol consumption over the last 3 years. Her heroin and crack cocaine use was minimal and she did not use benzodiazepines or cannabis.

She was drinking 3 litres strong cider per day.

She had COPD, was known to be hep C positive and had lost about 2 stone in weight in the last 12 months.

She had had several episodes of haematemesis in the last year but always refused hospital admission.

She was conscious but gave a poor account.

She had MRC grade4 dyspnoea.

She was deeply jaundiced, with stigmata of chronic liver disease and significant ascites.

She had a proximal myopathy and a peripheral neuropathy.

She refused hospital admission and claimed that 'her friend' would look after her.

Management

Exclude coexisting acute illness in a particular chest or urine infection. Blood tests for FBC, LFTs, electrolytes and eGFR are useful. Venous access may be a problem.

Consider prescribing omeprazole, thiamine 100mg tds, Vit BCo, folic acid, ferrous sulphate and Ensure/Fortisip.

Consider discussing with the hepatologists the suitability of management for ascites, portal hypertension and hepatic encephalopathy even though she can't get to the hospital.

This is a palliative care situation.

The situation will only get worse and anticipatory care planning is needed.

Alcohol as part of polydrug use

The average age of people on methadone scripts is around 45. They have used drugs their entire adult lives. They often continue to use other drugs whilst being on methadone, the most common pattern being low level heroin and crack cocaine use with some skunk cannabis use. There is virtually universal smoking of cigarettes.

There are two groups of people on methadone treatment who present with alcohol as a drug of misuse.

The first group is people with a long history of alcohol and/or benzodiazepine dependency in addition to opiate dependency. Their alcohol/benzodiazepine use may have been 'bingeing' or continuous. They can get reasonable stability in s of heroin use but increase their alcohol consumption considerably. They are often drinking 3 litres of strong cider or 6+ cans 9% lager per day.

They are severely alcohol dependent, are often unable to engage in any type of treatment for their alcohol dependency and develop severe end-organ damage. They are socially isolated, depressed and anxious.

They need home visits but the GP can be a crucial element in offering support around general health care, nutrition, family support and comfort for the patient.

The second group of people on methadone who present with alcohol as a drug of misuse are people who do not have a history of alcohol use but seem to be looking for a new drug to 'try.'

They reinvent themselves as an alcohol-dependent person, launching out on 6 cans of super strength lager per day.

They seem to have a less severe degree of alcohol dependency.

They have a better prognosis and seem to be more open to the idea of reducing their alcohol. However their overall prognosis is related to their 'recovery capital' and the quality of their recovery care package.

7. Alcohol and the older person

Case summary

The sister of a 78 year old lady requested a home visit. The patient was not well known to the surgery and she lived in an affluent part of the practice area.

She was delightfully disorganized and cheerfully admitted that she had a 'drink problem.' Her sister was able to give a very reliable history. The patient's husband had died about 6 months previously.

The patient also drove a car and had reversed out of the drive, demolishing the wall opposite and nearly running over some passers-by. The Police had been called but no charges pressed. However, she had failed her breathalysers test and been told to 'contact your GP'.

She was alert but seemed slightly detached from events. She had a very poor short-term and longer-term memory and was unable to clearly recall the road accident. She had limited conversational content but was very good at deflecting questions with self-deprecating humorous remarks. Physical examination was otherwise unremarkable.

Management

They refused any input from the alcohol or care of elderly services and her energetic sister became her carer. The patient stopped drinking because there was no alcohol and her sister didn't let her have any money.

She didn't seem to have any withdrawal syndrome, but over the next few months it became increasingly apparent that she was developing an Alzheimers-type dementia.

Last heard of, she was still able to live at home.

Alcohol and the older person

More alcohol is being consumed by more older people than in the past. It is easily overlooked unless specifically enquired about.

In older people alcohol is a risk factor for cardiovascular disease, hypertension and obesity, osteoporosis, gastritis and dementia.

It is also a risk factor for trauma and falls, and worsening of co-existent mental health problems, especially generalised anxiety disorder and depression.

The alcohol may interact with prescribed medication (especially opiate based analgesia and NSAIDS) and over-the -counter medication.

It is a risk factor for self-neglect and increasing social isolation.

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