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# Managing patients with severe mental illness and substance misuse

Welch K, Webb N. Managing patients with severe mental illness and substance misuse.
*Practitioner* May 2018;262(1815):17-21

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Medical Publishing Ltd

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**What** are the risk factors for co-occurrence?

**How** should patients' health be monitored?

**What** are the management options?

**CO-OCCURRING SEVERE MENTAL ILLNESS, USUALLY SCHIZOPHRENIA OR BIPOLAR AFFECTIVE** disorder, and substance misuse is termed dual diagnosis.[1] Up to half of patients with severe mental illness have a lifetime diagnosis of substance misuse disorder.[2,3] Department of Health guidelines recommend that GPs consider this when assessing patients with mental health problems, and that they know how to access specialist services in their area.[4]

## RISK FACTORS

Mental illness is a risk factor for substance misuse, and vice versa. Part of the reason for this co-occurrence is shared risk factors; for example, both past trauma and certain genetic polymorphisms are associated with substance misuse and with the development of psychiatric illness.[5,6,7]

There is a bidirectional relationship between mental illness and substance misuse. Mental illness and its consequences may lead to substance misuse as a coping strategy to block out distressing thoughts or memories, alleviate psychiatric symptoms, or counteract the side effects of medication. Substance misuse can lead to mental health problems, either by triggering a first episode in a susceptible individual, or exacerbating an existing disorder. Such an association has been repeatedly suggested between cannabis use and schizophrenia,[8] but while accepting this association, substance misuse itself is unlikely to be the sole cause of a severe and enduring mental illness.[6]

Drug-induced psychosis can occur with many psychoactive substances, but these effects are usually temporary. The acute management is the same as for any other acute episode of psychosis.[9,10] If psychotic symptoms persist in the proven absence of substance misuse, then a chronic psychotic illness must be considered and managed accordingly. GPs should routinely ask patients with severe mental illness about substance misuse, and likewise should routinely assess patients with known substance misuse for signs of psychosis.[9]

## MENTAL AND PHYSICAL HEALTH

There is a complex interaction between substance misuse and mental illness. Patients with such comorbidity tend to have an earlier onset and a worse course of mental illness. Adults and young people with coexisting severe mental illness and substance misuse have some of the worst health, wellbeing and social outcomes.[11] Poorer mental health outcomes include deteriorating mental health, poor medication compliance and higher use of institutional services.[9,12] Substance misuse is also associated with increased suicidality.[4,13]

Physical health can be affected by the substance itself, or by the route of administration. The effects of alcohol on the gastrointestinal, cardiovascular and central nervous systems are well known. Smoking heroin or crack cocaine can result in emphysema and an increased susceptibility to respiratory infections. Injecting drug use carries a risk of infection, either local (abscesses) or systemic (blood-borne viruses, endocarditis), and vascular injury. The Department of Health estimates that a third of people with dual diagnosis will be seropositive for either HIV, hepatitis B or hepatitis C.[4]

In addition, the social sequelae of substance misuse – chaotic lifestyle, impact on families and relationships, homelessness, increased contact with the criminal justice system – will all take their toll on the patient's mental and physical health. Such patients are also more likely to disengage from services.[9]

Overall, substance misuse is associated with premature mortality: a reduction in life expectancy of 9-17 years, compared with the national average.[14] This premature mortality is mainly due to the effects of cigarette smoking on physical health. Smoking has also been found to be a risk factor for suicide in patients with major depression or bipolar disorder.[15] In addition, Cavazos-Rehg and colleagues[16] reported that smoking cessation was associated with a reduced risk of relapse for mood and anxiety disorders, as well as alcohol misuse; and with a reduced risk of new onset mood, anxiety or substance misuse disorder. Smoking cessation should therefore be routinely and strongly encouraged.

**Table 1**

**Health check components for patients with dual diagnosis**

**General health assessment**
- To include blood tests for liver, thyroid and renal function
- Neurological examination if patient reports loss of sensation, blackouts or confusion
- Respiratory examination if patient smokes tobacco or other drugs
- Gastrointestinal examination if patient is misusing alcohol

**Routinely monitor for cardiovascular and metabolic indications of morbidity**
Weight, blood pressure, lipids, blood glucose.
Be aware that anabolic steroid misuse can cause hypertension, hypercholesterolaemia, thromboses and an increased risk of stroke and myocardial infarction.

**Nutritional assessment**
Give thiamine if clinically indicated; healthy eating advice

**Treatment of direct complications of injecting drug use**
DVT, abscesses, infection

**Advice and testing for blood-borne viruses**
HIV, hepatitis B and hepatitis C. Including advice about hepatitis B immunisation

**Sexual health advice**
Contraception advice; STD screening; cervical cancer screening

**Smoking cessation advice and NRT**

**Information about local NHS dentists**

## MONITORING HEALTH

A general assessment of physical and mental health is important, to identify any unmet healthcare needs.[17] NICE recommendations on monitoring the physical health of dual diagnosis patients are detailed in the guideline on schizophrenia,[10] particular regard should be paid to the effect of alcohol and drugs. A comprehensive health check should be carried out at least annually, see table 1, below.[9,10,17]

Monitoring, and interventions, should be opportunistic, as dual diagnosis patients may engage erratically and infrequently.[17] Integrated and coordinated care can improve a patient's engagement with services. This should be overseen by mental health services, in communication with the GP and relevant substance misuse services.

## MANAGEMENT

The main overarching principles of management can be categorised as follows:
- Referral to secondary care
- Integrated care
- Education
- Social care and a person-centred approach

Department of Health guidelines recommend that patients with these dual problems should receive patient focused and integrated care which should be delivered within mental health services. This recommendation is echoed by NICE. Secondary care services may be in a better position than primary care services to offer crisis care and assertive outreach, as well as long-term care.[5]

The Department of Health good practice guidance on dual diagnosis[4] and a range of NICE clinical guidelines address current evidence-based practice, see table 2, opposite.

Mental health and substance misuse needs should be addressed at the same time, in an integrated package of care, delivered by mainstream services.[14] This is a recommendation from Public Health England; but under current practice, most dual diagnosis patients see mental health services about their psychiatric disorder, and substance misuse teams for their substance misuse. This emphasises the need for coordinated care, as stated above. Traditionally dual diagnosis patients have at times fallen between services. In general patients with severe mental illness should not be excluded from secondary care mental health services because of their substance misuse.[17]

## GP SUPPORT

The GP is often in a unique position both to provide continuity of care to the patient, and to identify the impact that the patient's illnesses has on their family or carers.[5]

Carers should be involved as much as possible, and a carer's assessment offered if required; practice nurses can play a key role in this. Carers should be identified by entering the appropriate Read code in their medical records.[1,9] If relatives or carers live with the patient, consider referring to psychological services for family intervention.[10]

Education on a healthy lifestyle and harm reduction (not having unprotected sex or sharing needles) is an important part of management.[9]

Employment, housing, benefits and social isolation all impact on, and are impacted by, substance misuse and mental ill health. The patient's wider health and social needs should also be explored.[1] Ideally this should be done in conjunction with other commissioned services,[1] that provide support for substance misuse patients.[9]

It is vital to remember that dual diagnosis patients are more likely to lose contact with, or disengage from, services. Non-attendance or loss of contact should be followed up appropriately by liaising with the GP and any secondary care services involved.[1]

A non-judgemental, person-centred approach and integrated care can impact positively on patient engagement with services and concordance with treatment.[1]

Where concordance is erratic, depot/long-acting injectable antipsychotic medication can be used[10] to manage non-adherence to antipsychotic medication. This should, however, not be seen as a specific treatment for psychosis and coexisting substance misuse[9] – unless, of course, the patient prefers this approach.[10]

**Table 2**

**NICE guidance covering the management of patients with dual diagnosis**

| | |
|---|---|
| **NG58: Coexisting severe mental illness and substance misuse: community health and social care services (2016)[1]** | How to improve services for people aged 14 and above who have been diagnosed as having coexisting severe mental illness and substance misuse. The aim is to provide a range of co-ordinated services that address wider health and social care needs, as well as other issues such as employment and housing |
| **CG120: Coexisting severe mental illness (psychosis) and substance misuse: assessment and management in healthcare settings (2011)[9]** | Assessing and managing people aged 14 years and over with coexisting severe mental illness (psychosis) and substance misuse. It aims to help healthcare professionals guide people with psychosis with coexisting substance misuse to stabilise, reduce or stop their substance misuse, to improve treatment adherence and outcomes, and to enhance their lives |
| **CG178: Psychosis and schizophrenia in adults: prevention and management (2014)[10]** | Recognising and managing psychosis and schizophrenia in adults. It aims to improve care through early recognition and treatment, and by focusing on long-term recovery. It also recommends checking for coexisting health problems and providing support for family members and carers |
| **CG185: Bipolar disorder: assessment and management (2014; updated 2018)[27]** | Recognising, assessing and treating bipolar disorder in children, young people and adults. Recommendations apply to bipolar I, bipolar II, mixed affective and rapid cycling disorders. It aims to improve access to treatment and quality of life in people with bipolar disorder |
| **CG115: Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence (2011)[20]** | Identifying, assessing and managing alcohol-use disorders (harmful drinking and alcohol dependence) in adults and young people aged 10-17 years. It aims to reduce harms (such as liver disease, heart problems, depression and anxiety) from alcohol by improving assessment and setting goals for reducing alcohol consumption |
| **CG100: Alcohol-use disorders: diagnosis and management of physical complications (2010; updated 2017)[25]** | Physical health problems that are completely or partly caused by an alcohol-use disorder. It aims to improve the health of people with alcohol-use disorders by providing recommendations on managing acute alcohol withdrawal and treating alcohol-related conditions |
| **CG52: Drug misuse in over 16s: opioid detoxification (2007)[23]** | Helping adults and young people over 16 who are dependent on opioids to stop using drugs. It aims to reduce illicit drug use and improve people's physical and mental health, relationships and employment |
| **CG51: Drug misuse: psychosocial interventions (2007)[26]** | Using psychosocial interventions to treat adults and young people over 16 who have a problem with or are dependent on opioids, stimulants or cannabis. It aims to reduce illicit drug use and improve people's physical and mental health, relationships and employment |

**Table 3**

**Drugs used to maintain abstinence from alcohol**

| Drug | Indication | When to start | Major contraindications |
|---|---|---|---|
| **Acamprosate** | Maintenance of abstinence; can reduce cravings for alcohol | As soon as possible after detoxification. Usually prescribed for up to 6 months, or longer if there is a benefit and patient preference | Renal impairment |
| **Naltrexone** | Relapse prevention | After detoxification. Usually prescribed for up to 6 months, or longer if there is a benefit and patient preference | Current treatment with opiate analgesics (as will render these ineffective and precipitate withdrawal); hepatic failure; acute hepatitis |
| **Disulfiram** | Disulfiram is an alternative for patients in whom acamprosate and naltrexone are not suitable, or if the patient prefers disulfiram and understands the risks of taking the drug.<br>Maintenance of abstinence; ensure patient understands risks of drinking while on this medication (induces disulfiram-ethanol reaction); and also knows to avoid certain toiletries which contain alcohol | At least 24 hours after the last alcoholic drink | Significant cognitive impairment (which would preclude understanding/ recall of risks of concurrent alcohol use); cardiac failure; coronary artery disease; history of stroke; hypertension |

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## key points

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**Co-occurring severe mental illness, usually schizophrenia** or bipolar affective disorder, and substance misuse is termed dual diagnosis. Up to half of patients with severe mental illness have a lifetime diagnosis of substance misuse disorder. Mental illness is a risk factor for substance misuse, and vice versa. Part of the reason for this co-occurrence is shared risk factors; for example, both past trauma and certain genetic polymorphisms are associated with substance misuse and with the development of psychiatric illness.

**There is a bidirectional relationship between mental** illness and substance misuse. Mental illness and its consequences may lead to substance misuse as a coping strategy. Substance misuse can lead to mental health problems, either by triggering a first episode in a susceptible person, or by exacerbating an existing disorder. However, substance misuse itself is unlikely to be the sole cause of a severe and enduring mental illness. There is a complex interaction between substance misuse and mental illness. Patients with such comorbidity tend to have an earlier onset and a worse course of mental illness. GPs should routinely ask patients with severe mental illness about substance misuse, and likewise should routinely assess patients with known substance misuse for signs of psychosis.

**The social sequelae of substance misuse – chaotic lifestyle,** impact on families and relationships, homelessness, increased contact with the criminal justice system – will all take their toll on the patient's mental and physical health. Such patients are also more likely to disengage from services. Integrated and coordinated care can improve a patient's engagement with services. This should be overseen by mental health services, in communication with the GP and relevant substance misuse services.

**Overall, substance misuse is associated with premature** mortality: a reduction in life expectancy of 9-17 years, compared with the national average. This premature mortality is mainly due to the effects of cigarette smoking on physical health. Smoking has also been found to be a risk factor for suicide in patients with major depression or bipolar disorder. Smoking cessation has been shown to be associated with a reduced risk of relapse for mood and anxiety disorders, as well as alcohol misuse; and with a reduced risk of new onset mood, anxiety or substance misuse disorder. Smoking cessation should therefore be routinely and strongly encouraged.

**NICE recommendations on monitoring the physical** health of dual diagnosis patients are detailed in the guideline on schizophrenia, particular regard should be paid to the effect of alcohol and drugs. A comprehensive health check should be carried out at least annually. The GP is often in a unique position both to provide continuity of care to the patient, and to identify the impact that the patient's illnesses have on their family or carers.

## PHARMACOLOGICAL TREATMENT

### Mood/anxiety symptoms

Often, symptoms of low mood and anxiety are secondary to substance misuse (for example, depression in alcohol misuse, anxiety with stimulant use or dysphoria in stimulant withdrawal) and will resolve with abstinence. There are replicated findings that in the majority of patients presenting to alcohol treatment services, these symptoms will resolve with abstinence.[18,19]

In some patients, however, symptoms do persist, are likely to represent distinct disorders, and are associated with risk of relapse.

For patients who misuse alcohol and have concurrent depression or anxiety, NICE guidelines recommend treating the alcohol misuse first to see if symptoms improve. NICE recommends that if depression or anxiety continues after 3 to 4 weeks of abstinence from alcohol, assessment of the depression or anxiety should be undertaken and referral and treatment in line with the relevant NICE guideline for the particular disorder considered.[20] Antidepressants are unlikely to be effective when a patient is drinking heavily; and alcohol may increase side effects from antidepressant medication.

However, in practice, many such patients will continue to drink for some time; and a meta-analysis in 2004 concluded that antidepressant medication exerts a modest beneficial effect for patients with combined depressive and substance misuse disorders.[21]

If proceeding with antidepressant therapy, the Maudsley guidelines[22] suggest that citalopram and sertraline are the safest choices in patients who continue to drink.

Cognitive behaviour therapy is an effective non-pharmacological intervention, provided that the patient is willing to engage regularly.

In patients with an established diagnosis of a severe mental illness, liaison with psychiatric services is clearly crucial.

### Opiate dependence

An opiate-dependent patient may request an opioid substitute prescription. Methadone or buprenorphine are the first-line agents,[23] and can be initiated in primary care, provided that the practitioner feels competent or as part of a shared care arrangement.

In practice, most patients will be started on a substitute prescription by substance misuse services, and then referred to their GP for shared care once stable.[23,24] However, for patients with comorbid severe mental illness, joint working with psychiatric services is recommended.[24]

### Alcohol withdrawal

Acute withdrawal from alcohol can be fatal, and careful management is required for patients with severe alcohol dependence. Assisted alcohol withdrawal can be carried out in the community but this is not recommended for patients with comorbid severe mental illness, who will require inpatient detoxification.[20]

The management of unplanned acute alcohol withdrawal and complications, including delirium tremens and withdrawal-related seizures, is described in NICE guideline CG100.[25]

### Relapse prevention in alcohol misuse

After a successful withdrawal from alcohol, abstinence is the appropriate goal for patients with comorbid severe mental illness.[20] For those unwilling to consider abstinence, the focus should be on harm reduction.

Various pharmacological agents are available to help maintain abstinence from alcohol (see table 3, p19); prior to commencing these medications, baseline urea and electrolytes and liver function tests including gamma glutamyl transferase should be carried out.

Nalmefene is a recently available treatment option which can reduce alcohol consumption in patients who do not require immediate detoxification; it can only be prescribed in conjunction with appropriate psychosocial interventions.

Naltrexone can also be used for relapse prevention in opioid dependence. All of the above medications are most effective when offered in conjunction with psychosocial interventions: psychological therapy or self-help groups such as AA or SMART groups (see Useful Information box, opposite).[20] Psychosocial interventions should be offered to all substance misuse patients,[23,26] whether or not they are taking relapse-prevention medication.

**Competing interests:** None

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## Useful information

**UK SMART Recovery**
www.smartrecovery.org.uk

**Alcoholics Anonymous (Great Britain)**
www.alcoholics-anonymous.org.uk

**UK Narcotics Anonymous**
http://ukna.org

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