INTOXICATION & RAPID TRANQUILISATION

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ST5

We will cover

Context

Overarching approach

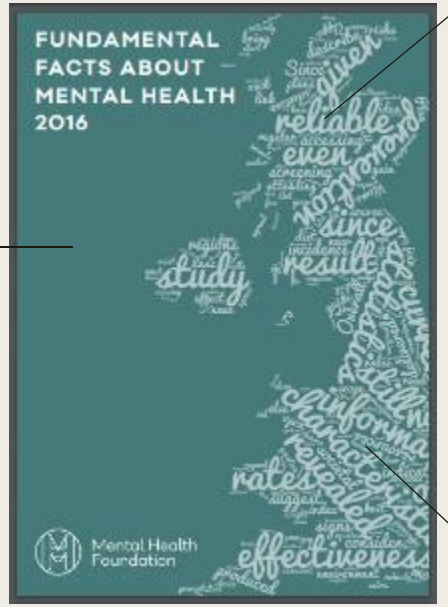
Considerations

- Alcohol
- Novel Psychoactive Stimulants
  - Depressants –GHB
  - Stimulants – amphetamines
  - Hallucinogens- synthetic cannabinoids

CONTEXT

Context

A recent analysis found that the rate of violence over a four-year period among those with severe mental health problems was 2.88%, compared to 0.83% in the general population. Rather than mental illness causing violence, the two were found to be connected mainly through the accumulation of other risk factors, such as **substance abuse** and childhood abuse/neglect



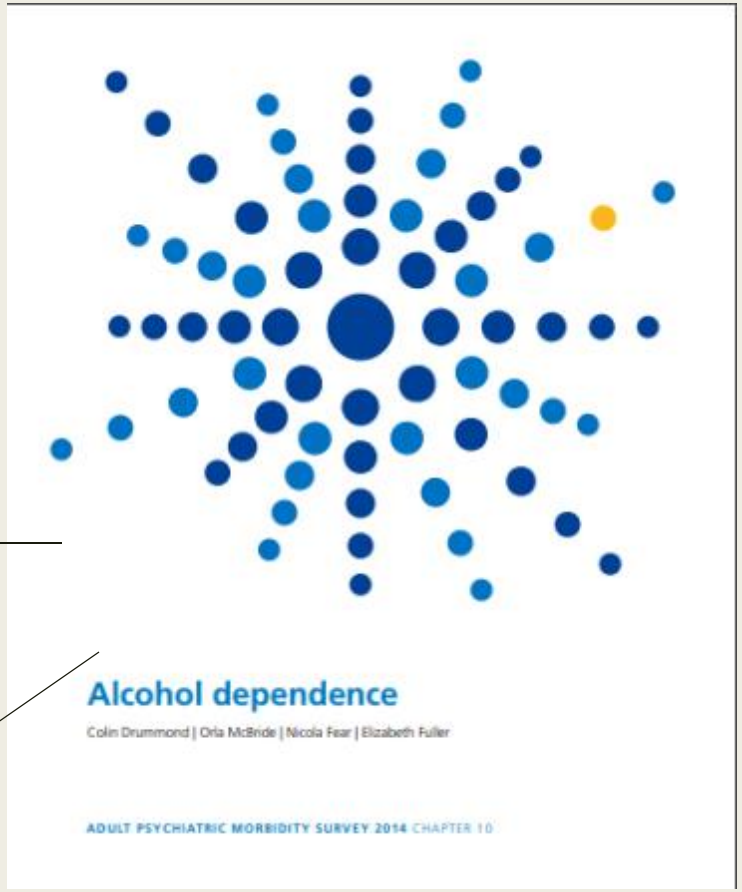
Men had higher rates of hazardous drinking than women, with between a quarter and a third of men aged 16–64 drinking to dangerous levels

16.6% of adults in England report drinking to hazardous levels. Using the Alcohol Use Disorders Identification Test (AUDIT), a measure of hazardous drinking, 1.2% of adults scored levels of hazardous drinking that indicated probable dependence.

MENTALHEALTHFOUNDATION 2016. Fundamental Facts about Mental Health

Alcohol

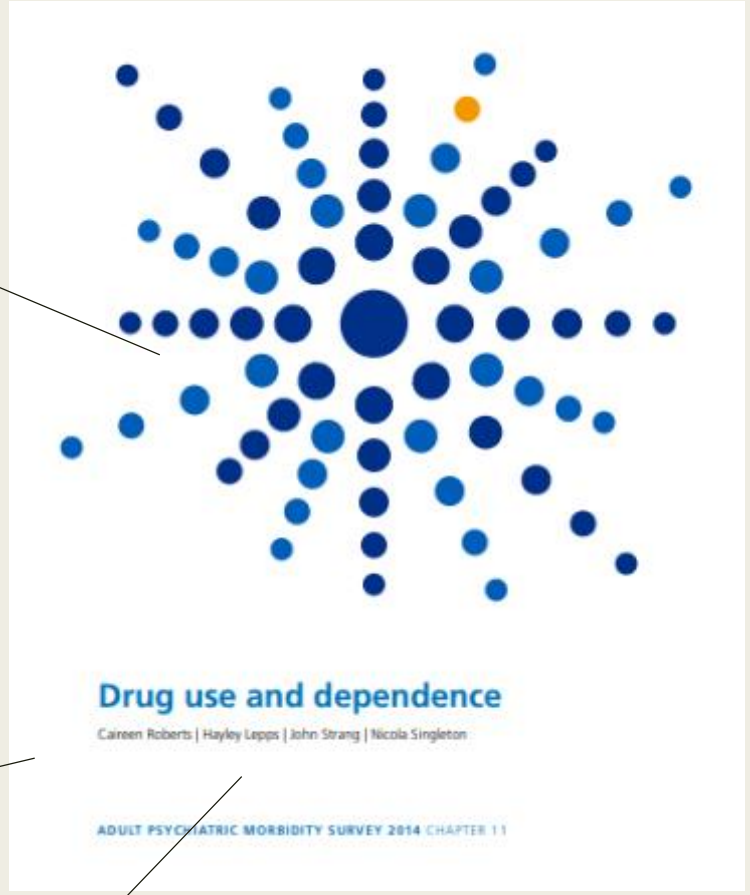
Alcohol misuse does not only harm those who drink. It is implicated in 53% of violent incidents in England and Wales



Alcohol-related hospital admissions continue to increase in England and exceed one million per annum (HSCIC 2015). In 2013/14 the commonest wholly attributable cause of alcohol admissions was mental and behavioural disorders due to use of alcohol, including alcohol dependence and related conditions.

Other substances

Significant proportions of those being treated as inpatients or in the community for severe mental illness have substance misuse problems, and this has treatment implications that are not always satisfactorily addressed..



The number of admissions to NHS hospitals with a primary diagnosis of drug-related mental health or behavioural disorder has risen since 2012/13 but is still lower than ten years ago.

Recently there has been a rapid expansion in the number of new drugs available on the drug market.

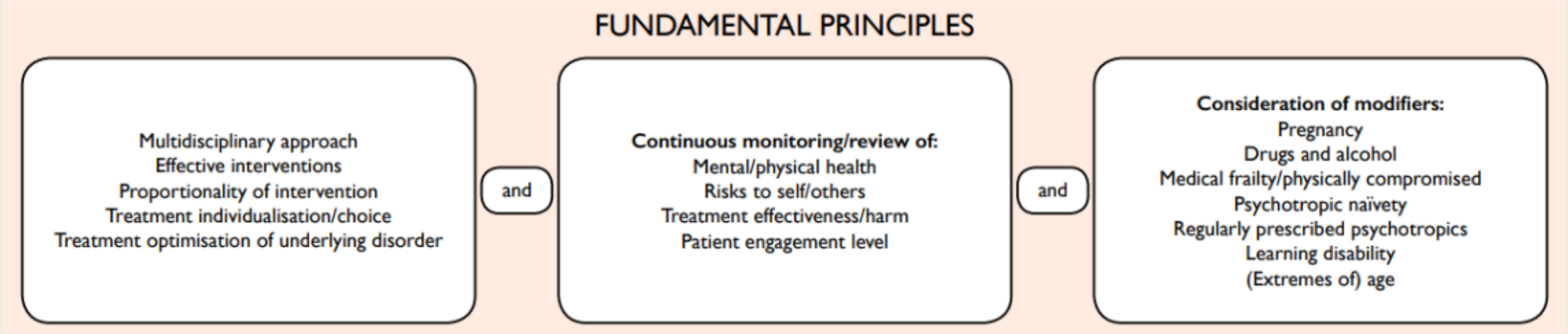
Context

- NG10 recognises that there are ‘major problems’ in managing substance-related violence with some patients inappropriately transferred to police cells (NICE, 2015b).
- In general, studies do not stipulate which substances are implicated, although alcohol, synthetic cannabinoids, gammahydroxybutrate (GHB) and stimulants are most likely to be associated with acute disturbance.

PATEL, M. X., SETHI, F. N., BARNES, T. R., DIX, R., DRATCU, L., FOX, B., GARRIGA, M., HASTE, J. C., KAHL, K. G. & LINGFORD-HUGHES, A. 2018. Joint BAP NAPICU evidence-based consensus guidelines for the clinical management of acute disturbance: de-escalation and rapid tranquillisation. *Journal of Psychiatric Intensive Care,* 14, 89-132.

OVERARCHING APPROACH

Overarching approach



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Overarching approach

- One of the TREC trials examined the impact of substance misuse and found that IM midazolam or IM haloperidol plus IM promethazine were both effective and ‘reasonably safe’ (TREC Collaborative Group, 2003).
- In other clinical guidelines, benzodiazepines are generally recommended due to their limited side-effect profile and propensity for drug interactions, the ability to titrate and to reverse their effects with flumazenil, particularly in an acutely disturbed patient where there is uncertainty about diagnosis and other drugs taken (Lingford-Hughes et al., 2012; NICE, 2015b).
- It is less clear what the best alternative is for those who may be benzodiazepine tolerant or dependent, alcohol dependent or have taken other respiratory depressants, although benzodiazepines are still likely to be the best approach with monitoring.

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Overarching approach

- Concerning antipsychotics, the risk of lowering seizure threshold and impact on cardiovascular rhythm means they should be used with caution and monitoring.
- In addition, the use of antipsychotics may complicate diagnosis of a psychotic presentation regarding whether it is ‘drug induced’ on a background of a psychotic illness.

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Overarching approach

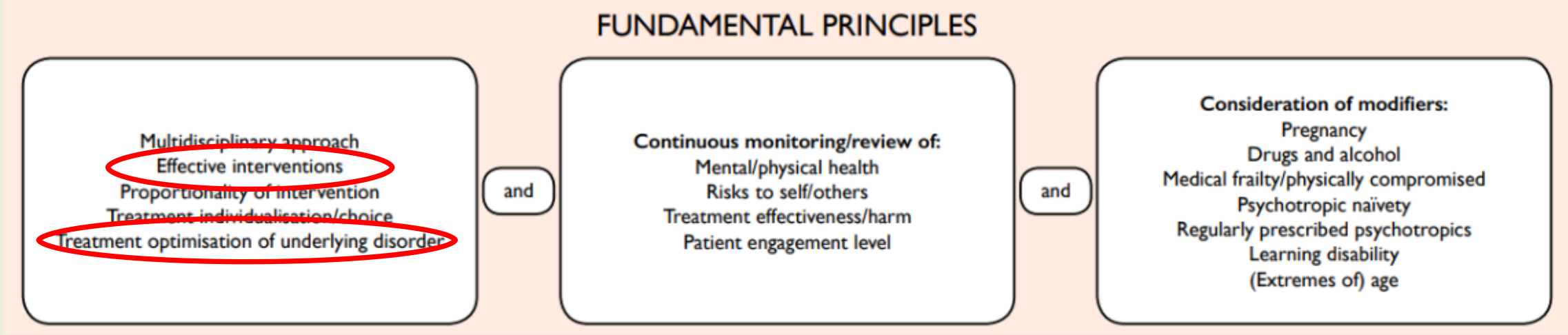
For many of the novel psychoactive substances (NPS), rapid urine or field tests are not available, so clinical assessment is critical for the diagnosis to be made

Intoxication is a modifier that warrants particularly careful post RT observation

CONSIDERATIONS

Alcohol

Alcohol



World Federation of Societies of Biological Psychiatry
The information portal of the Federation

NICE National Institute for Health and Care Excellence

In acute disturbance due to alcohol intoxication, antipsychotics should be preferred over benzodiazepines.

In withdrawal benzodiazepines are generally preferred

In delirium tremens, parenteral lorazepam or haloperidol is recommended.

Remember Thiamine

CONSIDERATIONS

NPS

NPS

The Novel Psychoactive Treatment UK Network guidelines and website (http://neptune-clinical-guidance.co.uk/)

The National Poisons Information Service (https://www.toxbase.org/).

Cases of suspected harm from illicit substances, including NPS, can be reported to Public Health England (https://report-illicit-drugreaction.phe.gov.uk/).

CONSIDERATIONS

NPS- GHB

Depressant
GHB

Gammahydroxybutrate (GHB) intoxication and withdrawal can be lethal.

According to the Office for National Statistics, there were 20 deaths in England and Wales in 2011 where GHB/GBL was mentioned on the death certificate, 13 such deaths in 2012, and 18 in 2013

Depressant GHB

Box 3.1. *Reported neurological and psychiatric features of GHB/GBL intoxication*

CNS symptoms: dose-related. Patients may therefore present with CNS symptoms ranging from sudden drowsiness through to unresponsive coma, depending on dose[44,54–56,60,61,63–76] Common
Amnesia[77,78] Common
Ataxia[45,47,57,61,71,77–113] Common
Hypotonia[57,66,74,79,114] Common
Disorientation[44,61,78,84,110] Common
Hyporeflexia[91,100,105,109] Common
Dizziness[45,68,77,92,93,94,110] Common
Tremor[57,80] Common
Confusion[68,78,79,93,94] Common
Myoclonus[54,57,58,60,77,90,115–117] Common
Hallucination[83,84,93,94] Common
Convulsions (seizures or seizure-like activity) have been reported,[34,57,60,61,63–65,68,69,72,74,78,87,89,93,94,97,108,113,114] but most studies have shown them to be uncommon. They may occur secondary to hypoxia or due to other substances used[8]
Somnolence[78,82,90,112] Common
Agitation,[47] bizarre behaviour and combativeness, either at presentation or when waking[44,47,55,56,60,61,63,66,68,71,75–78,80,81,84,85,88,92–94,96,98,101,106,108,110,114,115]
Slurred speech[80,83,84] Common
Miosis[44,68] Common
Dysarthria[44,77] Common
Less common neurological effects include bruxism,[98] vertigo,[57] delusion,[110] extrapyramidal side-effects,[83] dystonia,[83] athetoid posturing[98]
Confusion[68,84,66] Common
Mydriasis (wide pupils)[44,68,72,80,85,86,90,92,93]
Headache[44,85] Common
Horizontal and vertical gaze nystagmus[79,80,83–85]
Reduced coordination[80,93] Common
Pupils may be sluggish and non-reactive[66,72,94,107]
Euphoria Common
One report of paroxysmal sympathetic surge[118]

Box 3.3. *GHB withdrawal symptoms*

Commonly reported symptoms
Hallucinations – visual and auditory[9,15,41,126,145,148–162]
Anxiety[15,23,34,40,41,59,126,149,150,156,163–165]
Tremors[23,36,40,41,59,140,148–151,154,156,157,159–164]
Paranoia[9,15,40,41,126,153–156,159,162]
Tachycardia[15,34,41,126,145,148–151,153,156–159,163,164]
Insomnia[15,23,36,41,59,148,149,151,153,156,158,162]
Hypertension[41,126,148,149,158,159,164]
Disorientation[15,126,145,149,150,153,156,158,162]
Sweating[36,40,41,126,148,149,151,154–157,159,163]
Confusion[15,126,140,149,153,156,160]
Agitation[34,126,140,145,153,155,157,158,160,166]
Aggression/combativeness[40,126,150,152,159]

Other reported symptoms
Depression[36,41,156]
Tachypnoea[154]
Miosis[153]
Nausea and vomiting[126,163]
Nystagmus[15,157,162,164,]
Diarrhoea[126,165]
Cardiac palpitations[35,160,164]
Abdominal pain (less common)[164]
Dyspnoea[160]

Severe withdrawal
Delirium[23,34,41,140,145,148,157,158,160]
Seizures[40,126,140,145,153] – may become life-threatening
Psychosis[67,151,153,156, 159,160,161]
Withdrawal mimicking schizophrenia[167]
Rhabdomyolysis[145, 149, 161]
Medical complications reported during withdrawal include sepsis, myoglobinuria, Wernicke's encephalopathy without alcohol dependence

Depressant GHB

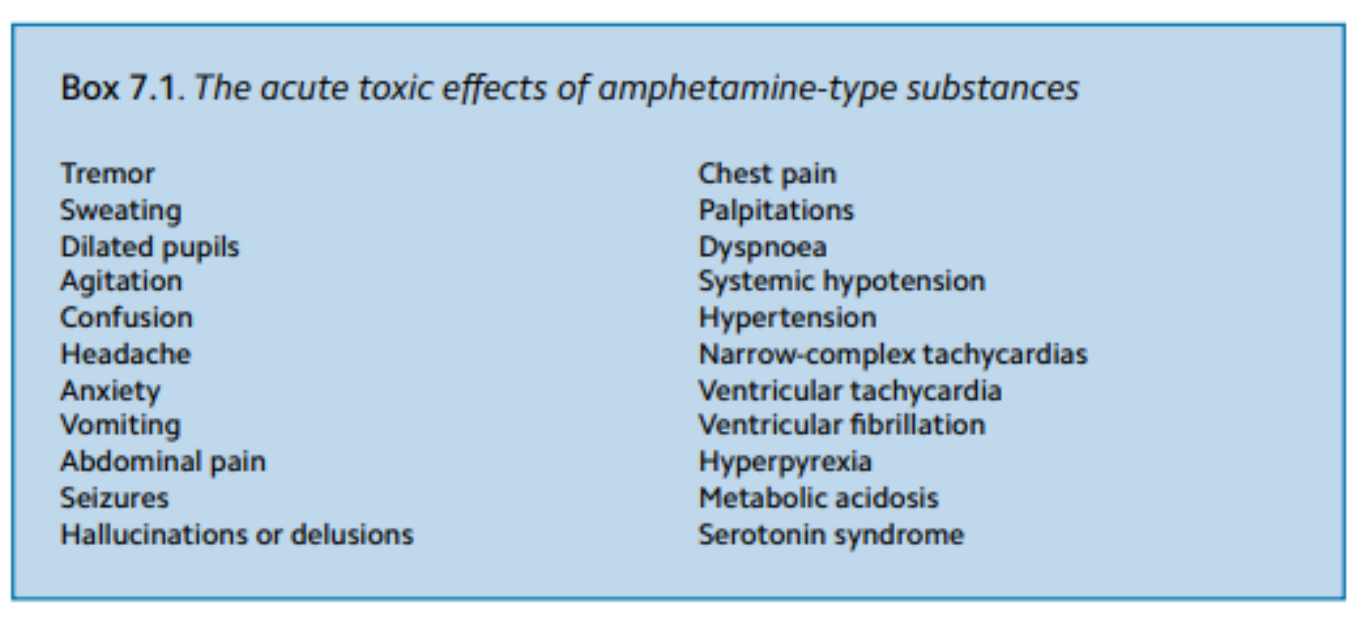
Substantial doses of diazepam and/or admission to the medical intensive care unit with intubation to manage the acute disturbance in withdrawal states have been described.

GABA-B receptors are a target for GHB and addition of baclofen 10 mg three times a day to benzodiazepines has been reported to improve symptom control and reduce the need for large benzodiazepine doses (Lingford-Hughes et al., 2012).

CONSIDERATIONS

NPS- Amphetamines

Simulants Amphetamines



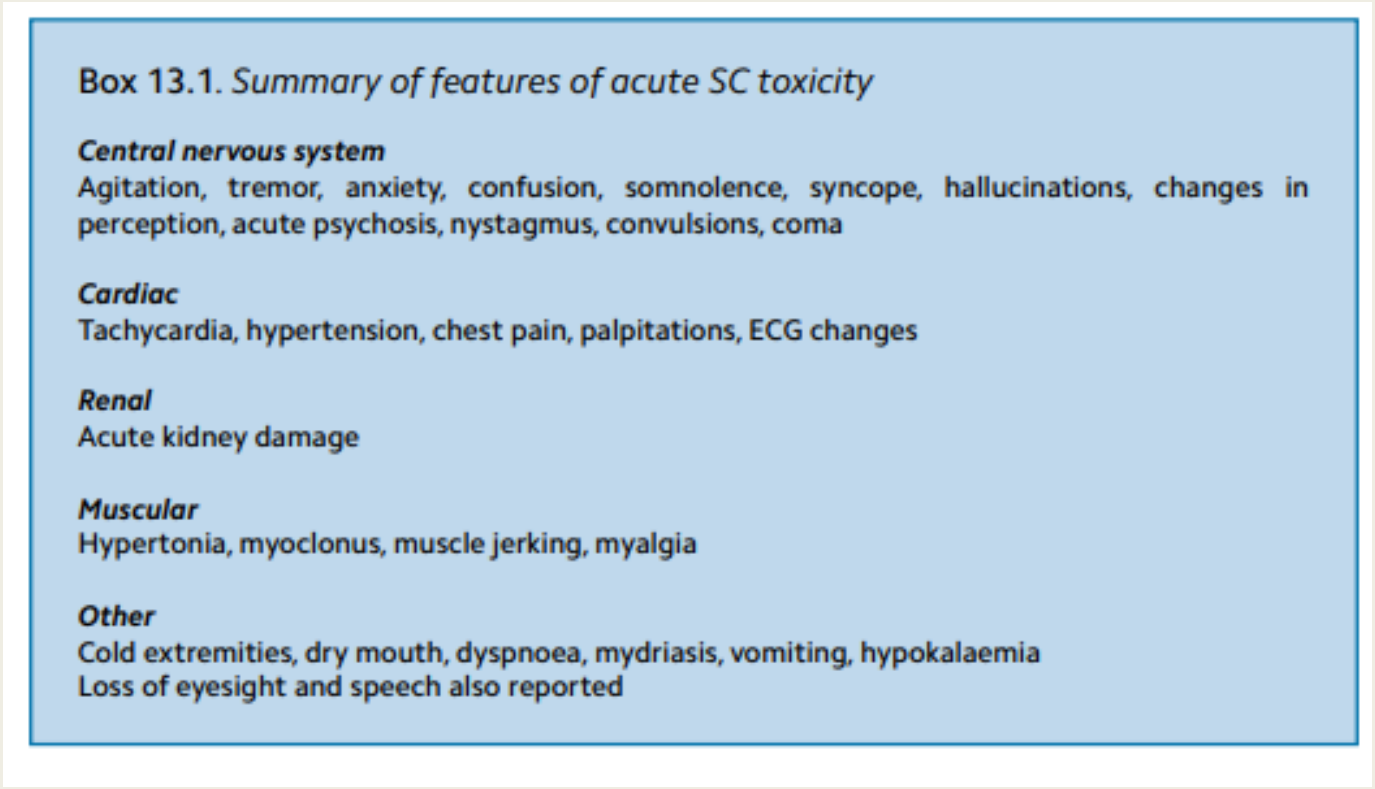
Box 7.1. *The acute toxic effects of amphetamine-type substances*

Tremor	Chest pain
Sweating	Palpitations
Dilated pupils	Dyspnoea
Agitation	Systemic hypotension
Confusion	Hypertension
Headache	Narrow-complex tachycardias
Anxiety	Ventricular tachycardia
Vomiting	Ventricular fibrillation
Abdominal pain	Hyperpyrexia
Seizures	Metabolic acidosis
Hallucinations or delusions	Serotonin syndrome

- Treatment in psychosis
  - *Supportive care*
  - *Benzodiazepines*
  - *Low stimulus environment*
  - *Olanzapine >Haloperidol short-term*
- Serotonin syndrome

CONSIDERATIONS

Synthetic cannabinoids



Box 13.1. *Summary of features of acute SC toxicity*

Central nervous system
Agitation, tremor, anxiety, confusion, somnolence, syncope, hallucinations, changes in perception, acute psychosis, nystagmus, convulsions, coma

Cardiac
Tachycardia, hypertension, chest pain, palpitations, ECG changes

Renal
Acute kidney damage

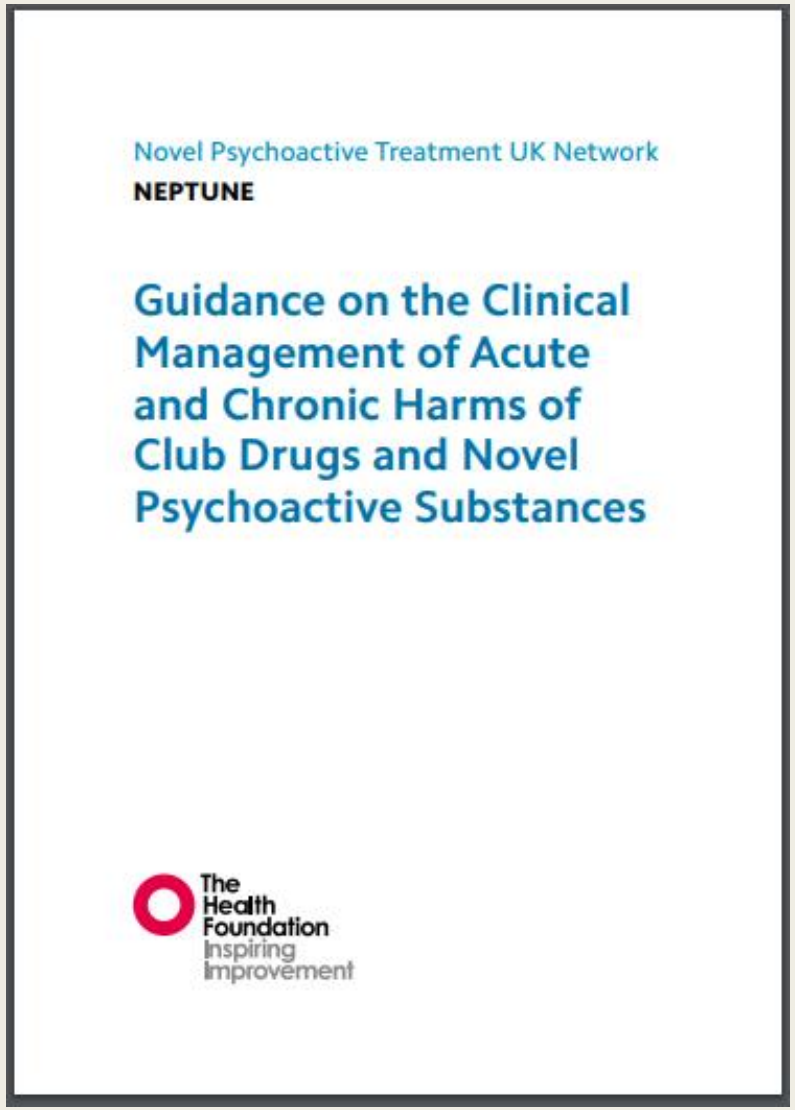
Muscular
Hypertonia, myoclonus, muscle jerking, myalgia

Other
Cold extremities, dry mouth, dyspnoea, mydriasis, vomiting, hypokalaemia
Loss of eyesight and speech also reported

Hallucinogens Synthetic cannabinoids

- Treatment in psychosis
  - *Supportive care*
  - *Symptomatic relief*
  - *Benzodiazepines*
  - *Low stimulus environment*
  - *Consideration of antipsychotics*

RECOMMENDATIONS



Recommendations

- Remember Fundamental Principals
- History and clinical assessment important
- Benzodiazepines
- Don’t forget physical consequences
- Post-monitoring is especially important