Recreational Drug Toxicity Guideline

Sir Charles Gairdner Hospital Emergency Department

BACKGROUND

This guideline is intended for SCGH ED staff, to help assess and manage patients after a recreational drug exposure. Illicit drug use is a relatively common cause for presentations to the ED and is associated with increased morbidity and mortality. Substances involved are typically injected, smoked, snorted or ingested and often result in one of several common types of presentation:

Class	Examples	Typical effects	Severe Toxicity
Stimulants	Methamphetamines, MDMA, cocaine, cathinones	Anxiety, dysphoria, agitation, psychosis, tachycardia, diaphoresis, mydriasis	Hyperthermia, delirium, arrhythmia, seizures
Opioids	Heroin, synthetic opioids, nitazenes	Sedation, bradypnoea / respiratory depression, miosis	Coma, apnoea
Sedative-hypnotics	GHB, benzodiazepines	Sedation, respiratory depression, (agitation may also be seen during GHB emergence)	Coma, apnoea
Hallucinogens	LSD, psilocybin, NBOMe	Anxiety, dysphoria, agitation, hallucinations, psychosis	Delirium

*Be aware that polysubstance use is common (particularly methamphetamines & GHB in Australia) and so patients may present with a mixed toxidrome.
**Note that drug withdrawal syndromes can also present with some of these features, so clarifying the clinical effects of the patient's drug use and timeline of symptoms may help direct management.

GENERAL APPROACH

Please refer to the Toxicology Handbook[1] for implementing RRSI DEAD approach. This enables an early risk assessment and directs early management decisions, even if the patient currently appears stable.

SEVERE TOXICITY

Any patient presenting with toxicity that is thought to be severe should be discussed with a senior (registrar or consultant) early, and if there are concerns/uncertainty in managing the patient, toxicology can be consulted via hospital switchboard.

Indicators of more significant toxicity may include:

- Risk assessment - the anticipated trajectory of their clinical state based on the details of the ingestion
- Magnitude of biochemical derangement (e.g. electrolyte / acid base disorder, elevated lactate / CK / creatinine)
- ECG abnormalities (e.g. widened QRS, QT prolongation),
- Abnormal vital signs (e.g. blood pressure, heart rate, temperature, respiratory drive)
- Clinical signs (e.g. clonus, marked hyper-reflexia, hypertonia, coma, loss of airway reflexes)
- Organ dysfunction (e.g. reduced cardiac contractility, oliguria/anuria)

TESTING FOR DRUGS OF ABUSE

Routine urine drug screening (UDS) is not recommended and should only be performed if there is a clear directive from one of the specialties or a senior ED physician.

For cases of severe recreational drug toxicity where IV access is already being obtained as part of clinical management, blood samples may be sent for drugs of abuse analysis to identify the involved agent/s and potentially help guide ongoing care in cases of protracted hospital / ICU admission – usually in discussion with the toxicology team.

Criteria for severe toxicity that may justify testing include:

- >400mcg naloxone requirement in the first hour or prolonged toxicity requiring a naloxone infusion
- Coma requiring intubation
- Severe agitated delirium requiring parenteral sedation or intubation
    - Not just isolated features of paranoia / psychosis in the context of chronic stimulant use

Consideration may also be given to testing suspected clusters of patients presenting with similar clinical features from a common source / location / event – please discuss such cases with the toxicology team.

Sample collection in the Emergency Department:

- Medical staff take one additional 6mL EDTA (pink) blood tube on presentation to ED, label it with a patient sticker and send to the pathology lab with a dedicated request form. Be aware this sample is not analysed at SCGH and gets processed / stored by PathWest, then couriered on to the ChemCentre for mass spectrometry.
- Medical staff then need to scan the QR code and enter the patient UMRN / clinical details for processing.

MANAGEMENT

Acute toxicology considerations:

- Patients presenting with clinical features of severe recreational poisoning should be managed in consultation with the Toxicology Service, with a focus on resuscitation and supportive care.
- Resuscitation should take priority, following an airway / breathing / circulation approach.
- There should be an additional focus on assessing other life threats (such as seizures, hyperthermia and hypoglycaemia), and consideration of the need for any emergency antidotes (e.g. naloxone).
- Supportive care may include medications (such as benzodiazepines as required for agitation), fluid and electrolyte replacement, pressure area / bladder care, patient positioning to reduce aspiration risk, and consideration of venous thromboembolism prevention (for those with prolonged sedation / immobility).
- Complications of recreational drug use should be actively sought and treated; this may include trauma, metabolic derangements, rhabdomyolysis, renal injury, myocardial injury and aspiration pneumonitis.

Harm minimisation and discharge planning:

- Before any potential ED discharge ideally ensure patient is alert / oriented, tolerating oral intake, walking independently, and able to void bladder.
- Look for signs of injuries / trauma and complications of injecting drug use (e.g. skin abscess / endocarditis)
- Consider take home naloxone for opioid users (see guideline)
    - Intranasal & intramuscular naloxone kits are kept in the PIT medication room (in a cupboard with the SAS meds / nicotine replacement). Please put a patient sticker in the nearby file for record keeping.
    - Provide naloxone education to patient & friends / family.
- For those who inject drugs, consider Blood Borne Virus screening (Hep B/C & HIV) if not done previously
    - Can also discuss the needle and syringe exchange program
- Manage any withdrawal symptoms that may become apparent during their hospital course
- Discuss community alcohol and drug resources – patients can self-refer to these services.
    - Cards are available for the Alcohol & Drug Support Line if patient interested in engaging in services
    - Community Alcohol and Drug Services
    - Residential Rehabilitation Services
- If needed, can consider referral to ED allied health services (social work, psychiatry, alcohol & drug)

Allied Health Contact Numbers:

- Drug and Alcohol Service 76323
- Psychiatric Liaison Nurse 76727
- Social Work 76730

REFERENCES

1. Armstrong J & Pascu O (2022). Toxicology Handbook, 4th Edition. Elsevier Australia. Chatswood, NSW Australia.