Cannabinoid Hyperemesis Syndrome
Toxicology

1 Introduction
Cannabinoid hyperemesis syndrome (CHS) is characterised by cyclic vomiting, abdominal pain and compulsive bathing behaviours in chronic cannabis users. It is frequently underappreciated as a cause for recurrent presentations to the Emergency Department and often these patients are over investigated for their episodes of vomiting and abdominal pain.

Toxicokinetics
Chronic cannabis misuse results in a paradoxical emetic effect which is poorly understood.

2 Risk Assessment
This syndrome has been described in chronic daily users of marijuana. Typically these patients begin using in their teenage years and symptoms of the syndrome only manifest after many years of abuse.

Key features of the syndrome:
- Discrete episodes of vomiting ± abdominal pain
- Daily marijuana use
- Relief with hot showers or baths
- Electrolyte disturbances including hypokalaemia, metabolic alkalosis and renal impairment secondary to dehydration

Urine drug screening for cannabis may be helpful if the patient is not forthcoming with their drug history where the picture would otherwise fit for CHS. A positive urine drug screen does not confirm chronic marijuana use, but if positive, may prove helpful in approaching the patient for a more frank discussion regarding their cannabis use.

3 Management
Supportive measures are the mainstay of therapy. Fluid rehydration and marijuana cessation is the central part of management. Antiemetics may be helpful but there is no evidence to guide which may be the most effective. There have been case reports of successful treatment with haloperidol and droperidol but no definitive case...
series. The Princess Alexandra Toxicology Unit recommends droperidol 10mg IM/IV stat (maximum 30mg daily) as a first line antiemetic to settle the symptoms of CHS.

4 Disposition
Patients with Cannabinoid Hyperemesis Syndrome can be managed in the SSU under the care of the toxicology team. Symptomatic improvement is typically seen within 12 to 24 hours following IV rehydration and droperidol. Ultimately cannabis cessation is necessary to prevent further cyclical attacks. In particular the patient should be discouraged from turning to marijuana to combat nausea or vomiting following this acute episode.

5 References
1. Wallace E et al. ‘Cannabinoid Hyperemesis Syndrome: Literature Review and Proposed Diagnosis and Treatment Algorithm.’ South Med J 2011;104(9) 659-664
2. Lu M and Agito M. ‘Cannabinoid Hyperemesis Syndrome: Marijuana is both antiemetic and proemetic.’ Cleveland Clin J Med 2015; 82(7): 429-34