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The impact of illicit drug use on the Emergency Department

I work in an inner city Emergency Department that sees around 75000 patients a year. 10% of these presentations relate to illicit drug use. These patients are sick, representing around 17% of our Triage Category 1 patients, which means that they need immediate attention.

Let me paint you a picture of a day in the ED. We have 29 cubicles in our Emergency Department. Picture a corridor with about 8 cubicles. In each of these rooms is a patient sedated with a single nurse looking after each one. This peaceful scene only belies the fact that during that 10 hour shift 8 patients had been brought in one after another by either paramedics or police,

1. One man, convinced that the credit cards were reading his mind and he was throwing them around at a petrol station
2. A few that were wandering naked in and out of traffic, one convinced that Godzilla was chasing them
3. A young man who jumped off a balcony several stories high convinced there was a crocodile chasing him
4. A young lady who was cowering in the back of a police paddy wagon convinced that she had been fishing dead bodies from the Swan River

So this is 8 patients with drug induced psychosis who now occupy 30% of the cubicles in the ED for an average of about 11 hours. Each of them having a single nurse solely devoted to their care, for their safety and close observation for aggression and violence.

As each of these patients arrive agitated, aggressive and distressed, 66% will need intravenous sedation and about 30% will require some form of physical restraint in the form of 4-6 security staff.

The impact on the department is significant in that about 30% of our bed occupancy had been taken up by drug affected patients for an average of 11 hours, which means that they are not available to review other patients.

The effect on patients is that they come in unwell, profoundly psychotic, often physically injured during a meth-induced psychosis. If they are lucky, most of them will recover after a sleep, only about 2% of patients go on to have persistent psychosis that need psychiatric admission.

The impact on the other patients having to witness the violence, aggression when they are there seeking medical attention is not pleasant.

Our staff in the ED work in an environment where violence in the workplace is a given. It is not ok and our security staff do an amazing job in trying to keep us safe. It is not uncommon for our doctors and nurses to be kicked and punched, held in a head lock or spat at during a shift. All of the aggression and simulation training that we do help to mitigate some of the risk but they not stop it.



The knock on effects to the other departments dealing with the ongoing effects of metamphetamaine including persistent psychosis, traumas, infections cannot be underestimated.

What I have described above is some of the effects of metamphetamines on the Emergency Dept. Besides alcohol, metamphetamines would be the most common illicit drug use causing presentations to our ED.

The collateral damage to the families of patients involved is heartbreaking. For example, the scene of watching parents of the young person, intubated, on a ventilator on Christmas day, to prevent complications from stimulants overheating the body.

I have not covered the effects of the other illicit drugs on the ED including opioids, synthetic cannabinoids, synthetic cathinones or diverted pharmaceuticals like pregabalin.

Anecdotes make great stories but data and research is key. We have been running the WA Illicit Substance Evaluation project for the last 2 years at RPH. For the first time, our treatment is focused not just on symptom management but also determining what agents have caused patients to become unwell. We are able to correlate the patients' symptoms with the agent and the blood level.

We have been able to quantify the effect of metamphetamaine on the ED. We have also learnt that the patient's psychotic symptoms are not related to their meth levels but more likely due to their pattern of use and sleep deprivation.

The collaboration with the WA Toxicology service, the Emergency Departments and the Chemistry Centre has also worked well to act as an early warning system where a cluster of poisonings is identified, the causative agent can be quickly determined and a public health message placed. This has been demonstrated with the recent NBOMe-5flouroamphetamaine and hyoscine clusters.

We have also got a large case series of MDMA and synthetic cannabinoids in this study. We were looking to expand to opioid presentations as anecdotally, this appears to be an increasing problem. The question is, is this due to the type of opioids or the amount?

This project has now evolved to the development of a clinical protocol and having a systematic approach to collecting blood from patients unwell from illicit drug use. We are in the process of expanding this project to beyond RPH to the other metropolitan hospitals and setting up a national registry to work out the pattern of poisonings around the country. This project is called EDNA or the Emerging Drug Network Australia using the national poisons network infrastructure and lessons learnt here in WA.

We have to move beyond anecdotes and use research to drive change. We have recently opened a 6 bed unit (Urgent Care Centre) dedicated to looking after these patients in an attempt to decongest the main ED floor. This has worked in improving the efficiency of the main ED and freeing up the beds to review other patients

We are also incredibly fortunate in the Emergency Department where we have a psychiatry and drug and alcohol staff imbedded within our team. We see each presentation as an opportunity for intervention. They are proactive in terms of assisting the Emergency Department in assessing patients who have a persistent psychosis. We work well as a team, especially in determining if there is a medical cause or purely psychiatric cause for the psychosis.

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Collaboration with external agencies including the Chemistry Centre and Harm Reduction WA, the National Poisons Information Network have allowed us to expand beyond simply bandaiding the problem of illicit drugs (symptom management) to actually being proactive in terms of working out what drugs are causing harm in the community. This collaboration improves the capacity to disseminate this information to people on the ground. This problem is bigger than the Emergency Department and that we represent small subsection of a larger problem. The ultimate goal is working towards developing an early warning system of identifying clusters of poisonings and developing an efficient manner of disseminating this information with the aim of reducing harm.

What I would like from the Select Committee is the recognition and support for the need of collaboration between agencies and the initiatives that have been taken to move beyond simply symptom management to determining what drugs are causing harm, development of a national early warning system with an efficient manner of disseminating this information.

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