

Estimating prevalence of drug and alcohol presentations to hospital emergency departments in NSW, Australia: impact of hospital consultation liaison services

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Abstract

The impact of drug and alcohol misuse has been the subject of widespread media discussion in the past year, particularly in the context of restricted alcohol trading hours in an effort to reduce alcohol-fuelled violence. A recent study evaluating NSW Health's drug and alcohol consultation liaison (CL) services¹ demonstrates how pervasive drug and alcohol problems are, and the impact they have on the health system. This paper highlights how expanding CL services to fill current unmet need could deliver a range of benefits to patients and hospitals.

Key points

- More than one-third of people presenting to NSW hospitals have a drug and alcohol problem in need of some level of intervention
- Hospital drug and alcohol consultation liaison (CL) services, which are specialist drug and alcohol services operating in hospital settings, are low-cost interventions that produce cost savings to hospitals, through a reduction in future presentations
- There is unmet need for drug and alcohol CL services, as only one-quarter of people requiring intensive intervention are currently referred to and treated by CL services

Drug and alcohol presentations to hospital – how big is the problem?

Drug and alcohol use is common among patients presenting to hospital emergency departments (EDs), yet it is frequently unidentified.^{2,3} Drug and alcohol use increases the risk of inappropriate treatment and patient management. Issues including postoperative morbidity and behavioural incidents, and higher rates of re-presentation, readmission and re-injury are associated with drug and alcohol-related presentations. People with drug and alcohol problems are also costly to the health system, especially those with intensive or specialist treatment needs. They present at hospital more frequently and, if admitted, have longer stays. Drug and alcohol issues are also a key factor in behavioural incidents in hospitals. The societal cost of alcohol misuse in Australia is more than \$14 billion, of which \$1.6 billion is related to the healthcare costs of patients.⁴ There is enormous scope for saving healthcare dollars through better support and treatment services that can improve health outcomes for people with drug and alcohol problems while also reducing the burden on hospitals.

International research demonstrates the high prevalence of drug and alcohol morbidity among patients presenting in EDs in North America, Europe and Asia.^{5,6,7,8,9} Australian studies have found similar patterns of problematic drug and alcohol use among ED patients to those reported internationally.^{10,11} Hospitals in countries with similar prevalence and patterns of problematic drug and alcohol use may also benefit from implementing or expanding drug and alcohol consultation liaison (CL) services.

More than one-third of people presenting to New South Wales (NSW) hospital EDs have an underlying drug and alcohol problem requiring intervention, according to a recent study.¹² Among the total sample ($N = 1615$), 35% of participants self-reported substance use in the 24 hours before presentation, and 30% reported their substance use had contributed to their current hospital presentation to some extent. Alcohol was the most common substance reported being used in the 24 hours before presentation, with 27% of the sample reporting this use. Other substances commonly reported being used in the 24 hours before presentation were sedatives (5%), cannabis (4%), opioids (4%) and amphetamine-type stimulants (2%). Participants who reported that their substance use had contributed to their current presentation most commonly reported alcohol (18%), cannabis (4%), sedatives (3%), amphetamine-type stimulants (2%) and opioids (2%) as the contributing substance.¹²

The evaluation found that about 35% of patients in a baseline patient survey screened positive for drug and alcohol problems as measured by the Alcohol, Smoking and Substance Involvement Screening Test. Of the total sample screened, 7% required specialist intervention for one or more substances. However, only one in four people requiring specialist intervention are currently referred to and treated by CL services.

People identified as requiring specialist intervention for substance use presented twice as often as patients without substance use issues, and were also more likely to be admitted to a psychiatric ward and stayed longer than other patients. About 12% of the sample screened positive for problematic use of multiple (two or more) substances. The majority (75%) of those identified as having drug and alcohol issues in this survey had never accessed any type of substance-use treatment service.

Drug and alcohol consultation liaison services – what are they and why do we need them?

Drug and alcohol CL services aim to improve identification and treatment of patients with drug and alcohol problems, and provide direct access to specialist services for support, treatment advice and assistance with the management of the condition. Although most

Australian hospitals have some form of drug and alcohol CL service, in many hospitals, these services are limited. Drug and alcohol CL services provide specialist drug and alcohol services within hospital settings, specifically consultation (advice regarding the management of drug and alcohol-related issues for referred patients) and liaison (enhancing capacity of generalist health providers to address drug and alcohol issues in their routine clinical work). The National Drug and Alcohol Research Centre (NDARC) at UNSW Australia, and the Centre for Health Economics Research and Evaluation at the University of Technology Sydney investigated the scope of drug and alcohol problems, and how CL services can improve outcomes.

The benefits of consultation liaison services

The researchers examined the experience of patients who received a CL intervention, and found that drug and alcohol CL services:

- Prevented an increase in average length of stay in EDs over time
- Prevented a worsening in emergency admission performance
- Reduced the frequency of ED presentations over time
- Decreased the rate of admission over time
- Increased the uptake of appropriate Pharmaceutical Benefits Scheme (PBS) prescriptions related to drug and alcohol treatment, with no overall increase in PBS costs.

The findings suggest that, even after accounting for the additional cost of providing CL services, there were net savings for the health system. The economic component of the evaluation found a net benefit of at least \$203 a year for every new patient seen by drug and alcohol CL services in NSW hospitals. Based on the number of patients currently being treated by existing drug and alcohol CL services, this amounts to an average net benefit of at least \$100 000 per hospital per year.¹³ These are likely to be conservative estimates, given that highly intoxicated people were excluded as survey participants because they could not provide informed consent.

There are a number of caveats to this economic evaluation, including a reliance on observational data rather than randomised trial data. Overall, the results suggest that the provision of drug and alcohol CL services in NSW hospitals improves outcomes at a modest cost and is likely to result in net savings to the health system. Expanding these services to fill current unmet need would benefit patients, lead to cost savings and generate wider hospital benefits such as reduced behavioural incidents.

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Competing interests

None declared

Author contributions

This manuscript was written by KB, with contributions by RR and critical revision by RV and LB.

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