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Police MHA powers

Characteristics and outcome of patients transported by police to emergency departments under section 351 of *the Mental Health Act 2014* (Vic)

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This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi: 10.1111/1742-6723.13879

ABSTRACT

Objectives: To determine characteristics, precipitating circumstances, clinical care, outcome and disposition of patients brought to the Emergency Department (ED) under section 351 (s351, police detention and transport) powers of the *Mental Health Act 2014* (Vic) (MHAV).

Methods: Observational cohort study conducted in two metropolitan teaching hospitals in Victoria. Participants were adult patients brought to ED under s351 of MHAV. Data collected included demographics, event circumstances, pre-hospital and ED interventions and outcome. Analyses are descriptive.

Results: This study included 438 patient encounters. Median was age 34. In 84% of encounters (368/438) patients were co-transported with ambulance. The most common primary reason for detainment was suicide risk/intent (296/438, 67.6%) followed by abnormal behaviour without threat to self or others (92/438, 21%). In ED, parenteral sedation was administered in 11% (48/438). Physical restraint was applied in 17.6% (77/438). Psychiatric admission was required in 23.5% (103/438). In 63 cases, psychiatric admission was involuntary (14.4%). Most patients (297/438, 67.8%) were discharged home. A subset of patients had recurrent s351 presentations. Eighteen patients (5.6%) accounted for 22% (96/438) of all events.

Conclusion: Most patients brought to ED under s351 of the MHAV had expressed intention to self-harm, did not require medical intervention and were discharged home. It could be questioned whether the current application of s351 is consistent with the least restrictive principles of the MHAV, especially as there is no apparent monitoring or reporting of the use of these powers. There were a concerning number of patients with multiple s351 events over a short period.

Key words: Mental health, emergency department, law

INTRODUCTION

In all Australian states and territories, police have powers to detain people whom, in their judgement, might be suffering from a mental illness and are a risk to themselves and/or others, and transport them for assessment by an appropriate clinician. Often, for practical reasons, this is to an emergency department (ED). While the wording of the legislation varies somewhat (see Table 1), the focus is on preventing harm. The legislation states that police are not required to exercise any medical/clinical expertise in order to form their opinion. They may base it on their observations of the person's behaviour or appearance and/or reports about it. In Victoria, these powers are described in section 351 (s351) of the *Mental Health Act 2014 (Vic)*.(MHAV) [1] The Act requires officers to transport the person to a suitable facility for assessment by a medical or mental health practitioner, with a view to determining whether an involuntary mental health treatment order is required. The rationale for transport to ED seems to include 24-hour availability, an assumed capability for managing aggressive and/or violent behaviour and lack of alternatives.

Among the core principles of the MHAV are that assessment and treatment are provided in the least intrusive and restrictive way, that people are supported to participate in decisions about their treatment and that individuals' rights, dignity and autonomy are protected and promoted.[2] Similar definitions and principles are mirrored in other Australian mental health acts. These Acts are informed by the United Nations High Commission for Human Rights principles.[3,4]

Previous research has shown that approximately 18% of mental health presentations to ED are made under police mental health act powers.[5,6,7] Patients are predominately male and present out-of-hours.[5-8] Suicidal ideation is the most common reason for detainment and alcohol and/or drug use is common.[7,8,9]. Only a minority require psychiatric admission, with most being discharged home.[8,9,10] There have been calls for better inter-agency education and collaboration and less restrictive processes to facilitate psychiatric assessment of this vulnerable patient group.[7,8,10,11]

A systematic review of patients brought to ED by police under these powers concluded that there is limited research on the topic which restricts the ability to comprehensively understand the demographic and clinical profile of this group and the outcomes of their emergency care.[12]

Our objectives were to determine the characteristics, precipitating circumstances, level of clinical care provided, outcome and disposition of adult patients brought to ED under police apprehension powers of the MHAV (s351).

METHODS

This was an observational study of patients brought to the EDs of Sunshine or Footscray Hospital, teaching hospitals in western Melbourne, Victoria, under s351 of the MHAV.

Participants were adult patients (≥18 years) transported by police under s351 provisions of the MHAV between 9 September 2019 and 6 January 2020. They were identified from the ED data management system. In the participating hospitals, triage nurses routinely notate these presentations as being 's351' and/or that patients are brought in by police. Patients were excluded if they were already on a mental health assessment order or compulsory treatment order in the community.

Data were collected retrospectively from clinical records of prospectively identified patients by medical officers or research nurses (SK, BW, JK, FS) trained in the methods and definitions of this study. Data were collected onto a piloted, project-specific data form as re-identifiable data (see online appendix 1).

Data sources included ambulance and ED clinical records, mental health clinician assessment (where performed) and Victoria Police *Mental Disorder Transfer* (VP Form L 42; commonly known as the *s351 form*). S351 forms are provided by police to ED clinicians which outline the circumstances that led to apprehension and transfer to ED.

Data collected included demographics, circumstances of event(s), mode of arrival, pre-hospital treatment, treatment in ED, sedation and/or mechanical restraint in ED, evidence of intoxication with alcohol/ drugs, outcome of mental health clinician assessment (if performed), application of an involuntary assessment or treatment order, disposition and total ED time. Treatment in ED was defined as attention to injuries (including suturing or dressings) or administration of medications other than sedation. It did not include observation alone. In the study hospitals, restraint must be documented in medical records and on specific restraint forms. All available data sources were used to determine the circumstances of the events, including drug/alcohol intoxication. This included s351 forms, clinical notes by an ED clinician and, for most patients, a mental health clinician. In the participating EDs, formal testing for drugs and alcohol were not routinely performed.

Inter-rater reliability of data extraction was performed on 58 random records (13%) for the data points triage category, identify as Australian indigenous, birth country, gender, disposition (hospital or psychiatric ward versus discharge), parenteral sedation given and reason for presentation (coded as main or contributing reason). Agreement was >90% for all data points. (Online appendix 2)

Analysis is descriptive. No sample size calculation was made. This project was approved by the Western Health Low Risk Ethics Panel (QA.2019.40). Patient consent for data collection was not required.

RESULTS

We included 438 patient encounters in 319 patients.(Figure 1) Patient characteristics and circumstances are shown in Table 2. Median age was 34 years, and 237 patients were males (54.1%, 95%CI 49.4-58.7%) Two hundred and sixty patients (81.5%, 95%CI 76.9-85.4%) were transported once in the study period, 41 (12.9%, 95%CI 9.6-17.0%) were transported twice and 12 (3.8%, 95%CI 2.2-6.5%) were transported three times. Six patients (1.9%, 95%CI0.9-

4.0%) were transported more than three times with one transported each of four, five, six and seven times. One was transported 16 times and one was transported 22 times.

The majority (368/438, 84.0%, 95%CI 80.3-87.2%) were transported by ambulance accompanied by police rather than by police vehicle. One hundred and forty-three (33.3%, 95%CI 29.1-37.9%) were administered sedation and/or mechanical restraint during ambulance transfer. The most common primary reason for use of s351 powers was suicide risk/intent (296/438, 67.6%, 95%CI 63.1-71.8%) followed by abnormal behaviour without threat to self or others (92/438, 21.0%, 95%CI 17.5-25.1%). Intoxication with drug or alcohol was a contributing factor in about a third of cases (147/438, 33.6%, 95%CI 29.3-38.1%). Of note, in 82 cases (18.7%, 95%CI 15.3-22.6%) neither risk of harm to the patient or others was coded as either the primary or a contributing factor.

ED management and disposition is shown in Table 3. Ninety-six patients required clinical care (investigation, treatment or medical observation) (21.9%; 95%CI 18.3-26.0%). Sedation was administered to 45.4% (199/438, 95%CI 40.8-50.1%) – primarily taken orally on a voluntary basis. A small proportion required mechanical restraint (77/438, 17.6%; 95%CI 14.3-21.4%). In the ED, 18.0% (79/438, 95%CI 14.7-21.9%) were placed on involuntary assessment order. At the conclusion of assessment, 44.7% (196/438; 95%CI 40.2-49.4%) required ongoing treatment by mental health services. For about half of these (93/438, 21.7%; 95%CI 17.7-25.3%), this was deliverable in a community setting without a hospital admission. Voluntary psychiatric admission occurred in 7.5% of patients (33/438, 95%CI 5.4-10.4%) and involuntary psychiatric admission in 13.7% (60/438, 95%CI 10.8-17.2%). 67.8% of patients were discharged home (297/438, 95%CI 63.3-72.0%).

An analysis of frequent presenters is shown in Table 4. Most were for suicidal ideation without action and all patients were well known to mental health services. Most events were outside office hours and clustered over a few days. Combined mental health and drug health issues were common. Requirement for acute medical care or a mental health admission was uncommon.

DISCUSSION

Police powers of apprehension for mental health assessment provide a mechanism to facilitate care of vulnerable people and to protect the community. It is, however, an intrusive mechanism which deprives patients of their autonomy, liberty and right to participate in their own health decisions. The process also delivers potentially vulnerable people into the chaotic and high stimulus ED environment which may exacerbate psychological distress. Restrictive practices are also associated with long-term trauma which can compound existing mental health conditions.[13] EDs are not designed or resourced for this function.[7,13]

Consistent with previous research, the most common reason for presentation was threat of self-harm, involuntary psychiatric admission was uncommon and the majority of patients were discharged home.[7-9]

A previous study by our group at one of the current study hospitals found 9.6% of patients transported under s351 powers had no threat of harm to self or others[8]. In the present study, using similar methods, this has almost doubled to 18.7%. As triage processes and documentation has not changed substantially over time, we believe that this difference represents a real change. The increase in the proportion without threat of harm to self or others would appear not to comply with the requirements of s351 of the MHAV that there is 'serious and imminent' risk of harm. Reasons for this are unclear and beyond the scope of this project. There has, to our knowledge, not been any public discussion about what an acceptable rate of hospital or psychiatric admission in patients to whom s351 is applied,. The reasons for use of s315 powers could include liberal interpretation of what constitutes 'serious and imminent' risk of harm in circumstances where there is genuine concern by police for a person's welfare or a lack of alternative services. Although this interpretation may be well-intentioned, it deprives patients of their autonomy and liberty and is not in keeping with the

principles and spirit of the Act. Other police powers can be used for welfare checks but cannot compel attendance for a medical or psychiatric assessment.[14]

The 'creep' in the proportion of cases in which s351 was used without obviously meeting the criteria of the Act suggests that closer monitoring of its use is required. International research suggests that similar provisions are inconsistently applied and monitored.[15] Audit is a powerful tool for improving quality and safety of care.[16] It would also provide transparency about how the Act is used. We consider this essential as these powers are often applied to vulnerable people who may not be able to advocate for themselves.

Overall, 42.6% of patients underwent clinical care or admission to hospital or a psychiatric unit as shown in Table 3. That said, a MHA assessment order was only made in 18% of patients and involuntary psychiatric admission was only required in 13.7%. The proportion of patients who underwent clinical care or required admission to hospital or a psychiatric unit could be argued as a justification for use of s351 powers. That however ignores the right of competent people to exercise autonomy with respect to healthcare, including their right to choose to seek heathcare and to consent to it. The further 23% patients who received sedation only, did not require clinical care and did not require admission to hospital or a psychiatric unit is concerning in this respect. It is possible that these patients were being held in ED without consent and without sufficient justification for overriding their rights.

Compared to previous studies, requirement for parenteral sedation was similar.[5,8,9] Mechanical restraint was however more common than previously reported.[6,8] It may reflect an increase in violent behaviour associated with drug use. It may also reflect a preventative strategy against violence towards healthcare workers or a lack of other management options. Median ED length of stay was similar to other contemporary studies.[9]

The proportion of s351 patients being transported by ambulance was surprisingly high and represents a significant impact on ambulance resources. We did not collect data on ambulance transport use in our previous study [8], but anecdotally clinicians report a shift

away from transport in police vehicles to use of ambulances. The reasons for this practice change are unclear.

The rate of parenteral sedation administered by paramedics is unexpectedly high (22%), especially as police were in attendance. Our study did not address reasons for this. It may reflect pre-emptive treatment against the risk of violence towards first responders. Parenteral sedation is however not without risk, including hypoxia and a requirement for endotracheal intubation. [17]

Use of s351 provisions of the MHAV by police is part of a broader health system but co-ordination across the system is sub-optimal.[13] Our findings raise important questions about whether there is a feasible, less restrictive approach and whether ED is the 'right' place for these people. These questions have been raised previously.[7,8,13] As most patients did not require sedation in ED or medical treatment and were suitable for discharge into the community, a strong argument for a person-centred, less restrictive approach can be made. In Australia and internationally, there have been calls for and/or legislation requiring agreed policies for inter-agency collaboration for the management of the people with mental illness, including information-sharing, joint decision-making and co-ordinated intervention.[18,19,20] Better inter-agency collaboration could potentially avoid detainment and transport events, with benefits for both patients and the community. Examples of collaboration include co-response models, in which specially trained police officers are paired with mental health clinicians and assessment occurs in the community.[20] These include the 'Street Triage' program (UK) and the Victorian PACER (Police, Ambulance and Clinical Early Response) program.[21,22] The PACER program has been found to reduce time to assessment, release police units more quickly and result in better inter-agency sharing of information, fewer referrals to ED and reduced overall system cost.[23] Our data suggests that a significant proportion of the relevant population would be suitable for a community-based assessment process.

The high proportion of repeat s351 presentations is concerning, especially the 18 patients with more than two episodes in the study period. This 5.6% of patients were associated with about

22% of s351 events, with many of these events in clusters over a few days. The vast majority were for expressed suicidal ideation without action and most patients had combined mental health and drug health challenges. Only a small number of these events resulted in a mental health admission. This reflects the complex needs present in some mental health patients.[13] While there are established inter-agency communication channels via mental health liaison officers in Victoria Police and emergency services committees, anecdotally these are reported to be slow and not responsive to evolving circumstances. The system needs a process for timely identification of patients with repeat s351 events in a short period and a dynamic, integrated system for putting in place an appropriate management plan that avoids, where possible, detainment and involuntary sedation, restraint and transport to ED.

This study has some limitations that should be considered when interpreting the results. It was conducted in one region in Melbourne, Australia so may not be generalizable to other regions. Although patients were identified prospectively, data was collected retrospectively with the well-known limitations of this method, including the possibility of missing data and that data collectors were not blinded to the study objectives, potentially introducing bias.[24] Determination of the main and contributing factors to presentation was based on the judgment of the researcher reviewing the record. This was by nature subjective, however all data collectors were clinicians with emergency medicine experience so this represents 'real world' practice.

CONCLUSION

The majority of patients brought to ED under s351 of the MHAV in this study had expressed intention to self-harm, did not require medical intervention and were discharged home. In 18% of cases there was doubt about whether the requirements of s351 were met. An audit and feedback process of the use of these powers may help address this. There were a concerning

number of patients with multiple s351 events over a short period. Further work exploring less restrictive processes to facilitate psychiatric assessment of this group of patients is warranted.

Funding: Departmental funds only

Conflict of interest: The authors have no conflict of interest to report.

REFERENCES:

1. *Mental Health Act 2014* (Victoria)

2. https://www2.health.vic.gov.au/mental-health/practice-and-service-quality/mental-health-act-2014. Accessed 21 September 2020

3. World Health Organisation (1996). Mental health care law: Ten basic principles. Geneva: WHO.

4. United Nations High Commission of Human Rights (1991). Principles for the protection of persons with mental illness and the improvement of mental health care. Resolution 46/119. Geneva: UNHCHR

5. Knott JC, Pleban A, Taylor D, Castle D. Management of mental health patients attending Victorian emergency departments. Aust N Z J Psychiatry 2007;41:759-67.

6. Fry M, Brunero S. The characteristics and outcomes of mental health patients presenting to an emergency department over a twelve month period. *Aust Emerg Nurs J* 2005; 27:21-5.

7. Lee S, Brunero S, Fairbrother D, Cowan D. Profiling police presentations of mental health consumers to an emergency department. *Int Mental Health Nurs* (2008) *17*, 311–316.

8. Al-Khafaji K, Loy J, Kelly AM. Characteristics and outcome of patients brought to an emergency department by police under the provisions (Section 10) of the Mental Health Act in Victoria, Australia. *Int J Law Psychiatry* 2014; 37:415-9.

9. Llewellin P, Arendts G, Weeden J, Pethebridge A. Involuntary psychiatric attendances at an Australasian emergency department: A comparison of police and health-care worker initiated presentations. *Emergency Medicine Australasia* (2011) 23, 593–599

10. Derrick K, Chia J, O'Donovan S, Emerton A, Hamlyn M, Wand T. Examining Mental Health Act usage in an urban emergency department. Australas Psychiatry. 2015;23:517-9.

11. Barnett P, Mackay E, Matthews H, Gate R, Greenwood H, Ariyo K et al. Ethnic variations in compulsory detention under the Mental Health Act: a systematic review and meta-analysis of international data. *Lancet Psychiatry*. 2019; 6: 305–317.

12. Crilly J, Johnston AN, Wallis M et al Review article: Clinical characteristics and outcomes of patient presentations to the emergency department via police: A scoping review. *Emerg Med Australas*. 2019;31:506-15.

13. Duggan M, Harris B, Chislett WK & Calder R. 2020. Nowhere else to go: Why Australia's health system results in people with mental illness getting 'stuck' in emergency departments. Mitchell Institute Commissioned report 2020, Victoria University. https://acem.org.au/getmedia/5ad5d20e-778c-4a2e-b76a-a7283799f60c/Nowhere-else-to-go-report_final_September-2020 Accessed September 2020.

14. Department of Health & Human Services – Victoria Police protocol for mental health: A guide for clinicians and police.

https://www2.health.vic.gov.au/about/publications/policiesandguidelines/protocol-for-mental-health-a-guide-for-clinicians-and-police. Accessed Sept 2020.

15. Borschmann RD, Gillard S, Turner K, et al. Section 136 of the Mental Health Act: a new literature review. *Med Sci Law* 2010;50:34–9.

16. Flottorp SA, Jamtvedt G, Gibis B, McKee M. Using audit and feedback to health professionals to improve the quality and safety of health care.

https://www.euro.who.int/__data/assets/pdf_file/0003/124419/e94296.pdf (accessed 29 December 2020)

17. Bernard S, Roggenkamp R, Smith K, Delorenzo A, Stephenson M, Ketamine in Severely Agitated Patients Study Investigators. The use of intramuscular ketamine by paramedics in the management of the severely agitated patient. (unpublished, submitted)

18. National Mental Health Working Group. *National safety priorities in mental health: a national plan for reducing harm*. Canberra: Commonwealth of Australia, 2005. Publications approval number:3725 (JN9187).

19. Home Office. *Supporting vulnerable people who encounter the police: A strategic guide for police forces and their partners*. London, UK: Home Office, 2015.

20. Parker A, Scantlebury A, Booth A, *et al*. Interagency collaboration models for people with mental ill health in contact with the police: a systematic scoping review. *BMJ Open* 2018;8:e019312.

21. Irvine A, Allen L, Webber M. Evaluation of the Scarborough, Whitby and Ryedale Street Triage Service. York: University of York, 2015.

22. Huppert D, Griffiths M. Police Mental Health Partnership project: Police Ambulance Crisis Emergency Response (PACER) model development. *Australas Psychiatry* 2015;23:520-3.

23. Department of Health and Human Services. Police, Ambulance and Clinical Early Response (PACER) Evaluation Report. https://www2.health.vic.gov.au/about/publications/researchandreports/Police-Ambulance-and-Clinical-Early-Response-PACER-Evaluation-Report. Accessed Sept 2020.

24. Gilbert EH, Lowenstein SR, Koziol-McLain J, Barta DC, Steiner J. Chart reviews in emergency medicine research: Where are the methods? *Ann Emerg Med* 1996;27:305-8.

Figure 1: Sample derivation

Table 1: Police powers under Australian Mental Health Acts

Name of Act	Section	Criteria
Mental Health Act 2015 (ACT)	s80(1)	…. if the police officer … believes on reasonable grounds that— (a) the person has a mental disorder or mental illness; and (b) the person has attempted or is likely to attempt— (i) suicide; or (ii) to inflict serious harm on the person or another person
Mental Health Act 2007 (NSW)	s22(1)	…. if the officer believes on reasonable grounds that-- (a) ...the person …. has recently attempted to kill himself or herself or that it is probable that the person will attempt to kill himself or herself or any other person or attempt to cause serious physical harm to himself or herself or any other person
Mental Health and Related Services Act 1998 (NT)	s32A(1)	…if a police officer believes, on reasonable grounds: (a) a person may require treatment or care under this Act having regard to the appearance and behaviour of the person; and (b) the person is likely to cause serious harm to himself or herself or to someone else unless apprehended immediately; and (c) it is not practicable in the circumstances to seek the assistance of an authorised psychiatric practitioner, a medical practitioner or a designated mental health practitioner.
Public Health Act 2005 (Qld)	s157B (1)	.. if (a) police officer believes— (a) a person's behaviour …..indicates the person is at immediate risk of serious harm; and (b) the risk appears to be the result of a major disturbance in the person's mental capacity, whether caused by illness, disability, injury, intoxication or another reason; and (c) the person appears to require urgent examination, or treatment and care, for the disturbance.
Mental Health Act 2009 (SA)	s57(1)(c)	(i)…it appears to a police officer that the person has a mental illness; and

		(ii) the person has caused, or there is a significant risk of the person causing, harm to himself or herself or others or property; and (iii) the person requires medical examination
Mental Health Act 2013 (Tas)	s17(1)	… a police officer may take a person into protective custody if the … police officer reasonably believes that – (a) the person has a mental illness; and (b) the person should be examined to see if he or she needs to be assessed against the assessment criteria or the treatment criteria; and (c) the person's safety or the safety of other persons is likely to be at risk if the person is not taken into protective custody.
Mental Health Act 2014 (Vic)	s351(1)	… if the police officer …is satisfied that— (a) the person appears to have mental illness; and (b) because of the person's apparent mental illness, the person needs to be apprehended to prevent serious and imminent harm to the person or to another person.
Mental Health Act 2014 (WA)	s156(1)	A police officer may apprehend a person if the officer reasonably suspects that the person — (a) has a mental illness; and (b) because of the mental illness, needs to be apprehended to — (i) protect the health or safety of the person or the safety of another person; or (ii) prevent the person causing, or continuing to cause, serious damage to property

Table 2: Patient characteristics and incident circumstances

	Total N=438 n, %, 95%CI
Age (median, IQR, range)	34, 26-44, 18-83
Gender (Male)	237, 54.1% (49.4-58.7%)
Country of birth	
US, Canada, NZ, UK, Australia, northern European	345, 78.9% (74.7-82.3%)
Southeast Asia	23, 5.3% (3.5-7.8%)
Africa	21, 4.8% 93.2-7.2%)
Sothern Europe/Mediterranean	16, 3.7% (2.3-5.9%)
Indian subcontinent	11, 2.5% (1.4-4.4%)
Latin America	5, 1.1% (0.5-2.6%)
Pacific Islands	4, 0.9% (0.4-2.3%)
Other	12, 2.7% (1.6-4.7%)
Identify as aboriginal or Torres Strait islander	
No	413. 94.5% (91.7-96.1%)
Yes	11, 2.5% (1.4-4.4%)
Unknown	13, 3% (1.7-5.0%)
Mode of arrival	
Police alone	70, 16.0% (12.9-19.7%)
Police plus ambulance	368, 84.0% (80.3-87.2%)
Prehospital sedation (AV only)	96, 22.1% (18.4-22.6%)
Midazolam	86, 90% (81.9-94.2%)
Ketamine and midazolam	6, 6.3% (2.9-13.0%)
Ketamine	2, 2.1% (0.6-7.3%)
Other	2, 2.1% (0.6-7.3%)
Prehospital physical restraint	119, 27.5% (23.5-31.9%)
Neither sedation nor restraint prehospital	292, 66.7% (62.1-70.9%)
Australasian Triage Scale category assigned	
1	6, 1.4% (0.6-3.0%)
2	99, 22.7% (18.9-26.8%)
3	302, 69.1% (64.5-73.1%)
4	29, 6.6% (4.7-9.4%)
5	1, 0.2% (0.04-1.3%)
Primary reason for transfer	
Suicide risk/attempt	296, 67.6% (63.1-71.8%)
Abnormal behaviour without threat	92, 21.0% (17.5-25.1%)

Threat to others (non-domestic)	33, 7.5% (5.4-10.4%)
Intoxication with alcohol or drugs	9, 2% (1.1-3.9%)
Domestic violence	7, 1.6% (0.8-3.3%)
Other	1, 0.2% (0.04-1.3%)
Contributory circumstances*	
Intoxication with drugs or alcohol	132, 30.1% (26.0-34.6%)
Threat to others (non-domestic)	25, 5.7% (3.9-8.3%)
Domestic violence	12, 2.7% (1.6-4.7%)
Suicide risk/attempt	12, 2.7% (1.6-4.7%)
Abnormal behaviour	4, 0.9% (0.4-2.3%)
Other	2, 0.5% (0.1-1.7%)

* More than one possible, 175 cases were found to have contributory circumstances. IQR = interquartile range, N= number, 95%CI = 95% confidence interval. Data was missing on prehospital sedation in 3 cases and prehospital restraint in 5 cases.

Table 3: ED management and disposition

Requirement for medical intervention*	Total =438 n, %, 95%CI
None	173, 39.5% (35.0-44.2%)
Medically required observation without investigation or treatment	9, 2.1% (1.0-3.9%)
Investigation without treatment	51, 11.6% (9.0-15.0%)
Treatment	36. 8.2% (6.0-11.2%)
Sedation only	169, 38.6% (34.1-43.2%)
Sedation in ED	199, 45.4% (40.8-50.1%)
Oral	133, 30.4% (26.3-34.8%)
Parenteral	48, 11.0% (8.4-14.2%)
Both oral and parenteral	18, 4.1% (2.6-6.4%)
None	239, 54.6% (49.9-59.2%)
Required physical restraint in ED	77, 17.6% (14.3-21.4%)
Placed on an assessment order	79, 18.0% (14.7-21.9%)
Outcome after ED assessment	
No assessment by mental health clinician worker	69, 15.8% (12.6-19.5%)
After assessment, no mental health issue identified	64, 14.6% (11.6-18.2%)
Discharge with GP follow-up	104, 23.7% (20.0-27.9%)
Discharge with mental health crisis team follow-up in the community	93, 21.2% (17.7-25.3%)
Voluntary psychiatric admission required	40, 9.1% (6.8-12.2%)
Compulsory psychiatric admission required	63, 14.4% (11.4-18.0%)
Other	5, 1.1% (0.5-2.6%)
Final disposition	
Home	297, 67.8% (63.3-72.0%)
Involuntary psychiatric admission	60, 13.7% (10.8-17.2%)
Voluntary psychiatric admission	33, 7.5% (5.4-10.4%)
General hospital ward, including ICU	16, 3.7% (2.3-5.9%)
Police custody	10, 2.3% (1.2-4.2%)
Self-discharge	21, 4.8% (3.2-7.2%)
Other	1, 0.2% (0.04-1.3%)
ED length of stay, excluding self-discharge patients (N=412; hours; median, IQR, range)	6.5 hours (3-13, 0.5-51.5)

* More than one possible IQR = interquartile range, N= number, 95%CI = 95% confidence interval.

Table 4. Analysis for patients attending more than three times under Section 351

Patient No.	No. attendances	Known to MHS	Combined mental health and drug health challenges	After hours presentation	Main presenting problem	No. of episodes where a medical issue was identified	No. episodes resulting in MH admissions
1	4	Yes	Yes-alcohol	4	Suicidal ideation while intoxicated	0	1 -voluntary
2	5	Yes	Yes-alcohol	5	Suicidal ideation while intoxicated plus occasional self-harm	3 – attention to superficial wounds	1- involuntary
3	6	Yes	Yes- intellectual disability	2	Behavioural disturbance plus occasional self-harm	2- attention to minor wounds	0
4	7	Yes	No	4	Suicidal ideation	2 – drug ingestion	3 - voluntary
5	16	Yes	Yes – intellectual disability	13	Suicidal ideation with occasional self-harm	6- drug ingestion; 2 superficial wounds	0
6	22	Yes	Yes- intellectual disability & autism	13	Suicidal ideation	0	3 – 2 voluntary, 1 involuntary

MHS=mental health service; MH = mental health

Online appendix 2.

Data point	**Number agreeing**	**Percent**
Identify as Australian indigenous	58/58	100%
Disposition (hospital or psychiatric ward vs discharge)	58/58	100%
Triage category	56/58	97%
Parenteral sedation given	55/58	95%
Birth country	54/58	93%
Reason for presentation#	53/58	91%

Circumstances around presentations where often complex with several contributing factors. Selection of the main contributors was therefore subjective and based on the judgement of the data collector.