



Alcohol Related Presentations to Lakes District Hospital's Emergency Department: January to December 2018

Prepared by the Public Health Service of Southern DHB
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Key findings -

Annual summary 2018

- There were 508 alcohol related presentations to ED (5%)
- Every four months, an average of one person presented to ED with a life threatening alcohol related condition (triage level 1).
- Every week, an average of 4 people presented to ED with potentially life-threatening alcohol related conditions (triage levels 2 or 3).
- Alcohol related cases present in ED at any time of the day or night with the busiest times being Saturday and Sunday mornings (midnight-6am).
- December was the busiest month.
- 40% of cases were aged 25-34 years while 36% were aged between 18-24 years. Males presented more frequently than females (70% of presentations were male).

Background

From July 2017, all Emergency Departments (EDs) are mandated to record whether or not alcohol has been a factor in each admission. Alcohol presentation categories are shown below.

No - alcohol consumption is NOT directly associated with this presentation
Not known - couldn't determine if alcohol is associated with this presentation
Secondary - consequence of others' alcohol consumption
Yes - alcohol consumption is directly associated with this presentation

The presentation descriptions of interest are defined into two subgroups:

- **Primary** *Principal person admitted who is affected by alcohol (coded above as Yes)*
- **Secondary** *Person who is admitted with injuries caused by an alcohol affected person*

Unless otherwise specified, when this report refers to alcohol related presentations it includes both primary and secondary.

Limitations: Data quality is only as good as data entry; it is currently unknown if this process is consistent across all facilities who collect this data. This is an ongoing piece of work for Southern DHB.

Residents of Wanaka and surroundings may access facilities at Dunstan Hospital due to weather conditions closing the Crown Range. This report also does not capture transfer of ED admissions transferred through to Southland Hospital for subsequent treatment.

Triaging definition: Triaging is the process of deciding how serious a person's illness or injury is in order to prioritise cases so they can be treated by urgency. All presentations to ED are assigned a triage level, as below.

1 - immediately life threatening
2 - imminently life-threatening, or important time-critical (>10 min)
3 - potentially life-threatening, potential adverse outcomes from delay > 30 min, or severe discomfort or distress
4 - potentially serious, or potential adverse outcomes from delay > 60 min, or significant complexity or severity, or discomfort or distress
5 - less urgent, or dealing with administrative issues only

Lakes District Hospital Emergency Data

This data reflects only acute harm that presented at the Lakes District Emergency Department. It does not include presentations to other parts of the health system or the full range of known harms from alcohol and their costs to both individuals and their communities. Alcohol consumption is a causal factor in more than 200 disease and injury conditions.¹ Individual harm is also known to be related to the pattern of alcohol consumption:²

- binge drinking can lead to interpersonal violence and injuries and result in emotional trauma;
- chronic medium to high level consumption is linked with liver and cardiovascular disease, mental health disorders and domestic violence;
- lower level consumption over long periods has been causally linked with a range of cancers.

The data provided is not representative of patterns and is not generalisable.

Table 1: ED presentations by alcohol classification (January-December 2018)

| Alcohol Presentation description | Lakes District Hospital |
|---|-------------------------|
| No - alcohol consumption is NOT directly associated with this presentation | 10701 |
| Not known - couldn't determine if alcohol is associated with this presentation | 77 |
| Secondary - consequence of others' alcohol consumption | 44 |
| Yes - alcohol consumption is directly associated with this presentation | 464 |
| Grand Total | 11286 |

There were 508 ED alcohol related presentations (5% of the total).

- Crudely 42 ED presentations every month, just over 1 *every day*
- Nearly 1 in 10 of these presentations were coded as secondary alcohol harm (9%).

Tables 2 and 3 show the profiles of the alcohol related ED presentations (n=607); age and gender as well as ethnicity.

Table 2: Alcohol related presentations were heavily skewed towards the younger age groups.

1. highest users were 25-34 year olds, closely followed by 18-24 year (three quarters of all presentations)
2. female presentations were typically less than males (40% v 60%)

Table 3: the majority of alcohol related presentations self-identified as European (83%), followed by Māori (7%)

Table 2: ED Alcohol related presentations by gender and age (January-December 2018)

| Age Range | < 15 | 15-17 | 18-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75 + | Grand Total |
|--------------------|-----------|-----------|------------|------------|------------|-----------|-----------|-----------|-----------|-------------|
| Female | 0 | 2 | 62 | 58 | 15 | 7 | 6 | 2 | | 152 |
| Male | 0 | 4 | 120 | 146 | 41 | 21 | 13 | 8 | 2 | 355 |
| Undefined | | | | 1 | | | | | | 1 |
| Grand Total | 0 | 6 | 182 | 205 | 56 | 28 | 19 | 10 | 2 | 508 |
| <i>Percentage</i> | <i>0%</i> | <i>1%</i> | <i>36%</i> | <i>40%</i> | <i>11%</i> | <i>6%</i> | <i>4%</i> | <i>2%</i> | <i>0%</i> | <i>100%</i> |

Table 3: ED Alcohol related presentations by ethnicity (January-December 2018)

| Ethnicity | European | Māori | Pacific Peoples | Other Ethnicity | Asian | Grand Total |
|-------------------|------------|-----------|-----------------|-----------------|-----------|-------------|
| Total | 423 | 33 | 9 | 22 | 18 | 505 |
| <i>Percentage</i> | <i>84%</i> | <i>7%</i> | <i>2%</i> | <i>4%</i> | <i>4%</i> | <i>100%</i> |

Note 1: there were 3 individuals (<1%) where ethnicity was not defined

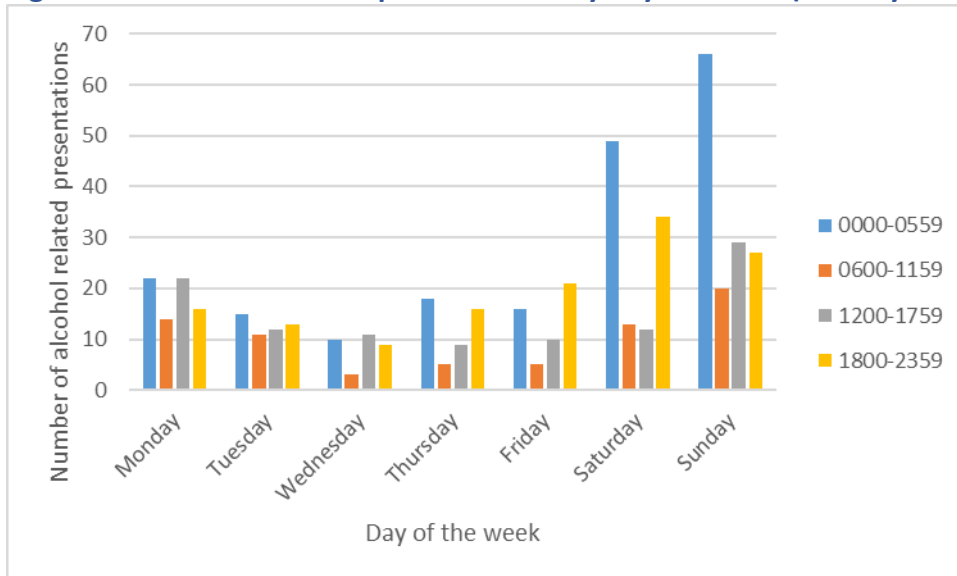
Note 2: some percentages do not total 100% due to rounding

Note 3: this data (both tables) should be compared against the latest Census data

¹ World Health Organization. Alcohol. Fact sheet; 2015, <http://www.who.int/mediacentre/factsheets/fs349/en/>

² Ministerial Council on Drug Strategy. Alcohol in Australia: issues and strategies; 2001

Figure 1: ED alcohol related presentations by day and time (January-December 2018)



Note: Not appropriate to plot averages as numbers are too small

Alcohol related ED presentations are avoidable. The harm that people cause to themselves is *bad enough* but they also divert time and resources from other patients. The number of intoxicated people turning up in ED puts unnecessary strain on the service “people can be rude, aggressive, or in the worst circumstances – even violent towards doctors and nurses”. This behaviour is not always limited to the individual requiring medical care as they may also be accompanied by associates who have also consumed high levels of alcohol. On these occasions, hospital security staff maybe required to restrain the patient and/or associate which is once again an avoidable drain on resources.

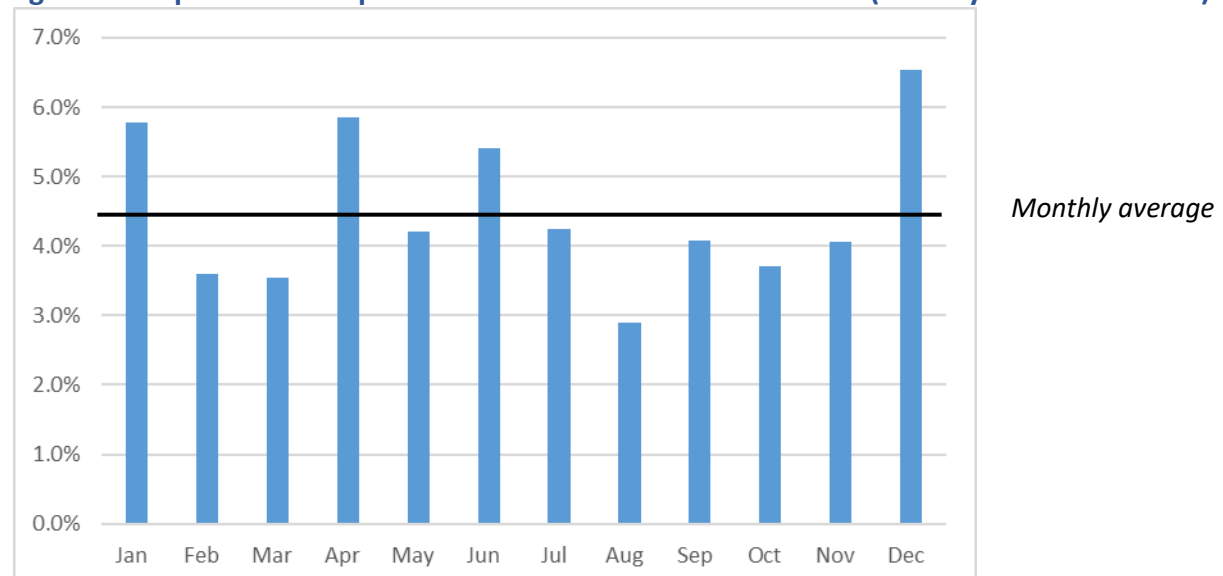
Figure 1 shows:

- Saturday and Sunday early mornings midnight-6am are disproportionately the busiest times

Figure 2 below shows:

- 4.5% of all ED presentations were alcohol related
- December had the highest proportion of alcohol related presentations (6.5%)

Figure 2: Proportion of ED presentations that are alcohol related (January-December 2018)



Note: Health cannot predict or comment on peaks and troughs as we cannot show a causal relationship to admission rates

Table 4: ED Alcohol related presentations: what does this harm look like?

| ED Triage level | Primary alcohol harm | Secondary alcohol harm | Grand Total |
|---|----------------------|------------------------|-------------|
| 1: Immediately life-threatening | 3 | | 3 |
| 2: Imminently life-threatening, or important time-critical (>10 min) | 31 | 2 | 33 |
| 3: Potentially life-threatening, potential adverse outcomes from delay > 30 min, or severe discomfort or distress | 147 | 18 | 165 |
| 4: Potentially serious, or potential adverse outcomes from delay > 60 min, or significant complexity or severity, or discomfort or distress | 255 | 23 | 278 |
| 5: Less urgent, or dealing with administrative issues only | 28 | 1 | 29 |
| Grand Total | 464 | 44 | 508 |

Table 4 describes the burden of alcohol related presentations on ED by triage level:

- Every week, an average of 4 individuals presented who were in imminent or potentially life-threatening conditions (triage levels 2-3)
- Every four months, an average of one person presented to ED with an immediately life threatening alcohol related condition (triage level 1)³

Table 5 describes the duration of stay for alcohol related presentations (n=508) in EDs.

- Almost 50% were discharged from ED within an hour
- Around 2% were in ED for longer than three hours but not admitted.
- Just under a quarter were subsequently admitted to a ward (ED or General) of which an unknown quantity (requiring surgery or medical interventions) were transferred to Southland Hospital, on occasions to Dunedin Public Hospital.

Table 5: ED Alcohol related presentations: level of harm measured

| Duration of stay | Total | Percentage |
|--------------------------|------------|-------------|
| ED only | 388 | 76% |
| < 60 minutes | 236 | 46% |
| 1-2 hours | 93 | 18% |
| 2-3 hours | 47 | 9% |
| > 3 hours | 12 | 2% |
| Admission to ward | 120 | 24% |
| Grand Total | 508 | 100% |

Note 1: some percentage totals do not equal the sum of the components due to rounding

³ Triage levels 1-2 descriptions include: motor vehicle/scooter accident, self-harm (attempted suicides, overdoses), head injuries (assault, loss of consciousness), orthopaedic injuries, impalement of sharp objects/skin lacerations, confusion/semi-responsive, cardiovascular, alleged sexual assault