Prevalence of Alcohol-Related Presentations in Australasia 2017-2020: More Crowding and No Less Alcohol

Drew Richardson¹, Daniel Fatovich², Dianna Egerton-Warburton³, Robert Lee⁴

¹ Professor, ANU Medical School, Canberra 2 Professor of Emergency Medicine, University of Western Australia 3 Adjunct Clinical Professor of Emergency Medicine, Monash University 4 Executive Director, Research, Policy and Advocacy, Australasian College for Emergency Medicine

BACKGROUND

• Alcohol-related presentations are a significant part of Emergency Department (ED) workload
• The Australasian College for Emergency Medicine funds voluntary "snapshot" point prevalence studies of the contribution of alcohol-related presentations at 02:00 local time on the Saturday before Christmas

OBJECTIVES

• To describe changes in alcohol related presentations 2017-2020

METHODS

• Analysis of hospitals answering all of the last 4 "snapshot" binational studies of Adult and Mixed Adult/paed EDs
• Divided by jurisdiction (prospectively defined) and in 2020 by Australian States grouped by recent COVID-19 outbreaks associated with community restrictions (subgroup analysis)

RESULTS

• 83/152 eligible hospitals answered all studies (55%, 95%CI 46-63)
• Overall, alcohol-related cases fell from 13.1% of patients in ED in 2017 to 11.1% in 2020
  ○ No significant change in the 16 New Zealand hospitals: 11.3% (95%CI 8.7-14.5) to 14.5% (95%CI 11.6-18.1)
  ○ In Australia there was a steady fall: 13.6% (12.1-15.4) in 2017 to 10.3% (9.1-11.6) in 2020
• This was not due to a decrease in absolute numbers of alcohol related presentations, which rose by a non-significant 3.4% over 3 years, but rather an increase in the average number of patients in ED, from 25.7 in 2017 to 35.2 in 2020 (37%, P<0.0001, paired t-test)
• Subgroup analysis showed no difference in the pattern over the 4 studies between recent COVID-19 States and the others, but there was a much smaller increase in occupancy between 2019 and 2020 in the recent COVID-19 States compared to the others (4% vs 22%, P=0.007 Chi-square)

DISCUSSION

• Alcohol remains a significant contributing factor to ED workload with no real change in the number of alcohol-related patients in ED over the last 3 years
• Australian EDs have become significantly more crowded in the same time period but New Zealand hospitals have not

LIMITATIONS

• Possible participation bias
• Reliant on local interpretation of study definitions
• No demographic data collected

CONCLUSIONS

• Alcohol-related presentations have remained steady in this study but Australian EDs reported significantly more crowding in the early hours of the morning over the last 3 years, leading to a lesser proportion being due to alcohol
• No significant change was seen in New Zealand, possibly due to small numbers
• COVID-19 has had little effect on holiday ED activity in Australasia, but these data suggest jurisdictions under community restrictions saw less growth in activity