Understanding Alcohol Misuse in Scotland

HARMFUL DRINKING
One: The size of the problem
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Foreword

The impact of alcohol misuse on society generally, and the NHS in particular, has long been a concern in Scotland. NHS Quality Improvement Scotland (NHS QIS) is committed to understanding how best to improve the quality of care in alcohol services across Scotland. We have already developed a Scottish Intercollegiate Guideline Network (SIGN) guideline on the management of harmful drinking and alcohol dependence in primary care and produced a Health Technology Assessment on the prevention of relapse in alcohol dependence.

In 2002 the Scottish Executive Health Department produced a Plan for Action on Alcohol Problems. It included a commitment to consider the development of standards for the treatment and management of people with alcohol problems. In response, NHS QIS established a short-life Alcohol Advisory Group to explore how best to support the implementation of key policies and the improvement of alcohol services.

Membership of the group involved individuals from a range of backgrounds and disciplines including policy makers, service planners, and service providers from voluntary and statutory organisations. The group organised a discussion event involving key alcohol service providers. Although the Information Services Division produces annual information on alcohol-related hospital admissions, the group concluded that there is generally a lack of accurate, up-to-date information regarding the extent and impact of alcohol use and misuse. Without this information, it is very difficult to know where to focus future work.

We decided that priority should be given to gathering the necessary evidence and with this in mind we set up the NHS QIS Scottish Emergency Department Alcohol Audit (SEDAA) Group. This group has developed a five-part programme of work focusing on:

- the size of the problem,
- alcohol-related assaults,
- alcohol-related self harm,
- intravenous B vitamins for alcohol-related cases, and
- alcohol-related attendances in children.

This report sets the scene by addressing the size of the problem. It is the first of a series of reports that will be produced over the next 12 months, designed to fill the information gap that exists in our knowledge and understanding about alcohol misuse. An overview report summarising the findings and considering the next steps will be published in March 2008.

The aim of this study is to quantify the size of the problem by providing descriptive epidemiology for all alcohol-related presentations to emergency departments (formerly known as accident and emergency departments) in mainland Scotland. NHS QIS commissioned the Scottish Trauma Audit Group (STAG) to carry out this work and we are grateful...
to its audit co-ordinators and particularly to Diana Beard, the project manager. STAG is a national audit team based in mainland emergency departments in Scotland. I would also like to thank the NHS QIS SEDAA Group, chaired by Bill Morrison, Consultant in Emergency Medicine, which oversees and advises this work.

This report provides hard data on the scale of harmful drinking-related attendances in emergency departments across the country. There are limitations to this study which are explained in the report. However, we are confident that it is representative of the situation across mainland Scotland.

This is an important piece of work that has added to the evidence base on alcohol misuse in Scotland. It will be strengthened by similar reports in the coming months on the other four areas of work. These problems need to be understood before effective improvements can be made to the way they are managed. That process is now under way in Scotland.

David R. Steel
Chief Executive
Summary and key findings

Aim

The aim of the study was to determine the extent to which alcohol is a contributory factor in patient attendances at emergency departments in Scotland. Fifteen out of a total of 25 emergency departments took part and identified patients over a randomly selected 10 day period.

Key findings

The size of the problem

Alcohol was considered to be a contributory factor in 11% of all attendances, of these:

- the majority involved men (71%),
- most attendances were in men and women aged 20–29,
- the busiest time for alcohol-related attendances was Friday night/Saturday morning between midnight and 4am, and
- one in four had a past recorded history of alcohol-related problems.

The reasons for requiring help

- 23% of the patients were intoxicated (intoxication is the excessive consumption of alcohol to the extent where the person’s mental and physical abilities are impaired),
- over half (53%) had sustained some form of injury,
- under half of patients (47%) were taken to the emergency department by ambulance and slightly fewer (41%) made their own way there, and
- only two patients in the study had been screened in the emergency department using a recognised alcohol screening tool.

The outcomes

- 64% were treated in emergency departments and allowed home
- 32% were admitted to hospital, and
- the majority of patients admitted (52%) stayed just one day in hospital or less.
**Study limitations**

Identifying patients for whom alcohol is a contributory factor in their presentation to an emergency department is not straightforward. This study has attempted to quantify the problem but it has limitations:

- it did not cover all parts of Scotland because not all emergency departments have audit co-ordinators,
- it relied on nursing and medical staff reporting that alcohol contributed to a patient’s presentation rather than more objective, yet time consuming measures such as the use of breathalysers, and
- it represents a snapshot of a particular point in time.

This study has found that screening patients in emergency departments for alcohol problems is rare in Scotland. There is evidence that the use of brief interventions with patients who have alcohol-related problems can be successful in preventing further misuse. However, patients have first to be identified before interventions can be offered and services need to be available, and accessible locally.

Variations were evident in the documentation of alcohol consumption in this study. It is therefore likely that it underestimates the true picture of the contribution alcohol makes to emergency department attendances in Scotland.
Introduction

Misuse of alcohol is a serious problem in Scotland. It is estimated to cost the Scottish economy at least £1 billion a year in reduced productivity, accidents and injuries, increased crime and violence and direct costs to the NHS, social services and the criminal justice system⁴.

Excessive use of alcohol is a major issue and the evidence shows that the problem is getting worse:

- consumption of alcohol in the adult population has increased by 23% over the last 10 years⁵,
- 44% of men and 27% of women in Scotland are drinking in excess of recommended levels, with 26% of men and 10% of women drinking more than double these levels⁵,
- one in 30 deaths is directly related to alcohol and alcohol-related death rates have more than tripled in the past 25 years⁵, and
- 40% of boys and 46% of girls reported drinking while underage in 2004⁴.

Hospital emergency departments are in the front line in responding to many of the health issues related to alcohol misuse, from treating the consequences of alcohol-induced accidents to helping people who are intoxicated. Although this has long been recognised as a major part of the work of emergency departments, no national data have been collected to quantify the extent of this problem.

NHS QIS needed to fill this information gap to determine what changes need to be made. It commissioned STAG to conduct an audit of the impact of alcohol on patients who present to emergency departments.

It sought to answer two key questions:

1. How many emergency department attendances are linked with alcohol?
2. What are the principal presenting complaints and subsequent care pathways of these patients?
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Methods

The study involved recording the number of patients who presented at emergency departments, where alcohol was considered to be a contributory factor to their attendance. It took place over 10 separate days in 15 hospitals during October and November 2005. Observations started at midday and lasted until midday the following day. The total number of attendances to the emergency departments was also recorded for the audit days. STAG local audit co-ordinators were required to run the study and only hospitals with audit co-ordinators in place could take part.

Clinical staff identified patients where alcohol was considered to have contributed to their attendance. Criteria for identification included patients reporting they had been drinking prior to their visit, the smell of alcohol on their breath or signs of obvious intoxication. It also included patients who reported that another person’s use of alcohol had contributed to their attendance, eg the patient may have been a victim of an alcohol-fuelled assault. Recording of previous medical history of alcohol problems was also assessed by the study.

Local audit co-ordinators made arrangements with emergency department staff to identify and follow-up patient records according to specific circumstances in their own hospital. Admitted patients were tracked until discharge from hospital or for a maximum of 7 days.
Results

1 Number and characteristics of patients with an alcohol-related attendance

Out of a total of 21,214 patients who attended the 15 emergency departments on the selected days, alcohol was considered to be a contributory factor in 2,228 (11%).

The majority (1,578 or 71%) were men and their mean age was 38. Women were, on average, 2 years younger. The largest group involved 20–29 year olds.

Figure 1: The number of patients by age and sex (n=2,223 as age was not recorded in 5 cases)
2 Day and time of presentation

The busiest time for presentations, where alcohol was a contributory factor, was between midnight and 4am on Saturday morning. There were 4.5 times more patients with alcohol-related conditions presenting during these 4 hours, than at the same time during the rest of the week.

Alcohol had contributed to just over 17% of all patients attending an emergency department in the 24 hours from Friday midday to Saturday midday. In weekdays, the figure varied from 6–9%.

On weekdays, the majority of the presentations occurred during midday to midnight while at weekends, around 60% were between midnight and midday.

**Figure 2: The number of patients by time and day of presentation**

(n=2,228)

Successive time windows are:

- 0–4 am, 4–8 am, 8–12 am
- 12–16 pm, 16–20 pm, 20–24 pm

for every day.
3 Reasons for attending an emergency department

Just over half of patients for whom alcohol was a contributory factor (53%) had sustained some form of injury. Intoxication was the next most common presenting condition (23%). There were no significant age differences between intoxicated patients and those with other conditions.

Cardiac conditions and trauma were more common among men and psychiatric conditions such as self harm were more common among women. Patients with cardiac conditions were, on average, older (51 years) than patients with non-cardiac conditions (37 years). Patients presenting with psychiatric conditions and trauma were slightly younger.

Figure 3: Percentage of patients according to presenting condition
(n=2,228)
4 Outcomes for patients

Most patients (56%) were discharged from the emergency department following treatment. This proportion rises to 64% when patients who discharged themselves against medical advice are included.

Almost a third of patients (32%) were admitted to hospital. Just over half (53%) of those patients were admitted to a medical ward. The next largest groups were admitted to orthopaedics (15%), general surgery (14%) or a short-stay ward (12%). Older patients with alcohol problems in their medical history, who presented with gastro-intestinal conditions, had the highest probability of being admitted to hospital.

Just over half of admitted patients (52%) stayed 1 day or less (some patients, such as those with a head injury, were admitted for a short period of a few hours for observation).

Figure 4: Percentage of patients according to destination

5 Past medical history of alcohol problems

A past medical history was known or recorded for just half of all patients. A previous history of alcohol-related problems was found to be recorded in one in four patients (27%).
Conclusion

International studies have shown a wide variation in the prevalence of alcohol-related attendances at emergency departments, these have ranged from 4%–46%. It should be noted that these studies have utilised differing methods to define an alcohol-related attendance. The most comprehensive study, which combined data from the Emergency Room Collaborative Alcohol Analysis Project and the World Health Organisation Collaborative Study on Alcohol and Injury, found an overall prevalence rate of 24% as measured using a breathalyser. It also found an overall prevalence rate of 29% using patients’ self-reported drinking within 6 hours prior to presentation.

The method used in this study of assessment by clinical staff of alcohol-related presentations is a well recognised measure. Although more subjective than using a breathalyser, studies have shown a high correlation. Cherpitel et al. (2005) compared clinical assessment with breathalyser readings and found agreement in 86% of the cases. A prevalence rate of 18% was found in a Manchester emergency department using clinical assessment over a 6 week period. A 2 month study in Liverpool found a 12% rate. These rates and the 11% found in this study are lower than those found using breathalysers and patient self-reporting.

This may indicate that the 11% prevalence rate found in this study is an underestimate. This conclusion is further supported by anecdotal reports from local audit co-ordinators regarding staff reluctance to document alcohol consumption, when it is not seen as being relevant to the patient’s management. There are also possible legal implications of documenting alcohol use eg following road traffic accidents. This was cited as another potential reason for under-recording.

Treating the consequences of alcohol misuse is a major part of the workload of emergency departments in Scotland at all times, but particularly so at weekends. The 11% overall prevalence rate found in this study may well underestimate the scale of the problem.

Current systems of documentation do not record this problem, nor provide a means of assisting the individuals concerned to help reduce the problem in the future. A national clinical dataset has been agreed for emergency departments. It is the intention to add an alcohol-related set of questions that will enable audit staff to use routinely collected information to address this problem.

Meanwhile, work is progressing on the four other areas of work which will add to our current knowledge about alcohol misuse in Scotland, and help develop more effective ways of responding. The table shown here gives timelines for this work. An overview report summarising all aspects of this study will be published in March 2008.
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References


Harmful Drinking: The size of the problem
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- by email
- in large print
- on audio tape or CD
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- in community languages.

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