A little nightclub medicine: the healthcare implications of clubbing


Objective: To describe the scale and range of acute medical problems among patients who present to an inner city accident and emergency (A&E) department after attending nightclubs in Liverpool.

Methods: From April 1997 to April 1998, all patients identified as having attended a nightclub before their arrival at the department were included in the study. Information regarding their attendance was gathered retrospectively using a standard proforma.

Setting: A large, city centre, teaching hospital A&E department with an annual new patient attendance rate of over 95 000.

Result: 777 such patients were enrolled in the study (0.81% of all new attendances during the same period). This was probably an underestimate, as some eligible patients were not identified during the study. Predictably, most presentations were at the weekend between midnight and 08.00. Surprisingly, the commonest mode of transport to the hospital was an ambulance (38%, 298 of the total). Assault accounted for most presentations (57%, 443 of the total) and lacerations were the commonest injury (the face being most frequently affected). Alcohol was the commonest intoxicant overtly associated with the A&E department attendance.

Conclusions: Injury after assault is the commonest precipitant of hospital care among clubbers in Liverpool. Alcohol is the most important contributory factor, although illegal drug misuse is a considerable challenge in the clubs themselves. A number of measures such as (a) the introduction of unbreakable glass or plastic containers; (b) the elimination of glass from outside clubs; (c) the provision of high quality immediate medical care at larger venues; (d) the curbing of overcrowding and cheap drinks promotions; (e) registration of doormen, and (f) targeted policing of the areas around nightclubs are urgently required to reduce the healthcare (and civic) burden of clubbing. The cost for these should be borne by the highly profitable clubbing and brewing industries. A national code of practice for clubs—already in existence voluntarily—should be made mandatory.

It has been estimated that as many as 15.7 million people go to nightclubs (“clubbing”) once or more each year throughout the United Kingdom while up to one million people are said to go clubbing at the weekend. There is widespread acknowledgement of the prominence of clubbing in contemporary British youth culture and its financial and artistic success but there has also been growing media concern about the relation between nightclubs, illicit drug use, alcohol misuse, and violence. Despite this popular interest, few studies have examined the impact of clubbing on acute healthcare services and, in particular, on urban accident and emergency (A&E) departments.

In Liverpool, a maritime city in the north west of England, a vibrant club scene attracts visitors from all over the UK and Europe and, since 1995, there has been a working relationship between the best known club in the city, Cream, and the Royal Liverpool University Hospital. This collaboration came about as a result of the A&E department’s public health strategy, which included a variety of measures, aimed at alleviating the growing workload of the department.

Previous preventative projects involved bringing persistent car offenders into the department, working with the Health and Safety Executive in tackling a local roller skating rink that was generating an exceptional number of locomotor injuries, and trials of a software screening package for occupational accidents. In 1995, a request for advice about providing healthcare for clubbers from the owners of Cream was received enthusiastically by the department’s staff, as it offered an obvious opportunity to study an important and exciting aspect of British youth culture.
drinking by young people, remained open until the early hours of the morning, and were popularly thought as belonging to contemporary club culture (compared with conventional bars, hotels, social clubs, or illegal “shebeens”).

The study lasted for one year, from April 1997 to April 1998, and was preceded by a three month trial period in which awareness of the survey (and it purpose) was raised and a practicable system of identifying eligible patients was established.

Clerical staff at the A&E department reception desk were asked to identify, by questioning and reference to a list of nightclubs within the local area, all those patients attending the department who had been in (or just outside) a local nightclub when their acute illness or injury had arisen, or whose (sometimes delayed) presentation was otherwise felt to be related to a nightclub attendance. The relevant records were flagged in the department’s computer system, permitting later retrieval for analysis.

A standard proforma was used for all cases and additional data were obtained from outpatient records and ambulance sheets. Patients were discarded as ineligible for the study if it was felt that their presentation was not in fact related to an attendance at a local nightclub (for example, if they had been in an ordinary public house, the British Legion Club, or a domestic party).

### RESULTS

Between April 1997 and April 1998, 1012 patients attending the A&E department of the Royal Liverpool University Hospital were initially identified as “nightclub cases”; however, of these 235 were found to be unsuitable leaving a total of 777 patients eligible for study. Patients were deemed unsuitable for inclusion if the incident responsible for their attendance at hospital did not occur inside or in the immediate vicinity of a recognised nightclub. Eligible patients accounted for 0.81% of the 95,484 new attendances at the department during the study period. The male to female ratio of eligible patients was 1.5:1, with an age range of 16–59 years (mean 25). Most patients were between 18 and 25 years of age (441, 57% of all cases).

The most commonly used mode of transport to the hospital was an ambulance (for 298, 38% of the total), followed by taxi (233, 30%), private vehicle (136, 18%), on foot (64, 8%), escorted by police (20, 3%), and public transport (8, 1%). In 2% (18) of cases no mode of transport was recorded. Most patients arrived within six hours of the event that precipitated their hospital visit (691, 89%). Most presentations were at the weekend (497, 64%) and between the hours of 00:00 and 08:00 (613, 79%). The average length of stay for patients within the department was 2 h 16 min.

On arrival in the A&E department, 32% (249) of patients were reported by medical or nursing staff as being clinically intoxicated with alcohol and 11% (87) had such intoxication as the sole or primary diagnosis. Radiological investigations were required in 34% (263) and urine toxicology in 2% (13) of patients. A full blood count and biochemistry were required in 5% (40) and 3% (31) of patients respectively. Nearly 10% (77) were admitted into hospital for at least one night. Thirty six per cent (278) of patients required follow up after their initial presentation to the A&E department, either at the hospital or by their general practitioner.

Most patients presented with lacerations (39%, 306) or soft tissue injuries (26%, 205). The most common site of laceration was the face (26%, 53), the lower limbs (23%, 47), and the neck (8%, 17). Head injury accounted for 15% (or 120) of presentations. Victims of assault were recorded as having consumed a considerable amount of alcohol on 24% of occasions (107 cases). Patients were attacked with glass bottles or receptacles in 84 (19%) of assault cases and “bouncers” (doormen) were felt to be responsible for 49 (11%) of all assaults. Of those patients representing with accidental injury, 57 (28%) were injured because of broken glass and 24 (12%) fell downstairs. Fifty one (25%) of these patients were clinically intoxicated with alcohol. A total of 87 patients (11%) presented purely as a result of intoxication with alcohol or illegal drugs. Overt, clinically suspected intoxication with alcohol accounted for 55% (48) of these presentations. The remainder were associated with the use of familiar recreational drugs, for example, methylene-dioxy-methamphetamine (MDMA) or Ecstasy (16%, 14), amphetamines (10%, 9), drug cocktails (8%, 7), gamma-hydroxy-butyric acid (4.5, 4), cocaine (3.5%, 3), and amyl nitrate (2%, 2). Of these intoxicated patients, 71%...
day before being surveyed.

time and 50% having consumed five or more drinks in the 30
15–16 reporting personal intoxication with alcohol at some
middle teenage years, with 78% of British school pupils aged

use in 50%–60% of assault cases.

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However, only three (4%) intoxicated patients were deemed
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Figure 1 Category of presentation.

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DISCUSSION

Although large numbers of British people go clubbing on a
regular or occasional basis in the UK, there has been no previ-
ous attempt to document the degree and range of health
problems in this population or their impact on acute hospital
services. The few relevant published papers have tended to
dwell on prehospital care at large music festivals or substance
misuse among clubbers.2

There has been great popular anxiety about the use of
Ecstasy in club culture, especially in the early 1990s, but we
have found that alcohol—not substance misuse—and alcohol
related assaults account for the majority (57%) of clubbers’
use of the medical emergency services. Assaults were
associated with overt intoxication in a quarter of the assault
victims in this study although this figure relied on recogni-
tion and documentation of overt patient intoxication by medical
or nursing staff.

Previous UK studies have provided good evidence of alcohol
use in 50%–60% of assault cases.9 Alcohol use is almost uni-
versal among young British people. Indeed, binge drinking
(defined as drinking one half the “sensible” number of units
per week in one session) is a central part of socialising for a
quarter of young adults in the UK. In injury in urban violence,
in young adults, has been directly associated with such binge
and club culture increasingly influences contemporary litera-
ture and cinema. Clubs have also arguably become the most
important outlets for illegal drug trade.

Despite this extraordinary state of affairs, what goes on in
the clubs is often remarkably old fashioned. The accent is on
fantastic but superficial decor, (very) loud music, and “having
whatever the weather. They drink too much and take drugs—
often but not necessarily—before they are allowed into the
clubs by doormen.
Safety features—ranging from secure handrails on steep stairs or “chill out” facilities (open spaces with a reasonable amount of available oxygen) to close circuit television and adequately equipped first aid rooms—are typically at a premium. Although the proportion of clubbers coming to harm—in Liverpool and elsewhere—is actually small there are “rogue” clubs that consistently generate work for the police, licensing authorities, and hospitals. Typically such clubs are licensed premises that regularly offer discounted drinks, whose bar staff continue to serve obviously intoxicated customers, and where management turns a blind eye to over crowding. Such venues are the most probable settings for intoxication, its associated hazards, and violence.13

If drinking and substance misuse patterns are to be changed for the better, it would seem appropriate to target school pupils in their teens or even earlier. However, it would be naive to think that such educational measures will be anything other than slow and painstaking. In the meantime other initiatives should be urgently undertaken to minimise the hazards of clubbing. There is a role for increased training for bar staff in recognising intoxicated customers and limiting further alcohol intake. It is encouraging to note that programmes are being started to educate and warn secondary school pupils about the risk of facial injury from drinking and fighting.22 Clearly, alcohol is not the only factor in violence within clubs: 9% of assaults in our study were allegedly caused by “bouncers”, and it is hoped that initiatives such as the training and licensing scheme promoted by the National Association of Registered Door Supervisors will reduce this figure. The commonest conditions requiring medical attention among clubbers in this study were lacerations (39% of patients), especially facial, which supports previous recommendations to introduce toughened glass or plastic containers.24

There are easily identifiable initiatives that could significantly reduce the impact of clubbing on the NHS. They include the use of unbreakable drink containers, the elimination of discarded glass in or around clubs, a national registration and training scheme for club doormen, improved first aid provision at larger venues, limitations on crowding in clubs, and the abolition of drinks promotions that target young people. All of these measures form the basis of voluntary codes of practice (such as that published by the London Drug Policy Forum, Dance till dawn safely). We suggest that they should urgently become a national legal requirement if good clubs are to thrive.

Contributors
CL initiated and designed the study, CL and CD wrote the paper, discussed core ideas and appraised the literature. CD undertook the literature search and data collection. MB, DM and HM assisted with data collection. PBS proof read the manuscript and discussed core ideas. CL and CD will act as guarantors for this paper.

ADDENDUM
We are pleased to report that all of our recommendations have now been acknowledged in Safer Clubbing, a comprehensive guidance booklet published in early 2002 by the Home Office and the London Drug Forum (ISBN 1-84-082780-7; www.drugs.gov.uk). The authors cite the experience and principles described in this paper highlighting—we believe—the important and growing role of emergency departments in the UK as public health observatories.

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