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The half-life of the '*teachable moment*' for alcohol misusing patients in the emergency department

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Abstract

Background: To determine whether the length of time between alcohol-related attendance in the Emergency Department (ED) and follow up appointment with an Alcohol Health Worker (AHW) alters attendance rate at the AHW clinic. *Methods:* We examined paper and computerized records made by AHWs over a 4-year period, collecting data on the length of time between identification of alcohol misuse and the appointment with the AHW, and whether the appointment was kept. *Results:* There is an inverse relationship between the length of time between identification of alcohol misuse and AHW appointment and the subsequent likelihood of keeping that appointment. *Conclusions:* To maximise attendance rates at AHW clinics, the delay between the identification and intervention for alcohol misusing patients must be kept to a minimum, preferably giving an appointment on the same day as the attendance in the ED.

Key Words: Alcohol misuse; emergency departments; screening; brief intervention; teachable moment

1. Introduction

Excessive alcohol consumption has well documented adverse effects on health, and is commonly associated with presentation to Emergency Departments (EDs) (Royal College of Physicians, 2001; Hungerford & Pollock, 2002; Cabinet Office, Prime Minister's Strategy Unit 2004).

Initial detection of alcohol misuse followed by Brief Intervention (BI) in the ED has been shown to be effective in reducing alcohol intake and lowering levels of ED reattendance (D'Onofrio et al., 1998a,b; Gentilello et al., 1999; Monti et al., 1999 Longabaugh et al., 2001); however the initial detection and subsequent BI was carried out by research workers, as opposed to by ED staff themselves. Practical problems in carrying out opportunistic screening in EDs (Peters et al., 1998) can be mitigated by audit, education and feed-back (Huntley et al., 2001), and by the use of a robust pragmatic focused screening tool, e.g. the Paddington Alcohol Test (PAT), used by ED staff themselves (Patton et al., 2004a). Other brief questionnaires designed for use in EDs include the FAST (Hodgson et al., 2003) and RAPS4 (Cherpitel et al., 2000); however, their use was by research workers and has not been combined with reviewing attendance rates for subsequent BI.

Since 1994 we in the ED of St. Mary's Hospital, London have used the PAT (Smith et al., 1996, Huntley et al., 2001; Patton et al., 2004a,b) to screen patients for hazardous levels of alcohol misuse. Patients who screen positive are told gently that they are drinking alcohol at a level that may be harmful to their health, and are offered an appointment with an Alcohol Health Worker (AHW) (Patton et al., 2003). Of those who keep the appointment, our pilot data showed that two-thirds reported reducing their level of alcohol consumption (Wright et al., 1998), the AHW attending daily and being routinely involved in education and feed-back. However, the issue of timing of

BI following attendance at the ED and its effect on attendance rate appears not to have been examined previously.

We postulated: (i) that the likelihood of keeping the appointment with the AHW would relate inversely to the delay between the initial ED consultation and the appointment date provided; (ii) that less frequent AHW clinics would result in a lower attendance rate; (iii) that those patients requesting a specific appointment date represent a self-selecting group more likely to attend than those who simply accept the next available appointment.

This is the first report in the literature that addresses the specific issue of the advantages of prompt follow-up on the 'teachable moment' of initial ED attendance with subsequent BI, and shows the consequences of delay.

2. Methods

We collected data on all patients who accepted an appointment to see the AHW between 1 January 1998 and 31 December 2001. We recorded the date of the appointment, and whether the patient attended or not (as recorded by the AHW). We identified the ED attendance date on which the AHW appointment was made for each of these patients, from the department computerized record system. We completed missing data wherever possible, from various other sources, including formal and informal computer records kept by AHWs. We also recorded if the appointment offered to the patient was on the next available appointment date or if it was specifically arranged as a delayed appointment.

The patients screened are not a random sample of ED attendances, but a specific group of patients at high risk of screening positive for hazardous drinking, as identified by presenting complaint. All of patients identified as in this 'high risk'

group were eligible for screening by the ED staff, and this was actively encouraged with audit, education and feed-back. However, due to incomplete deployment of the PAT by the front line ED staff, not all of those eligible for screening were screened. In a published audit of the PAT screening technique (Huntley et al., 2001), between 23% and 49% of total conscious adult attendances were screened for the top ten ED presentations associated with alcohol misuse. The proportion of patients screening positive varied between 3 and 15% of the total number screened.

Between 8% and 18% of patients screened accept the appointment with the AHW, depending on timings of the audit cycle (Huntley et al., 2001). Ultimately, a total of 0.8% of the total ED attendances (adults + children) screened 'PAT positive' and accepted an appointment.

We calculated the delay in days from initial presentation to the ED to the date of the appointment with the AHW. Until March 1999, an AHW was available to see patients each weekday morning. Thereafter due to service reorganization, AHWs employed by our local Mental Health Trust, were available only on three weekday mornings.

3. Results

A total of 1,792 patients had booked clinic appointments over the 4-year study period; complete data were available for 90.29%. The overall attendance rate was 34.7%. Factors affecting the rate of attendance are presented in table 1. The impact on attendance of increasing the delay between the offer of the appointment and the date of the appointment is illustrated in figure 1.

Levels of attendance were higher when the appointment with the AHW was on the same day as the offer of an appointment in the AED ($\chi^2=50.498$, $p<0.0001$) and when the patient specifically requested a particular date for the appointment rather than

accepting the next available slot ($\chi^2=9.681$, $p<0.002$). Levels of attendance were also higher in the period before March 1st, 1999 when the AHW clinics were held each weekday compared to after this date when clinics were held three times a week ($\chi^2=6.053$, $p<0.014$).

4. Discussion

Attendance at the ED is unexpected and is usually due to an unpleasant event. The patient's agenda – their presenting complaint – must be attended to first, in order to gain confidence and empathy. The PAT is then applied in a non-judgemental appropriate manner enabling selective focused screening for alcohol misuse. The appreciation of the link between this unpleasantness and attendance creates the 'Teachable Moment' for opportunistic intervention: the acceptance by the patient of the offer of an appointment with the AHW. The patient has to appreciate first that they have a problem – as witnessed by their attendance at the ED. Secondly, the patient has to wish to alter their own drinking habits – facilitated by their wish to avoid re-attendance at the ED. After the patient has left the ED, the unpleasant memory of the initiating unpleasant attendance at the ED will fade. Therefore, the patient's volition to re-attend to see the AHW fades too. This problem has not been delineated before, nor highlighted as a focus of future research in the USA (Hungerford et al., 2000; D'Onofrio & Degutis LC, 2002; Hungerford & Pollok, 2003) or in mainland Europe (Daeppen J-B, 2003).

Those patients requesting a specifically delayed appointment date have a higher attendance rate than those who do not (when excluding those who attend on day 0 and day 1 as these automatically have taken the next available appointment), possibly indicating that these patients are a self-selecting group with increased motivation to

attend. These patients should be considered as a separate group: they represent only about 23% of total patients in our sample.

We demonstrate that the rate of attendance at the AHW clinic decreases steadily in the group of patients who accept the next available appointment as the delay in the appointment increases from 0 days (i.e. same calendar day appointment) to day 5. This group represents 77% of total number of appointments made. This decrease visibly demonstrates a 'half-life' like effect. As the attendance rate dropped from 65% (same day) to 28% (day 2), the 'half-life' of the teachable moment is 2 days, i.e. at 2 days the attendance rate has halved. Hence the importance of the same day or next day appointment with the AHW. This impacts on the provision of service and supports the Royal College of Physicians report (Alcohol – can the NHS afford it? 2001) that recommends that each acute hospital trust have “one or more dedicated alcohol health workers employed by and answerable to the acute trust.”

We suggest there are numerous points of contact with hospital services, in addition to the ED, that afford 'teachable moments' for alcohol misusing patients such as maxillo-facial units (Smith et al., 2003), sexually transmitted disease clinics and fracture clinics. All of these now warrant further study in different health care systems.

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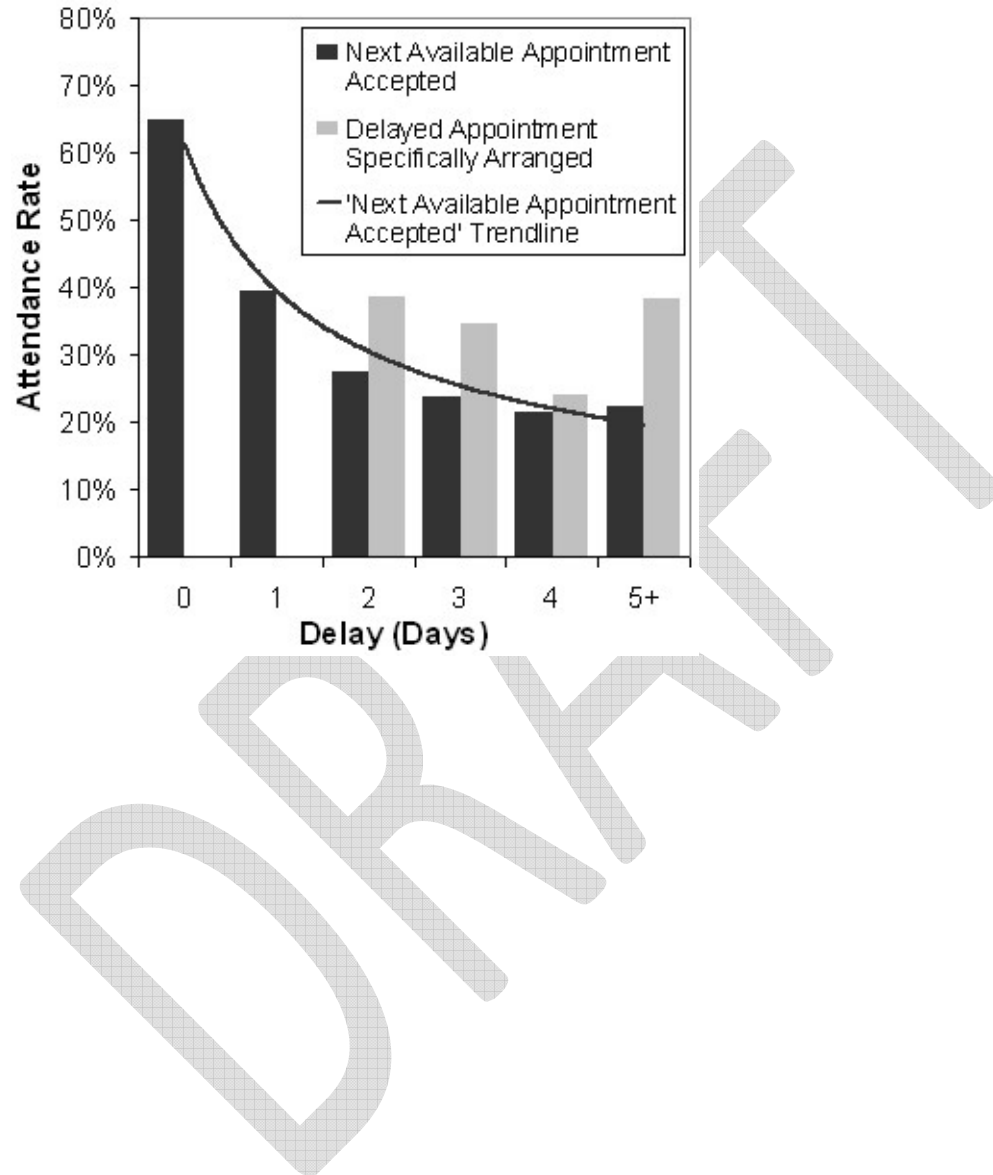
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DRAFT

Table 1
Factors affecting attendance at AHW Clinic

Variable		Attended N (%)	Did Not Attend N (%)	Difference in proportion who attended (statistical significance)
Delay between offer of appointment and appointment date	0 days	75 (65)	40 (34)	33% (p<0.0001)
	>0 days	488 (32)	1015 (68)	
Whether patient requested a delayed appointment	Next available	303 (29)	732 (71)	16% (p<0.002)
	Delayed	260 (45)	323 (55)	
Frequency with which clinics were held	5 times a week	199 (39)	310 (61)	6% (p<0.014)
	3 times a week	364 (33)	745 (66)	

Fig. 1. Percentage of patients attending AHW follow-up appointment showing both patients who accept the next available appointment & those who specifically arrange a delayed appointment



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