Evaluation of Opportunistic Screening and Brief Intervention in an Emergency Department

An AER Funded Research Initiative

St Vincent's

Continuing the Mission of the Sisters of Charity

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TABLE OF CONTENTS

List of Contributors……4
Synopsis ……5
1.0. Background……7
1.1 Project Rationale……...7
1.2 Research Objectives……..7
1.3 Research Hypothesis……8
1.4 Setting……...8
2.0 Research Ethics……8
3.0 Project Operation……8
3.1 Development of Project Forms……8
3.2 Brief Intervention Manual……...8
3.3 Staff Training and Project Promotion……..8
3.4 Database Development……9
3.5 Staff Communication: Meetings, Weekly Feedback Bulletins and Staff Incentives……...9
4.0 Research Methodology……9
4.1 Procedure……9
4.2 Qualitative Staff Feedback……11
4.3 Power Calculations……11
4.4 Data Analyses……11
5.0 Project Outcomes……...12
5.1 Screening……12
5.2 Enrolments……12
5.3 Outcome measures……16
5.4 Additional analyses……18
5.5 Content Analyses of Qualitative Data……18
5.5.1 Participant evaluation of brief interventions……...18
5.6 Profile of Screened Patients……...23
6.0 Interpretation of Findings……..27
6.1 Main Findings and Interpretation……..27
6.2 Staff and Participant Feedback……..28
6.2 Profile of Screened Patients……...29
7.0 Conclusion……29
References……30
APPENDIX A: Original Research Proposal……....32
APPENDIX B: Intervention and Data Collection Forms……37
APPENDIX C: Manual for the Brief Intervention in the Emergency Department…….53
APPENDIX D: Database & Data Entry Manual……59
APPENDIX E: Staff Communication……103
APPENDIX F: Staff Interview of perceived barriers and relevance of BIP……..109

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Synopsis

Objective
To evaluate the efficacy of opportunistic screening and brief intervention by Emergency Department clinicians to reduce high-risk alcohol consumption.
Method
Open, Randomised control trial with allocation blinding. All attendees to an adult city emergency department were eligible for screening for high-risk alcohol use with the Paddington Alcohol Test. Patients screening positive were eligible for randomisation to no counselling (standard care), brief intervention on-site by an emergency clinician, or off-site motivational intervention by drug and alcohol counsellors during business hours within a week. Telephone follow-up occurred at one and three months.
Results
Over 12 months 10,274 (31%) of 32,965 patients presenting to emergency were screened by 183 emergency clinicians. One-thousand and forty-six screened positive for high-risk alcohol use, 471 consenting to enrolment. Forty emergency clinicians provided 149 brief interventions. Fifteen of 149 participants (10%) randomised to motivational intervention attended appointments. For all groups, there was a reduction in the number of high-risk drinkers and a significant decrease in the maximum number of alcohol units/per day consumed at one and three months. Maximum daily drinking (alcohol units/day) was less for standard care than other groups at one-month follow-up only.
Conclusion
Emergency department attendance with alcohol screening appears to decrease high-risk alcohol use, regardless of intervention. Emergency clinicians can be trained to deliver brief intervention but this strategy may be no more efficacious than standard care or referral for off-site motivational interview. Given poor compliance with attending off-site counselling, continued investigation of onsite strategies for high-risk alcohol use is warranted. Consideration can be given to offering emergency clinicians training in brief intervention.

Although screening and BI interventions are feasible in terms of actual time spent per task, the perception of time required for these tasks was a barrier to staff participation, especially the time taken for recruiting and consenting patients for research. This is an important consideration for future ED-based alcohol interventions.

1.0. Background

Alcohol is second only to tobacco as a cause of preventable mortality and morbidity in Australia.[1] It has been attributed to more than 3,500 deaths, 96,000 hospital attendances and costs over $4.5 billion annually[2]. Although alcohol use is the most common reason for repeat ambulance and emergency department (ED) use[3,4,5,6], few studies have examined the effectiveness of ED clinician-delivered interventions. A family physician or primary care nurse can reduce alcohol consumption by up to 30% after a five-minute intervention.[7] The ED may provide a window of opportunity, a "teachable moment"[8] for identification, referral and/or brief intervention (BI) for high-risk drinking. We have accepted the NHMRC's recommended upper daily limit for gender: no more than four standard drinks per day for females, and six standard drinks per day for males.[9]

A single-blinded, prospective randomised controlled study in a US trauma centre using a personalised 30-minute motivational intervention (MI) delivered by a psychologist resulted in a significant reduction in alcohol consumption and trauma[10]. In London 65% of patients screened using the Paddington Alcohol Test (PAT) and subsequently receiving full alcohol assessment plus brief intervention by an ED-based alcohol worker reported a mean reduction in alcohol consumption of 43% at six months[11].

In a systematic review of 39 studies into the effectiveness of intervention for alcohol problems in the ED a positive effect for brief intervention was found in over 80%[12]. The authors of the review recommended that screening and brief intervention for alcohol problems be incorporated into routine clinical practice. However, brief intervention in the ED is not common, is not in emergency texts and not part of the emergency medicine curriculum.

Whilst there are many alcohol-screening tools the Paddington Alcohol Test (PAT) was designed specifically for use in the ED. It is sensitive and takes one minute to administer[13].

1.1 Project Rationale

Motivational intervention following referral from Emergency may reduce harmful drinking by up to 30%, but is hampered by availability of services and poor compliance. Brief intervention for alcohol is effective in General Practice for reducing alcohol consumption. Attendance at the ED represents a window of opportunity to intervene with high-risk drinkers to reduce their consumption and related harms and re-presentations to ED. This would represent both benefits for the individual and cost-savings for the health care system.

1.2 Research Objectives

The objectives of the research program remained the same as those outlined in the original grant application (Appendix A).

We aimed to assess the feasibility of introducing routine PAT screening of ED attendees and training ED clinicians to administer brief intervention for those who screened PAT positive. In an open, randomised controlled trial with allocation blinding, we then sought to measure the effect of ED clinician delivered BI on alcohol consumption at one and three

months comparing it with screening only or off site referral for MI delivered by professional drug and alcohol counsellors. All interventions were to be delivered by usual staff, rather than specific dedicated researchers, to replicate 'real ED life' as a precursor to adopting BI into routine clinical practice. Finally, we aimed to assess the practicalities and experience and document the difficulties associated with the introduction of such a program in an emergency setting.

1.3 Research Hypothesis

The hypothesis is that brief intervention in ED by trained Emergency staff that also provide routine care will be as effective as referral for motivational intervention and more effective than no intervention in reducing alcohol related harm.

1.4 Setting

The setting was the emergency department of St. Vincent's Hospital, Melbourne, a tertiary teaching hospital centre with approximately 400 beds and 32,000 adult emergency attendances per annum. St. Vincent's is located near the centre of Melbourne, a city of 3.5 million people.

2.0 Research Ethics

Prior to submission of the AER research grant application, a formal application was made to the St. Vincent's Hospital Melbourne Human Research Ethics Committee for approval. Following minor amendments to the original application, approval was granted by the committee.

3.0 Project Operation

3.1 Development of Project Forms

Several project forms were developed prior to undertaking the research. These included: A Participant Information Form, a participant consent form, a Paddington Alcohol Test Form, a brief intervention brochure, an outcome form, and a motivational interview appointment card (Appendices C1-C6).

3.2 Brief Intervention Manual

A manual was written describing the appropriate delivery of the clinical-delivered brief intervention (Appendix D). This manual was given to all ED staff that attended BI training and an additional copy was accessible in staff common areas of the ED.

3.3 Staff Training and Project Promotion

Prior to commencement of the project, promotional posters were placed in key areas around the Emergency Department informing staff of the research project. Research Protocols were communicated to staff during staff in-service meetings, regular staff meetings, specific training sessions and also via staff email. A total of 8 staff training sessions were held for staff involved in screening. 8 staff training sessions were held for staff interested in providing brief interventions.

3.4 Database Development

A Microsoft Access database was designed and developed by the research coordinator. A series of validation rules within the database enabled a high level of quality control in data entry. A database manual was created to provide efficient and standardised use of the database by data entry operators, and to facilitate training of new operators (Appendix E).

3.5 Staff Communication: Meetings, Weekly Feedback Bulletins and Staff Incentives

Periodic meetings with key staff members were held to discuss the progress of the project, and to problem solve process issues (Appendix F1). ED staff were also provided with weekly staff emails to motivate them to provide screening and interventions, and to inform them of project protocols (Appendix F1). Each week they were informed of the total number and percentage of patients screened and enrolled, the number and percentage of incomplete screens, invalid screens, positive and negative screens, and the average duration of screening and brief intervention. In response to a low screening rate, an incentive program was provided (Appendix F3).

4.0 Research Methodology

4.1 Procedure

The methodology set out in the research protocol has not been altered, with data collection being carried out as originally proposed.

The study was conducted at St. Vincent's Hospital Emergency Department, a tertiary teaching hospital with approximately 320 beds and 33,000 adult emergency attendances annually, located near the centre of Melbourne, a city of 3.5 million people. St. Vincent's Human Research Ethics Committee approved the study.

Prior to and during the study, two hours training in brief intervention was provided by professional counsellors from Turning Point Alcohol and Drug Centre, a drug and alcohol treatment, research, and training centre, to emergency nurses, physicians and registrars, involving role play and discussion of an educational pamphlet. Thirty-four doctors and 67 nurses attended training in BI, maximising the possibility that at least one BI-trained staff was present per shift. Training in screening was provided informally on-the-job.

This was an open, randomised controlled trial with allocation blinding. Preliminary screening for high-risk alcohol use was undertaken using the PAT[11]. Consistent with this test we defined high-risk drinking as exceeding the daily limit for gender at least once per week, or having an alcohol-related ED attendance. Test forms were attached to charts at triage. Screening occurred at any time during the ED attendance by a primary nurse or doctor. With the assistance of a pictorial diagram of quantities of standard drinks, patients were asked:

1. " What is the most (alcohol) you will drink in any one day?" If the answer was five or more standard drinks for a female or seven or more standard drinks for a male, they were then asked:

2. "Is that at least once a week?" If they answered yes they were deemed PAT positive.

Patients were also asked:
3. " Do you feel your current attendance at the Emergency Department is related to alcohol?"

If they answered yes they were deemed PAT positive. The quantities of types alcohol consumed were documented. The duration of screening was estimated by the screening clinician.

Patients found to be PAT positive were deemed eligible for the study. Exclusion criteria were those aged <18 years, inability or refusal to give informed consent (including lack of communication in English, intoxication preventing coherent answers to questions), previous enrolment and inability to be followed up (e.g., travellers, no phone contact).

PAT positive patients were informed of their high-risk drinking status and invited to enrol. For those that consented, the screening data served as the baseline measurement for the outcome measure. If initial verbal consent was obtained the screening clinician opened a sequentially numbered, opaque sealed envelope containing a consent form and a second opaque, sealed envelope. If consent was signed the second envelope was opened by the enrolling clinician revealing group allocation into one of three groups:

- Standard care (SC). No counselling was provided unless the treating doctor or nurse would have accessed existing services as part of clinical duty or the patient specifically requested counselling. These patients nevertheless had been screened and informed their drinking pattern was in excess of safe levels.

- Brief Intervention delivered by a BI-trained nurse or doctor on duty in ED during the patient's ED visit. BI involved a semi-scripted informative discussion including the risks of high-risk drinking, a definition of a standard drink, advice on safe drinking, tips on cutting down and incorporated empathy and encouragement. BI participants also received a purpose-designed pamphlet reinforcing the information discussed.

- Motivational Intervention of approximately 45 minutes at Turning Point Alcohol and drug Centre (200 metres from St Vincent's) within one week of enrolment. Appointment times could be chosen but were available only within office hours. The patient left the ED with written details of the appointment date and time.

Group allocation was determined using a computer-generated block-randomisation process organised by a researcher independent to the study. The randomisation sequence was concealed from the clinicians and researchers throughout the study. Following assignment, group allocation was not blinded to the patient, clinicians performing interventions, or researchers conducting follow-up.

Age, gender, triage category (Australasian Triage Scale)[14] and arrival mode and injury status were collected from the patient administration system (PAS).

Follow-up telephone interviews were conducted at one and three months by one of four researchers who were not blinded to the participant's randomisation group. The PAT was readministered and the self-reported number of re-presentations to any ED was recorded. Re-attendances at St. Vincent's ED were identified through the PAS.

The primary outcome measure was the number of participants exceeding the recommended daily limit for gender[9] (consuming more than four standard drinks a day for females and more than six for males), at least once a week. Other outcome measures were the maximum reported daily standard drinks consumed and the number of ED attendances due to alcohol.

4.2 Qualitative Staff Feedback

Following the completion of the screening in intervention phase, structured interviews were conducted by an independent researcher with key ED and counselling staff involved in the project to establish the barriers and experiences of relevance for broader implementation of such a process (Appendix G). Interviews were conducted with staff that had high, medium and low screening and recruitment rates, and were completed before staff were informed of the study results.

4.3 Power Calculations

With alpha set at 0.05 and power at 80%, sample size was calculated for the main outcome variable, average number of alcohol units per day. Based on an average of 6 standard drinks per person per day and a standard deviation of 3 drinks, 142 participants per group would have been required to detect a reduction of 1 standard drink per person per day. Similarly, to measure a 10% difference in people who drop their level of consumption from harmful drinking (4 or more standard drinks per day), to less three or less, a sample size of 142 per group will be required, assuming a standard deviation of 3 standard drinks per day.

4.4 Data Analyses

Baseline data were recorded by clinicians and later transposed to an MS Access database. Follow-up data were analysed using SPSS 13.0 for Windows (Chicago, IL, USA). Maximum alcohol units/day are reported as means (95% CI) and medians (IQR). All other data are reported as frequencies, and percentages (95% CI).

Primary analysis was on intention to treat[15] with secondary analyses on treatment received. Consistent with recommendations for ITT[15], ITT analyses included all patients that were randomly assigned, no imputations were performed to account for missing data, and systematic biases to missing data on subgroups were determined by comparing the demographic data for those that did not complete follow-up. No adjustments were performed to account for the possibility of baseline group differences. Preliminary analysis (using Kolmogorov-Smirov tests and histogram inspections) indicated significant departures of normality which could not be rectified by data transformations. For this reason all variables were analysed using non-parametric statistics (Friedman Test and Wilcoxon signed-rank test for change over time; Kruskall-Wallis and Mann-Whitney U post-hoc analyses for between groups analyses; Cochran's Q for repeated measures analyses of binary variables, and where appropriate McNemar's test; Pearsons's Chi Square was used for comparisons of frequencies and Fischer's test was used for two-by-two contingency tables). Analysis of Variance was used to compare participants' age between groups, and independent samples t-test was used when comparing continuous data for screened and non-screened attendees. Estimated effect size and precisions (ie. 95% CI) are provided for all planned ITT analyses. For results of Mann-Whitney U tests, relative effect sizes (U/mn) and precision (95%CI) were calculated using the approach described by Newcombe.

For each outcome measure additional analyses were performed for the subsets that completed follow-up, presenting with an injury, an injury related to alcohol (self-reported), who were PAT positive because their ED attendance was alcohol-related, were PAT positive because they exceeded the limit for gender at least weekly, or were PAT positive because the exceeded the limit weekly *and* had an alcohol-related ED attendance. These tests were exploratory only. Two-tailed tests of significance were used for all statistical tests and alpha was set at .05. All data reported are on ITT unless specified.

Qualitative feedback from participants in the BI group were analysed on a treatment received basis using content analyses, that is, by categorising responses. Similarly, staff feedback was also categorised by an independent researcher.

5.0 Project Outcomes

Of 32,995 attendances between September 7th 2004 and September 10th 2005, 10,274 patients (31.2%) had PAT screening attempted by 183 ED staff (8052 screens by 122 nurses, 1726 screens by 61 doctors, range 1-700, median 13 per staff). Unidentified staff completed 496 PATs. The median duration of PAT administration was one minute. Three hundred attempted PAT screens were incomplete and 1343 met exclusion criteria (see above) leaving 8631 valid screens for analysis. 3747 (43.4%) patients did not drink alcohol at all.

5.1 Screening

Compared to all ED attendances, screened patients were more likely to have a prolonged ED length of stay ($p<.001$). Screening was more likely amongst males ($p<.001$), those requiring admission ($p<.001$,), and triage category 3. The mean age of those screened was also significantly greater than those not screened. Screening was less likely to be performed on the injured ($p<.001$), or those arriving by ambulance ($p<.001$) (data not shown).

5.2 Enrolments

One-thousand and forty-six (12.1%, 95% CI 11.4-12.8) valid screens were PAT positive but 575 refused consent, leaving 471 consenting patients. Those that consented did not differ from those that did consent in age, triage category, ambulance arrival or reason for PAT positive status (data not shown), but females were less likely than males to consent ($p=.020$). One-hundred and sixty-one were randomised to standard care, 161 to BI, and 149 to MI. Twenty-two withdrew consent following randomisation (refer to Figure 1).

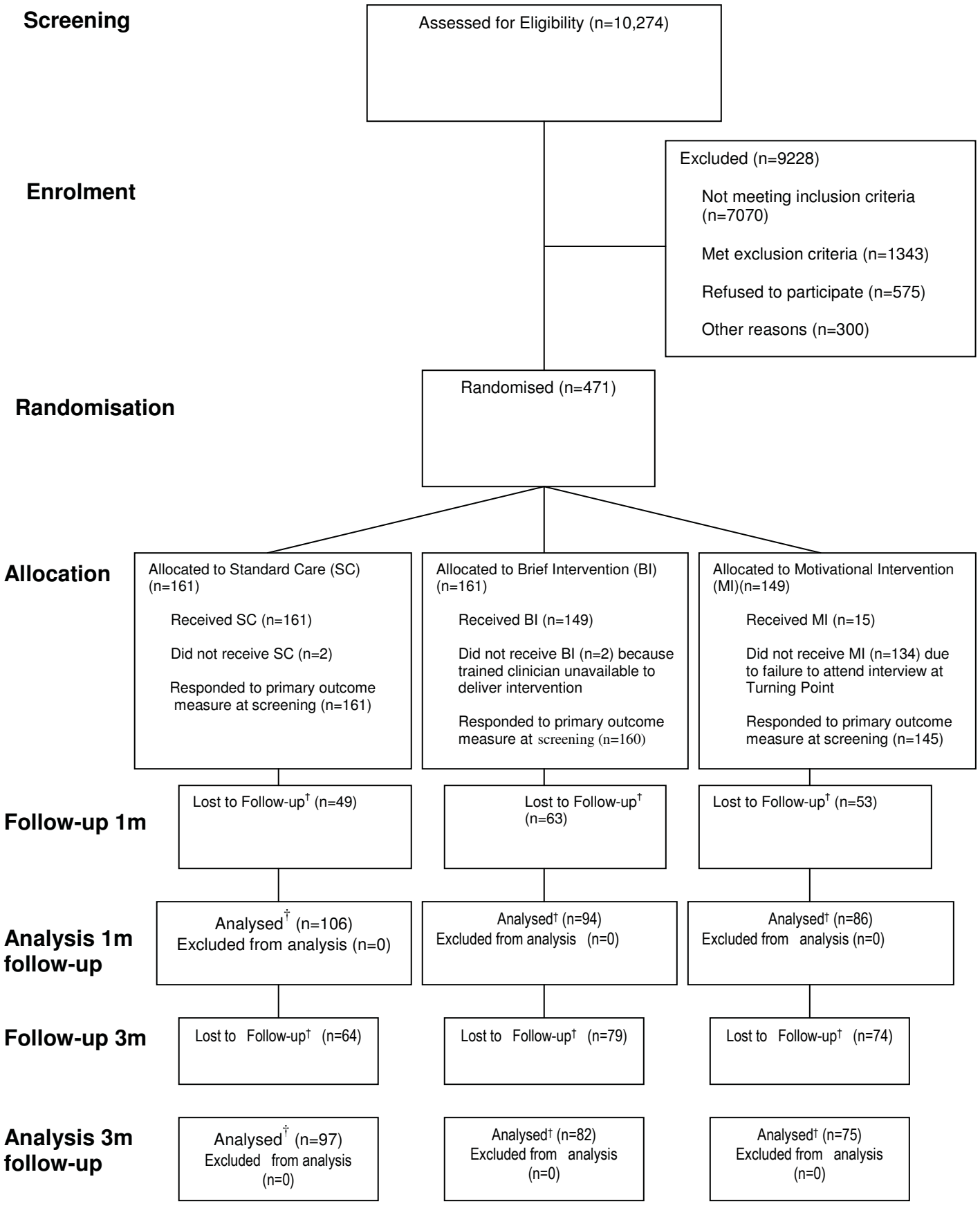

Figure 1. Flowchart of participants through each stage of the trial. †refers to primary outcome measure only

Most participants were PAT positive because they exceeded the consumption limit for gender at least once per week (Table 1). PAT positive males in their 30s and 40s reported greater quantities than other groups *(p*<.001; Table 2). There was no significant difference between randomisation groups due to age (*p*=.83), gender (*p*=.14), injury status (*p*=.56), or alcohol-related injury (n=69; p=.30).

Table 1. Reasons for screening PAT positive: Number (%, 95% CI) of participants by gender and randomisation group according to PAT criteria met (self-reported high-risk drinking, or ED attendance due to alcohol, or both).

Group	Self-reported high risk drinking only[†]	ED attendance due to alcohol only	Self-reported high-risk drinking AND attendance due to alcohol	TOTAL
ALL	255 (54.1%; 49.6-58.6)	53 (11.3%; 8.4-14.2)	163 (34.6%; 30.3-38.9)	471 (100%)
Male	197 (53.7%; 48.6-58.8)	41 (11.2%; 8.0-14.4)	129 (35.1%; 30.2-40.0)	367 (100%)
Female	58 (55.8%; 46.3-65.3)	12 (11.5%; 5.4-17.6)	34 (32.7%; 23.7-41.7)	104 (100%)
Standard Care	91 (56.5%; 48.8-64.2)	17 (10.6%; 5.8-15.4)	53 (32.9%; 25.6-40.2)	161 (100%)
Brief Intervention	95 (59.0%; 51.4-66.6)	20 (12.4%; 7.3-17.5)	46 (28.6%; 21.6-35.6)	161 (100%)
Motivational Intervention.	69 (46.3%;38.3-54.3)	16 (10.7%; 5.7-15.7)	64 (43.0%; 35.1-50.9)	149 (100%)

[†] >4 standard drinks for a females, >6 standard drinks for a males, at least once per week

Table 2. Median (IQR) and mean (95% CI) self-reported 'most drinks in a day' alcohol units/day by gender and age at baseline

Age	Gender	N	Median 'most drinks in a day' (IQR)	Mean 'most drinks in a day' (95% CI)
18-25		127	12 (8)	15.5 (13.69-17.23)
	Male	90	12.5 (10)	16.4 (14.12-18.61)
	Female	37	11 (7.50)	13.3 (10.59-15.92)
26-35		122	12 (9.25)	17.8 (14.87-20.79)
	Male	85	15 (12.25)	20.8 (16.74-24.88)
	Female	37	10 (5)	11.0 (9.64-12.31)
36-45		76	19 (26)	28.6 (22.3-25.1)
	Male	61	19.7 (26.0)	30.1 (22.43-37.86)
	Female	15	14.0 (28.50)	22.8 (14.17-31.37)
46-55		64	14 (16.88)	23.4 (16.74-19.98)
	Male	58	14.5 (19.88)	24.3 (17.08-31.61)
	Female	6	12.75 (9.5)	13.9 (8.44-19.39)
56-65		46	11.5 (14.50)	17.8 (13.85-21.8)
	Male	40	12.75 (13)	19.2 (14.82-23.62)
	Female	6	6.0 (8.25)	8.5 (4.01-12.99)
>65		30	9.8 (33)	13.5 (10.00-16.96)
	Male	27	10 (10.5)	14.5 (10.80-18.16)
	Female	3	4.5	4.5 (0.77-8.23)
ALL		468[†]	13.5 (13)	19.4 (17.67-21.14)
	Male	364	15.0 (12)	21.1 (19.00-23.28)
	Female	104	10.75 (7)	13.3 (11.56-15.08)

[†]Answer not supplied by 3 participants.

One hundred and forty-nine randomised to BI (93%, 95% CI 88.5-96.6) actually received BI and 15 (10.1%, 95% CI 5.2-14.9) actually attended MI. Follow-up data was obtained for a total of 306 participants (SC, 112; BI, 98; MI, 96) at one month and 274 participants (SC, 97; BI, 82; MI, 75) at three months. For the primary outcome variable, the number in each group completing follow-up at 1m and 3m was slightly less than this (refer to flowchart). The percentage of participants not completing follow up was similar across groups and in gender and age to those who were followed (data not displayed).

Brief Intervention was delivered by 40 ED clinicians. The median duration of BI was five minutes with a range of one to 30. The median duration of MI was 45 minutes, range 20 to 70.

5.3 Outcome measures

The number of participants exceeding the daily alcohol limit at least once per week did not differ significantly between groups at baseline *(p*=. 526), one *(p*=. 229) or three months (*p*=. 233), but decreased significantly at one and three months compared to baseline regardless of group (*p*<. 001; Table 3). A similar pattern was observed for the treatment received group (Table 3).

Table 3. Number (%, 95% CI) of participants randomised to each subgroup exceeding daily alcohol limit once per week at baseline, one month and three months.

Group	Baseline	1m follow-up	3m follow-up
Intention To Treat			
Standard Care	146/161 (90.7%; 85.1-96.3%)	48/106 (45.3%; 35.8-54.8%)	37/96 (38.5%; 28.8-48.2%)
Brief Intervention	140/160 (87.5%; 82.4-92.6%)	54/94 (57.4%; 47.4-67.3%)	42/82 (51.2%; 40.4-62.0%)
Motivational Intervention	132/145 (91%; 86.3-95.7%)	44/86 (51.2%; 40.6-61.8%)	32/74 (43.2%; 37.9-54.5%)
ALL	418/466 (89.7%; 86.9-92.5%)	146/286 (51.0%; 45.2-56.7%)	111/252 (44.0%; 37.9-50.1%)
Treatment Received			
Standard Care	146/161 (90.6%; 86.1-95.1%)	48/106 (45.3%; 35.8-54.8%)	37/96 (38.5%; 28.8-48.2%)
Brief Intervention	131/149 (87.9%; 82.7-93.1%)	51/90 (56.7%; 46.5-66.9%)	42/79 (53.2%; 42.2-64.2%)
Motivational Intervention	12/15 (80%;59.3-100.7%)	7/12 (58.3%; 29.8-86.8%)	5/11 (45.5%; 15.5-75.5%)
ALL	289/325 (88.9%; 85.5-92.3%)	106/208 (51.0%;84.6-93.2%)	84/186 (45.2%; 38.0-52.4%)
Exceeded Daily Limit For Gender At Least Once Per Week At Baseline			
Standard Care	144/144 (100%)	43/90 (47.8%; 37.5-58.1%)	33/81 (40.7%; 30.0-51.4)
Brief Intervention	141/141 (100%)	48/81 (59.3%;48.6-70.0%)	40/72 (55.6%; 44.1-67.1%)
Motivational Intervention	133/133 (100%)	37/43 (86%; 44.6-74.0%)	31/70 (44.3%; 32.7-55.9%)
ALL	418/418 (100%)	134/251 (53.4%; 47.2-59.6%)	104/223 (46.6%; 38.1-51.1%)

The median self-reported 'most drinks in a day' in standard units for the entire sample was 13.5 (IQR=13; mean=19.41, 95%CI 17.67-21.14) at baseline. Consumption did not differ significantly between randomised groups at baseline (Table 4). At one-month follow up those randomised to SC reported significantly less maximum daily consumption than those randomised to BI (p=. 011) or MI (p=. 011) (Mann-Whitney). There was no significant difference in consumption between BI and MI participants at one or three months. At three months participants randomised to SC consumed less than those randomised to MI (p=.021) but not BI.

Table 4. Median (IQR) self reported "most drinks in a day" units of alcohol consumed by participants.

	Baseline	1m follow-up	3m follow-up
Intention To Treat			
Standard Care	12 (11.5)	8 (9)	9 (8.5)
Brief Intervention	14 (13)	10.75 (11)	9 (12)
Motivational Intervention	14.5 (12)	10.5 (12)	10.25 (12)
ALL	13.5 (13)	10 (11.75)	9.25 (9)
Treatment Received			
Standard Care	12 (11)	8 (8.75)	9 (8.25)
Brief Intervention	14 (12)	10 (11.5)	10 (12)
Motivational Intervention	10.5 (12)	10.75 (4.88)	6.4 (17)
ALL	13.5 (13)	10 (11.5)	9.25 (9)
Exceeded Daily Limit For Gender At Least Once Per Week At Baseline			
Standard Care	12 (11.8)	8 (9.3)	9 (9.1)
Brief Intervention	14 (12)	10 (11.8)	9 (12)
Motivational Intervention	15 (12)	10.5 (13.0)	10.5 (12)
ALL	14 (12.5)	9.8 (11.3)	9.5 (9)

The median self-reported 'most drinks in a day' for the entire sample decreased significantly from 13.5 standard drinks (IQR=13) at baseline to 10 (IQR 11.75) at one month and 9.25 (IQR 9) at three months (p<.001). It also decreased over time for each of the subgroups, but less so for MI (SC: p<.001; BI: p<.001; MI: p<.028; Table 4). Differences between one and three months were not significant.

On a treatment-received basis, for participants receiving SC or BI, 'most drinks in a day' decreased significantly at one and three months (p<. 001), but did not decrease for those who received MI (Table 4).

ED attendances were reported by 23/288 (8.0 %; 95% CI 4.9-11.1) participants between baseline and one-month follow-up, 10 of whom re-attended due to alcohol. From one to three months 30/253 (11.9%, 95% CI 7.9-15.9) had another ED attendance and one had two attendances. Fourteen of those 31 re-attendances (45.2%, 95% CI 27.6-62.7) were self-attributed to alcohol. There were no significant group differences for re-attendances.

Nearly eight percent (37/290) and 8.5% (40/254) reported receiving treatment from a drug and alcohol service at one and three months, respectively. The number receiving treatment did not vary between groups.

Abstinence was reported by 10.0% (29/289, 95% CI 6.6-13.5) and 5.9% (15/254, 95% CI 3.0-8.8) of all participants at one and three months respectively. At 1m and 3m follow-up, the most common form of drug and alcohol treatment received was from an outpatient counsellor (Figure 2).

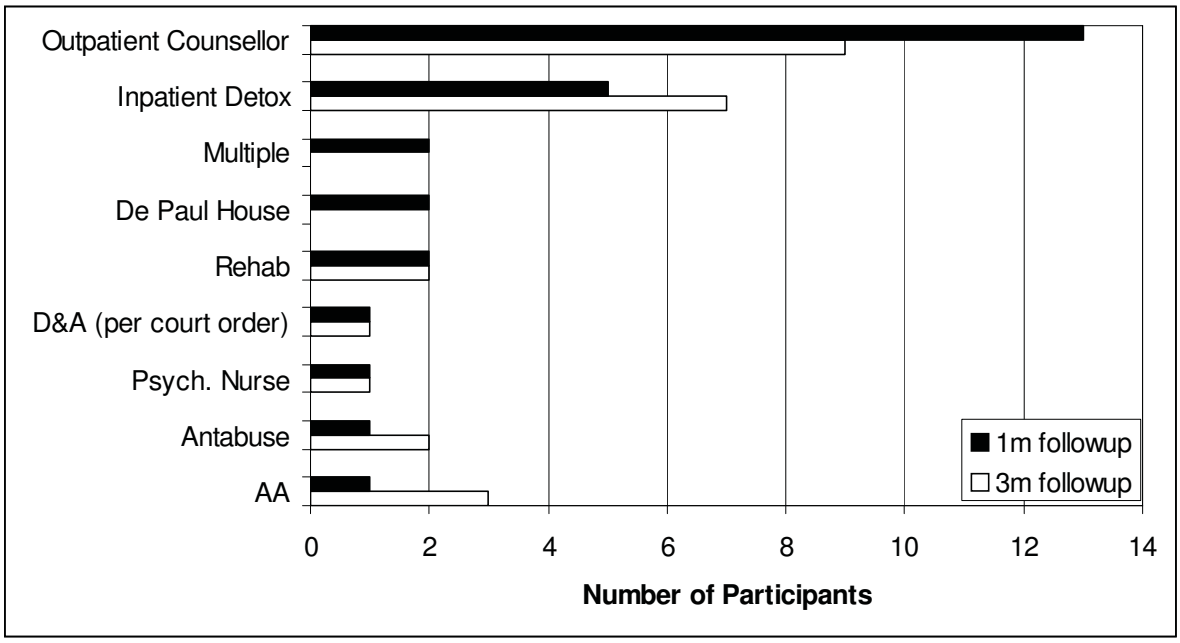

Figure 2. Frequency of participants accessing each drug and alcohol service type at 1m and 3m follow-up.

5.4 Additional analyses

To explore possible reasons underlying the findings of the present study, subgroups analyses of patients presenting due to injury, alcohol-related injury, were performed. These demonstrated results similar to the group as a whole (data not shown). Similarly, the pattern of findings for all variables was similar for the subgroup of participants completing all follow-up points (data not shown) and did not change according to reason for being PAT positive (due to alcohol-related ED presentation, or exceeding the limit weekly or both; data not shown), or for those that exceeded the daily alcohol limit on a weekly basis at baseline (Tables 3 and 4).

5.5 Content Analyses of Qualitative Data

5.5.1 Participant evaluation of brief interventions.

46.3% (69/149) of those that received BI were available for follow-up at 3m and responded to the first open-ended feedback questions: "*Thinking back to the interview you had with the doctor or nurse in the Emergency Department... what were the positive aspects of interview?*".

Responses are summarised in Figure 3.

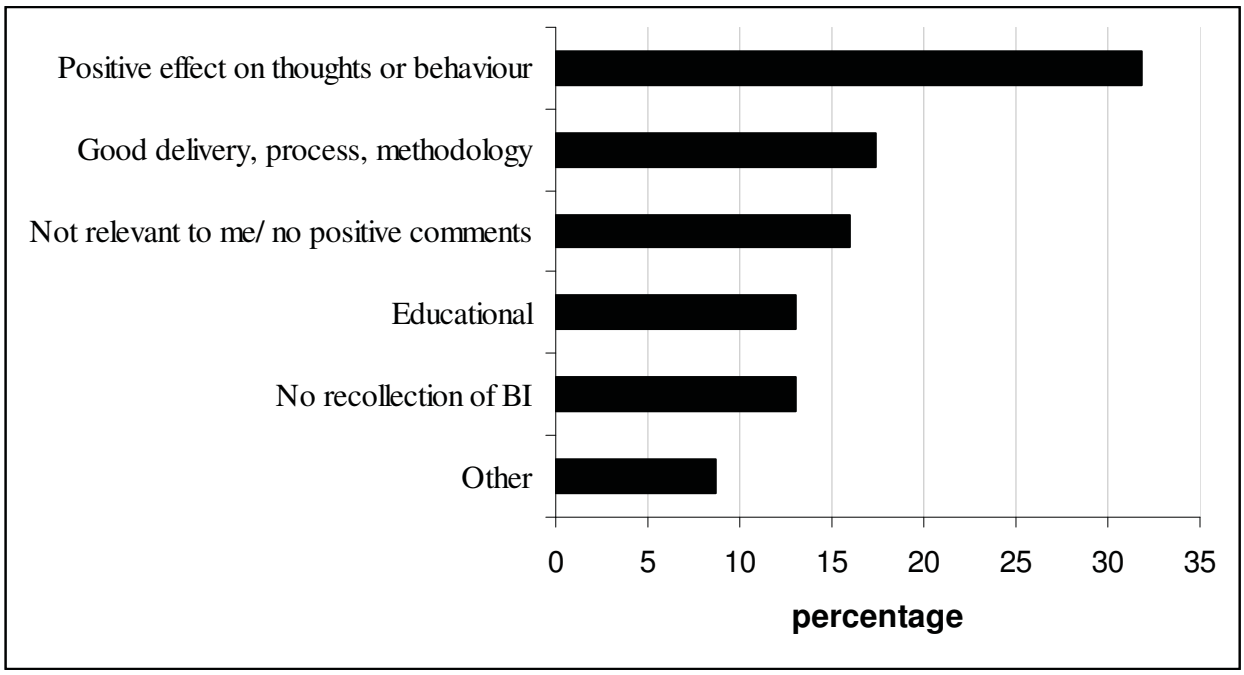

Figure 3. Positive aspects of BI reported by participants at 3m follow-up.

The most common response type was that BI had a positive effect on thinking or behaviour. For example, one respondent said "*it was good because it helped me, and there were people trying to help me, it made me think…before I just start drinking*". Others thought the pamphlet was useful: "*…the brochure in particular was good because I could take it home and re-read it, it was very factual*" and "*provided me with actual information regarding safe levels. Pamphlet very helpful.*"

65 participants responded to the second open ended question: "*... and what were the negative aspects of interview?*". These data are summarised in Figure 4.

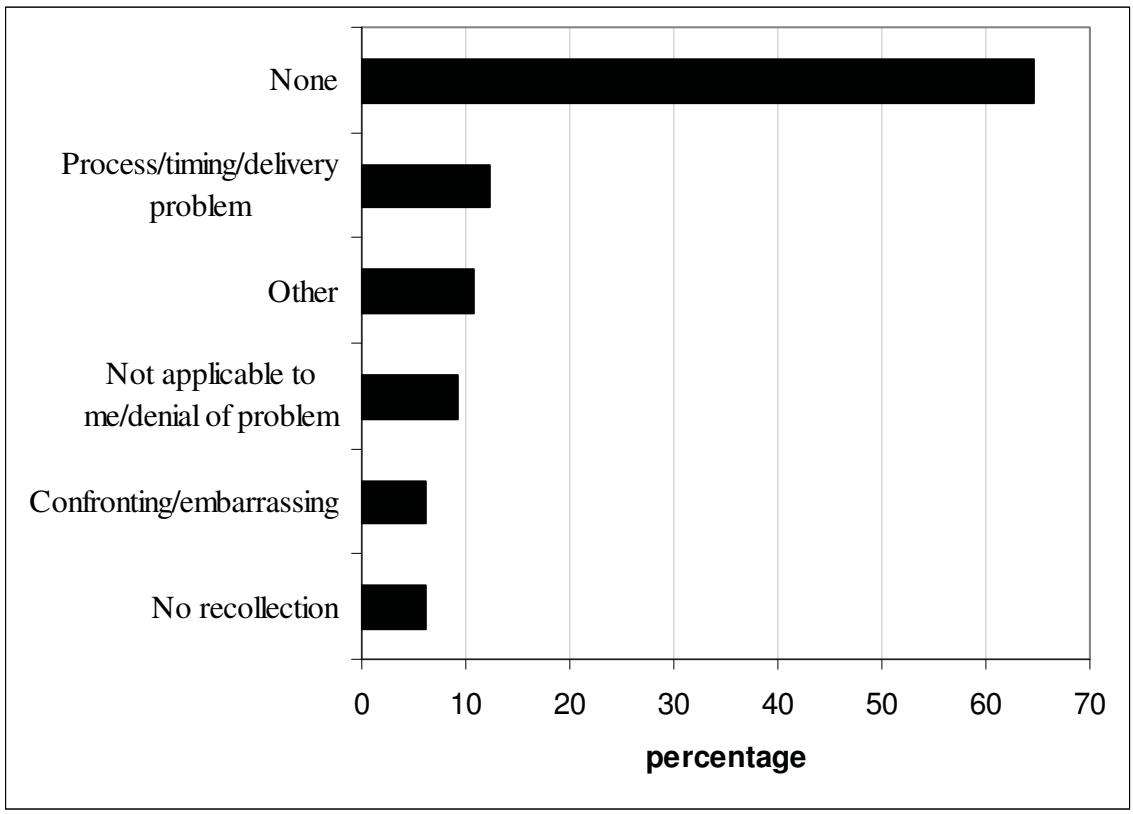

Figure 4. Negative aspects of BI reported by participants at 3m follow-up.

Most participants did not report a negative aspect to BI. Those that did, however, were commonly related to contextual and timing difficulties:

- "*I felt that it detracted from the real issue, which was my injured foot. A hospital is a hospital first and foremost*"
- "*The timing in which it was done - I was focussed on presenting issue (for which I was in ED). Perhaps would be better at later time*."
- "*probably too soon after what had happened. Difficult to take things in at the time*"

67 participants responded to the third open-ended question, "*How do you think the interview could be improved?"* (Figure 5). 48 % (32/67) of respondents thought that the intervention did not require improvement. Most participants that suggested an alteration to BI reported that the timing, process or delivery of BI needed refinement. Suggestions regarding timing of BI were particularly common.

- *"timing could have been better. I was in a lot of pain due to a back injury and was on lots of pain medication, so wasn't really concentrating on what they were saying".*

Some participants thought that BI was too brief:

- "*allowing longer time for interview*"
- "*Interview was too rushed - could have taken more time*".

Others had privacy concerns:

- "*improve confidentiality - was screened in front of parents*".

A small proportion of respondents had some suggestions for improving the content of BI:

- "*focus on more of the long term effects*"
- "*maybe a bit more putting it in context, I don't think people have enough information about how to manage themselves when it comes to drinking in*

social settings, you know, handling themselves in situations where drinking excessively is almost expected."

- "*tell me in more detail about what's going on with me*"
- "*Talk about alternative therapies, techniques to reduce drinking, possible therapies aside from abstinence. Talk about more than just the facts."*

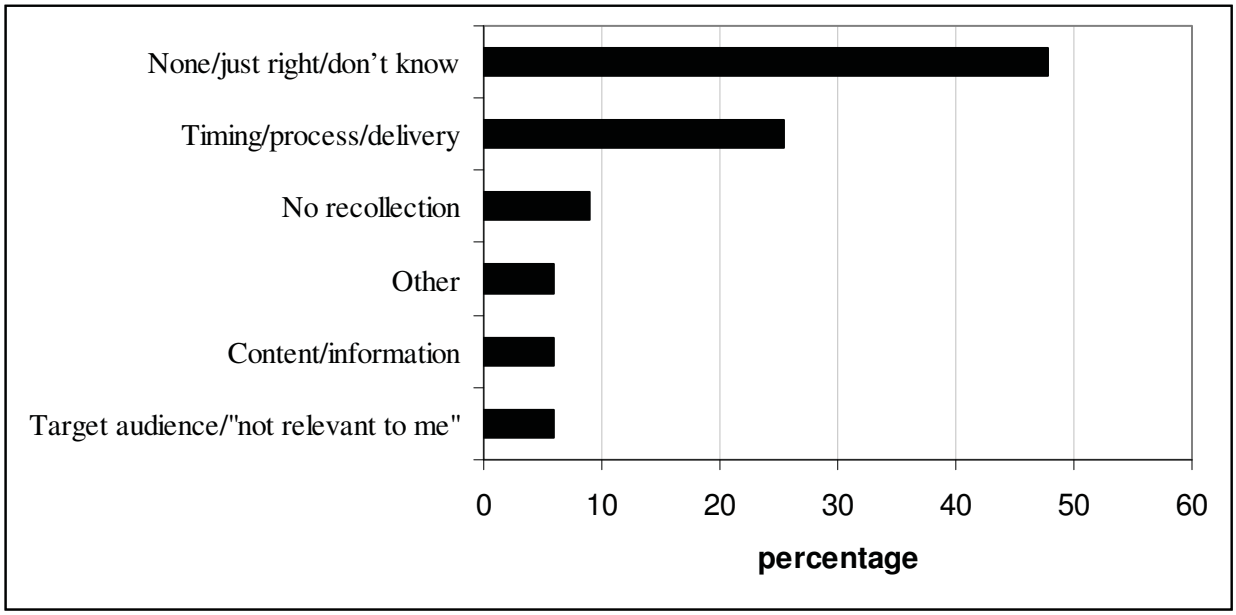

Figure 5. Participant's suggestions for how BI could have been improved.

5.5.2 Staff evaluation of project

A total of 20 ED and research staff members (9 nurses, 4 doctors, 2 research staff) that had participated in the project agreed to participate in the confidential staff feedback interview.

5.9.2.1 Screening-related feedback

Most interviewees (14/15) thought that ED-based screening for hazardous alcohol use could incorporated into standard patient care on an ongoing basis, and most (12/15) thought that it should be adopted by all (adult) EDs.

The main barrier to screening identified by staff was time constraints. This was cited as a barrier by all of the interviewees. Staff reported that the ED is a time critical workplace and they often perceived that the screening process would take too long even though they were aware that it was often less than 1 min. Other barriers reported were:

- Communication with patients (language, comprehension, intoxication, altered conscious state)
- Perception of staff; medicine is reactive, screening is proactive
- Motivation of Staff
- Staff knowledge about the value of screening
- Presentation types; many patients were presented with altered conscious state or were too intoxicated to be screened on arrival to the ED but could not be rescreened at a later time because thy chose to leave the ED or were discharged.
- Invasion of privacy; people felt inhibited about asking personal questions unrelated to ED presentation
- Dishonesty by patients

Some of the strategies that staff thought could be put in place to overcome these problems were:

- Wait for discharge to screen; part of discharge checklist
- Encourage reassure confidentiality
- More staffing
- More regular information sessions/positive publicity to inform staff of project progress & ensure a sense of ownership of it
- An allocated staff member each shift to lead staff in screening

The positive aspects of ED-based screening reported by staff were:

- identify patients that had hazardous alcohol use; patients often unaware
- created conversation about alcohol use
- sometimes created a bond/rapport between patient and clinician
- Lifted staff awareness

5.9.2.2 ED intervention-related feedback

Barriers to ED-based alcohol interventions identified by staff were:

- Time (constraints) – ED targets
- Resourcing/staffing
- Staff expertise; need training
- Raised emotions in some patients
- Patient wariness

Strategies identified by staff to over come these issues were the same as those identified for screening. Most (11/15) interviewees reported thinking that clinician-delivered interventions for harmful alcohol use could be incorporated into standard patient care on an ongoing basis.

Some of the positive aspects of clinician-delivered brief intervention reported by interviewees were:

- Pamphlet; can take it away
- Facts and Figures
- Positive participant feedback – on the spot
- Provided an opportunity to engage with patient in a different way
- Impact on their future not present; this is very different to the typical emergency experience; gives meaning to your work
- No expense to patient
- Intervention here and now, not delayed.
- Increased staff and patient awareness
- Fun

5.9.2.3 Motivational interview-related feedback

Barriers perceived by interviewees to the delivery of the motivational interview by the drug and alcohol clinician were:

- Time delay; patients forget or don't go; they want help then and there.
- Inflexible hours; business hours not the 24hr clock of the ED. Not suitable if participant working
- Cost to patients (eg. For travel)
- Alternative location, not on-site at the ED
- Lack of interest/motivation by patients/denial of problem

- Location of Drug and Alcohol service is confronting
- 1hr session too long
- no perceived reward for participation

One strategies to overcome these was suggested:

- have drug and alcohol clinician (team) onsite 24/7

5.9.2.4 Process-related issues

Some of the process issues that staff thought required attention were:

- More staff education required on screening and benefits of screening
- Screening tool requires modification
- Staff inducements not appropriate; doesn't reflect the real world
- Reliance on all staff to take part is not realistic; specific recruiter required
- More staff ownership needed
- Delivery of interventions varies between staff depending on time available so 1-2 staff should do it all to standardise it.

5.6 Profile of Screened Patients

5.6.1 Demographics

From a total of 8631 valid screens, 1039 (12.0%) cases were PAT positive. A significantly greater proportion of males screened positive for hazardous alcohol use (males: 767/4543; 16.9%; Females: 272/4088; 6.7%; p<.001, Fisher's Exact Test).

The proportion of people found to be PAT positive was inversely related to age group with a greater proportion of younger people found to be PAT positive (Table 5).

Table 5. Proportion of people found to be PAT positive according to age group.

Age group		PAT results		Total
		Negative	Positive	
<18	Count	2	0	2
	% within agegp	100.0%	.0%	100.0%
	% within PAT results	.0%	.0%	.0%
	% of Total	.0%	.0%	.0%
18-25	Count	738	231	969
	% within agegp	76.2%	23.8%	100.0%
	% within PAT results	9.8%	22.3%	11.3%
	% of Total	8.6%	2.7%	11.3%
26-35	Count	1150	279	1429
	% within agegp	80.5%	19.5%	100.0%
	% within PAT results	15.2%	26.9%	16.6%
	% of Total	13.4%	3.2%	16.6%
36-45	Count	897	197	1094
	% within agegp	82.0%	18.0%	100.0%
	% within PAT results	11.9%	19.0%	12.7%
	% of Total	10.4%	2.3%	12.7%

46-55	Count	875	140	1015
	% within agegp	86.2%	13.8%	100.0%
	% within PAT results	11.6%	13.5%	11.8%
	% of Total	10.2%	1.6%	11.8%
56-65	Count	1008	99	1107
	% within agegp	91.1%	8.9%	100.0%
	% within PAT results	13.3%	9.5%	12.9%
	% of Total	11.7%	1.2%	12.9%
66-75	Count	1198	60	1258
	% within agegp	95.2%	4.8%	100.0%
	% within PAT results	15.9%	5.8%	14.6%
	% of Total	13.9%	.7%	14.6%
75+	Count	1684	31	1715
	% within agegp	98.2%	1.8%	100.0%
	% within PAT results	22.3%	3.0%	20.0%
	% of Total	19.6%	.4%	20.0%

Amongst those that were PAT positive, a greater proportion of those aged <36 were female (Table 6).

Table 6. Gender ratio of PAT positive participants ages less than 36 years.

PAT result	Gender		18-25	26-35
Positive	female	Count	77	87
		% within Sex	28.5%	32.2%
		% within age	33.3%	31.2%
		% of Total	7.4%	8.4%
	male	Count	154	192
		% within Sex	20.1%	25.0%
		% within age	66.7%	68.8%
		% of Total	14.9%	18.5%

Of those screened 911/8631 (10.6%) exceeded the limit for gender, and 459/8631 (5.3%) attended the ED due to alcohol.

5.6.2 Presentation Characteristics

Of those that screened positive, a disproportionate number were triaged as ATS category 5 patients ($\chi^2_{(4)}= 57.65$, $p<.001$).

A greater proportion of those screening PAT positive had a trauma-related emergency discharge diagnosis code (positive: 274/1035, 26.5%; negative: 971/7539, 12.9%, p<.001).

Those that screened PAT positive were less likely to require an inpatient admission that those that screened negative (positive: 565/1037, 54.5%; negative: 4888/7552, 64.7%, p<.001).

5.6.3 Drinking Profile

Tables 7 and 8 provide details regarding PAT status and beverage type consumed, and beverage type according to gender.

Table 7. Number of PAT positive and negative participants according to alcohol beverage type consumed.

	PAT positive		P
Consumer of Beer/cider -Glasses/Pots	Yes	251/1111 (22.6%)	
	No	788/7520 (10.5%)	<.001
Consumer of Beer/cider cans/stubbies	Yes	259/693 (37.4%)	
	No	780/7938 (9.8%)	<.001
Consumer of Beer/Cider - bottles	Yes	55/91 (60.4%)	
	No	984/8540 (11.5%)	<.001
Consumer of Light Beer/cider - Glasses/Pots	Yes	6/112 (5.4%)	
	No	1033/8519 (12.1%)	0.27
Consumer of Light Beer/cider cans/stubbies	Yes	8/95 (8.4%)	
	No	1031/8536 (12.1%)	NS
Consumer of Wine - Bottles	Yes	105/210 (50.0%)	
	No	934/8421 (11.1%)	<.001
Consumer of Wine - 4L cask	Yes	67/69 (97.1%)	
	No	972/8562 (11.4%)	<.001
consumer of premixed drinks cans/bottles	Yes	46/190 (24.2%)	
	No	993/8441 (11.8%)	<.001
Consumer of Fort wine - glasses	Yes	4/97 (4.1%)	
	No	1035/8534 (12.1%)	.011
Consumer of Fort wine - Bottles	Yes	37/50 (74.0%)	
	No	1002/8581 (11.7%)	<.001
Consumer of spirits - single nips	Yes	129/622 (20.7%)	
	No	910/8009 (11.4%)	<.001
Consumer of Spirits - double nips	Yes	19/45 (42.2%)	
	No	1020/8586 (11.9%)	<.001
Consumer of Spirits - bottles	Yes	70/113 (61.9%)	
	No	969/8518 (11.4%)	<.001

Table 8. Number of males and females according to alcohol beverage type consumed.

	Gender		P
Consumer of Beer/cider -Glasses/Pots	Male	860/4543 (18.9%)	
	Female	251/4088 (6.1%)	<.001
Consumer of Beer/cider cans/stubbies	Male	610/4543 (13.4%)	
	Female	83/4088 (2.0%)	<.001
Consumer of Beer/Cider - bottles	Male	73/4543 (1.6%)	
	Female	18/4088 (.4%)	<.001
Consumer of Light Beer/cider - Glasses/Pots	Male	82/4543 (1.8%)	
	Female	30/4088 (.7%)	<.001
Consumer of Light Beer/cider cans/stubbies	Male	77/4543 (1.7%)	
	Female	18/4088 (.4%)	<.001
Consumer of Wine - glasses	Male	697/4543 (15.3%)	
	Female	974/4088 (23.8%)	<.001
Consumer of Wine - Bottles	Male	127/4543 (2.8%)	
	Female	83/4088 (2.0%)	<.001
Consumer of Wine - 4L cask	Male	60/4543 (1.3%)	
	Female	9/4088 (.2%)	<.001
consumer of premixed drinks cans/bottles	Male	91/4543 (2.0%)	
	Female	99/4088 (2.4%)	NS
Consumer of Fort wine - glasses	Male	36/4543 (.8%)	
	Female	61/4088 (1.5%)	.002
Consumer of Fort wine - Bottles	Male	35/4543 (.8%)	
	Female	15/4088 (.4%)	.015
Consumer of spirits - single nips	Male	317/4543 (7.0%)	
	Female	305/4088 (7.5%)	NS
Consumer of Spirits - double nips	Male	30/4543 (.7%)	
	Female	15/4088 (.4%)	NS
Consumer of Spirits - bottles	Male	95/4543 (2.1%)	
	Female	18/4088 (.4%)	<.001

5.6.4 Other

Patients that screened positive were significantly less likely to have a GP recorded than those that screened negative (positive: 544/1037, 52.5%; negative: 5495/7552, 72.8%, p<.001), and less likely to have a next of kin recorded (positive: 976/1037, 93.9%; negative: 7374/7552, 97.1%, p<.001).

6.0 Interpretation of Findings

6.1 Main Findings and Interpretation

This is the first randomised controlled trial to train and use emergency doctors and nurses in the course of their usual duty to screen for high-risk drinking and provide onsite BI. That BI and failed to demonstrate any advantage over standard care in reducing high-risk alcohol consumption contrasts with previous ED-based studies where specific researchers or trained addiction clinicians provided the intervention[11,16,17], and with conclusions of a recent systematic review.[13]

There are several possible reasons for this discrepancy. Other studies have targeted ED attendees with alcohol-related injuries.[10,17] All our attendees were eligible for screening and more than half enrolled had a non-alcohol related attendance. Life-threatening injury is known to increase the receptiveness of patients toward counselling; none of our injured patients had life threatening injuries[18,19].

Motivational Intervention has been demonstrated to be effective when delivered by an on-site drug and alcohol worker[11] or psychologist[10]. However, we found attendance off-site for MI within a week of the ED visit had poor compliance. It is feasible that compliance is related to the patient's recognition of an alcohol problem. Thus, a more detailed assessment prior to referral may be required. Furthermore, since the "teachable moment" for ED-initiated interventions is time critical[20], the timing of MI would seem to require on-site contemporaneous delivery. Few EDs have onsite extended hours addiction clinicians.

The observation that alcohol use decreased from baseline for all groups may indicate that attendance at an ED and/or being screened decreases alcohol consumption. It is also possible that patients overstate their consumption while in ED or understate their consumption at follow-up after being informed of safe drinking limits. Alternatively, the follow up researchers may have differed from the ED clinicians in how they recorded alcohol consumption.

Forty seven percent of our screened patients did not drink at all, maybe reflecting the ageing, and chronically ill demographic of an adult tertiary ED.

There were several limitations with this study which may have contributed to the lack of a positive finding. The requirement to obtain informed necessitated a degree of awareness-raising with those in the control arm of standard care patients being told that their drinking was potentially hazardous at the time of enrolment, prior to randomisation. Selective screening by staff or by patient characteristics cannot be ruled out, especially given the low screening rate. One staff member recruited 700 participants, others none. Hence, our findings cannot be used as a prevalence survey of drinking patterns of patients attending an ED, rather a study in what will happen in a real life ED clinician initiated screening and BI.

While most studies employing ED-based screening and BI or MI have employed a small number of staff to carry out screening and/or interventions, the present study involved a total of 183 staff for screening and 43 staff for interventions. Although this represents a real-world approach, there are inherent difficulties in standardising interventions with this large number. The PAT was designed as screening tool and not a

measuring tool, and detailed daily and weekly drinking patterns were not obtained as screening clinicians were not researchers. Measurement of significant changes in drinking for some people may have gone undetected.

The difficulty of conducting such a trial in an Emergency Department has been noted before and cannot be overstated[21,22]. This trial was deliberately designed to fit into the real world environment of the ED where the focus is on service provision and management of patients presenting with a variety of usually urgent conditions. The 31% screening rate for all patients may give an indication of the greatest screening rate that could be expected in an ED without designated research assistants or staff specifically employed to screen. The latest version of the PAT is more selective[23]; patients are screened on sentinel presentations (e.g., falls, assault, collapse). Adopting this approach, or using a different screening instrument which decreases the proportion of negative screens may increase compliance by staff.

That those with injury and low acuity were less likely to be screened may indicate less opportunity with a shorter length of stay but could also indicate inhibition due to privacy concerns in a rather open minor clinic area. This phenomenon has been documented elsewhere[24,25]. Accurately screening intoxicated patients was difficult and the inability to obtain informed consent for the trial created an additional barrier. Intoxicated patients often left the ED before being capable of consenting. Follow up rates were low, with many participants being unable to be contacted, perhaps reflecting the nature the client group. Those not followed up may have had different drinking responses.

Some staff reported that patient responses to the PAT were hard to interpret as clearly positive or negative. Furthermore, the PAT failed to identify some who could be described as having high-risk drinking. Hence, a male who drank six units every night may not be detected, whereas one who drank eight units once a week would be. Similarly, reporting drinking 20 standard drinks in a day, usually seen as high-risk but less than once a week and would not be detected.

6.2 Staff and Participant Feedback

Qualitative feedback from BI participants and staff indicate a high degree of acceptance that BI can be administered after routine screening in an ED. While the endpoints measured in our quantitative study indicated no benefit of the BI over standard care, it is important to note that many of the participants who received BI and responded to the questions evaluating BI at three months follow-up indicated that the BI intervention helped to change their thoughts or behaviour. Participants indicated that they would have preferred BI to be delivered using a more client-centred approach, placing the educational components into context with the individual's situation, and with more emphasis on a two-way interaction between participant and clinician. Lack of privacy in the ED setting could be a significant inhibitor to participation in screening and BI.[13]

The present study was not designed to test the effect of the interventions on alcohol awareness, pre-contemplation, contemplation, or attitude change for reduction in alcohol use. However, since these are recognised as important steps that precede behaviour change[14], future studies should consider the inclusion of these variables as endpoints.

The process issues that need to be addressed when introducing screening and BI for high risk alcohol use include staff training and motivation, provision of adequate staff time and resources to deliver BI during clinical contact time and adequate privacy. Judging the timing of providing BI during an ED visit needs refinement. There will need to be an

acceptance that unless there is specific staff for screening many patients will not be screened. Screening only high risk patients with sentinel presentations may improve compliance.

6.3 Profile of Screened Patients

The results obtained in our profile analysis of screened participants are consistent with anecdotal evidence whereby hazardous alcohol use is associated with being male, young, and with poor linkage to general practioner services. Perhaps the most useful information derived from this analysis is the finding that a greater proportion of those screening PAT positive had a trauma-related emergency discharge diagnosis code. While all ED presenters were eligible for screening, this finding suggests that a higher "hit-rate" may be obtained with more focused screening. Thus, a focus on trauma-related ED presentations may assist in boosting staff motivation to screen.

A major limitation to these data, however, is the questionable representativeness of the sample.

7.0 Conclusion

While ED clinicians can be trained in BI, implementation of routine alcohol screening as an additional task for existing staff in similar EDs is likely to have a low compliance rate. ED clinician-delivered BI was not found to be more efficacious than standard care in reducing high-risk alcohol consumption in attendees of a general ED. Although there is demonstrated evidence for the effectiveness of interventions delivered immediately by drug and alcohol workers[10], delayed and off site BI or MI following opportunistic screening is unlikely to be effective. Given poor compliance with delayed off-site counselling, continued investigation of strategies for treating high-risk alcohol use within emergency departments is warranted.

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Appendix A: Original Research Proposal

Evaluation of an opportunistic screening and brief intervention program in an emergency department

Project Plan

Project Overview

Rationale

Alcohol use increases risk of attendance at emergency departments (ED's) and alcohol consumption is the most common reason for repeat attendances at ED. The ED represents a window of opportunity to intervene with high-risk drinkers to reduce their consumption and related harms and re-presentations to ED. This would represent both benefits for the individual and cost-savings for the health care system.

Objectives

Develop and evaluate the efficacy of an alcohol screening and brief intervention procedure to reduce ED re-presentations and harmful alcohol consumption.

Assess the practicalities and experience and document the difficulties associated with the introduction of such a program in an emergency setting

Research Plan & evaluation process

Participants and recruitment

Participants will be recruited as they present to a single ED at St Vincent's Hospital Melbourne. There are approximately 31,000 presentations to emergency each year. The intention will be to screen all people presenting to the emergency department using an adaptation of Paddington Alcohol Test (PAT) over a one-year period. Approximately 30% of people in the general community drink at least at hazardous levels and research outlined above indicates that there is significantly more than that in an emergency setting – with one study showing nearly 40%. We expect up 25% of these presentations, or 8,000 people per year to meet the criteria for hazardous and harmful drinking or dependence when screened. However, less than half may agree to participate or be lost to follow up in some way despite intention to treat. A conservative estimate may be that 1,500 presentations of anticipated presentations per year be recruited for the study.

Methodology

The proposed design is a single site randomised controlled trial.

Preliminary training in counselling and brief intervention by emergency physicians and nurses will occur prior to the study, until enough staff have been trained to ensure at least one staff member is present per shift over 24 hours who can provide brief intervention.

Patients will be given a patient information sheet and consent form at triage with encrypted randomisation. All presentations to ED will then be screened by the treating or primary nurse using the modified Paddington Alcohol Test. If screening shows to be positive, patients will be consented and decryption will occur to allow allocation to one of three groups. Random groups will be predetermined by an independent statistician. The three groups are:

Standard care

5-minute Brief Intervention/advice delivered by nurse or doctor on duty in emergency before discharge at that moment

Referral to alcohol and drug services at a later date for a 30-minute Brief Motivational Intervention at one of two sites (St. Vincent's Drug and Alcohol Department or Turning Point) at a later date but within one week of initial screening.

This method of allocation to groups we feel, although unusual, is ethical and will reduce bias. It creates a lot of redundant allocations (those who screen negative will have been allocated but the allocation will not be known). Universal screening of all patients is an intervention in excess of standard practice. However screening is by questionnaire only, is brief, and is an extension of a standard medical/social history on alcohol use. Screening is more appropriate in the privacy of a cubicle rather than the more public triage area.

Hence we do not feel consent is necessary for screening, but only on those who screen positive. We will modify this process should there be concerns from the ethics committee.

Follow-up interviews will be conducted by telephone or in person at one month and three months post-assessment by the research officer. The follow-ups will consist of re-administration of the PAT and self-reported number of re-presentations to any ED. Number of re-presentations to St Vincent's Hospital ED will be tracked via computer records.

Instruments

There are many screening instruments for alcohol problems in current use. CAGE is a 4-item screening questionnaire designed to identify problem drinking in a primary care setting. It has good internal consistency, but answers may not be stable over time and it is not as sensitive as some other screening measures such as the AUDIT (Dawe & Mattick, 1997). Although they are brief, none of these measures has been developed specifically for the busy emergency setting.

The Paddington Alcohol Test (PAT) (Smith et al., 1996) was designed for use in EDs by emergency physicians, with the background assumption of limited time for assessment the desirability of maximum sensitivity. PAT reduces screening to less than one minute by asking only three questions:

What is the most you will drink in any one day?

How often do you drink that much?

Is your presentation today a result of drinking?

By using the PAT, it is also possible to gain quantity-frequency measures of consumption to measure consumption at follow-up and to quantify consumption in terms of hazardous and harmful drinking. This gives it significant advantages over the CAGE in the ED setting.

Demographic data will also be collected.

Qualitative evaluation.

Interviews will be conducted with key ED and counselling staff involved in the project to establish barriers and experiences of relevance for broader implementation of such a process.

Budget

Item	Year 1	Year 2	**Total**
Research coordinator full time This is a large scale and complex project that will require high-level research skills. We are requesting a research officer equivalent to NHMRC PSP2.	50,000	50,000	100,000
Specialist alcohol and drug clinician part time Clinician undertake approximately 300 contact hours in the first 18 months.	5,400	2,700	8,100
Backfill for emergency clinicians for training session 10 doctors and 10 nurses. The training will need to be undertaken twice to cover staff turnover during the 18 month recruitment phase	2,800		2,800
Salary on-costs (17%)	9,894	8,959	18,853
Trainer costs. Three training sessions including preparation and follow-up. The training will need to be undertaken twice to cover staff turnover during the 18 month recruitment phase	1,000		1,000
Photocopying, stationery, postage	5,000		5,000
Data entry and analysis	5,000		5,000
Other administration costs including payment of translation of consent and advice forms in four community languages (Greek, Italian, Vietnamese, Mandarin)	4,000		4,000
Laptop computer for Research Officer	4,000		4,000
For registration, travel to Cairns and accommodation for presentation of results at the International Conference on Emergency Medicine, 2004		3,000	3,000
Subtotal	87,094	64,659	151,753
Operating costs (15%)	13,064.10	9,698.85	22762..95
Total	100,158.10	74,357.85	174,515.95

Promotional strategy

There will be promotion of the project within the St. Vincent's and Turning Point communities. It is hoped that the research will be published in an accredited emergency medicine journal and be presented at an international conference.

APPENDIX B:
Intervention and Data Collection Forms

APPENDIX B1: Participant Information Sheet

APPENDIX B2: Participant Consent Form

APPENDIX B3: Paddington Alcohol Test

APPENDIX B4: Brief Intervention Brochure

APPENDIX B5: Outcome Form

APPENDIX B6: Motivational Interview Appointment Card

APPENDIX B1: Brief Intervention Project in the Emergency Department Participant Information Sheet

Brief Intervention Project in the Emergency Department

Participant Information Sheet

Protocol number (SVH): 141/02

Full project title: Evaluation of an Opportunistic Alcohol Screening and Brief Intervention in St Vincent's Hospital Emergency Department, Melbourne.

Names of investigators: Dr Andrew Dent (principal investigator), Dr Nicole Lee, Dr Alison Ritter, Prof Greg Whelan, Dr M Augello, Ms K Bowman, Ms S Cowling, Dr G Duns, Dr J Harney, Dr J Karro, Dr K Nallaratnam.

Aims of the project

You are invited to take part in a project to see whether counselling for alcohol use may affect people's health.

Many people drink more than safe levels of alcohol without realizing it. Many injuries and Emergency Department visits are related in some way to drinking alcohol. The project aims to find out if asking questions in the Emergency Department about drinking habits can improve the early detection of alcohol-related problems and whether brief counselling by Emergency staff can reduce risky drinking.

Who is eligible?

All people who attend the Emergency Department aged 18 and over who are able to answer some questions.

What is involved?

We are asking up to three brief questions about drinking habits of all people who present to the emergency department. As a result of the answers you gave, you qualify for the project. If you wish to take part, one of three things will happen. Either:

You will not need to do anything more at this time.

Your nurse or doctor in the emergency department will have a short interview with you (about 5 minutes) about your alcohol use.

You may have to attend a longer interview (about 50 minutes) on another day at either St Vincent's Drug & Alcohol department or Turning Point Alcohol & Drug Centre (which is around the corner in Fitzroy).

There are no blood tests or breath tests.

We will then contact you by phone one month and three months after your visit to the emergency department today and ask you questions about your drinking habits and any other visits you may have made to emergency departments.

Confidentiality

The information collected is **strictly confidential** and will not be made available to anyone else apart from the researchers and the hospital treating team (except in special legal circumstances - see the consent form). Any information you give is stored without your name on it (except for the consent form). The Ethics Committee or regulatory authorities may inspect your project records (which do not have your name on them) but only for the purpose of data verification. We will only ever report on the information from all the patients combined – that is, never with the identification of any individual. The results of the project will be available to you at the end of the study. Any information we collect will be kept for seven years.

Please ask the nurse or doctor if you have any concerns.

Other matters

Choosing to take part and withdrawing from the project

Your participation is entirely voluntary. You are also able to withdraw from the project at any time for any reason. You may decline to answer any questions that are asked of you in relation to the project. Your treatment at the emergency department will not be affected in any way if you choose not to answer some or all of the questions or if you decide not to take part at all.

Risks

If research or medical records are ever subpoenaed (requested by a court) there is sometimes a risk of revealing illegal behaviours. However the questions we ask in this project are not related to illegal behaviour but only to alcohol consumption and frequency of visits to emergency departments.

Complaints

If you have any complaints about any aspect of the project or the way in which it is being conducted you may contact the Patient Representative at St Vincent's Hospital on telephone 9288 2211. You will need to tell the Patient Representative the name of the project (Brief Intervention Project in the Emergency Department) and the name of the principal investigator (Dr Andrew Dent).

Informed consent

In order to participant, you need to:

have read and understood the information provided here and

have read, understood and signed the consent form.

THANK YOU FOR YOUR TIME AND PARTICIPATION

APPENDIX B2: Participant Consent Form

PATIENT ID LABEL	BIP LABEL

St Vincent's Health

Brief Intervention Project in the Emergency Department

Consent to take part in a research project

Protocol number (SVH): 141/02

Full project title: Evaluation of an Opportunistic Alcohol Screening and Brief Intervention in St Vincent's Hospital Emergency Department, Melbourne.

Names of investigators: Dr Andrew Dent, Dr Nicole Lee, Dr Alison Ritter, Prof Greg Whelan, Dr M Augello, Ms K Bowman, Ms S Cowling, Dr G Duns, Dr J Harney, Dr J Karro, Dr K Nallaratnam.

I ……. consent to participate in the above project, the particulars of which have been explained to me and are attached to this form (Participant Information Sheet).

I authorise the investigators or their assistants to conduct the interview(s) referred to in relation to point 1 above.

I acknowledge that :

the possible effects of the screening, intervention and follow-ups have been explained to me;

I have been informed that I am free to withdraw from the project at any time and to withdraw any data supplied;

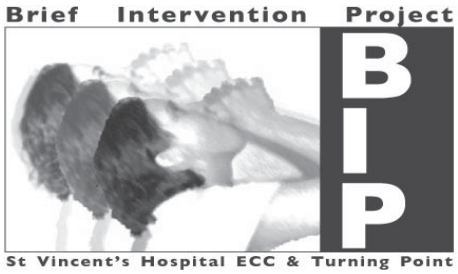
I have been informed that the research information obtained from me will be confidential, but that intentions or threats to harm myself or others may be subject to reporting to the relevant authorities or to my primary treatment provider (eg. counsellor, therapist, doctor etc). I have been informed that, according to law, any information that I reveal concerning the protective safety of children is subject to reporting to relevant authorities. Confidentiality of the information I provide will be safeguarded subject to legal requirements.

This project has been approved by the St Vincent's Hospital Ethics Committee. Should you have any complaint concerning the manner in which this research is conducted, you can contact the Patient Representative at St Vincent's Hospital on telephone 9288 2211.

Participant's signature: _____	Date |___|___| / |___|___| / |___|___| day month year
Witness name (please print): _____ Witness signature: _____	Date |___|___| / |___|___| / |___|___| day month year

APPENDIX B3: Paddington Alcohol Test

Please complete for all ED patients.



PATIENT ID LABEL

Do not file in medical record.

Return to BIP box in Emergency Department.

Brief Intervention Project in the Emergency Department

Paddington Alcohol Test (PAT) **(Smith et al 1996)**

If unable to complete, why?

☐ **Less than 18 years of age**

☐ **Unable to give informed consent (e.g. unconscious)**

☐ **Acutely intoxicated by alcohol or drugs (i.e. is unable to answer questions)**

☐ **Other:** _____

1. Quite a number of people have times when they drink more than usual; what is the most you will drink in any one day? *(Record number of each type of alcoholic drink in its box, multiply by standard drinks then total the units):*

Beer / cider: ☐ Glasses/pots (1) ☐ Cans/stubbies (1.5) ☐ Bottles (3)

Light beer: ☐ Glasses/pots (0.5) ☐ Cans/stubbies (0.8)

Wine: ☐ Glasses (1.5) ☐ Bottles (7) ☐ 4L Casks (38)

Pre-mixed drinks: ☐ Cans/bottles (1.5)

Fortified wine (sherry, port)**:** ☐ Glasses (1) ☐ Bottles (11)

Spirits (vodka, whisky)**:** ☐ Single nips (1) ☐ Double nips (2) ☐ Bottles (22)

Total units/day = ☐

2. If Pt drinks 7 units/day for men or more, or 5 units/day for women or more: ***Is this at least once a week?***

☐ Yes = ***PAT +ve***

☐ No

3. Do you feel your current attendance at the Emergency Department is related to alcohol?

☐ Yes = ***PAT +ve***

☐ No (and 'No' to question 2) = PAT –ve

Administered by (please print name): _____

Date: ____/____/____ **Time: _____** **Approx. time to complete**: _____ mins

If **PAT –ve**, return forms to project box.

If PAT +ve, **explain project using attached Participant Information Sheet:**

If patient **does not** wish to take part, tick: ☐ and return forms to project box.

If patient **does** wish to take part:

Get next enrolment pack from project box

Attach patient ID label to consent form and complete consent form

Open allocation envelope and attach BIP label to consent form

Follow relevant instructions on outcome form

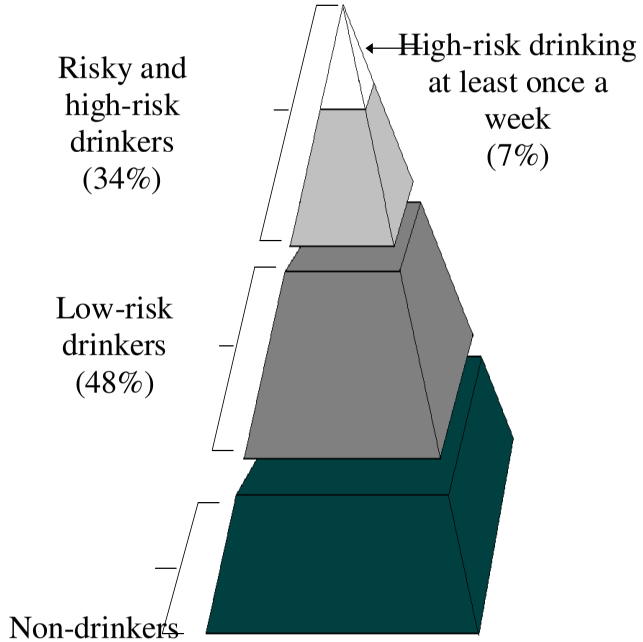
APPENDIX B4: Brief Intervention Pamphlet

St Vincent's Health

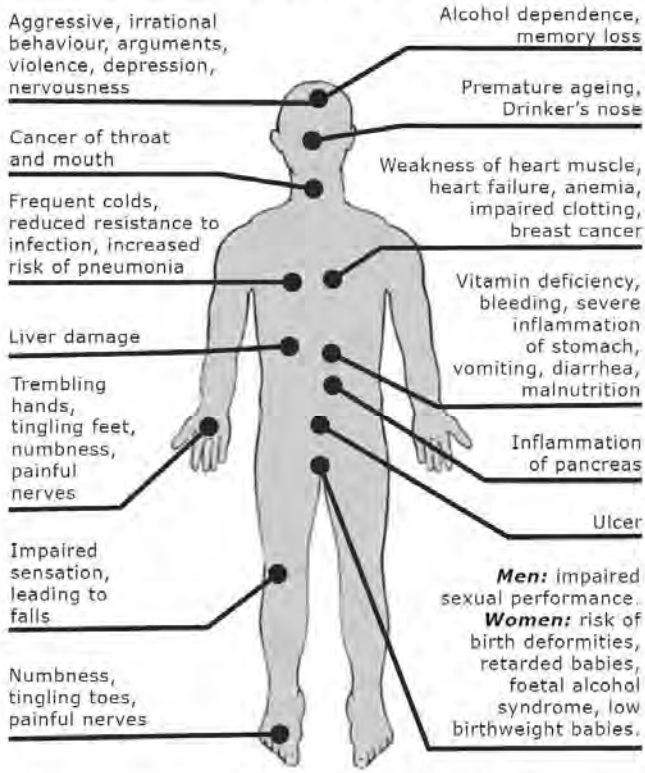
SOME INFORMATION ABOUT ALCOHOL AND DRINKING

Brief Intervention Project in the Emergency Department

Types of drinkers in



Effects of High-Risk Drinking



High-risk drinking may lead to social, legal, medical, domestic, job and financial problems. It may also cut your lifespan and lead to accidents and death from drunken driving.

APPENDIX B5: Outcome Form

Brief Intervention Project in the Emergency Department

Outcome Form

Complete one section:

Patient randomised to **Standard care** ☐ (tick)**:**

Ensure both patient ID and BIP labels are on the consent form and consent form has been signed.

Return all forms to project box.

Patient randomised to **Brief intervention in the ED** ☐ (tick)**:**

Ensure both patient ID and BIP labels are on the consent form and consent form has been signed.

If you are trained in the brief intervention, administer it and complete details below.

If you are not trained in the brief intervention, find someone on shift who is, have them both administer it and complete details below.

Return all forms to project box.

Brief intervention administered?

YES: ☐

NO: ☐

If yes:

Administered by (please print name): _____

Approximate time brief intervention took: _____ mins.

If no:

Why not? _____

Patient randomised to **Motivational interview at TP** ☐ (tick)**:**

Ensure both patient ID and BIP labels are on the consent form and consent form has been signed.

Make appointment in "BIP interview appointments" book kept at the project box for a day & time acceptable to the patient within one week of today.

Only if there is absolutely no available/acceptable day & time within one week of today, make appointment for the earliest available/acceptable day & time.

Record BIP number and appointment day & time on appointment card and give card to patient.

Complete details below.

Return all forms to project box.

Motivational interview appointment made?

YES: ☐

NO: ☐

If yes:

For: Date: ___/___/___ **AND** Time: _____

If no:

Why not? _____

APPENDIX B6: Motivational Interview Appointment Card

BRIEF INTERVENTION PROJECT

BIP number: _____

You have an appointment at:

Turning Point Alcohol & Drug Centre
54 – 62 Gertrude Street
Fitzroy Vic 3065
Ph: 03 8413 8444

On:
Date:_____

Time:_____

If you cannot keep this appointment, please call the number listed above to make another time.

Please bring this card with you when you **come for your appointment.**

APPENDIX C:
Manual for the Brief Intervention in the Emergency Department

Overview

This manual is based on "Brief Intervention For Hazardous and Harmful Drinking: a Manual for Use in Primary Care" by Thomas F. Babor and John C. Higgins-Biddle (World Health Organization, Department of Mental Health and Substance Dependence, 2001): http://whqlibdoc.who.int/hq/2001/WHO_MSD_MSB_01.6b.pdf

Who is Appropriate for Brief Intervention?

A brief intervention using simple advice is generally appropriate for patients who score positive on the Paddington Alcohol Test (PAT). Even though they may not be experiencing or causing harm, such patients are potentially:

at risk of chronic health conditions due to regular alcohol use in excess of drinking guidelines; and/or

at risk of injury, violence, legal problems, poor work performance, or social problems due to episodes of acute intoxication.

Attention should be given to the number of standard drinks consumed per day or per week to determine whether low-risk limits are being exceeded. These drinking limits should take into account both the typical quantity per week as well as frequency of heavy drinking episodes. The PAT measures this.

In general, a brief intervention using simple advice is appropriate for those drinking above the weekly low-risk limit, even if they are not experiencing harm. Moreover, a patient who drinks below that level, but who reports consuming more than 60 grams of pure alcohol per occasion once or more during the past year, should receive advice to avoid drinking to intoxication.

Giving Simple Advice to High Risk Drinkers

Based on clinical trials and practical experience from early intervention programs in many countries, simple advice using a patient education brochure can be an effective intervention of choice for drinkers at risk of harm. One such brochure, the WHO's *A Guide to Low-Risk Drinking,* has been adapted for use in this project. A sample script at the end of this document provides step-by-step examples of how to introduce the subject and what to say about each panel in the brochure.

After establishing, using the PAT, that the patient is drinking at potentially hazardous levels and if the patient decides to enrol in the study and is randomised to brief intervention in the emergency department, a statement should be made to prepare the patient for the intervention. This transitional statement is best accomplished by reference to screening test results concerning the frequency, amount, or pattern of drinking and problems experienced in relation to drinking. A copy of the leaflet is then shown to the patient. Not only does it

contain all of the information necessary for the patient, it also provides a complete visual guide for the health worker's spoken advice. By reviewing each panel in sequence with the patient, a standard brief intervention can be delivered in a complete, natural way that requires a minimum of training and practice on the part of the health worker.

Give Personalised Feedback (Panel 2)

It is important to personalise the feedback. The clinician should use the PAT results and guide the patient through the leaflet to show them where they fit in relation to 'typical drinking. Go through the brochure, section by section, beginning with the *"Types of Drinkers in Australia"*, which is used to demonstrate that the person's drinking falls into the category of "Risky and High Risk: at least weekly" which is in the top 6.9% of the Australian population (NHMRC, 2001).

Provide Information on risks (Panel 3)

The clinician should advise the patient to take immediate action to reduce the risks associated with the current level of drinking. Use the section *"Effects of High-Risk Drinking"* to point out the specific risks of continued drinking above recommended guidelines.

Explain a "Standard Drink" (Panel 4)

The idea of a standard drink should be introduced by pointing to the illustration in the leaflet to prepare the patient if s/he chooses to reduce drinking, and the clinician will have the basis on which to explain the recommended limits of low-risk drinking. All of the drinks shown in the leaflet contain one standard drink.

Give Advice on safe drinking levels (Panel 5)

The most important part of the simple advice procedure is for the patient to establish a goal to change drinking behaviour, either abstinence or low-rink drinking. Most patients are likely to choose a low-risk drinking goal. They then need to agree to reduce their alcohol use to the "low-risk drinking limits" set forth in the leaflet. These limits vary depending by gender, body mass, and the practice of drinking with meals, all of which can affect the metabolism and health consequences of alcohol. Nevertheless, the following guidelines are consistent with epidemiological data indicating that the risk of a variety of health conditions and social consequences is elevated above 20g per day (2 standard drinks). The same amounts taken on an individual occasion are also likely to increase the risk of accidents and injuries because of the psychomotor impairment caused by alcohol.

The guidelines are: no more than four standard drinks per day for men and two standard drinks per day for women. Both men and women should be advised to drink no more than 5 days per week. They should also be alerted to situations in which they should not drink at all.

In choosing a drinking goal, it is also important to identify those who should be encouraged to abstain completely from alcohol. The leaflet lists persons for whom a low-risk drinking goal is *not* appropriate.

Suggest tips to cut down drinking (Panel 6)

Strategies are given in the leaflet about how to attain a low-risk drinking goal. Explain each tip briefly and ask the patient to identify the strategies that are likely to work for them. Ask them if there are any tips they have used before that have been effective for them. Advise the patient to use these strategies next time they have a drink.

Provide Encouragement

Remember that hazardous drinkers are not dependent on alcohol and can change their drinking behaviour more easily. The clinician should seek to motivate the patient by restating the need to reduce risk and by encouraging the patient to begin now. Since changing habits is not easy, the clinician should instil hope by reminding patients that occasional failures must be viewed as opportunities to learn better ways to meet the goal more consistently. For example, the clinician might say,

"You might find it difficult at first to reduce your drinking to these levels every time. If you go over the limits on an occasion, try to think about why you did and how not to do it again. If you always keep in mind how important it is to reduce your alcohol-related risk, it will become easier."

Clinical Approach

The following techniques contribute to the effectiveness of delivering simple advice:

Be Empathic and Non-judgmental

Clinicians should recognise that patients are often unaware of the risks of drinking and should not be blamed for their ignorance. Since hazardous drinking is usually not a permanent condition but a pattern into which many people occasionally fall only for a period of time, a clinician should feel comfortable in communicating acceptance of the person without condoning their current drinking behaviour. Remember that patients respond best to sincere concern and supportive advice to change. Condemnation and confrontation is likely to be counterproductive.

Be Authoritative

Health workers have special authority because of their knowledge and training. Patients usually respect them for this expertise. To take advantage of this authority, be clear, objective, and personal when it comes to stating that the patient is drinking above set limits. Patients recognize that true concern for their health requires that you provide authoritative advice to cut back or quit.

Roll with resistance

Sometimes patients are not ready to change their drinking behaviour. Some patients may not recognise that they drink too much and resist any suggestion that they should cut down. To help patients who are not yet ready to change, make sure that you are speaking authoritatively without being confrontational. Avoid threatening or pejorative words like "alcoholic," motivating the patient instead by giving information and expressing concern. If the patient's screening results have indicated a high level of drinking or an alcohol-related problem, ask them questions that explore what this might mean for them or how it feels to hear these results.

Facilitate

Since the intended outcome of providing simple advice is to facilitate the patient's behaviour change, it is essential that the patient participate in the process. It is not sufficient just to tell the patient what to do. Rather, the most effective approach is to engage the patient in a joint decision-making process. This means asking about reasons for drinking, and stressing the personal benefits of low-risk drinking or abstinence. Of critical importance, the patient should choose a low-risk drinking goal or abstinence and agree at the conclusion of this process that he or she will try to achieve it.

It is still their choice

Remember that, although you are trying to assist the patient to change their behaviour to improve their health, it still remains their choice to take your advice and/or try to change their behaviour. We still don't fully understand the mechanisms behind motivation and commitment to change. The information you give them may be taken up at another time when they are more ready to make changes. Your task is to offer advice in a way that facilitates and supports change and allow the patient the space to implement those changes.

Sample Script of a Simple Advice Session Using the "Some Information about Alcohol and Drinking" leaflet

The following is a sample script of how to guide the patient through the leaflet. It is not intended to be used verbatim, rather the clinician should tailor his or her interaction with the patient.

Introduce the Subject with a Transitional Statement

"I've looked over the results of the questions you completed a few minutes ago. If you remember, the questions asked about how much alcohol you consume, and whether you think your attendance at the Emergency Department is related to your drinking. From your answers it appears that you may be at risk of experiencing alcohol-related problems if you continue to drink at your current levels. I'd like to take a few minutes to talk with you about it."

Present the leaflet and point to Panel 2 : "Types of Drinkers in Australia"

"The best way for me to explain the health risks connected with your alcohol use is by looking at this leaflet, which is called "Some Information about Alcohol and Drinking." Let's take a look at it and then I'll give you this copy to take home with you. The first illustration, called the 'Types of Drinkers in Australia', describes five types of drinkers. While many people abstain from alcohol completely, most people who drink do so at low risk levels. This fifth area (Risky & High Risk Drinkers who drink at that level al least weekly) represents drinkers whose alcohol use is likely to cause problems. Your responses to the questions put you into this high risk category. Your level of drinking presents risks to your health and possibly other aspects of your life."

Show Panel 3 and provide Information on the "Effects of High-Risk Drinking"

"This picture shows the kinds of health problems that are caused by high-risk drinking. Have you noticed any of these health problems from drinking? The best way to avoid these problems is to cut down on how much and how often of you drinking so that you reduce your risk."

Point to Panel 4 to review "What's a Standard Drink"

"It is essential to understand how much alcohol is contained in the different beverages you are drinking. Once you do this you can count your drinks and try to stay within low-risk limits. This figure shows different types of alcoholic beverages. Did you know that one small glass of wine, one glass of beer, and one small shot of spirits all contain approximately the same amounts of alcohol? If you think of each of these as a standard drink, then all you need to do is count the number of drinks you have each day."

Use Panel 5 to discuss "Safe Drinking Levels"

"According to experts, you should not have more than four/two (depending on the patient's gender) *drinks a day, and you should drink less if you tend to feel the effects of one or two drinks. To minimize the risk of developing alcohol dependence, there should be at least two days a week when you do not drink at all. You should always avoid drinking to intoxication, which can result from as little as two or three drinks on a single occasion. Moreover , some people should consider not drinking at all, such as those listed here."*

Point to Panel 6 and provide strategies and "Tips on Cutting Down"

“It is important for you to cut down on your drinking or stop entirely for awhile. Many people find it possible to make changes in their drinking. Are you willing to try? Ask yourself whether you have had any signs of alcohol dependence like feeling nauseous or shaky in the morning, or if you can drink very large amounts of alcohol without appearing to be drunk. If this is the case, you should consider stopping entirely. If you do not drink excessively most of the time, and do not feel that you have lost control over your drinking, then you should cut back.

"Here are some tips you can use to cut down on your drinking. Do any of these suggestions sound like something you could use to reduce the amount you drink?"

Conclude With encouragement

“Now that you have heard about the risks associated with drinking and the sensible limits, are there any questions? Many people find it reassuring to learn that they can take action on their own to improve their health. I’m confident you can follow this advice and reduce your drinking to low-risk limits. But if you find it difficult and can’t cut down, there are a few people you can talk to, like your

APPENDIX D:

Database & Data Entry Manual

Introduction

This document provides instructions for the use of the database for the Brief Intervention Project in the Emergency Department (BIP). Also contained herein are instructions for entering data for the project, including guidance for what to do with anomalous data. This database was developed by Turning Point Alcohol and Drug Centre Inc.

Author

The database and this document were developed by:

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Research Fellow / Database Developer

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Document conventions

Objects that occur on database screens are displayed in this document in **Arial Narrow 10pt bold** (eg. **Patient Sex**)

Prompts from the database are also displayed in **Arial Narrow 10pt bold** (eg. **"No work phone entered in participant details. "**)

Data entered in the database are displayed in **Courier New 10pt bold** (eg. **0:Female**)

MS Access database screen names and pages on those screens are displayed in ***Times New Roman 11pt bold italic*** (eg. the ***Contacts*** page on the ***BIP Participant*** screen)

All data used as examples in this document are fictitious and any similarity to actual persons or organisations is coincidental.

Database overview

The data entry system has been developed in Microsoft Access 2000 and is designed to:

Enter/edit screening Paddington Alcohol Tests (PATs).

Enter/edit enrolments and details of project participants.

Calculate and report on follow-up interviews due.

Enter/edit follow-up interview data directly into the database and print a hard-copy.

Report various statistics on the progress of the project.

System requirements

This data entry system requires:

Microsoft Access® version 2000 (or later). The database will not operate with earlier versions of MS Access.

The screen area should be set to 1024 x 768 pixels or greater to ensure the entire data entry screen is visible at once. See Windows documentation for more information on how to do this.

Field types

Fields on the database screens are of three types, indicated by their background colour:

White - You are able to enter data in these fields and the data are stored.

Grey - You cannot enter data into these fields but the data are stored. These fields are generally data derived from other sources (eg. **PAT result** on the ***Screening Paddington Alcohol Test*** screen). Value labels are also displayed with a grey background.

Green - You can enter data in these field but the data are not stored. These fields are often used to locate and display a selected record (eg. the **Find UR number** field on the ***Screening Paddington Alcohol Test*** screen is used to enter the UR number to go to that PAT record).

Field control and data validation

Fields in the database are only accessible if valid in reference to other data entered. Modifying any datum may both delete other data and/or disable other fields.

For example, on the ***Screen_PAT*** page of the ***Screening Paddington Alcohol Test*** screen, if you enter **0:No** into **PAT completed/calculated okay**, the database enables the **Why PAT not calc ok** field. If you enter **1:Yes** into **PAT completed/calculated okay**, the database disables the **Why PAT not calc ok** field and deletes any text therein.

Database security

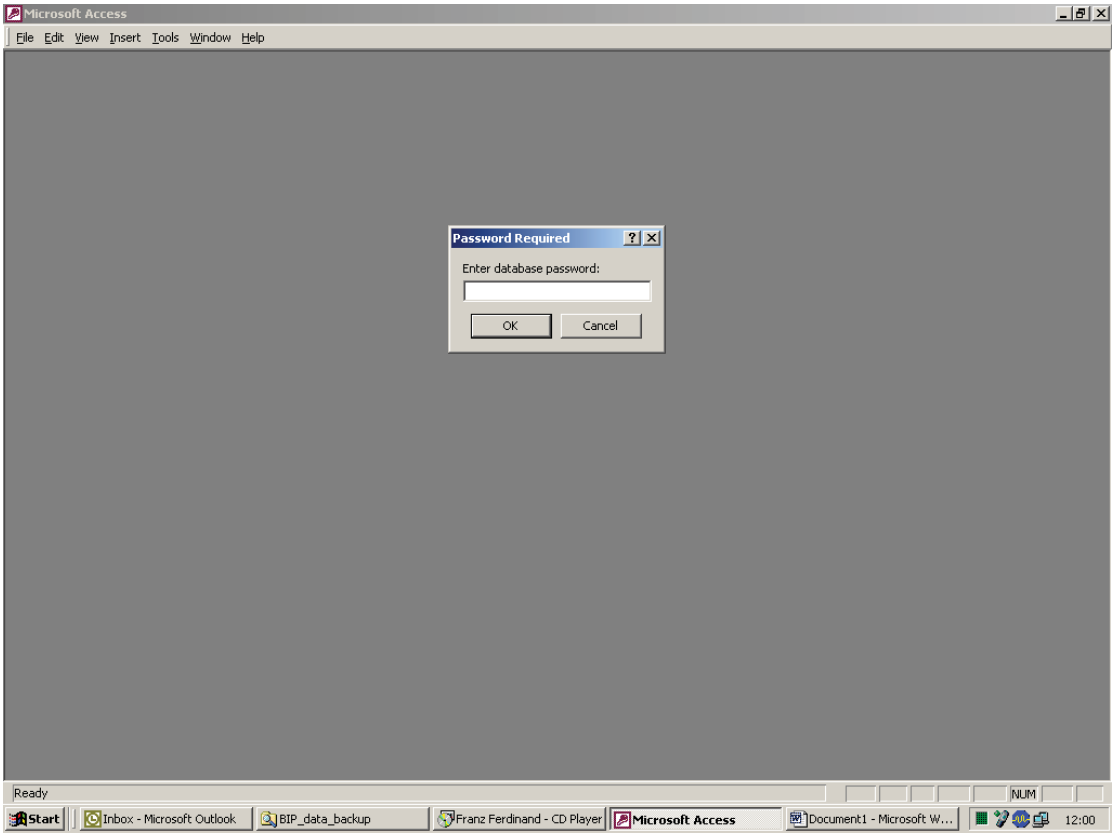
The database is stored in a secured area of the St Vincent's Hospital, Melbourne network. The directory in which the database resides is accessible only to investigators and research officers directly involved in the project. Additionally, the database is secured by a

password. The database cannot be opened unless a correct password is supplied. This password will have been supplied to you by one of the research officers.

Entering or editing data

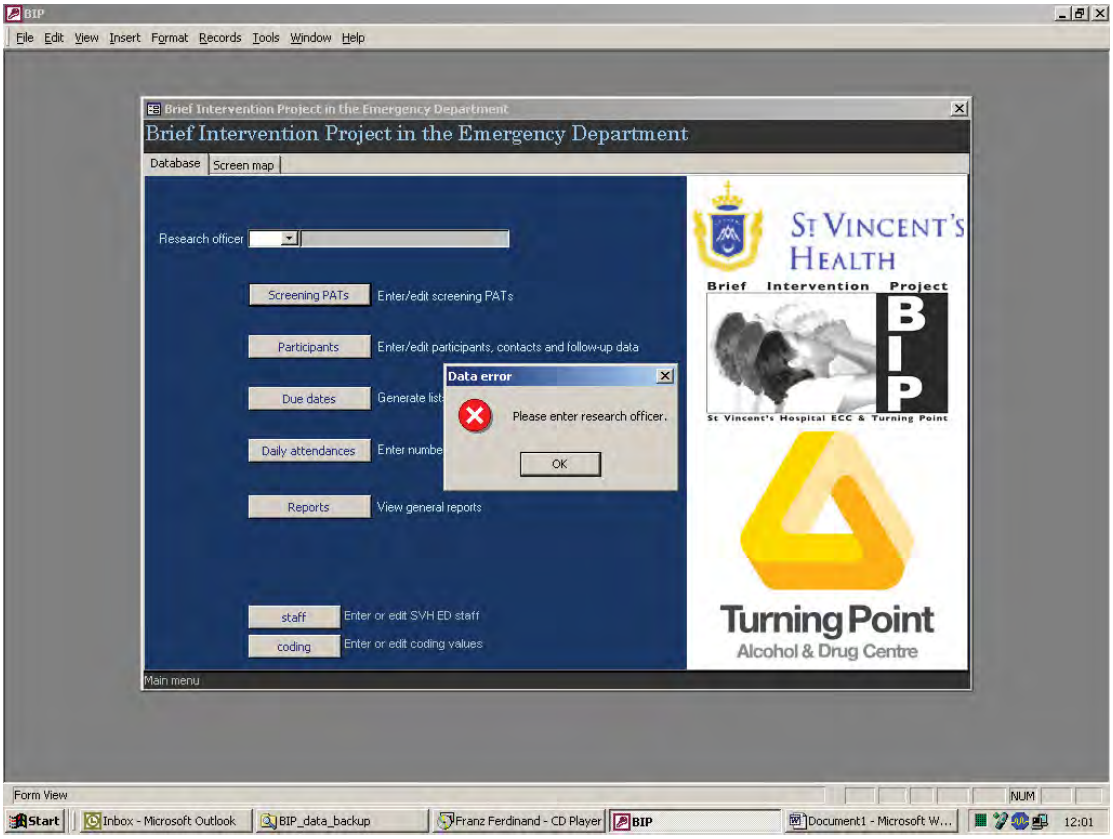
Opening the database

Open the database by double-clicking on **BIP.mdb** in the directory G:\Medicine & Emergency\Emerg\Operational\BIP or by starting MS Access and selecting the database. Each time the database is opened, you will need to enter the password:

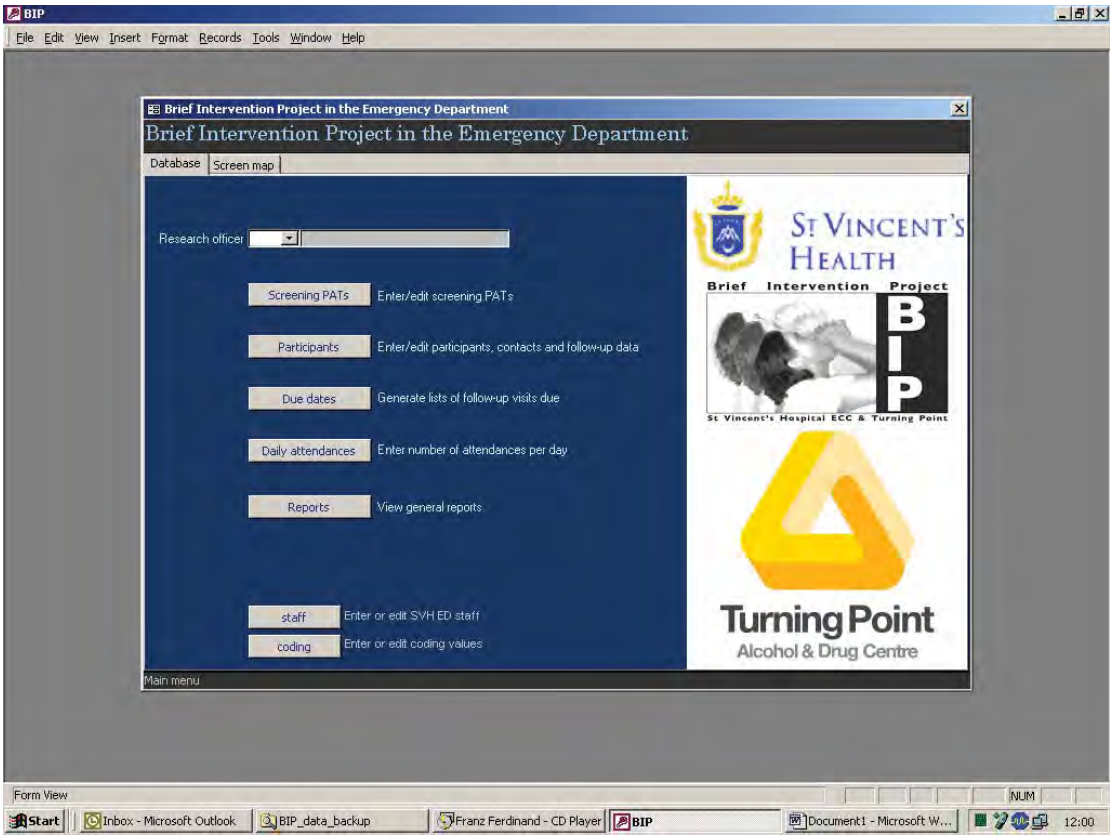


Main menu

Before you will be able to use the database, you must enter your research officer code in the **Research officer** field, otherwise you will get the following error message:



The ***Main menu*** has seven options:



Screening PATs – select this to enter, edit or delete data from the completed screening Paddington Alcohol Tests.

Participants – select this edit or delete data for participants enrolled in the project and contacts with participants (participants are enrolled from the screening PAT screen).

Due dates – select this to generate a list of follow-ups due between two dates.

Daily attendances – select this to enter the total number of ED attendances per day. This is used in calculating proportions of patients PATed.

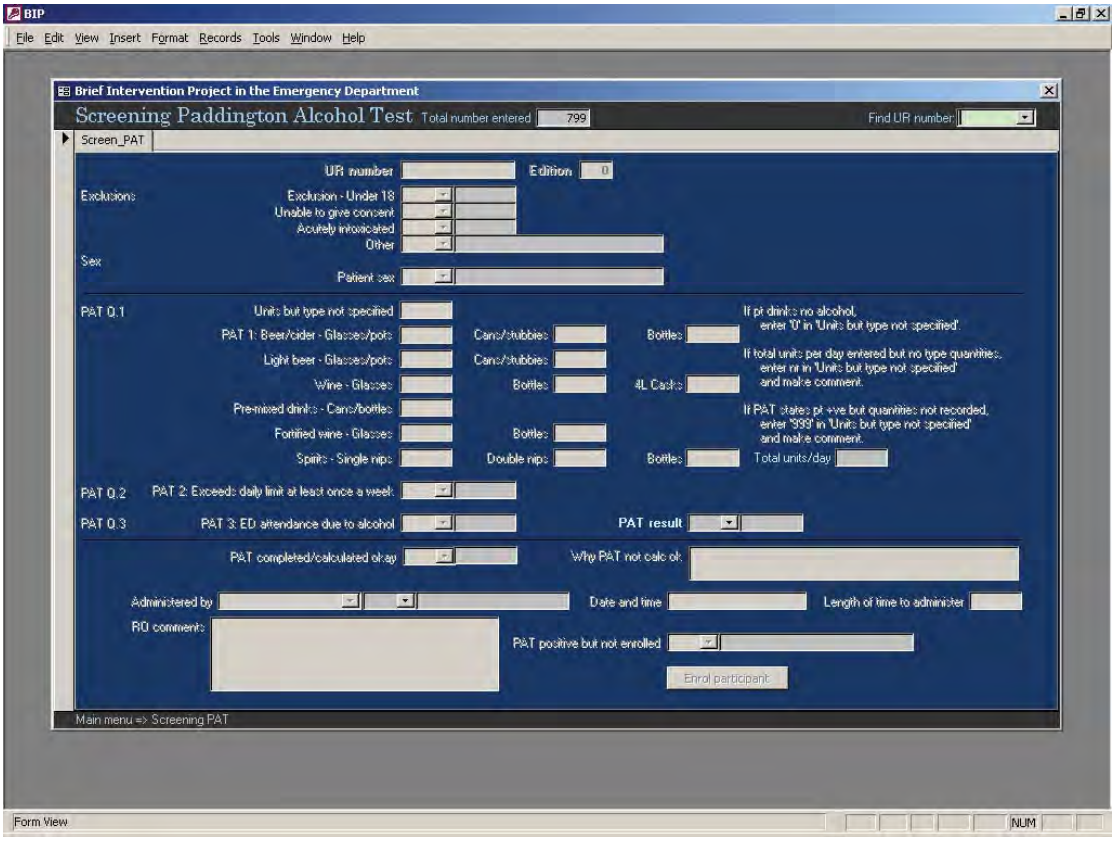
Reports – select this to open the ***Reports*** menu.

Staff – select this to enter, edit or delete St Vincent's Hospital ED staff.

Coding – select this to enter, edit or delete coding values ie. the codes and their corresponding text used for coded fields.

Entering screening PATs

Selecting **Screening PATs** from the ***Main menu*** will display the ***Screening Paddington Alcohol Tests*** screen :



When first opened, the screen will have no fields available (greyed out). The number of PATs entered is listed in the **Total number entered** field. Either an existing PAT must be retrieved or a new one created.

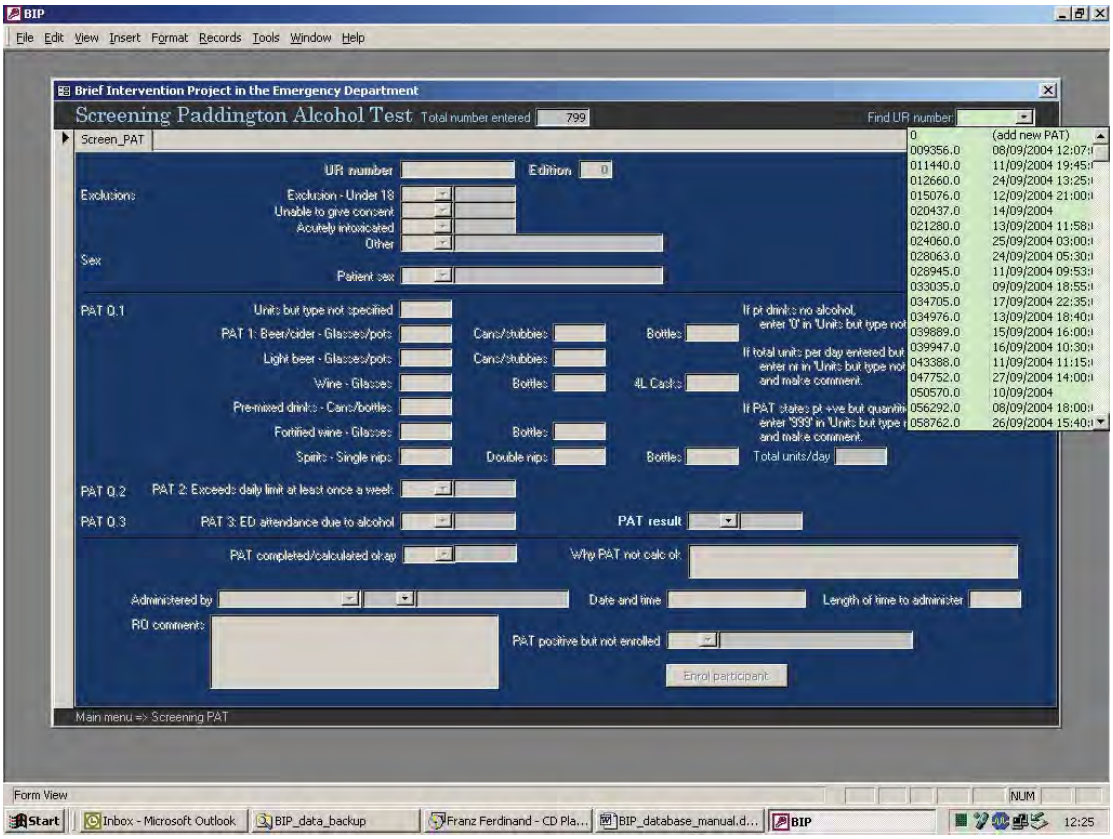
Retrieving an existing PAT

The **Find UR number** field at the top of the screen lists all existing screening PATs by UR/edition number and the date and time administered. They are listed in order of UR/edition number. Either type the UR/edition number separated by a period (i.e. **UR.Edition**) or select it from the list to go to that PAT record.

Entering a new PAT

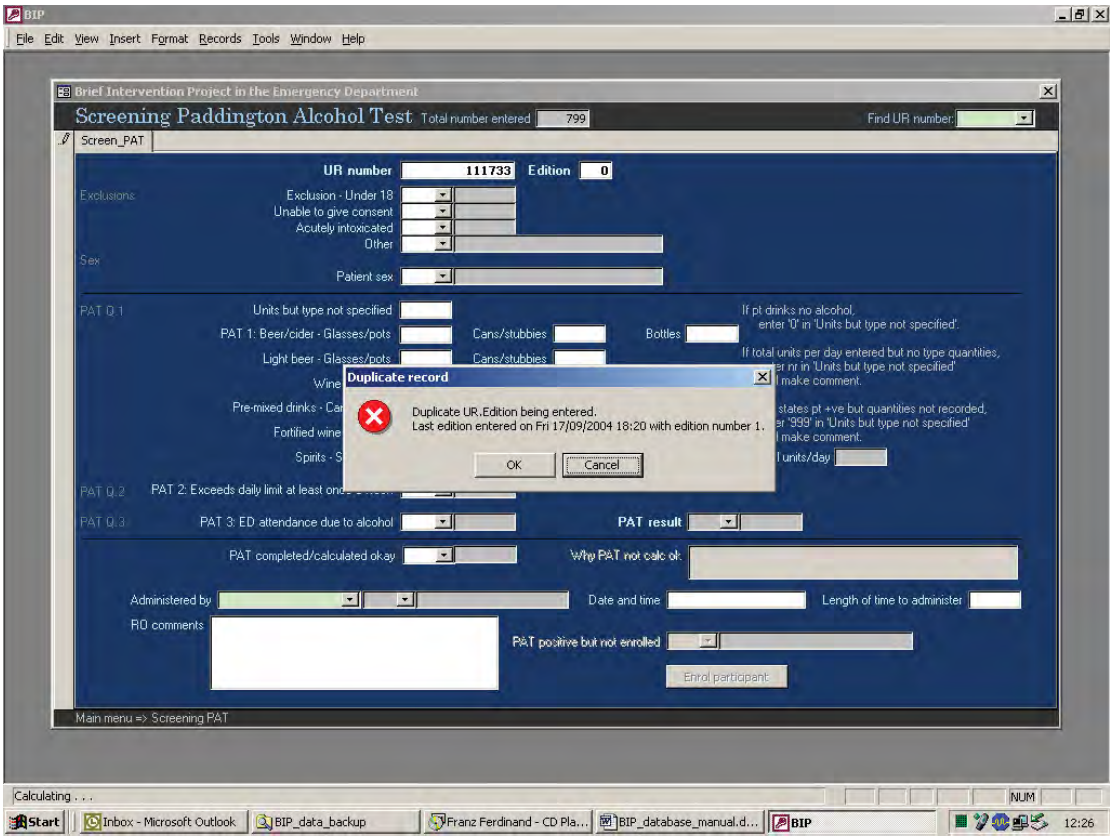
On occasion you will receive a PAT with no information on it at all, apart from the patient label. Do not enter these into the database, just discard them.

To enter a new PAT, either enter **0** or select **0:(add new PAT)** from the **Find UR number** field:



Fields on the Screening PAT

UR number and **Edition.** As patients may be PATed more than once (i.e. have multiple visits to the ED), each screening PAT is stored by its UR number and an edition number. The edition number is analogous to a repeat visit number. By default, the database assumes an edition number of zero i.e. this is the first ED visit for this patient. Where a PAT is being entered for an existing UR number and edition, the database will indicate the most recent edition number used:



In this case, select **OK** and change the **Edition** to the next number (in the above example, the new PAT would be edition **2**).

For editions greater than zero, write the edition number on the top of the PAT in a circle and staple all the PATs for the same patient together.

On occasion the same patient may be PATed more than once in a single visit. In this instance, do not enter the second PAT as a new edition. Ensure that the entered PAT is the one with the most information and staple the PATs together.

After entering each PAT, draw a line through the UR label to indicate that it has been entered. All entered PATs are to be stored in the locked filing cabinet in UR order with all the PATs for the same patient stapled together.

Exclusion – Under 18, Exclusion – Unable to give consent and **Exclusion – Acutely intoxicated** accept only **1:Yes** if the patient is excluded for that reason.

Exclusion – Other is an open-coded field for any other reason the patient is excluded. The most common reasons are **2:No English** and **3:Cognitive impairment**. (See below under "Auto-coding" for an explanation of open-coded fields.) Where a patient is excluded for any reason, you only need to enter the exclusion, **Patient sex, Administered by** and **Date and time**.

Patient sex is a mandatory field and accepts **0:Female** or **1:Male**. For transgender patients, enter their preferred sex.

PAT1: Units but type not specified is to enter quantities for question 1 of the PAT where there is no type quantity data on the form:

If patient drinks no alcohol, enter **0** in **Units but type not specified**.

If total units per day has been written but no quantities for the different types of alcohol, enter the total units in **Units but type not specified** and make a comment in **Why PAT not calc ok**.

If PAT states patient is PAT positive but no quantities were recorded on the form, enter **999** in **Units but type not specified** and make a comment in **Why PAT not calc ok**.

Beer/cider – Glasses/pots through to **Spirits – Bottles**. Enter the figures as written on the PAT for question 1. The **Total units/day** is automatically calculated.

PAT 2: Exceeds daily limit at least once a week accepts **0:No** or **1:Yes** as written on the PAT for question 2. If the patient does not drink at all (i.e. **0** entered in **Units but type not specified**), you should enter **0:No** here, regardless of what is on the form, as this is logically derivable. If the patient drinks below the cutoff for their sex and this question is not answered, you should also enter **0:No** here as this is also logically derivable

PAT 3: ED attendance due to alcohol accepts **0:No** or **1:Yes** as written on the PAT for question 3. Again, if the patient does not drink at all (i.e. **0** entered in **Units but type not specified**), you should enter **0:No** here, regardless of what is on the form, as this is logically derivable. However, if this question is not answered and the patient drinks any alcohol at all, you must leave this field null.

PAT completed/calculated okay accepts **0:No** or **1:Yes**. Enter **0:No** if:

The **PAT result** is null i.e. either question 1, 2 or 3 was not answered (and the patient was not excluded) or

The **Total units/day** does not match the amount calculated by the clinician.

and make a note in the **Why PAT not calc ok** field, otherwise, if the patient not excluded and there is a **PAT result**, enter **1:Yes.**

Administered by is a mandatory field of the clinician who completed the PAT. The clinicians are listed in alphabetical order by surname and can usually be retrieved by typing the first few letters of the surname. Where the clinician has not written their name or where it is illegible, enter **(unknown)**. If the clinician's name is not in the list, they will need to be added before this PAT can be entered. See below under "Staff list".

Date and time is a mandatory field that accepts the date and time the PAT was administered in the format **dd/mm/yyyy hh:mm**. Where the date and time are not written on the PAT, enter the date the patient presented to the ED and enter the time as **00:00.**

Length of time to administer accepts time in minutes. Where the clinician has not written a time on the PAT, leave this field null. If the clinician has written '<1', enter **1**. Where the clinician has written the time in seconds, roughly convert to minutes so '5 secs' is **0.1**, '10 sec' is **0.2**, '30 secs' is **0.5**. You cannot enter a zero in this field; where the clinician has written '0', enter **0.1**.

PAT positive but not enrolled is only enabled if the PAT is positive and must be completed for any positive PAT that was not enrolled in the project. This is an open-coded field so you can add new codes during data entry. (See below under "Auto-coding" for an explanation of open-coded fields.) The most common reason is **1:Not interested/refused involvement.** Where the clinician has provided no information why patient not enrolled, enter **2:Unknown why not enrolled** and write in the **RO comments** the times the patient arrived, was seen and was discharged/sent to ward from PAS.

RO comments is for the research officer to record any additional information about this PAT.

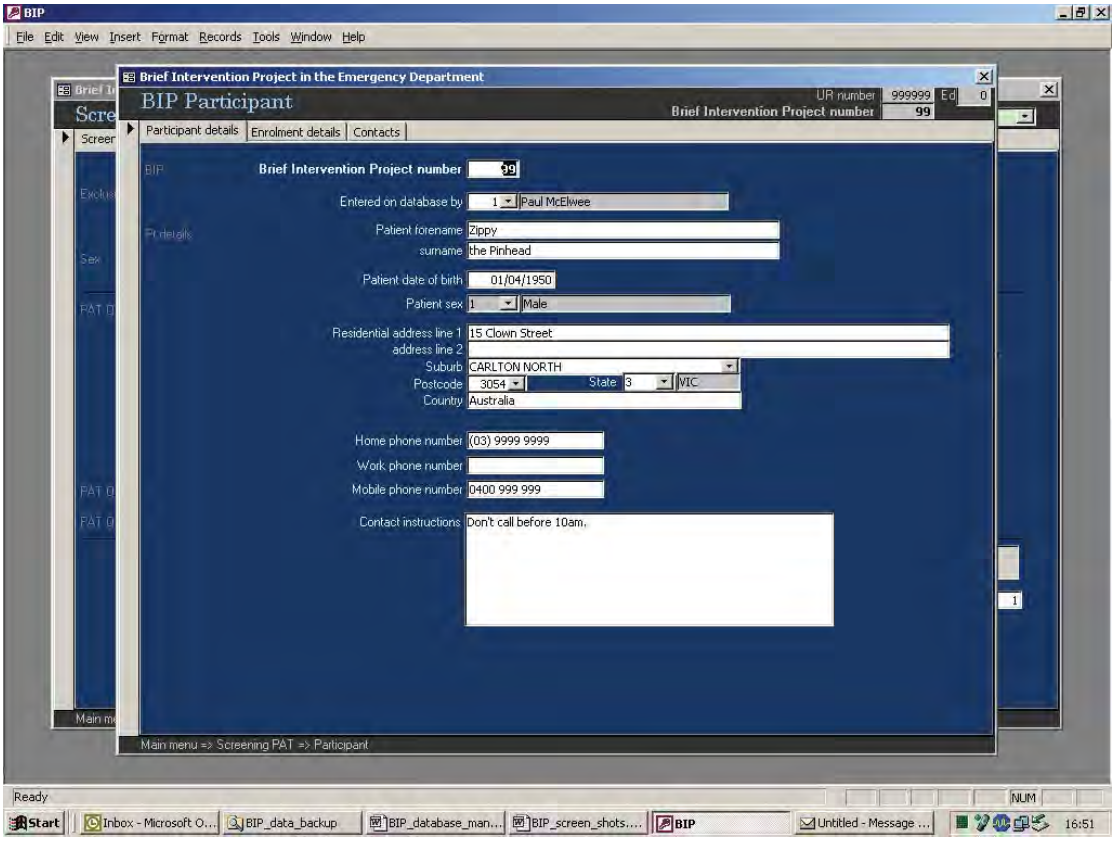
Enrol participant button – select this for positive PATs where the participant enrols in the project. This button takes you to the ***BIP Participant*** screen.

Entering enrolments

Enrolments are entered by selecting the **Enrol participant** button on the ***Screening Paddington Alcohol Test*** screen for the enrolling patient.

Much of the data entered on this screen is available from the ***Demographics*** section of the ***PAS*** medical record for the patient.

The ***BIP Participant*** screen has three pages accessible by clicking on the grey tabs at the top of the screen.



Fields on the BIP Participant screen

The Participant details page

UR number and **Ed** (edition number) and **Patient sex** are disabled and get their data from the ***Screening Paddington Alcohol Test*** screen from which you accessed this screen.

Brief Intervention Project number is the enrolment number on the BIP label of the consent form. This is a mandatory field.

Entered in database by by default will be the **Research officer** entered on the ***Main menu***. This is a mandatory field.

Patient forename, surname, Patient date of birth, Residential address details, **Phone numbers** you get from the ***Demographics*** section of the ***PAS*** medical record for the patient.

Contact instructions is for any specific details in regard to contacting the patient for follow-up, e.g. times at which to call, etc.

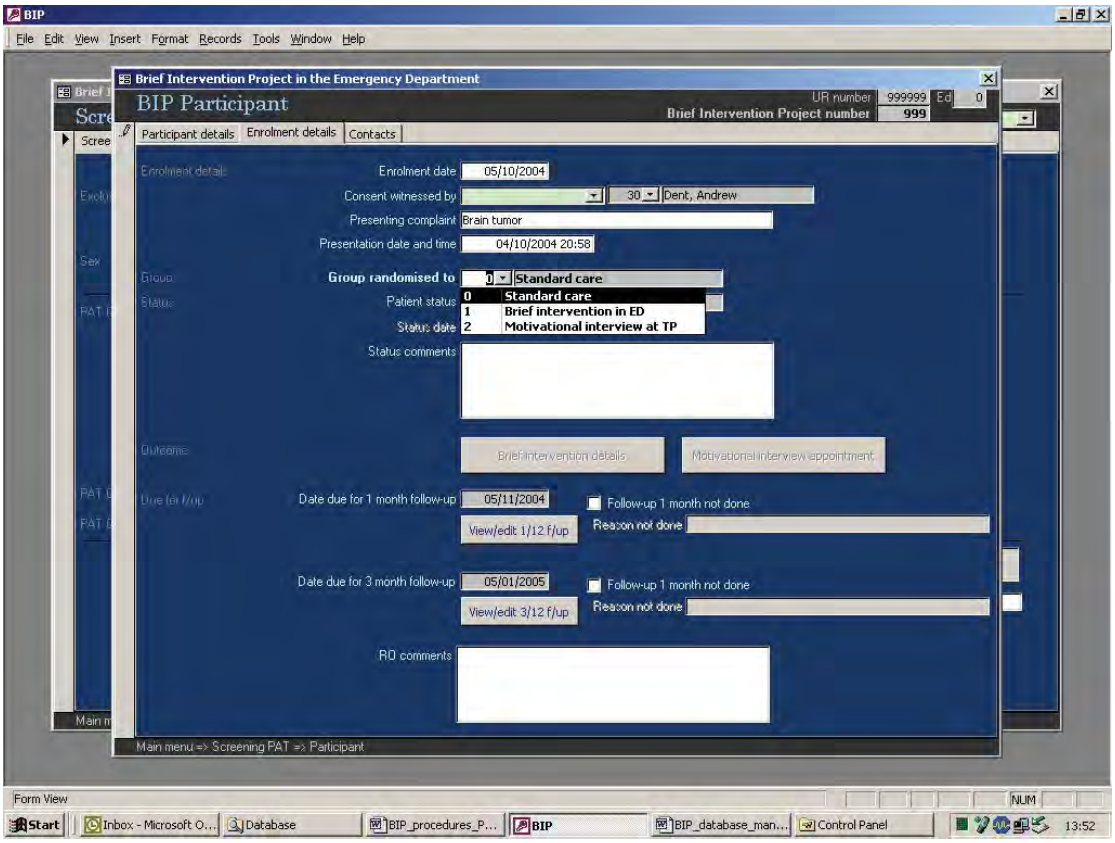
The Enrolment details page

Enrolment date is a mandatory field and is the date the consent form was signed.

Consent witnessed by is a mandatory field and is clinician who witnessed the consent form signing.

Presenting complaint and **Presentation date and time** you get from the ***Visit history*** section for this visit of the ***PAS*** medical record for the patient.

Group randomised to is a mandatory field and is the allocation group from the BIP label on the consent form. This field determines which other screens are enabled to enter data to:



This field accepts **0: Standard care, 1:Brief intervention in the ED** or **2:Motivational interview at TP**. If any additional information has been entered for this patient (i.e. in either the ***Brief Intervention details*** screen or the ***Motivational interview appointment*** screen), you cannot change the **Group randomised to** until that data has been deleted.

Patient status is a mandatory field indicating the current status of the patient in the project. It accepts:

0:Enrolled. – this should be the default for any new enrolment.

1:Incomplete enrolment – where either the brief intervention was not done or the motivational interview appointment was not made

2: Pt voluntarily withdrawn – the patient has been contacted for follow-up and decides to withdraw from the study.

3:Lost to f/up – the patient is unable to be contacted for follow-up.

Status date is only enabled if the **Patient status** is not **0:Enrolled**. This field is to enter the date of the most recent status change and is used to determine which follow-up data should be entered, i.e. follow-ups due before the **Status date** should be entered, those after should not. For **1:Incomplete enrolment** this date should be the **Enrolment date.**

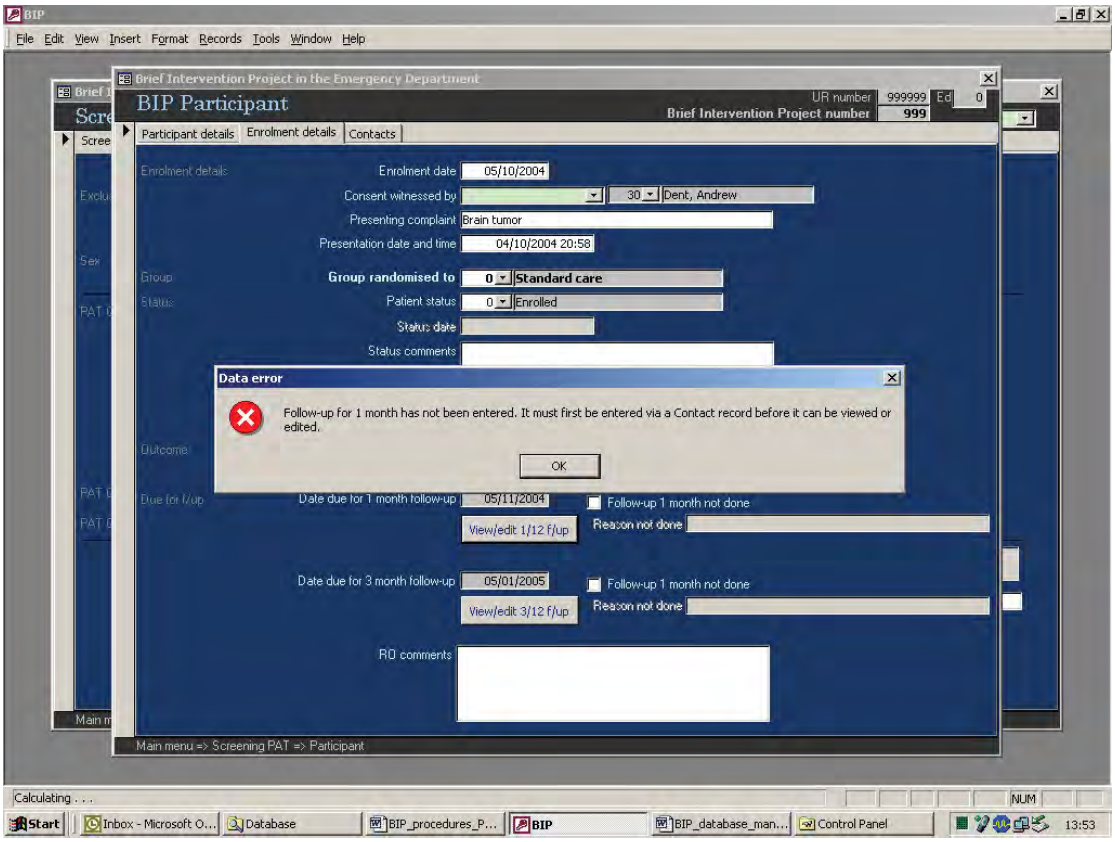
Status comments is to record any additional information about the patient's current status or status changes. Where the status is not **0:Enrolled**, enter details here (e.g. **Patient refused to make appointment at TP for motivational interview**)

The **Brief intervention details** and **Motivational interview appointment** buttons are only enabled if the patient is in **Group randomised to 1:Brief intervention in the ED** or **2:Motivational interview at TP** respectively and go to the screens to enter details about those. See below for instructions for each screen.

Date due for x month follow-up fields are disabled and automatically calculated after you enter the **Enrolment date**.

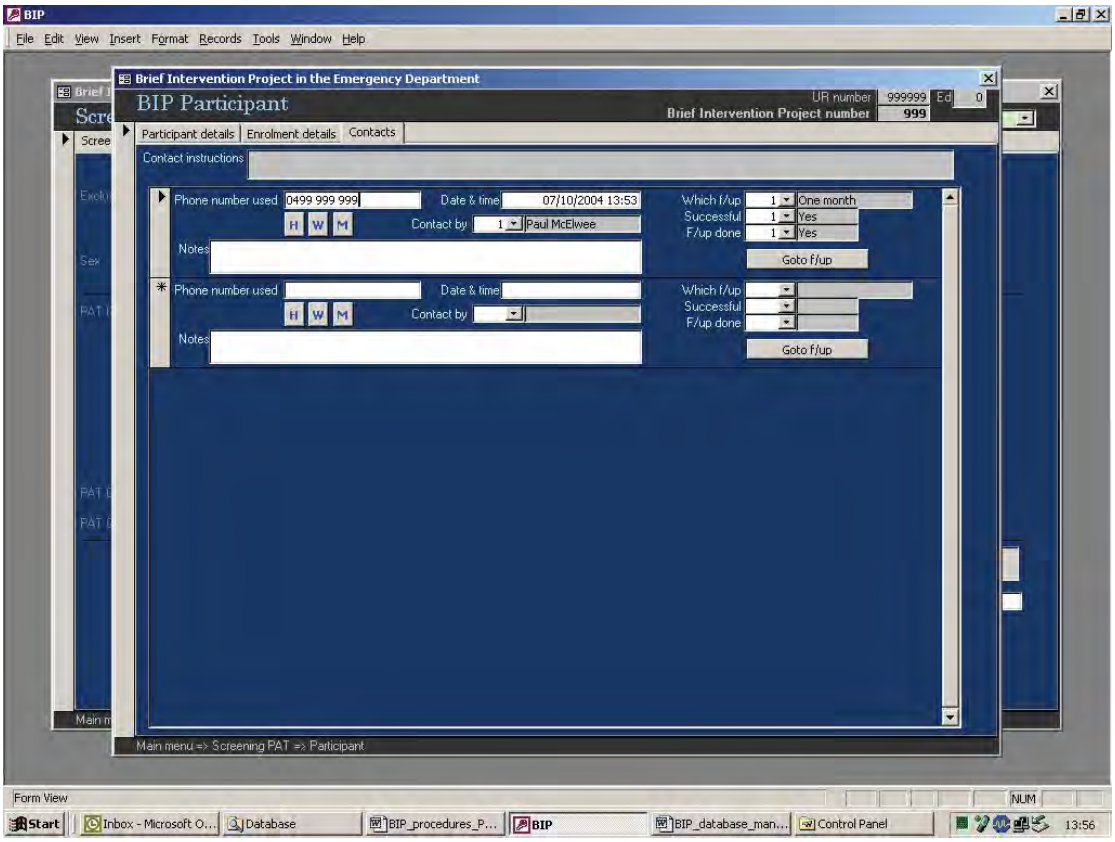
The **Follow-up x month not done** checkboxes are to indicate that the participant was unable to be contacted for that follow-up within two weeks of their due date. When these are selected the **Reason not done** fields are enabled and you can record here any additional information.

The **View/edit x/12 f/up** buttons are to go to the screens for that month's follow-up. They are to view or edit an exiting follow-up record; you cannot create a follow-up by selecting these buttons. Follow-ups can only be entered by creating a ***Contacts*** record (i.e. each follow-up has to be the result of a patient contact):



The Contacts page

This page is not relevant when enrolling a participant and is for use when attempting to contact participants for follow-up interviews. See below under “Doing follow-up interviews” for instructions on this process.



The **Contact instructions** field is disabled and is merely the same information from the **Contact instructions** field on the ***Participant details*** page for easy reference when calling patients.

The **H, W** and **M** buttons copy the **Home, Work** or **Mobile phone number** from the ***Participant details*** page to the **Phone number used** field. If no such number exists for this patient, the database will inform you. You can edit the **Phone number used** field or enter another number if you wish.

The **Date & time** field by default will be the current date and time but you can edit this field if you wish. This field is mandatory.

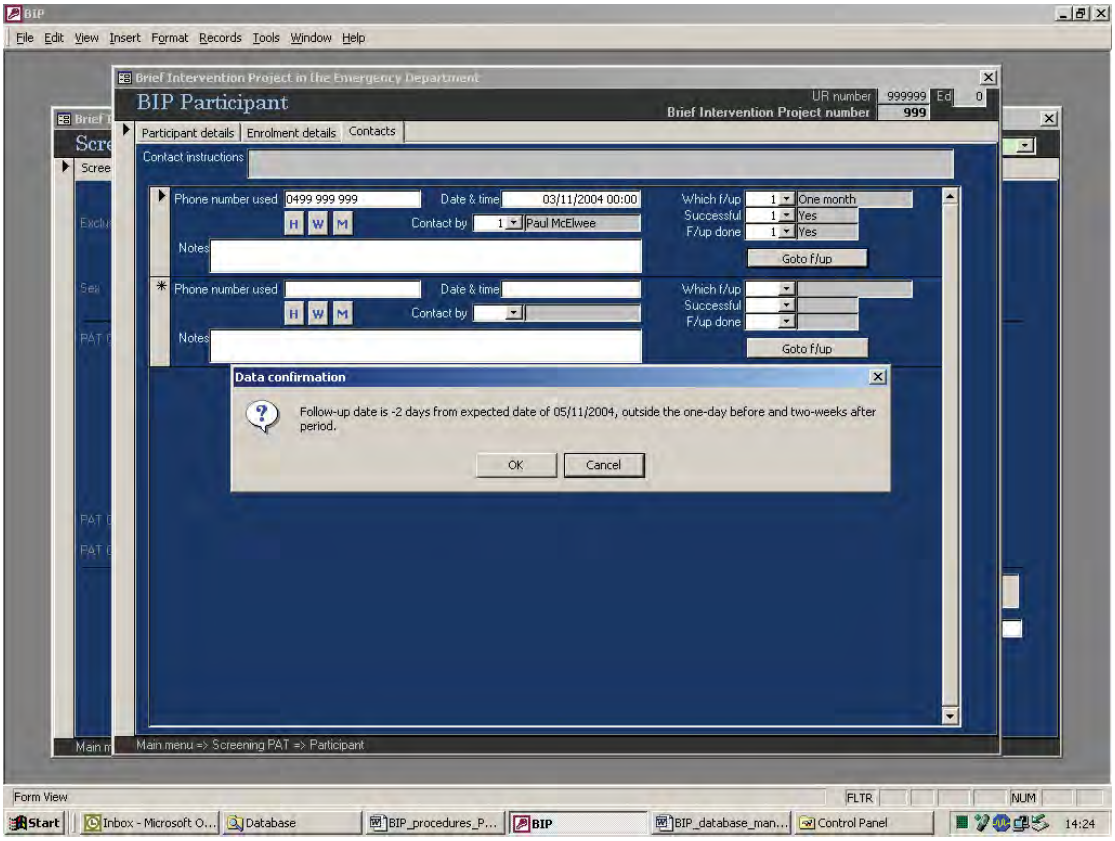
The **Contacted by** field by default will be the **Research officer** field from the ***Main menu***. This field is mandatory.

Which f/up accepts **1:One month** or **3:Three month** to indicate which follow-up you are trying to contact the participant for and is a mandatory field.

Successful accepts **0:No** or **1:Yes** to indicate whether the attempt to contact the participant was successful and is a mandatory field. If the attempt was not successful, write why in the **Notes** field.

F/Up done also accepts **0:No** or **1:Yes** to indicate whether the follow-up interview was done or not and is a mandatory field. Obviously, if the attempt was unsuccessful, you will enter **0:No** here.

Selecting the **Goto f/up** button opens the ***Follow-up*** interview screen. You can only select this if **Successful** is **1:Yes** and **FUP** is **1:Yes**. The database expects the follow-up interviews to occur between one day before and 14 days after the date on which they are due. If you attempt to do a follow-up outside this period, the database will warn you but you will be able to continue:



Doing follow-up interviews

The process is:

Generate a list of follow-up interviews due from project start to tomorrow.

For each interview due, go to the ***Contacts*** page of the ***BIP participant*** screen.

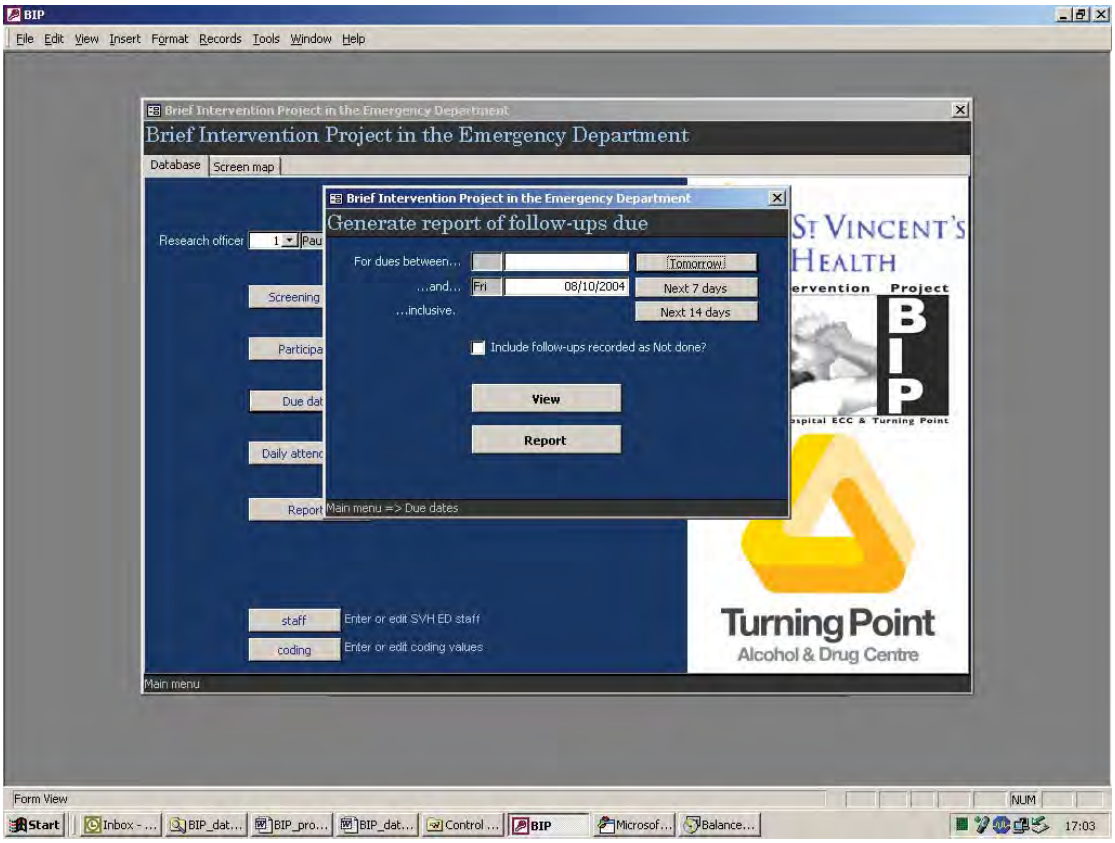
If the contact was successful the participant agrees to the interview, enter the data into the ***Follow-up interview*** screen.

Print a hard-copy of the interview record.

Generating lists of follow-up interviews due

The Generate report of follow-ups due screen

Selecting **Due dates** from the ***Main menu*** opens the ***Generate report of follow-ups due*** screen:



There are fields for entering a start and end date within **For dues between… and… inclusive**. If you leave the start date null, the database reports on all dues from the beginning of the project. Similarly if you leave the end date null, the database reports on all dues until the end of the project.

You can select the **Tomorrow, Next 7 days** or the **Next 14 days** buttons to automatically place an end date (but leaving the start date blank and so reporting all dues up to 1, 7 or 14 days ahead respectively). Usually you should select **Tomorrow** as follow-ups are expected to be done within one-day before and two-weeks after the due date.

If a participant has been unable to be contacted for a follow-up interview within two weeks of their expected date, their **Follow-up x month not done** will be marked on their ***BIP Participant*** screen and such visits are not required to be listed here as due. If the **Include follow-ups recorded as not done?** checkbox is checked on this screen, such visits will then be included in the due dates generated.

Select the **View** button to go to the List of follow-ups generated screen. You can also select the **Report** button to see a preview printable report of the same list of follow-ups generated.

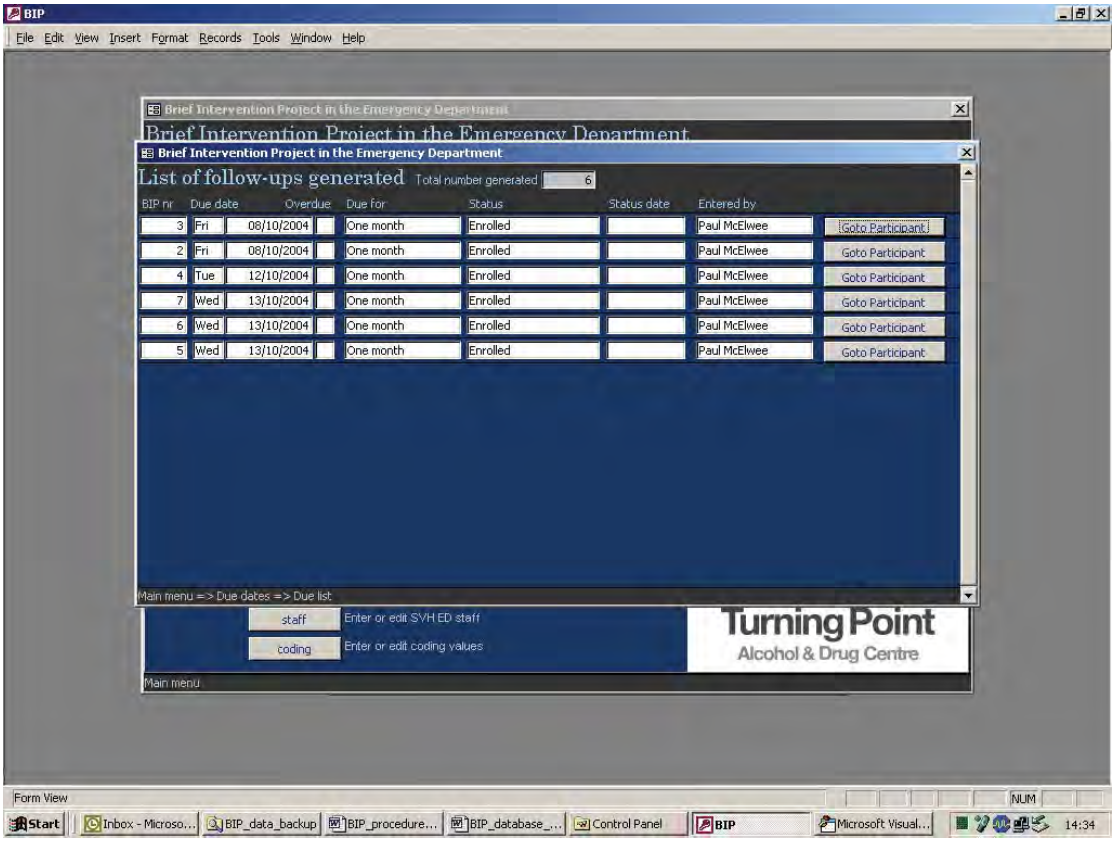
The List of follow-ups generated screen

The **Total number generated** will be displayed at the top of this screen.

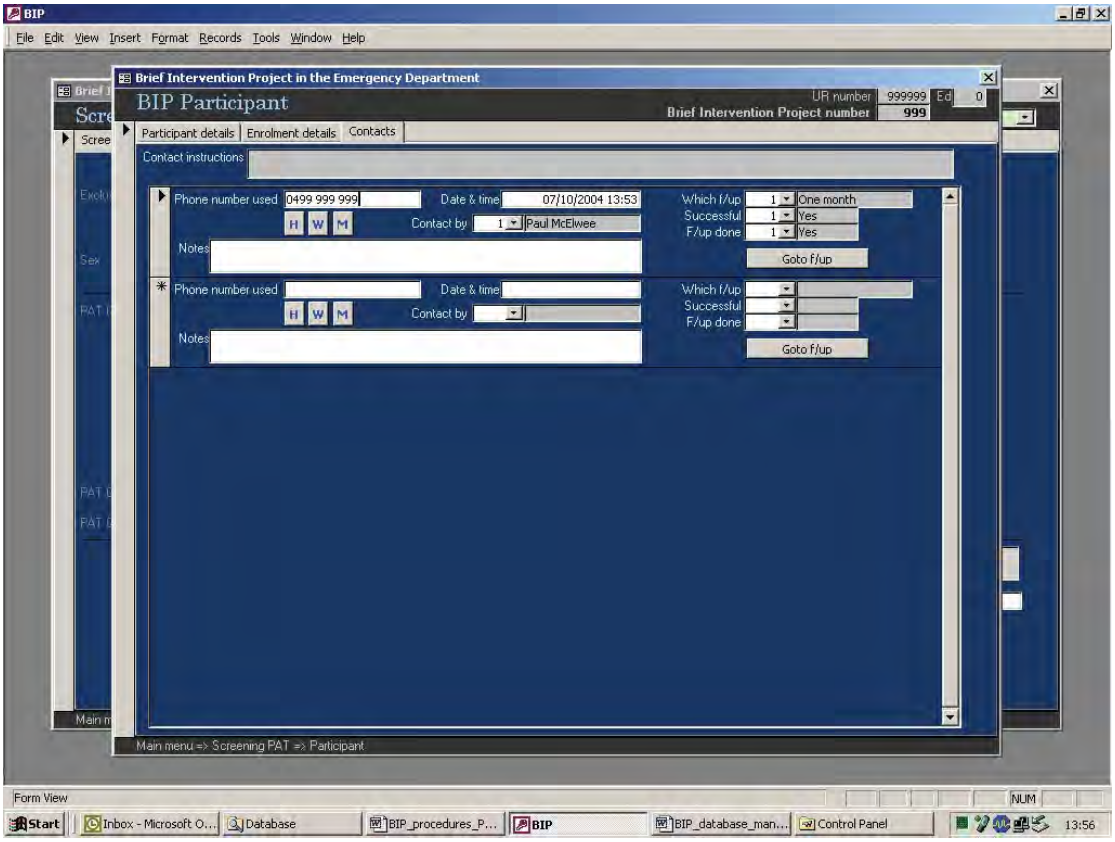
Each interview due will list the BIP nr, the Due date, the Due for as well as the participant's Status, Status date and who the participant was Entered by into the database.

The **Overdue** field will display a red asterisk * if this interview due date is greater than two weeks old. If the participant has not been able to be contacted for this follow-up interview within this time, you should check the **Follow-up x month not done** checkbox on ***Enrolment*** page of their ***BIP Participant*** screen.

The **Goto Participant** button for each interview due opens the ***BIP Participant*** screen for that participant.



Go to the BIP participant screen



For due dates where the **Overdue** field displayed a red asterisk *, check the **Follow-up x month not done** checkbox on ***Enrolment*** page.

Otherwise, go to the ***Contacts*** page.

Enter the phone number you are using in attempting to contact the participant or select either the **H, W** or **M** buttons to retrieve the home, work or mobile number respectively from the ***Participant details*** page to the **Phone number used** field.

Ensure that the **Date & time** and **Contacted by** fields are correct.

Enter **1:One month** or **3:Three month** for **Which f/up** this is.

If you manage to contact the participant, enter **1:Yes** into **Successful**, otherwise enter **0:No** and record why you didn't succeed in **Notes** field.

Ask the participant if they wish to do the follow-up interview. If they don't because of the timing, ask when would be a good time to contact them, enter **0:No** into **F/up done** and write a note about when to contact in **Notes** field.

If the participant wishes to withdraw from the study, enter **0:No** into **F/up done**, note their withdrawal in the **Notes** field, check **Follow-up x month not done** checkbox and changes **Status** to **2: Pt voluntarily withdrawn** on ***Enrolment*** page.

If the participant agrees to the follow-up interview, enter **1:Yes** into **F/up done** and select **Goto F/up** button.

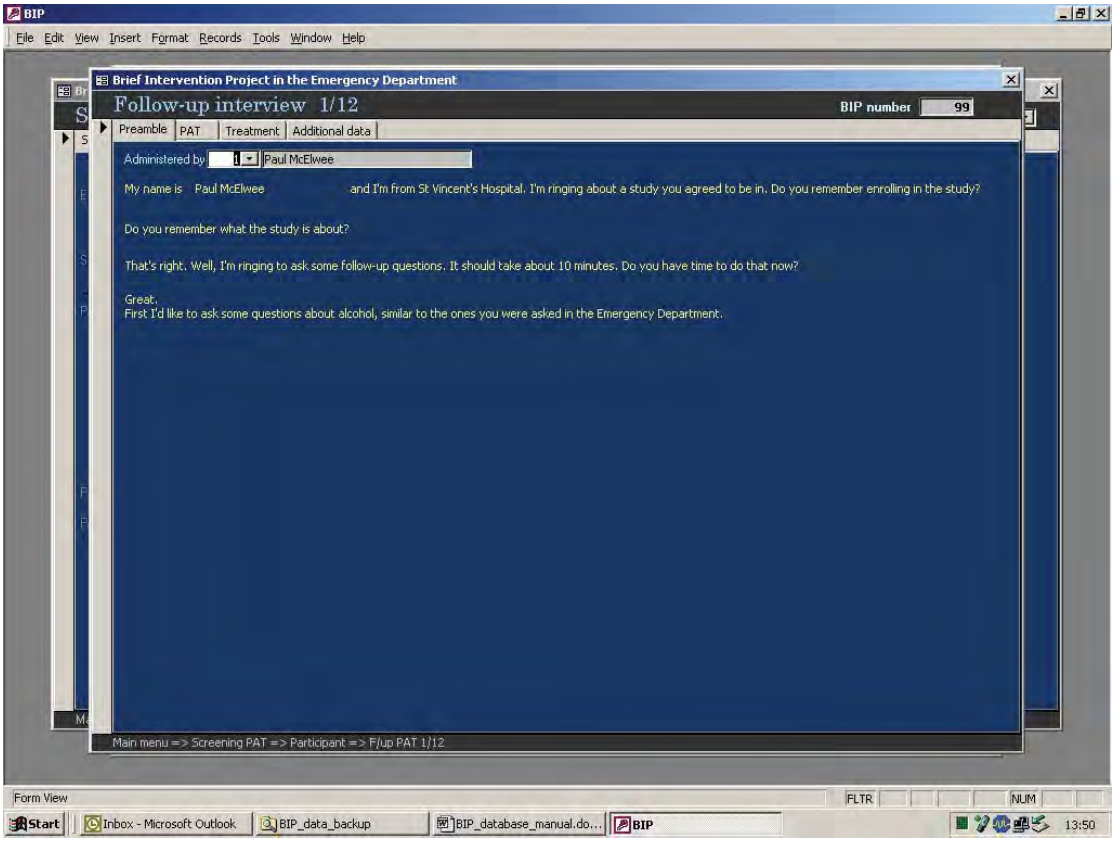
Follow-up interview screen

The ***Follow-up interview*** screen has script suggestions in yellow text. Do not follow this script verbatim, rather use the script to as a guide to the material that needs to be covered in the interview.

There are four pages on the screen.

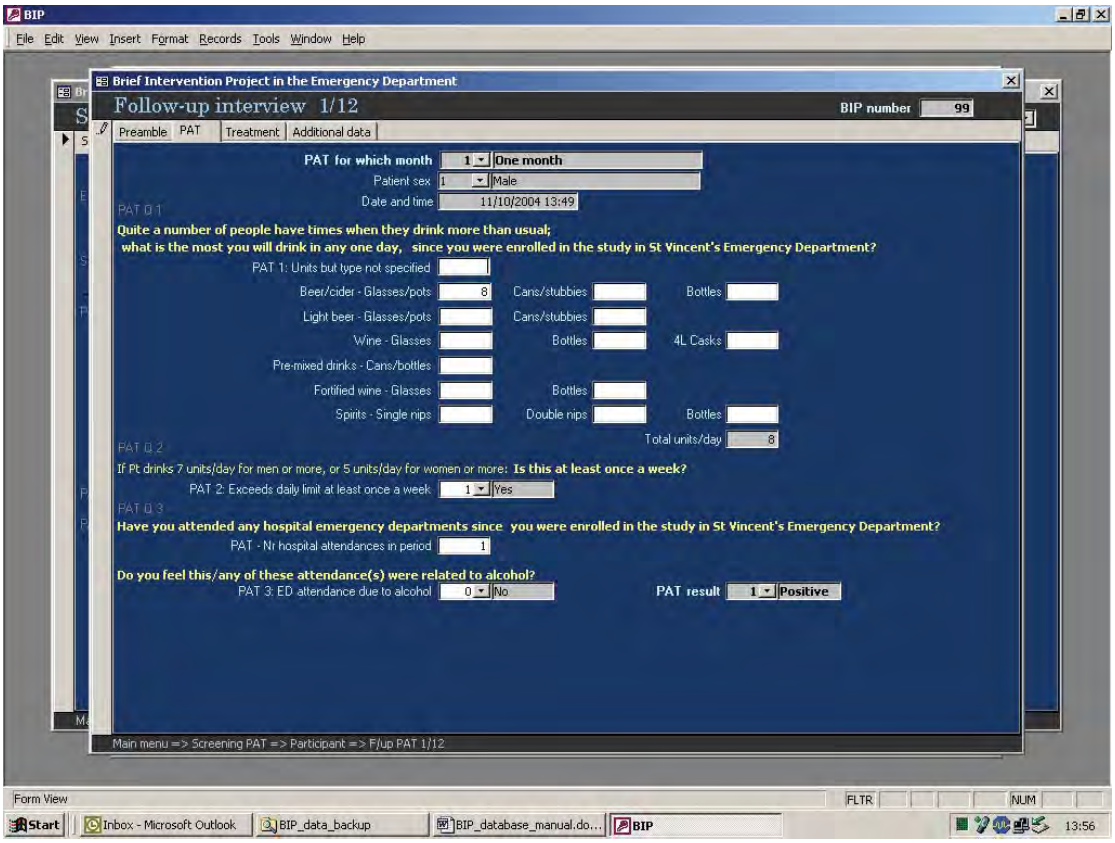
Preamble page

The first is a ***Preamble*** script for introducing the follow-up interview:



PAT page

The ***PAT*** page is a variation on the screening Paddington Alcohol Test:



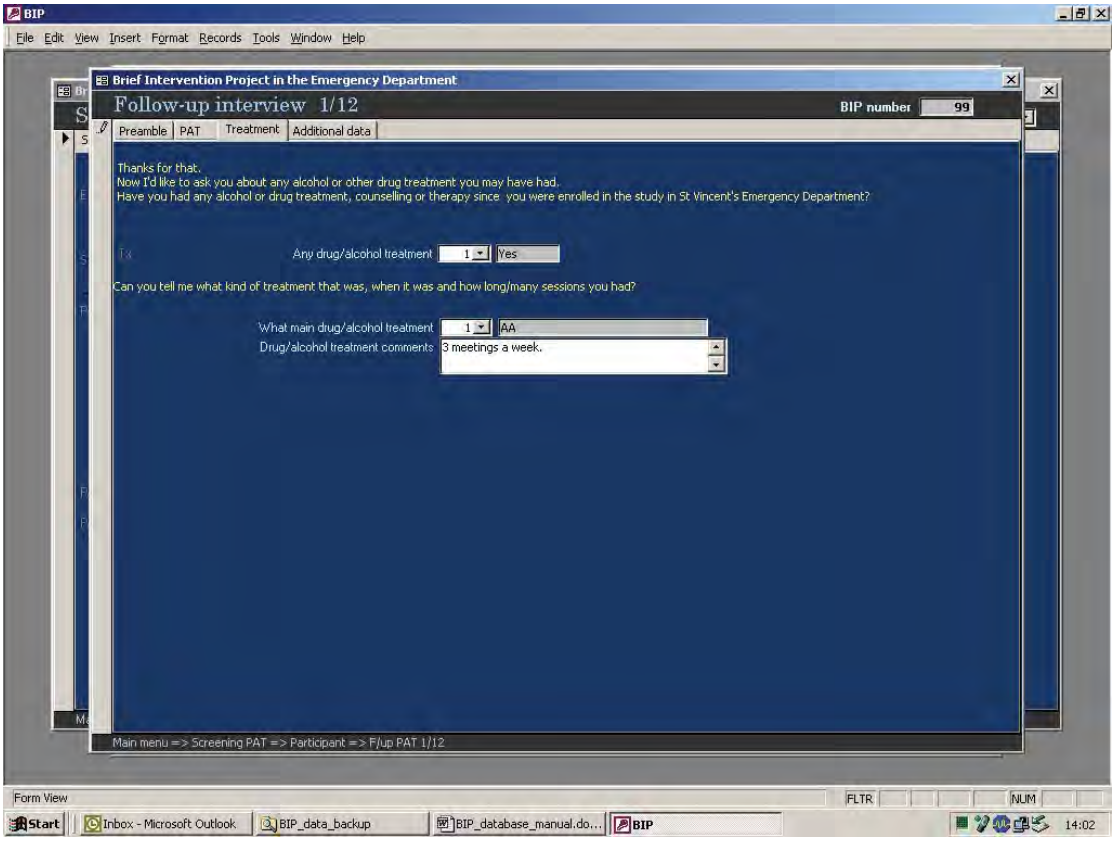
Questions **PAT Q.1** and **PAT Q.2** are the same as on the ***Screening Paddington Alcohol Test***. See above under "Fields on the Screening PAT" for instruction about these fields. Note that the time frame is now limited in question 1 to either "since you were enrolled…" or "since the last time someone from this study interview you" for one and three month interviews respectively.

PAT Q.3 has a prerequisite questions **Nr of hospital attendances in period**. Enter the number of attendances at **any** ED here or enter **0** if the participant has not had any admissions.

ED attendance due to alcohol which accepts **0:No** or **1:Yes**. This field is only enabled if **Nr of hospital attendances in period** is greater than **0**. The actual question 3 of the PAT requires at least one attendance and **1:Yes** to **ED attendance due to alcohol.**

Treatment page

The ***Treatment*** page gathers data about any drug or alcohol treatment, counselling or therapy the participant have had had since the last project contact:



Any drug/alcohol treatment accepts **0:No** or **1:Yes**.

What main drug/alcohol treatment is an open-coded field and is only enabled if the participant has had treatment.

The **Drug/alcohol treatment comments** is to record:

More specific information about the drug/alcohol treatment.

When the treatment occurred.

Length of time the participant has been in the treatment.

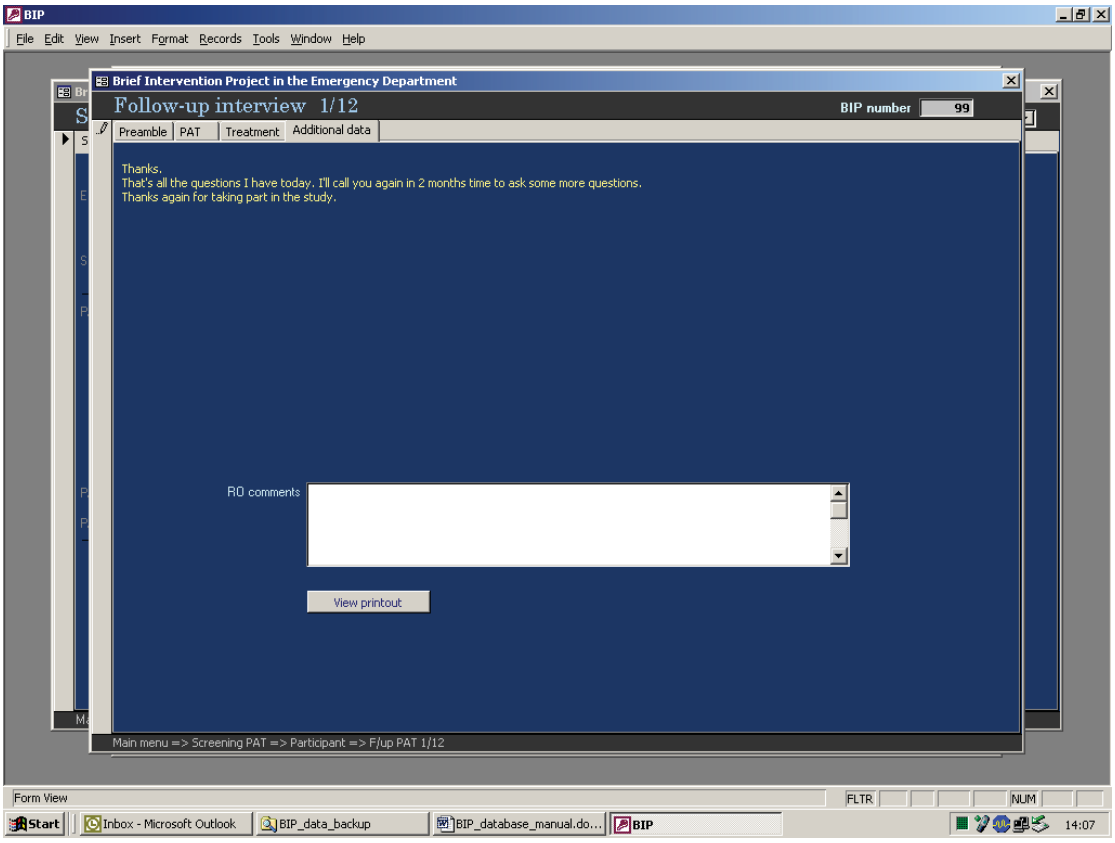
Frequency of the treatment.

Any other information you receive about the treatment.

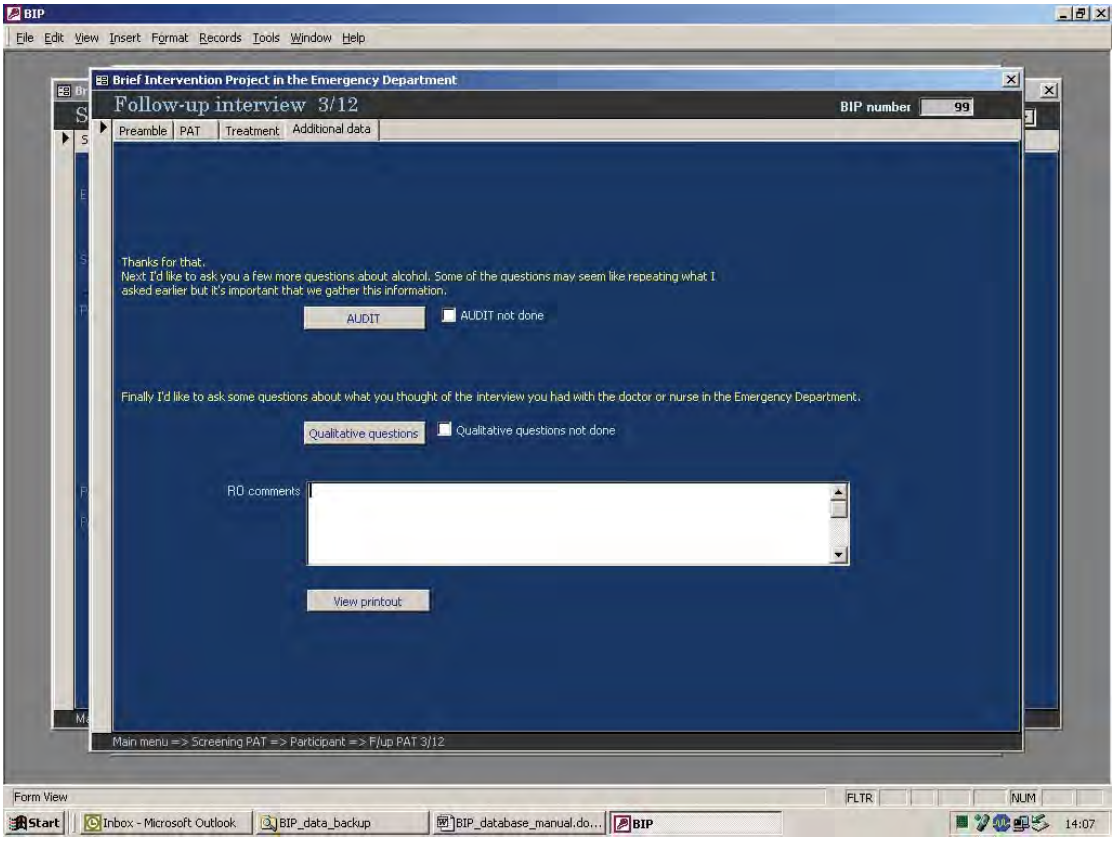
Again, this field is only enabled if the participant has had treatment.

Additional data page

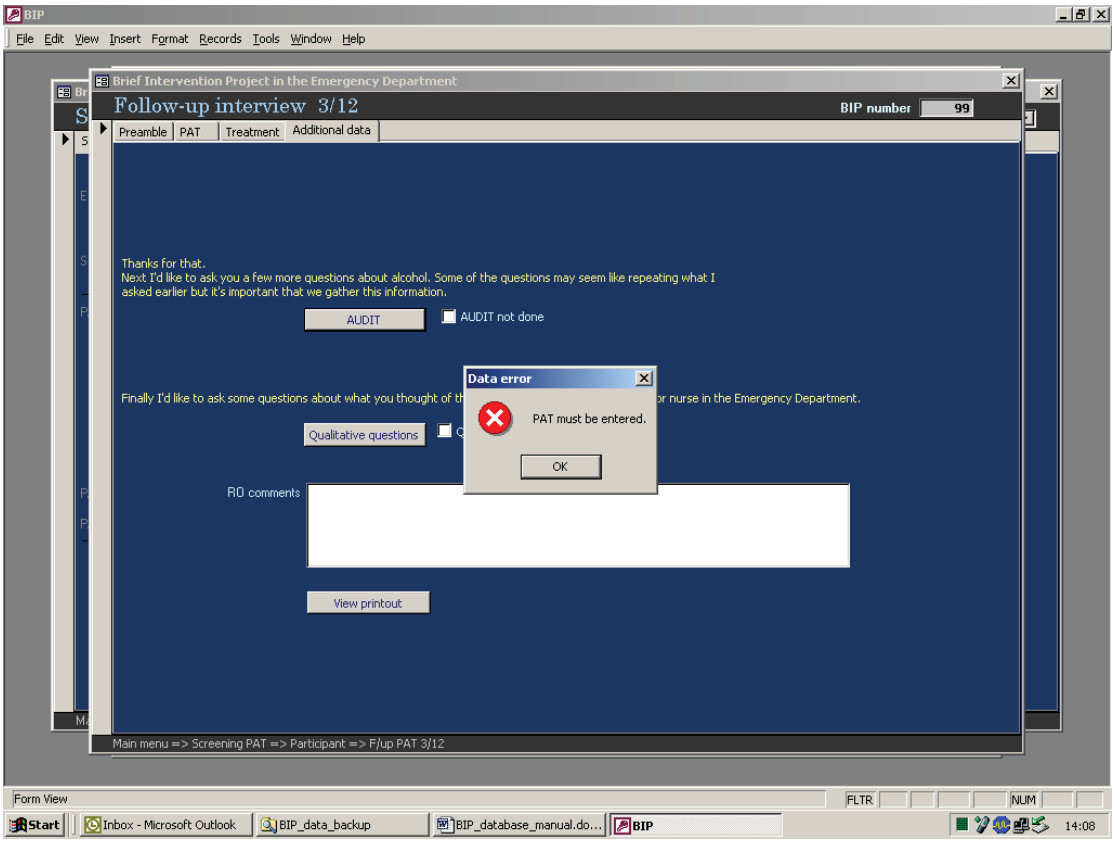
For the one month interview, the ***Additional data*** page has no other fields other than the **RO comments** for the research officer to record any other comments or notes, and the **View printout** button:



For the three month interview, this page has a button for the **AUDIT** and, if the participant is in **Group randomised to** of **1:Brief intervention in the ED** or **2:Motivational interview at TP**, a button for the **Quantitative questions**:

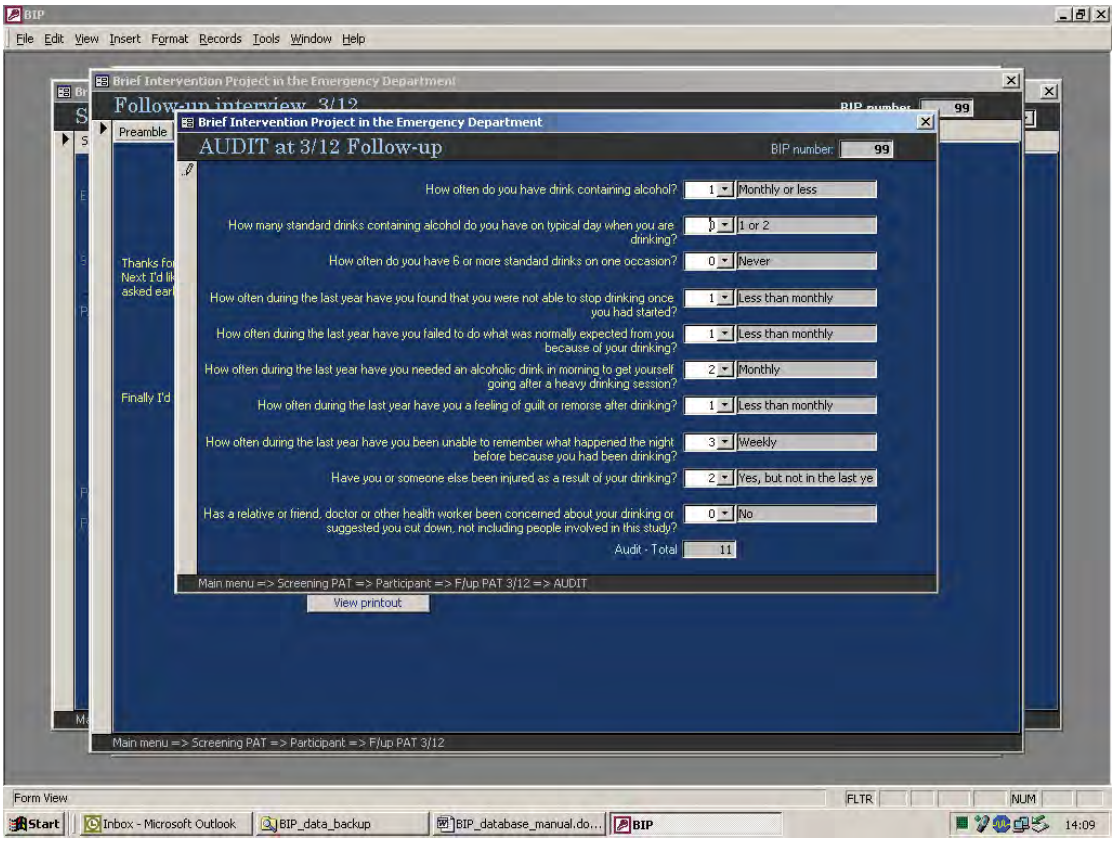


You cannot enter AUDIT or qualitative question data before the follow-up PAT has been entered:


BIP
File Edit View Insert Format Records Tools Window Help
Brief Intervention Project in the Emergency Department
Follow-up interview 3/12
BIP number 99
Preamble PAT Treatment Additional data
Thanks for that.
Next I'd like to ask you a few more questions about alcohol. Some of the questions may seem like repeating what I asked earlier but it's important that we gather this information.
AUDIT
AUDIT not done
Data error
PAT must be entered.
OK
Finally I'd like to ask some questions about what you thought of th
or nurse in the Emergency Department.
Qualitative questions
RO comments
View printout
Main menu => Screening PAT => Participant => F/up PAT 3/12
Form View
FLTR
NUM
Start
Inbox - Microsoft Outlook
BIP_data_backup
BIP_database_manual.do...
BIP
14:08

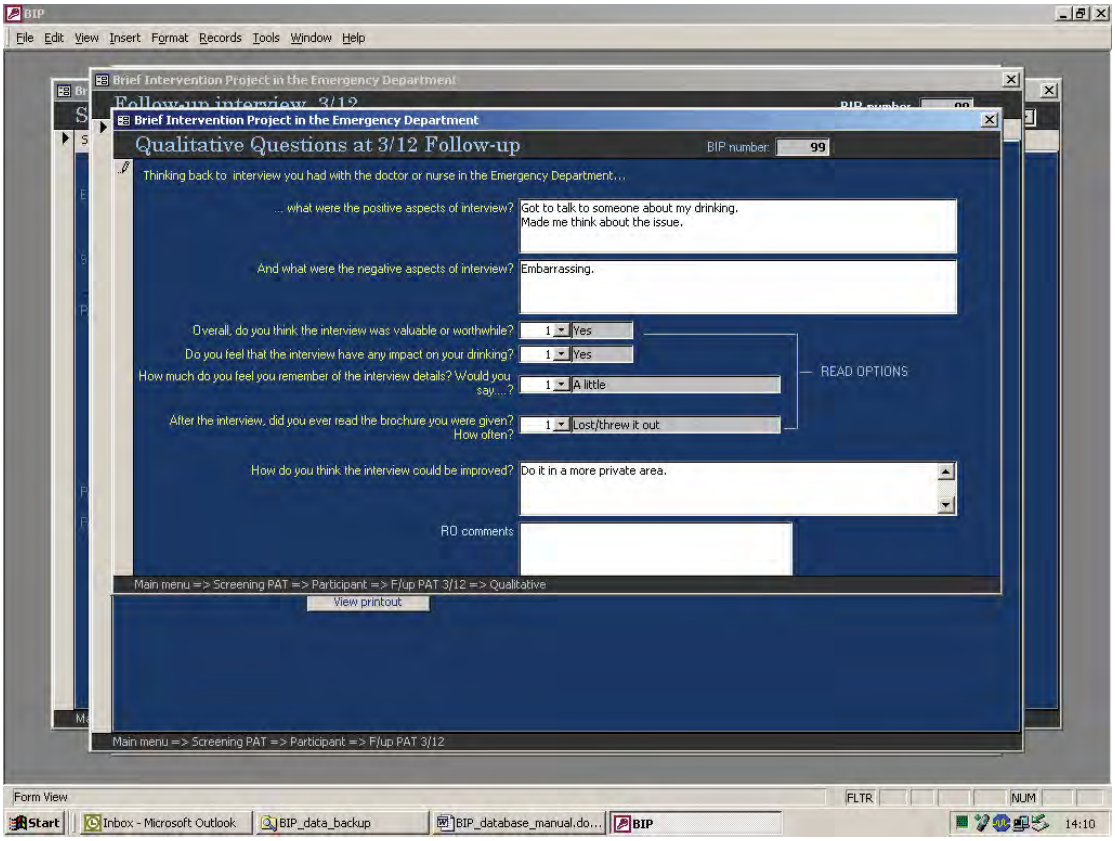
AUDIT screen

The AUDIT is to be administered only at the 3 month follow-up interview. Each field has different responses so it is important that you read out not only the complete (yellow) text of the question but also the options each question has available for the participant.



The Qualitative questions screen

The qualitative questions are to be administered only at the 3 month interview and will only be available to those participants allocated to either the brief intervention in the ED or motivational interview at Turning Point. The questions are mostly textual and **must be typed in verbatim**. For the four coded questions, read out the options available for answer:



Auto-coding

Almost all the fields in the database are coded. Coded fields are one of two types:

Closed coded fields - these accept only one of a limited predefined set of values (eg. **Exclusion – Acutely intoxicated** on the ***Screening Paddington Alcohol Test*** screen which only accepts **1:Yes** or **0:No**).

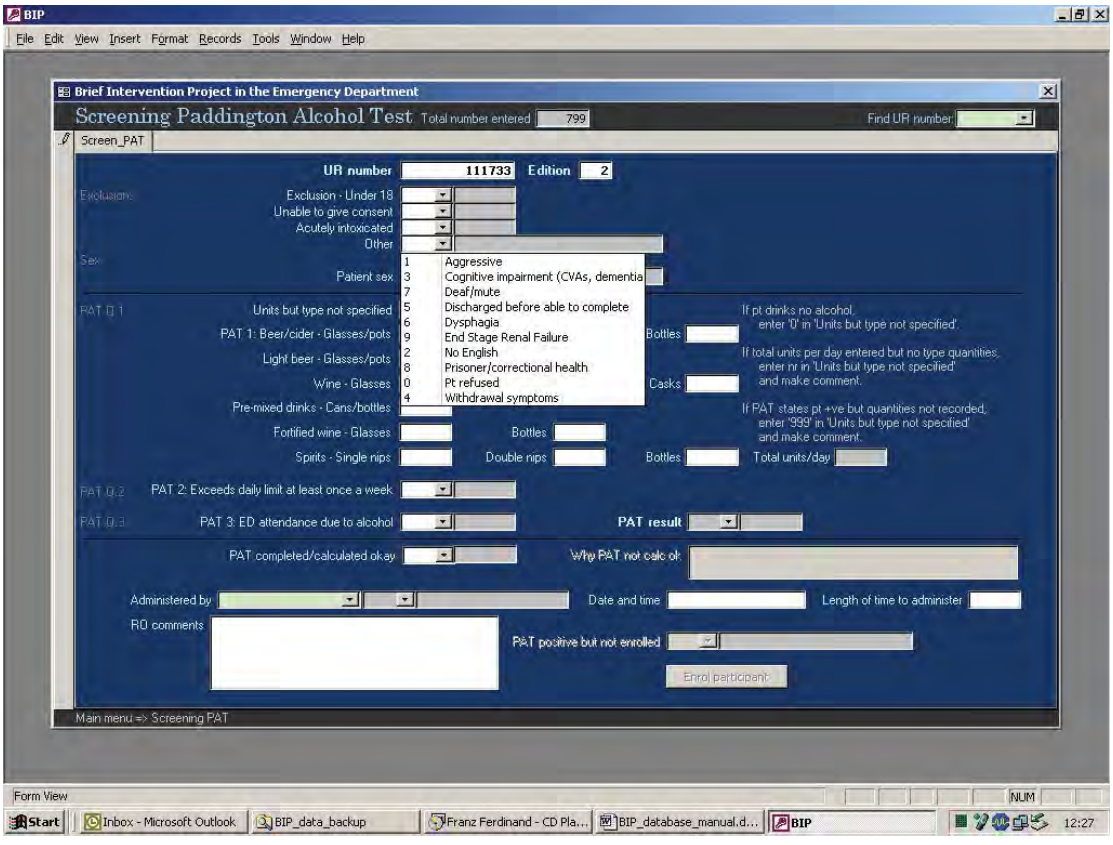
Open coded fields - these accept one of the predefined values but are not limited to those values. You can add codes to these fields as data entry progresses. There are three such fields in the BIP database:

Exclusion – Other on the ***Screening Paddington Alcohol Test*** screen.

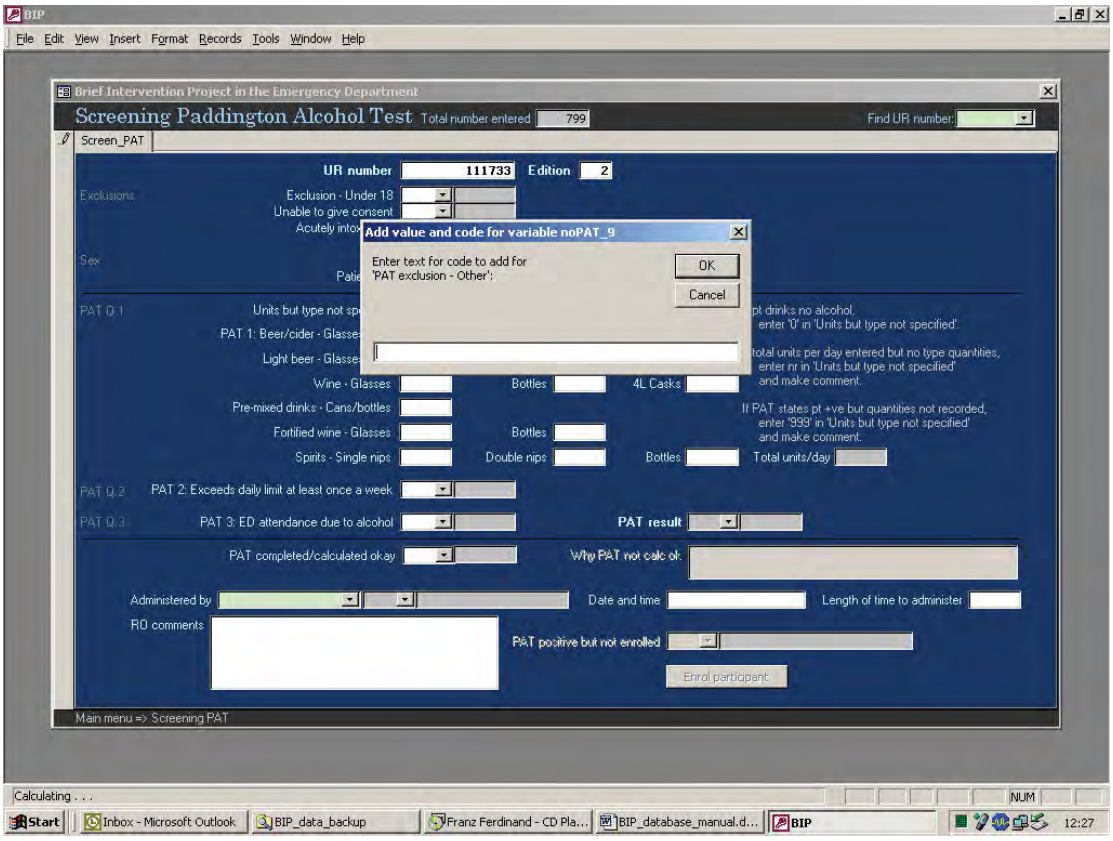
Patient positive but not enrolled on the ***Screening Paddington Alcohol Test*** screen.

What main alcohol/drug treatment on the ***Follow-up interview*** screen.

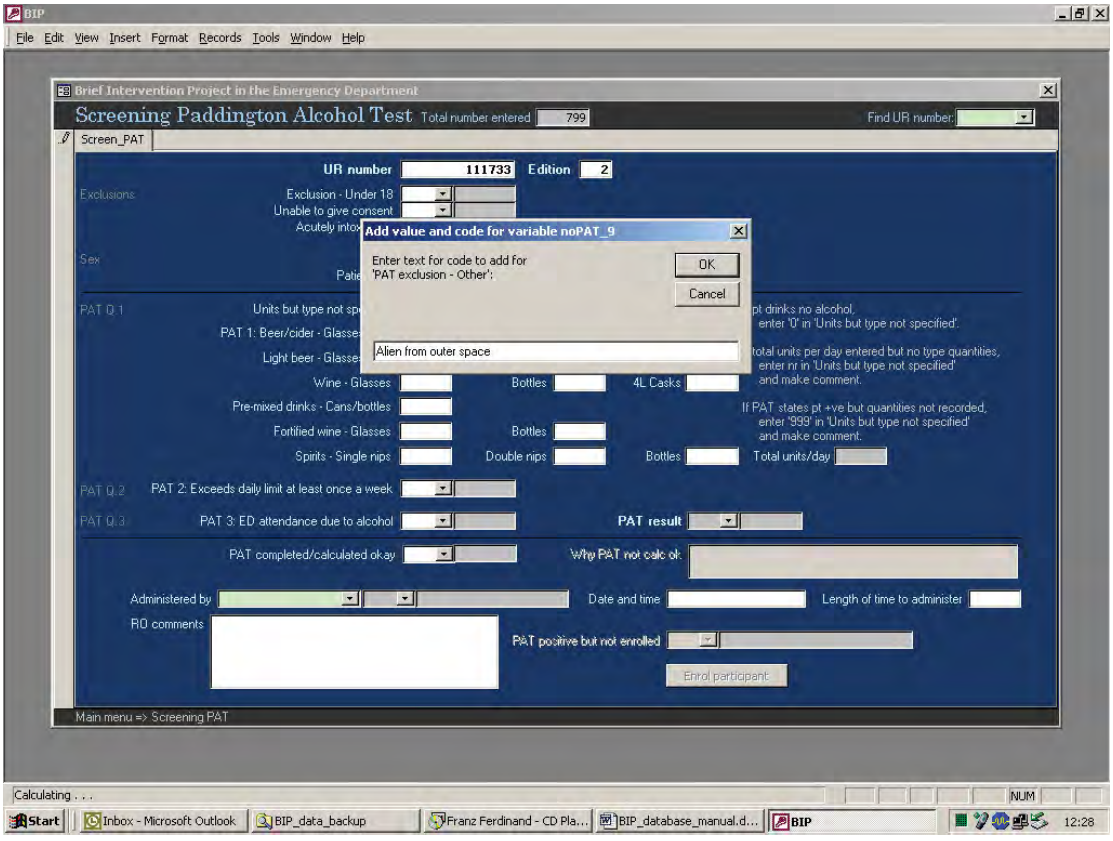
As an example of an open coded field, say the patient cannot complete the PAT because she is an alien from outer space. For **Exclusion - other**, "alien from outer space" is not an option:



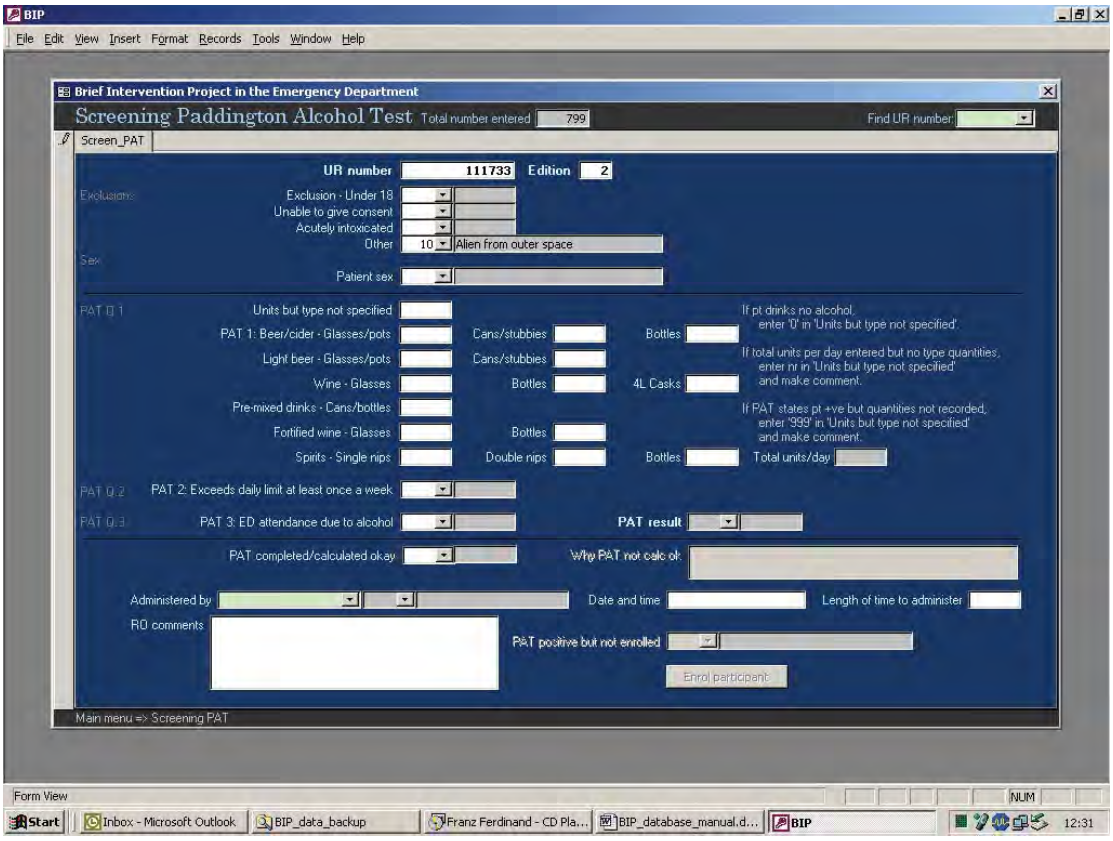
To add a code, you enter any value not listed as available (it's easiest to simply enter **99**), The database then asks for the label for this code:



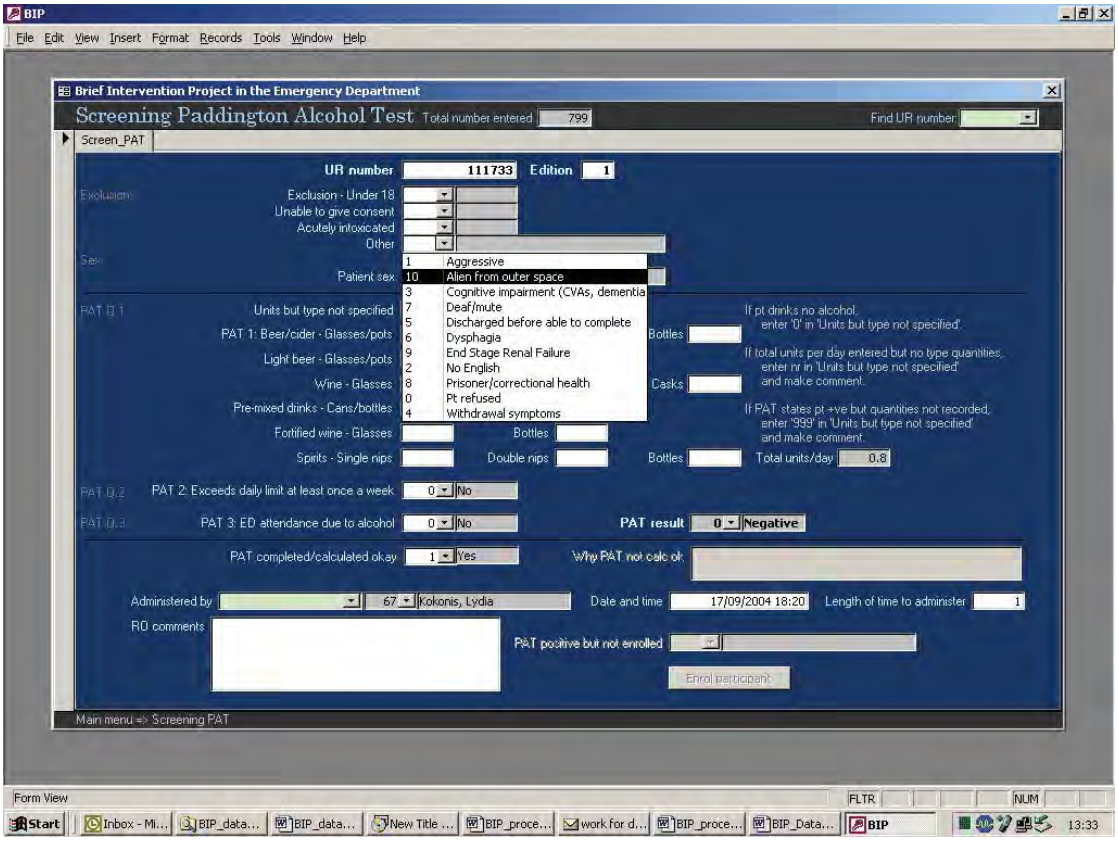
Type the label, in this case **Alien from outer space** and select **OK**:



The database issues the label with the next available code. In this case it is given the value **10**:

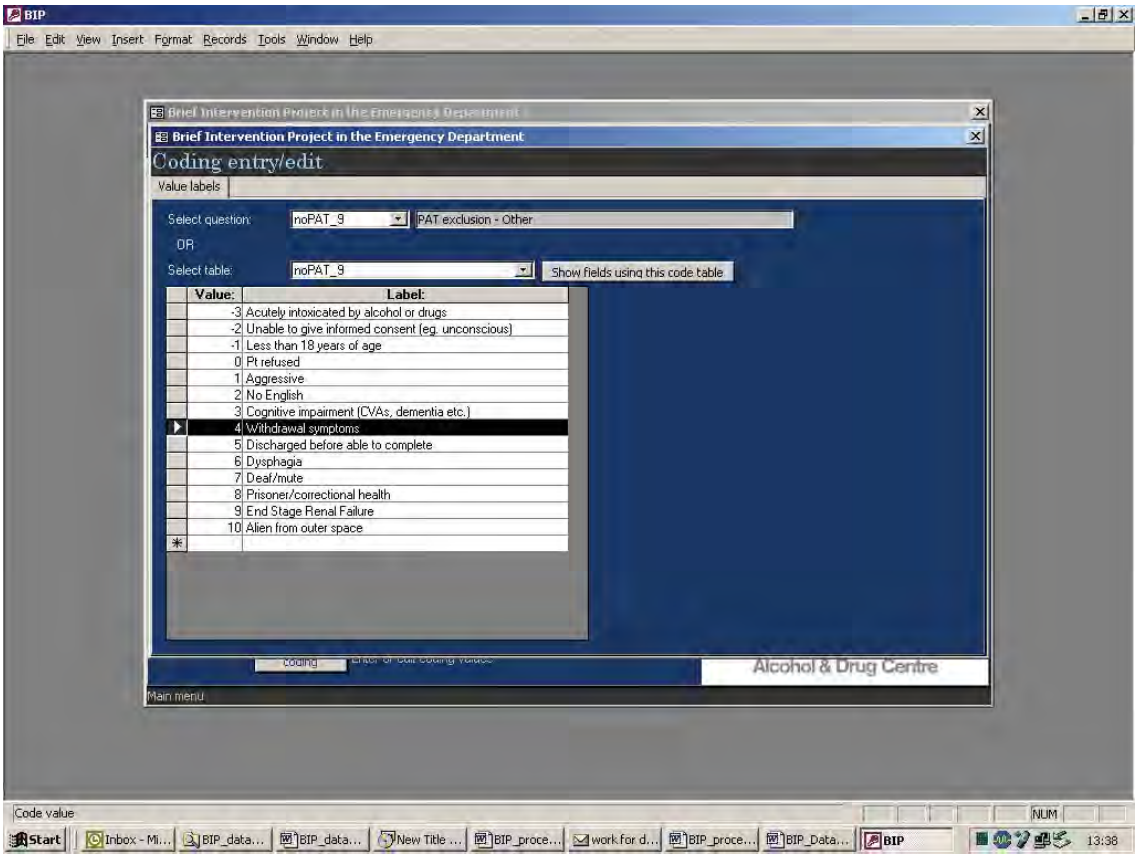


The code you have added will be added to the list and will now be available for any other PATs entered in this database:

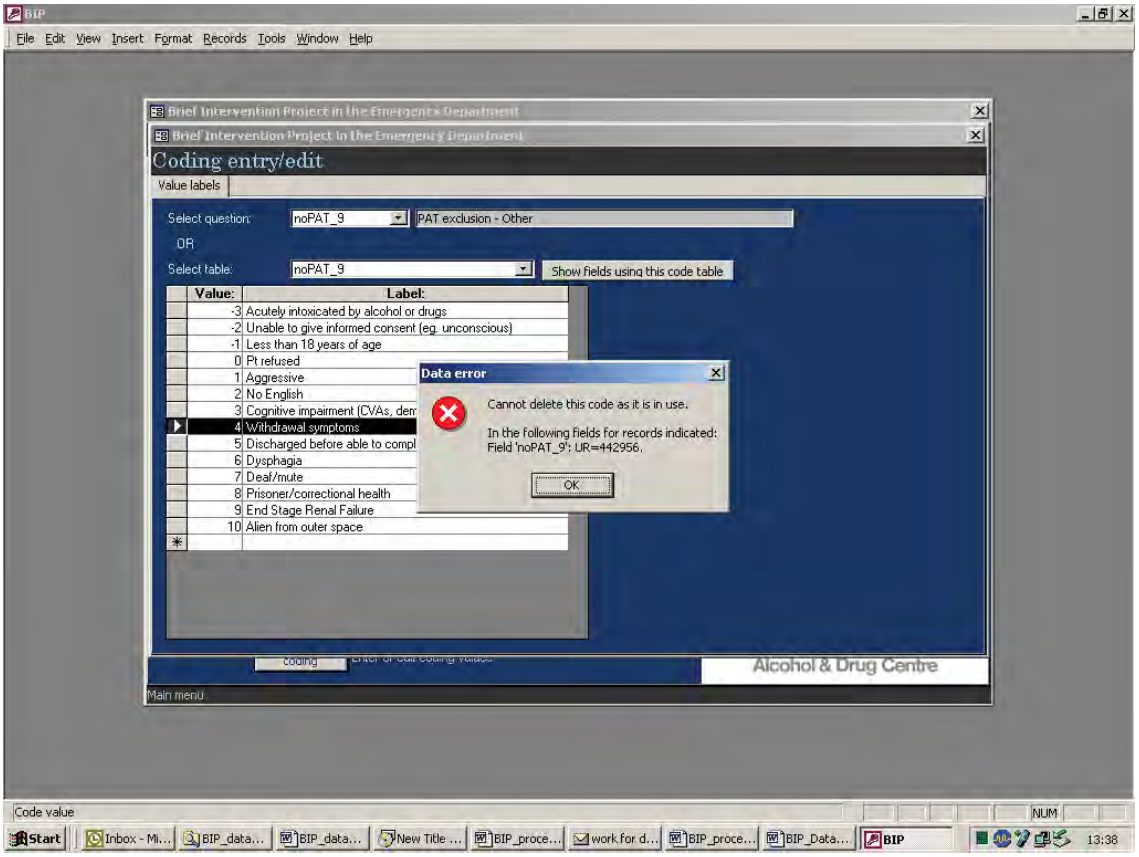


Modifying or deleting codes

Codes can be modified or deleted from the ***Value labels*** page of the ***Coding entry/edit*** screen. Codes can be deleted from here by selecting the record (clicking the small grey box to the left of the row you want to delete) and pressing the Delete key:



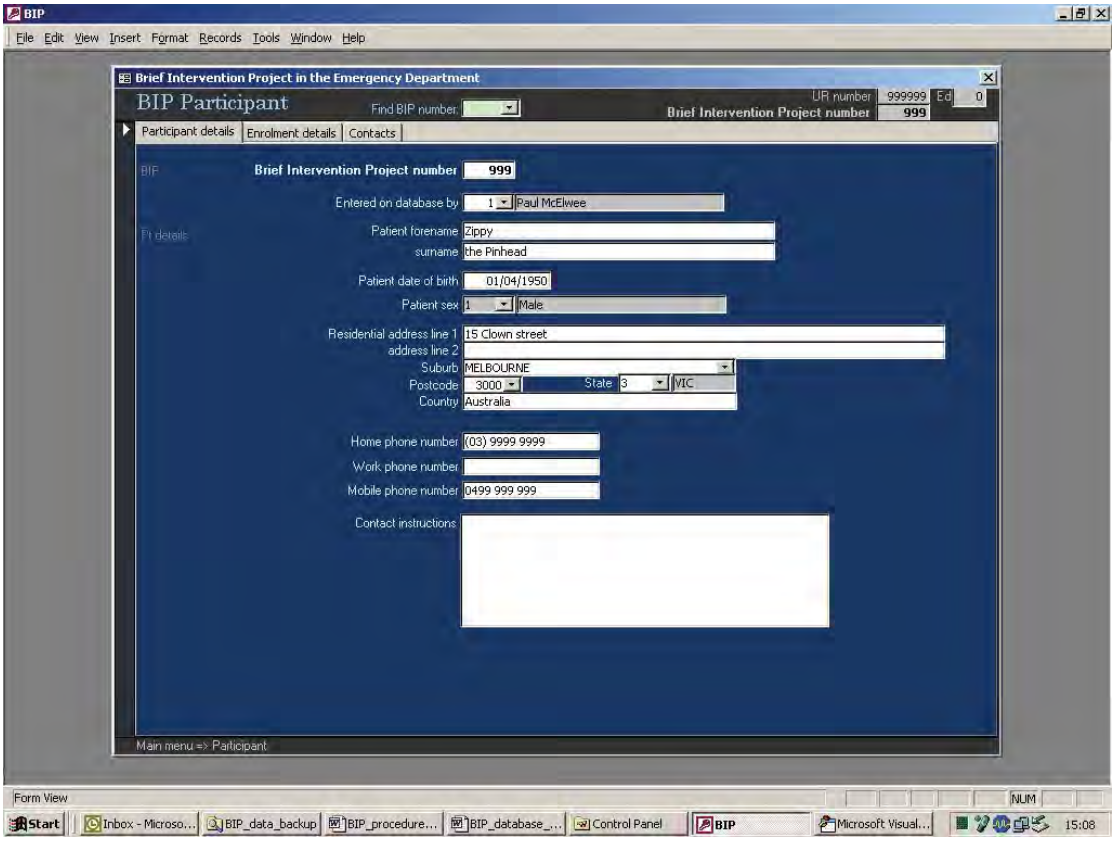
The database will not allow code values to be changed or codes to be deleted if that code is in use:



In this case you must return to the record(s) as listed where the code is in use, delete the value from the field then return to the ***Coding entry/edit*** screen and delete or modify the code.

Deleting records

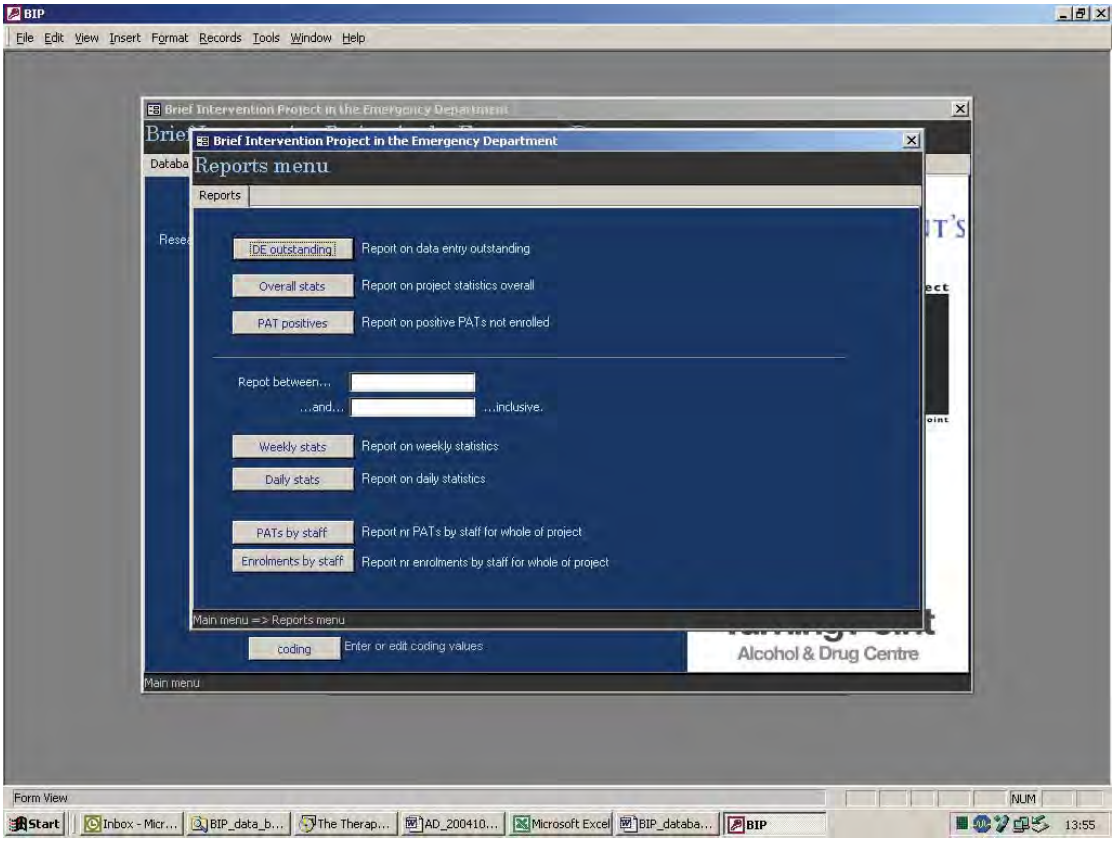
To delete a record, click on the record selector (the grey bar at the left of the screen) and select **Delete record** from the **Edit** menu.



Records are hierarchical - if you delete the ***AUDIT*** screen you delete only that section for the participant but if you delete the 3 month ***BIP Participant*** screen you delete all enrolment data for that participant (i.e. the ***BIP Participant*** record itself and any ***Brief intervention details***, ***Motivational interview appointment*** or ***Motivational interview details*** records for that participant).

However the database is relational with referential integrity and limited cascading operations. This means that it may not allow certain deletions. For example, you cannot delete the ***Contact*** record from which a ***Follow-up interview*** was done (or the ***BIP Participant*** where there exists such a ***Contact***), nor can you delete the ***Screening Paddington Alcohol Test*** where a ***BIP participant*** was enrolled.

Reports menu



The ***Reports menu*** has 7 options:

DE outstanding – Select this to list items the database expects to have been entered but, as yet, have not.

Overall stats – Report on overall statistics of PATs done, positive, incomplete, invalid and enrolments, average times for PATs and brief interventions, PATs and enrolments by staff group, reasons why PATs not done/excluded and reasons why PAT positives not enrolled.

PAT positives – Lists all PAT positives not enrolled by the reason not enrolled and by staff member who administered the PAT.

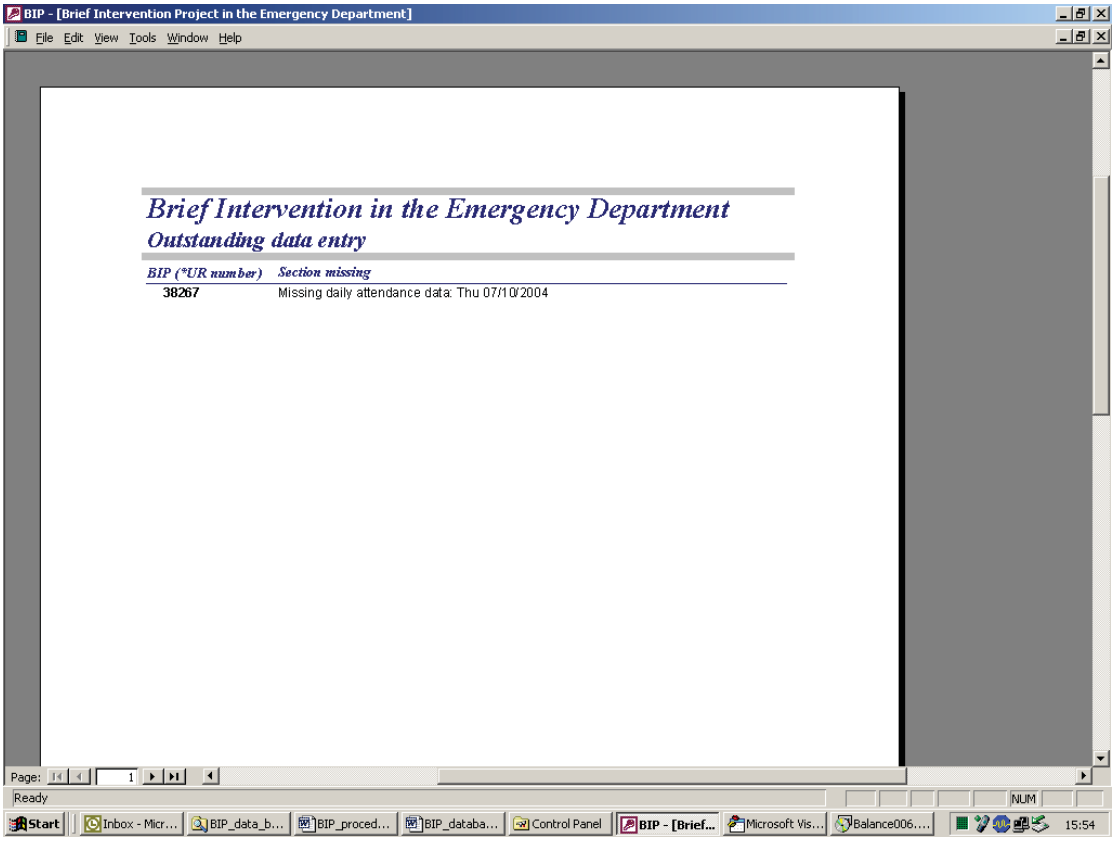
Weekly stats and **Daily stats** – Reports the numbers and percentages of PATs done, incomplete, invalid, positive and enrolled, either by week or by day.

PATs by staff and **Enrolments by staff** – Reports the numbers and percentages of PATs, positive and enrolled by staff member.

There is also start and end date field between **Report between… and… inclusive** which applies to **Weekly stats, Daily stats, PATs by staff** and **Enrolments by staff** and restricts the report to this time period. If either field is left null, the reports use the project beginning and project end/current date respectively.

Data entry outstanding report

Selecting **DE outstanding** from the ***Reports menu*** produces a report listing the sections that the database expects to be entered but have not as yet:



The ***Outstanding data entry*** report lists 9 possible items that may be missing or outstanding:

Enrolment

This occurs when there is a ***Screening Paddington Alcohol Test*** record, where the **PAT Result** is **1:Positive** and the **PAT positive but not enrolled** is null but there is no ***BIP Participant*** entered. Either enter the enrolment if it exists by selecting the **Enrol participant** button on the ***Screening Paddington Alcohol Test*** screen or enter why the participant is **PAT positive but not enrolled** on the ***Screening Paddington Alcohol Test*** screen.

BI details

This occurs when there is a ***BIP Participant*** record, with a **Group randomised to** of **1:Brief intervention in the ED** but there is no ***Brief intervention details*** entered. You must enter the details of the brief intervention by selecting the **Brief intervention details** button on the ***Enrolment*** page of the ***BIP Participant*** screen.

MI appointment

This occurs when there is a ***BIP Participant*** record, with a **Group randomised to** of **2:Motivational interview at TP** but there is no ***Motivational interview at TP appointment*** entered. You must enter the appointment details for the motivational interview by selecting the **Motivational interview appointment** button on the ***Enrolment*** page of the ***BIP Participant*** screen.

MI details

This occurs when there is a ***Motivational interview at TP appointment*** record with a **Date and time** that is after the current date and time but there is no ***Motivational interview details*** entered. Go to the "BIP motivational interview" book at Turning Point clinic reception and get the details of the interview. You must enter these details for the motivational interview by selecting the **Motivational interview details** button on the ***Motivational interview at TP appointment*** screen.

Contact

This occurs when there is a ***Follow-up interview*** record but there is no ***Contact*** entered for the same **Date & time**. This can only occur if the contact details were changed after the follow-up interview was done. This item needs to be corrected within the tables so refer to the database administrator.

F/UP for x/12

This occurs when there is a ***Contact*** record where the **Which f/up** is **x:x month** and **F/Up done** is **1:Yes** but there is no ***Follow-up interview x/12*** record entered. Either enter the follow-up interview if one was done or, if it was not, change the **F/Up done** is **0:No** on the ***Contact*** record.

AUDIT

This occurs when there is a ***Follow-up interview 3/12*** record where the **AUDIT not done** is unchecked but there is no ***AUDIT*** entered. Either enter the AUDIT data for this participant's 3 month follow-up or check the **AUDIT not done** on the ***Additional data*** page of the ***Follow-up interview 3/12*** screen.

Qualitative data

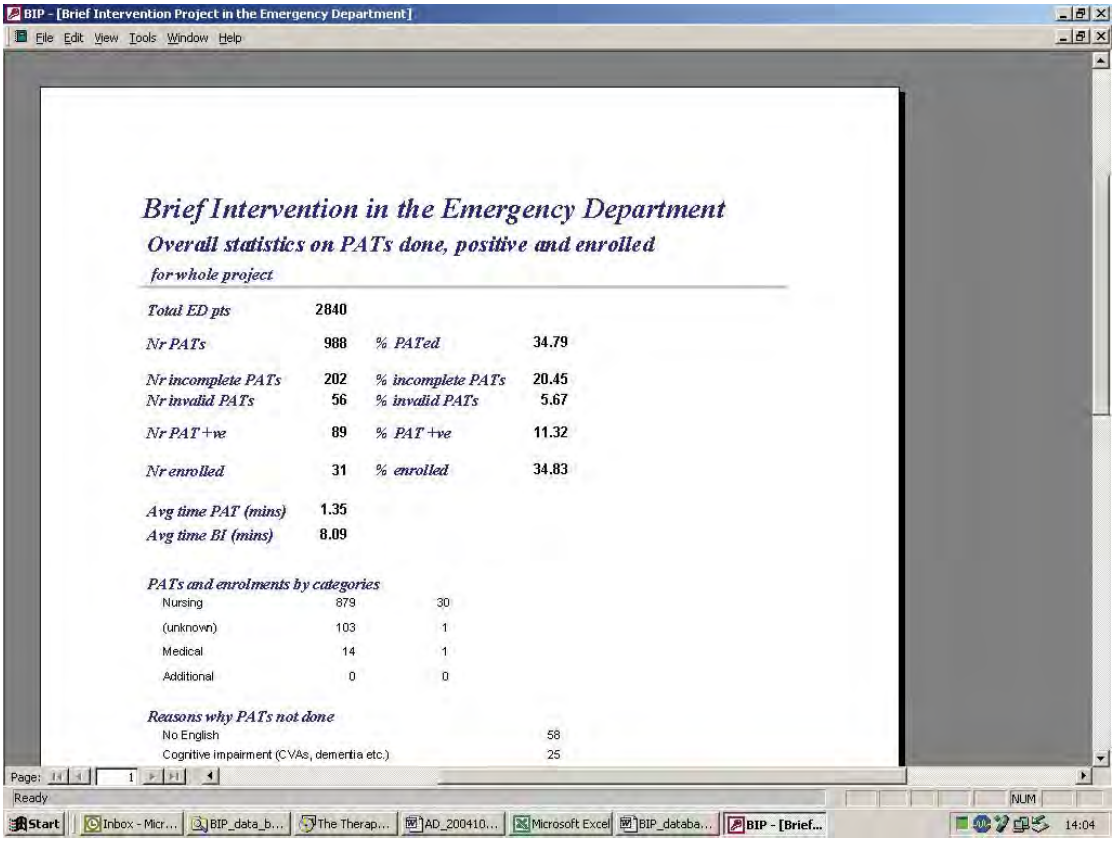
This occurs when there is a ***Follow-up interview 3/12*** record for a participant with a **Group randomised to** of **1:Brief intervention in the ED** or **2:Motivational interview at TP** where the **Qualitative questions not done** is unchecked but there is no ***Qualitative questions at 3/12 month follow-up*** entered. Either enter the qualitative data for this participant's 3 month follow-up or check the **Qualitative questions not done** on the ***Additional data*** page of the ***Follow-up interview 3/12*** screen.

(F/up for 3/12, BI or MI group)

Missing daily attendance

This occurs where there is one or more ***Screening Paddington Alcohol Test*** records entered for a particular day (before today) but there is no ***Daily attendance*** record for the same day. Get the total number of ED attendances from ***PAS*** for the day listed and enter it into the ***Daily attendances*** screen.

Overall statistics report



Records are only counted in this report for dates where a record exists in the ***Daily attendances*** screen. PATs and enrolments are not counted here until the daily attendance figure from PAS is entered as no comparison can be made against the total ED patients seen.

Total ED pts is the total patients as reported by attendance lists in PAS as entered in the ***Daily attendances*** screen.

Nr PATs is the number of PATs entered in the database for dates in the ***Daily attendances*** screen.

% PATed is the percentage of the **Total ED pts**.

Nr incomplete PATs is the number without a PAT result so includes all patients excluded for whatever reason plus PATs incorrectly filled out.

% incomplete PATs is the percentage of the **Nr PATs**.

Nr invalid PATs is the number without a PAT results because it was incorrectly filled out.

% invalid PATs is the percentage of the **Nr PATs**.

Nr PAT +ve is, obviously, the number of PAT positives entered for dates in the ***Daily attendances*** screen.

% PAT +ve is the percentage of the completed PATs i.e. **Nr PATs** less the **Nr incomplete PATs.**

Nr enrolled is the number of enrolments entered for dates in the ***Daily attendances*** screen.

% enrolled is the percentage of the **Nr PAT +ve**.

Avg time PAT (in mins) is the average time taken to complete PATs in whole minutes (not minutes and seconds) as reported on the PATs.

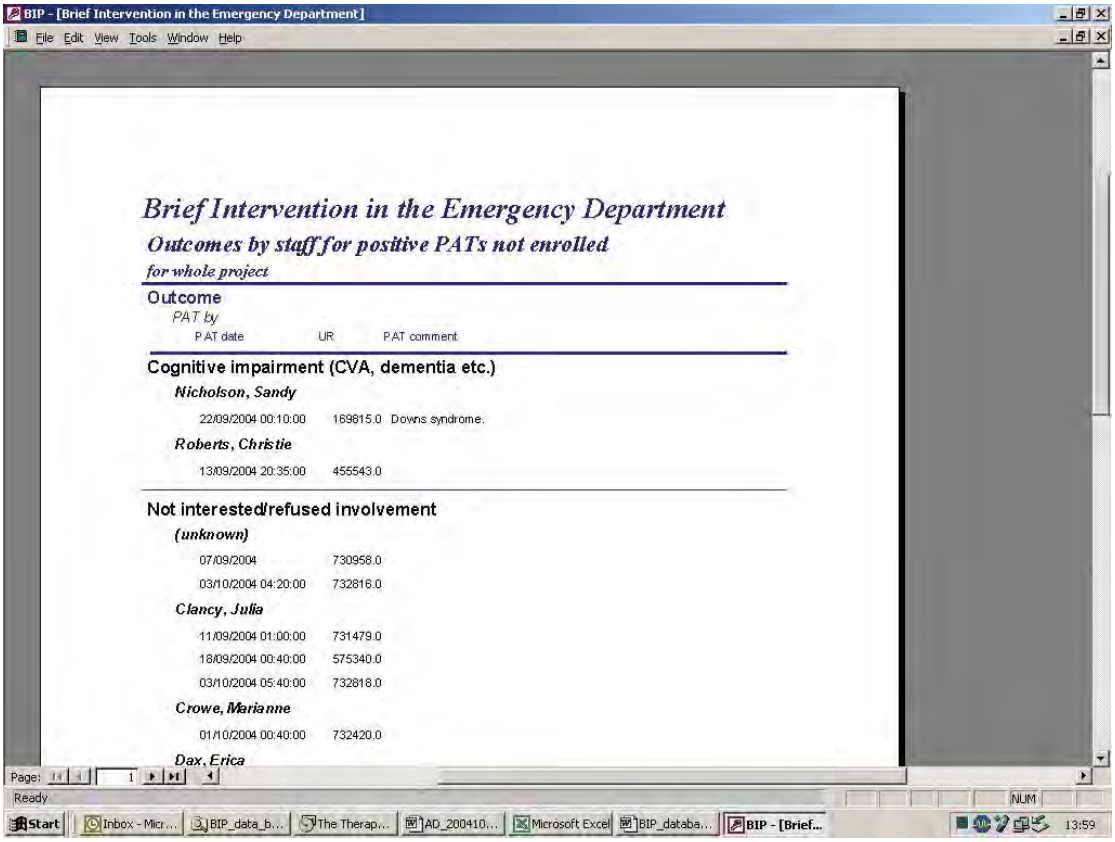
Avg time BI (in mins) is the average time taken to complete the brief intervention in the ED in whole minutes (not minutes and seconds) as reported on the Outcome form.

PATs and enrolments by categories is the total number of PATs and enrolments completed by grou of ED staff.

Reasons why PATs not done reports on why patients excluded as reported on their PAT.

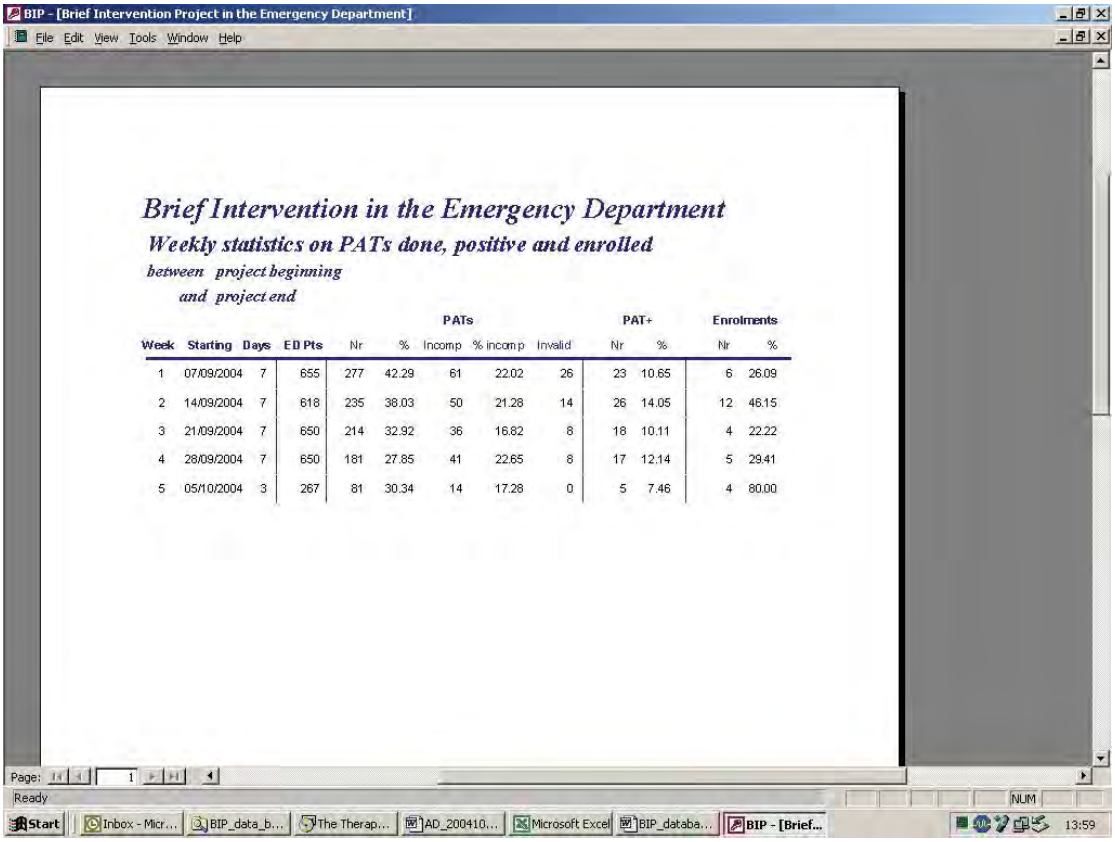
Reasons why PAT+ves not enrolled reports on why patients PAT +ve were not enrolled as reported on their PAT.

PAT positives not enrolled report



This report lists all positive PATs not enrolled, grouped by the reason given that the were not enrolled. Within each reason, the patients are grouped by the staff member who administered the PAT. Each line lists the **Date & time** of the PAT and the **UR** and **Edition** numbers as well as the **RO comment** field from the ***Screening Paddington Alcohol Test***..

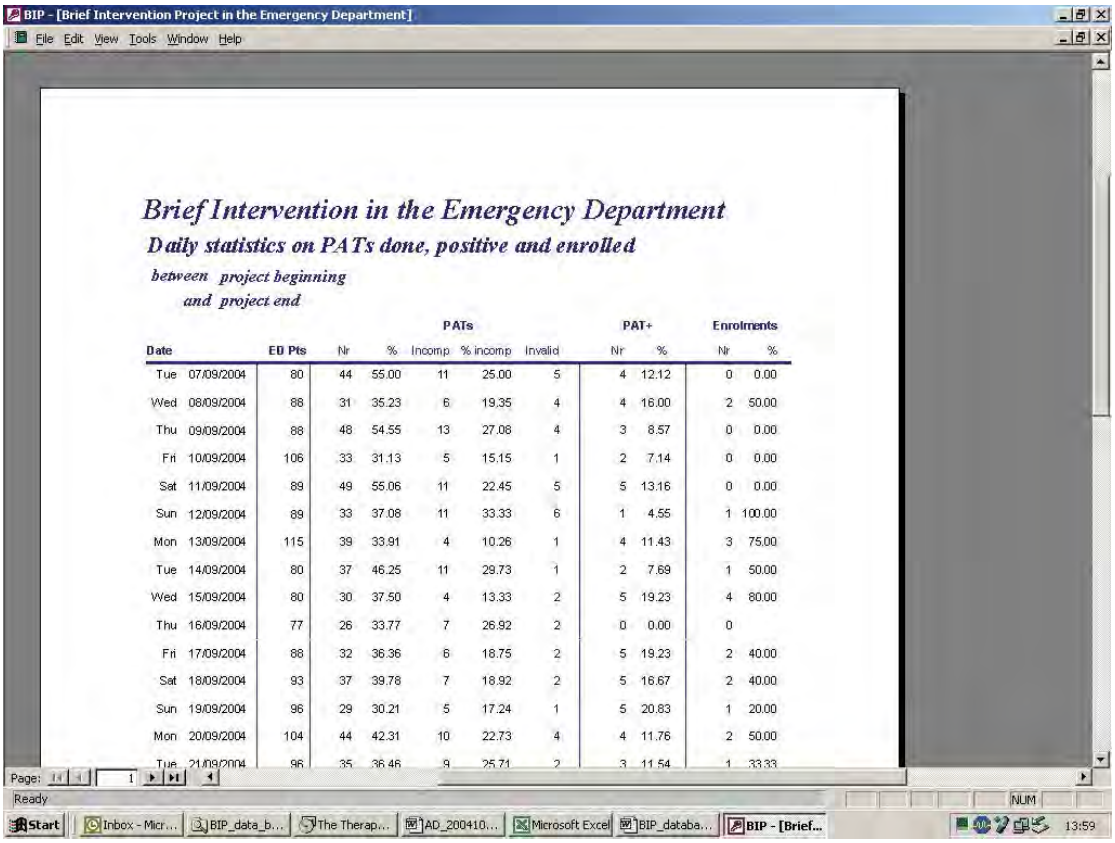
Weekly statistics report



See above under “Overall statistics report” for definitions of some of these columns.

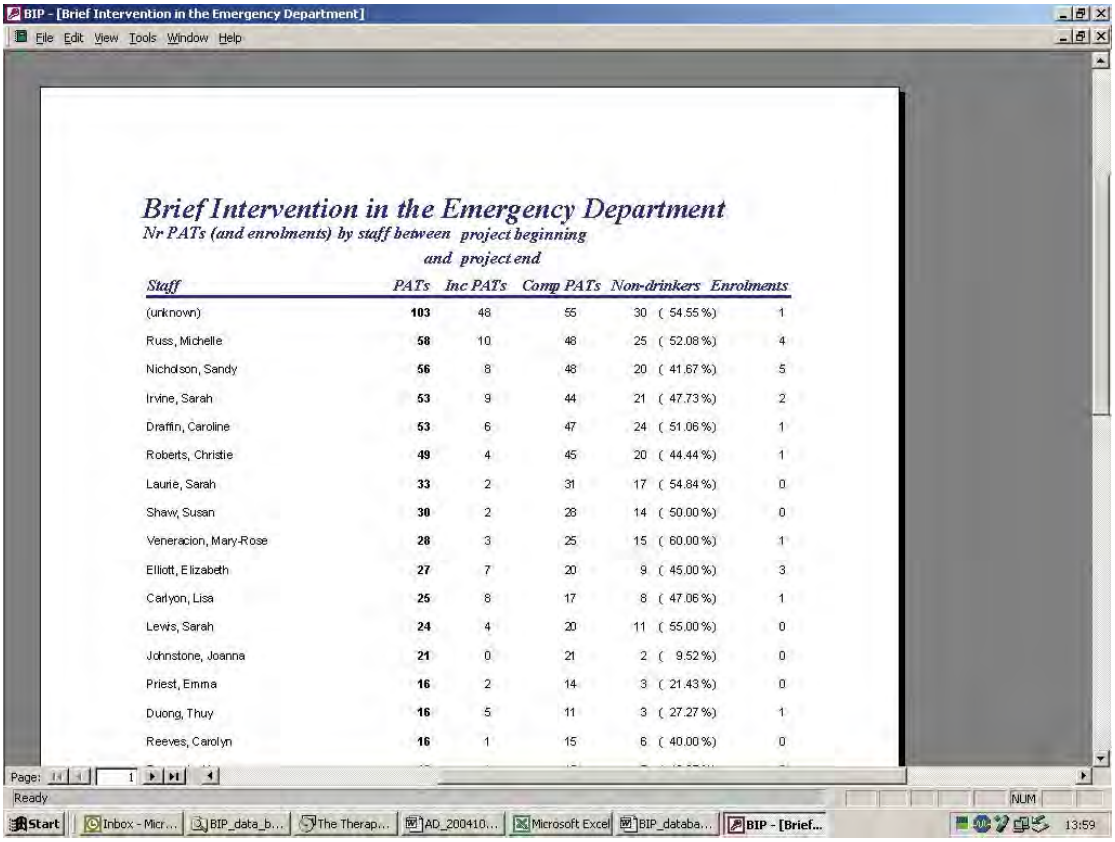
The **Days** column is the number of days in the week listed (which will always be seven expect for the last week, depending on which day you produce the report). Weeks start on a Tuesday (the first day of the project being Tues 7 September 2004).

Daily statistics report



See above under “Overall statistics report” for definitions of some of these columns.

PATs by staff report



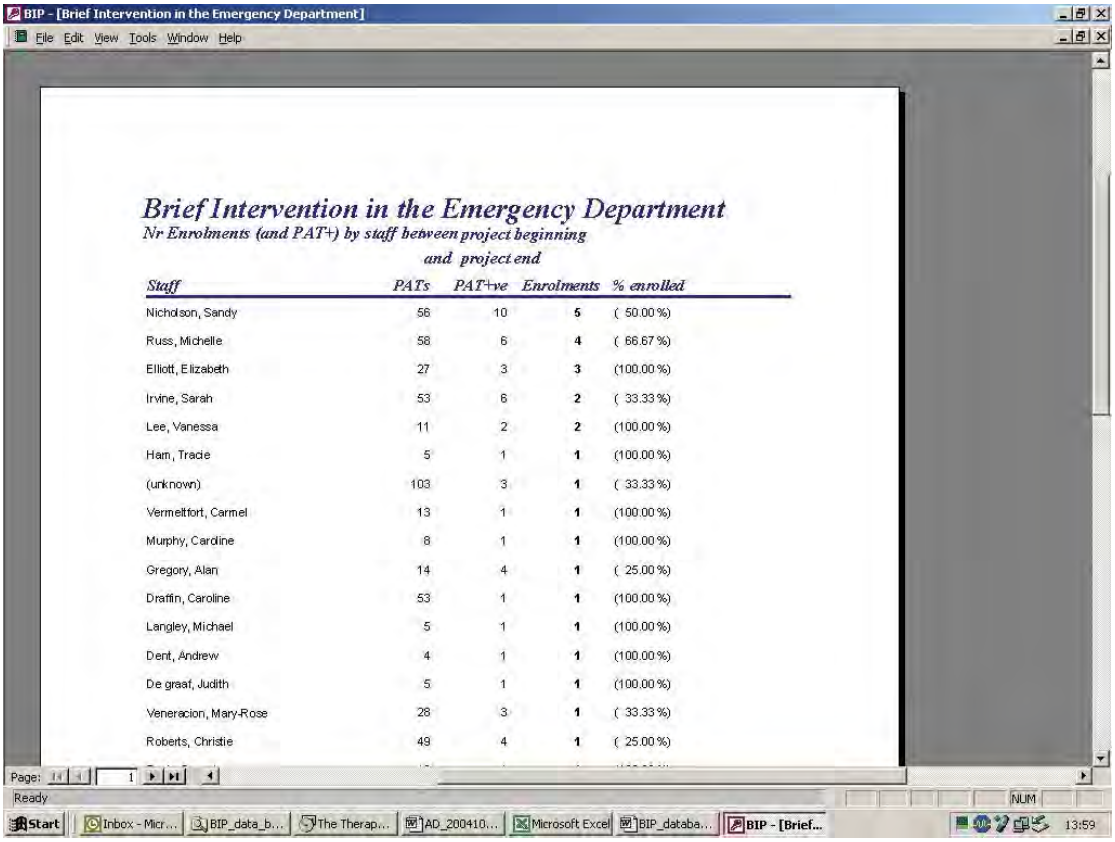
This report is listed in order of most **PATs** done. Where more than one staff member has the same number of **PATs**, they are listed in order of the most **Enrolments** done.

Inc PATs is incomplete PATs, **Comp PATs** is completed PATs i.e. **PATs** less the **Inc PATs**.

Non-drinkers is the number of **PATs** where the patient is recorded as never drinking (i.e. question 1 of the ***Screening Paddington Alcohol Test*** is zero). The percentage non-drinkers in the parentheses is the percentage of the **Comp PATs**.

See above under "Overall statistics report" for definitions of some of these columns.

Enrolments by staff report



This report is listed in order of most **Enrolments** done. Where more than one staff member has the same number of **Enrolments**, they are listed in order of the most **PATs** done.

The **% enrolled** is the percentage of **PAT+ve** i.e. the proportion of possible enrolments enrolled by this staff member.

APPENDIX E:
Staff Communication

Appendix E1: Memorandum Example

Appendix E2: Weekly Staff email

Appendix E3: Poster

APPENDIX E1: Memorandum Example

Minutes from BIP investigators meeting

Date: **30/3/05**

Present: Andrew Dent, Michael Augello, Paul, Mc Elwee, Kath Bowman, Georgina Phillips, Tracey Weiland.

Apologies: None

Minutes prepared by: Tracey

Agenda Items:

1.Overview of project progress (presented by Paul McElwee)

2. Brainstorming session involving all staff re: how problems can be overcome.

Meeting:

Overview of BIP:

Low/variable PAT rate (35%) – this is too low; increases when Andrew is around.

42% of positive PATs are enrolling – maybe reasonable, but need more screening.

There is a preference by to selectively screen chronic/severe alcoholics especially on busy days

There is a low rate of follow-up – some contact details are missing

ED registrars etc need training in updated process

Many consultants/investigators not taking "ownership" of the project

Some participants are being enrolled twice, these have to be excluded.

Some staff do not check email so reminders become ineffective

ACTIONS:

Copies and stats to be distributed to all staff

Triage nurses to verify contact information, including phone numbers where possible

There could be an increase in enrolments that occur via clinics. The privacy problem could be dealt with by using the plaster room. Kath/Mark to discuss this with clinic nurses one by one.

Plaster room to be set up with equipment

Spare PAT forms to be put in clinics and resusc. area

Paul to give overview to nurses at monthly research meeting and gain feedback from staff.

forms to be stapled to fast track form

forms to be given to patients to read at triage then administer later by staff

Staff to educated that s can still be administered when ient in unconscious/altered mental state; it can be done anytime before discharge

? consultants should be involved in delivery of training to staff

nursing and other staff to be educated on the pros and cons of reactive vs. proactive attitudes and health care in the ED

Need to set a target for staff: 60% s

"Check alert/enrolment status" to be added to checklist at bottom of form

Changes to be made to posters with a "did you know…." Section added

Paul to attend Thursday meeting

APPENDIX E2: Weekly staff emails

From: LANGLEY Michael (SVHM)

Sent: Monday, 24 January 2005 5:09 PM

To: recipient list supressed

Subject: BIP News - always worth the read...

Dear BIPers

A big hello to all the new staff - interns, grads, grade 2 rotators and those returning for another look-see.

What is BIP?

BIP is the Evaluation of an Opportunistic Alcohol Screening and **Brief Intervention Project** (BIP)in the Emergency Department (ie. it's a clinical research trial) and all patients coming into the ED get screened. And all staff get to screen them - yes, that's doctors and nurses and even PTs and ALERT workers if they're quick enough. If you're unsure about it, ask your mentor-preceptor-sugar daddy whomsoever is looking after you. You'll get more information soon.

BIP NEWS

This is just a short bulletin until next week (when the results - and winners! - for January will be announced).

Due to a tap on the shoulder by the Fair Trade, Good Grooming & Gaming Tribunal, we have had to fine-tune our competition rules to avoid chronic scaming by some staff (you know who you are...) who were getting too many FREE DOUBLE MOVIE PASSES, which you can easily win by completing the most PATs or enrollments per calender month.

"Amendment to Rules & Regulations Regarding Inducements, Bribes, Call Them What You Will for the Smooth Running of the BIP Inducement Scheme.

15(b). No participant (willing or otherwise) can win (ie. to PAT or enroll more patients than anyone else) in the same category (ie. PAT or enrollments) TWO CONSECUTIVE CALENDER MONTHS IN A ROW. "

What does this mean? Well, you can win free movie tickets each month but only if you win them in the different categories each month!

What if you do score the most PATS in consecutive months - who gets the prize? The next most successful PATer gets the prize

Okay, I said no announcements until next week, but let me tempt you by saying there are some remarkable individual performances to be revealed come Monday 31 January. And, barring an unlucky fall under a bus, you know who you are, Big Fella/Fellarette....

!

Department Goes on PAT Holiday over short weekend:

It is with a deep note of disappointment that I find myself reporting that the weekend just passed - Sat 22-Sun. 23 - was the blackest on record for PATs: percentage-wise, you, collectively, managed to PAT on Saturday 22 January a measley, minuscule, and pathetically very small 20.8% of all patients who passed through our portals. The next day, Sunday 23 January, you really lost it and dipped to a totally embarrassing PAT percentage of 18.04%!

What's happening? Is there something wrong with the study? Is yellow (the colour of the PAT form) no longer acceptable? Speak up - rush me with your responses by return email.

Overall, we are just managing to hold our PAT percentage at 35% of all patients coming through the department. It's not great either, but we are always aware that it's another task on top of all the other aspects of the quality care we provide. However, could we please all elevate our cognisance/awareness/consciousness/game. Please.

Your time is much appreciated.

Michael Langley

Research Officer

APPENDIX E3: Promotional Poster

People are dIFFeReNt

But they all need PAT-ing

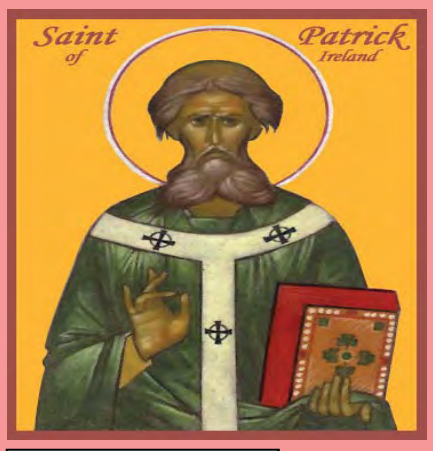
We don't mind who you are or where you come from, but we *do want you to PAT your patient*. It's simple – 3 short questions – or even no questions (for <18s, cognitively challenged etc.) – but we want that PAT!

A naughty PAT

A cheeky PAT

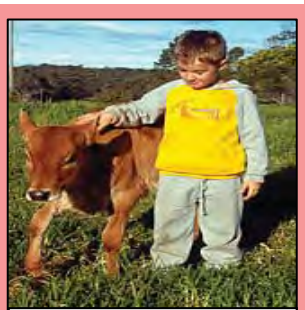
A Spanish PAT

Some guy called PAT I found on the internet



'Our' PAT

A brash PAT



A cow PAT

APPENDIX F: Staff Interview of perceived barriers and relevance of BIP

Staff Interview: BIP

Staff type:

ABOUT SCREENING

1.Based on your experience in BIP, what barriers to ED-based screening for hazardous alcohol use can you identify?

2. What strategies could be put in place to overcome these problems?

3. Do you think that ED-based screening for hazardous alcohol use could incorporated into standard patient care on an ongoing basis?

If not why not?

4. What were the positive aspects of ED-based screening for hazardous alcohol use?

5. On a scale of 1-5 please rate your enjoyment of screening for harmful alcohol use in the ED?

6. Do you think that routine screening should be adopted by all EDs?

ABOUT ED-BASED INTERVENTIONS

7. Based on your experience in BIP, what barriers to ED-based alcohol interventions can you identify?

7a What strategies could be put in place to overcome these problems?

8. Do you think that clinician-delivered interventions for harmful alcohol use could be incorporated into standard patient care on an ongoing basis?

If not, why not?

9. What were the positive aspects of clinician-delivered brief intervention?

10. On a scale of 1-5 please rate your enjoyment of delivering the brief intervention in the ED?

11. On a scale of 1-5 please rate your enjoyment of providing the standard care intervention?

ABOUT COUNSELLING AT TP:

12. What barriers did you perceive to the delivery of the motivational interview by the drug and alcohol clinician?

13. On a scale of 1-5 please rate your enjoyment referring participants for brief intervention?

PROCESS ISSUES FOR SIMILAR RESEARCH:

14. Can you specify any process issues that would need to be addressed to ensure the smooth running of future ED-based research intervention relating to alcohol use.

OTHER:

15. Any of comments relating to BIP?

_____