

Changing futures: premature discharges of alcohol or opioid detoxification in-patients, service improvement

Mark Parry,¹ Nicholas Woodthorpe,² Priyanthi Gunawardena³

The Psychiatrist (2010), 34, 200–203, doi: 10.1192/pb.bp.109.025155

¹Berkshire Drug and Alcohol Specialist Service (West), Reading; ²Oxford Rotational Training Scheme in Psychiatry; ³Central and Northwest Mental Health NHS Trust

Correspondence to Mark Parry (mark.parry@berkshire.nhs.uk)

Aims and method We retrospectively audited premature discharges of in-patients undergoing alcohol or opioid detoxification. Recommendations for good practice aimed at reducing premature discharge rates were implemented, following which a prospective audit was completed.

Results The retrospective phase of the audit cycle showed a premature discharge rate of 30.8%, compared with a rate of 13.2% for the prospective phase. The difference in these rates is both clinically and statistically significant at the 5% level, with Fisher's exact test producing a two-sided $P = 0.0119$.

Clinical implications Implementing good practice guidelines improved outcomes, with more patients successfully completing detoxifications and a more effective use of resources.

Declaration of interest None.

In-patient detoxification is usually reserved for those who need increased supervision and support provided by a ward to safely and successfully withdraw from drugs, alcohol or prescribed maintenance treatments. In many psychiatric services, the only available beds for such in-patients are on general psychiatric wards. This is often not ideal as the planned course of treatment may be terminated prematurely, with patients being discharged before achieving the desired outcome of a completed detoxification with a consequent waste of effort and resources. Indeed, the Specialist Clinical Addiction Network (SCAN) report¹ recommended that dedicated National Health Service (NHS) specialist services are the optimal setting for the delivery of in-patient treatment to service users with severe alcohol or drug problems, but as this option is not available in many areas, the challenge of improving the care in existing facilities remains. We chose a target of 80% treatment completion rate which sets a comparable standard to the highly specialised dedicated in-patient units described in the SCAN report,¹ which estimates that 70–85% of admissions to such units achieve their in-patient assisted withdrawal goals.

A premature discharge rate can be calculated to measure the failure to achieve completed detoxification and is therefore also a measure of the treatment success of an in-patient unit. As treatment outcomes are related to the process of care, premature discharge rate can also be used as a proxy measure of the quality of care provided.

Method

Study setting

Our service serves a population of 360 000 and utilises two beds on a 24-bed general psychiatric emergency admission ward. We decided to systematically examine the perceived high rate of premature discharge for in-patients in our service using clinical audit, with the aim of increasing the number of successful detoxifications.

The audit aimed to:

- measure the extent of premature discharges
- record the reasons stated for premature discharge
- produce recommendations for reducing premature discharges and monitor their implementation.

We use a chlordiazepoxide reducing regimen for alcohol detoxification, and lofedidine combined with other remedies such as mebeverine, loperamide, quinine for akathic symptoms, and simple analgesics and benzodiazepines for symptoms occurring during withdrawal from opioids, with the aim of reducing discomfort as much as possible and thereby minimising cravings and the risk of substance use.

Premature discharge was defined as an admission lasting less than 7 days because this is the time it takes for a patient to either complete a planned admission standard detoxification on our ward or to allow successful completion in the community following discharge. A criterion that patients should stay for 7 days was agreed with a standard that 80% of admissions should meet this

target, which allows comparison with the 70–85% estimated completion rates in highly specialised in-patient units.¹

The audit had two phases: a retrospective phase (pre-recommendations), and a prospective phase which followed the implementation of recommendations, thus completing the audit cycle.

Retrospective phase

A proposal form for the retrospective phase was sent to the clinical governance coordinator for approval and ethical clearance. A list of in-patients detoxified between September 2003 and January 2006 was obtained from the Medical Information Department at Prospect Park Hospital. The information obtained included the length of the admission and patient demographic data. It was then possible to calculate the premature discharge rate (admissions <7 days compared with those ≥7 days). Then, all the available notes were collected from the medical records department and analysed by a junior doctor to identify reasons for the premature discharge.

Service improvement recommendations

After the retrospective phase was completed, a meeting was held between the ward and substance misuse service staff and hospital management (focus group) to discuss how the process of care might be improved. The information obtained from the case notes formed a starting point for discussion, but as it was often incomplete, it needed to be supplemented by reflecting on the accumulated experience of past difficulties in the process of care and how these might be remedied. The focus group was fundamental in forming a cohesive approach between and within staff teams and generated a sense of ownership in tackling issues which was necessary for achieving service improvement for those undergoing an in-patient detoxification. The recommendations, with their underlying themes of clear aims, purposes and methods of providing care, addressing problems proactively and improved communication and support for staff and patients, were communicated to all involved in the in-patient detoxification programme, and were as follows.

1. Care plans should cover the period before, during and after admission and clearly state the aims and purposes of the admission, together with proposed treatments, interventions and a risk assessment. Discharge plans should specify follow-up arrangements, available support and prescribed medication.
2. Clinical records should include adequate details on the circumstances and causes of adverse incidents, including premature discharge.
3. Pre-admission visits for patients on the waiting list for an in-patient detoxification, accompanied by their key-worker, should be arranged.
4. Ward policies regarding visitors, leave from the ward, possession of illicit substances, urine drug screen results and the administration of as needed (p.r.n.) medications should be reviewed.
5. A contingency plan should be made for each patient in case premature discharge occurs.
6. Communication between ward staff and substance misuse service staff should be improved.

7. Structured day-time activities for in-patients, such as occupational therapy, should be available.
8. A link worker from the substance misuse service should visit the patients on the ward during their admission.

Prospective phase

The prospective phase ran from March 2006 to October 2007 and ended when we had a sample size almost as large as the retrospective phase. As with the initial retrospective phase, the Medical Information Department were contacted and a list of those who had undergone an in-patient detoxification was obtained. The premature discharge rate was calculated using the same criterion and standard set previously (i.e. admissions <7 days compared with those ≥7 days), but it also included premature discharges of 7 days or longer for those patients who did not complete their detoxification programme. A junior doctor examined all the patient notes, to check adherence with the recommendations and the recorded reasons for any premature discharges. A form was created to make relevant information collating easier.

Once all the audit data had been collated, a report was sent to the clinical governance coordinator and to all those involved in the in-patient detoxification programme.

Results

Demographic data

Retrospective phase

Of a total of 81 admissions, 75% of individuals were admitted for alcohol detoxification; 75% were male; 83% were unemployed, 12% were employed and the remainder were retired or studying. The majority of those admitted (99%) were White; 16% were married, 64% single and the remainder divorced, separated or widowed. Two-thirds were aged 30–49 years. The 25 patients prematurely discharged did not differ demographically from those completing treatment; one in three opioid and one in three alcohol patients were discharged prematurely.

Prospective phase

Out of a total of 76 admissions, 72% of individuals were admitted for alcohol detoxification, 25% for opioid detoxification and 3% for both alcohol and opioid detoxification; 66% were male. The majority (72%) were unemployed, 18% were employed and the remainder were retired or information was not available; 99% were White; 17% were married, 57% were single and the rest were divorced, separated or widowed; 64% were aged 30–49 years. The 13 patients prematurely discharged did not differ demographically from those completing treatment: one in four of opioid and one in seven of alcohol patients were discharged prematurely.

Premature discharge in both phases

Length

Figure 1 shows the length (in days) of the premature discharges for the retrospective ($n=81$) and prospective ($n=76$) phases. In the retrospective phase, eight case notes

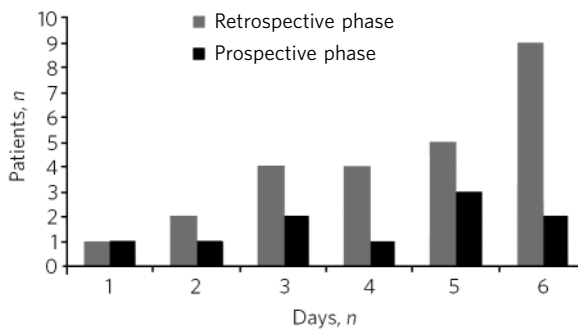


Fig 1 The length of detox before premature discharge.

were not available and in the prospective phase two case notes were not available. If the case notes were not available then the discharge summary was used, if completed, to ascertain whether it was a premature discharge. The median length of the premature discharge for the retrospective phase was 5 days and for the prospective phase 4.5 days.

Rate

The rate of premature discharge fell from 30.8% in the retrospective phase to 13.2% in the prospective phase. A comparison of proportions for both phases using Fisher's exact test yielded a two-sided $P=0.0119$, a statistically significant difference in the rate of premature discharge between the two phases.

Causes

Table 1 lists the causes of premature discharges for both phases.

Implementation of the recommendations in the prospective phase

In total, 74 case notes were available for assessing the implementation of the recommendations (case notes were unavailable for two in-patients). Table 2 records the extent to which the recommendations were implemented during

the prospective phase. In general, better adherence to the recommendations seems to have occurred for those patients who had a 7-day or longer admission compared with those discharged prematurely. For example, only 30% of those prematurely discharged had a pre-admission visit compared with 59% staying 7 days or longer, and only 30% of those prematurely discharged received occupational therapy compared with 59% staying 7 days or longer. The recommendation for pre-formulated contingency plan for premature discharge was not implemented.

Discussion

Premature discharge rates fell from 30.8 to 13.2%, a reduction especially significant in alcohol patients, from one in three to one in seven. This very large reduction was a surprise, particularly as the recommendations were implemented to variable extent and despite the fact that the prospective phase of the audit started only 10 weeks after the recommendations were drawn up and started being implemented. None of the patients discharged early had formal contingency plans drawn up, possibly because they seemed superfluous with the improved communication and support in place. Some interventions took longer to implement, for example, ward visits by a link worker which required redeployment of staff. Some recommendations were very successfully implemented, for example post-discharge plans and pre-admission assessments by the link worker. It is evident that some recommendations require more coordination, effort and planning, and some are relatively resource-intensive and thus harder to implement.

It proved impossible to measure changes associated with some recommendations, for example improved communication. Also, as Balogh & Bond² point out, the action stage of audit is not a single discrete event, but a process occurring over time so that in clinical practice the components of the process of change frequently occur at differing speeds and with varying success.

We did not quantify the relative importance of the recommendations but the staff felt that most important in

Causes of premature discharge	Patients, n	
	Retrospective phase	Prospective phase
Consumed alcohol while on leave from ward	3	1
Assaulted another patient	1	0
Not settling on ward	2	1
Not able to cope with craving	1	1
Adamant about leaving, no specific reason	0	3
Concealed dependence on another substance	1	0
Concerns for family members at home	2	2
Discharge agreed with doctor	6	1
Details not recorded in notes	1	1
Notes unavailable/no discharge summary	8	0
Total premature discharges, n (%)	25 (30.8)	10 (13.2)
Total number of admissions	81	76

Table 2 Implementation of recommendations^a

Recommendation	Premature discharge %	7-day or longer admission, %	Overall, %
Pre-admission information given	70	82	81
Pre-admission visit	30	59	45
Pre-admission assessment by substance misuse link worker	100	95	96
Pre-admission assessment by ward named nurse	10	0	1
Visit by substance misuse link worker during admission	60	73	72
Occupational therapy during admission	30	59	55
Post-discharge plan	100	100	100
Contingency plan for premature discharge	0	0	0

a. Percentages rounded to nearest whole number.

preventing premature discharge was pre-admission visits to the ward, link worker visits during admission and occupational therapy. We suspect there was also a powerful non-specific benefit from increased patient–staff contact.

Our improved results compare well with the SCAN report¹ on in-patient treatment, which estimated that 70–85% of in-patients achieve withdrawal; Martinez-Raga *et al*³ quoted a rate of 32.8% for unplanned discharges for alcohol detoxification, whereas Scherbaum *et al*⁴ and Gossling *et al*⁵ reported rates of 50% for in-patient opioid detoxification.

Detoxification and subsequent abstinence are different processes⁶ but they form a continuum^{7,8} and thus a better process of detoxification may help reduce subsequent relapse rates. A systems approach is needed to reflect the complexity of the needs as well as circumstances of individual patients and their treatment;⁹ such an approach would lead to better use of resources.¹⁰

Factors in premature discharge are discussed by Day⁷ and Martinez-Raga *et al*.³ Identifying those at risk of leaving early may allow preventive measures. Some detoxification medication regimes are better than others, although Scherbaum *et al*⁴ found that the severity of craving and withdrawal symptoms in heroin addicts were not the primary reason for the premature termination of detoxification, and Reoux & Miller¹¹ in comparing routine regimes with symptom-triggered management for alcohol patients did not find much to distinguish them. Rüesch & Hättenschwiler⁸ found that a lapse during detoxification may be overcome if in-patients are allowed to stay but that no patient discharged subsequently achieved abstinence.

The research findings discussed above challenge our existing ideas and clearly we have much to learn about improving the processes of care. We conclude that using existing knowledge will improve outcomes in the meantime, and therapeutic pessimism is unjustified.

Acknowledgements

We thank the clinical, clerical and managerial staff at the Berkshire Drug and Alcohol Specialist Service (West) and Prospect Park Hospital, Reading.

About the authors

Mark Parry is Consultant Psychiatrist in Addictions, Drug and Alcohol Specialist Service (West), Reading, **Nicholas Woodthorpe** is Specialty Registrar in Old Age Psychiatry (ST6), Oxford Rotational Training Scheme in Psychiatry, and **Priyanthi Gunawardena** is Locum Staff Grade Psychiatrist, Central and Northwest Mental Health NHS Trust.

References

- 1 Specialist Clinical Addiction Network (SCAN). *Scan Consensus Project: Inpatient Treatment of Drug and Alcohol Misusers in the National Health Service*. SCAN, 2006.
- 2 Balogh R, Bond S. Completing the audit cycle: the outcomes of audits in mental health services. *Int J Qual Health Care* 2001; **13**: 135–42.
- 3 Martinez-Raga J, Marshall EJ, Keaney F, Ball D, Strang J. Unplanned versus planned discharges from in-patient alcohol detoxification: retrospective analysis of 470 first-episode admissions. *Alcohol Alcohol* 2002; **37**: 277–81.
- 4 Scherbaum N, Hepekausen K, Rist F. Is premature termination of opiate detoxification due to intensive withdrawal or craving? *Fortschr Neurol Psychiatr* 2004; **72**: 14–20.
- 5 Gossling HW, Gunkel S, Schneider U, Melles W. Frequency and causes of premature termination (drop-out) during in-patient opiate detoxification. *Fortschr Neurol Psychiatr* 2001; **69**: 474–81.
- 6 Gossop M. *Drug Addiction and Its Treatment*. Oxford University Press, 2003.
- 7 Day E. *Opiate Detoxification in an Inpatient Setting*. National Treatment Agency for Substance Misuse, 2005.
- 8 Rüesch P, Hättenschwiler J. Consequences of relapse and treatment drop-out in patient drug detoxification: a one-month follow-up study. *Schweiz Arch Neurol Psychiatr* 2002; **153**: 238–44.
- 9 Tobin M, Chen L. Initiation of quality improvement activities in mental health services. *J Qual Clin Practice* 1999; **19**: 111–6.
- 10 Nalpas B, Combesure C, Pierre B, Ledent T, Gillet C, Playoust D, et al. Financial costs of alcoholism treatment programs: a longitudinal and comparative evaluation among four specialized centers. *Alcohol Clin Exp Res* 2003; **27**: 51–6.
- 11 Reoux JP, Miller K. Routine hospital alcohol detoxification practice compared to symptom triggered management with an objective withdrawal scale (CIWA-Ar). *Am J Addict* 2000; **9**: 135–44.