Patients discharged from medium secure forensic psychiatry services: reconvictions and risk factors

JEREMY COID, NICOLE HICKEY, NADJI KAHTAN, TIANQIANG ZHANG and MIN YANG

Background Treatment within medium secure forensic psychiatry services is expected to reduce risk to the public.

Aims To measure the period prevalence and incidence of offending following discharge and identify associated risk factors.

Method Follow-up of patients from 7 of 14 regional services in England and Wales who spent time at risk (n=1344) for a mean of 6.2 years. Outcome was obtained from offenders index, hospital case-files and the central register of deaths.

Results One in 8 men and 1 in 16 women were convicted of grave offences. Incidence rates indicated low density and most patients were not subsequently convicted. Offence predictors included gender, younger age, early-onset offending, previous convictions and a comorbid or primary diagnosis of personality disorder. Longer in-patient stay and restriction on discharge were protective.

Conclusions Risks of reoffending remain for a subgroup of discharged patients. Future research should aim to improve their identification and risk management following discharge.

Declaration of interest None. Funding detailed in Acknowledgements.

Concern over public safety has resulted in proposals for new services and new mental health legislation for high-risk psychiatric patients (Home Office, 1999; Department of Health & Home Office, 2001; National Institute for Mental Health in England, 2003; Department of Health, 2004), with the requirement that health services work with the criminal justice system to reduce reoffending (Home Office, 1998). Services for offender patients in the UK are the outcome of earlier recommendations (Butler Committee, 1975) for a network of regional secure units at a medium level of security between ordinary psychiatric hospitals and the special (maximum security) hospitals. Although subsequent service development has been uneven (Coid et al, 2001), all health regions have now provided these services, in which treatments are expected to reduce dangerousness of patients. It has been argued that criminal recidivism is of greater importance when assessing clinical effectiveness than clinical relapse (MacCulloch & Bailey, 1991), although this emphasis has been disputed (Robertson, 1989; Friendship et al, 1999).

Previous follow-up studies of forensic patients in the UK have limitations. Reports on those discharged from special hospitals to psychiatric hospitals or the community include samples discharged more than 20 years ago (Tong & Mackay, 1959; Gathercole et al, 1968; Acres, 1975; Black, 1982; Tennent & Way, 1984; Bailey & MacCulloch, 1992; Buchanan, 1998; Jamieson & Taylor, 2004). Most now undergo rehabilitation and gradual community leave through the medium secure services (Coid & Kahtan, 2000). Furthermore, apparent improvement in rates of reoffending over time (Buchanan, 1998) may result from changing populations, specifically a decline in admissions of those with a primary diagnosis of personality disorder (Coid et al, 1999), rather than improved after-care. Follow-up studies of patients discharged from medium secure services have been limited by small numbers and unrepresentative samples (McMurran et al, 1998; Baxter et al, 1999; Falla et al, 2000): selection of patients with a single diagnosis (Baxter et al, 1999; Halstead et al, 2001); restriction to a single unit or small geographical area (Baxter et al, 1999; Friendship et al, 1999; Maden et al, 1999; Castro et al, 2002; Edwards et al, 2002); or follow-up over a 2-year period (Maden et al, 2004). None has used directly comparable outcome measures of reoffending, or controlled for time at risk.

Large studies are needed which include all subgroups of patients and have sufficient statistical power to quantify the long-term risks of reoffending following psychiatric treatment in medium secure services, and identify those posing the highest risk to public safety. We followed a large, nationally representative sample of patients discharged from medium secure units to the community to examine the incidence of reoffending, to identify risk factors for reoffending and to explore the implications for future risk management.

METHOD

Patients

Patients were included who had been admitted to medium secure forensic psychiatry services in 7 of the 14 (prior to reorganisation) regional health authorities between 1989 and 1993. These form a representative range of geographical areas, including large urban, small town and rural areas, characterised by different levels of socio-economic deprivation. This was an original admission cohort from the North West Thames, North East Thames, South Western, West Midlands, Merseyside, North Western and East Anglian Regional Health Authority catchment areas and is described in previous publications (Coid & Kahtan, 2000). Patients admitted to these services during the study period, but placed in private sector or other National Health Service (NHS) secure units as extra-contractual referrals, were included so as not to underrepresent the catchment areas.

The follow-up period was calculated from date of discharge to the end of the study period (31 December 1998), or date of death or leaving the country, whichever occurred first. Time at risk of reconviction was defined as any time spent in the community during the follow-up period. The
The subgroup of 250 patients admitted as a result of non-criminalised behavioural disorder had much lower rates of conviction than those admitted following criminal behaviour, with a prevalence of 20.8% and an incidence rate of 16.9 (95% CI
4.3% (95% CI 3.0–5.6). There were no

4.3% (95% CI 3.0–5.6). There were no

lowing non-criminalised violent behaviour,

for other offences. For those admitted fol-

for acquisitive offences; 0.4%, 0.07 (0.0–

for sexual offences; 9.6%, 4.1 (3.0–5.1)

(2.7–4.7) for violence; 1.6%, 0.5 (0.1–0.9)

14.7–19.0) for any offending; 11.6%, 3.7

225 225

1. Mean follow-up 6.2 years (s.d. 1.6 years.

1. Mean follow-up 6.2 years (s.d. 1.6 years.

range 31.6 (10.1) 16–81

range 31.6 (10.1) 16–81

Table 1 Characteristics of the follow-up sample

(n=1344)^1

Demographic variables, n (%)

Men 1167 (86.6)

White 1033 (76.9)

African–Caribbean 218 (16.2)

South-Asian 33 (2.5)

Other 60 (4.5)

Born outside UK 192 (14.3)

Primary diagnosis, n (%)

Schizophrenia/schizoaffective 761 (59.5)

Delusional disorder 72 (5.6)

Mania/hypomania 104 (8.1)

Depression 92 (7.2)

Organic brain syndrome 63 (4.9)

Personality disorder 188 (14.0)

Comorbid diagnosis, n (%)

Alcoholism/alcohol misuse 325 (24.3)

Drug dependence/misuse 378 (28.3)

Antisocial personality disorder 302 (22.6)

Sexual deviation 34 (2.5)

Category under Mental Health Act

1983, n (%)

Mental illness 957 (71.2)

Psychopathic disorder 74 (5.5)

Mental illness and psychopathy 14 (1.0)

Mental impairment 9 (0.6)

Other 121 (9.0)

Not applicable 164 (12.2)

Admission

Age, years: mean (s.d.)

range 31.6 (10.1) 16–81

Previous convictions, n:

mean (s.d) range 8 (11) 1–114

No previous conviction, n (%)

397 (29.5)

Non-crime admission, n (%)

250 (18.6)

Stay in medium secure unit,

years: mean (s.d) range 0.8 (1.1) 0.01–9.6

1. Mean follow-up 6.2 years (s.d. –2.1), range 1 month to

14.7–19.0) for any offending; 11.6%, 3.7

(2.7–4.7) for violence; 1.6%, 0.5 (0.1–0.9)

for sexual offences; 9.6%, 4.1 (3.0–5.1)

for acquisitive offences; 0.4%, 0.07 (0.0–

for arson; 7.2%, 1.9 (1.2–2.7) for

grave offences; and 15.6%, 8.6 (7.0–10.0)

for other offences. For those admitted fol-

owing non-criminalised violent behaviour,

the prevalence for a subsequent conviction

for violence was 13.2%, incidence rate

4.3% (95% CI 3.0–5.6). There were no

subsequent convictions for sexual offences

or arson following admission for non-

criminalised sexual behaviour and arson.

Furthermore, their cumulative risk of

reoffending increased over time. Similar

patterns were demonstrated for grave

offending. A further increase in risk of

grade reoffending emerged at 8 years post-

discharge from medium secure services

among those originally admitted for a grave

offence.

Admission to medium secure services

following either an index offence or

previous convictions for sexual or acquisi-

tive offences also substantially increased

the probability of reconviction for similar

offences. The risks were greatest for those

with the same index offence. However,

the probability of subsequent convictions

for sexual offences or arson remained

relatively low for each of the three groups.

Risk factors

Table 3 shows the independent risk factors

for the range of convictions following dis-

charge. The risk of conviction for violence

against the person was increased among
men; younger patients, Black patients and those from other minority ethnic groups, those younger when first appearing in court and those with a higher number of previous convictions for violence. The risk of violent convictions was also increased among patients with a primary diagnosis of personality disorder, those with a primary or comorbid diagnosis of antisocial personality disorder, and those originally admitted under the legal category ‘psychopathic disorder’. Risk of violent conviction was reduced among those who had stayed 2 years or more in medium secure services.

Risk of sexual reoffending was substantially increased among patients with primary diagnoses of affective disorder and those with comorbid diagnoses of sexual deviation. Risks were also increased for those of younger age, who were younger when first in court, and were from ‘other’ ethnic subgroups. Moreover, risks progressively increased the higher the number of previous sexual convictions. Risks of subsequent convictions for arson were increased among women patients, those with one or more previous arson convictions and those with a history of alcohol dependence/alcohol misuse.

Risk of acquisitive offending was increased among younger patients, among male patients, among those younger when first in court, among those with a primary diagnosis of personality disorder, and among those detained under the legal category ‘psychopathic disorder’. Risk of acquisitive convictions progressively increased the higher the number of previous acquisitive convictions, and were reduced among those who had spent 2 years or more in medium secure services. Previous substance misuse, antisocial personality disorder and ethnicity were not predictive of subsequent acquisitive convictions in this sample.

There were no differences between men and women in their risk of convictions for grave offences following discharge. However, younger patients, those younger when first in court, Black patients and those with a primary diagnosis of personality disorder demonstrated increased risks. Risk of grave convictions progressively increased the higher the number of previous convictions for grave offences. Discharge subject to section 37/41 restrictions reduced the risk of subsequent grave offending. There were no independent associations between risk of grave offences following discharge and length of stay in medium secure services, substance misuse or dependence, or antisocial personality disorder.

**DISCUSSION**

**Level of risk**

The acceptability of the risk of subsequent offending posed by patients discharged from medium secure services will ultimately be determined by the public and policy makers. Our findings indicate that these patients continued to present risks, with over a third of men receiving subsequent convictions, nearly 1 in 5 for violence. Nevertheless, despite a true risk of 47 offences per year for every 100 male patients discharged, only 7 of these were violent offences, of varying levels of severity, in a population originally admitted for violent and criminal behaviour as a result of mental disorder. Whether a lower hazard rate of 4 serious or ‘grave’ offences per year for every 100 patients (men and women) discharged is acceptable would also require a consensus view. However, it is important when considering these findings that they are not perceived as a measure of the performance of medium secure services but the criminal careers of patients discharged from these services and their risks of reoffending. Furthermore, it is questionable whether treatment in these services had a bearing on offending several years after discharge.

Our findings indicate that in-patient treatment programmes and subsequent supervision following discharge should be better targeted at preventing similar reoffending by identifying those at highest risk of recidivism. Those with previous convictions for violence, arson and grave offences were clearly at greatest risk of reconviction for these offences post-discharge. However, violent offending appeared for the first time in a subgroup post-discharge, indicating particular difficulties in accurate prediction of future violence among some patients admitted to medium secure services. On the other hand, this subgroup may have demonstrated previous non-criminalised violence that was...
not measured in this study and which should be included in future studies. The modus operandi of the index offence leading to admission may also have been important in the prediction of reconviction in this sample, but could not be identified from this study.

Compared with our sample of patients discharged from medium secure services, reoffending was two and a half times more prevalent, and violent reoffending five times more prevalent, among a cohort of released prisoners (National Offender Management Service, 2004). However, our findings cannot be directly compared with criminal recidivism among released prisoners. The criminal careers of our patients, most of whom had psychotic illness, differed and their mean age was greater. Before it can be concluded that factors such as the presence of mental illness played a role in the prediction of reoffending, further research is needed to confirm these findings.

Table 3  Time to first reconviction after discharge according to prognostic risk factors from Cox regression analysis

<table>
<thead>
<tr>
<th>Prognostic factor</th>
<th>n</th>
<th>Violence</th>
<th>Sexual offence</th>
<th>Acquisitive offence</th>
<th>Arson</th>
<th>Grave offence</th>
<th>Any</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td>0.96 (0.93–0.99)</td>
<td>0.94 (0.87–1.0)</td>
<td>0.94 (0.92–0.97)</td>
<td>0.98 (0.90–1.1)</td>
<td>0.95 (0.92–0.99)</td>
<td>0.96 (0.94–0.98)</td>
</tr>
<tr>
<td>Born in UK</td>
<td></td>
<td>1.3 (0.70–2.3)</td>
<td>2.1 (0.25–18.2)</td>
<td>1.1 (0.56–1.8)</td>
<td>0.0 (0.0)</td>
<td>1.0 (0.51–2.1)</td>
<td>1.1 (0.72–1.6)</td>
</tr>
</tbody>
</table>

1. Number of cases varies according to the type of offences.
2. Each of these was a substitution for primary diagnosis with all the above covariates adjusted.

---

https://doi.org/10.1192/bjp.bp.105.018788 Published online by Cambridge University Press
disorder, the effects of treatment interventions, or subsequent after-care, are associated with reduced offending, it will be necessary to match samples of patients and prisoner controls. However, our findings can be compared with those of previous follow-up studies from medium secure services and high-security hospitals. Taking length of follow-up into account, where patients progressively accrue further convictions over time, our findings in Fig. 1 appear to be broadly similar to previous reports. Studies with follow-up periods ranging from 1 to 5 years have demonstrated prevalence rates for ‘all offending’ of 11–16% (Falla et al, 2000; Edwards et al, 2002; Maden et al, 2004), rising to 30% for those with a mean follow-up of 6 years (Friendship et al, 1999). The more recent special hospital cohorts demonstrated higher prevalence rates (e.g. 34–38% (Buchanan, 1998; Jamieson & Taylor, 2004)) for longer follow-up periods (9–10.5 years), but these included larger proportions of high-risk patients, including more with personality disorder.

Methodological considerations

In the present study, the follow-up period was longer, and the sample larger than previous studies of patients discharged from medium secure services. However, the study was subject to the same limitations of the Offenders Index. This has a small source of error among patients with long follow-up periods, but more serious limitations for recent discharges. The time lag in the criminal justice system between charges and conviction in some cases can be over 2 years. This means that the true cut-off point is earlier in some cases. Criminal convictions are recorded using an offender’s name and some offenders change their names; convictions are recorded using an offender’s name, and some offenders change their names, and convictions are recorded using an offender’s name, and some offenders change their names. This is earlier in some cases. Criminal convictions are recorded using an offender’s name and some offenders change their names, and convictions are recorded using an offender’s name, and some offenders change their names. However, this study has identified that increased risks. This indicates that interventions for, and subsequent monitoring of, deviant sexual propensities should be prioritised over perceived risks from symptomatic conditions such as schizophrenia among sex offenders admitted to these services. Previous studies of sex offenders suggest that their risks are long-term, with some support from our findings on the probability of offending for all patients. However, this study has identified that patients with previous sex offending behaviour require special vigilance in their after-care during the first 3–4 years post-discharge.

Convictions for arson were more common among women, among those with a history of alcohol dependence/ misuse and those with previous convictions for arson. Risk management is long-term in this subgroup. Cumulative probability of reconviction increases linearly, with emergence of increased risk at 6 years post-discharge. Similar previous convictions were also the strongest predictor of future acquisition offending, with increased risks among younger patients, male patients, patients with personality disorder and those who had served their criminal careers earlier.

The variables included in our analysis represent largely historical or ‘static’ risk factors for different categories of offending. It has been argued that long-term prevalence rates for ‘all offending’ of 11–16% (Falla et al, 2000; Edwards et al, 2002; Maden et al, 2004), rising to 30% for those with a mean follow-up of 6 years (Friendship et al, 1999). The more recent special hospital cohorts demonstrated higher prevalence rates (e.g. 34–38% (Buchanan, 1998; Jamieson & Taylor, 2004)) for longer follow-up periods (9–10.5 years), but these included larger proportions of high-risk patients, including more with personality disorder.

Methodological considerations

In the present study, the follow-up period was longer, and the sample larger than previous studies of patients discharged from medium secure services. However, the study was subject to the same limitations of the Offenders Index. This has a small source of error among patients with long follow-up periods, but more serious limitations for recent discharges. The time lag in the criminal justice system between charges and conviction in some cases can be over 2 years. This means that the true cut-off point is earlier in some cases. Criminal convictions are recorded using an offender’s name and some offenders change their names; convictions are recorded using an offender’s name, and some offenders change their names, and convictions are recorded using an offender’s name, and some offenders change their names. However, this study has identified that increased risks. This indicates that interventions for, and subsequent monitoring of, deviant sexual propensities should be prioritised over perceived risks from symptomatic conditions such as schizophrenia among sex offenders admitted to these services. Previous studies of sex offenders suggest that their risks are long-term, with some support from our findings on the probability of offending for all patients. However, this study has identified that patients with previous sex offending behaviour require special vigilance in their after-care during the first 3–4 years post-discharge.

Convictions for arson were more common among women, among those with a history of alcohol dependence/ misuse and those with previous convictions for arson. Risk management is long-term in this subgroup. Cumulative probability of reconviction increases linearly, with emergence of increased risk at 6 years post-discharge. Similar previous convictions were also the strongest predictor of future acquisition offending, with increased risks among younger patients, male patients, patients with personality disorder and those who had served their criminal careers earlier.

The variables included in our analysis represent largely historical or ‘static’ risk factors for different categories of offending. It has been argued that long-term
recidivism is best predicted by static factors (Hanson & Bussiere, 1998) as these indicate established characteristics of the individual that are readily incorporated into an actuarial measure. However, future reoffending can only be prevented by addressing problems that present in the community following discharge, including criminogenic needs and dynamic risk factors, which can be changed and are amenable to intervention (Bonta, 1996; Andrews & Bonta, 1998). This would include adherence to prescribed medication and after-care. Future research should concentrate on examining the effectiveness of interventions after discharge that are designed to influence changeable factors encountered outside a secure setting. The question also remains whether more prolonged application of restrictions, including enhanced supervision and surveillance, and with compulsion to accept treatment, instead of reliance on the care programme approach, will result in more effective reduction of reoffending in patients who are identified as high risk. Longer periods in security and restrictions on patients’ behaviour and lifestyles following discharge were associated with significant reductions in risk of serious reoffending in this sample.

ACKNOWLEDGEMENTS

This study was funded by a grant from the Wellcome Trust. It would not have been possible without the cooperation of clinical and administrative staff in the medium secure units of North West Thames, North East Thames, West Midlands, Merseyside, North Western, South Western and East Anglian regions, and Kneehwothouse, Stockton Hall and St. Andrew’s, Northampton.

REFERENCES


National Institute for Mental Health in England (2003) Personality Disorder: No Longer a Diagnosis of Exclusion. NIMHE.


(RECONVICTION AFTER DISCHARGE FROM MEDIUM SECURE SERVICES

[First received 27 October 2005, final revision 19 July 2006, accepted 1 September 2006]