

# Decriminalizing severe mental illness by reducing risk of contact with the criminal justice system, including for forensic patients

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Risk of contact with the criminal justice system (CJS) is greater among those with mental illness, including severe mental illness—an observation that many argue reflects a process of “criminalizing” mental illness. Forensic patients represent a subgroup at one end of a spectrum of such criminalization, typically with histories of serious violence and psychotic illness. Strategies for decriminalizing mental illness in this context should consider a range of approaches, including intervening to prevent CJS contact in those with severe mental illness, particularly in the early or emerging stages of psychosis. However, it may be that even gold standard mental healthcare applied universally is insufficient to address CJS contact risks. While there is now an extensive literature documenting the relatively low rates of repeat CJS contact for forensic patients released from secure care, appropriate comparison groups are lacking and the key ingredients of any benefits of treatment are unknown. The CJS may well have something to learn from forensic mental health systems and services given the abject failure to stem rates of prison-release reoffending internationally. Understanding how to best identify risk and effectively intervene to prevent CJS contact in those with mental illness, whether early in the course of psychosis or following release from secure care, remains a priority for those seeking to address the criminalization of mentally ill in our communities.

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Among those with mental illness and a history of contact with the criminal justice system (CJS), “forensic patients,” constitute a small but significant subgroup. They typically have severe mental illnesses and have been charged with serious violent offences. As a group, they characteristically have complex mental health and other needs,<sup>1</sup> and concern about their risk of reoffending is a key consideration for those tasked with oversight of their treatment and detention. As a result, forensic patients often spend long periods in secure mental health facilities<sup>2</sup> and are often subject to high levels of supervision once judged to be safe to return to the community.

In many ways, the existence of this group of patients represents a failure of preventative mental health care—a criminalization of those with mental illness that lies at the

extreme end of a spectrum of such criminalization. While diversion away from the CJS into mental health care following a serious index offence is a common outcome for those with severe mental illness, it can be seen as an act of diversion that has come late and at great cost, including for the victims of the serious violent offences typically committed. This review will consider the decriminalizing potential of efforts to prevent both initial and repeat contact with the CJS for those with severe mental illness, particularly for the subgroup of forensic patients.

## Prevention of Initial CJS Contact for Those with Severe Mental Illness

There is a well-established association between mental illness, particularly severe mental illness, and risk of contact with the CJS. Studies conducted over the last several decades in prison, clinical, and population-based samples have confirmed the increased risk of CJS contact

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for those with severe mental illness.<sup>3,4</sup> More recent research has identified a wide range of potential explanatory factors, including the co-occurrence of substance use problems,<sup>5</sup> the consequences of social disadvantage,<sup>6</sup> and the presence of untreated symptoms.<sup>7</sup> In addition, there is evidence that mental illness is a risk factor for repeated contact with the criminal justice system—for recurrent and cumulative criminalization.<sup>8</sup> In this context, decriminalization is likely to necessitate successfully identifying those with mental illness at increased risk of CJS contact as well as intervening to address the factors underlying the increased risk, but there has been limited research focused on testing approaches to the prevention of CJS contact, including initial contact, among those with severe mental illness.

A number of intervention studies intended to improve other clinical and functional outcomes in psychosis have, however, considered violence or other offending behavior as a secondary outcome. For example, trials of intensive or assertive community care,<sup>9</sup> outpatient commitment,<sup>10</sup> and administration of specific psychotropic medications<sup>11</sup> have considered measures of CJS contact and offending outcomes, with varying results. In a systematic review of nonpharmacological interventions for reducing aggression and violence in serious mental illness (with the majority of identified studies focused on forensic patient or other mentally disordered offender samples) the quality of evidence to support any interventions was found to be poor.<sup>12</sup> It is also of note that many of these intervention studies have involved participants with chronic psychosis, many of whom have already had CJS contact. While the “early intervention in psychosis” literature is extensive, few studies have focused on preventing violence or CJS contact as an outcome.

Testing early assertive and specialized community care for individuals with first episode psychosis in Denmark, the OPUS trial found evidence of benefits for a range of clinical and social outcomes.<sup>13</sup> Subsequently, trial participants were linked to official criminal records in order to examine the impact of the intervention, and its established benefits, on risk of subsequent contact with the CJS.<sup>14</sup> Unfortunately, no impact on CJS contacts was seen over either the 2 years of the intervention or the subsequent 3 years of follow-up. The results of this study undermines the notion that gold standard early intervention for first episode psychosis reduces CJS contact, perhaps indicating that a targeted rather than universal approach is needed, that intervention needs to be offered even earlier than the first episode of psychosis (in the Danish study, many had already offended prior to recruitment to the study) and/or that the intervention needs to be specifically focused on reducing criminality. In this context, it is important to note that there is evidence that the risk of violence for those with serious illness might well be greatest during the earliest phases of illness,<sup>15</sup> particularly,

prior to treatment, and perhaps even in the prodromal or at-risk period.<sup>16</sup>

While the index offences of forensic patients, being typically serious violent offences, represent a relatively rare outcome that is not ideal as a focus of prevention, it is clear that the clinical and service-contact narratives of individual forensic patients commonly present apparent “missed opportunities” for intervention. In a study of individuals found not guilty by reason of mental illness in NSW over 25 years, over 80% were noted to have had contact with mental health services at some point prior to the index offence.<sup>17</sup> In addition, the early phases of psychosis may not only represent a high-risk time for offending behavior and CJS contact, but also for risk of serious violent offending, in particular.<sup>18</sup> Whether attempts to identify and intervene as early as possible in the course of emerging psychosis can prevent CJS contact, including for the type of serious violence that defines the forensic patient group, remains unknown.

### Reoffending Rates Among Released Forensic Patients

While diversion away from the CJS and into mental health services in order to meet the significant mental health needs of forensic patients is a common approach internationally, the precise manner in which this is done varies considerably between jurisdictions. While the M’Naghten rules that underlie a complete mental health defense against a criminal charge arose from English case law, they are now more commonly applied in jurisdictions outside than inside the United Kingdom. In Australia, for example, modified versions of the M’Naghten rules are still relied upon in several jurisdictions.

If diversion of forensic patients away from the CJS into mental health services is to be fully realized as a tool of decriminalization, one of the key outcomes must be a reduction in the risk of postrelease reoffending. Beginning in the early 1990s, many studies following forensic patients after release from secure care have now been conducted. A recent systematic review and meta-analysis of such studies,<sup>19</sup> identified 35 studies from 10 countries (18 from England and Wales). The pooled estimate of postrelease reoffending for the 30 studies providing data on this outcome was 4484 per 100 000 person years (95% confidence intervals [CI] 3679–5287). Substantial heterogeneity across studies was found in relation to reported reoffending rates but the only factor found to provide any explanation was the association between the age of studies and reoffending rate reported. [Table 1](#) provides a summary of the included studies and an update on studies published since the review.

Judgments about whether or not the rates of reported recidivism for released forensic patients are low or high rests on the nature of comparison groups. No study to

**TABLE 1. Studies of Postrelease Reoffending in Samples of Forensic Patients**

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Pasewark et al <sup>20</sup>	United States (New York)	148 not guilty by reason of insanity (NGRI) acquittees (111 males and 22 females had been released into the community; and 15 males had escaped)	Total follow-up period was not reported. Average time spent in hospital and average time following release/escape from hospital and end of study was reported: for example, males released into the community average days in hospital = 670 d and average days following release = 1809 d, females released into the community average days in hospital = 642 d and average days following release = 1929 d	Males released into the community: 31.5% were arrested following hospitalization. Females released into the community: 13.6% were arrested following hospitalization	N/A
Black <sup>21</sup>	United Kingdom	128 male patients discharged from Broadmoor Hospital	5y	Of the 125 patients for whom follow-up data was available, 22.4% were imprisoned following discharge and 39.2% had further court appearances	Predictors of recidivism include: having a previous history of offending, and having a nonhomicide index offence
Bogenberger et al <sup>22</sup>	United States (Hawaii)	107 individuals found not responsible for a criminal act due to insanity	Unclear. Sample comprised individuals who were acquitted from January 1, 1970 to June 30, 1976, with the cut-off period for the study being June 30, 1984	67.2% rearrested following acquittal	Individuals who had been hospitalized following acquittal had more arrests for offences against the person and property combined, than for public order and drug offences combined, as compared to individuals who were released conditionally or unconditionally following acquittal
Silver et al <sup>23</sup>	United States (Maryland)	127 individuals found NGRI who had been released into the community; a matched control group of 127 individuals on parole; and a comparison group of 135 mentally disordered offenders who had received hospital treatment, and who were later released on parole	Mean follow-up period for NGRI group = 10.5 y (range = 7–17 y). Mean follow-up period for control group = 10.8 y (range = 7–16 y). Mean follow-up period for comparison group = 7.9 y (range = 4–16 y)	5y following release 54.3% of the NGRI group were rearrested within 5y following release. The control and comparison groups had higher rearrest rates during that time period at 65.4% and 73.3% respectively. Across total follow-up period. At the end of the follow-up period 65.8% of the NGRI group, 75.4% of the control group, and 78.5% of the comparison group had been rearrested	N/A
Rice et al <sup>24</sup>	Canada	253 NGRI patients in a maximum-security institution; and a comparison group made up of 210 convicted men who had been admitted to same institution for brief pretrial psychiatric assessments	Mean follow-up period of 78.2 mo	NGRI group had lower recidivism rate than comparison group. General recidivism rate was 40.7% for the NGRI group and 54.4% for the comparison group. Violent recidivism rate was 20.1% for the NGRI group and 29.4% for the comparison group	Factors associated with recidivism for NGRI group include school maladjustment, being arrested at a young age (ie, <16y old), having a personality disorder diagnosis, alcohol abuse, and higher Level of Supervision Inventory (LSI) score
McGreevy et al <sup>25</sup>	United States (New York)	331 NGRI acquittees granted conditional release	Mean follow-up period of 3.8y	22.7% rearrested	N/A

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Table 1. Continued

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Nicholson et al <sup>26</sup>	United States (Oklahoma)	30 NGRI acquittees discharged from forensic unit	Mean follow-up period of 960.5 d	33.3% rearrested	Acquittees who left the forensic unit AWOL were more likely to be rearrested than those who were discharged at their first court review or after completing treatment.
Tellefson et al <sup>27</sup>	United States (Maryland)	36 NGRI acquittees directly released from forensic hospital into community ("nonregionalized group"), and 24 NGRI acquittees discharged into state mental hospitals before subsequently being released into community ("regionalized group")	5 y	62.5% of regionalized group and 47.2% of nonregionalized group rearrested	Rearrests in the regionalized group associated with the following factors: being between the ages of 25 and 35 y old at admission, lower GAF score at discharge, and less favourable clinical assessment at discharge. Rearrests in nonregionalized group associated with the following factors: heroin addiction, younger age at admission (<35 y), more severe index offence, having more prior arrests, and poor adjustment in hospital
Bailey and Macculloch <sup>28</sup>	United Kingdom	106 male forensic patients released from special hospital (6 patients were readmitted, bringing the total number of cases analyzed to 112)	Mean follow-up period of 6 y (range = 5 mo to 14 y)	36.6% of cases were convicted of an offence following release	Individuals who had a Mental Health Act classification of psychopathic disorder were significantly more likely to have been convicted following release than those with a classification of mental illness. Individuals who were absolutely discharged (as opposed to conditionally discharged), and individuals who had a personality disorder (as opposed to patients without) were also significantly more likely to be convicted post release
Komer and Galbraith <sup>29</sup>	Canada	32 individuals detained under Lieutenant-Governor warrant who had spent time living in community	Mean follow-up period of 8.5 y	18.8% had new charges and 6.3% had new convictions	Factors associated with new charges/convictions include having a primary diagnosis of personality disorder, having a greater number of prior convictions or jail sentences, and having more breaches of the warrant
Wiederanders <sup>30</sup>	United States (California)	191 forensic patients released on condition that they attend community aftercare program, and a comparison group of 44 forensic patients who were unconditionally released with no aftercare	Mean follow-up period of 706.6 d (range = 181-1097 d)	Patients released on condition that they attend aftercare were significantly less likely to be rearrested in follow-up period than those unconditionally released with no aftercare (5.8% vs 27.3%)	Conditional release to community after program associated with lower likelihood of rearrest
Macculloch et al <sup>31,32</sup>	United Kingdom	112 forensic patients discharged from special hospital	Mean follow-up period of 6 y (range = 5 mo to 14 y)	36.6% convicted of a new offence 16.9% reconvicted for serious offence (ie, homicide, assault, rape, indecent assault, robbery, arson)	N/A
Cope and Ward <sup>33</sup>	United Kingdom	51 patients discharged from Special Hospital	Mean follow-up period of 5.3 y (range = 6 mo to 10 y)	11.4% of the 35 patients who were discharged into the community or local psychiatric hospitals were reconvicted	N/A
Russo <sup>34</sup>	Italy	91 patients released from maximum security special hospital	Mean follow-up period of 5 y (range = 1 y and 3 mo to 10 y and 10 mo)	22.0% were rearrested following release, with 7.7% rearrested for at least one violent crime.	Patients who were younger ( $\leq 45$ y), had a diagnosis of psychopathy or oligophrenia, had a previous criminal record, had early criminal experiences (ie, engaged in criminal behaviour as a juvenile), had been hospitalized for short periods (<4 y), came from a family with criminal records, had never received intermediate forms of treatment, and had an index of offence that was a property

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Table 1. Continued

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Reiss et al <sup>35</sup>	United Kingdom	49 patients with a Mental Health Act classification of psychopathy disorder who were treated at the Young Persons Unit of Broadmoor Hospital	Data for follow-up following release into the community was only available for 28 patients. Mean follow-up period for this group was 4.7 y. The remaining 12 patients were still in hospital at the end of follow-up. Mean time spent in hospital was 12.5 y	20.4% of the total sample reoffended, with 16.3% reoffending in the community	or violent offence that was not murder were more likely to be rearrested Factors associated with reoffending include: being in foster care as a child, engaging in fighting or bullying when under the age of 12, having a previous conviction for assault or actual bodily harm, having a previous conviction for a sex offence, and having a lower IQ score. Patients who had stronger employment records and relationship histories before their hospital admission were less likely to reoffend
Wiederanders et al <sup>36</sup>	United States (California, Oregon, and New York)	Comparison of three studies conducted in three different states (California [n = 331]; Oregon [n = 366]; and New York [n = 888]) of NGR1 patients conditionally released	Authors calculated annualized rearrest rates of each study	Annualized rearrest rates: New York: 7.8%, Oregon: 5.8%, and California: 3.4%	N/A
Green and Baglioni <sup>37</sup>	Australia (Queensland)	574 patients admitted to secure hospital	Follow-up period ranged from approximately 2.5–8.5 y	Of the 571 patients released, transferred, granted leave, or offended in hospital, 19.8% reoffended. 11.2% were charged with a violent offence. Of the 194 patients who were insanity acquittees who had been released, transferred, or granted leave, 19.6% reoffended. 11.9% violently reoffended	N/A
Steels et al <sup>38</sup>	United Kingdom	75 men and 20 women with a psychopathic disorder, and a comparison group of 70 men and 19 women with mental illness. Both groups had been discharged from special hospital with a restriction order	Follow-up period ranged from 16 to 18 y for men, and 14 to 18 y for women	Men: 60.0% of men in the psychopathic disorder group, and 20.0% of men in the mental illness group were reconvicted after discharge. Women: 40.0% of women in the psychopathic disorder group and 15.8% of women in the mental illness group were reconvicted after discharge	Men were more likely to be reconvicted and to commit more offences following discharged compared to women. Individuals with a previous conviction or sentence of imprisonment were significantly more likely to be reconvicted
Luetzgen et al <sup>39</sup>	Canada	109 not criminally responsible (NCR) patients treated at a forensic hospital	Mean follow-up period of 6.7 y	Of the 74 patients who were released into the community, 10.8% were convicted of an offence during the follow-up period	N/A
Buchanan <sup>40</sup>	United Kingdom	425 patients discharged from special hospital	10.5 y	5.5 y after discharge: 24% convicted of any offence. 9% convicted of serious offence. 8% convicted of violent offence. 10.5 y after discharge: 31% convicted of any offence. 14% convicted of serious offence. 14% convicted of violent offence	Reconviction associated with factors such as, being younger at time of discharge, having more prior convictions, and having a legal classification of psychopathic disorder
Friendship et al <sup>41</sup>	United Kingdom	234 patients discharged from medium security unit	Mean follow-up period of 6.6 y (range = 6 mo to 14 y)	23.9% convicted during follow-up period. 12.4% convicted of serious offence	

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Table 1. Continued

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Maden <sup>42</sup>	United Kingdom	234 patients discharged from medium secure unit	Mean follow-up period of 6.6 y (range = 6 mo to almost 14 y)	24.0% convicted of any offence. 14.1% convicted of violent offence	Younger age at first admission, shorter length of admission, and greater number previous convictions predicted reconviction
Baxter et al <sup>43</sup>	United Kingdom	63 patients with schizophrenia discharged from a medium security unit	Mean follow-up period of 3.9 y (range = 0.3-8.75 y)	30.2% reconvicted for violent offence	Those who were reconvicted tended to be younger, have more prior convictions, and shorter admission lengths Factors associated with reconviction include young age, having a conduct disorder, having substance use problem (alcohol problems, and poly-rug abuse), and absence of a restriction order
Kravitz and Kelly <sup>44</sup>	United States (Illinois)	43 NGRI patients in outpatient treatment	Length of time in the outpatient treatment program ranged from 4.9 mo to 18.4 y	18.6% reoffended (rearrested or committed new offence)	Reoffending associated with having unimproved or worse symptoms as the outcome of most recent episode
Falla et al <sup>45</sup>	United Kingdom	85 patients discharged from a medium-secure regional psychiatric unit	Mean follow-up period of 3 y and 5 mo	16.4% were reconvicted following discharge, with only 7.1% reconvicted of a serious offence (ie, assault, arson, sexual offences)	N/A
Edwards et al <sup>46</sup>	United Kingdom	225 first admissions to a medium secure unit	2 and 5 y following admission	2 y after admission: of the 66 patients who had been spent some time in the community by the end of the 2-y follow-up period, 10.6% had been reconvicted. 5 y after admission: Of the 104 patients who had a 5-y follow-up period and who had spent some time in the community by the end of that period, 9.8% were reconvicted	N/A
Livingston et al <sup>47</sup>	Canada	200 not criminally responsible on account of mental disorder (NCRMD) individuals discharged to community	2 y following discharge	18.0% charged with new offence. 7.5% convicted	N/A
Lee <sup>48</sup>	United States (California)	Sample includes 74 NGRI individuals treated in community	11 y	Of the 57 insanity acquittees included in recidivism analysis, 50.8% reoffended	N/A
Parker <sup>49</sup>	United States (Ohio)	83 NGRI acquittees conditionally released to community treatment	5 y	4.8% rearrested. Estimated annual rearrest rate was 1.4%	Length of potential conditional release positively associated with rearrest/hospitalization, while a diagnosis of paranoid schizophrenia was negatively associated with rearrest/hospitalization
Bertman-Pate et al <sup>50</sup>	United States (Louisiana)	119 NGRI and incompetent to proceed in community forensic aftercare conditional release program	Study examined rearrests among clients while they were engaged in the program. Mean length of stay in program was 22.6 mo	10.1% arrested for any charge while engaged in the program —2.4% arrested for felony charges, and 7.6% arrested for misdemeanour charges	N/A
Maden et al <sup>51</sup>	United Kingdom	959 patients discharged from medium secure units	2 y	15.1% convicted. 6.3% convicted of violent offences	Factors associated with offending include having more previous convictions, having a history of substance

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Table 1. Continued

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Jamieson and Taylor <sup>52</sup>	United Kingdom	204 patients discharged from high security hospitals	12 y	36.3% convicted following discharge. 25.5% convicted of serious offences	misuse, losing contact with services, and being a survivor of sexual abuse Factors associated with reconviction associated with being detained under the legal classification of psychopathic disorder, having a greater number of previous court appearances, and being younger at discharge
Jamieson and Taylor <sup>53</sup>	United Kingdom	223 patients discharged from high security hospital in 1984, and 212 discharged in 1996	5 y	1984 cohort: of the 197 patients included in the reconviction analysis, 31.0% were reconvicted within the 5-y follow-up period. 18.8% were reconvicted of a serious offence. 1996 cohort: of the 167 patients included in the reconviction analysis, 21.0% were reconvicted within the 5-y follow-up period. 14.4% were reconvicted of a serious offence	1984 cohort: patients with a legal classification of psychopathic disorder, and who were discharged to prison were more likely to be reconvicted. 1996 cohort: patients who were discharged to prison were more likely to be reconvicted than those who were discharged to the community or other setting. Serious reconviction: patients who were discharged to the community were more likely to be reconvicted of a serious offence than patients who were discharged to prison, court or other setting
Alexander et al <sup>54</sup>	United Kingdom	Two cohorts of patients discharged from a medium secure unit for individuals with intellectual disability (cohort 1 = 27 patients; cohort 2 = 37 patients)	Range = 1-13 y	29.7% had police contact. 10.9% received cautions. 10.9% were reconvicted	Patients who were younger ( $\leq 27$ y old), had a history of theft/burglary, or a personality disorder diagnosis were more likely to be reconvicted. Having a diagnosis of schizophrenia was a protective factor against reconviction
Simpson et al <sup>55</sup>	New Zealand	105 forensic patients discharged from in-patient care to forensic community services	Mean follow-up period of 21.7 mo	Of those who were discharged from forensic community services (n = 48), 18.8% were rearrested, 12.5% were reconvicted, and 10.5% were imprisoned	N/A
Skipworth et al <sup>56</sup>	New Zealand	135 NGRI individuals released into community	Maximum follow-up period was 27.5 y	2 y after discharge: 15% reconvicted of any offence. 5.7% reconvicted of violent offence. 10 y after discharge: 40% reconvicted of any offence	Violent reconviction associated with younger age at discharge (<35 y old), Maori ethnicity, and more prior offences
Coid et al <sup>57</sup>	United Kingdom	1344 patients (1167 men and 177 women) discharged from medium secure forensic psychiatry services	Mean follow-up period of 6.2 y (range = <1 mo to 9.9 y)	34.3% of men and 15.3% of women convicted of any offence. 18.1% of men and 5.1% of women convicted of violent offence	Factors associated with violent reconviction include younger age, being male, belonging to minority ethnic group, having more previous violent convictions, having a primary diagnosis of personality disorder, having a primary/comorbid diagnosis of antisocial personality disorder, and having a legal classification of psychopathic disorder. Greater length of admission ( $\geq 2$ y) was a protective factor
Davies et al <sup>58</sup>	United Kingdom	542 patients discharged from medium secure unit	Mean follow-up period of 9.4 y	48.7% reconvicted during entire follow-up period. 14.4% convicted of a grave offence (ie, offences with a maximum sentence of life imprisonment, and arson not endangering life)	Reconviction associated with having a legal classification of psychopathic disorder
Yoshikawa et al <sup>59</sup>	Japan			10.6% arrested/convicted of violent offences	

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Table 1. Continued

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
		489 individuals found not responsible or to have diminished responsibility for an offence. Individuals received psychiatric treatment before being released into community	Median follow-up period of 10.8y (range = 0.1-14.5 y)		Violent reoffending associated with the presence of a substance use disorder, prior violent offending, homelessness, and shorter length of admission (<6 mo). Older age (≥45y old) was a protective factor
Vitacco et al <sup>60</sup>	United States (Wisconsin)	363 NGRI individuals released into community	Mean follow-up period of 2.85y (range = 2-6y)	7.1% had conditional release revoked due to new offence. 3.7% had conditional release revoked due to violent offence	N/A
Blattner and Dolan <sup>61</sup>	United Kingdom	72 patients from a high secure psychiatric hospital who were transferred to and subsequently discharged from a medium secure unit	Study examined reconvictions among patients released directly into the community. Mean follow-up period for this group was 4.9y (range = 0.08-12.17 y)	20.5% of patients released directly into the community were reconvicted. 15.4% were reconvicted of a serious offence (eg, indecent assault of a child, malicious/intended wounding, assault, burglary, robbery)	Patients with a legal classification of psychopathic disorder were more likely to be reconvicted
Sahota et al <sup>62</sup>	United Kingdom	163 patients discharged from medium secure unit (70 discharged to specialized community forensic services and 93 to generic service)	Mean follow-up period of 10y	53% of patients discharged to community forensic services, and 45% of patients discharged to generic service were reconvicted	Discharge to generic service (as opposed to specialized community forensic service) associated with longer time to reconviction
Ong et al <sup>63</sup>	Australia (Victoria)	25 individuals found unfit to stand trial for homicide	3y	3y after release: 4% reoffended	N/A
Bjorkly et al <sup>64</sup>	Norway	38 forensic patients discharged from maximum security forensic unit	Mean follow-up period of 8.23y	34.2% reconvicted. 13.2% convicted for serious violent crime (ie, GBH), and 7.9% convicted for less serious violent crime	Factors associated with reconviction include having a history of drug abuse, being a survivor of childhood sexual abuse, and being subject to a restriction order following discharge
Miraglia and Hall <sup>65</sup>	United States (New York)	386 NGRI patients released into the community	Mean follow-up period of 14y (range = <1 to >26y)	3y after release: 11% arrested for any offence. 3% arrested for violent offence. 5y after release: 16% rearrested for any offence. 7% rearrested for violent offence. Entire follow-up period: 21% rearrested for any offence. 11% rearrested for violent offence	Predictors of rearrest include younger age, being male, and having an antisocial personality disorder diagnosis
Nilsson et al <sup>66</sup>	Sweden	99 violent and/or sexual offenders who were court-referred for pretrial forensic psychiatric investigations —46 were subsequently sentenced to forensic psychiatric care and 53 were sentenced to prison	Mean time spent at liberty was 30.9 mo (range = 0-72 mo)	14.1% (3.0% of the forensic psychiatric care group and 20.7% of the prison group) were reconvicted for a violent offence during conditional release or after discharge	N/A (study did not report on predictors of recidivism for psychiatric care group and prison group separately)
Green et al <sup>67</sup>	Australia (Queensland)	1647 individuals who appeared before the Mental Health Tribunal for determinations relating to soundness of mind or fitness to stand trial	Mean follow-up period of 7.2y (range = 0.8-17.1 y)	Any offending: 30.8% of individuals found to be of unsound mind, and 10.8% of individuals found not fit to stand trial reoffended. Violent offending: 11.9% of individuals found to be of unsound mind, and 1.5% of individuals found not fit to stand trial reoffended in a violent way.	Previous violent offending was positively associated with violent reoffending, while age was negatively associated with violent reoffending
Tabita et al <sup>68</sup>	Sweden	88 forensic patients discharged from medium security unit (only 63 patients included in recidivism analyses)	Mean follow-up period of 9.4y (range = 15 mo to 17 y)	38.1% reoffended. 16.7% of those who reoffended had committed serious violent crimes (ie, sexual offence, homicide)	Factors associated with reoffending include having a substance-related diagnosis, and having a diagnosis of PD

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**Table 1. Continued**

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Lund et al <sup>69</sup>	Sweden	349 male offenders who were court-referred for pretrial forensic psychiatric evaluation—169 were subsequently ordered to forensic psychiatric treatment, 126 were sentenced to prison, and 54 received noninstitutional sanctions	13-30 y. Note that follow-up began from time of sanction to end of study period.	Violent reconvictions: the three offender groups did not differ significantly in terms of violent reconvictions—46.0% of the forensic psychiatric treatment group, 46.7% of the prison group and 50.0% of the noninstitutional sanctions group were reconvicted of a violent offence. Nonviolent reconvictions: the forensic psychiatric treatment group had the lowest rate of nonviolent reconvictions (17.2% vs 27.5% for the prison group and 21.2% for the noninstitutional sanctions group)	N/A (study did not report on predictors of recidivism for each group separately)
Howard et al <sup>70</sup>	United Kingdom	53 men treated in a secure personality disorder unit, and who were subsequently released into the community	Mean follow-up period of 200.7 wk	62.2% reconvicted during follow-up period. Mean time to first reconviction was 121.7 wk	APD/BPD comorbidity, higher PCL-R factor 2 score, and having the risk factor combination of APD/BPD comorbidity, severe conduct disorder in childhood and substance dependence were associated with significantly shorter time to reconviction
Hayes et al <sup>71</sup>	Australia (NSW)	364 NGMI Forensic Patients in NSW	Mean follow-up period of 91 mo	Conditionally released patients: 18.0% of patients on conditional release were charged with new offence, and 11.8% were convicted. 8.7% were charged with a violent offence, and 3.1% were convicted. Unconditionally released patients: 12.5% of patients who had been unconditionally released were charged with new offence, and 9.4% were convicted. 6.3% were charged with a violent offence, and 4.7% were convicted	Reoffending associated with the following factors: being Indigenous, being younger at time of first offence, having previous convictions, having been imprisoned previously, having a substance abuse disorder, having APD, and being unemployed at time of conditional release
Charette et al <sup>72</sup>	Canada	1800 offenders found NCRMD (1768 followed for 3y following index verdict; 1319 followed for 3y following conditional discharge; and 949 followed for 3y following absolute discharge)	Mean follow-up period of 5.7 y (range = approximately 3-8 y)	At 3y after index verdict: 16.7% recidivated with new conviction or NCRMD finding. At 3y after conditional discharge: 20.3% recidivated. At 3y after absolute discharge: 21.3% recidivated	Recidivism associated with the following factors: having a comorbid substance use disorder, having comorbid PD, having a less severe index offence, having prior criminal convictions or NCRMD verdicts, and not being under the Review Board's supervision
Nagtegaal and Boonmann <sup>73</sup>	The Netherlands	447 forensic patients on conditional release	Data on patients' outcomes were recorded for the period of time during which they were on conditional release, as well as at 2 and 5y following unconditional release	Of the 256 patients included in analysis on reoffending while on conditional release, 3.5% were reconvicted. 2y after conditional release, 29.5% of those who had been granted conditional release contrary to experts' recommendations and 16.0% of those who had been granted conditional release consistent with experts' recommendations had reoffended. At 5y, the rates had increased to 46.4% and 26.7% respectively	Factors associated with recidivism include having more prior convictions and being younger at the time of TBS order (a TBS order is a sentence imposed by courts in the Netherlands in relation to individuals found to be unaccountable for their offending due to a mental disorder)
Norko et al <sup>74</sup>	United States (Connecticut)	177 NGRI acquittees granted conditional release; 196 NGRI acquittees unconditionally discharged	Study examines individuals NGRI acquittees granted conditional or unconditional release during the 30-y existence of the Connecticut	Conditionally released patients: 2.3% of those who had been on conditional release were rearrested. Unconditionally released patients: 16.3% of those who had been unconditionally released rearrested	Those who had been on conditional release prior to being unconditionally discharged, longer hospital stays, and spent more time under the Review Board's supervision were less likely to be rearrested

(Continued)

Table 1. Continued

Author/Year Published	Jurisdiction	Sample	Follow-Up Period	Recidivism Outcomes	Risk Factors for Recidivism
Krona et al <sup>75</sup>	Sweden	125 offenders sentenced to forensic psychiatric in-patient treatment	Psychiatric Security Review Board. Median follow-up period of 6.2 y (range = 0.6-9.7 y)	24.0% reconvicted during follow-up period. 13% reconvicted of violent crime	General recidivism associated with the following factors: low educational attainment, younger age at first sentence, having a first degree relative that has a major mental disorder, and not having a Special Court Supervision (SCS) order attached to treatment. Violent recidivism associated with the following factors: low educational attainment, low GAF score, having a cluster B personality disorder, and not having an SCS order attached to treatment
Simpson et al <sup>76</sup>	Canada	60 NCRMD patients who had been absolutely discharged	12 mo following absolute discharge	16.7% reoffended	Factors associated with recidivism: having a psychotic disorder, having a comorbid substance use disorder, not being assessed as low risk under the HCR-20, and having more previous criminal charges
Richer et al <sup>77</sup>	Canada	528 people found not criminally responsible on account of mental disorder (NCR) and placed under the jurisdiction of the Alberta Review Board (ARB)	The follow up period was 1 to 35 y	19.7% reoffended	This study found an inverse relationship between a severe mental disorder and recidivism. In terms of criminological traits this study found that criminal history was a good predictor of recidivism

APD, Antisocial Personality Disorder; BPD, Borderline Personality Disorder; PCL-R, Psychopathy Checklist - Revised

date has undertaken a formal case-control analysis, in part because of the inherent difficulty in identifying a suitable comparison group, but many have made comparisons to local prison-release reoffending rates. In the systematic review described, 10 of the 30 recidivism studies reported rates for comparison populations and in all cases forensic patients were noted to have a lower rate of reoffending.<sup>19</sup> In one of the Australian studies included in the review, a study of 197 forensic patients in NSW, the reconviction rate for conditionally-released patients (followed up for 8.4 years on average) was 11.8% for any offence and 3.1% for any violent offence.<sup>71</sup> While a comparison group was not included, in a study of 661 nonforensic offenders charged with serious but nonlethal violent offence in the same jurisdiction, over half of those diagnosed with psychotic illness had returned to prison during the follow-up period, suggesting that even compared to a psychotic offender control group, forensic patients may have lower rates of recidivism.<sup>78</sup> In a follow-up to the NSW forensic patient study, with an increased sample size of 477, 12-month postrelease reconviction rates were reported in order to make a comparison with routinely reported prison-release reoffending rates in the same jurisdiction.<sup>17</sup> Only 6.3% of the forensic patient sample were found to have committed “proven” offences in the 12 months following release, compared to 41% reported for released prisoners in NSW for the 12 months of 2015.<sup>79</sup> The explanation for the relatively low rate of reoffending for forensic patients released from secure care is unclear but the consistency of findings on this point arguably support the notion that forensic mental health services, typically supported by formal supervision/monitoring frameworks, are successfully contributing to the decriminalization of forensic patients. The specific ingredients of the complex models of forensic mental health care that give rise to this impact are, however, unknown.

### Risk Factors for Reoffending Following Release from Secure Care

While rates of reoffending appear to be relatively low for forensic patients released from secure care, it is important to understand the drivers of reoffending in this group if efforts at further reducing postrelease contact with the CJS are to be successful.

Table 1 summarizes the postrelease reoffending predictors reported in published studies of forensic patient samples (from 1982 to 2018). Factors related to previous CJS contact, such as the number and type of previous charges, as well as age of first offence, were highlighted by many studies. Some studies identified that measures related to service or organizational interventions, such

as failures of prior supervision or restriction, were noted by some studies. A few studies found that length of hospital admission was associated with risk of postrelease reoffending but there was no consistency with regard to the direction of the association. Few studies commented on positive factors associated with reduced risks (eg, employment).

With regard to clinical risk factors, two key factors are commonly identified as important predictors of postrelease reoffending. Somewhat related to the importance of measures of prior criminality and supervision failures, a recorded co-morbid diagnosis of personality disorder, particularly of antisocial type has been identified as an important clinical predictor of postrelease reoffending in a number of forensic patient samples. A 36 year study of 6520 patients released from forensic hospitals in Sweden, found that a diagnosis of personality disorder, either as the only diagnosis or co-morbid with a psychotic illness or substance use disorder, was associated with a higher rate of violent reoffending.<sup>80</sup> Similarly, in the expanded NSW forensic patient study described earlier, the presence of a recorded clinical diagnosis of co-morbid personality disorder was found to be the only independent predictor of postrelease reoffending.<sup>17</sup> The importance of co-morbid antisocial personality disorder in predicting adverse outcomes for forensic patients supports the calls for “criminogenic needs” to be a stronger focus of the interventions provided by forensic mental health services,<sup>81</sup> although even in the nonforensic literature, the evidence of benefit for the current approaches to recidivism reduction remains limited.<sup>82</sup>

Substance use problems have also been identified as clinical targets for intervention in forensic patient studies<sup>83</sup> but there have been few evaluations of substance use interventions in forensic settings. In one recent study of an inpatient intervention adapted for forensic patients, substance-related knowledge and self-reported relapse prevention skills were increased in completers compared to noncompleters,<sup>84</sup> but there was no impact on time-to-first substance use or on rates of positive urine screening during follow-up. The impact on reoffending behavior was not examined.

The extent to which identified predictors of postrelease reoffending can be useful targets for intervention depends on their dynamic nature, as well as on the availability of evidence-based and targeted interventions. Beyond treating severe mental illness, the interpersonal and emotion regulation problems characteristic of co-morbid personality disorder, and the persistence of substance use problems appear to be the key targets for forensic mental health services to address if postrelease reoffending is to be further reduced. Developing an evidence base to support such efforts needs to be prioritized.

## Conclusions

While they may be a relatively small subgroup, forensic patients should not be neglected in the development of strategies to decriminalize mental illness, particularly in light of the complex and costly nature of their care and the seriousness of their offences. The prevention of CJS contact for individuals with emerging severe mental illnesses may require a targeted approach, challenging the assumption that optimal mental health treatment will inevitably improve the full spectrum of potential outcomes for all. Preventing repeat CJS contact for forensic patients released from secure care is an important outcome for forensic mental health services and should be considered among the range of decriminalization strategies. The relatively low reoffending rates consistently reported for released forensic patients are encouraging but further work is needed to develop the evidence base required to address the factors repeatedly identified as predicting postrelease reoffending.

## Disclosures

Kimberlie Dean, Sara Singh, and Yin-Lan Soon do not declare any conflicting interests in relation to this publication.

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