

Does compulsory or supervised community treatment reduce 'revolving door' care?

Legislation is inconsistent with recent evidence

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Summary Supervised community treatment to address 'revolving door' care is part of the new Mental Health Act in England and Wales. Two recent epidemiological studies in Australia ($n > 118\,000$), as well as a systematic review of all previous literature using appropriately matched or randomised controls ($n = 1108$), suggest that it is unlikely to help.

Declaration of interest None.

Although many patients have benefited from the de-institutionalisation of mental healthcare, there have been concerns that some have not received the care they require. Compulsory community treatment may help people stay in contact with services but remains controversial. Approaches include conditional discharge from hospital, community treatment orders for patients who are in the community, and court-ordered civil out-patient commitment.

One problem has been that much of the literature is based on opinion or uncontrolled studies. However, recent studies have used matching, multivariate analyses or randomisation to compare patients on compulsory community treatment with those not subject to such interventions. In the past year there have been four papers from two large studies based on the Victorian Psychiatric Case Register in Australia ($n > 118\,000$) (Burgess *et al*, 2006; Segal & Burgess, 2006a) as well as a systematic review of all previous literature using appropriately matched or randomised controls ($n = 1108$) (Kisely *et al*, 2007). This is timely, as the Department of Health in England and Wales has included supervised community treatment in the new Mental Health Act to address the issue of 'revolving door' care (Department of Health, 2006).

The clearest indicator of whether compulsory community treatment helps 'revolving door' patients would be the number of bed-days rather than admissions. The intervention can only be the least restrictive alternative if individuals spend less time in hospital. In contrast, interpretation of the effect on admissions is less clear. Community treatment orders could conceivably either reduce admission rates, so allowing individuals to remain in their communities during treatment, or increase them, as a result of earlier identification of relapse.

DOES COMPULSORY COMMUNITY TREATMENT REDUCE 'REVOLVING DOOR' CARE?

The latest data give a mixed picture of whether compulsory community treatment would help. In Victoria, conditional discharge was associated with an overall mean increase of 15 bed-days, despite a reduction in the days per admission or care episode (Segal & Burgess, 2006a). The interpretation of this is unclear, but it could represent an increase in 'revolving door' care whereby individuals have more admissions and spend greater time in hospital. This would be consistent with another study using the same Victorian database where the risk of readmission increased following initial placement on a community treatment order (Burgess *et al*, 2006). These findings also reflect a systematic review of the literature pre-dating the two Victorian studies (Kisely *et al*, 2007). Five studies were included: two randomised controlled trials (RCTs) and one controlled before-and-after (CBA) study of out-patient commitment in the USA (Geller *et al*, 1998; Swartz *et al*, 1999; Steadman *et al*, 2001), and two CBA studies of community treatment orders in Western Australia (Preston *et al*, 2002; Kisely *et al*, 2005a). This failed to demonstrate a significant reduction in

bed-days between patients receiving compulsory community treatment and controls.

ARE THERE OUTCOMES ON WHICH COMPULSORY COMMUNITY TREATMENT MIGHT HAVE AN EFFECT?

There are several potentially significant areas where the intervention was found to have an effect. Although community treatment orders used on initial discharge from hospital were associated with a higher risk of readmission, orders following subsequent admissions were associated with a lower risk (Burgess *et al*, 2006). However, we do not know the effect on bed-days, which may be the more critical measure of health service use. It was also difficult to determine whether this was also affected by changes in the use of compulsory community treatment over time, given that the number of orders increased from 919 in 1992 to 2260 in 2000 (Burgess *et al*, 2006).

Compulsory community treatment may also be more effective in early-episode cases when used within 30 days of initial admission to specialist services (Segal & Burgess, 2006b). However, the use of community treatment orders in first-episode cases would be impossible in most jurisdictions outside Australasia, where orders are limited to patients who have had substantial health service use in the year prior to the intervention. Another positive finding is that compulsory community treatment may reduce subsequent mortality (Segal & Burgess, 2006c). However, 10% of the patients in that study had dementia or other nervous system disease, which is not typical of populations elsewhere who are receiving compulsory community treatment, and patients with these diagnoses made up 29% of the total deaths.

WHAT ARE THE POLICY AND RESEARCH IMPLICATIONS?

None of the studies of compulsory community treatment is entirely satisfactory. The systematic review of the literature with appropriately matched or randomised controls that pre-dated the studies from Victoria was limited by the small number of studies (two RCTs and three CBA studies) (Kisely *et al*, 2007). Both RCTs were of court-ordered out-patient commitment in the USA, which may not be generalisable to other jurisdictions where compulsory

community treatment is initiated by clinicians and excludes patients with a history of violence (Swartz *et al*, 1999; Steadman *et al*, 2001). Of the three CBA papers, two were epidemiological studies from Western Australia which compared patients given community treatment orders with controls from within the same jurisdiction and internationally ($n=652$) (Preston *et al*, 2002; Kisely *et al*, 2005a). However, the two studies were restricted to patients given treatment orders in the first year of the legislation and may not reflect subsequent practice as clinicians gained experience in the use of the Act.

The two studies using the Victorian register were considerably larger and not subject to selection bias (Burgess *et al*, 2006; Segal & Burgess, 2006a). They also covered a decade's experience of the legislation, and so may give a clearer picture of the longer-term effects than studies restricted to the first year of operation. However, there were also significant limitations. The authors did not match for date of placement on conditional release and so could not exclude the effect of other health-system changes that might have occurred between 1990 and 2000. In one study, conditional release and the outcome of interest had to occur in the same year (Burgess *et al*, 2006); in the other, the authors controlled for time of first contact with mental health services and mean year (Segal & Burgess, 2006a). Neither of these is quite the same as matching for discharge date. Controlling for time of first contact with mental health services could be affected by people arriving from other jurisdictions with pre-existing illness not captured by the Victorian Psychiatric Case Register. More importantly, although Segal & Burgess (2006a) controlled for time at risk, there was no stipulation that the event of interest (e.g. readmission or mortality) had to occur within a certain period of placement on conditional discharge. This means it could occur any time from 1 day to 10 years after the index date, whether someone was still on conditional discharge or not. Most previous work in this area has limited follow-up to 12 months after the order, as one has to be very cautious of ascribing an effect beyond a year following initial placement (Preston *et al*, 2002; Kisely *et al*, 2007).

In the case of mortality, the authors did not control for confounders such as life-style, psychotropic medication, reduced access to general medical care and the

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difficulties in recognising physical comorbidity in psychiatric patients with physical complaints (Kisely *et al*, 2005b; Segal & Burgess, 2006c). Furthermore, 72% of the deaths in people with mental health problems occur in patients who had only ever been seen in primary care (Kisely *et al*, 2005b). Conditional discharge could therefore only play a very small part in addressing the increased mortality among patients with mental health problems, even if such a link were to be established.

Irrespective of how epidemiological studies have controlled for confounders, the selection of controls from the same jurisdiction as the community treatment order cases may be subject to confounding from variables such as social disability or characteristics of the treating team (Kisely *et al*, 2005a). These might explain why some patients and not others were given compulsory community treatment. Comparing jurisdictions with and without compulsory community treatment partially addresses this concern but raises the issue of comparability of the two health systems, especially with international comparisons (Kisely *et al*, 2005a).

In conclusion, there is limited evidence that compulsory community treatment will address the issue of the 'revolving door', at least in the short term, even though this is the Department of Health's main justification for supervised community treatment in England and Wales (Department of Health, 2006). This issue illustrates how health policy remains determined by social or political factors as much as by evidence (Black, 2001). At the very least, researchers, funding bodies and policy makers should collaborate in evaluating the effects of the proposed legislation. Studies should ideally include a range of patient, family and health service outcomes using mixed methods, rather than focus on admission rates and lengths of stay. In the meantime, it might be more appropriate to acknowledge openly the limits of our knowledge, rather than rely on the illusion that evidence exists.

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