

# Coercion in mental health: a trial of the effectiveness of community treatment orders and an investigation of informal coercion in community mental health care

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## Scientific summary

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# Scientific summary

The Oxford Community Treatment Order Evaluation Trial (OCTET) Coercion Programme focused on *formal coercion (compulsion)*, authorised by mental health legislation, and *informal coercion*, treatment pressures used by mental health professionals (including *leverage* or use of a treatment *lever*).

## OCTET study

### Background

Compulsory supervision outside hospital has been developed internationally for the treatment of mentally ill people following widespread deinstitutionalisation. Its efficacy has not been proven. Community treatment orders (CTOs) were introduced in England and Wales in 2008. Evidence for their effectiveness was equivocal, with much of it based on non-randomised studies. Two prior randomised controlled trials (RCTs) found that it did not reduce hospital readmission. Little is known about patients' or family carers' perspectives.

### Overall design

The OCTET study comprised:

- an RCT (OCTET Trial)
- an economic evaluation
- a qualitative study
- an ethical analysis.

We developed and tested a new quality-of-life measure based on the capabilities approach. We conducted a consultation exercise with key groups before finalising our trial design, which led to a detailed analysis of its lawfulness.

## OCTET Trial

### Objective

The primary objective was to test the hypothesis that patients with psychosis and a history of compulsory admissions in the CTO arm of the trial would experience a reduction in relapses and thus readmissions to hospital compared with those in the non-CTO arm. Secondary and tertiary objectives were to investigate whether or not they would experience a greater delay to readmission, shorter admissions or improvements in clinical and social outcomes.

### Design

The OCTET Trial was a single-outcome, parallel-arm, non-blinded randomised trial.

### Participants

Participants were patients (aged 18–65 years) with psychosis diagnoses, currently admitted involuntarily and considered for ongoing community treatment under supervision.

### Interventions

Our aim was to compare CTO use to voluntary outpatient treatment. This was modified on the basis of the legal analysis. We randomised patients to leave hospital either on a CTO or via Section 17 Leave. There was an understanding that Section 17 Leave was to be restricted to a short period of days, or at most weeks, before discharge to voluntary care.

### Main outcome measures

The trial primary outcome was psychiatric readmission. Secondary and tertiary outcomes included hospitalisation and a range of clinical and social measures.

### Procedure

Patients were assessed at baseline, and 6 and 12 months. The primary outcome was analysed with a log-binomial regression model adjusted for the stratification factors. All analyses were intention to treat.

### Results

Of the 442 patients assessed, 336 patients were randomly assigned to be discharged from hospital either on CTO ( $n = 167$ ) or via Section 17 Leave ( $n = 169$ ). One patient withdrew directly after randomisation and two patients were ineligible. Full primary and secondary outcome data were obtained for the remaining 333 patients (166 CTO and 167 non-CTO).

At 12 months, despite the fact that the length of initial compulsory outpatient treatment differed significantly between the two groups (median 183 days CTO group vs. 8 days non-CTO group;  $p < 0.001$ ), the number of readmissions did not [59/166 (36%) of patients in the CTO group vs. 60/167 (36%) of patients in the non-CTO group; adjusted relative risk 1.0 [95% confidence interval (CI) 0.75 to 1.33]]. There was no significant difference between the two groups in any secondary or tertiary outcome. The two statistically significant interactions in the subgroup analysis demonstrated no pattern.

### Conclusions

Community treatment orders do not confer early patient benefits despite substantial curtailment of individual freedoms.

## Economic evaluation

### Methods

We conducted a detailed cost analysis of health, social care and broader societal costs, and an incremental cost-effectiveness analysis comparing the CTO and non-CTO groups over the 12 months. This was based on 328 patients (excluding five patients who died during 12-month follow-up). We collected data on all hospital and community health and social services, psychotropic medication, productivity losses, informal care, manager hearings and tribunals.

### Results

There was no significant difference in the change in quality-adjusted life-years gained during 12-month follow-up between the CTO and non-CTO groups, nor was there an indication of benefit for CTO in terms of patients' capabilities either in the complete case analysis [ $n = 67$ , mean Oxford Capabilities Questionnaire – Mental Health (OxCAP-MH) index difference: 0.818, 95% CI  $-2.04$  to  $3.68$ ;  $p = 0.58$ ] or the full imputed data set ( $n = 328$ , mean OxCAP-MH index difference: 0.527, 95% CI  $-0.62$  to  $1.68$ ;  $p = 0.37$ ).

### Conclusions

Community treatment order use did not reduce hospitalisation costs and there was no evidence that it might be cost-effective. It had no significant impact on patients' health-related quality of life or capabilities. CTOs also significantly increased informal care and legal procedures costs. CTOs are unlikely to be cost-effective from a health and social care or a broader societal perspective.

## OCTET Qualitative Study

### Methods

We conducted in-depth interviews with subsamples of patients, family carers and mental health professionals.

### Results

Our results focus on in-depth interviews about CTO experiences with 26 patients, 24 family carers and 25 psychiatrists. The primary analysis presented focused on experiences of CTOs, in particular CTO conditions and recall. This showed divergent views about recall, conditions and perceived effectiveness. The importance of *legal clout* emerged from the data.

### Conclusions

Community treatment order implementation may be influenced by interactions between patients, psychiatrists and family carers, their interpretation of the legislation and how they act on these interpretations. There was no universal view on CTOs within or between the three groups, but considerable uncertainty about the regime, such as when recall is permitted. CTOs' (perceived) focus on medication adherence may influence how they are experienced.

## OCTET Ethical Analysis

### Methods

An empirical ethical analysis aimed to determine how key ethical considerations should underpin practical judgements about any ethical justification for the use of CTOs. We used data from the trial and conducted a focused thematic reanalysis of the qualitative data to highlight ethical dimensions.

### Results

Analysis of the data revealed complex ways in which the ethical considerations of patient *benefit*, *autonomy* and *liberty* are perceived to play out in the context of individual patient care.

### Conclusions

No general ethical justification was found for the introduction or use of a CTO regime. In some limited situations, the promotion of patient autonomy could justify using a CTO, but this should not be done when the patient's autonomy could be promoted by another means.

## OCTET Capabilities Project

We developed a new measure of quality of life for people with severe mental illness, based on the capabilities approach: OxCAP-MH. This provides a complementary outcome measure to health-related quality of life and social functioning.

## OCTET Legal Analysis

We conducted an investigation into whether or not an RCT could be designed that would permit researchers to collect lawfully the treatment outcomes required to evaluate rigorously involuntary outpatient care. This concluded that patients could simultaneously meet the legal requirements for discharge to both a CTO and Section 17 Leave and neither a CTO nor Section 17 Leave could be clearly demonstrated to be the *least restrictive* option. The OCTET Trial was thus designed lawfully to compare the treatment outcomes of CTOs against treatment initially on Section 17 Leave.

## OCTET Follow-up Study

### Background

Serious concerns have been raised that CTO use might lead to disengagement from services.

## Objectives

Our objectives were to investigate:

- the association between compulsion and levels of disengagement
- the effect of trial randomisation arm on levels of disengagement and readmission rates
- the association between CTO use and readmission to hospital for patients who experienced time on a CTO
- the differential impact of baseline characteristics on the effect of duration of compulsion on discontinuity of care.

The primary objective was to test the hypothesis that a longer time under compulsion would increase disengagement from mental health services or discontinuity of contact. These were defined as:

- *disengagement*: no service contact for a period of at least 3 months (90 days) immediately preceding final follow-up
- *discontinuity*: any 2-month period (60 days) of no service contact.

## Design

The OCTET Follow-up Study followed up the OCTET Trial cohort ( $n = 333$ ) at 36 months after randomisation, collecting data from medical records.

## Participants

Participants were the 333 patients participating in the OCTET Trial.

## Outcomes

The primary outcome was the level of disengagement during the 36-month follow-up period. Two variables were used to measure this:

1. time to disengagement
2. discontinuity of treatment over time (number of time periods of  $\geq 60$  days in community care without a contact with services).

Secondary and tertiary outcomes comprised a range of hospitalisation outcomes.

## Procedure

We collected all data from medical records.

## Results

Rates of consistent clinical follow-up were much greater than expected (94% at 36 months). Just over half of the sample ( $n = 187$ , 57%) had no discontinuity in their care. There was no significant difference between the CTO and non-CTO groups in this respect [hazard ratio (HR): 1.72, 95% CI 0.68 to 1.39;  $p = 0.253$ ]. There was no difference in any readmission outcomes over the 36 months. Longer duration of compulsion was associated with longer time to disengagement (HR: 0.946, 95% CI 0.90 to 0.99;  $p = 0.023$ ) and fewer periods of discontinuity [incidence–density ratio (IDR): 0.96, 95% CI 0.95 to 0.98;  $p < 0.001$ ]. There was a significant association ( $p = 0.019$ ) between the duration of psychiatric hospital readmission and the duration of community compulsion.

## Conclusions

There was no evidence that increased coercion led to disengagement from services. There was no convincing evidence for improved hospitalisation outcomes from CTOs at 36 months.

## ULTIMA Study

### *Background*

The shift towards providing mental health services in community rather than in hospital presents a range of challenges. Mental health professionals working in community settings face a particular difficulty when patients for whom they hold responsibility do not wish to receive their services. There is a pressing need to understand the extent and nature of informal coercion and leverage. Data from the USA suggested that half of mental health patients may experience leverage, when this was defined as relating to housing, finance, the avoidance of criminal sanction and outpatient commitment.

### *Design*

The study comprised:

- a quantitative cross-sectional study of leverage in England, comparison with a previous US study and an exploration of perceived coercion
- a qualitative study of patient and professional perceptions of informal coercion
- an ethical analysis.

## ULTIMA Quantitative Study

### *Participants*

Participants comprised patients from Assertive Outreach Teams, from Community Mental Health Teams (with and without psychosis diagnoses) and from substance misuse services.

### *Procedure*

We interviewed patients using a series of well-established questionnaires and instruments covering demographics, psychiatric and legal history, clinical and social characteristics, medication, experiences of services, experiences of leverage (related to housing, finance, avoidance of criminal sanction and child access), perceived coercion and service usage. We compared the four subgroups to each other and also compared the total sample to the US sample. We explored associations between sample characteristics and experience of the four types of leverage, any leverage and more than one leverage. We also examined a range of variables assessing perceived coercion and patients' views of the fairness and effectiveness of treatment pressure.

### *Results*

The Quantitative Study sample comprised 417 patients. One-third (35%) of the sample reported lifetime experiences of leverage. This was lower than in the USA (51%), but patterns of leverage experience were similar. Housing leverage was the most frequently reported type. Rates of most leverages in the substance misuse sample (63% reporting any leverage) were higher than those in the USA and our other subgroups. Patients were more likely to report leverage if they had experienced repeated hospitalisations, had a substance misuse diagnosis and were more insightful. They were more likely to report multiple types of leverage if they had a substance misuse diagnosis, did not live independently and had a history of imprisonment. Patients in the mental illness groups alone were more likely to report leverage if they had children aged < 18 years, had a diagnosis of schizophrenia and did not live independently. They were more likely to report multiple types of leverage if they had children aged < 18 years. Reporting leverage made little difference to patients' assessments of the coerciveness of their care and its fairness and effectiveness.

### *Conclusions*

Leverage is widespread in English mental health care.

## ULTIMA Qualitative Study

### Methods

We conducted in-depth interviews with a subsample of patients from the Use of Leverage Tools to Improve Adherence in community Mental Health care (ULTIMA) Quantitative Study and focus groups with a sample of mental health professionals. These focused on how informal coercion and leverage are perceived and experienced, how and when they are used, and how they are perceived to take effect and ethical issues.

### Results

The Qualitative Study sample comprised 39 patients and 48 mental health professionals. Our analysis draws on interviews with 29 patients with mental illness diagnoses and six focus groups with the 48 professionals. We identified clear differences between *leveraged* and *non-leveraged* pressures, which enabled us to identify a patient-derived concept of leverage, based on the presence of *conditionality*, a *lever* and the *perceived power of the agent* to bring about the stated consequences. We also found additional types of pressure to those measured in the Quantitative Study.

### Conclusions

Patients' experiences of pressure were wide-ranging and pervasive, perceived to come from family, friends and themselves as well as professionals. Professionals were committed to patient-centred approaches, but felt obliged to assert their authority when patients deteriorated.

## ULTIMA Ethical Analysis

We conducted a detailed conceptual and ethical analysis of threats and offers made to patients by professionals for the purpose of improving adherence to treatment in the context of community mental health care, and produced a framework for judging the ethical status of an offer. We also conducted an examination of whether or not professionals act ethically when they use leverage in a variety of ways using interview and focus group transcripts from the Qualitative Study.

On the basis of our Ethical Analysis, we propose a five-step framework for determining the ethical status of offers by mental health professionals, designed to be a practical tool for decision-making, and give detailed guidance for professionals about how to exercise leverage, based on four duties: the duty to (1) benefit the individual patient; (2) benefit other individuals (particularly carers, dependents and the wider public); (3) treat patients fairly; and (4) respect patients' autonomy.

### Overall conclusion

- Community treatment orders do not deliver clinical or social functioning benefits for patients, and the evidence is now sufficiently strong that, in the absence of further trials, moves should be made to restrict or stop their use.
- Informal coercion is widespread and takes different forms.

### Funding details and data

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## **Trial registration**

This trial is registered as ISRCTN73110773.

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