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# Executive Summary

## Cost and Cost Effectiveness of Treatment as Usual in Drug Misuse Services

Leeds Addiction Unit and the Centre for Health Economics at the University of York

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# Cost and Cost Effectiveness of Treatment as Usual in Drug Misuse Services

## EXECUTIVE SUMMARY

### AIMS & OBJECTIVES →

The aim of the study was to gather information about what actually happens in a sample of UK Drug Treatment Services in terms of what kind of interventions are delivered and how effective and cost effective are these interventions when judged against key outcome domains.

The specific objectives were:

- To describe treatment as usual in a range of different drug misuse service providers.
- To estimate the range of costs of treatment as usual.
- To estimate the cost effectiveness of treatment and investigate factors that facilitate and hinder successful involvement.
- To measure the effectiveness of treatment as usual.

In estimating cost effectiveness it was assumed that treatment was the major determinant of improved outcome. It can be argued that such an assertion would require comparison with a no treatment control group. However, given the weight of evidence that 'treatment works', it would have been unethical to have a no treatment control. Moreover, treatment as usual is often used as the control in trials of novel treatments.

### POLICY RELEVANCE →

Little is known about what actually happens when service users are referred to service provider agencies and engage in treatment. Most research into treatment outcomes compares gold standard interventions against a novel treatment. This is a legitimate way to test the optimal delivery of particular interventions but says little about the diversity of activity that is found in agencies across the UK.

The National Drug Strategy 1998/2008 has been supported by a substantial investment of government funds in drug misuse treatment agencies. This study contributes to an understanding of how the investment translates into treatment activity, and how the investment impacts on health and social care and the criminal justice system. This study contributes to the development of policy by:

- Describing treatment as usual in a sample of UK drugs agencies
- Estimating the cost of treatment in a sample of UK drugs agencies
- Prospectively estimating cost effectiveness
- Describing a methodology for routinely costing treatment
- Further development of treatment process and outcome measures
- Informing the further refinement of Models of Care

### BACKGROUND →

The UK Drug Strategy 1998/2008 has attempted to bring as many drug users as possible into treatment. Many individuals now in treatment have come through the Criminal Justice System. One can reasonably assume from this that, on the one hand, there are significant numbers in treatment who are not looking to change their drug using behaviour but, on the other hand, retaining these people in treatment is likely to deliver significant Criminal Justice System savings. The effect of the Strategy has been that more people enter the treatment system and more people stay on substitute prescriptions. In order to contain the demand, commissioners are moving away from open ended treatment packages to time limited packages. This study sets out how service providers define their own care packages and how effective these are in engaging and retaining service users.

Few UK studies have attempted to estimate the cost of substance misuse services. Where structured psychosocial treatments have been compared, trials have found few differences between the specific treatments under investigation. In the UK Alcohol Treatment Trial the average cost of Motivational Enhancement Therapy was £129.00 as compared to the more intensive Social Behavioural and Network Therapy costing £221.00. However, both delivered similar cost effectiveness and both fell within the NICE benchmark of £20,000 - £30,000 to deliver one quality adjusted life year (QALY). In the National Treatment Outcome Research Study (NTORS) methadone maintenance programmes were found to cost between £7.00 and £98.00 per week.

Cost and Cost Effectiveness studies need to be interpreted with great caution. At first sight, there appears to be a huge diversity in both costs and outcomes. However, on closer inspection, it can be seen that costs have been estimated in different ways. Contributory variables are differences in accounting methods, differences in service user characteristics, and differences in the aims of treatment.

## METHODOLOGY

The study planned to recruit 400 service users from seven drug misuse agencies. The cohort was followed up at 6 months and outcomes determined the costs of treatment and change in the key domains of substance use, substance dependence, social satisfaction, and psychological morbidity. The EuroQol was used as an outcome measure in order to allow comparisons with NICE criteria for cost effectiveness.

The seven participating agencies were intentionally chosen because of their differences. All of the agencies were community based but were drawn from different treatment sectors and were located in very different catchment areas. The intention was that participating agencies should form a reasonable cross section of UK service providers.

The follow-up procedure was developed from a methodology used in previous projects. The costing method was also developed from a methodology used in previous projects. The costing method took account of health, social, and criminal justice costs (NICE excludes criminal justice costs).

## FINDINGS

All of the service providers were found to have made a positive response to help seekers and all delivered statistically significant health and social gains. Broadly speaking, treatment took people out of the criminal justice system, with highly significant public sector cost savings, and got people into health and social care systems, with some additional public sector cost. The size of the treatment effect was similar to that found in other areas of healthcare and within the NICE approved cost limit. The key findings were:

1. The seven participating service providers were different in terms of:

- The size and ethnic mix of their catchment areas
- The service user characteristics
- The size of the staff group and staff skills mix
- The role of the agency within the local treatment system
- The treatments offered
- The range of parent organisations

2. Just over 40% of all people referred to the treatment providers never attended (during the recruitment period). Agencies tended to under-estimate their non attendance rates.

3. The outcome measures package, RESULT, worked well. Study participants were in less good general and psychological health than the general population: 0.74 against 0.93 on the EQ-5D (general wellbeing) and 25.8 against 56.3 on CORE-OM (psychological problems).

4. At 6 month follow up there were statistically significant ( $p < 0.001$ ) reductions in substance dependence, physical health symptoms, psychological health symptoms and an increase in social satisfaction.

5. Societal costs were reduced from a mean of £5,414 to £4,133. The mean change of £1,281 at 6 months was the result of reduced criminal justice costs (-£1,813) and increased uptake on health and social care (+£532).

6. The mean cost of treatment for the 6 month period was £647 derived from a mean of 33 appointments. The range was £261 - £1,167 and 27 - 67 appointments (these include direct and indirect service delivery costs).

7. The range of interventions that agencies said they provided and the cost of these varied markedly. There was a high proportion of unstructured and prescribing related interventions as compared to manual based psychosocial interventions.

8. The mean change in Quality Adjusted Life Years (QALYs) for this study was 0.29 QALY in 6 months (NICE considers £20,000 - £30,000 an acceptable cost per 1.0 QALY gain).

9. At follow-up participants completed a Treatment Perceptions Questionnaire. The mean score for perceptions about the staff was 2.78 and perceptions of the treatment programme was 2.73 (0 is the worst possible score and 4 the best possible). A third of service users added comments about their treatment and these were overwhelmingly positive.

10. At some level all agencies expressed benefits from participating in this service orientated research. There is scope for improving service delivery by providing training in the delivery of interventions, by routine monitoring of process and outcomes, provision of routine supervision of practice and review of service costs.

## DISCUSSIONS AND RECOMMENDATIONS

The most striking finding from this study is the diversity of activity in different agencies which is somewhat surprising given the centralisation of control that has accompanied the National Drugs Strategy 1998/2008. In many ways the service users are also a diverse group, however, what is also striking is the extent to which service users have high levels of physical and psychological morbidity. This may not be surprising given the level of substance misuse including a very high prevalence of smokers but the implication is that engagement in treatment will, at least in the short term, result in increased use of health resources.

It is recommended that:

- Agencies develop and adopt local outcome measures. The RESULT outcomes package was found to be acceptable to both service users and agencies.
- Agencies could rationalise the number and variety of interventions offered. Interventions should be guideline based and staff should demonstrate competence at delivering interventions.
- Agencies should pay attention to treatment delivery as much as to the specific treatments offered. Improved outcomes can be achieved at relatively low cost by organisational support for training and supervision of practice.

It is not possible to know how representative of UK treatment providers the participating agencies might be. The agencies will readily be recognised as the kind of service providers commonly found in most towns and cities and offering commonly used interventions. It is likely, therefore, that findings from the study are generalisable.

It would have been desirable to have a 3 month and 12 month follow-up. Without the 12 month follow-up it is difficult to know how many people coming into treatment will successfully exit and how many will reinstate substance misuse behaviours and criminal activity. It cannot be assumed that good outcomes will be sustained particularly where substitute prescribing has been instrumental in bringing about early improvement.

The study has shown that it is possible to undertake good quality research in drug misuse services. All participating agencies expressed a belief that there had been benefits from the collaboration. Agencies cited improved data collection, a better understanding of outcome measures and improved retention of service users (by virtue of the follow-ups) among the most important benefits of participating in this study.

## RESEARCH TEAM

**Leeds Addiction Unit:** Duncan Raistrick, Consultant Addiction Psychiatrist; Gillian Tober, Honorary Consultant Addiction Psychologist; Steve Lui, Research Co-ordinator; Adele Loftus, Research Administrator; Sarah Maddox, Research Assistant; Christina Cheney, Research Assistant; Emma Bates, Research Assistant.

**University of York:** Christine Godfrey, Professor of Health Economics; Steve Parrott, Principal Investigator and Research Fellow in Health Economics; Veronica Morton, Statistician.

**Collaborators:** Jez Thompson – GP Lead, Leeds North East Community Drug Treatment Agency & Rapid Access Prescribing Service; Linda Harris – Clinical Director for Wakefield Integrated Substance Misuse Service; Tracey Hogan – Director of Clinical Standards and Practice, Alcohol and Drug Services Manchester.

**Link administration staff:** Anne Mahoney – Leeds Addiction Unit; Mary Cunningham – North East Drugs Service; Val Booth – Wakefield Turning Point; Michelle Stringer – Castleford Turning Point; Judy Brereton & Lucy Kennedy – Wyre Alcohol Drug Services; Cormac Downey, Greta Jones & Susan Dolby – Bolton Alcohol Drug Services; Laura Bromley & Emma Flynn – Rapid Access Prescribing Service.

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## DISCLAIMER

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