

# Primary care

## Opportunity cost of antidepressant prescribing in England: analysis of routine data

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Recently, prescribing of antidepressant drugs has increased exceptionally.<sup>1</sup> At the same time, concerns have been raised about the medicalisation of human distress and, more recently, about the safety of antidepressants.<sup>1</sup>

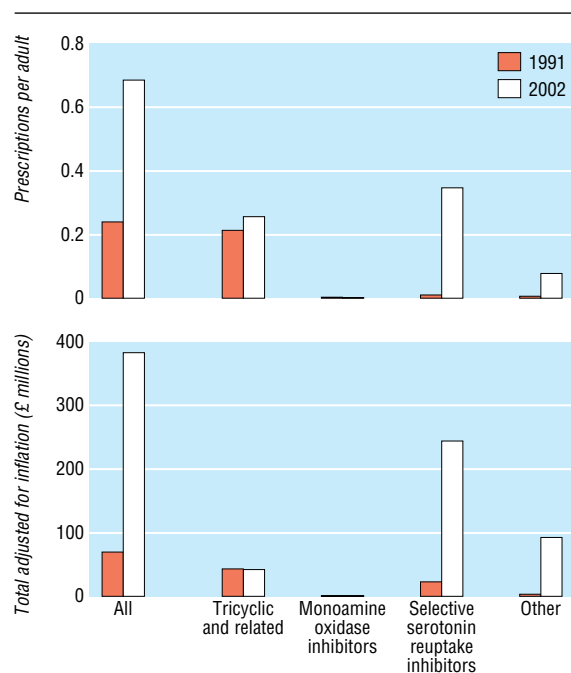
Many general practitioners would like to refer patients for psychological treatment, for which there is good evidence of effectiveness,<sup>2</sup> but are constrained by the lack of NHS therapists. We estimated the opportunity cost of the recent rise in antidepressant prescribing by valuing it in terms of an effective alternative treatment—cognitive behaviour therapy.

### Methods and results

We used Department of Health data on the number and cost of antidepressant drugs dispensed in the community in England to quantify the changes between 1991 and 2002. The baseline year (1991) was chosen to ensure a meaningful timescale and to cover a period of consistent approaches to recording. We took population statistics from [www.statistics.gov.uk/statbase](http://www.statistics.gov.uk/statbase), and applied an inflation rate of 32% (from [www.statistics.gov.uk/rpi](http://www.statistics.gov.uk/rpi)) to 1991 costs.

We estimated the number of patients that could have been treated using cognitive behaviour therapy in 2002, had the rise in prescribing not occurred and the associated costs been diverted to psychological treatment and therapists. We costed the time of a clinical psychologist, including supervision (total equivalent £40 168 (\$74 883; €57 738) full time a year).<sup>3</sup> We estimated that each therapist could treat six patients a day for 40 weeks a year and that a treatment episode for mild or moderate depression would comprise six sessions.<sup>2</sup> We did a limited sensitivity analysis assuming that graduate mental health workers (£25 475 a year) rather than psychologists provided treatment and that treatment episodes consisted of 18 sessions in line with the National Institute for Clinical Excellence's recommendation for moderate or severe depression.<sup>2</sup>

Between 1991 and 2002, prescriptions per head for all antidepressants increased 2.8-fold and the total cost (adjusted for inflation) increased by £310m; the increase was almost entirely due to selective serotonin reuptake inhibitors (figure). These costs could have been used to employ 7700 therapists (26 per primary care trust in England) providing 1.54 million treatment courses of six sessions each a year. This estimate increases to 2.43 million if the therapy is delivered by a graduate mental health worker and falls to 0.51 million if the course of treatment is lengthened to 18 sessions.



Source: Department of Health

Prescriptions per head and total cost of antidepressants in England, 1991-2002

### Comment

Resources associated with higher levels of NHS antidepressant prescribing in England in 2002 compared with 1991 could have been used to deliver cognitive behaviour therapy to 1.54 million patients, more than a third of adults with depression or mixed anxiety depression.<sup>4</sup> The recent rise in antidepressant prescribing is likely to be due to increased awareness of depression by patients and professionals; reduced side effects associated with newer antidepressants; and the broadening range of indications for which antidepressants are prescribed (for example, panic disorder, seasonal affective disorder, premenstrual syndrome). Despite concern about the dangers of antidepressants,<sup>1</sup> evidence of ineffective and inefficient prescribing,<sup>5</sup> and the effectiveness of alternative treatments,<sup>2</sup> drugs are overwhelmingly the mainstay of treatment for depression in general practice. Increases in the pharmacological treatment of depression have not been matched by the development of psychological services of proved effectiveness, which may reflect the absence of a powerful body, equivalent to the pharmaceutical industry, to promote their development and use.

Although cognitive behaviour therapy is relatively expensive and its population cost effectiveness has not been shown, other

### What is already known on this topic

The prescribing of antidepressant drugs has risen substantially in the United Kingdom since the early 1990s

Cognitive behaviour therapy is an effective alternative to antidepressant drugs

### What this study adds

Opportunity costs indicate that development of psychological therapies is a feasible alternative to antidepressants

cheaper alternatives to both antidepressants and psychotherapy—for example, self help and exercise—may be of equal benefit to patients with mild to moderate depression.<sup>3</sup> Our analysis takes no account of the training costs of psychotherapists but we have also ignored the cumulative cost of drugs incurred in the 11 years. Despite these limitations, the analysis highlights the scale of resources expended in this area and the uncertainty around alternative treatment for particular groups of patients; the results indicate that there is a clear need for further research to establish the most appropriate balance between drugs and non-pharmacological treatments for depression.

We thank Steve Pilling and Glyn Lewis for helpful comments and suggestions about an earlier draft of this paper.

Contributors: DG had the idea. SH did the analysis and drafted the paper. All authors contributed to the interpretation of the results and the editing of the paper. SH and DG are guarantors.

Funding: None.

Competing interests: DG is a member of the Medicines and Healthcare Products Regulatory Agency expert working group on the safety of selective serotonin reuptake inhibitors. He acts as an independent adviser, receiving travel expenses and a small fee for meeting attendance and reading materials in preparation for the meeting.

Ethics approval: Not needed.

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doi 10.1136/bmj.38377.715799.F7

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