## Correspondence

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mental disorders/Rhabdomyolysis due to mania.

## **Economics of treatment of depression**

SIR: I was surprised to read in the economic analysis of Jönsson & Bebbington (1994) that the expected costs of treatment with imipramine and paroxetine are roughly equal.

Checking in the *British National Formulary* (BNF, 1993) the costs of the two drugs are as follows: 30 days of imipramine 150 mg is £0.99 (180  $\times$  25 mg tablets at £0.11 per 20 tablets), and 30 days of paroxetine 30 mg at £50.85. In other words, paroxetine is about 50 times more expensive than imipramine.

Jönsson & Bebbington tell us that paroxetine is only 5 or 6 time more expensive. However, although their cost of £1.13 per day for paroxetine equates with a daily dose of 20 mg, their cost of £0.20 per day for imipramine is equivalent to a daily dose of over 900 mg (BNF, 1993).

This almost ten-fold exaggeration in one of the two fundamental costs in the analysis means that the finding of the study is no more plausible after close scrutiny than it was at first glance.

British National Formulary (1993) No. 26, September 1993.

JÖNSSON, B. & BEBBINGTON, P. E. (1994) What price depression?

The cost of depression and the cost-effectiveness of pharmacological treatment. British Journal of Psychiatry, 164, 665-673.

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AUTHORS' REPLY: We thank Dr Owens for his interest in our article on the cost effectiveness of antidepressant treatment (BJP, May 1994, 164, 665–673). Thus, the costs for imipramine in our calculation were based on the price for the branded product Tofranil. The cost of 25 mg tablets in March 1990 was 63 pence for twenty. The cost of 6

tablets daily works out at 19 pence per day. This was the value used in our model.

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SIR: I noted with some amusement that the Freemantle et al (1995) critique of the Jönsson & Bebbington economic analysis of antidepressants devoted two out of its six paragraphs to a discussion of the funding arrangements and commercial associations of the authors. I also have been in receipt of this kind of treatment by Freemantle and his team in York. On that occasion the British Medical Journal had quite rightly required me and my co-author to state any vested interest, which we were pleased to do. I noted then, and I note once more, that Freemantle and colleagues have neglected to declare that their unit is heavily funded by Her Majesty's Treasury via the Department of Health. No doubt he is as keen to satisfy his powerful sponsor as are his opponents in the "great antidepressant debate". There is no such thing as unbiased research and Freemantle should in future restrict his comments to scientific analysis. If that does not suffice it surely indicates that he has lost his case.

FREEMANTLE, N., HOUSE, A., MASON, J., et al (1995) Economics of treatment of depression (letter). British Journal of Psychiatry, 166, 307

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## The costs of psychotropic medication

SIR: Recent correspondence on the cost of SSRIs and the relevance of economic models to psychiatric practice (Freemantle *et al*, 1995; Jönsson & Bebbington, 1995), as well as previous articles and correspondence on the costs and relevance of models of the cost of clozapine (Healy, 1993a, b; Bosanquet & Zajdler, 1993) have prompted us to

compile figures on the actual costs of psychotropic medication in one district over a one year period.

The Hergest Unit in Ysbyty Gwynedd, Bangor, is a DGH unit serving a population base of 250 000. It has 52 acute beds and 6 intensive care beds, which during the course of 1994 had a mean occupancy of 48 beds. The total charge to this Unit for all central nervous system agents, prescribed for all patients by all consultants during 1994 was £18 934.43. This includes the costs of major tranquillisers, both depot and oral, as well as minor tranquillisers, hypnotics, antidepressants and anticholinergic compounds, but excludes the cost of clozapine. If we subtract from this the costs of risperidone for the Unit for the year (£8868.86) we get a figure of £10 065.57 for all drugs other than risperidone. The services in Gwynedd have in addition, during the course of 1994, maintained 10 patients on clozapine, the direct costs of which were £25 870.47.

The population in Gwynedd is widely dispersed so that taking blood from patients to check for agranulocytosis, and delivering medication requires up to 50 km per patient travel per week. This leads to a considerable amount of dead time, which has been estimated elsewhere to come to at least half of a full time equivalent F grade community psychiatric nurse (CPN) (£8400) (Healy, 1993b). In the course of keeping patients on clozapine, owing to requirements as to when blood samples are taken, CPNs or junior doctors have regularly to miss ward rounds, team meetings and out-patient sessions. Thus, there are opportunity costs that accrue as a result of not having a patient's key worker at the above meetings and these can be estimated at 30% of 20 members of a team × £10 (mean hourly rate) × 4 (as per national half day per week). This comes to £12 400 per year. These calculations are a conservative estimate, which have been worked on the basis that all patients are looked after by one catchment area team within the county only.

In addition to the above, there is considerable pharmacy time involved in the dispensing of clozapine – liaising between the company, and community team personnel. At present for 10 patients in Gwynedd this works out at one half day per week for a principal pharmacist, the cost of which is £2500. There are, furthermore, opportunity costs in that the pharmacist would otherwise be employed in answering prescriber enquiries, nursing enquiries and ward staff enquiries were he/she not involved in co-ordinating the clozapine service.

Summing all of these costs, it can be seen that the bill for clozapine comes to something in excess of £50 000 per annum. While all of the 10 patients above have considerably less side effects on cloza-

pine than they had on their former regimes, and in the case of 4 of those patients this has meant the possibility of discharge from hospital, none has been restored to the level of functioning that would permit them to seek gainful employment, for instance, in a manner that might offset some of the above costs.

A number of observations can be made about these figures. One is the considerable increase in costs for mental health budgets, that might be brought about by the widespread use of clozapine. There are both the direct costs, which are substantial and the indirect costs, which may vary from area to area and in some areas may amount to a sum as great again as the direct costs. A consideration of these costs suggest that while a substantial proportion of the costs might have been discountable, in an economic model, on the basis of offsets not normally considered by mental health staff, and arguments made that the increase is self-financing, the absolute level of the costs are such that a service may not find it feasible to sustain those costs. While such a consideration may not apply to the SSRIs at present, the widespread prescription of antidepressants does suggest that at some point some relatively modest hike in costs could produce an unsustainable burden of cost.

In contrast, however, the second point that these figures suggest is how little is actually being spent in mental health units on psychotropic medication, if clozapine and risperidone are discounted. The drug costs in delivering a psychiatric service would appear to be much less that the 10% of NHS spend that is usually quoted for a drugs budget for the NHS as a whole.

BOSANQUET, N. & ZAJDLER, A. (1993) Psychopharmacology and the ethics of resource allocation. *British Journal of Psychiatry*, 162, 29-32.

FREEMANTLE, N., HOUSE, A., MASON, J. et al (1995) Economics of treatment of depression. British Journal of Psychiatry, 166, 397. HEALY, D. (1993a) Psychopharmacology and the ethics of resource allocation. British Journal of Psychiatry, 162, 23-29.

(1993b) Oedipus at Delphi. British Journal of Psychiatry, 163,

JÖNSSON, B. & BEBBINGTON, P. E. (1995) Economics of treatment of depression (letter). British Journal of Psychiatry, 166, 398-3909.

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## Self-measure of neuroleptic side-effects

SIR: I wish to point out one weakness in the study by Day et al (1995) which might pose a question for the construct validity of the scale LUNSERS.