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Costs of community psychiatric nurse teams

SIR: McCrone *et al*'s paper (August 1994) analyses data from the Greenwich service reported in the preceding paper in the same issue by Muijen *et al* and concludes that ". . . the CST [community support team] is a cost-effective alternative to generic CPN [community psychiatric nurse team] arrangements". Over the 18 months studied the generic group is claimed to cost an average of £110 more per patient per week.

Close examination of the data does not appear to support this conclusion. This small study demonstrated remarkably few differences in either clinical and social outcome or in reduction in hospital care despite markedly increased CPN contact in the intervention group. Where, then, do the cost savings arise?

The major cost advantage to the CST group is accounted for by lower accommodation costs – £148 per patient per week as opposed to £269 for the generic group. This is presumably due to the higher number of generic patients who were living in specialist care settings (22% c.f. 2% at intake and 22% c.f. 3% at follow up according to Muijen *et al*). The figures are harder to disentangle in the McCrone *et al* paper but they state – "More clients from the generic group lived in specialist care settings (homes, hostels or hospital) both at referral (15%) and 18 months later (23%)." Direct treatment costs, on the other hand, are marginally greater in the CST group (i.e. subtracting accommodation costs from total costs) – £137 per patient per week c.f. £126 in generic care.

There is no reason to assume from these two papers that the differences in accommodation costs are anything other than an artefact of the randomisation. The failure to acknowledge this and make adequate allowances for it in the paper's discussion obscures the study findings. McCrone *et al* have conducted their economic analysis following Beecham & Knapp's (1990) four principles of cost evaluation (which emphasise the need for comprehensives). These four principles are probably essential for costing across widely differing procedures and disorders (e.g. comparing the cost benefits of hip replacements against diabetic out-patient clinics). Their application in RCTs of a defined patient population, however, obscures more than it illuminates.

Judgement needs to be exercised in the conduct of economic evaluations in mental health studies if they are not to lead to serious misunderstandings as I believe they have in this paper.

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AUTHOR'S REPLY: Burns has confused the short-term (0–6 months) and longer-term (0–18 months) findings from our cost-effectiveness study of the Greenwich service.

The quote from our paper in his first paragraph is taken out of context. The words which *precede* the clause he quotes are "In the short term, therefore . . .". And the sentence which *follows* the quote is: "Beyond the short term, the CST did not have a cost or cost-effectiveness advantage". We categorically did *not* say that the CST was more cost-effective than generic CPN services over the 18-month period.

What happened in the short term (0–6 months) to give the significant cost advantage to the CST? Accommodation and hospital costs were significantly lower. When account is taken of the fact that the CST group looked as if it made use of less specialised accommodation in the pre-referral period, we still find the CST to have a cost advantage in the first six months of the intervention. ('Net costs' between pre-referral and 0–6 months showed CST costs were still lower than generic costs; $P<0.05$). Over the whole research period (0–18 months), accommodation costs were lower for the CST group ($P<0.001$), but other costs counter-balanced this advantage to give the

overall equivalence of costs for the CST and generic groups.

Burr's penultimate point relates to the four broad principles of cost evaluation which underpin the Greenwich study and our other work: to be comprehensive in coverage; to examine inter-patient and other variations; to make like-with-like comparisons; and to examine the links between costs and patient outcomes (see Knapp, 1995). We fail to understand how principles of this kind – which will be familiar to evaluators of all persuasions – can obscure more than they illuminate. Indeed, we would be horrified were policy or clinical practice to be based on economic or other evaluations which departed *significantly* from them. Principles of this kind need discussion, but Burns' point is a red herring in the context of the Greenwich study.

We therefore reject Burns' final point that judgement was not exercised in the conduct of the Greenwich evaluation. The "serious misunderstandings" to which he refers will only arise if people misread our paper.

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Intramuscular injections in the anticoagulated state

SIR: We present the case of a 34-year-old schizophrenic man admitted to the general hospital as an emergency having been discovered unconscious at his hostel. It became evident that he had suffered hypoxic brain injury secondary to the aspiration of vomitus possibly as a result of alcohol and recreational drug misuse. In the course of his management on ITU a central line was required which led to thrombosis in the subclavian and jugular veins necessitating anticoagulation, first with heparin and then warfarin to continue for a three month period.

The liaison psychiatry team were asked to assist in his management as he had suffered a relapse of his schizophrenic illness characterised by paranoid delusions and third person auditory hallucinations.

Prior to these events he had been maintained well on Clopixol 400 mg every four weeks given by intramuscular injection in the thigh or buttock by his GP. Given that he had had his most recent injection two days prior to admission and was now compliant with oral medication it was possible to control his relapse effectively with oral trifluoperazine.

Our dilemma arose when the issue of the next depot injection of Clopixol was discussed with the hematology team managing the anticoagulation. They felt that the intramuscular route was contraindicated. While it presented no management problem to continue with the oral route it raised the issue for debate.

We asked the drug information services at the general hospital and the psychiatric hospital for advice. They were unable to provide any referenced advice except verbal guidelines from the companies manufacturing Clopixol and warfarin that the intramuscular route was relatively contraindicated but could be used provided that the INR (International Normalised Ratio) was in the therapeutic range and additional precautions were taken to arrest bleeding at the injection site. No alteration to the bioavailability of the drug was to be anticipated.

A review of the literature revealed few direct references to this issue. *Wintrobe's Clinical Hematology* (1992) makes a general statement about the wisdom of avoiding interventions such as intramuscular injections in anticoagulated states (Lee *et al*, 1992). Marder (1979) makes similar general statements. The data sheets for the common neuroleptic intramuscular depot preparations, i.e. Haldol, Modecate, Clopixol and Depixol give no precautionary advice, nor do the data sheets for the contraceptive Depo-Provera (ABPI, 1994–95).

It appears to us from our exploration of this area that the rationale for the contraindication of intramuscular injections in the anticoagulated state is far from clear. It seems to be one of presumed common sense and practice observed. With increasing numbers of people being warfarinised for conditions such as non-rheumatic atrial fibrillation, and the wider use of depot neuroleptics in the long term mentally ill managed in the community, we would welcome further discussion to clarify the safety of the intramuscular route in the anticoagulated state.

ABPI Data Sheet Compendium 1994–95.

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