benefit from clozapine. So what has got into the therapeutic experts of the Committee on Safety of Medicines? Surely the first principle of therapeutics is that those likely to benefit the most should be those who take the largest risk. As things stand now in Britian, clozapine is often reserved for the worst cases of chronic vegetative schizophrenia, with relatively little chance of success. Why should these unfortunate patients, who are less likely to respond, also shoulder the risk of agranulocytosis, while those most likely to respond are denied the drug and left to endure the severe extrapyramidal side effects of the partially effective classic antipsychotic drugs?

Schizophrenia is a devastating and destructive medical condition whose sufferers are third class citizens and third class patients. Clozapine gives them the best chance of recovery to date. The Clozaril monitoring system is working superbly. Clozapine should be available to all patients. We then predict that a cost-benefit analysis would show dramatic improvements.

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Clozapine has a unique pharmacological profile

EDITOR,—In their editorial on clozapine Steven R Hirsch and Basant K Puri express the view that the unique and atypical properties of clozapine may be due to the greater antagonism of serotonin S_2 receptors relative to D_2 receptors as well as to a relatively higher affinity for D_1 and D_4 receptors.[1] The standard neuroleptic drugs also have potent antagonist actions on serotonin S_2 receptors in vivo[2] and in vitro.[3,4] Clozapine is unique in that it has antagonist actions on serotonin S_{1C} receptors with a much higher affinity than it does to serotonin S_2 receptors, a property that is not shared by the standard neuroleptic drugs.[3-5] Therefore the unique and atypical properties of clozapine may be due to its antagonistic actions on serotonin S_{1C} receptors as much as to those on serotonin S_2 receptors. Thus neuroleptic drugs may be modelled on another unique pharmacological profile of clozapine: potent central serotonin S_{1C} activity and weaker dopamine D_2 activity.

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Risperidone is less toxic but equally effective

EDITOR,—Steven R Hirsch and Basant K Puri conclude that clozapine's cost and toxicity are outweighed by its advantages in the treatment of refractory schizophrenia.[1] Whether this is so depends on the availability of alternatives with comparable efficacy and, hopefully, lesser toxicity. The substituted benzamides, such as remoxipride and raclopride, are better tolerated than standard agents but offer no advantage in their therapeutic range. Another newly introduced atypical agent, risperidone, resembles clozapine in its paucity of extrapyramidal reactions, its antidyskinetic activity, and its superior efficacy against negative symptoms and in patients poorly responsive to standard treatment.[2] Risperidone also shares clozapine's liability to cause sedation and hypotension but lacks its haematological, antimuscarinic, and epileptogenic toxicity.

What accounts for the remarkable therapeutic action of clozapine and risperidone? A crucial property of such drugs is not simply a weaker dopamine D_2 antagonism than that of standard agents but rather a relatively stronger antagonist potency at serotonin S_2 compared with D_2 receptors.[3] The strong α_1 adrenolytic activity common to clozapine and risperidone[4] may also be important since noradrenergic input has recently been shown to regulate the reactivity of midbrain dopamine neurones.[5]

Hirsch and Puri point out that the risk of agranulocytosis associated with clozapine and the requirement for regular blood counts contribute substantially to the drug's cost and to noncompliance. Why then do they not mention less toxic atypical antipsychotic drugs with a comparable effect? They suggest that it is too soon to report on the efficacy of such agents. At least with regard to risperidone, this is no longer the case.

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Compliance no worse than with other neuroleptic drugs

EDITOR,—In their editorial on progress in treating refractory schizophrenia with clozapine Steven R Hirsch and Basant K Puri refer to "considerable lack of compliance."[1] They estimate the noncompliance rate at between 30% and 50% and suggest that this is partly attributable to side effects and the need for regular blood sampling. As the author of a study on non-compliance, I wish to set this in a wider context.

Studies in the United States, Britain, and the former Soviet Union have shown non-compliance rates in schizophrenic patients of up to 32%,[2] and a study in 1967 showed that inpatients who did not comply were mainly those with paranoid delusions.[3] A non-compliance rate of 70% was found in depressed outpatients,[4] and workers in medicine in general have shown high non-compliance rates with aminosalicylic acid in tuberculosis[5] and with drugs for rheumatoid arthritis.

I wonder if this problem is greater with clozapine than with other neuroleptic drugs in those ill enough for long enough to receive it.

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Home treatment for acute psychiatric disorder

A marvellous advance

EDITOR,—Paul Dedman is lukewarm in his verdict about these new developments in community care, concluding that home based treatment "could be a useful constituent of a comprehensive mental health service" but going no further.[1] Any service for severely mentally ill people that leads consistently to greater satisfaction with psychiatric services, appreciable reduction in use of inpatient beds, and, in some cases, greater improvement in clinical symptoms,[2] is much more than a useful constituent: it is a marvellous advance.

We have made considerable progress since the pioneering work of Stein and Test, and it is probably no longer justified to compare the somewhat unusual community services that offer 24 hour cover and provide total care with standard psychiatric services. Such services are not representative of clinical practice and, as Dedman suggests, may lead to burnout or other problems associated with demotivation of staff. They are also relatively expensive but certainly no more expensive than conventional care.

When the option of home treatment (as opposed to formal domiciliary visits invited by general practitioners) is introduced to ordinary clinical practice[2,3] together with other community focused care through general practice liaison[4] and enhanced day hospital care[5] the benefits are clear and include long term reduction in bed use[6] and, in some cases, reduced cost (unpublished data) as well as the advantages listed above. This community approach involves close working in multidisciplinary teams which are not constrained by the setting in which they first see the patient, and where there is a system for coordinating and reviewing clinical management in community settings. The care offered is similar to that of the care programme approach recently initiated by the Department of Health and, if implemented as planned, could lead to major improvement in our mental health services. The faint applause of Dedman's leader needs some additional decibels of reinforcement.

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Inpatient treatment must remain an option

EDITOR,—Paul Dedman's editorial on home treatment for psychiatric disorder ends with the curious sentence "Whether it can fully replace the functions of the acute psychiatric inpatient unit has not been established."[1] Setting aside the fact that all the studies Dedman discusses found inpatient treatment to be necessary despite intensive home treatment programmes in some cases and the fact that patients with acute psychiatric illness and their relatives must be given the choice of inpatient treatment, you cannot treat at home patients who have no insight into the fact that they are ill and therefore do not accept treatment. If they are so seriously ill as to require compulsory treatment this can be given only in hospital. Even if a community treatment order was to come into being it would not apply to those becoming ill for the first time.

Possibly Dedman is differentiating between intensive care facilities and acute psychiatric inpatient units, although these are often combined. If so it is important that this is made clear as already too many of the most seriously mentally ill patients are being deprived of the right to effective treatment and optimum mental health because of a shortage of suitable inpatient places. Too many receive inadequate or no treatment as part of care in the community, whereas with effective treatment they would be leading independent or nearly independent lives.

A brief admission to hospital for treatment of schizophrenia or manic depression should be equated not with institutional care but with admission for treatment of diabetes or cardiac disease.

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Innovative services merit investigation

EDITOR,—Paul Dedman has summarised research indicating that home based care can often be a safe and effective alternative for people with acute psychiatric disorders.[1] He concludes that home treatment can be useful but questions whether it can ever fully replace acute hospital inpatient facilities.

There are straightforward reasons why home based care should never completely replace psychiatric hospital inpatient units. A prerequisite for such care is that the patient has an adequate home in which to be cared for; this is often not the case, especially in inner cities. Home based care is facilitated by family and friends and is often not practical when people are living alone. There will always be people who are too disturbed to be managed safely outside hospital. Finally, providing people with a respite from their normal environment can be beneficial and may give relatives a much needed break.

In view of these limitations home based care must be viewed as just one—not the only—possible alternative to admission to the hospital. Other options are rarely considered, let alone provided, in the United Kingdom. Crisis houses in the community have been used widely for people presenting with acute psychiatric problems[2] and are praised by many users. Acute day care has been shown in Britain to be effective for people with a range of acute psychiatric disorders,[3] but such care is still predominantly provided for those with long term needs. Family placement schemes have also been developed successfully in the United States[4] but rarely attempted for mentally ill patients in the United Kingdom.

The challenge facing those responsible for planning and developing mental health services is to provide a range of acute services that accurately reflects the widely differing needs of people presenting in crisis. Imagination and courage are needed to create innovative services with close liaison between agencies, which may challenge traditional professional hierarchies. The most effective and practical mix of services for differing populations must be determined, as well as efficient organisational structures to coordinate them. The alternative is that increasingly vocal and disgruntled users of mental health services will vote with their feet and that we will let people down when they need us most.

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Benign prostatic hyperplasia

Poorly correlated with symptoms

EDITOR,—Loose use of the terms "benign prostatic hyperplasia" and "prostatism" has clouded clear thinking on the management of dysfunction of voiding in men.[1] Benign prostatic hyperplasia is a histological term, and the condition can be found histologically in 70% of men aged over 75. Hence benign prostatic hyperplasia is rarely proved and cannot be used as an indication for treatment. Prostatism is a collective noun used to describe lower urinary tract symptoms in older men.

Unfortunately, the correlations between the symptoms that elderly men suffer, the presence of benign prostatic hyperplasia, and the presence of bladder outflow obstruction are poor (P Abrams *et al*, second international consultation on benign prostatic hyperplasia, Paris, 29 June 1993). Symptoms may be caused by obstruction, although this is the weakest correlation of all. More commonly, symptoms are due to detrusor instability, which becomes more common with age: it is not entirely clear that it is secondary to outflow obstruction, as Kirk states. Symptoms may also be due to intravesical disease such as stones, tumours, or inflammation.

Through discussion with their patients doctors need to decide whether they wish to treat symptoms or bladder outflow obstruction. If they wish to treat symptoms it is not necessary to show that the patient has an outflow obstruction. If they wish to treat obstruction, however, they must prove that obstruction exists. This can be done only by obtaining data on pressure and flow. Measuring the urinary flow rate is better than assessing the patient on the basis of his symptoms or the results of physical examination alone. Flow rates alone, however, fail to identify those patients with a low flow rate due to underactivity of the bladder, who will not benefit from surgical procedures, and those patients who have normal flow rates but high voiding pressures and obstruction.

David Kirk rightly points out that when we assess new treatments we must recommend only those that are of proved efficacy.[1] This is an exciting time with regard to the treatment of elderly men with dysfunction of the lower urinary tract, but the situation is not quite as simple as Kirk's editorial might lead readers to believe.

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Don't rush in to early surgery

EDITOR,—Having read in the recent article by David Kirk,[1] I speak as an octogenarian and also a very ex-urologist, with a foot, so to speak, in both camps.

Some 40 years ago one of David Kirk's illustrious predecessors pointed out, to our surprise at the time, that in old age the prostate tends to regress and symptoms improve, contrary to the views which everybody held. I can vouch for the truth of this in my own experience. The advice, therefore, so often given, that things are bound to get worse—and that the earlier the operation is done, the better—is often bad advice. To advise surgery, for example, for an initial episode of acute retention is extremely unsuitable. If the precipitating circumstances are known, as they often are, avoiding the recurrence of such a situation will often result in the patient having no further trouble.

The craze for doing emergency prostatectomy for all cases of acute retention, which lasted for a short time just after the war, benefited only one group of people—the keen young surgical registrars who had the chance of performing prostatectomies, a chance they rarely got in a routine list. I was a "Millin man," and although transurethral resection is infinitely less traumatic at the time, it can be followed by more long term complications than the open operation of the bad old days. So my advice to the elderly is to keep away from the keen young urologist.

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Management of patients in persistent vegetative state

Give proper rehabilitation a chance

EDITOR,—Raanan Gillon does not seem to know the true meaning of persistent vegetative state.[1] The word vegetative, according to the *Oxford English Dictionary*, means an organic body capable of growth and development but devoid of sensation and thought. People in a persistent vegetative state are not in a permanent coma or unconscious. They are awake, with eyes open and moving. They follow normal sleep patterns. With primitive reflexes they respond to light, sound, and pain.

In Tony Bland's case, it seems that his parents could not bear to see him in this state and hence were unable to mourn appropriately. Little attempt seems to have been made, however, to improve his quality of life. All photographs show him in bed,