define the severity of hypoglycaemia, identification of which seems to have relied on symptoms such as dizziness and hunger, which are not exclusive to hypoglycaemia and could be attributable to fasting itself. No information is given on whether external help was required for treatment of hypoglycaemia (the current definition of a severe episode) or whether the ingestion of oral carbohydrate resulted in the resolution of symptoms. Biochemical confirmation of a presumed low blood glucose concentration was not obtained.

The quality of glycaemic control in the Muslim patients was poor, with mean total glycated haemoglobin concentrations of 13-14%, yet the overall frequency of hypoglycaemia that was documented can be calculated at about 0·8 episodes per patient per year.[1] This would be an exceptionally high rate in non-insulin dependent patients treated with a sulphonylurea, even if every minor episode of hypoglycaemia had been included in the estimated total. In a two year prospective study the frequency of symptomatic hypoglycaemia in diabetic patients treated with sulphonylurea was 0·019 episodes per patient per year[4]; severe hypoglycaemia is uncommon. Although a recent study suggested that a fifth of patients taking sulphonylureas had at least one episode of symptomatic hypoglycaemia in six months,[5] the estimated frequencies of hypoglycaemia in Belkhadir and colleagues' study seem to be unusually high. Because the identification of each episode of hypoglycaemia was subjective and insecure, the comparative frequencies of hypoglycaemia in the different groups of patients are uninterpretable and the study is inconclusive.

ANN E GOLD
KENNETH M MACLEOD
BRIAN M FRIER

Department of Diabetes,
Royal Infirmary of Edinburgh,
Edinburgh EH3 9YW

1 Belkhadir J, El Ghomari H, Klöcker N, Mikou A, Nasciri M, Sabri M. Muslims with non-insulin dependent diabetes fasting during Ramadan: treatment with glibenclamide. *BMJ* 1993; 307:292-5. (31 July.)
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Authors' reply

EDITOR,—Ann E Gold and colleagues pinpoint the difficulties in reporting hypoglycaemia in our Moroccan patients with non-insulin dependent diabetes during Ramadan. In a perfect world this would be done by 24 hour scrutiny with a subsequent review of biochemical profiles. Besides the logistic and technical problems of performing this in nearly 600 patients for three months there were considerable ethical and religious problems.

Our clinical study was primarily of the metabolic effects of the special changes in diet during Ramadan. We studied average patients with non-insulin dependent diabetes living their usual lifestyle, disturbed by as little intervention as possible; this also meant that the number of visits was limited. It may not be the perfect way to assess hypoglycaemic events retrospectively, but it is better than no assessment, especially as the problem concerns about 50 million patients worldwide and no clear data are available.

We doubt that there was any discrepancy in the patients' awareness of hypoglycaemic symptoms between the three study periods, and all three study groups were assessed in the same way. Despite the probability of an inaccurate assessment of hypoglycaemia in our study, which normally would result in underreporting, we found a high incidence compared with other studies. We consider that this might have been biased by the retrospective assessment and therefore did not give any incidence figures. We agree that symptoms such as dizziness and hunger are not exclusive to hyperglycaemia, but they were equally distributed throughout the periods and groups.

The retrospective rating was done not by the patients but by the attending physician, and we used a fairly common six point scale rating the severity of hypoglycaemia as none; transitory with normal activity; transitory, incapacitated; incapacitated with help needed; glucagon administered; or medical attention needed. Only one event was rated as severe; this was in a 68 year old women who was known to have had diabetes for 13 years and was taking 7·5 mg glibenclamide during the follow up phase. She had severe hypoglycaemia with delirium and hallucinations; her blood glucose concentration was 2·2 mmol/l.

In conclusion, we agree that retrospective reporting of hypoglycaemic episodes may be unreliable and that in general it is difficult to compare incidences, especially of mild and moderate events. Nevertheless, this does not confound the comparisons within the groups (before, during, and after Ramadan) or the comparison between the three groups.

NORBERT KLÖCKER
HERBERT NOACK

Medical Department VPI,
Hoechst AG,
D-65926 Frankfurt/M,
Germany

Stopping bronchodilator treatment is dangerous

EDITOR,—Islamic patients should be warned that abstention from oral and inhaled drug treatment while they are fasting during Ramadan may have serious consequences. Two patients with chronic reversible respiratory disease were admitted to this intensive care unit two weeks after the start of Ramadan this year. One patient (aged 58) was normally managed with an inhaled steroid and bronchodilator and the other (aged 28) with oral and inhaled steroids and an inhaled bronchodilator. Both were admitted critically ill after a few days of gradual deterioration, and they needed mechanical ventilation for nine and 10 days, respectively, before discharge. Both patients subsequently admitted to not having taken their treatment (including inhalers) during daylight hours. We believe that this may have contributed to their acute deterioration.

The Islamic faith allows exemptions from fasting during Ramadan for those who are travelling or sick, including those requiring drug treatment. As J Belkhadir and colleagues mention,[1] however, many people do not accept these exemptions and prefer to fast. While non-insulin dependent diabetic patients wishing to fast may suffer no adverse outcome if they follow the regimen suggested by Belkhadir and colleagues, Moslems with other diseases should be aware that they put themselves at risk by abstaining from their drugs for long periods.

R S WHEATLY
M P SHELLY

Intensive Care Unit,
University Hospital of South Manchester,
Manchester M20 8LR

1 Belkhadir J, El Ghomari H, Klocker N, Mikou A, Naskiri M, Sabri M. Muslims with non-insulin dependent diabetes fasting during Ramadan: treatment with glibenclamide. *BMJ* 1993; 307:292-5. (31 July.)

Funding policies for HIV and AIDS

Need more and better information

EDITOR,—Mark McCarthy and Sarah Layzell have raised a number of issues about funding policies for HIV and AIDS[1] that concern those involved with the monitoring and distribution of ringfenced funds—namely, the stranglehold on resources by treasurers of acute units and the emphasis on treatments and care packages more closely associated with politicians and activists than efficacy and the potential for wasting money.[2] Unfortunately their proposed solutions are unlikely to resolve the problems. Purchasers are as likely as providers to be influenced by those with the greatest persuasive powers, as valid information about activity is rarely available. Health promotion and disease prevention initiatives will be influenced by the same forces, and again information about what interventions are effective and efficient is less than satisfactory.

Funds will be allocated to purchasers as more trusts are established; therefore, the next step should be to improve the quality of information found in the AIDS (Control) Act reports rather than reallocate finance from one potential source for misuse to another. AIDS (Control) Act reports require more precise information on the type of health promotion and disease prevention activities undertaken in a district, believable costings for these activities, reasons for why activities were considered necessary, and evidence that they are monitored and evaluated. On the basis of an improved report, resources may then be reallocated to those who can make the best and most convincing case for their use.

VERNON HOCHULI

West Kent Health Agency,
Medway Hospital,
Gillingham,
Kent ME7 5NY

1 McCarthy M, Layzell S. Funding policies for HIV and AIDS: time for change. *BMJ* 1993;307:367-9. (7 August.)
2 Steel S, George R. Wasted drugs in HIV infection and AIDS. *BMJ* 1992;304:123.

GPs should be more involved

EDITOR,—We welcome the opening of a debate on funding policies for HIV infection and AIDS as the current arrangements discourage patients who are positive for HIV from using primary health care services.[1] North West Thames Regional Health Authority has funded a three year project to address the imbalance between specialist and local primary health care for these patients. This shared care model ensures that the focus of primary and terminal care is in the community; the creation of additional specialist teams is unnecessary.

The provision of succinct summaries on forms sent by fax to general practitioners (with the patient's consent) from outpatient clinics and on the patient's admission to and discharge from hospital has been instrumental in encouraging general practitioners to take an increasingly active role. The general practitioners have direct access to a specialist consultant physician from each local hospital for medical advice and support via a mobile telephone. As a result they are gaining direct experience of managing their HIV positive patients in the community (S Smith *et al*, IXth international conference on AIDS, Berlin, 1993). Initial results suggest that patients participating in this project have increased confidence in their general practitioners and are now happy to consult them as a first step.

Our experience suggests that the progress of integrating general practitioners into the care of people who are HIV positive may be slow. This is not because of an unwillingness on the part of general practitioners and community nursing