emphasis on the health benefits of activity of moderate intensity.[1] The Northern Ireland health and activity survey, a cross section survey of 1600 subjects aged 16-74 in Northern Ireland, found that 18% of men and 16% of women, achieved moderate activity of 20 minutes' duration in a four week period through cycling.[2] Thirty one per cent of men and 20% of women aged 16-34 had cycled to this level. Of those aged 35-54, 10% of men and 13% of women were active to this level through cycling, while among those aged 55-74 the proportions had fallen to 5% and 3% respectively. Of all forms of sport and recreation, cycling was one of those most often recorded in the four week period, in the previous year, and since the age of 14; overall, 37% of men and 26% of women had cycled in the previous year and 53% of men and 36% of women had cycled on some occasion since the age of 14.

Clearly, there are opportunities for using cycling as a foundation for an improvement in population levels of physical activity.

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Falls due to stroke

Drug treatment and mental status of study patients is unclear

EDITOR,—Anne Forster and John Young's study on falls due to stroke[1] would be more useful if it had addressed some of the other important issues—for example, a considerable proportion of the falls reported could have been due to concomitant use of prescribed psychotropic or hypnotic drugs or even alcohol consumption. Such use is not reported in the study, and readers remain unsure whether the researchers looked at this.

Cognitive impairment is an important contributor to falls among elderly people, but no mention is made of how many people in the study had cognitive impairment or, indeed, of what part it may have played in the self reporting of physical comorbidity.

Lastly, the authors report that there were no differences between "fallers" and "non-fallers" in respect of mental state but do not describe how mental state was assessed. It would perhaps have been better to use a more valid and reliable assessment tool for screening for depression in elderly people, such as the geriatric depression scale.[2]

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1 Forster A,Young J. Incidents and consequences of falls due to stroke: a systematic inquiry. *BMJ* 1995;311:83-6. (8 July.)
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Authors' reply

EDITOR,—Kumud S Bhatnagar draws attention to the well established importance of drugs as a contributory factor in falls in elderly people; this point was also highlighted in the editorial that accompanied our paper.[1] We attempted to obtain a drug history from the patients studied but were concerned about its reliability and analysis. Some patients were uncertain of which drugs they should be taking, there were problems with compliance, and drugs were altered during the observation period.

We assessed cognitive impairment by using the abbreviated mental test score[2] and reported no difference in median scores between "fallers" and "non-fallers" (table V in our paper). The number of patients with mental impairment (abbreviated mental test score ≤ 7) was similar in both groups (five and three respectively).

As described in our paper, we assessed mental state by using the Nottingham health profile[3] and showed that 53% of the fallers had scores indicating depressed mood at six months compared with only 28% of the non-fallers ($\chi^2 = 6{\cdot}4$, $P = 0{\cdot}01$).

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Predicting acute maxillary sinusitis

Trial may have lacked power

EDITOR,—Jens Georg Hansen and colleagues report a significant association of the C reactive protein concentration and erythrocyte sedimentation rate with acute maxillary sinusitis.[1] Their conclusion that the symptoms and signs included in their logistic regression were not associated, however, is not warranted from their analysis. They do not report results of stepwise exclusion of factors from the regression. If this had been carried out, factors such as age, maxillary toothache, maxillary pain, and purulent nasal discharge might have reached significance when less significant items were excluded.

The number of patients who completed the study (n=174) is appreciably smaller than the number studied by van Duijn *et al*[2] (n=441). This may also have contributed to the lack of power to detect significant symptoms and signs.

In a letter responding to van Duijn *et al*'s paper[3] Fleming and I calculated bayesian probability scores (B scores) from their data according to our method,[4] to allow easy prediction of infection. The B score would be 2 for the presence of a raised C reactive protein concentration (≥ 10 mg/l) or -2 for the absence of this level. The B score would be 3 for the presence of a raised erythrocyte sedimentation rate (≥ 10 mm in the first hour for men or ≥ 20 mm in the first hour for women) and -2 for the absence of this level.

The test card for C reactive protein may be a useful rapid test for use in the surgery to help in diagnosing sinusitis. Unfortunately, the erythrocyte sedimentation rate takes longer to measure, which makes its use during a consultation impractical.

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Trial was wrong to ignore other sinuses

EDITOR,—Jens Georg Hansen and colleagues' paper on predicting acute maxillary sinusitis in a general practice population misses the opportunity to clarify how many patients presenting with acute sinus symptoms actually have sinusitis.[1] The authors make the mistake of concerning themselves solely with the maxillary sinus, giving no data on the presence of disease in the other sinuses, ethmoid, frontal, or sphenoid. The maxillary sinus is of no special importance compared with the other sinuses, and there is no reason to focus on it; on the contrary, it has been thought for many years that the maxillary sinus, as a "dependent" sinus, is infected secondary to disease in the ethmoid.[2]

The authors found no association between maxillary sinusitis and sinus symptoms, but we do not know how many of the patients had disease in the other sinuses. All the authors' conclusions are therefore rendered invalid—most importantly, the implication that general practitioners are overtreating or overdiagnosing maxillary sinusitis. It is just as important to treat disease that may exist in the other sinuses.

The authors state that the patients were told that antral washout is an effective treatment, no doubt to cajole them into accepting this painful and distressing procedure. I would like to know what evidence they have to support their statement, when rhinologists have virtually abandoned this procedure as useless as well as barbaric.

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1 Hansen JG, Schmidt H, Rosborg J, Lund E. Predicting acute maxillary sinusitis in a general practice population. *BMJ* 1995;311:233-6. (22 July.)
2 Caldwell G W. Diseases of the accessory sinuses of the nose and an improved method of treatment for suppuration of the maxillary antrum. *NY Med J* 1893;58:526-8.

Author's reply

EDITOR,—Frank Dobbs states that our results might have been different if we had used stepwise logistic regression; we used this as well as the method reported in our paper, but there were no significant changes in our conclusion.

The purpose of van Duijn *et al's* study was to establish the incidence of both maxillary and frontal sinusitis in general practice as diagnosed by ultrasonography and the predictive value of symptoms and signs; the authors looked at 441 episodes in 400 patients. In our study the patients were included only once, and patients suspected of having frontal sinusitis were not included. Our study population of nearly 100 in each group gives sufficient strength for our conclusions to be valid.

David J Gatland raises several points about our study, the purpose of which was to evaluate the different symptoms, signs, and laboratory tests used to diagnose acute maxillary sinusitis, defined as purulent antral aspirate. As the maxillary sinus is the only sinus that can be punctured, we chose to examine only maxillary sinusitis. Patients suspected of having frontal sinusitis were therefore excluded. We agree with Gatland, however, that all the sinuses are important. We did not mention in our paper that both the ethmoid and the sphenoid were seen on computed tomography. Severe changes in the ethmoid or sphenoid were not, however, seen in patients with normal findings in the maxillary sinus. Therefore minor changes in the ethmoid and sphenoid could have influenced our results only slightly, without greatly changing our conclusion. Consequently, our results strongly confirm that maxillary sinusitis is overdiagnosed in general practice.

No patients were cajoled to participate in our study, and we find it insulting that Gatland should