irregular, and this fact is thought partly to explain the reduced effectiveness of the insulin secreted. In isolated denervated canine pancreases regular pulsatile release of insulin with a periodicity of 10 minutes has been identified. This suggests the existence of an intraparenchymal "pacemaker". This pacemaker may have to be able to coordinate the million or so pancreatic islets to secrete synchronously. Possibly the pacemaker may consist of an intraparenchymal ganglion with a vasoactive intestinal peptide-ergic network of neuropeptides providing the islet coordination. In the transplant recipients this neural control network of the pancreas would have been disrupted. Unfortunately, integrated continuous minute sampling was not performed in these patients and thus the rate at which insulin was produced could not be assessed. To characterise the hormonal and metabolic profiles of these patients fully this rate analysis needs to be performed. Even so the remarkable success of pancreatic transplantation in making the patients independent of insulin and in leading to the disappearance of clinical symptoms and signs of insulin deficiency with an associated return to near normal concentrations of blood glucose and intermediary metabolites is encouraging to say the least.

The lesson to be learned from the above discussion has a general bearing on the drug regimens that doctors prescribe and in particular on the use of aspirin therapy: the notion that "aspirin" which is administered is important, but the frequency and timing in relation to normal activity may lead to a reduction in the overall dosage while still being therapeutically effective.

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Malnutrition, ignorance, and poverty

Str.—I found Dr T G Ashworth's memoirs of Nyasaland (20 July, p 210) depressing, but not for the same reasons as he does. He is convinced that it is not poverty, but ignorance or lack of education, that is the African disease, and concludes that "What Africa needs . . . is an educated direction towards the needs of Africans." Nobody could object to that statement; the phrase I have excised, "and has always lacked," is more questionable. He does not appear to have entertained the possibility that the needs of Africans are not necessarily the needs which outsiders define for them; that Africans (if one can ever lump all the disparate inhabitants of a continent together) who have nothing of the European stomach in common with the merchants of Mogador? Any more than such Europeans as Daghestani mountaineers have with Parisian confectioners? Such questions are of deciding for themselves what they want; and that their value systems do not necessarily disintegrate when opposed by those of the West and may even be strengthened.

This happens even in the subject of health. Who is to define what health is? Some half meaningless mumpsitions have been internationally current and been accepted at conferences attended by health workers who did not in the least think they were what many people have been led to believe they were.

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The low dose aspirin controversy solved at last?

Sir—Dr Linda Beeley (17 August, p 462) in her notes on the optimum dose of aspirin for use as an antiplatelet agent suggests that the daily dose of aspirin should not exceed 325 mg but also states that "general recommendation of doses of 100 mg daily or less must await the results of clinical trials." I believe that with the development of low dose, slow release aspirin this problem must be very near solution.

Aspirin acetylates and inactivates platelet cyclooxygenase, which remains inactive for the rest of the day, and aspirin reduces the risk of reinfarction, the risk of stroke and the recurrence of angina pectoris. Extrapolation of the findings of the vast majority of appropriately designed trials indicates that a daily dose of aspirin which is lower than 325 mg is just as effective as 325 mg in suppressing platelet thromboxane A2 synthesis. The use of aspirin has been an effective method of reducing the fibrinolytic potential of blood, but it is of little use in reducing the formation of athero-sclerotic plaques and hence the risk of myocardial infarction.

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Chronic bronchial sepsis and progressive lung disease

Sir,—After reading the leading article by Dr G M Cochrane on chronic bronchial sepsis and progressive lung damage (6 April, p 1026-7) we thought it was worth while to show how methods of diagnostic imaging may be of value in assessing patients with early bronchectasis, in particular computed tomography. 1, 2

One particular question was posed: "Can we identify patients with chronic bronchial sepsis of no obvious cause who are likely to develop lung damage by any other means than measuring the elastase in the sputum or by observing irreversible reduction in respiratory function?" 3 Diagnostic radiology may not directly give prognostic information but will in many cases show lung damage at an early or focal stage. We have recently seen two examples.

Case 1—A 36 year old woman had suffered from a constant productive cough for 20 years although chest x ray films had remained normal throughout. The patient had earlier declined to have broncho-
graphy. Computed tomography was therefore undertaken (EMI 5005, 13 mm slices, 20 second scanning time). The most recent plain chest x ray film showed no change but computed tomograms through the bases of the lungs showed considerable thickening of the bronchial walls and dilatation of several bronchi with some adjacent pulmonary arteries (fig 1). These are the appearances of localised bronchectasis.

Case 2—A 54 year old man was referred because of breathlessness of recent onset and obstructive ventilatory defect. Respiratory function studies showed severe airflow obstruction. Chest radiographs had shown a widespread pattern of small opacities and linear opacities. Computed tomography (Siemens DRH, 4 mm slices) showed surprisingly severe bronchiec-
tasis throughout both lungs (fig 2). These cases show the value of computed tomography when bronchectasis is suspected but the chest radiograph is not diagnostic. In most cases of gross bronchectasis chest radiographs will show the abnormality, and a completely normal chest radiograph is unusual. 4 In the past computed tomography has been debatably, slightly less sensitive than bronchography in showing the changes of bronchectasis, but computed tomo-
graphy is now available in many district general hospitals and with the use of the latest generation of scanners with thin slices, as in fig 2, the resolution and hence sensitivity will probably closely approach bronchography.

In view of its lack of morbidity and the ease of obtaining images computed tomography is undoubtedly a valuable method in the planning surgery and help in physiotherapy with postural drainage. Furthermore, when used in conjunction with serial respiratory function tests repeat scans may help identify those patients with chronic bronchial sepsis who are destined for progressive lung damage.

On some occasions other conditions that can cause chronic purulent sputum or haemoptysis may be shown by computed tomography. These include pulmonary sequestration, carcinoma of the bronchus, and bronchial adenoma. Computed tomography is a technique that is rapidly finding a place in the diagnosis and management of patients with chronic bronchial sepsis.

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