the drugs should be administered optimally in the way we suggest and that no compromises should be made which lead to a reduction in the response rate or the safety of the treatment.

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¹ Edelsteyne, G A, *et al*, *Lancet*, 1975, 2, 209.

² Hart, J, personal communication.

Shadow over Maltese medicine

SIR,—In your leading article (19 November, p 1304) you describe the Maltese Government as totalitarian. I am curious to know how you came about this conclusion. The Labour Government in Malta is in power following wins in general elections in 1971 and 1976. You also omit to mention in your resumé of the situation why the doctors were sacked from Government employment. The Maltese Legislative Assembly passed a law that 60 posts in medical service (less than one-third of the total) should form part of essential services and that anyone holding one of these senior posts who absented himself from work without reason would be dismissed. The doctors' failure to provide such services required by Maltese law led to their dismissal. The Australian Parliament has passed some rigid legislation, yet I never read any *BMJ* editorial about Australia.

Your allegation that Malta is in the queue for membership of the EEC baffles me. Malta has repeatedly said in world forums that she wants to be a political bridge between southern Europe and the Arab world. We refuse membership both of the EEC and the Arab League.

You claim to be supporting Maltese students to come to England. I claim and will provide proof if necessary that the aid you mention goes only to students who take an anti-Maltese Government stand. Since when has the BMA become a political organisation? Your attempts to stifle Malta's tourist industry will surely impress Maltese readers of the love you claim to have for an island which for her bravery in defence of freedom was awarded the George Cross.

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Plight of Maltese medical students

SIR,—Mr Toni Pellegrini (12 November, p 1285) in reply to Scrutator's comments (15 October, p 1036) on the plight of Maltese medical students attempts without justification to shift the responsibility for these students' predicament on to the shoulders of the Medical Association of Malta (MAM).

The untimely interruption of the final-year students' qualifying examinations was not due to any directive to this effect by the MAM. It was the direct result of the Government's police-enforced lock-out of local as well as external examiners from the teaching hospital in retaliation to the association's limited industrial action. This action was limited to "cold" surgical operations and non-urgent outpatient clinics and, contrary to what was

stated by the Maltese Director of Information, did not affect the treatment of emergencies. The imposition of the lock-out becomes all the more illogical when one considers that only a few days earlier the Government had resorted to legislation ostensibly to ensure the provision of an adequate supply of sorely needed housemen.

Confronted with this unexpected situation, the MAM, with the assistance of the BMA, took the initiative to help air-lift the students concerned to the United Kingdom to enable them to sit for the London Conjoint Board examinations.

The plight of Maltese medical students has since been further aggravated by the Government's decision, without prior consultation with the university authorities and the medical faculty, to restructure the medical course. This, coupled with the ruthless decimation of the teaching staff through dismissals and suspensions, has left the medical school a mere shadow of its former self and of doubtful viability. Under such circumstances can one blame the students now in their fourth year for deciding to leave Malta to resume their medical training overseas, where they can look forward to achieving a recognised medical qualification?

There is one further point in Mr Pellegrini's letter which concerns present medical standards in Government hospitals and which requires rebuttal. This association is in possession of a fully documented dossier of cases treated by foreign specialists. Available information leads us to the conclusion that medical standards have deteriorated abysmally since the start of the present dispute. This runs counter to the interests of the Maltese patients, who, in their large majority, prefer to be treated by their compatriots rather than by a motley crew of imported doctors whose presence is delaying rather than facilitating an equitable solution to the present impasse.

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Glucagon and secretin in aspirin-induced erosive gastritis

SIR,—Glucagon has been reported as being of value in preventing aspirin-induced gastric mucosal damage in dogs¹ and cold-restraint gastric mucosal damage in rats.² Secretin has been observed to reduce duodenal ulcer pain in man³ and to prevent peptic ulceration induced by pentagastrin in cats.⁴

We have investigated the effect of glucagon and secretin on aspirin-induced gastric erosions in the rat, using a method previously described to study the effects of aspirin on rat stomach.^{5,6} The rats were fasted for 24 h and then given a subcutaneous injection of either glucagon (50 µg/kg), secretin (10 U/kg), or saline. Thirty minutes later each rat received an oral dose either of a glucose saline solution containing 53 mmol aspirin/l to a dose of 128 mg/kg suspended in 0.5% carboxymethylcellulose or a control solution consisting of glucose saline and 0.5% carboxymethylcellulose. The animals were killed 4 h later with ether and the stomachs examined for erosions. The results were recorded in two ways: firstly, if any rat had more than one erosion greater than 1 mm it was termed positive; secondly, a grading system for the

erosions was used, each erosion being allocated a score from 1 to 4 depending on its size and these scores being added to give the total score for each rat. The incidence of erosions (percentage of rats graded positive) and the mean score for each group were then calculated.

In 23 control rats not given aspirin the incidence of erosions was 4.3% and mean score 0.9. In 71 rats receiving saline subcutaneously the aspirin significantly increased the incidence of erosions to 64.8% and the mean score to 13.5. In 34 rats given glucagon before aspirin the incidence of erosions was 67.7% and the mean score 16.1, while in 36 given secretin the incidence was 86% and the mean score 19.4. The incidence of gastric bleeding in those animals receiving glucagon or secretin before aspirin administration was therefore not significantly less than in those animals receiving only saline.

The results do not confirm the protective effect previously reported of glucagon in aspirin-induced erosive gastritis and fail to show a protective effect of secretin under these circumstances.

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¹ Lin, T M, and Warrick, M W, *Archives Internationales de Pharmacodynamie*, 1974, 210, 279.

² Guth, P H, *et al*, *Gastroenterology*, 1975, 69, 1048.

³ Holst, J J, Hof, L, and Rune, S J, in *Gastrointestinal Hormones and Other Subjects*, ed E H Layren, p 116. Munksgaard, Copenhagen, 1971.

⁴ Konturek, S J, *American Journal of Digestive Diseases*, 1968, 13, 874.

⁵ Semple, P F, and Russell, R I, *Gastroenterology*, 1975, 68, 67.

⁶ Carmichael, H A, *et al*, *Gut*, 1976, 17, 33.

Prolonged malaria prophylaxis

SIR,—My attention has been drawn to a letter from Professor L J Bruce-Chwatt (12 November, p 1287) concerning a note from your expert in relation to antimalarial drugs for airline pilots (17 September, p 757). Having read at the same time the editorial response to Professor Bruce-Chwatt's letter, I write to express grave concern with the possible consequences that could follow the literal acceptance of the advice now given by your expert—namely, that malaria prophylaxis is really necessary only in Africa. The expert notes a report by Mr J H Kelsey (26 November, p 1415) that several patients from West Africa have been showing visual impairment associated with the ingestion of chloroquine over several years. In most cases the dosage taken by these patients is not specified and it is by no means clear that chloroquine or its equivalent was taken in the standard recommended dosage of 300 mg base weekly. Like Professor Bruce-Chwatt, I know of no other evidence to suggest that the long-term consumption of chloroquine in this dosage has led to visual impairment. Alternative prophylactic drugs are, however, available, as has been pointed out by both your expert and others including myself.¹

The implication in your expert's original comment that aircrew may need to take additional chloroquine if they develop a fever, thereby increasing the risk of visual impairment, seems to me most unrealistic. I cannot imagine any intelligent airline pilot dosing himself at frequent intervals with chloroquine in this manner. If by chance such an individual