With cryptogenic disease it is impossible to be certain of the prognosis for these infants if they had not had surgery, but such deaths are exceptional and some component of the laparotomy or cholangiography may have contributed. These infants avoided a more immediate hazard of laparotomy—namely, in those with severe liver disease and markedly reduced bile flow, the removal of narrow but patent bile ducts because of a mistaken diagnosis of biliary atresia.⁷

Further, Thaler and Gellis⁸ have shown that infants with hepatitis submitted to laparotomy and operative cholangiography are more likely to develop cirrhosis than those with a condition of similar severity who are spared these investigations. I therefore submit that laparotomy and operative cholangiography are not simple procedures in infants with hepatobiliary disease and can safely be avoided in the vast majority. It would be a pity if the improved survival with a good quality of life for some infants with extrahepatic biliary atresia were to be counteracted by unnecessary morbidity and mortality from laparotomies in infants with hepatitis.

While the lure of "new and exotic liver function tests" may contribute to the delay in surgical treatment, more important factors appear to be the failure of parents, health visitors, and some family doctors to appreciate that hyperbilirubinaemia with dark urine is always pathological and requires investigation, and persisting and understandable doubts among some paediatricians about the long-term prognosis in biliary atresia even if satisfactory bile drainage is achieved following portoenterostomy.

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Dangerous antihypertensive treatment

SIR,—We feel that a note of caution should be sounded about the introduction of combined tablets of beta-blocking agents with a diuretic in the treatment of hypertension. Both beta-blocking agents and diuretics given alone can be potent hypotensive agents. Oxprenolol and other similar agents may lower the systolic pressure by as much as 60 mm Hg¹ and thiazide diuretics are capable occasionally of producing similar large falls. It seems clear that when the two agents are used together their effect is simply additive.

Your recent leading article (28 July, p 228) on dangerous hypotensive therapy has correctly drawn attention to the dangers of lowering blood pressure too rapidly. One of the patients reported by Dr D H Cove *et al* (p 245) lost vision when treated by mouth with methyldopa, to which propranolol and later a diuretic were added. Their blood pressure chart shows the systolic pressure falling from

almost 300 mm Hg down to 150 mm Hg in 12 hours and to 100 mm Hg on the second day. It was at this time that the patient was found to be blind. Our own experience supports the conclusion that rapid reduction of raised blood pressure, particularly by the intravenous route, may be dangerous and we have certainly witnessed cerebral infarction occurring within a few days after beginning hypotensive therapy by mouth. This has led us to speculate over the relationship between pressure reduction and cerebral events.

In our view therefore it is correct to use either a beta-blocking agent or a diuretic in the first place and if the second agent needs to be added then it is eminently sensible to give the two agents in one tablet. This minimises the number of tablets to be taken. The tablets can be presented in calendar packs to aid the patient's compliance and the majority of hypertensives will probably not then need more than one tablet each day. Both beta-blocking agents and diuretics have a very flat dose-response curve^{2,3} and in most combined preparations the doses contained in the tablet are at the top of this curve. Apart from the risk of inducing complications from rapid lowering of blood pressure, the use of two agents when one might suffice doubles the chance of producing unwanted side effects. With beta-blockade either airways obstruction or cold extremities may be unnecessarily produced. If beta-blockade alone suffices to lower pressure then it is bad medicine to introduce the further risk of producing hypokalaemia, gout, or diabetes with a diuretic.

Promotion of the combined tablets should be preceded by the advice that either a beta-blocking agent or a diuretic should be used alone in the first place and the combination is only indicated if a second agent is really necessary.

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Rebound effect after stopping beta-blockers

SIR,—Dr T J B Maling and Professor C T Dollery (11 August, p 366), describing four patients followed for four days after stopping propranolol, observed no rebound increase in supine or erect blood pressure or heart rate, so adding more apparently reassuring evidence to counter the anecdotal alarms about the dangers of propranolol withdrawal. We feel we should draw attention to data^{1,2} which clearly show that a rebound increase in adrenergic activity does occur after stopping propranolol. Our more recent findings (unpublished) indicate that the phenomenon occurs also after treatment with other beta-blockers, particularly those that lack intrinsic sympathomimetic activity. As might be expected, the manifestations of this presumed increase in beta-receptor "sensitivity"³ become more pronounced under conditions of increased sympathetic drive.¹ We suggest that this is why the phenomenon has been missed in other formal studies of beta-blocker withdrawal and, equally but more importantly, why it may be dangerous when sympathetic

activity is high enough to override residual beta-blockade. Vasodilators, for example, will increase sympathetic activity, and the sympathetic stress of coronary artery surgery must be overwhelming. Catecholamines are a well-known experimental means of inducing myocardial necrosis indistinguishable from the changes of ischaemia.⁴

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Short-term vocational medical work overseas

SIR,—Doctors who consider short-term work overseas (14 July, p 111) fall into two broad groups: those in hospital specialties, and those in general practice, public health, or the uncommitted stages of hospital practice. The major deterrent for most of the former is the near impossibility of regaining on return a place on any rung of their specialty ladder comparable to that which they left.

Most developing countries which ask for hospital doctors now require trained specialists; and, apart from the legal requirements of seniority, the unsupervised nature of the work and the extent and variety of clinical experience which many such posts present would place an intolerable burden on inexperienced shoulders. This means that most hospital doctors entering specialist work overseas will leave this country at consultant, senior registrar, or late registrar level. Consultants may be allowed prolonged leave of absence; senior registrar posts cannot usually be "held" for more than a year while the incumbent is abroad; and registrar posts must often be resigned completely.

Work overseas for a year or less at this level is of limited usefulness because of the problem of language and general familiarisation with the environment and the spectrum of disease. But those who resign their posts in these grades to serve for longer than a year face extreme difficulty in returning to their grades in the NHS, especially in major specialties, presumably because of doubts about the training content of largely unsupervised work.

The following suggestions might be considered in an attempt to resolve this impasse. (1) A small number of posts, decided on an individual basis, could be kept open for a longer period—say two years. (2) Each candidate should ensure, before signing any contract, that he acquires as much reliable information as possible about job content: newly created posts merit particularly close scrutiny. There should be much more collation of information from all potential overseas employers, together with "feedback" from past employees for circulation to postgraduate deans and others who may be called on to advise doctors—an "Overseas Yearbook" perhaps? (3) The establishment of a close link by the overseas doctor with a senior specialist in the UK in an advisory capacity would do much to maintain standards and morale. We envisage the advice being related to methods of collecting and recording clinical information and preparing material for possible publication; provision of references would also be an asset. (4) As a condition of retaining his UK post, the candidate should be required to produce regular and reasonably detailed reports on his work, perhaps to the joint higher training committee of his specialty. (5) It might be possible to arrange occasional inspection visits by, for example, UK