Given that depression is common in the black community in Birmingham,³ it is hardly reassuring that this diagnosis is not felt to be relevant in the hospital. The political implications of this diagnosis have been queried for over a decade, not least in this journal.⁴

We are grateful to Drs John Merrill and John Owen (30 April, p 1260) for their data on overdose rates among the Afro-Caribbean population aged over 35 years.

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Medical research

SIR,—The report by the House of Lords Select Committee on Science and Technology recommended changes in the medical service increment for teaching.¹ These changes would protect the service requirements of medical schools and thus allay recent concerns.^{2,3} Unfortunately, this aspect of the report has been overlooked in the recent summary (16 April, p 1109) and comment.^{4,5}

Currently the Department of Health and Social Security distributes the medical service increment for teaching to regions based on the projected number of whole time equivalent clinical medical students in each region two years from the year of allocation. Regions decide how this sum is distributed to districts, and there are variations in how account is taken of teaching outside the main teaching hospitals.⁶

The service increment for teaching sum is overgenerous for its supposed limited purpose—namely, the additional service costs of clinical teaching⁷ (as RAWP intended⁸). But the report recognised that it could be used to meet service rather than academic priorities. When teaching districts have to make cuts in services academic requirements will tend to be disregarded. Neither university liaison committees nor university representatives on health authorities can ensure that service increment for teaching money is used for its intended purposes. The report proposed the remedy that medical schools ought to receive it and thus be empowered to decide where they would “buy” the clinical resources that they require.

The report recognised that the current level of the service increment for teaching probably included some element of the costs of research and recommended that this should be made explicit by replacing the service increment for teaching with a new allowance—a service increment for teaching and research. The report considered that there were advantages in this being allocated to medical schools by the proposed National Health Research Authority and being adjusted according to centres of clinical research in medical schools.

The recommended changes would clarify current confusion between funding service and academic needs. The process of resource allocation would be concerned with equity only, and medical schools would be required to specify explicitly the additional resources they need for teaching from districts. Such change could be implemented only on the understanding that the status quo would continue for an interim period, but after that the process could lead to profound changes by—for

example, allowing greater flexibility in medical schools' choice of hospitals.

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Inhaling heroin during pregnancy

SIR,—We have read Drs J E M Gregg, D C Davidson, and A M Weindling's paper (12 March, p 754) and the subsequent correspondence between them and Dr Andrew Johns (14 May, p 1399), and wish to challenge Dr Johns's assertion that “the pregnant woman who ‘chases’ heroin is best served by a prescription of the lowest achievable dose of methadone.” This may be correct for the pregnant addict who presents before the final trimester and can thus be detoxified slowly. If she presents late in pregnancy, however, a slow detoxification is not possible, and sudden withdrawal from opiates may lead to premature labour, fetal distress, meconium aspiration, and fetal death.^{1,3} In an effort to prevent this it is usual to keep the mother on a small maintenance dose of opiate.

Many babies born to addicts receiving opiates experience a withdrawal syndrome which is more severe and protracted if the mother is taking methadone.^{3,4} We suggest that oral diamorphine solution should be prescribed for the patient who presents for the first time in the final trimester.⁵ Our experience suggests that this is better than the use of oral methadone. Oral diamorphine may have a greater potential to be abused than oral methadone, but the decrease in the severity of withdrawal in neonates should also be considered when planning the management of the pregnant drug addict.

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Plastic material from syringes causing death

SIR,—Dr A J Cant and colleagues (2 April, p 968) report a disturbing case of mesenteric artery thrombosis in a neonate due to polypropylene particles. The fragments of polypropylene they describe are surprisingly large (50-200 µm long)

and do not accord with the sizes of particles found previously from syringes from other manufacturers.¹ I would be interested to know the material from which their umbilical catheter and connecting tubing were made before putting all the blame on the syringes. This seems especially relevant since the first acute abdominal event followed immediately after removal of the umbilical artery catheter.

I agree with their general conclusions but suggest that evidence for filtration of infusions into arterial lines is stronger than for intravenous lines. Intra-arterial infusions of cardioplegic solutions have been shown experimentally to produce a marked reduction in coronary arterial flow which is avoided by filtration.² The report by Dr Cant and others supports the view that filtration of all intra-arterial infusions is advisable.

The evidence for harmful systemic effects from particles in intravenous infusions is less clear, and perhaps a selective use of filters is appropriate. In intensive care patients the number of particulate contaminants derived from small volumes of intravenous drugs is likely to be at least 15 times greater than from large volume infusion fluids.³ Particles seem to contribute to the development of infusion phlebitis and 0.2 µm final in-line filtration delays its onset, but only in patients receiving small volumes through their infusion lines.⁴ Filtration should be considered for all intra-arterial infusions but only those intravenous infusions to which small volume drugs are added.

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Iron chelating drugs

SIR,—Professor Chaim Hershko's leading article (16 April, p 1081) does not reflect the cautious optimism generated world wide after the articles published in the *BMJ* and the *Lancet*.^{1,2} These reported effective chelation of iron in patients with thalassaemia and with iron overloading by using the cheap oral iron chelator 1,2-dimethyl-3-hydroxypyrid-4-one (L1), which is equipotent to subcutaneous desferrioxamine and, as yet, shows no toxicity. It is the first time after 20 years of research and the testing of hundreds of chelators world wide that such a breakthrough has been achieved. Hundreds of inquiries about the provision of L1 have been received from doctors, relatives of patients, and thalassaemia organisations from all over the world.

Professor Hershko's suggestion that the oral effectiveness of new chelators is related to their high lipid solubility is misleading. L1 is highly hydrophilic, whereas lipophilic chelators are known to be toxic.³ That L1 and similar chelators are equally effective by mouth and parenterally^{4,7} contradicts Professor Hershko's statement that the oral route is a third as effective as the parenteral route.

As no other cheap oral chelators have yet reached the developmental stage of effective iron removal in man L1 and the other α -ketohydroxypyridines should be regarded as the most important experimental drugs. The discovery of the α -ketohydroxypyridines and their development to