

its own, services *all* ward practice). Later that day, or as soon as the patient is fit for interview, the duty psychiatrist (who is available 7 days a week) appends his opinion and advice including that on any further necessary care. This system has operated well for the past decade and has created a beneficial close liaison betwixt the emergency and psychiatric units. I commend this system and suggest that it spares fairly busy senior house officers in the casualty unit, who can spend the additional time necessary to elicit a fruitful psychiatric history.

A R DOW Consultant in Accident and Emergency Medicine
Sunderland District General Hospital

Smoking - a major cause of polycythaemia

Sir, The paper by Aitchison and Russell (February 1988 *JRSM*, p 89) on smoking as a major cause of polycythaemia was a welcome addition to the extensive evidence which now exists regarding this important issue. For those not yet convinced, however, it would have been useful if they had briefly commented upon the mechanisms by which cigarette smoking might be having the effects they saw.

In smokers, occupation by carbon monoxide of binding sites on haemoglobin reduces the oxygen content of circulating blood at any given PO_2 . Carbon monoxide also *increases* the affinity for oxygen of the remaining haem sites; the haemoglobin-oxygen dissociation curve is left-shifted¹, and there are also changes in the shape of the curve². Not only is the blood carrying less oxygen, it is also more reluctant to release that oxygen to the tissues. This reduced oxygen delivery to the renal oxygen sensor responsible for erythropoietin release³ may result in polycythaemia. Although a reduced plasma volume is found in many smokers with a raised haematocrit, it is not a universal finding. The influence of alcohol on plasma volume and the ways in which smoking and drinking may together produce polycythaemia have been discussed elsewhere^{4,5}, and Aitchison and Russell do not report patterns of alcohol consumption in their patients. Nevertheless, this does not detract from the importance of their message that carboxyhaemoglobin estimation is a vital part of the investigation of patients with both absolute and relative polycythaemia.

J MOORE-GILLON Department of Respiratory Medicine
Medical College of St Bartholomew's Hospital, London

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Facial reconstruction in Down's syndrome

Sir, I think some aspects of the editorial by Hatch (January 1988 *JRSM*, p 1) on the above subject, should not go unchallenged. I note that the author is an anaesthetist, and may therefore lack very much

experience of the problems faced by the families of children and young people with Down's syndrome and by the young Down's syndrome people themselves. I take particular issue with his comment that, '... if there is severe mental impairment, it is hard to see how cosmetic surgery could help a child to contribute more to society or become more integrated in it.'

What contribution to society, precisely, is required of a child? Do these social indications determine in any way whether a child who might benefit from plastic surgery is to receive it? Not all children with Down's syndrome are, by any means, 'severely' mentally retarded, and it has been felt for many years that the children's ready identification may lead to prejudice that may limit their experience of life, hence the movement in the USA particularly, towards facial reconstruction.

No one should recommend any type of surgery without due consideration of its risks, and that aspect of the editorial is clearly important. However, there should be few anaesthetists who would not realize that a patient with Down's syndrome might well have associated congenital heart disease as well, and there are very few centres, hopefully, that would allow surgery to proceed without appropriate preoperative investigation. Any patient at anaesthetic risk from severe congenital heart disease should not remain unremarked.

The question of whether plastic surgery is likely to be of benefit or otherwise should be considered by the parents or other carers, by the young person if old enough to have an opinion, by his or her community or hospital paediatrician, and by the general practitioner and other professionals involved in health care, in consultation with a plastic surgeon who has had experience of this work. An anaesthetist should then be drawn in to consider the risks. This procedure should not be reversed.

C G H NEWMAN

Consultant Paediatrician
Westminster Hospital, London

*The author replies below:

Sir, It is reassuring to know that Dr Newman agrees that cosmetic surgery should not be recommended to Down's syndrome patients without due consideration of the risks. The main purpose of the editorial was to remind those involved with the primary care of these patients how significant these risks can be. This is something which anaesthetists are perhaps uniquely placed to comment on, since not only are they intimately involved with the families at the time of operation, but they must also ultimately shoulder the responsibility of deciding whether or not the child is fit for surgery, and in many cases manage the intensive care problems which may arise afterwards even in the absence of congenital heart disease. Though most plastic surgeons take a very balanced view about this problem, some of the current literature suggests that it is not always easy for them to be entirely objective about the results of their surgery.

It is important for all concerned to have a realistic idea about the possible benefits of the proposed surgery to weigh against the risks. This is, surely, particularly important when there is severe mental handicap, denying the patient the opportunity to take part in the decision-making process as Dr Newman would wish. He seems unaware of the multidisciplinary