ately they arrived at the unit or within four hours of arrival. Of the children who were intubated, 24 were not paralysed or sedated; these children had a higher incidence of blockage of the endotracheal tube, accidental extubation, and tachycardia. In 10 cases the endotracheal tube was completely occluded on arrival, needing immediate replacement. Arterial saturation was below 90% on admission in 12 children in whom it was measured during the transfer. Eight children had not had an intravenous cannula inserted before they arrived, 34 required urgent volume expansion, and in 62 the difference between the core and peripheral temperature was greater than 5°C.

This audit report, along with others,[4] further highlights the fact that children are still transferred by the referring hospital and that critical or serious incidents frequently occur en route (in one in three transfers). Logan questions the efficacy of specialised transfer teams. An ethical randomised controlled trial to decide this issue cannot be constructed. This is yet another question that cannot be answered by evidence based medicine,[5] although the answer is relevant to the allocation of resources. Our audit, however, provides additional information.

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Authors' reply

EDITOR,—It is reassuring to find that there is agreement on the essence of our paper, which is that critically ill children should be transferred by specialised paediatric mobile intensive care teams. Unfortunately, this is not always the case in Britain. Quen Mok and colleagues report that substantially more critical incidents occurred in the 180 transfers by non-specialised teams to their paediatric intensive care unit, which emphasises the message of our paper.

Our application of the therapeutic intervention scoring system (TISS) and the paediatric risk of mortality (PRISM) score was based on evidence of their use in retrievals.[1,2] When the PRISM score was validated in Britain observation periods ranged from 8 to 32 hours and in some cases were shorter. Furthermore, it was suggested that the score could be used serially before, during, and after transfer.[3] The PRISM score has been validated for use before transfer.[4] Alan Morrison and Colin Runcie seem to have misunderstood the TISS score after retrieval in our study: it included only interventions performed by our mobile intensive care team and not those performed in the paediatric intensive care unit.

It is important that the issue of transferring critically ill children does not get sidetracked by a debate on scores indicating severity of illness. The evidence is clear: mobile intensive care teams decrease the risk of morbidity during transfer. While scores indicating severity of illness are necessary tools for audit and health planning, they are of no use in the management of an individual child.

A Raffles makes a valid point about the initial intensive care delivered by referring hospitals. In the past two years we have collected data on 275 children from 50 hospitals and have found that most of the skills required for initial resuscitation and stabilisation were available at the referring hospitals. Often these procedures had not been performed despite advice being given on the telephone by our mobile intensive care team. We agree that doctors who treat children should have specialised training in recognising and managing those who are seriously ill. An additional function of the mobile intensive care team is to impart specialised knowledge and skills to the team at the referring hospital, thereby improving the management of subsequent children.

R M Cooper rightly highlights the risk of transfers within hospitals. A recent study of such transfers showed significant physiological deterioration in 72% of patients and mishaps related to equipment in 19%.[5] Clearly, critically ill children should be transferred by a mobile intensive care team, however short the distance.

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See p 68, 83, 88

Guidelines for prescribing combined oral contraceptives

EDITOR,—The clinical and scientific committee of the Faculty of Family Planning and Reproductive Health Care has noted a wide range of expert views on the recent publications on the combined oral contraceptive and venous thromboembolism[1-6] and has circulated a position paper.[7] The new studies confirm that low dose combined oral contraceptives carry an extremely low risk for healthy women.

The overall risk of venous thromboembolism for users of combined oral contraceptives containing gestodene and desogestrel is close to the previous estimate for all low dose combined oral contraceptives.[5] Combined oral contraceptives containing levonorgestrel and norethisterone seem to be associated with a lower risk of non-fatal venous thromboembolism than previously reported (table).

Risk of non-fatal venous thromboembolism per 100 000 women per year

	Risk
Women not using combined oral contraceptives[8]	5-11
All women using low dose combined oral contraceptives*	30
Women using combined oral contraceptives containing desogestrel or gestodene†	30
Women using combined oral contraceptives containing levonorgestrel or norethisterone	15
Pregnant women and women post partum	60

*According to latest British estimate before publication of recent letter to all doctors from Committee on Safety of Medicines.[10]
†Based on relative risk of twice the risk for women using combined oral contraceptives containing levonorgestrel or norethisterone.

Prescribing guidelines

- Prescribers should take a comprehensive personal and family history to exclude absolute contraindications to the use of combined oral contraceptives. These include a personal history of venous thromboembolism
- Counselling should be thorough and unbiased and take into account all the recent studies and the letter from the Committee on Safety of Medicines[10]
- Women with hereditary thrombophilia in a first degree relative should not be prescribed a combined oral contraceptive until thrombophilia has been excluded

First time users of combined oral contraceptives

- Prescribe a low dose combined oral contraceptive containing no more than 35 μg ethinyloestradiol and no more than 150 μg levonorgestrel or 1 mg norethisterone, except when a higher dose is specifically indicated
- Preparations containing desogestrel or gestodene may have an additional therapeutic role in women with specific medical conditions, including acne and hirsutism

Established users of combined oral contraceptives containing gestodene or desogestrel

- If risk factors for venous thromboembolism are present* the woman should be advised to change to another contraceptive method or to a preparation that does not contain gestodene or desogestrel, as appropriate
- If after counselling the woman finds the risk of venous thromboembolism unacceptable then she should use a combined oral contraceptive that does not contain gestodene or desogestrel or another contraceptive method
- The prescriber should respect the user's informed choice if she chooses to continue to take her current pill, even if only because she is satisfied with it

Users of combined oral contraceptives that do not contain gestodene or desogestrel

- A woman who has not tolerated combined oral contraceptives that do not contain gestodene or desogestrel, by virtue of experiencing persistent breakthrough bleeding or androgenic side effects, or for personal reasons, may be prescribed a combined oral contraceptive containing gestodene or desogestrel, having accepted the increased risk of venous thromboembolism

*Risk factors for venous thromboembolism are hereditary thrombophilia; an acquired predisposition, such as the presence of lupus anticoagulant or malignancy; mechanical factors, such as immobility or trauma (which may be acute or temporary, or both); physiological factors, such as dehydration (which may be acute or temporary, or both); obesity (defined as a body mass index of 30 or over); and varicose veins (the data on the magnitude of risk attributable to varicose veins are conflicting, but extensive varicosity is likely to be a risk factor). The literature on the association of smoking with venous thromboembolic disease is mostly negative.

The data on myocardial infarction in women with no history of cardiovascular disease are reassuring. Lewis *et al* report no significant increase in the risk of myocardial infarction in users of pills containing gestodene or desogestrel compared with women not using the pill. The threefold increased risk of myocardial infarction previously reported in users of the combined oral contraceptive[8] was still present among users of brands marketed earlier than pills containing desogestrel and gestodene. Smokers using brands marketed earlier had 11·1 times the risk of non-smoking women not using the pill (a significant difference), but the relative risk was 3·1 (not significant) in smokers using pills containing gestodene or desogestrel.[9] We agree with Lewis *et al* that this one study, in which direct comparison of the products did not prove a significant difference, should be interpreted with extreme caution. We would welcome further comparative studies to confirm these findings.

The safety profile and observed high acceptability of products containing desogestrel or gestodene allow their continued use, subject to thorough, unbiased counselling in the context of all the recent studies and the letter from the Committee on Safety of Medicines.[10] The faculty is committed to developing evidence based guidelines, and until further data are available it endorses the guidelines given in the box.

A M MILLS (chair, clinical and scientific committee), C L WILKINSON (secretary), D R BROMHAM (committee member), J ELIAS (committee member), K FOTHERBY (committee member), J GUILLEBAUD (committee member), A KUBBA (committee member), A WADE (committee member)

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1 World Health Organisation Collaborative Study of Cardiovascular Disease and Steroid Hormone Contraception. Venous thromboembolic disease and combined oral contraceptives: results of an international multicentre case-control study. *Lancet* 1995;**346**:1575-82.
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Safety of complementary medicines should be monitored

EDITOR,—Guy Vautier and R C Spiller report on a 32 year old man who died of hepatic failure after taking a complex Chinese herbal mixture.[1] They identified one particular herb, *Dictamnus dasycarpus*, as the probable cause of the hepatotoxity. Recent double blind trials of a formula containing this herb, however, have failed to show any adverse effects on the liver.[2] Moreover, an extensive literature search of references to this herb (which has been used for over 1000 years) has failed to link it with damage to the liver.

The authors singled out this herb as being the culprit because it is present in other Chinese herbal formulas that have been implicated in adverse events. But *D dasycarpus* is present in most Chinese herbal mixtures used to treat skin ailments, for which Chinese herbal medicine has become well known. Vautier and Spiller cite the herb's constituent xanthotoxins and psoralens as further evidence of its hepatotoxity, but these chemicals are found in the aerial part of the plant[3] and not the root, which is recommended for use by herbalists. Flavanoids, which the authors also cite, are widely found in plants (for example, blackcurrant) and are not associated with hepatotoxity.

Both patients reported on previously are known to have had a history of jaundice,[4] and thus the liver was probably compromised before treatment began. The Register of Chinese Herbal Medicine has notified all its members that treatment of any patient with a history of hepatitis should be undertaken only with constant monitoring, which must include liver function tests. In both cases mentioned here the deaths would not have occurred had the practitioners followed the register's guidelines.

The Register of Chinese Herbal Medicine is working towards government registration of trained herbal practitioners together with the compilation of a system of monographs providing data on quality assurance, safety, and efficacy. We welcome help in achieving these aims from the orthodox sector.

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Monitoring children's growth

Abnormal growth should also be defined by the crossing of height centiles

EDITOR,—D M B Hall's editorial on monitoring children's growth provides a useful introduction to the use of the new growth charts.[1] The British Society for Paediatric Endocrinology, of which I am secretary, welcomes the guideline on referral practice related to stature (a child should be referred if his or her height falls below the 0·4th centile or above the 99·6th centile) but believes that abnormal growth should be defined, in addition, by the crossing of height centiles. Simply concentrating on absolute stature will lead to children not being referred for an opinion on their growth until they are found to be below the 0·4th centile. Children do not appear under the 0·4th centile as if by magic. They get there by growing persistently slower than their peers and hence falling through the distance between centiles. It is extremely difficult to restore the genetic height to someone whose height has been severely compromised. Early diagnosis before a growth deficit has accrued is essential.

Monitoring growth is not simply, as Hall implies in his examples, about detecting endocrine disorders. The process of growth and development is what makes paediatrics different from adult medicine and is the cornerstone of the scientific practice of paediatrics. To aid decision making the society has proposed the following guidelines for surveillance of growth and referral.

Firstly, children whose heights are below the 0·4th centile and above the 99·6th centile should be referred.

Secondly, children aged less than 5 should be referred if two measurements of height, usually separated in time by 18 to 24 months, are more than three centiles apart. If height crosses over only two centiles during this period then the child should be flagged for recall after 18 to 24 months, and if during that period a further centile in height has been crossed then he or she should be referred.

Thirdly, children aged 5 and over should be referred if, over one year, their height crosses two centiles. If over one year the height crosses only half the distance between two centiles then the child should be flagged for review at the end of a further year. If at the end of that time the height has crossed a further half of the distance between two centiles (and so has crossed two centiles in total since the original measurement) then he or she should be referred.

Fourthly, any child whose height falls outside the parents' target height should be referred.

Finally, if there is parental concern about growth, irrespective of the child's current height centile, then the child's height needs to be measured and decisions made according to the above criteria.

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1 Hall DMB. Monitoring children's growth. *BMJ* 1995;**311**:583-4. (2 September.)

Relation between height and weight centiles may be more useful

EDITOR,—D M B Hall emphasises the value of monitoring growth in the early detection of treatable growth disorders such as growth hormone deficiency and Turner's syndrome.[1] Our experience from a child growth surveillance programme in Maidstone, however, has convinced us that an equally important result of monitoring growth is the early detection of other conditions such as coeliac disease, eating disorders, and child neglect, in which the primary growth disturbance is of the relation between height and weight.

Hall suggests that the answer to the question "Is a child too fat or thin?" is to use the body mass index.[2] We believe, however, that this is unlikely to prove a practical tool for community use as it requires yet another chart, more expense, and a mathematical computation. Our experience of using decimal charts in the community is that they are likely to lead to errors and hence inappropriate referrals, and a much simpler method already exists. In Maidstone we have asked school nurses to look at the relation between height and weight on centile charts and to suggest reassessment or referral if there is a discrepancy of more than three centile bands (that is, crossing four centiles). On the new charts this would be equivalent to a difference of 2 SD.

The difference between height and weight centiles results from many influences, including body type and body proportion. We believe, however, that teaching health professionals to critically evaluate existing height and weight charts is preferable to introducing yet another relatively complex chart into community use. The difference between height and weight centiles can be used to design referral criteria that favour children who are much more likely to have organic disease, such as obese children who are short.

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Extra costs for disabled people

EDITOR,—Claudia Court reports on a survey of the funding of care for disabled people.[1] We have shown the extensive costs of disability for the individual and the state: in a study of 173 appreciably or severely disabled people living in the community the mean cost of capital equipment and adaptations was £5700 to individuals and their families and £4500 to statutory bodies at 1993 prices.[2] The costs to the individual were not