now performed in all cases in which the diagnosis is suspected. Where measles remains endemic, laboratories should review their use of the complement fixation test for screening and use the serum IgM test to provide rapid results, at least until a salivary IgM test is more widely available.

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- 1 Tait DR, Ward KN, Brown DWG, Miller E. Measles and rubella misdiagnosed in infants as exanthem subitum (roseola infantum). *BMJ* 1996;312:101-2. (13 January.)
2 Brown DWG, Ramsay MEB, Richards AF, Miller E. Salivary diagnosis of measles: a study of notified cases in the United Kingdom, 1991-3. *BMJ* 1994;308:1015-7.

Training in advanced trauma life support

All aspects of life support should be part of undergraduate curriculum

EDITOR,—A J Price and G Hughes remind us of the inadequacy of training in resuscitating patients with trauma for senior house officers in Britain.¹ However, all aspects of resuscitation skills, including cardiac and paediatric life support, are sadly lacking. The authors' proposed solution—of increasing training in trauma life support for senior house officers in accident and emergency early in their career—is surely the wrong answer. Advanced life support skills should be a mandatory part of the undergraduate curriculum, with doctors graduating with not only an MB, BS (or equivalent) but also a certificate of competence in advanced life support.

At present many of these skills are taught during courses on paediatric, cardiac, and trauma life support. Doctors in accident and emergency, anaesthetics, and other acute specialties invariably attend each of these, often as late in their career as at senior registrar or consultant level. The content of these courses is similar in the initial stages—that is, demonstration and learning of basic life support techniques, manoeuvres to control an airway, and skills to ensure intravenous access and administration of drugs—with specialty components added and integrated according to the title of the course. The problem of recertification and confirmed maintenance of skills has been inadequately addressed.

If resources from departments of anaesthesia, accident and emergency medicine, general surgery, orthopaedics, paediatrics, cardiology, and general medicine were pooled it would surely be possible to ensure a course that was adequately taught and examined. Table 1 shows a possible timetable. Conceivably a body such as the Resuscitation Council could be commissioned to produce an appropriate curriculum and manual and a body such as the General Medical Council to oversee the examination standards. This course would result in undergraduates being competent in all aspects of resuscitation when they begin their preregistration

posts. It could also be extended to become a mandatory part of registration for overseas doctors, again ensuring common standards of emergency care.

Such a course would lead to better and more cost effective postgraduate training. The royal colleges or whoever oversees relevant specialty training would be able to devise one day refresher courses and assessment at intervals of three to five years as part of formal continuing medical training. Failure to pass this one day course would lead to postgraduate doctors having to fund a full refresher course themselves, which would ensure pressure to maintain skills at an adequate level.

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Go on a course in the United States

EDITOR,—A J Price and G Hughes are right to criticise the difficulty that senior house officers encounter in obtaining training in advanced trauma life support.¹ We suggest that those doctors who have not been able to secure a place on one of the British courses should follow our example and take a course in the United States. There are more than 100 courses all over the country, and with almost no waiting list. A comprehensive list of courses can be obtained from the Committee on Trauma at the American College of Surgeons, 55 East Erie Street, Chicago, IL 60611-2797, USA. The cost of the course is about two thirds the cost of its British equivalent and should be reimbursed with consultant approval, but applicants will have to pay for their travel and accommodation.

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Increased mortality related to asthma among asthmatic patients using major tranquillisers

Underlying ill health is the main risk factor

EDITOR,—The paper by K S Joseph and colleagues seems to imply, in both its title and its conclusions, that there is a causal relation between taking major tranquillisers and death from asthma in asthmatic patients.¹ The results of their study do not support such a causal relation but do show an association. The authors recommend that physicians who treat asthmatic patients with a history of use of major tranquillisers should exercise greater caution over their management. This may be true, and the

authors give a convincing argument to support their case. In reality, however, if general practitioners (who treat most patients with asthma) were to use only the taking of major tranquillisers as a surrogate marker for potential death or near death they would probably miss many patients at risk.

Risk factors for death from asthma have been the focus of research, and much has been learnt from many studies, including those from Cardiff,² the west midlands and Merseyside,³ and the asthma mortality task force,⁴ and from a workshop in Denver, Colorado.⁵ The report on the workshop is particularly helpful as it categorises the findings as factors in medical care, factors related to the patient, and high risk criteria in asthma. The high risk criteria in asthma include particularly adolescence and young adulthood, underlying severe disease, and previous severe attacks. Other risk factors include recent discharge from hospital, poor self care, non-compliance, depression or severe emotional disturbance, and psychosocial factors.

It is psychosocial factors that are often brought to the attention of the primary care team; they affect many more patients than just those who take major tranquillisers. Such factors include family dysfunction, bereavement, separation, alcohol or drug misuse, low social economic status, non-attendance at health care clinics, anger and conflict with doctors or health care workers, poor self care, unemployment, and geographical relocation leading to discontinuity of medical care. It is more important, therefore, that physicians should consider the underlying ill health—be it clinical, social, psychological, or psychiatric—and not its therapeutic management in identifying patients at risk of death from asthma.

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2 Macdonald JB, Seaton A, Williams DA. Asthma deaths in Cardiff 1963-74: 90 deaths outside hospital. *BMJ* 1976;ii:1493-5.
3 British Thoracic Society. Death from asthma in two regions of England. *BMJ* 1982;285:1251-5.
4 Proceedings of the Asthma Mortality Task Force, 1986. *J Allergy Clin Immunol* 1987;80:361-514.
5 Strunk RC. Workshop on the identification of the fatality-prone patient with asthma. *J Allergy Clin Immunol* 1987;80:455-7.

Smoking may increase mortality when patients stop using tranquillisers

EDITOR,—K S Joseph and colleagues report an increased risk of death or near death in asthmatic patients who use major tranquillisers.¹ Their finding that subjects who had stopped taking major tranquillisers in the previous two months were at particularly high risk is intriguing. I am disappointed, however, that the authors do not give data on smoking patterns in the cases and the controls. It is well known that psychotic illness is associated with heavy smoking.² I wonder whether the findings would remain significant after adjustment for differences in smoking habit. It has been suggested that smoking helps schizophrenic patients to cope with psychotic symptoms³ and that smoking improves cognitive deficits.⁴ This raises the possibility that stopping major tranquillisers results in an increase in smoking. Cigarette smoking may therefore be the mechanism that mediates the increased mortality from asthma in those patients who stop using major tranquillisers.

From a practical point of view, in addition to optimising the management of asthma in schizophrenic patients it may be important to place emphasis on helping this vulnerable group of

Table 1—Possible timetable for training undergraduates in life support

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	Introduction to basic life support	Practicals in gaining intravenous access	Practical cardiac scenarios	Practical trauma scenarios	Practical paediatric scenarios
Afternoon	Practicals in airway care	Lectures on theory of cardiac arrest	Lectures on theory of trauma	Lectures on theory of paediatric life support	Assessment and examination

patients to reduce their cigarette consumption and review smoking policies in psychiatric inpatient units.

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- 2 De Leon J, Dadvand M, Canuso C, White AO, Stanilla JK, Simpson GM. Schizophrenia and smoking: an epidemiological survey in a state hospital. *Am J Psychiatry* 1995;152:453-5.
- 3 Goff DC, Henderson DC, Amico E. Cigarette smoking in schizophrenia: relationship to psychopathology and medication side effects. *Am J Psychiatry* 1992;149:1189-94.
- 4 Wesnes K, Warburton DM. Nicotine, smoking and human performance. *Pharmacol Ther* 1983;12:189-208.

Competition continues in the NHS

EDITOR,—The NHS that Chris Ham describes¹ bears no resemblance to the one in which I work. Far from “slipping away quietly in the night,” competition is a powerful factor in many clinical and managerial decisions. Here are a few examples of competition—not contestability—that I have come across recently. “Business opportunities” (the attempt to take work from colleagues) determine who is seen and how quickly; clinical practice shifts to emulate what “competitors” (colleagues) offer whether or not it is considered to be best or most cost effective practice; and even the drafting of a new disciplinary code is influenced by the desire to “protect” (hide) “commercially sensitive information” (the fact that a doctor is the subject of disciplinary action) from competitors.

Competition no doubt has positive as well as negative effects, but these will remain impossible to disentangle because the dispassionate systematic studies that inform changes in our clinical practice are never undertaken into changes in management practice. Ham’s opinion seems to be based wholly on what politicians say or do not say. His references are to political speeches,^{2 3} and I wonder what corroborative evidence he has from purchasers, providers, or consumers. What Ham shows is not a “middle path for health care” but the massive disparity between the rhetoric of the reformers and the experience of clinicians, managers, and patients involved in the real work of the NHS.

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- 2 Smith R. William Waldegrave: thinking beyond the new NHS. *BMJ* 1990;302:711-4.
- 3 Bottomley V. *The new NHS: continuity and change*. London: Department of Health, 1995.

The Internet

Facilities on the Internet may be abused

EDITOR,—Two recent articles have described the use of electronic mail and the worldwide web.^{1,2} In his editorial on the Internet Enrico Coiera raises the problem of the disclosure of personal information³; we support what he wrote and offer the following additional comments, which are based on abuses of these facilities that we have witnessed that give rise to serious concerns.

● Patients may join discussion groups on, and seek information by using, the worldwide web. They obtain advice that sometimes seems to be given on the basis of little information or on questionable clinical grounds

● Bogus professionals and worldwide web sites with information of unknown validity have inappropriately advised members of the public, who may believe that such advice has sound scientific and clinical substance to it

● In email groups people may give detailed personal and medical information about themselves, relatives, or friends or (in the case of medical professionals) about patients that clearly breaches confidentiality. This information allows people to recognise acquaintances or to seek patients out if they do not already know them. Parents have also openly discussed their child’s psychiatric condition on lists such as the open but professional child and adolescent psychiatry list, described elsewhere⁴

● Advice may be inappropriate because the person giving the advice, or the worldwide web site, is in a different country and subject to different jurisdictions

● One mailing list specifically announces forthcoming clinical trials to people interested in participating as patients in clinical research. This potentially biases the designs used in these trials (for example, through failure to obtain representative samples)

● Virtual support groups exist on the Internet for discussion of specific symptoms or disabilities. Some are dedicated to the discussion of suicidal ideation, and one of these has a high frequency of expression of suicidal ideation and regular discussion of the most efficient techniques for completing a suicidal act. This has legal implications in Britain.

We are concerned about the possible abuse of this facility. We propose that the relevant regulatory bodies of countries on the Internet discuss this issue together to arrive at a universal set of guidelines that should safeguard all those concerned. The Internet is clearly a powerful tool, and thus extra care should be taken in its use.

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- 1 Pallen M. Guide to the Internet: electronic mail. *BMJ* 1995;311:1487-90. (2 December.)
- 2 Pallen M. Guide to the Internet: the world wide web. *BMJ* 1995;311:1552-6. (9 December.)
- 3 Coiera E. The Internet’s challenge to health care provision. *BMJ* 1996;312:3-4. (6 January.)
- 4 Parkin A, Stoker A. Surfing the net: a guide to the Internet for professionals in child mental health. *Child Psychology and Psychiatric Review* (in press).

Editorial made extravagant claims

EDITOR,—The Internet is a truly marvellous way for computers to communicate with each other, and indirectly it allows people to communicate as well. As one who uses the Internet daily as part of my work, I am an enthusiast. I am surprised, however, by the extravagant claims made by Enrico Coiera.¹

Coiera states that, as a result of the Internet, the provision of information on health will no longer be the exclusive remit of health care professionals. This statement is obviously false: other well known providers of information on health include grandmothers, busybodies, sick people, magazines, and libraries—and all of them have been around for much longer than the Internet. Other features of the Internet that Coiera identifies—accessibility, uncontrollability, lack of confidentiality, and variability with regard to the quality of information provided—apply equally well to the sources I have listed. There is nothing new here.

The author suggests that the Internet will introduce a “free market in information” (the

implication is that, until the Internet came along, health professionals were able to monopolise the information). Since there is already a free market in health information, this hardly seems a possibility. Grandmothers, busybodies, and the other sources I mentioned, including libraries, participate in an existing free market in health information. What, if not a free market, is the vast global enterprise of medical publishing with which we are so familiar? It seems to me that if you make claims like “the changing nature of information delivery brings with it enormous implications” then you should be able to show that the nature of information delivery has changed. My view is that it has not changed: email is not different in principle from an ordinary letter; putting the *BMJ* on the Internet only provides another avenue for people who wish to read it. This may give the *BMJ* a wider readership, but it hardly constitutes a “challenge to health care provision.”

The really big impact of computing on information delivery, which was never so widely heralded as the Internet, resulted from a much more important innovation than a mere communications system. This was the introduction by librarians of computerised indexes such as Medline, which provide access to information through the use of search tools based on multilevel thesauruses and boolean logic (neither of which can readily be used in a printed index). This occurred 30 years ago.

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Encryption algorithms are effective in maintaining security

EDITOR,—Many doctors know little about the Internet, and while David Sellu is right to be concerned about the security issues relating to the increasing use of the Internet by doctors and other health care workers, his short piece does not give a realistic picture of the situation.¹

The suggestion that “Pentagon computers can be infiltrated by hackers almost to the point of starting a nuclear war” owes more to Hollywood than to any documented event. His comment that “once you connect your computer to the Internet the files on your system can be retrieved by anyone with the right resources. If your computer is connected to a network—for instance, in a hospital—the entire information on that network is vulnerable” is couched in such general terms that it is at best misleading and in many circumstances untrue, akin to talking about orchidectomy as the cure for cancer.

Sellu raises concerns about the security of email messages and concludes by dismissing passwords “as one of the least innovative ways of protecting access to computer data.” He seems to ignore the fact that the use of robust public key encryption software can prevent email messages from being read by anyone other than the intended recipient(s) and provide a digital signature, allowing verification that the message is truly from who it seems to be from, and verification that the contents of the message have not been changed.² Such software exists in the form of a programme called PGP (pretty good privacy). So effective are the encryption algorithms used by this program that the United States government forbids its export from the North American continent. Several “kludges” have been used to ensure that an international version is available to anyone. In the “cash strapped NHS” it will be reassuring for people to know that this program is available free from a variety of sources, including anonymous ftp (file transfer protocol) from <ftp://ftp.ox.ac.uk/pub/crypto/pgp/>