pages 86–7), as they appear to have arisen from a number of misunderstandings. His criticism that we had not concerned ourselves with antibiotic therapy which is relevent to our region is presumably due to an obsolete idea regarding the type of bacterial infectious disease currently prevailing in the Far East.

Thus, in the 1990s leprosy is almost as unknown in Hong Kong and its vicinity as it is in the UK. As to the suggestion that we neglected to cover the treatment of tuberculosis, we are truly perplexed. Perhaps the reviewer might care to specify what further information should have been given and/or what additional angles could have been included in our 15 page chapter on tuberculosis.

The vexed question of variations in antibiotic susceptibility, whether between different regions or different hospitals has also been addressed and we endorse the principle that local circumstances should be the basis for devising empirical and non-empirical treatment regimes. The fact is, that with minor exceptions, indications for antibiotics and the types of agents needed in our region are remarkably similar to those in Western nations. Thus, whilst the explicit recommendations we have espoused are certainly consistent with local experience, we contend that their more general applicability is no less valid than guidelines from elsewhere.

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Risks of sedation in endoscopy

Sir—The use of pulse oximetry during any period of sedation, such as that studied by Dr Solomon *et al* (January 1993, pages 16–18), is to be recommended. Arterial oxygen desaturation caused by benzodiazepine induced hypoventilation can be reversed by giving oxygen through a nasal cannula. Unfortunately, the elevated arterial saturation displayed by the pulse oximeter makes it easier to forget the hypercapnoea also associated with hypoventilation. This may increase the incidence of ectopic beats, even without hypoxia, by a direct sympathomimetic effect.

The routine use of pulse oximetry and oxygen supplementation should not lead the endoscopist to use more sedation and give less verbal reassurance.

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Sir—We were surprised to read the conclusions of the paper by Solomons and colleagues (January 1993, pages 16–8), suggesting that cardiac monitoring should be routine practice during diagnostic upper endoscopy. Their study of the frequency of oxygen desaturation and arrhythmias during upper endoscopy in 114 subjects aged 65 and over, randomised to oxygen (2 l/min via nasal cannulae) or room air alone, did not detect any severe arrhythmias or oxygen desaturation > 7%, although oxygen saturation was slightly lower in the room air group. Consequently, any benefit of cardiac monitoring is not shown by their results and, given an estimated mortality from cardiopulmonary complications of between 0.5 and 3 per 10,000 endoscopies [1], would require a large, multicentre study to answer. Their other suggestion, that continuous oxygen saturation monitoring should be performed in the elderly patient undergoing endoscopy, is already well-recognised and should now be standard practice [2,3].

While there is a general assumption that most patients prefer sedation for upper endoscopy, it is not without risk and adds to inconvenience for both patients and staff. We (unpublished results) and others [4] have found that, when given an informed choice, many patients prefer the brief extra discomfort of throat spray alone to the inconvenience of sedation. Therefore, in addition to supplemental oxygen and pulse oximetry monitoring, the use of throat spray alone in the elderly high-risk patient may lower the risk of hypoxaemia and cardiopulmonary complications even further.

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Treating hyperthyroidism with radioactive iodine

Sir—The recent report by Hedley *et al* (October 1992, pages 348–351) illustrates the wide variation in practice of those treating hyperthyroidism with radioactive iodine but does not consider the training of those administering iodine. Taken up by the thyroid gland, radioiodine emits both beta rays which have a path length of a few millimetres and irradiate tissues locally, and gamma rays which irradiate those with whom the patient is in close contact. After treatment patients are in essence mobile radioactive sources, with the potential capacity to irradiate and contaminate hospital staff and facilities. Urine concentrations are considerable, and ^{131}I also is excreted in saliva and sweat. This has implications for radiation protection for hospital staff,

for friends and for relatives. Those who use radioiodine must be properly trained and have practical experience in selection and follow-up of patients, administering iodine and the precautions needed when dealing with such patients.

The report also states that in only 62% of cases does the responsibility for prescribing radioiodine rest with the doctor attending the patient. It is not clear if the term 'prescribing' relates to the doctor who requests iodine to be given, or the person who authorises its administration. Those who authorise the administration must be medical practitioners who hold a certificate to give treatment with ^{131}I, issued on the advice of the Administration of Radioactive Substances Advisory Committee (ARSAC) by Health Ministers. To do otherwise contravenes the Medicines (Administration of Radioactive Substances) Regulations 1978 [1]. Other hospital staff may work under the responsibility of the ARSAC certificate holder, but he or she must define clearly what they may or may not do. The Ionising Radiation Regulations 1988, known colloquially as POPUMET [2,3] place responsibility for ensuring that the administration is in accordance with accepted therapeutic practice with the persons clinically and physically directing the exposure. However, overall responsibility for the regulation rests with the person clinically directing and this is interpreted as being the ARSAC certificate holder.

Holding an ARSAC certificate carries both responsibility and liability.

References

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So, what is a clinical oncologist?

Sir—I read with my customary despair the correspondence pursuant on Professor Kaye's paper 'So, what is a clinical oncologist? (July 1992, 314–5 and October 1992, page 459).

Dr Shaw quite rightly observes that mere possession of the MRCP does not a medical oncologist make but neither does it a physician make. It is merely the first step on the journey to higher medical training: nonetheless, since his unfortunate experiences in 1979, the pattern of recruitment to radiotherapy and oncology has changed and many trainees and newly appointed consultants in clinical oncology now have substantial experience of medical oncology.

These recruits have chosen to be 'compleat oncologists' in the sense that they wish to provide total care for their patients and this aim is best served by training in chemotherapy, radiotherapy in all its aspects and palliative care. Treating patients with cancer is rather like an old-fashioned marriage 'in sickness and in health until death (or cure) do us part'.

In many centres lymphoma clinics are a happy meeting place of haematologists and clinical oncologists, providing a forum for informed discussion and consensus management; similarly good working relationships are encountered with head and neck surgeons, gynaecologists and those enlightened enough to believe that multidisciplinary management improves the care of those with cancer. But someone has to provide the discipline and that is most frequently the clinical oncologist whose training in all aspects of cancer management provides him or her with the broadest perspective.

The future of cancer medicine in the UK is best served by a common training programme in which the future specialists are trained in the basic sciences of cancer: pathology, radiobiology, the pharmacology of chemotherapeutic pathology, radiobiology, the pharmacology of chemotherapeutic agents, statistics and, most importantly, exposed to the gamut of therapeutic modalities employed in the management of malignant disease. The final choice of cancer specialists as to whether they are primarily chemotherapists or radiation oncologists should be left to the trainee rather than determined by the prejudices of self interest groups. All oncology trainees should be pluripotent.

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Collecting, communicating and using information

Sir—The article by Williams *et al* (October 1992, pages 385–7), on the need for changes to the medical undergraduate curriculum to improve information handling, knowledge and skills amongst students, raises a number of important issues. Computer literacy amongst students and the availability of computers is obviously fundamental to any improvement in the teaching of these topics. A recent survey of medical students in Hong Kong [1] showed a clear link between computer ownership, computer literacy and use of computers. Forty seven percent of first to third year students claimed to own a computer. As might be expected, this group used computers more frequently and for a greater range of applications than other students. Seventy five percent of students in Hong Kong [1] and seventy percent of students in Glasgow [2] felt that their curriculum should contain more about the use of computers in the health service.

How can this be brought about? Most medical schools do not have enough computers. For example, in Glasgow there are over 200 students in each of five years but only two medical 'clusters' with 40 micro-