The AMA believes that, as a general principle, advertisements must be honest, must not exploit patients' vulnerability or lack of medical knowledge, and should provide only factual information. Any advertisement for a doctor's services should present information that is reasonably necessary for making an informed decision about the appropriateness and availability of the medical services offered.[6]

In recognition of the need for a middle ground between the traditional ban on advertising and the current deregulated environment, the Medical Practitioners Board of Victoria has produced draft guidelines which will provide clear guidance for doctors who wish to advertise their services. A summary of the guidelines is presented in the Box.[7]

Whether we agree with changes in contemporary views which have allowed doctors to enter the free market of advertised services, or prefer the traditional culture, the one interwoven thread which must run unbroken through the fabric of medical practice is that of standards of ethical practice and the primacy of the patient.

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Scatter irradiation in childhood causes thyroid cancer

Exposure of the thyroid gland to any irradiation requires lifelong follow-up supervision

ONE OF THE QUESTIONS most frequently asked by patients about to receive radioactive iodine as therapy for non-malignant conditions is whether it will result in bodily cancer. This question has been satisfactorily answered in the negative,[1,2] so strong reassurance can be given.

No such reassurance can be given for the malignant effects of therapeutic external beam irradiation on the thyroid gland.

In childhood, the sensitive thyroid gland can be exposed to therapeutic irradiation directly, as in the treatment of localised neck tumours such as lymphoma or sarcoma and in total-body irradiation before bone marrow transplantation. Where the thyroid gland is not directly the target of therapy, it can be affected by scatter irradiation, as occurs during prophylactic cranial irradiation of the central nervous system in haematological malignancies. Thus far, no measures have been found to protect the thyroid gland from external irradiation in these settings.

In this issue of the Journal (*page 584*), Somerville and her colleagues report the first Australian experience in a study encompassing a large number of children recruited to the Late Effects Oncology Clinic of the Children's Hospital at Westmead.[3] The period of study covers 10 years. The sample population was divided into a group who received direct irradiation and another, designated as "scatter", in which there was exposure to the upper half of the body as external beam irradiation but no direct irradiation of the thyroid gland.

The study was designed to emulate the approach that would commonly be used by a clinician seeking evidence of change in the thyroid gland. Palpation was used to delineate size and other characteristics. The customary thyroid function tests were carried out. These findings were supplemented by high-resolution ultrasound examination of the neck, and, if the findings warranted, fine-needle aspiration biopsy was undertaken. Suspicious findings from any of these evaluations led usually to surgery, but an abnormal ultrasound result was the chief indication for surgery.

Some surprising and important revelations have come to light:

- Palpation of the thyroid gland was unreliable and misleading in a significant proportion of patients, with a preponderance of non-discovery.
- Ultrasound examination was almost always abnormal when the thyroid gland was palpable, and abnormal in more than 50% of patients in which the gland could not be felt.
- Thyroid function tests gave little warning of malignancy, and the elevation of thyroid-stimulating hormone in inadequately supplemented patients, although noted, gave no pointer to the status of the thyroid gland as a whole or the underlying presence of malignancy.
- Fine-needle aspiration biopsy was carried out in a few patients, but did not materially influence their management.

The authors advocate total thyroidectomy for multiple nodules on ultrasound examination or where new nodules appear after partial thyroidectomy.

Twenty-five patients from the direct-irradiation group had abnormal ultrasound results and underwent surgery, whether or not the thyroid gland was palpable; six of them harboured malignancy. On the other hand, in the scatter group, of 24 patients with similarly abnormal ultrasound results 12 were affected. Not only were localised recurrences frequent, but additional cancers in other areas of the body were noted by the authors, so vigilance in this respect is required. When surgery was carried out, the histological appearance of glands exposed to both types of irradiation

indicated widespread damage and evidence of increased endothelial activity ranging from scarring through to nuclear atypia.

There are important lessons to be learned. Exposure of the thyroid gland to any irradiation requires lifelong supervision and introspection. This should include high-resolution ultrasound. The extent of thyroid exposure to radiation may be arcane and not recalled when the highlight of the history is focused on areas away from the gland. Most radiation oncology units in Australia have follow-up facilities, but the duration of follow-up is not uniform. Moreover, patients travel and disperse, so their supervision will be most likely carried out by doctors with less experience of such patients. In this regard the American Thyroid Association publishes an excellent information sheet for patients.[4]

The article concludes with a series of pertinent recommendations which emanate from the study. Although false positive results can occur, the risks demonstrated in this study indicate that the management regimen recommended by Somerville et al far outweighs a sanguine approach to the problem. Implicit in this is the importance of providing patients with information about the potential risks and the need for regular assessment.

Somerville et al observe that the Australian experience has disclosed a greater incidence of thyroid abnormality than seen in some other countries. This may derive from differing methods in the extent and depth of the studies, together with the sophistication of the ultrasound. The magnitude of the dose in the reported series did not seem to influence the emergence of malignancy. Only time from the administration of the radiation therapy was important. It will be interesting to learn of the further evolving experience. In this regard, results of fluorodeoxyglucose positron emission tomography, in association with rising thyroglobulin levels, seem to give a clearer delineation of recurrent malignancy than can be obtained by other methods.[5]

There may come a time when it will be possible to protect patients from scatter irradiation involving the head, neck or upper-body region in the treatment of more generalised cancer such as leukaemia. However, such protection does not appear to be imminent and, even if attained, there will still be a group of potential thyroid cancer subjects as a legacy of the current therapeutic era.

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Ambulatory blood pressure monitoring and "white coat" hypertension: saving costs

Appropriate use of ambulatory blood pressure monitoring can be cost effective

THE RATIONALE for the use of ambulatory blood pressure monitoring (ABPM) has been the subject of critical reviews and published guidelines.[1-6] Perhaps the most important and challenging finding to emerge from ambulatory blood pressure research has been the detection of "white coat" hypertension (also known as isolated clinic hypertension) in about 20% of subjects with repeatedly elevated casual blood pressure readings taken in the doctor's clinic.[7,5] The condition can only be detected by ABPM or self-monitoring, and there are no specific predisposing factors. For people with white coat hypertension and no evidence of cardiovascular disease or comorbidities such as diabetes or renal disease, most experts agree that the best policy is to monitor their clinic blood pressure regularly, with self-monitoring at home, and repeat ABPM at one- to two-yearly intervals.

The importance of continued monitoring is borne out by the evidence now emerging that white coat hypertension may not be an entirely innocent phenomenon.[5,6] The initial studies that examined the cost savings in the detection of white coat hypertension by ABPM[7,8] did not consider the need for long-term surveillance and the conversion of patients with white coat hypertension to established hypertension; this might be as high as 75% over six years of follow-up.[9] The development of hypertension on ABPM criteria could not be predicted by changes in clinic blood pressures.

The cost-analysis study of ABPM in Australian general practice reported by Ewald and Perkarsky in this issue of the Journal (*page 580*)[10] is important for a number of reasons. The study confirms the high prevalence of white coat hypertension previously reported in the Australian community,[11] and reflects current general practice, because GPs decided on the basis of conventional clinic readings that drug treatment was indicated before ordering ABPM.

This cost analysis is the first such study based on Australian data, including best estimates of current pharmacological management of hypertension in Australia. It has also factored in a 10% per year conversion rate from white coat