People are overusing sunbeds

EDITOR,—David Shuttleworth drew attention to the question of whether sunbeds that emit ultraviolet A radiation cause skin cancer.¹ To determine the prevalence of use of sunbeds during 1994 the Department of Health commissioned the omnibus survey of the Office of Population Censuses and Surveys to interview British adults, who were randomly selected and stratified by socioeconomic variables. A balanced response rate of 76% was achieved, producing 2017 interviews. Of the 284 respondents aged 16-24, 68 (24%) had used a sunbed during the year, as had 106 (10%) of the 1056 respondents aged 25-54; the overall ratio of men to women who had used a sunbed was 7:11.

A total of 184 people had used sunbeds. Half had used them at home (ratio of hired to privately owned equipment 1:2), and half had used commercial facilities, with about one fifth of the total use of sunbeds occurring on local authority premises.

Information regarding use of sunbeds is available from, among others, the Health and Safety Executive (existing guidance is under revision),² the British Standards Institution,³ and the Institute of Sport and Recreation Management. The current view of the British Photodermatology Group is that "the use of ultraviolet A sunbeds for cosmetic tanning should be discouraged... people who, despite this advice, want to use ultraviolet A sunbeds should not exceed two courses a year, each of no more than 10 sessions."⁴ Evidence from the survey showed that this advice was not adhered to: of 61 male and 123 female users, five (9%) and 30 (24%) respectively had had more than 20 sessions in the year, 17 (9% of both sexes equally) had used a sunbed for a session of more than 30 minutes, and two (3%) men and nine (7%) women had developed painful skin after use.

How many sessions are deemed to be safe and the degree to which any person is at risk of skin cancer may well be important when someone decides whether to move from occasional use of a sunbed perhaps in a salon, to more frequent use at home. There is thought to be no threshold for the risk induced by radiation, so the British Photodermatology Group's guidelines are pragmatic. Whether the information and advice should be altered to be more or less prescriptive is open to debate.

The omnibus survey collects full socioeconomic details from respondents, and any associations of these with the variables, or association between the

variables, need to be further explored. The crude data on disk are available on request.

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Accuracy of local data on skin cancer

Skin cancer registry data may greatly underestimate cases

EDITOR,—Clive Richards and colleagues highlight the problem of underregistration of skin cancer: when they compared the South Western Cancer Registry's data with data obtained direct from pathology departments they found that the registry had missed 13% of cases of malignant melanoma.¹ It is known that many cancer registries do not obtain data from all possible sources, including pathology laboratories and outpatient departments.²

John N Newton and Julia Redburn show that registration of malignant melanoma in women fell dramatically from 11.41/100 000 in 1988 to 7.53/100 000 in 1992.³ Although it is hoped that this decrease in registration represents a true decrease in incidence, the change is so dramatic that additional artefactual elements could be exaggerating this trend.

In West Glamorgan we have seen an increase in the proportion of women presenting with lesions less than 1.5 mm deep so that over the past three years 67% of all women presented with thin lesions compared with 52% of men. Most of these patients now have their lesions excised as outpatients and could easily be missed by the cancer registry if information was not obtained direct from the outpatient clinic or from the pathology department. If these lesions, mainly in women, were missed then the rate of registration of malignant melanoma could show an artificial reduction in women compared with men. Before any firm conclusions are made regarding the apparent dramatic reduction in the incidence of malignant melanoma in women it is important to know if the validation of completeness of registration of melanoma in Richards and colleagues' study included a search through the computer data of all the pathology laboratories in the area.

One source of annoyance and potential confusion in the paper by Richards and colleagues is the persistent interchange of "malignant melanoma" and "skin cancer." Surely the authors are aware that not all skin cancers are malignant melanoma, so phrases such as "the relative low annual incidence of skin cancers" are nonsensical because non-melanoma skin cancers are the commonest cancers in Britain.

The *Health of the Nation* key area handbook on cancer makes clear that the recommendations

apply to all skin cancers and not just malignant melanoma.⁴ If the initiative to reduce the incidence of skin cancer is to have any meaning then attempts must be made to ensure that all skin cancers, including malignant melanoma, are recorded accurately and in a standard format by the cancer registries of Britain.

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Inaccurate data may lead to insufficient resources

EDITOR,—We agree with Clive Richards and colleagues that accurate ascertainment is a problem for cancer registries.¹ One of us (ACB) recently completed an audit of skin cancer care in the former South East Kent health district.

Index cases of melanoma were identified, by date of diagnosis, from histology records for inpatients and outpatients at the district's three hospitals for the year starting 1 April 1991. A small number of cases from general practitioners was also identified from the same source. Thirty six cases of primary cutaneous melanoma were identified. For the calendar year 1991 the Thames Cancer Registry recorded 19 cases of melanoma. The sampling frame for the local study accounted only for lesions verified histologically, but the cancer registry includes lesions not verified histologically. When this factor is taken into account the registry recorded only 16 cases of melanoma confirmed histologically, which is a substantial difference.

All cancer registries have slightly different methods of collecting data, and the 12 month data collection periods for the local study and the Thames Cancer Registry do not correspond precisely. Nevertheless, the more than twofold difference between the registered figures and the figures ascertained locally is of concern. Even if account is taken of cases generated in the private sector—found to be 23% in Richards and colleagues' study—the difference between the figures is considerable. It is unlikely to be explained simply by the difference in time frames.

An increase in the use of "ambulatory" surgery can substantially reduce hospital financial and opportunity costs.^{2,3} In the South East Kent study one consultant dermatologist personally performed the definitive surgery for a fifth of the people with malignant melanomas in the outpatient department, the remainder being admitted under general surgeons. This, plus the effect of cases generated in the private sector and a lag between diagnosis and registration,¹ might contribute to the differences found.

Monitoring of the trends in the incidence of skin cancer will be more accurate if data are collected at regional level.¹ Health service commissioners should note, however, that, because of the likely underestimation by registries, if they use such data to assess needs and thereby determine local

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resources they may considerably underestimate true service requirements.

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Computerised data collection systems have not improved data collection

EDITOR,—It is disappointing to learn that in the 10 years from 1984 to 1993 roughly 13% of patients with malignant melanoma living in Avon were not recorded by the South Western Regional Cancer Registry.¹ The disappointment is increased by the knowledge that a previous study performed in the same hospital showed that in 1974 the same cancer registry missed 8-19% of malignant melanomas in the Avon area.² The collection of data seems not to have improved in the past 20 years despite the introduction of computerisation.

This is supported by a closer examination of the figures provided by Clive Richards and colleagues.¹ In the three years (1984-6) before the introduction of the computerised histopathology systems in 1987 the cancer registry missed nine (4%) of 222 cases. In the four years 1990-3, the registry missed 73 (19%) of 386 cases.

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Aid to diagnosis of melanoma in primary medical care

Doubling of excisions of genuine disease is the important issue

EDITOR,—After reading the title of Christopher B Del Mar and Adèle C Green's paper, "Aid to diagnosis of melanoma in primary medical care,"¹ I thought, "Great: something to support the budgeting of medical photography departments," which have always been an important part of any dermatology service. I was therefore disappointed when I examined the findings more closely and realised that the authors had distorted the interpretation of their results to fit their original beliefs. Their main point is that in the city in which the intervention was carried out, where clinical photography was introduced into primary care, the percentage of lesions excised that were potentially or frankly malignant diminished. This was taken as evidence of the value of their algorithm and photographs in preventing unwarranted excision of benign lesions. The observation is something of a smokescreen as the main point of interest is, are we still going to catch melanomas?

Something odd happened during the study period—namely, that excision of potentially malignant lesions in the intervention city rose from 1.8% of all excisions (78/year) to 4.2% (136/year), whereas it decreased from 3.9% (90/year) to 3.4% (94/year) in the control city. Before the

intervention 606 melanocytic lesions (in total) were excised in the intervention city—that is, 80.6% of the number (752) excised in the control city; this proportion remained unchanged at 81% after intervention. The increase in excision of potentially malignant lesions in the intervention city is the explanation for the percentage reduction in the excision of benign lesions. Before the intervention 39 potentially malignant lesions were excised in the intervention city—87% of the 45 lesions removed in the control city; after intervention the proportion rose to 146% over two years. This increase is the equivalent of 91 potentially malignant lesions, or 4.6% of the total number of excisions performed in the intervention city; it wholly accounts for the 4.8% drop in benign excisions from 93.6% to 88.8% during the study.

There are many possible explanations for this finding, one being the normal fluctuation in statistics for melanoma. The most tempting explanation is that intervention resulted in increased attention to detail by clinicians, possibly resulting in the excision of malignant lesions that would not otherwise have been removed. It is also possible to show photographs to colleagues who are not available at the time of consultation, and this could have led to excision. An alternative explanation is that something was going wrong in the control city in that the percentage of malignant lesions excised there fell and the median Breslow thickness of melanomas excised increased (from 0.4 to 0.6 mm) whereas it fell in the intervention city (from 0.6 to 0.5 mm).

Whatever the interpretation of the findings, it is inappropriate to concentrate on the spurious percentage reduction in excisions of benign lesions in the intervention city when it is the doubling of excisions of genuine disease that is the important issue.

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Authors' reply

EDITOR,—David de Berker is right to point to some of the weaknesses in our study, which we discussed. We wish that we could have randomised several cities to each arm of the study to increase the likelihood that any effect we found was attributable to the intervention and not to alternative factors in one city.

It is incorrect to ascribe the relative change in potentially malignant lesions to only the absolute increase in potentially malignant lesions (from 78 to 112 a year) in the intervention city. After the cameras and algorithm were introduced the number of benign lesions that were excised decreased by 22% (270 a year) in the intervention city compared with 18% (214 a year) in the control city.

When the increase in potentially malignant lesions is looked at in more detail much of the change is attributable to a disproportionate increase in dysplastic naevi and melanotic freckles of Hutchinson. Excisions of melanomas increased by only 5.7% in the intervention city compared with 4.6% in the control city, a difference that (just) fails to reach significance.

We are interested in the alternative explanations offered for our data. The suggestion that the algorithm and cameras might have caused more potentially malignant lesions to be excised (but not affected the rate of excision of benign lesions) is an exciting one that we were at pains to refrain from suggesting. Such an effect would have important implications—far greater than a reduction in unnecessary excisions—and would probably have far greater implications for the budget of the

medical photography unit at de Berker's hospital. Unfortunately, it is unlikely. After the intervention was introduced in the intervention city significantly fewer lesions were excised because of concern about malignancy and there was a trend for doctors to feel less pressure from patients to excise lesions. Most doctors who were offered the use of the algorithm and cameras thought that they had reduced the incidence of unnecessary excisions. Demographics changed in the intervention city after the intervention was introduced, resulting in an increase in the groups of people in whom melanoma is more likely—that is, older people and men.

We can only speculate on how access to the cameras and algorithm increased the numbers of dysplastic naevi and melanotic freckles of Hutchinson that were excised. Perhaps dysplastic naevi are more unstable with time and therefore distinguished from other banal naevi more readily by follow up after their appearance has been accurately recorded.

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Chemotherapy for solid tumours

EDITOR,—It is easy to sympathise with some of the points on both sides of the argument over whether chemotherapy should be given for solid tumours.¹ The nihilistic approach promulgated by G M Mead, however, would lead to no advances in treatment being made. As Mead points out, treatments that might benefit only a small percentage of patients will be sought by most patients—though not by their doctors, as pointed out by Slevin *et al.*² The dramatic improvement in response rates and survival in leukaemias, lymphomas, and testicular cancer would never have happened if aggressive, highly toxic treatments had not been tried. Those of us who treated breast cancer with adjuvant chemotherapy many years ago, long before it was an accepted treatment, repeatedly questioned whether it was worth while when otherwise well women engaged in pavlovian vomiting on entering the clinic. It has taken the data from tens of thousands of patients to show that this approach is worth while in premenopausal women with positive nodes.³ Moreover, these patients can now be treated with the new generation of antiemetics, such as ondansetron, when necessary, and treatment of breast cancer with chemotherapy has been reported to increase the quality of life in its own right.⁴

I believe that when a patient desires treatment but no proved efficacious treatment exists then he or she should be offered treatment only in a clinical trial in the first instance. Giving so many patients unproved treatments "off protocol" wastes resources and represents a loss of opportunities to enhance our knowledge and optimise future treatments. It is estimated that only 5% of patients in Britain are included in clinical trials; this figure should be raised well above the 50% mark. Only then will we be in a position to judge whether we are making real advances in management. The next 10 years will see immunotherapy and gene therapy joining the therapeutic repertoire, and it will be surprising if the dramatic responses seen in animal systems are not translatable, even in part, into some clinical scenarios. Only if this change in attitudes towards clinical trials occurs will the