

Results

Table 1 shows what action was taken by the general practitioners when they suspected malignancy. After a two year follow up 80.7% of the 385 patients who were suspected of having cancer were reported by the general practitioners to have either malignant (24) or premalignant (3) disease. All tumours except one skin cancer were verified histologically.

Four patients died before a firm diagnosis had been made, and necropsy was not carried out. In nine cases the suspicion had not been recorded or confirmed after two years. Most of these patients were old, and the doctors reported that further investigations were cancelled because there would be no benefit from treatment. In 342 cases the suspicion was rejected.

Table II gives the diagnostic outcome according to the main groups of suspected malignant disease. One patient who had a suspected lung cancer

TABLE 1.—Action taken by the general practitioners who suspected cancer in 429 encounters

Action	No.	%
Left practitioner advice	9	2.1
No appointment	264	61.1
Test results	211	49.2
Referral	148	34.5
Hospital admission	15	3.5

TABLE II.—Diagnostic outcome after a two year follow up of 382 patients investigated for 385 suspected malignancies

Suspected malignancy (ICD-9)	Symptoms			Result unknown*	Total
	Confirmed	Rejected	Examined		
Rectal cancer, polyps	1	2	3	3	3
Digestive organs (160-159)	10	32	3	3	48
Respiratory system (160-164)	1	1	1	1	3
Breast and genital organs	9	123	4	136	149
Uterus (180-181)	3	10	1	14	14
180-179	4	93	2	101	101
180-178	10	10	1	10	10
180-177	30	342	9	4	385

*Died without necropsy (ICD: International Classification of Disease)

TABLE III.—Relative contribution of some factors in classifying patients as having cancer or as those who were suspected of a malignancy

Factor or variable	Finding that indicated a confirmed suspicion	Estimated value
Doctor's assessment of the strength of suspicion	Strong	0.85
Age of patient	Old	0.40
Significance of non-symptoms	Non-symptomatic	0.37
Reason for suspicion	Non-symptomatic	0.40
Patient's intention to follow up	None	0.01
Patient's fear of cancer	None	0.01

TABLE IV.—Data on patients who were and were not suspected of having cancer who were referred to the Cancer Registry of Norway during the two years after the initial encounter

	Suspected	Not suspected	Significance
Mean age (years)	67.2	62.8	
% of individuals referred	61.6 (2.5)	54.4 (6.5)	NS
% of females	41.5	46.1 (5.0)	p < 0.05
% of premalignant diseases	4.2	10.1 (13.1)	
Mean interval (months) between encounter and reported cancer	4.6	10.2	
% of individuals referred to the Cancer Registry of Norway	2.6 (6.6)	8.1 (11.7)	p < 0.01
% of patients whose reason for suspicion was associated with the reported cancer	10.2 (8.5)	54.0 (60.0)	p < 0.001

TABLE V.—Predictive value of patients' main reason for encounter (type of problem as regards premalignant and malignant diseases reported to the Cancer Registry of Norway over a two year period related to whether the general practitioner suspected cancer (S) or not (N)

Main reason for encounter	No.	% with premalignant or malignant disease reported in next two years
Symptoms	53	5.7
Female lump or tumour	68	7.3
S	266	29.1
N	1	1.2
Weight loss	10	2.0
S	14	1.3
N	1	1.2
Change in bowel habit	14	2.0
S	25	1.0
N	1	1.1
Change in bladder habit	14	1.7
S	19	3.1
N	3	0.5
Skat-changes	28	2.9
S	10	0.5
N	1	1.0
Other or unspecified symptoms	39	6.1
S	38	6.4
N	274	31.1
Non-symptoms	146	4.3
Digestive, preventive procedures	110	17.1
S	63	1.6
N	4	0.5
Test results	5	1.0
S	2	1.0
N	3	0.5
Administrative procedures	5	1.0
S	2	1.0
N	3	0.5
Other or unspecified	21	4.1
S	42	2.2
N	14	1.2
Digestive, disease control	28	2.7
S	1	0.1
N	8	0.8
Total	429	41.0
S	969	116.1

actually had a lung metastasis from a gynaecological cancer, but for the others the final diagnosis was identical to or very close to the diagnosis of suspected cancer.

Within three months the diagnosis was confirmed in 73% of the patients with cancer and diagnosed in 74% of the others. For only two (7%) of the 30 patients with a verified cancer was a definitive diagnosis made by the general practitioner alone. Both were skin cancers. On the other hand, 147 (39%) of the 342 rejections were made by the general practitioner. Although 77% of the patients with a verified cancer had been admitted to hospital during investigation, only 23% of the patients in whom the suspicion proved false had been admitted.

The possibility of cancer was discussed with 41% of all cases, more often with women than men: 45% against 33%, $p < 0.02$. Such discussion and exchange of information were commoner with patients who had cancer than with those who did not: 51% against 40%, but those differences were not significant. The doctor's suspicion was significantly stronger for patients who had a malignancy than for those who did not ($p < 0.001$). On a visual analogue scale in three parts: weak, medium, and strong suspicion 45% of the cases in which the suspicion was classified as weak proved to be cancer compared with 20.5% of those classified as medium and 40% of those classified as strong.

Patients with a verified malignancy were on average older than the others (mean age 67 years against 60.1 years, $p < 0.001$). Six (2.7%) of the 226 patients who were under 60 had the suspicion confirmed compared with 15 (5%) of the 159 patients over 60 ($p < 0.001$). In 8% of all encounters with

patients who expressed a fear of cancer the suspicion was confirmed compared with 9.4% of encounters with patients who expressed no fear ($p < 0.1$). A multivariate analysis of the differences between those who had a suspicion confirmed and those who had it rejected showed that the doctor's assessment of the strength of the suspicion was the best indicator of a verified suspicion. With this factor rated as 1.0, the contributory value of the other factors is given in table III.

From September 1983 to September 1985 a total of 108 cases of premalignant or malignant disease among the 3796 patients seen over the two month period were reported to the Cancer Registry, 35.9% among the 382 patients suspected of having cancer and 71.1% among the 7014 patients with unsuspicious cancer. Over the same two years 159 (0.7%) premalignant or malignant diseases were reported among the 22,024 inhabitants who had not seen a general practitioner during the two month period. After adjusting for age there was no significant difference in the incidence of cancer between the attenders and non-attenders who had unsuspicious cancer.

The discrepancy between the number of cases of cancer found in suspected patients by using the Cancer Registry compared with individual follow up was caused mainly by reported malignancies that were unrelated to the actual suspicion. Table IV gives some characteristics of the patients who were originally suspected of having cancer and those who were not later had cancer confirmed. Twenty three (6.0% of the former and 11.15% of the latter were found to have cancer within three months.

TABLE V.—Predictive value of patients' main reason for encounter (location of problem as regards premalignant and malignant diseases reported to the Cancer Registry of Norway over a two year period related to whether the general practitioner suspected cancer (S) or not (N)

Main reason for encounter	No.	% with premalignant or malignant disease reported in next two years
Female lump or tumour	26	7.7
S	92	10.8
N	10	1.0
Weight loss	14	2.1
S	100	17.1
N	625	14.1
Change in bowel habit	14	2.0
S	15	1.1
N	1	1.2
Change in bladder habit	14	1.7
S	19	3.1
N	3	0.5
Skat-changes	28	2.9
S	10	0.5
N	1	1.0
Other or unspecified symptoms	39	6.1
S	38	6.4
N	274	31.1
Non-symptoms	146	4.3
Digestive, preventive procedures	110	17.1
S	63	1.6
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Test results	5	1.0
S	2	1.0
N	3	0.5
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N	3	0.5
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two year period can be related to both the patient's reason for the encounter and the doctor's suspicion of cancer (tables V and VI). Of the 621 patients who expressed a fear of cancer over the two month period, 30 (4.8%) had a cancer reported during the next two years compared with 78 (2.1%) of the 6775 patients who did not express such a fear ($p < 0.001$).

Discussion

The results of many studies of the diagnosis of cancer in general practice have been reported.¹⁻⁵ These were retrospective studies of patients with a verified malignant tumour. If, conversely, one starts with the patient's reason for the consultation and the doctor's degree of suspicion of cancer other aspects of the problem are elucidated.

In this study for each verified case of cancer the general practitioner instituted more than 10 follow up actions for suspected cancer. This indicates a relatively high level of alertness, and especially as all cases in which the doctor's suspicion was dismissed at the first consultation were excluded. Since only 8.2% of the encounters at which cancer was suspected led directly to a hospital admission general practitioners obviously preferred to handle the investigations themselves.

Systematic differences were found between those patients suspected of cancer who really had a malignancy and those who did not. Even though the delay before a final diagnosis was roughly the same in the two groups there were different patterns of further examination; cancer patients were more often referred to a specialist and admitted to hospital. This is explained by the doctor's ability to select patients at high risk.

The importance of sex and age for predicting the outcome of the follow up reflects the relative oversuspicion of cancer in young patients and women. It may be questioned whether it is more than five times as important to diagnose cancer in patients aged under 60 years than in patients over 60, but the answer is possibly yes.

The patient's fear of cancer has been shown to be of great importance in the selection of cases for further investigations.¹⁻⁵ It might be thought that this anxiety as well as the patient's influence on follow up would be negative predictors of cancer. Neither was, however, which shows that these criteria are as good for further investigations of suspected cancer as others and emphasises the old truth that patients' expectations and worries should be taken seriously. The chance of having a cancer reported within two years was four times as high in patients expressing a fear of cancer as in those who did not. In comparison, patients who were suspected of having cancer by the doctor had an eight times greater chance of developing it within two years as those not suspected.

Though individual follow up gives information on the diagnostic process and the ratio of verified to rejected suspicion, matching against the Cancer Registry data gives additional information on the accuracy and relevance of the general practitioner's suspicion of cancer and on the predictive value of the patient's reasons for the encounter.

No conclusions may be drawn about whether any of the 73 unsuspicious cases of cancer could have been detected during the two month recording period. Ideally, patients who are seen by a general practitioner and are not suspected of having a malignancy should have a lower incidence of cancer over the next few months than non-attenders. This could not be tested in this study since most of the non-attenders might have seen a general practitioner shortly before or after the recording period. The tendency towards a higher proportion of premalignant diseases occurring in patients suspected of cancer by the general practitioner may indicate an earlier diagnosis in these patients.

Encounters with patients with unsuspicious cancer bore no relation to the reported cancer, and this is probably the main reason why the doctor decided not to investigate further. Patients who were not suspected of having cancer reported an average of six months later than those who were suspected. On the other hand, they were reported slightly (0.05 $p < 0.01$) earlier than an average of 11.5 months after the recording period, which would be expected if the incidence was totally independent of the initial encounter and without seasonal variation over the observation period, which was 23 months on average.

The finding of a higher frequency of women not suspected of having cancer does not correlate well with the relative tendency to oversuspicion in females and suggests that this oversuspicion is not useful. One third of all cancer cases reported within three months after the recording period were in patients who were not classified as suspected of cancer by the general practitioner. These 11 patients indicate that there is a pool of undetected cancer.

The results in tables V and VI are based on encounters rather than individuals and may be helpful in interpreting diagnostic data. It is to be an "unexplored field in general practice."¹ Most reasons for an encounter are of low or moderate value in predicting the presence of a cancer. It is remarkable to find that the positive predictive value for cancer of a palpable tumour, the best known of the seven warning signals of cancer,¹ is only 2.5%. This is roughly the same as the predictive value of an encounter caused by a known disease (control) and just slightly more than an encounter caused by a diagnostic or preventive procedure. Problems related to the diagnostic system, especially weight loss and changes in bowel habit, seem to have a relatively high predictive value for cancer. The importance of these symptoms is probably underestimated both by the public⁶ and by doctors,⁷ even though this study showed a high rate of suspicion for digestive problems.

It can be calculated from table V that a higher proportion of patients seeking help for non-symptomatic rather than symptomatic reasons were reported to develop cancer within two years, whether this had been suspected or not. Patients seeking help for other reasons than symptoms or complaints seem to represent a potential of undetected cancer. Perhaps searching for cancer in these patients would yield more information of early detection than a lower threshold for investigation of symptoms.

Conclusion

The general practitioners were good at assessing the strength of their suspicion of cancer even though 11 out of 12 suspicions proved

false. The relative oversuspicion in young patients is understandable, while the oversuspicion in women may be questioned. The patient's fear of cancer is a better predictor of a malignancy than a palpable lump or tumour as the reason for the encounter, and no single reason for an encounter is in itself valuable as a predictor of cancer.

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References

1. Dixon AS, Shotton LS, Spry SA. Medical problems among. *Lancet*, Manchester, Harcourt University Press, 1979.
2. Hild JH. Diagnostic procedures in general practice. *J R Coll Gen Pract* 1972; 22: 241.
3. Hild JH. Diagnostic procedures in general practice. *J R Coll Gen Pract* 1972; 22: 241.
4. Schjøtt M. Diagnostic procedures in general practice. *J R Coll Gen Pract* 1962; 12: 213.
5. Wharton M. Diagnostic procedures in general practice. *J R Coll Gen Pract* 1962; 12: 213.
6. Sneyd C. The diagnosis and treatment of cancer in a general practice. *J R Coll Gen Pract* 1981; 31: 263.
7. Jørgensen J. Diagnostic data in a general practice. *J R Coll Gen Pract* 1978; 28: 214.
8. Sneyd C. The primary investigation and management of cancer. The role of the general practitioner. *Br Med J* 1978; 1: 1063.
9. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.
10. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.
11. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.
12. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.
13. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.
14. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.
15. Hild JH. The general practice of the diagnosis and early detection of cancer. *Acta Oncol* 1978; 17: 263.

Essays on Practice

Making dysphoria a happy experience

C G ELLIS

No one taught you about unhappiness. That many of your patients, your wife, your neighbour, and you are unhappy has slipped your attention. That is because unhappiness is undefinable and in the most part untraceable. For none of the answers read on.

There is actually a word for chronic unhappiness—dysphoria, a Greek derivative of *dis* meaning bad or difficult and *phoria* meaning to bear. When I heard that there was a word for chronic unhappiness my feeling was that of relief; relief that it had some

form of recognition. Misery had made it to the big time. Several things fell into place. I had a label, even a positive diagnosis, to use to capture all those vague ends and edges that I had been unable to pigeon hole before. So obviously euphoric, a feeling of well being, is its opposite, but what is the normal or average condition to be called, those of us just juggling along sometimes up, sometimes down? I talked to the Greek scholars. No, you were either euphoric or dysphoric, there is no in-between. You are either happy or unhappy and if you were too busy to notice what you were you were very happy indeed.

Unhappiness does not come alone, it is all mixed up with physical and psychiatric illnesses with some hereditary threads thrown in. "Just look at her mother and her sister; they are all as miserable as each other, for goodness sake." It is difficult to view as a sole entity. The causes for unhappiness are mostly out of sight, hidden deeply in our devious minds, contradictory, labyrinthine, and inaccessible. The elements are there in the failed lawyer, the cynical doctor, the

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depressed housewife, and the angry teenager. It is a fellow traveller entering the door alongside many of our patients: the ones carrying the empty buckets in with them into which you can pour as much water or pills as you like only to see it pour out of all the holes in the bottom. Can you block up the holes permanently or at least temporarily? Is there a cure?

It is important at this stage to differentiate between dysphoria and melancholy. Are they in the same league, even synonymous? I think not, melancholy is depression, a physiological imbalance, and involves mental pathology. My dysphoria is vaguer, intangible, like an invisible halo of spiritual dampness. It has no precise and easily verifiable signs and symptoms. The family doctor is aware of it, can sense the common threads to the condition, and the slow insidious realization of the diagnosis and the ways of coming to terms with it. Only a few people have different criteria for what makes life enjoyable. The umbrella of happiness is large and multicoloured, it is the satisfaction of our personal preferences within our own belief and value systems and therefore differs greatly from person to person.

Diagnosis of dysphoria

The dysphoric patient, recurring like a decimal place is known by many epithets which range from "the sad sack" syndrome, "the chronic," to "the heartbreak patient." These are attempts at describing the feelings felt in the pit of your stomach when their names are seen on the morning's appointment list. Much of this may seem so obvious as not to bear repeating, but let us delve a little deeper into misery, making the utterly insulting assumption that you do not know about it.

These patients' files are thicker than normal and indicate a multiplicity of treatments, genuine medical diagnoses, a changing "one step ahead" complaint revolving now and then to the original catalogue of old favourites, and a few common concomitant conditions—obesity or anorexia, alcoholism, headaches, old age, backache, tiredness, and "ancestral you" disease (since you did it, say examination, etc.). They are the patients who are often on one or more tricycles and a benzodiazepine and whose symptoms and feelings are no better than before. They tend to ask questions: "Why do I feel so tired, Doctor?" leading the field by a clear head. The hallmark of dysphoria is dissatisfaction.

We must now identify the goals of both patient and doctor. The doctor's are curative, but if he reassesses his attitude to the patient and he sees his role not necessarily as a healer but as a life support

mechanism then he will have come to terms with dysphoria. There is nothing so sweet as lovely melancholy and these patients gravitate in every sense of the word to the more conscientious and serious family doctor who becomes frustrated but is unaware of why he is so.

The patient on the other hand may be fulfilled. She—I use the female gender unashamedly here as it is common in woman—has just completed 15 minutes of emptying her bucket and leaves relieved and satisfied with a job well done until the next consultation—burying the doctor by inches. If the doctor comes to his own terms with his role and the patient with hers—one as a leaking bucket, and the other as a dustbin—then there are rewards for both. Remember there are only four cures in medicine—the patient moves to another area, the patient changes doctor, the patient dies, you die.

Treating the untraceable

Like long term care in all branches of medicine (except pathology where they tend to be a bit final) the heartbreak patient cannot be forgotten, denied, or despised with what is common in woman—has just completed 15 minutes of emptying her bucket and leaves relieved and satisfied with a job well done until the next consultation—burying the doctor by inches. If the doctor comes to his own terms with his role and the patient with hers—one as a leaking bucket, and the other as a dustbin—then there are rewards for both. Remember there are only four cures in medicine—the patient moves to another area, the patient changes doctor, the patient dies, you die.

Dysphoria is common among the lonely aged. I have an elderly widow who consults me clutching a piece of paper (often the envelope which contained my latest account) on the back of which are written all her symptoms "so that she doesn't forget anything." On her first consultation she has 23 separate complaints. I wrote them all down in the notes and repeated them back to her. She is on very little medicine and is quite healthy. Over a period of two years she is now down to 15. That is a cure rate of four a year. By 1999 she will have only... And that is the point. She will have more of her complaints. She is one of my dysphorics. She is all with me.

Entering general practice

In choosing a practice most doctors have but one bit at the cherry. Competition for vacancies in general practice may lead to a decision that is poorly thought out or poorly researched, and later regretted. To help doctors who are trainees or who are considering entering general practice the Royal College of General Practitioners has prepared an information folder on "Entering general practice." This folder of loose leaf papers, written by experienced general practitioners and as experts in practice management, is essential reading for all those who are considering entering general practice.

Dr John Oldroyd's introduction acknowledges the humane general practitioner dealing with his or her patients and community and yet also points out the differences in the obligations and responsibilities between being a salaried employee and a partner or principal. He emphasises the importance of a correctly worded contract and advises that an opinion that is independent of that of the lawyer who draws up the agreement should be obtained before signing, which now comes to general practice enquiries over.

Practical advice is given on how to choose a practice. There are suggestions on how to write a curriculum vitae and make out a detailed practice check list, a bibliography on choosing a practice, and advice to the trainee who applies for a single-handed practice. The papers on assessing a practice and on entering general practice, written by experienced general practitioners, will help the applicant who, either through embarrassment or fear of

creating the wrong impression, is not sure whether to ask about certain aspects of the practice. Information in general practice enquiries are often over-looked. The "used" practitioner and problems related to children and part time work are emphasised. Of interest is that only half of the women doctors who finished vocational training schemes in the north east of England became principals in 1985. Though it is generally believed that it is desirable to increase the proportion of women general practitioners, female doctors are chiefly at disadvantageous competition with their male colleagues.

Dr Donald Irvine's message is that it is vitally important that young practitioners in general practice use the strength of the connections between personal professional development, their standards of performance in doctors, and the overall quality of care in their practices. If the advice in his paper is followed the development, progress, and educational resources of most general practices will be improved.

A bibliography of books and articles to help the new or prospective general practitioner is also included in the folder. Candidates for the membership examination of the college will also find much on the merits and faults of practice from these papers. "Entering general practice" is available from the RCGP, 14 Princes Gate, London SW7 1PU (£3 members, £4 non-members). Contact: Dr Irvine, 14 Princes Gate, London SW7 1PU.