Results

Table I shows what action was taken by the general practitioners when they suspected a malignancy. After a two year follow up 30 (7·8%) of the 385 patients who were suspected of having cancer were reported by the general practitioners to have either malignant (24) or premalignant (six) 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 rejected or confirmed after two years. Most of these patients were old, and the doctors reported that further investigations were cancelled because there would have been 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 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.

TABLE I—*Action taken by the general practitioners who suspected cancer in 429 encounters*

Action	No	%
Seek professional advice	9	2·1
New appointment	264	61·5
Tests taken	213	49·7
Referral	148	34·5
Hospital admission	35	8·2

Note: The total number of procedures exceeds 429 because more than one action might be taken during the same encounter.

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

Suspected malignancy (ICD No)	Suspicion: Confirmed	Suspicion: Rejected	Suspicion: Existing	Result unknown*	Total
Buccal cavity, pharynx (140-148)	1	2			3
Digestive organs (150-159)	10	82	3	3	98
Respiratory system (160-164)	1	22			23
Breast and genital organs (170-179)	9	123	4		136
Urinary tract (180-181)	3	10		1	14
Other and unspecified organs (190-199)	6	93	2		101
Lymphatic and haemopoetic system (200-207)		10			10
	30	342	9	4	385

*Dead without necropsy. ICD=International Classification of Disease.

TABLE III—*Relative contribution of some factors in classifying patients as having cancer in 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	1·0
Sex of patient	Male	0·85
Age of patient	Old	0·40
Symptomatic v non-symptomatic reason for encounter	Non-symptomatic	0·37
Patient's influence on the follow up	Small	0·04
Patient's fear of cancer	None	0·03

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

	Suspected (n=35)	Not suspected (n=73)	Significance
Mean age (years)	67·2	62·8	
95% confidence interval	(61·9-72·5)	59·1-66·5	NS
No (%) of females	16 (45·7)	46 (63·0)	p=0·09
No (%) of premalignant diseases	9 (25·7)	10 (13·7)	p=0·13
Mean interval (months) between encounter and reported cancer	4·6	10·2	
95% confidence interval	(2·6-6·6)	(8·7-11·7)	p<0·001
No (%) of patients whose reason for encounter was not associated with the reported cancer	10 (28·6)	54 (74·0)	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	No (%) with premalignancy or malignancy reported in next two years
Symptomatic:		
Palpable lump or tumour		
S	53	3 (5·7)
N	68	
Pain		
S	109	8 (7·3)
N	2846	28 (1·0)
Weight loss		
S	1	1
N	8	1 (12·5)
Fatigue		
S	10	2 (20·0)
N	77	1 (1·3)
Changes in bowel habit		
S	14	2 (14·3)
N	25	1 (4·0)
Changes in bladder habit		
S	14	1 (7·1)
N	79	3 (3·8)
Skin changes		
S	18	3 (16·7)
N	370	2 (0·5)
Bleeding		
S	39	6 (15·4)
N	117	
Other or unspecified symptoms		
S	88	6 (6·8)
N	2732	31 (1·1)
Non-symptomatic:		
Diagnostic, preventive procedures		
S	46	6 (13·0)
N	1190	17 (1·4)
Treatment procedures		
S	6	1 (16·7)
N	653	3 (0·5)
Test results		
S	5	1 (20·0)
N	57	
Administrative procedures		
S	2	
N	415	4 (1·0)
Other or unspecified		
S		
N	22	
Diagnosis, disease (control)		
S	24	3 (12·5)
N	1182	25 (2·0)
Unknown		
S		
N	8	
Total		
S	429	43 (10·0)
N	9849	116 (1·2)

Within three months the diagnosis was confirmed in 73% of the patients with cancer and disproved 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 (43%) 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 discussions and exchange of information were commoner with patients who had cancer than with those who did not (51% against 40%), but the difference was 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) 4·5% of the cases in which the suspicion was classified as weak proved to have cancer compared with 20·5% of those classified as medium and 90% of those classified as strong.

Patients with a verified malignancy were on average older than the others (mean age 67 years against 50·1 years, p<0·001). Six (2·7%) of the 226 patients who were under 60 had the suspicion confirmed compared with 24 (15·1%) of the 159 patients over 60 (p<0·001). In 8·5% 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 the patients 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 at 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 7396 patients seen over the two month period were reported to the Cancer Registry, 35 (9·2%) among the 382 patients suspected of having cancer and 73 (1%) among the 7014 patients with unsuspected 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 unsuspected 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 who later had cancer confirmed. Twenty three (66%) of the former and 11 (15%) of the latter were found to have cancer within three months.

The cases of cancer reported to the Cancer Registry of Norway during the 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 once or more during 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).

TABLE VI—*Predictive value of patient's 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	No (%) with premalignancy or malignancy reported in next two years
General and unspecified		
S	26	2 (7·7)
N	962	8 (0·8)
Blood, haemopoetic system		
S	10	1 (10·0)
N	141	2 (1·4)
Digestive		
S	100	17 (17·0)
N	455	14 (3·1)
Eye		
S	1	
N	323	4 (1·2)
Ear		
S	4	2
N	479	3 (0·6)
Circulatory		
S	12	2 (16·7)
N	1086	24 (2·2)
Musculoskeletal		
S	23	
N	2051	18 (0·9)
Neurological		
S	9	
N	268	3 (1·1)
Psychological		
S	11	2 (18·2)
N	307	3 (1·0)
Respiratory		
S	18	1 (5·6)
N	938	3 (0·3)
Skin		
S	46	3 (6·5)
N	976	7 (0·7)
Endocrine, metabolic		
S	8	2 (25·0)
N	271	7 (2·6)
Urology		
S	29	6 (20·7)
N	282	5 (1·8)
Female genital organs (and breast)		
S	122	5 (4·1)
N	1184	13 (1·0)
Male genital organs		
S	9	
N	67	
Social problems		
S		
N	27	2 (7·4)
Unknown		
S	1	
N	32	
Total		
S	429	43 (10·0)
N	9849	116 (1·2)

Discussion

The results of many studies of the diagnosis of cancer in general practice have been reported.[1] 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 to cancer, 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.[12] 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.[12] 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 unsuspected 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.

Most encounters with patients with unsuspected 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 were reported an average of six months later than those who were suspected. On the other hand, they were reported slightly (0·05<p<0·1) 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, said to be "an unexplored field in general practice."[13] 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,[14] 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 digestive 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 public[15 16] and by doctors,[8] 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 in terms 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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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 untreatable. For none of the answers read on.

There is actually a word for chronic unhappiness—dysphoria, a Greek derivative of dys meaning bad or difficult and pherein 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 euphoria, a feeling of well being, is its opposite, but what is the normal or average condition to be called, those of us just jogging along sometimes up, sometimes down? I talked to the Greek scholars. No, you were either euphoric or dysphoric, there was 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.

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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

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 realisation of the diagnosis and the ways of coming to terms with it.

All 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 heartsink 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 reverting 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 "since you" disease (since you did that x ray examination, etc). They are the patients who are often on one or more tricyclics 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 naught 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 untreatable

Like long term care in all branches of medicine (except pathology where things tend to be a bit final) the heartsink patient cannot be forgotten, denied, or dispensed with. They need time. There is no way you can shorten this consultation. Use yourself and your personal qualities of enthusiasm and caring. Enthusiasm is infectious and travels rapidly across the blood-brain barrier causing high levels of euphorins. Do not above all things accept any blame for being unable to cure anybody. Accepting blame leads to feeling guilty and this is a dangerous game for two reasons—our shoulders are so broad and no broader and it does not help the patient make a realistic adjustment to life. Regular consultations, plenty of touching, and variety in approaches are all part of the overall care.

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 had 23 separate complaints. I wrote them all down in the notes and repeated them back to her. She is on very little medication 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 still have most of her complaints. She is one of my dysphorics. She is with me forever.

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Entering general practice

In choosing a practice most doctors have but one bite at the cherry. Competition for vacancies in general practice may lead to a decision that is poorly thought out, badly 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 series of loose leaf papers, written by experienced general practitioners and an expert in practice management, is essential reading.

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 new entrants to general practice sometimes overlook.

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 singlehanded practice. The papers on assessing a practice discuss practice organisation, buildings, finance, and workload. They 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.

The problems facing women entering general practice are often overlooked. The "tied" practitioner and problems related to children and part time work are explained. Of interest is that only half of the women doctors who finished vocational training schemes in the south 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 entrants are clearly at a disadvantage compared with their male colleagues.

Dr Donald Irvine's message is that it is vitally important that young principals in general practice see the strength of the connection between personal professional development, their standards of performance as 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 good general practice are secure for the future.

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 pick out much on the nuts and bolts of practice from these papers. "Entering general practice" is available from the RCGP, 14 Princes Gate, London SW7 1PU (£3 members, £4 non-members).—DECLAN DWYER, Exeter Postgraduate Medical Centre, Exeter EX2 5DW.

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