over the four years, more than doubling for infants weighing less than 1000 g and rising from 63.6% to 85.4% for infants of 1000-1500 g. As such infants usually require several weeks of intensive care, the impact of these two trends is bound to lead to a very great additional burden on the slender neonatal facilities currently available.²⁻⁴ These observations also underline the importance of assessing perinatal morbidity as well as mortality when attempting to evaluate the standard of perinatal care and the resources required to provide for it.

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Clinical Topics

Problems of the oncology outpatient: role of the liaison health visitor

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Abstract

A survey by a liaison health visitor of outpatients attending an oncology department has identified and enumerated the principal problems with which she is confronted, and defined her role. The main medical symptoms of concern to the patient at home and needing attention by the liaison health visitor were anorexia, nausea, vomiting, and constipation: inadequate pain control due to poor drug compliance was also common. Other functions of the liaison health visitor include providing nursing aids and prostheses, support for bereaved relatives, and liaison with the community health care team.

Introduction

During their illness patients with malignant disease are confronted by various medical and social problems. The liaison health visitor has important roles not only in helping to provide social and nursing care, but also to be an important link between the hospital oncology team and the community health care team, and between the patient at home and the hospital. To accomplish these tasks the liaison health visitor, who is a trained nurse, undertakes a 12-month course that includes studies in the early detection of ill health; the surveillance of high-risk

groups; and sociology, social policy, and psychology. This preparation, together with wide nursing experience, equips her to meet the mental, physical, and emotional needs of the individuals and families in the community.

This study was undertaken to document:

- (1) The extent of nursing and social support provided by the liaison health visitor for outpatients attending the clinical oncology service of a large hospital.
- (2) The symptoms of which patients complained to the visitor.
- (3) The adequacy of pain relief and the degree of drug compliance.

These data were used to define the role of the liaison health visitor in managing outpatients attending an oncology department.

The study was undertaken in a clinical oncology unit that manages 70-80 outpatients a week. The predominant malignancies treated are cancers of the breast, ovary, gastrointestinal tract, and lung. The liaison health visitor attends these outpatient clinics, as do the dietitian, pharmacist, clinical psychologist, research nursing sister, and data manager.

Method

One of us (RS), a liaison health visitor who has been working with the oncology unit for several years, documented the reason for her assessment of outpatients and the source of referral. It was considered that outpatient assessment (especially home visits) might highlight problems different from those of patients in hospital. Although many patients were seen more often than once, especially by home visit, only data from the first assessment during the five-month study period were collected. The provision of prosthetic or nursing aids was noted, as was the number of patients requiring placement in a hospice or convalescent home, or liaison with general practitioner, district nurse, or health visitor.

Specific symptoms such as anorexia, nausea, vomiting, constipation, diarrhoea, dyspnoea, and depression were recorded. No attempt was made to use rating scales for these symptoms. Finally, patients were

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questioned in detail about pain and analgesic ingestion. The adequacy of any prescribed analgesia was recorded and a check made on the compliance in taking these and other prescribed drugs.

Results

Over the five months' study period, 237 assessments were made, a mean of about 12 a week. Table I shows that 46% of assessments were carried out by the liaison health visitor either during a home visit or during a routine outpatient attendance by the patient. Relatively few patients (11% of those assessed) were referred by the medical staff. Interestingly, 10% of interviews were at the request of relatives and a further 9% entailed providing psychological support to bereaved relatives. Although 9% of the first assessments during the study period were for tracing clinic defaulters, the actual outpatient non-attendance rate is only 5% (mean yearly figure 1979).

Arranging the provision of nursing and prosthetic aids formed a considerable part of the work load of the liaison health visitor (table II). Nursing aids—for instance, "sheepskin" rugs, urinals, commodes, bed cages, and back rests—were needed by 35 patients, and wigs by 27 patients with drug-induced alopecia. Breast prostheses needed renewal on 15 occasions. Fifteen walking aids and two stomal appliances were also supplied.

Table III shows that 31% of patients assessed had clinic appointments either arranged or altered for their convenience. Arranging or

TABLE I—Reasons for assessment of 237 patients by liaison health visitor and source of referral over a five-month period

	No (%) of patients
Home visit for follow-up or psychosocial support	58 (24.5)
Seen during routine oncology outpatient attendance	51 (21.5)
Home visit after discharge from hospital	28 (11.8)
Referral by doctor of oncology team	27 (11.4)
Providing assistance at request of relatives	25 (10.5)
Providing support to bereaved relatives	22 (9.3)
Visiting patients after outpatient clinic default	22 (9.3)
Home assessment before discharge of patient	4 (1.7)

TABLE II—Number (%) of patients needing nursing aids and prostheses

	No (%) of patients		No (%) of patients
Nursing aids	35 (14.8)	Occupational therapy aids	6 (2.5)
Provision of wigs	27 (11.4)	Stomal appliances	2 (0.8)
Mammary prostheses	15 (6.3)	Other	2 (0.8)
Walking aids	15 (6.3)		

TABLE III—Number (%) of patients needing liaison and placement assistance

	No (%) of assessments		No (%) of assessments
Arranging clinic appointments	74 (31.2)	Arranging home help*	24 (10.1)
Arranging transport	30 (12.7)	Arranging district nurse and health visitor	20 (8.4)
Short-term care placement	18 (7.6)	Referrals to general practitioner	9 (3.8)
Long-term care placement*	12 (5.1)		
Social/financial assistance*	30 (12.7)		

*With social worker.

TABLE IV—Number (%) of patients who suffered gastrointestinal symptoms

	No (%) of patients		No (%) of patients
Anorexia	121 (51.0)	Constipation	54 (22.8)
Nausea	75 (31.6)	Diarrhoea	10 (4.2)
Vomiting	44 (18.6)		

TABLE V—Causes of anorexia in 121 patients

	No of patients	% Total assessments	% Patients with anorexia
Cytotoxic chemotherapy	59	24.9	48.8
Radiotherapy	20	8.4	16.5
Analgesics	9	3.8	7.4
No obvious therapeutic or iatrogenic cause	33	13.9	27.3

which may have been caused by the malignant disease itself or psychological factors or both. Oral nutritional supplements were supplied to 38 patients by the visitor during home visits. Constipation, probably often related to analgesics, worried 23% of patients interviewed. Diarrhoea was an infrequent problem, occurring in only 4% of patients (table IV).

Problems with analgesia were found more often than expected (table VI). Eleven patients said that they had pain but no analgesic had ever been prescribed. Fifty-nine had been prescribed inadequate analgesia as judged by the fact that they complained of pain despite taking the prescribed dose of analgesic. In addition 49 were not taking their analgesic as prescribed and, except one case, this resulted in taking less than the prescribed dose even though they were aware of the prescription directions. Seven patients who misunderstood the prescription directions took an inadequate dosage.

Ten patients failed to take oral cytotoxic drugs as prescribed, usually because of nausea and vomiting, and nine patients misunderstood prescription directions. Non-compliance with various other drugs was found in 25 patients.

Forty-three patients complained of dyspnoea and 53 of being

rearranging transport was needed by 12% of patients. Home help, district nurse, community health visitor and general-practitioner referrals were also arranged by the liaison health visitor where these were considered appropriate. Most general-practitioner referrals were for the control of pain. Thirty patients were placed in short-term (under one week) or long-term (over one week) care in hospice or convalescent home, and 30 patients were provided with social/or financial assistance, or both, with the help of the social worker.

Of the symptoms that patients volunteered, anorexia was by far the commonest and the one that seemed to concern patients most. Anorexia occurred in 121 patients (51% of those interviewed) and was often associated with nausea (31%) and vomiting (18%) (table IV). In almost half these patients the major cause of the anorexia was cytotoxic chemotherapy, with radiotherapy and analgesics implicated in 16% and 7% respectively (table V). Thirty-three (27%) of the anorectic patients, however, had no obvious iatrogenic cause for their anorexia,

depressed. No attempt was made to measure depression by psychometric testing, and the figure may not represent the true incidence of clinical depression. It does, however, illustrate the extent of overt psychological stress experienced by patients with cancer.

Discussion

Of the members of the hospital oncology team, the liaison health visitor is in a unique position. She is the one person who not only sees patients both in hospital and at home but who has regular personal contact with hospital nursing and medical staff, general practitioners, community nurses, and social workers. Her role as it has evolved in this clinical oncology unit is threefold: firstly, she gathers information about patients,

relatives, and their problems; secondly, she co-ordinates the provision of support services; and, thirdly, she is a counsellor.

Her usefulness depends on her efficiency in identifying those patients who need her help and on the ease with which she can contact the appropriate sources of advice and help. Table I shows that most assessments resulted from her own vigilance while attending ward rounds and outpatient clinics and talking informally to patients and relatives. That only 11% of assessments were instituted by referral from medical staff reflects this vigilance rather than the doctors' inefficiency.

Home visits are an essential part of her job. Patients and relatives are likely to be less anxious in their own surroundings and more prepared to discuss problems that they might not

scription directions. Instead, it was usually due to self-imposed underdosage by patients. The liaison health visitor recorded that this was often in the belief that the regular use, or use of larger doses of the drug, would reduce the efficacy of the drugs if the severity of the pain were to increase. In only one patient was drug abuse detected, with the consumption of a narcotic analgesic in excessive amounts. Better education of the patient when prescribing the drug may obviate these problems. The high incidence of inadequately prescribed analgesia, as interpreted by the liaison health visitor, is important. It remains to be determined whether this is because of inadequate analgesic prescription by medical staff or inadequate description of the severity of the pain to the doctor. Probably, however, some

TABLE VI—Problems with analgesia in 237 patients

	No (%) of patients		No (%) of patients
Patients with no pain	67 (28.3)	Not taking analgesic as prescribed	49 (20.6)
Patients taking inadequate analgesia	44 (18.6)	Analgesic needed but not prescribed	11 (4.6)
Inadequate analgesic prescribed	59 (24.9)	Misunderstanding directions	7 (3.0)

mention in the busy atmosphere of ward or clinic. She can also assess the home conditions herself and therefore the need for particular aids, prostheses, nursing care, or social support. Finally, she can get a better idea of the family interactions and ability to cope. Local general practitioners have been told by letter of her existence and of the possibility that she may visit selected patients at home. A home visit is often done without prior consultation with the general practitioner.

The informal rapport that develops is probably the main reason why the liaison health visitor uncovered an unsuspected high incidence of gastrointestinal symptoms, inadequate control of pain, and non-compliance with drugs. The distressing symptoms of anorexia and constipation are often overlooked in a busy chemotherapy clinic. She usefully provides simple dietary advice and through the hospital or general practitioners supplies laxatives.

Although problems of drug compliance are common to all groups of patients,^{1,2} this study shows that poor compliance with analgesics was seldom due to misunderstanding of pre-

patients minimise symptoms to avoid the addictive drugs about which they are concerned.

The liaison health visitor has therefore become an essential part of the oncology team, integrating the hospital and community services and supporting patients through chronic illness and toxic treatment by assessing their problems, anticipating their needs, and mobilising maximal support.

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Is the use of vinyl chloride in the plastic packaging of foods a potential hazard?

Shortly after it became known that heavy industrial exposure to vinyl chloride monomer is associated with increased risk of haemangiosarcoma of the liver, representatives of Government and the Food and Food Packaging Industries in Britain began to collaborate to reduce the exposure of consumers to vinyl chloride monomer consequential on its migration into food from polyvinyl chloride packaging materials. As a result of their combined efforts the maximum likely intake of vinyl chloride monomer per person a day was reduced from 1.3 µg early in 1974 to 0.1 µg by May 1976.¹ The latter intake is many orders of magnitude below that associated with any risk of cancer in either man or animals. The common-sense answer to the question is therefore "no."

¹ Steering Group on Food Surveillance, Working Party on vinyl chloride. *Survey of vinyl chloride content of polyvinyl chloride for food contact and of foods*. London: HMSO, 1978. (Food surveillance paper No 2.)

Potato skin is said to contain a poisonous alkaloid. Is the same true for sweet potato skin?

It is generally recognised that plant materials subjected to various physiological stresses—for instance, microbial infection, physical

damage, contact with extraneous chemicals, or changes in storage temperature—may accumulate toxic concentration of secondary metabolites that are normally absent or present only in low concentrations.¹ In the case of the potato, *Solanum tuberosum* L, the tuber, stem, and leaves contain a series of alkaloid glycosides known as solanines. Normally these are present only in non-toxic amounts, but poisoning in man and animals can occur after ingestion of "stressed" tubers.²

The sweet potato, *Ipomoea batatas* Lam, belongs to a different plant family, and the results of tests for alkaloids have been negative. Nevertheless, toxic compounds have been isolated from sweet potatoes in response to microbial stress, and severe poisoning in animals has been described. In particular ipomearone, a toxic furanoterpenoid, has been found in sweet potatoes on sale in Britain with low concentration in apparently healthy tubers and higher concentrations in tubers with damaged or infected portions.³ Ipomearone may cause hepatic and pulmonary damage, but I am not aware of any acute poisoning in man from eating sweet potatoes. Further investigations on the acute and chronic toxicity of ipomearone are understood to be in progress.⁴

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