

### SUMMARY

A detailed approach to the gathering of information on the cost-effectiveness of palliative chemotherapy for patients with cancer has been described. The measures are qualitative and so difficult to study scientifically, but several innovations have been incorporated into the programme which should ensure a level of robustness to give reliable and valid information. Making judgements about the usefulness of treatment for patients involves comparing factors that are inherently incomparable and measuring those which are inherently unmeasurable. Nevertheless, it is hoped that this will be found to be a pessimistic view of what can be achieved by audit, particularly in the light of advances that have been made in assessing quality of life. At the

least, the project will provide important statistical information and the existence of the audit process itself should enhance significantly standards of medical practice.

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## Digitised Video and the Care of Outpatients with Cancer

TELEMED is a four year European Commission RACE (Research and Development in Advanced Communications Technologies) project, in which the University of London is one of the partners. The overall objectives are to examine the problems that arise when physicians communicate over telecommunications networks by the transmission of medical and video images and data. The University of London with its collaborators—STC Technology Ltd, the Free University of Berlin, the University of Giessen and the University of Paris—is responsible for the video conferencing aspects of the project.

Communication by digitised video has a potential role in the care of outpatients with cancer. Although less than a quarter of cancer patients who develop psychiatric problems spontaneously disclose them to their doctors or nurses [1], the Psycho-social Collaborative Oncology Group [2] found that almost half of a group of 215 patients with cancer had sufficient psychological symptoms to justify the diagnosis of a psychiatric disorder, most commonly anxiety and reactive depression. Patients with breast cancer particularly have considerable psychiatric and social morbidity [3]. They often feel isolated and the uncertainty about diagnosis, treatment and outcome can lead to loss of a sense of control and to low self-esteem. Maguire [4] has demonstrated that the poor recognition by surgeons and general practitioners

of anxiety and depression after mastectomy is due to the unwitting use of communication strategies that keep patients at a safe emotional distance. Both doctors and nurses eschew specific enquiries about how women who have surgery for breast cancer are coping psychologically because, according to Maguire, they fear that they lack the skills and the time to deal with emotions such as anger and despair in the middle of a busy outpatient clinic. Bloom [5] has identified social support as being the most important predictor of adjustment in a sample of women with non-metastatic breast cancer, but over a third of another sample of women with breast cancer reported that they had no-one to turn to for emotional support [6]. Counselling tends to have most impact when the sessions take place at the patient's request during the months following discharge [7]. Regular counselling by a nurse, and the monitoring of psychological adjustment, every two months led to earlier recognition and treatment of women with emotional problems and a three-fold reduction in psychiatric morbidity one year after a mastectomy [8]. Surgeons and non-specialist nurses rarely have the time systematically to conduct post-mastectomy counselling, but this important task can be done by a specialist nurse with training in the recognition of anxiety and depression and in the skills required to facilitate rather than suppress the ventilation of anger and grief.

The staff of oncology units already communicate freely with patients and their relatives by telephone. These conversations include requests for information and reassurance, and provide the opportunity for impromptu counselling. However, nurse

specialists find that although familiarity with the patient allows a greater range of emotional difficulties to be dealt with, the telephone imposes certain limits on their ability to provide adequate counselling for their patients. The accurate appraisal of emotion depends on visual cues [9] so that when this source of information is lacking, clinicians find it harder to judge the patient's affective state. As a result, patients will tend to be asked to travel to the hospital for further assessment much earlier. Using a videophone, staff can provide the reassurance of their familiar voice and face to the patient. Conversely, they can gauge the patient's affect and response to bad news, such as the need to re-attend urgently following a test result. The telephone is extensively used to elaborate on a "bad-news" interview, when outpatients who have been informed that they have cancer of the breast may be so shocked that they fail to retain information about treatment options and prognosis [10].

In their assessment of four telemedicine systems ("hands-free" telephone, still-frame video, black-and-white and colour television), Dunn *et al.* [11] demonstrated few differences in diagnostic accuracy between the alternative modes or in satisfaction with the medical outcome from the patient's point of view. However, when satisfaction with the "process" issues of communication was assessed, a clear preference was found for the television media.

A recent study of satisfaction with various aspects of clinical care in 232 ambulatory cancer patients demonstrated a high level of dissatisfaction with the quality of care directed towards satisfying the needs of a patient's family, friends and care-givers, and with the provision of information about the control of symptoms at home [12]. The most significant area of patients' dissatisfaction was certain aspects of communication between professionals and the patients themselves. Dunn *et al.* [11] showed that such counselling may be carried out with greater satisfaction for the patient and his family by using a medium which retains the richness of visual cues. Whilst the assessment of telemedicine projects to date has rarely been systematic, much of the anecdotal reporting suggests that individual and family work, both of great importance in the field of oncology, can be done equally well with mediated communication [13–15] with its advantages, similar to the telephone, of ease of access and the greater numbers of patients who can be assessed and counselled in a given time [16].

The transmission by videophone of facial expression permits the assessment of those non-verbal cues that allow a nurse or doctor to ascertain the degree of emotional distress and to offer appropriate support. The accurate assessment of the patient's mood would depend, in part, on the clarity of the image, and the current studies at Guy's Hospital are designed to determine the minimum picture characteristics (number of pixels, grey scales and frame rate) that are required, for instance, to assess

mood states and to counsel psychologically disturbed patients. The work is also designed to assess the effect of interposing a videophone on the interactions of members of the multidisciplinary team and their patients.

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