Joint Symposium

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Cost of treating colorectal cancers

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Rational treatment decisions should be based on a number of endpoints including efficacy, tolerability, quality of life, cost and patient preference. Although drugs account for less than 10% of healthcare spending in most countries, many cost containment strategies target this area, and drug acquisition cost is frequently the only cost considered when judging the value of a new product. Such an approach ignores potential patient benefits as well as opportunities that may be presented by using therapeutic approaches that may offer more efficient resource use. Between November 1993 and June 1994, patients with advanced recurrent metastatic adenocarcinoma of the colon or rectum who had not received adjuvant chemotherapy within the previous year were enrolled in a multicentre phase III clinical trial. Patients were randomised to receive raltitrexed 3 mg/m^2 as a 15-minute intravenous infusion once weekly every 3 weeks or 5-FU 425 mg/m^2 plus LV 20 mg/m^2 as rapid intravenous injections once daily for 5 days every 4 weeks for the initial 3 courses and every 5 weeks thereafter. All treatments were continued until disease progression or unacceptable toxicity was observed. Patients were evaluated during the study for objective tumour response, palliative benefits, survival and tolerability. Economic factors and those relating to net clinical benefit were assessed subsequently in a retrospective exploratory analysis. Resource estimations were gathered from a number of sources. Resource utilisation data collected in the clinical study included administration visits and visits to healthcare professionals for management of toxicity. The drug costs for management of toxicity were calculated from a cohort of UK patients in the study. Pharmacy resource was assessed in a separate time and motion study. Costs have been assigned using general reference sources such as the Office of Health Economics (OHE) Compendium for inpatient and outpatient costs. The cost analysis was undertaken from the perspective of the UK health service and focuses on the cost of palliative treatment. Although cost distribution differs between the two regimens, the higher cost of chemotherapy with the raltitrexed regimen is largely offset by the outpatient costs incurred with 5-FU + LV and by reduced pharmacy charges. The cost analysis shows that the monthly cost of treatment with raltitrexed is similar to that with 5-FU + LV (£781 vs £834). Compared with the Mayo regimen, raltitrexed reduces demand on clinic and pharmacy resources without increasing the total monthly cost of treatment, confirming the need to examine the totality of costs when making health economic comparisons of different chemotherapy regimens.

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The impact of telematics and information technology on the management of oncology care

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The way telematics and information technology is used for the management of oncology care is the primary focus of the EU-WISECARE project. In September 1995, the European Commission DG XIII has launched a call for telematics projects for resource management in hospitals. The WISECARE project, "Work flow Information Systems for European nursing CARE", started in July 1997 and will last until December 1999. The goal of WISECARE is to systematically exploit clinical nursing data stored in electronic patient records for clinical management, resource management and knowledge sharing. Clinical management focuss from a nursing point of view on determining the outcomes of patient care in relation to functional status, symptom control and quality of life. Resource management focuss on the right use of staff competencies (number, qualification level) according to patients' needs. Knowledge sharing focuss on the creation of a learning environment within the team discussing structured feedback on their patient care and with other teams in exchanging care protocols, clinical pathways and every day experiences. The Wisecare approach is tested and implemented in the domain of oncology care, in close co-operation with the European Oncology Nursing Society. Five European high-valued validation sites are working in close co-operation with the project-team. These are: University Hospitals Leuven, Belgium; Beatson Oncology Centre, Glasgow, UK; Helsinki University Central Hospital, Finland; Huddinge University hospital, Stockholm; Sweden and Groningen Medical Centre, The Netherlands.

Clinical management is supported by IT by transforming the collected data into meaningful clinical information. Based on chemotherapy, the risk for certain co-morbidity's such as oral care, fatigue, pain and nausea & vomiting is calculated. The observed severity scores for one patient can be compared with expected severity scores (based on the scores in all validation sites). Audit reports to evaluate the patient outcomes in the various settings are generated. The scores in the other settings are used for benchmarking.

Resource management is supported by collecting staffing levels in the various sites and relating them to patient characteristics and outcome of care. Knowledge sharing is done by providing a network structure in which nurses from the various validation sites can exchange their protocols, provide distant consultation, consult information engines like some WWW-sites.

The overall result is that by using IT, nursing practice is felt to be more benchmarked evaluated and more based on principles of evidence-based care. The Wisecare project shows how IT can enhance the management of oncology care leading to more qualitative and cost-effective nursing care.

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The costs and benefits of nurse led cancer care

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A review of the evidence for Doctor-Nurse substitution (1) has suggested that between 30 and 70% of the tasks carried out by doctors could be performed by nurses and could result in huge savings. However, the evidence base is limited, particularly in relation to the risks such change might pose to quality of care. Within the UK, as in other countries, there has been a commitment to reduce the hours junior doctors work. This has occurred alongside a simultaneous drive by the nursing profession for greater autonomy and freedom to undertake a wider range of tasks within healthcare than previously. There is some evidence that the delegation of medical tasks to nurses and the impact this has on quality of service, workload of medical teams, and satisfaction with new role responsibilities is not automatic or straightforward (2).

Within the cancer setting, there is great interest in how nursing roles might be utilised to enhance services for patients, and a tradition of leading healthcare in developing advanced nursing roles. The Centre for Cancer and Palliative Care Studies has established a research programme to develop and evaluate nurse-led services, and is examining the costs and benefits of these from a broad perspective. Data from a controlled trial of nurse-led radiotherapy care for men with bladder and prostate cancer suggests that significant savings can accrue in service costs where care and treatment is re-oriented and undertaken from a nursing perspective, and also greater satisfaction with care for patients. Early data emerging from other studies suggest that training nurses to take on the greater responsibility, requires careful preparation and supervision; 'nurse-led' care should not be taken to mean 'nurse alone' care since this would undermine the concept of interdisciplinary team-work. These roles can however be used creatively to re-organise care so that better co-ordinated services can be offered.

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