The provision of nutritional support for people with cancer

Nutritional support is one of the most fundamental aspects of nursing practice. Evidence suggests that many patients are malnourished when admitted to hospital and this is a particular problem for patients with cancer (Whitman, 2000).

Nutrition and oncology  According to figures released by Cancer Research UK, cancer has overtaken heart disease as the biggest cause of death for British men; female death rates for cancer overtook heart disease in the late 1980s (Cancer Research UK, 2003).

The effect of cancer on nutrition depends on the site and stage of the disease and its treatment. Combined treatments, for example chemoradiation for patients with head and neck tumours, rapidly compromises nutritional status.

The side-effects of treatment such as chemotherapy, radiotherapy or surgery, or the disease itself, can severely compromise the patient’s nutritional status. Side-effects can include nausea, vomiting, gastrointestinal disturbances, loss of appetite, mucositis and lethargy.

Essence of care  Nationally, increased concern has been expressed about the quality of nutrition for hospitalised patients, and considerable emphasis has been placed on identifying and meeting patients’ nutritional needs (Department of Health, 2000).

The Essence of Care initiative highlighted patient-focused practice as crucial to the quality of patient care (DoH, 2001). Nutrition was one element of this initiative. Standards were set for: nutritional screening and assessment; the food provided; how it was obtained and presented; the ward environment; monitoring of food intake; and health promotion.

At The Christie Hospital in Manchester, the benchmarking team used this opportunity to:

● Evaluate nutritional support, using The Essence of Care benchmarking tool as the key indicators of best practice;
● Identify and build on good practice;
● Develop an action plan to enhance nutritional care where practice could be improved;
● Identify and address service-user needs and preferences.

Nutritional needs and cancer  Malnutrition remains a poorly identified problem among hospitalised patients (McWhirter and Pennington, 1994). Malnutrition can mean undernutrition, overnutrition or an imbalanced intake; it affects individuals differently depending on age, diagnosis and initial weight. Van Bokhorst-de van der Schuer et al (1999) state that the consequences of malnutrition include delayed wound healing, reduced immunity, muscle wastage, reduced response to treatment and longer stays in hospital with increased morbidity and mortality.

Patients with cancer have increased nutritional needs. The effects of local and systemic tumours result in tremendous demands for nutrients and even an apparently suitable dietary intake of calories and protein may be insufficient to meet these demands. The mechanisms for this are still unclear.

Cachexia  This is a major problem for people with cancer. It is classed as a wasting disease where the individual loses weight, body fat and muscle, resulting in weakness and immobility. Cachexia remains a common cause of morbidity and mortality. It is more common in some cancers, for example lung and gastrointestinal, than in others such as breast cancer. Cachexia contributes to 22 per cent of cancer deaths (Davis, 2002).

Weight loss, and particularly cachexia, can affect quality of life. It can have social and physical effects, such as a person feeling too embarrassed to go out because of their appearance, or feeling too weak or lethargic. Issues about changes in body image should be addressed sensitively.

Assessment  To ensure that all nutritional problems are identified, a nutritional assessment is essential. All patients should be assessed at first contact and within 24 hours of admission to hospital. Also, to maintain best practice, ongoing assessments should be performed at least weekly depending on the patient’s condition.

Obtaining a patient and carer history of nutritional intake is fundamental when initiating a plan of care. Currently, there is no single validated nutritional tool designed for cancer patients. The screening tool at The Christie Hospital was based on the tool developed by the British Association for Parenteral and Enteral Nutrition to identify those who are at risk or are already malnourished (BAPEN, 1999) (Box 1).

Factors to be considered include:

● Body Mass Index (BMI);
● Weight loss over previous three months;
● Difficulties with oral intake, such as nausea, vomiting and dysphagia;
● Ability to retain and absorb food, and the effect of the disease and its treatment on nutritional requirements.

Special diets to reflect personal, cultural and religious needs also need to be considered.

Following the assessment an appropriate action plan for nutritional intervention should then be incorporated into the patient’s plan of care.

References


Nutritional support  Many patients with cancer will require some form of nutritional support during their cancer journey from diagnosis through to recovery or terminal care. The benefits of this support include:
- Improved wound healing;
- Improved immune response;
- Improved muscle strength;
- Enhancement of the beneficial effects of chemotherapy (BAPEN, 1996).
A well-balanced nutritional intake promotes recovery from illness and quality of life for patients. Choosing the method of nutritional support should be a multidisciplinary decision involving the patient and his or her carer. There are three routes to consider in nutrition support, which are outlined below.

Oral nutrition  It is essential to correct factors affecting oral intake, such as a dry mouth, mucositis, nausea and pain. There are four ways to improve oral intake:
- Appetite stimulation, such as the use of steroids, alcohol before a meal, and small, frequent meals or snacks;
- Texture modification;
- Fortification of food using full-fat products, and the use of high-protein foods and sugary foods;
- Nutritional supplements in liquid or powder forms.
To be effective, these methods should be appropriate and tailored to the patient’s needs. When the patient has been nutritionally screened and the nutritional care plan has been implemented, the appropriate diet can be ordered from the catering department.
For example, texture-modified foods can be fortified with extra butter, cream, full-fat milk, sugar and protein-energy supplements as required. Patients can be offered snacks and milky drinks between meals.

Enteral tube feeding  When the oral route cannot maintain the patient’s nutritional status, enteral feeding must be considered. The choice of tube will depend on tumour site, anticipated length of feeding and the patient’s ability to cope with the procedure.
For example, a radiologically placed gastrostomy is now more widely used for patients with head and neck tumours, as this does not require an endoscopy for placement. Post-pyloric feeding using a nasoduodenal or nasojejunal tube can be used for the critically ill patient with cancer.
There has been a steady increase in the use of home enteral tube feeding for patients with cancer. In 2002, 26 per cent of patients fed nationally had malignancy (BAPEN, 2002) – these figures continue to rise each year. When this intervention is required, it should be reflected in the patient’s discharge plan.

Parenteral feeding  This is indicated in patients with an inaccessible gastrointestinal tract or malabsorption. It may also be considered for patients whose tumour is obstructing the bowel, such as in the case of ovarian cancer, and may enable them to be discharged home.
It is also used for patients undergoing allogeneic bone marrow transplant, where enteral feeding has been unsuccessful.

Refeeding syndrome  This is a metabolic syndrome which can occur when feeding malnourished patients (Solomon and Kirkby, 1990). Refeeding syndrome is defined as a derangement in serum electrolytes (phosphate, potassium and magnesium), vitamin deficiency, and fluid and sodium retention occurring in malnourished patients after nutritional support has been initiated.
The syndrome has potentially serious complications including arrhythmias, heart failure, seizures, cardiac arrest and coma. The patient’s nutritional status, nutritional requirements and risk of refeeding syndrome should be assessed by a state-registered dietitian and monitored on a regular basis.

Conclusion  If patients with cancer experience nutritional difficulties it can impact on their quality of life and increase the risk of serious complications. Therefore assessment and appropriate support for these patients are essential.
Care should be planned using a multidisciplinary team approach and it is crucial that nurses, patients and carers are involved in the process. The Essence of Care nutritional benchmark allows an opportunity to sustain this.