

## Overview

# General Care of the Older Cancer Patient

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## ABSTRACT:

With increasing age, there are greater numbers of older people who will be diagnosed with cancer. It must be remembered that such individuals have increased frailty and have a number of geriatric syndromes and conditions particularly pertinent to older age, including incontinence, poor cognition and impaired nutrition. It is often difficult to define the effects of cancer and its treatment or complications, and separate these from the effects of normal ageing and geriatric syndromes. The documentation of poor nutrition and its management must combine knowledge from both geriatric medicine and oncology. Nutrition serves to identify key healthcare professionals who are all essential in any patient at risk or suffering from malnutrition. Incontinence must be actively sought, its cause identified and efforts made to either 'cure' it or, in certain circumstances, 'manage' it. Older patients with cancer are cared for predominantly by older relations and informal care mechanisms and special consideration of their physical and practical needs are paramount. In this area, nurses, doctors, therapists and social workers should work to identify formal and informal mechanisms to support particularly the older carer. Gosney, M. (2009). *Clinical Oncology* 21, 86–91

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**Key words:** Carer, continence, MNA, nutrition, supplements

## Statement of Search Strategies Used and Sources of Information

A search was undertaken of Medline between January 2000 and April 2008. A combination of key words identified potentially useful papers. These key words included elderly or older patients, cancer, nutrition, continence and carers. All abstracts were reviewed and full papers then selected. Key papers published before this date were also identified if referenced in two or more of the above obtained papers.

## Introduction

Many of the papers published on the management of old people with cancer focus on the administration of chemotherapeutic agents, radiotherapy or surgical technique. Although there has been an increasing interest in screening, the role of co-morbidity and the assessment of patients before various therapy modalities, there has been little attention to the unique problems experienced by older people with cancer. The areas of continence, nutrition and the role of the older carer are poorly described and much of the published data focus on either the older patient without cancer, or the younger patient with cancer. This overview brings together recent publications in an attempt to derive from them, practical and pragmatic advice for clinicians caring for the older patient with cancer.

## Incontinence

Incontinence is one of four 'giants of geriatric medicine'. Urinary incontinence is common in women, and its presence in both genders is associated with guilt, shame, embarrassment, low self-esteem and social withdrawal. The true incidence and prevalence of urinary incontinence is unknown, due to its low priority among clinicians and its under-reporting by patients. It is estimated that 20% of women aged 40–80 years report regular urinary incontinence and in men both obstructive uropathy secondary to prostatic carcinoma and prostatectomy can result in incontinence.

In a study to determine any association between incontinence caused by cancer or its therapy and health-related quality of life, 1201 patients and 625 spouses or partners, before and after radical prostatectomy, brachytherapy or external beam radiotherapy for prostate cancer, were interviewed. Patients in the brachytherapy group reported long-lasting urinary irritation and experienced urinary incontinence that was particularly prevalent after prostatectomy. Patients who before surgery had an enlarged prostate found that both urinary irritation and obstruction were relieved by the cancer surgery. Older age was associated with treatment-related symptoms, but in those individuals who before treatment had a large prostate, a high prostate-specific antigen score and obesity, postoperative incontinence was more likely [1].

There is evidence that guided pelvic floor muscle training after radical prostatectomy may be beneficial. The study

group was men with localised prostate cancer who had undergone an open radical prostatectomy. Men were randomised to one of two groups, both of whom received pelvic floor exercises, with one group also having 1 year of physiotherapy follow-up training. Although no significant differences in continence were seen between the groups at 3 months (46% vs 43%), 97% of the group who had received physiotherapy reported no or only mild problems with urinary function, compared with 78% in the control group. At 6 months, however, the physiotherapy group were more likely to be continent (79% vs 58%) with further improvement at 12 months (92% vs 72%) [2]. This suggests that older men with urinary incontinence after radical prostatectomy should be treated with pelvic floor exercises that are reinforced by physiotherapy follow-up training.

After radical hysterectomy, up to 53% of women report urinary incontinence. Anecdotal cases have shown that transurethral macroplication injection may prevent incontinence and reduce postoperative patient perception of urinary incontinence symptom severity [3].

Avoidance of urinary incontinence by adapted surgical technique remains the mainstay of therapy. However, although preservation of the striated sphincter and levator muscles is desirable, it is acknowledged that this may not always be possible [4]. The risk of postoperative urinary incontinence is thought to be associated with a short urethral sphincter. There is evidence that either anterior reconstruction or total reconstruction in patients with a short sphincter can result in improved continence at 6 months. Before surgery, 47% of the elderly men in the short sphincter group (<14 mm) were continent, in contrast to 80% in the longer sphincter group. After anterior reconstruction, continence was maintained by 81% of the short sphincter group and by 83% in the longer group. After total reconstruction, 90% of the short sphincter group and 99% of the longer group achieved continence. Reconstruction can enable those with both short and long sphincters to achieve continence, men with a short sphincter are more likely to be incontinent than those with a long sphincter, and the average time to achieve continence is greater for the shorter than the longer sphincter groups (25 vs 12 weeks) [5].

Older multiparous women and elderly men who have previously undergone radical prostatic surgery are at higher risk for incontinence and co-existing conditions, such as cardiac failure necessitating diuretics, neurological conditions, such as normal pressure hydrocephalus, constipation, autonomic neuropathy or poor mobility may all serve to worsen urinary incontinence in both.

## Faecal Incontinence

Three main factors contribute to faecal incontinence in older individuals. First, external anal sphincter weakness occurs as anal squeeze pressure falls with age. Although this does not necessarily lead to loss of bowel control, the presence of poor sphincter pressure and loose bowel motions almost inevitably results in faecal soiling with or without true incontinence. Incontinent patients of all ages

often have low anal resting tone. In women after childbirth, especially if surgical delivery has been required, a pudendal neuropathy may result in anal sphincter weakness. The second important factor in faecal incontinence is loss of anal sensation. Although this may occur in older individuals, it does not necessarily result in faecal incontinence in all cases. The third factor is relative immobility, which may result in faecal incontinence either due to the loss of gastrocolic reflex or more likely due to the dependency on others, which may result in not being toileted before faecal incontinence occurs. All three factors should be remembered in elderly men or women with cancer.

The mainstay of preventing faecal incontinence in older cancer patients is to ensure that they produce stools of the ideal consistency and that bowel emptying occurs at a predictable time. Large epidemiological studies show that both urinary incontinence and faecal incontinence and combined incontinence increase with age and functional dependency [6]. This review found that in over 6000 papers the effects of surgical techniques for rectal cancer on faecal incontinence were not consistent across studies.

In some individuals the role of constipating agents, such as loperamide and codeine, with regular enemas to empty the bowel may restore faecal continence. This is particularly true during periods of acute illness or immobility, but only in rare cases should this be continued indefinitely.

## Nutrition

Unfortunately, poor nutrition is a problem for older people, both in the community and the hospital setting.

Changing clinical practice through organisational changes, while improving the eating environment, has done little to improve nutritional measures in older patients [7]. Although some studies have shown that there are no significant differences in the energy and nutrient intakes across different age groups, i.e. <65 years and ≥ 65 years, there is little doubt that energy intakes, particularly in the first 24 h after hospital admission, are highly inadequate [8]. Studies in elderly care wards have highlighted that although the hospital menu provides over 2000 kilocalories per day, which is sufficient to meet the average patient's nutritional requirements, the mean daily plate wastage, i.e. the food that has been attempted by the patient, but incompletely consumed, is as high as 42%. The Department of Health recommends 1800 kilocalories, but with such wastage only 73% of the mean daily energy intake is actually being consumed [9]. Such plate wastage suggests that little has changed since 1945, when an editorial published in *The Lancet* stated 'hospital diet is poor because menus are monotonous, because food is badly cooked and sometimes scanty'. Kandela [10] reported 54 years later in the same journal that the food was 'still unappetising, poorly presented and mealtimes are often interrupted for bureaucratic reasons'.

Studies have shown that only 44% of patients consume all the food that is provided, with 29% consuming half and 24% consuming only some of the meals provided. Those patients

dissatisfied with the taste and smell of food or the appearance of their food or non-surgical patients were more likely to be the group who consumed less than half the food provided [11].

The ACMEplus project devised a standardised system for measuring case mix and outcome in older patients with medical problems admitted to hospital in different parts of Europe. Although studies have suggested that poor nutrition is linked to poor outcome, a systematic search found that poor nutrition was a statistically significant predictor of length of stay, but not mortality, discharge destination or re-admission rate. However, because poor nutritional state affects functional status, which does affect mortality, discharge destination and re-admission rate, the role of nutritional support in elderly hospital individuals is important [12].

The nutritional status of older people requires special consideration. There are many physiological changes that occur during the ageing process, standardised nutritional assessments exist particularly for older people and finally certain parameters, particularly biochemical different normal ranges from those seen in younger individuals, or in some circumstances are not documented in older individuals [13].

When calculating body mass index it is imperative that demispan (the distance between the midpoint of the sternal notch and the web between the middle and ring finger when the arm is outstretched horizontally), rather than height is used. Demispan is well validated in older individuals, whereas height diminishes due to osteoporosis and other orthopaedic conditions, including narrowing of the intervertebral disc spaces. For every decade over the age of 20 years, height declines by 1 cm, but from ages 60 to 80 years, the loss of height is about 0.5 cm every year [14]. Thus, body mass index must be used with care, especially when comparing younger and older subjects.

Normal ageing results in altered lean body mass, which may result in alterations in mid-arm muscle circumference, as well as triceps skin fold thickness. When comparing younger patients with individuals over 70 years, skeletal mass decreases by 20% and by the age of 70 years adults have lost about 40% of their peak adult muscle mass [15].

Anthropometric measures, such as triceps skin fold and mid-arm circumferences, have been standardised for age ranges between 55 and 74 years, but there are few data on normal values for those aged 75 years and above [16]. Unfortunately, there has been little effort to either refine these results, obtained in the 1980s, or to extend them to include individuals aged 75 years or above.

In older individuals, serum albumin concentrations do not correlate with the clinical evaluation of nutritional status [17]. Therefore, transferrin has been suggested as a useful marker of nutrition, although Finucane *et al.* [18] failed to find any correlation between this biochemical measure and a number of anthropometric measurements.

Although nutrition is important, as part of the assessment of the surgical oncology patient, as well as those undergoing chemotherapy, there is some evidence that it is the functional limitation, rather than the age or nutrition *per se*, that affects outcome [19].

## The Response of Older Patients to Nutritional Support

As patients increase in age, the calorie requirement to restore body cell mass increases. It has been postulated that this may be due to reduced capacity to metabolise glucose and lipid. Shizgal *et al.* [20] found that a 15-day course of total parenteral nutrition increased the body mass of patients, if they were younger than 65 years of age.

There is little evidence of the benefits of short-term nutritional support for older patients. The use of percutaneous endoscopic gastrostomy in older individuals is associated with poor survival and should only be reserved for specialised individual cases. In the study by Rimon *et al.* [21], in which 2% of patients studied had head and neck malignancies, the overall long-term outcome was for one-third of patients to be living at 1 year and only 20% at 2 years. A comparison of parenteral and enteral nutrition in patients undergoing liver resection showed no significant difference in nutritional parameters [22]. Although patients post-gastrointestinal surgery were more likely to reach their nutritional goal after parenteral nutrition (97.7%) than early enteral nutrition (79.3%), the overall complication rates were similar and there were no differences in infectious and non-infectious complications, length of hospital stay and mortality. Therefore, early enteral nutrition costing only 25% of parenteral nutrition in patients undergoing gastric surgery should be recommended [23].

## Nutritional Assessment

There is little doubt that the mini-nutritional assessment (MNA) is practical, non-invasive and a cost-effective way of evaluating both the nutritional status and the effect of interventions in frail, older patients [24]. Its use in a prospective manner over a 6-month period allows it to be useful in those patients who received nutritional supplementation during and after cancer therapy [25]. The MNA is widely validated in community-dwelling, frail, hospitalised and institutionalised elderly individuals, as well as the cognitively impaired [26]. The short form of the MNA (MNA-SF) can be used for screening elderly patients pre-operatively [27] when time is limited.

In a study of ambulatory patients aged 60 years or above, seen at a pre-operative anaesthesia consultation, 7% were found to have overt malnutrition. When compared with the full MNA, the MNA-SF had 100% sensitivity for predicting the absence of overt malnutrition, but the short form was less efficient in predicting 'possible' nutritional problems detected by the MNA (sensitivity 85.6% and negative predictive value 92.8%) [27]. The MNA on admission relates to the patient's autonomy, living conditions and current treatment and is predictive of the patient's outcome, including death [28].

Other tools, including the Patient Generated Subjective Global Assessment (PGSGA), have been developed to assess nutritional status in cancer patients. When the PGSGA was compared with the MNA, the latter showed a sensitivity of 97%

and specificity of 54%, with similar results in both those below and above 65 years of age [29]. Unfortunately, the validation of the MNA in older cancer patients is limited to certain cancers.

In certain groups of older individuals, the prevalence of malnutrition as measured by the MNA is high. In an age-matched group of men with benign prostatic hyperplasia or advanced prostate cancer, 7.5% vs 50% were considered to be at risk of malnutrition as assessed by the MNA [30]. In patients with advanced cancer receiving palliative chemotherapy, the MNA strongly correlates with serum C-reactive protein and a baseline history of weight loss, suggesting that a simple question such as 'have you lost weight in the last 3 months?' may be as important as a full MNA [31]. Work by Bauduer *et al.* [32] confirmed the association of the MNA and recent weight loss in a group of 120 haematology patients aged above 60 years, most of whom had malignant disorders.

## Sip Feeds and Nutritional Supplementation

There is little doubt that oral supplementation improves the nutritional status and food intake in older individuals [33,34], although wastage remains an issue [35]. Nutritional supplements improve SF-36 measured quality of life [36], as well as reducing symptoms of depression [37], although compliance is affected by flavour, taste, texture and predictability of the supplements [38]. Eating in groups rather than alone also increases oral intake and should be encouraged in the ward setting [39].

## Carers

Many older patients with cancer will be informally cared for by their own elderly relatives. In some situations, women represent over 70% of carers [40]. Lay carers are rarely attentive to their own health needs for a variety of reasons, including a lack of time. Older individuals with cancer are less likely to be referred to hospital at home teams [41], or receive care from specialist community palliative care nurses [42]. This will therefore have an effect on the burden of the older carer. Both patient and carer age predict use of Macmillan nurse advice and patient not carer age predicts admission to in-patient hospice facilities [43]. Care of older people with cancer and carer's needs have been shown in very heterogeneous studies. Most carers of older patients with heart failure were female, 70% were over 60 years of age and 73% were spouses [44]. If the carer is the spouse, they experience a lower quality-of-life score, have two or more health conditions and symptoms of depression [44]. In general, carers have a positive attitude to care giving, although in younger carers, age is associated with a higher dissatisfaction in care giving [45]. This must be considered, especially when younger family members take on the care of the older relative with cancer. Some elderly carers are less open than younger carers in the way they wish to talk about death and indeed some may not wish to be present at the death of their relative [46]. Thus,

support of the older carer and attention to their health needs, as well as early involvement with palliative care teams, are necessary. Discussion about death and the place of final palliative care should be undertaken at an early stage and consideration of respite care is vital to ensure that older carers are not disadvantaged. Healthcare professionals must involve the older patient and their carer in discussing options and offering services in a similar way to younger patients, but also remembering the physical burden of such care.

## Discussion

Urinary and faecal incontinence will continue to be a problem for many older patients with cancer. Pre-treatment assessment must include documentation about the presence or absence of urinary and faecal incontinence. Initial management should always attempt to obtain continence, with management of incontinence being the 'last resort'. Thus, surgical techniques may need particular consideration when the patient is older and multidisciplinary input, including continence nurses and physiotherapists, may be vital in the slow restoration of continence. The role of impaired mobility, as well as medications, such as opioids causing constipation, must be considered and, where possible, dealt with in a proactive manner.

Many older people with the diagnosis of cancer will have poor nutrition. This, as well as the risk of under-nutrition, should be documented, following a full validated screening tool, such as the MNA. Poor nutrition will affect wound healing, length of stay and rehabilitation potential and therefore must be aggressively managed. It is insufficient to provide supplementary calories if they are poorly consumed and novel methodologies are often required.

Older carers pose unique problems. Their physical and psychological needs may be different from younger carers and they are often offered less support than the carers of younger patients. The role of the geriatrician in providing advice before, during and after cancer therapy must be remembered, particularly when dealing with issues that are not entirely cancer related, but may be due to normal ageing or other co-existing pathology.

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