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Assessing requirements and improving food provision to a young adult inpatient cancer ward

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Malnutrition and weight loss are common in cancer and can affect treatment response, increase the incidence of therapy-related side effects and ultimately reduce survival. Within a nine-bedded ward for young adults (YA) with cancer, it was questioned whether food provision via standard catering services was able to meet the needs of this patient group. It was becoming evident from practice that YA inpatients with cancer were likely to have higher nutritional requirements as a result of their age and typically increased activity/mobility levels compared to older inpatients. The aim of this project was to determine patient nutritional requirements and understand YA inpatient food preferences in order to better meet their dietary needs.

Daily energy requirements were calculated using prediction equations⁽¹⁾, adjusted for stress and activity. Protein requirements were estimated as per standard UK dietetic practice. These requirements were compared with those of matched controls aged 60–74 years and with the hospital daily meal and drink provision standard. Estimated requirements were calculated for 11 patients (mean age 21.8 years). At an activity level of 25% (Table) YA required approximately 10% more energy per day to maintain weight than older adults, whereas at 40% activity (not shown) this increased to an additional 25% energy per day.

Age (years)	18–24	60–74	Mean difference
Male (n 8) (activity level 25%) Female (activity level 25%)	9422.37 kJ/d (2252 kcal/d)	8663.82 kJ/d (1999 kcal/d)	+ 1058.55 kJ/d (+ 253 kcal/d)
	7702.74 kJ/d (1841 kcal/d)	6957.99 kJ/d (1663 kcal/d)	744.75 kJ/d (+ 178 kcal/d)

YA nutritional requirements were not fully met by the current hospital food service.

	Daily hospital food and drink standard	Mean requirements* (male)	Mean requirements* (female)
Energy	5020.8–5230 kJ/d (1200–2500 kcal/d)	9422.37–10560.42 kJ/d (2252–2524 kcal/d)	7702.74–8556.28 kJ/d (1841–2045 kcal/d)
Protein (g/d)	55-60	70–82	63–74

^{*}Range indicates mean calculated requirements for 25 and 40% activity levels.

YA opinions about inpatient food provision and their dietary habits (e.g. food types eaten and meal timings) were determined using a questionnaire and food diary. A number of reasons were identified as to why hospital food and drink provision did not meet YA dietary needs and preferences.

- All meal times too early compared to usual habit
- Would like to eat some meals with other patients
- Poor choice of low-quality condiments and not routinely offered
- Awareness and concern about high food wastage

- Heavy reliance on friends/relatives for snacks and meals often eaten later in the evening
- Preference for more snack-type meals and food types more familiar to young adults
- Food lacking flavour and poor quality

This project has resulted in significant changes being implemented to achieve more flexible provision of food types and quantities, to help meet the nutritional needs of this patient group. The project has also raised awareness among the multi-professional team regarding the importance of nutritional screening and management of nutrition in YA patients with cancer.

1. Department of Health (1991) London: HMSO.