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Radiotherapy treatment for head and neck cancer: a dietetic review from referral to discharge

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Malnutrition is a common complication of head and neck cancer. The impact of multimodality treatment, particularly radiotherapy with concurrent chemotherapy is considerable. Such treatment can result in up to 70% of patients suffering weight loss of >5% of pre-treatment weight[1]. The nutritional support of this patient group needs to be considered for at least 6 months post-treatment[2]. There is limited information in the literature regarding the early initiation of nutritional support during radiotherapy to the head and neck region, the benefits of pre-radiotherapy nutritional assessment on outcome and the necessity for a structured programme of follow-up post completion of radiotherapy. The goal of this retrospective audit was to investigate the nutritional management and nutritional outcomes of patients attending for radiation treatment to the head and neck region at the Mater Private Hospital, Dublin between 2002 and 2006.

The medical and nutritional records of 112 head and neck cancer patients undergoing radiotherapy and referred to the dietetic department were retrospectively reviewed. The data collected included demographic information, diagnosis and treatment data, anthropometric data, nutritional interventions, reasons for hospital admissions and reported side effects. The collected data was analysed using the Statistical Package for the Health Sciences:

		Patients with severe weight loss* during treatment (*n* 40 (35%))		Patients with acute admission during treatment (*n* 31 (28%))		Patients with gastrostomy inserted (*n* 30 (27%))	
Tumour site	Total (*n* 112; males *n* 85, females *n* 27)	*n*	%	*n*	%	*n*	%
Oropharynx	25	17	68	12	48	16	64
Larynx	39	9	23	9	23	8	20
Parotid	13	2	15	1	8	0	0
Hypopharynx	3	2	67	3	100	2	67
Oral cavity	2	0	0	0	0	1	50
Nasopharynx	5	4	80	2	40	2	40
Other	25	7	28	4	16	1	4

* Severe weight loss defined as at least 5% weight loss during radiotherapy treatment.

Prior to commencing treatment, 21% of patients (*n* 24) reported that they had lost weight. Over the course of treatment 70% of patients lost weight. During treatment 36% of patients (*n* 40) experienced severe weight loss. Gastrostomy tubes were placed in 27% of patients (*n* 30). Gastrostomy tubes were inserted in 64% of patients with cancer of the oropharynx (*n* 16). The rate of acute hospital admissions during treatment was highest in patients with a gastrostomy tube. Of patients with gastrostomy tubes, 63% were admitted ($P<0.05$). During the course of treatment 28% (*n* 31) of the total patient group had an acute hospital admission. Of these, 65% (*n* 20) were admitted for feeding and/or hydration-related issues. Of this group, 45% (*n* 14) had a gastrostomy tube. Patients who received concurrent chemotherapy and radiotherapy lost significantly more weight than those receiving radiotherapy alone ($P<0.05$). Mean acute admissions during treatment was also significantly higher in the chemoradiation group ($P<0.05$).

This audit will help to identify the most nutritionally at risk group with a view to earlier initiation of gastrostomy feeding and a more structured programme of nutritional follow-up post radiotherapy. The findings of this audit will be used to facilitate the development of specific guidelines for the nutritional management of this patient group.

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2. Johnston CA, Keane TJ & Prudo SM (1981) *J Parenteral and Enteral Nutr* **6**, 399–402.