

Audit of enteral feeding routes in adult patients with head and neck cancer in the Yorkshire Cancer Network

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Between 2004 and 2005 there was an increased number of patients with head and neck cancer acutely admitted for artificial nutrition support at the Yorkshire Centre for Clinical Oncology (YCCO), Cookridge Hospital. These patients were subsequently discharged on home artificial nutrition support. An increased number of patients were having induction chemotherapy and/or concurrent chemoradiotherapy. This treatment resulted in increased toxicity causing severe acute and chronic side effects. The increased toxicity was reflected in patients requiring prolonged periods of artificial feeding⁽¹⁾. The objective was to establish the initial route of artificial feeding and if alternative routes were instigated. Results were compared with national standards⁽²⁾.

A total of 103 patients with head and neck cancer were admitted acutely to YCCO during or shortly after non-surgical treatment for reasons including artificial nutrition support between 1 January 2004 and 31 December 2005. Fifty-seven patients were excluded from the audit due to incomplete/inaccessible data (data for patients who died before the audit were inaccessible). The total subject group included forty-six patients, eleven for 2004 and thirty-five for 2005. Follow-up data were collected retrospectively across the Yorkshire Cancer Network for all patients up to 31 December 2006. Of the total subject group 91% (forty-two of forty-six) had advanced disease (stage III or IV⁽³⁾) and 87% (forty of forty-six) had multimodality treatment (any combination of surgery, chemotherapy and radiotherapy).

	2004 (total no. of patients 11)	2005 (total no. of patients 35)
Initial route of feeding	100% (n 11) nasogastric (NG) 40% (n 0) gastrostomy (G-tube)	80% (n 28) NG 20% (n 7) G-tube
Alternative route of feeding	27% (n 3) patients with NG tubes as initial route had a G-tube placed due to poor tolerance of NG One of these patients had parenteral nutrition (PN) while awaiting G-tube placement	14% (n 4) patients with NG tubes as initial route had a G-tube; three due to poor tolerance of NG and one due to length of feeding One of these patients had PN while awaiting G-tube placement

National standards⁽²⁾ recommend the NG route for short-term feeding (<4 weeks) and the G-tube route for long-term feeding (>4 weeks). All patients in both 2004 and 2005 were fed for >4 weeks. In total 20% (n 7) of patients in 2005 met the standard for recommended route of artificial feeding (median 440 (range 75–532) d).

The present results show a change in practice from NG to G-tube as the initial route of artificial feeding. The exact reasons for this change may include changes in treatment and observed length of artificial feeding post treatment. Consideration for prophylactic placement of G-tube was not routine practice at this time. Current unpublished local audit data have shown a continued trend towards an increased number of G-tubes as the initial route of feeding. Completion of the full course of non-surgical treatment without interruption is crucial and it has been demonstrated that G-tube placement reduced the rate of nutritional-related admissions⁽⁴⁾. Since 2005 patients have been routinely assessed for consideration of placement of G-tube and to the authors' knowledge no patients have had total PN during the treatment phase. Feeding enterally is superior to the parenteral route in terms of physiology and cost.

Chemo-radiotherapy is widely recognised as an effective therapy for advanced head and neck cancer and prolonged artificial feeding may occur as a consequence⁽¹⁾. Thus, consideration of the most appropriate route of artificial feeding is required at the initial clinical assessment when treatment decisions are made and reviewed throughout treatment and rehabilitation. The current audit demonstrates an improvement in the appropriate route of feeding in this patient group.

1. Nguyen NP, Moltz CC, Frank C *et al.* (2004) *Ann Oncol* **15**, 383–388.
2. National Institute for Health and Clinical Excellence (2006) *Nutrition Support in Adults. Clinical Guideline* 32. London: NICE.
3. American Joint Committee on Cancer (AJCC7) *Cancer Staging manual*, 5th edn (1997) by Lippincott-Raven Publishers, Philadelphia.
4. Lee JH, Machtay M, Unger LD *et al.* (1998) *Arch Otolaryngol Head Neck Surg* **124**, 871–875.