

# The use of artificial nutrition among cancer patients enrolled in palliative home care services

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In this study, patients' views and experiences of using home artificial nutrition, and factors associated with use of home parenteral nutrition (HPN) were investigated. Structured telephone interviews with 620 cancer patients enrolled in 21 palliative home care services were analysed. HPN was more common (11%) than home enteral tube feeding (HETF, 3%). Home artificial nutrition (including HPN and HETF) was usually introduced more than four months before death. Three of four HPN recipients also had oral food intake. HPN use was associated with eating difficulties, nausea/vomiting, and fatigue rather than gastrointestinal problems *per se*. HETF was generally used for patients with problems related to oesophagus and head and neck tumours. In conclusion the results suggest that, contrary to existing guidelines, HPN is used to supplement oral intake, and not only for patients with a non-functioning gastrointestinal tract. *Palliative Medicine* (2009); 23: 556–564

**Key words:** enteral tube feeding; home care services; neoplasm; nutritional support palliative care; parenteral nutrition

## Introduction

Although nutritional problems are common among cancer patients in palliative care, how and when artificial nutritional support should be used remains controversial. There is a lack of research evidence, compounded by a lack of clarity in terminology used in palliative and supportive care.<sup>1,2</sup> Use of parenteral nutrition (PN) in palliative cancer care has predominantly been recommended when the gastrointestinal (GI) tract is non-functional, to avoid patients dying of starvation rather than of cancer *per se*.<sup>3,4</sup> Research on PN in cancer patients has therefore generally focused on total PN, that is, when the patient is fed exclusively via the parenteral route. We found earlier<sup>5</sup> that patients in palliative home care (PHC) receive home parenteral nutrition (HPN) along with oral food intake. This observation was also supported by our recent survey<sup>6</sup> of nutritional support and risk status among 621 cancer patients receiving PHC, in which over half the 69 patients on HPN also used oral nutritional supplements (ONS). These findings are in stark contrast to existing guidelines<sup>7–14</sup> generally recommending home enteral tube feeding (HETF) as

the first option for patients with a functional GI tract in need of artificial nutrition.

This gap between recommendations and clinical empirical research stimulated us to further analyse data from the above-mentioned survey<sup>6</sup> to examine patients' views about and experiences of 1) how artificial nutrition was used, 2) reasons for receiving artificial nutrition and 3) oral intake and problems affecting food intake of patients receiving artificial nutrition. A further aim was to 4) identify factors associated with use of HPN among cancer patients enrolled in PHC services.

## Methods

### Data collection

Data were collected through structured telephone interviews with cancer patients admitted to PHC services in the Stockholm area. These PHC teams enrol patients in need of specialised medical palliative care and who are available around-the-clock 7 days per week. At the time of data collection, there were 21 physician-directed multi-professional PHC services in the Stockholm area. Interviews were conducted in November 2003 and April 2004. Twenty teams participated in the first data collection period and all 21 teams in the second. Ethical approval was received from the relevant research ethics committee.

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