POSTOPERATIVE ARTIFICIAL NUTRITION

Overuse or Misuse?

Cyrille Colin
Denise Lanoir
University Claude Bernard Lyon I

Cecile Chambrier
Hôtel-Dieu, Hospices Civils de Lyon

Joan Wilkinson
Klim McPherson
London School of Hygiene and Tropical Medicine

Paul Bouletreau
Hôtel-Dieu, Hospices Civils de Lyon

The practice of postoperative artificial nutrition (PAN) in elective surgery was covered by a consensus conference in France (December 16, 1994). Artificial nutrition was defined as the intake of at least two macronutrients (protein, lipid, and carbohydrate) through an artificial pathway (enteral/parenteral). The guidelines resulting from the conference (2) recommended prescribing artificial nutrition for only malnourished patients, patients with insufficient postoperative nutrient intake lasting 7 or more days , and patients with severe postoperative complications. These were similar to American guidelines produced in 1993 (1).

We are currently performing a 4-year before/after observational study through 1998 to evaluate the impact of the conference on medical practice. The study included a control group in England. Two samples of patients, one national and the other regional, were collected in France, both before and after the conference. Data were extracted from medical records by the investigators in the national mail survey and by a trained physician in the regional survey (Rhône Alpes). In England, a retrospective cross-sectional sample was collected in four hospitals in London over the same period and with the same data sheets. All of the patients included underwent elective upper or lower abdominal surgery (esophagectomy, gastrectomy, duodenopancreatectomy, colectomy, or rectum resection) in public (61%) or private (39%) hospitals (Table 1).

The most noticeable results observed among the four French data sets were the high rates of artificial nutrition in the postoperative period, especially for non-malnourished patients. In view of the recommendations produced by the consensus conference, these high rates (77–86%) remained unexplained after taking into account age, weight, nutritional status, type of operation, and postoperative fasting period in a logistic regression model. Even though the English data come from a slightly different patient sample, they show a great difference from French practice.

Results show that the consensus conference procedure in France can lead to guidelines that are highly inconsistent with current medical practice. These discrepancies between practice and evidence-based recommendations could arise for two reasons. First, the methodology of the consensus conference remains controversial, and second, the recommendations are based on relatively few clinical trials (4;5;6). Despite these limitations, the recommendations were strongly supported by experts

Table 1. Rate of Prescription for Postoperative Artificial Nutrition for Malnourished and Nonmalnourished Patients (Less Than 10% Weight Loss Over the Last Six Months) in France and England

	Postoperative artificial nutrition rate (June–November 1994)	Postoperative artificial nutrition rate (June–November 1995)
Nonmalnourished patients		
France national	85%	77%
(n, 95% confidence interval)	(505, 82–85)	(301, 74–79)
France-regional	86%	82%
	(111, 82–89)	(160, 79–85)
England-regional	15%	11%
	(47, 10–20)	(47, 6–15)
Malnourished patients		
France-national	94%	81%
	(77, 91–96)	(27, 74–89)
France-regional	100%	81%
	(13, 72–100)	(27, 74–89)
England-regional	24%	37%
	(46, 18–30)	(35, 29–45)

of this field and were particularly clear for postoperative artificial nutrition. Furthermore, these studies were attributed the highest grade of level of evidence on the critical appraisal grid of McMaster University.

Finally, French physicians seem to routinely prescribe postoperative artificial nutrition without taking the patient's nutritional status into consideration. This might be due to encouragement from the firms selling artificial nutrition or to a lack of adequate continuing education. This example shows that large areas of medical practice are still left to the physician's own experience, which leads to variations in practice patterns (3). The effects on patient outcome need to be investigated by large-scale observational studies.

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