Editorial: Tube Feeding Old People*

The process of administering nutritious sustenance through a tube into the gut while avoiding the mouth and swallowing mechanisms is a nice example of collaboration or conflict between health care professionals arising from their medical, ethical and legal concerns. Two recent articles in the *Journal*[1,2] have drawn attention to these concerns and it is timely to analyse them further. When ethical and related legal issues arise in health care, consideration of the underlying medical aspects often clarifies, if not resolves, the dilemmas.

Tube Feeding – How?

Recognizing that many readers of the *Journal* are not clinicians here are some definitions and explanations: *nasogastric tube-feeding* comprises passing a tube (wide-bore or, more usually, narrow-bore) via the nose, over the back of the throat, down the oesophagus and into the stomach; *gastrostomy* (endoscopic, surgical, or radiological) indicates that the feeding tube passes through the abdominal wall directly into the stomach; *jejunostomy* (surgical or endoscopic) means that the end of the tube is placed beyond the stomach and duodenum and into the jejunum.

In *percutaneous endoscopic gastrostomy* (PEG), two of the three currently used techniques involve an endoscopist passing the scope into the stomach, which is sufflated with air, and watching the outcome of a second operator inserting a suture or a guidewire into the stomach through the abdominal wall (hence "percutaneous"). The suture or guidewire is then withdrawn through the mouth and attached to a special catheter. The abdominal operator then pulls the suture/wire with the attached catheter back into the stomach and out through the original incision, The end of the catheter is retained in the stomach and the other end is secured to the abdominal wall with a suture and attached to the feeding tube. A third technique involves passing a Foley catheter directly into the stomach "percutaneously" but under endoscopic control; this obviates the need to traverse the pharynx and mouth (with the potential collection of pathogenic flora). Most patients receive prophylactic antibiotics and the procedure is done under local anaesthetic. In *percutaneous radiological gastrostomy*, the establishment of the gastric tube is guided fluoroscopically rather than endoscopically.[3] A *surgical gastrostomy* is an operation, often done under a general anaesthetic, involving an abdominal incision, opening of the peritoneal cavity and creation of a gastric stoma with firm anchoring of the stomach to the anterior abdominal wall.

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Tube Feeding – Why?

The prerequisites for tube feeding (enteral i.e. via the gut, in contradistinction to parenteral) are well-established, viz. inability to take adequate nutrition orally with a functionally intact gut.[4] In elderly people, common indications are: malnutrition, severe swallowing difficulties (e.g., in stroke, motor neurone disease, Parkinsonism), hypermetabolism (e.g., major trauma). Malnutrition is common in institutionalized old people. This may be part of the principal illness (e.g., cancer) or be secondary to concomitant depression, anorexia-producing drugs, oral problems, prolonged unconsciousness; even fasting before multiple investigations has been cited.[5] A practical problem is that malnutrition itself may produce clinical features (e.g., lethargy, delayed wound healing, poor mobility, respiratory fatigue) which are wrongly attributed to the underlying diseases and therefore no attempt is made to reverse them by treating the malnutrition. Where such reversal is undertaken more rapid rehabilitation, decreased hospital stay and diminished mortality are reported.[6,7,8,9]

Unwanted effects of tube feeding are well recognized: e.g., diarrhoea (often attributed to the strength or rate of administration of the nutrient fluid), extubation by the patient with secondary physical and psychological trauma,[10] aspiration of gastric contents into the respiratory passages with consequent pneumonia,[11,12] inappropriate placement of the nasogastric tube,[13] creation of a reservoir of infection.[14] Martyn-Nemeth & Fitzgerald[15] astutely remind us that tube feeding does not fulfil the psychosocial context of a meal.

Tube Feeding – When?

In acute illness where some degree of recovery can be expected, tube feeding can be supplemental to or substitutionary for oral intake (e.g., swallowing problems following a moderately disabling stroke; Parkinsonism while awaiting change of drug regimen). Park et al.,[16] showed in patients randomised after one month of neurologically induced dysphagia that PEG patients received more of their prescribed nutrients and gained weight compared with those fed via a nasogastric tube. They recommend using nasogastric tube feeding for up to a month with PEG thereafter. These interventions are essentially short-term.

Tube feeding is also justified where the swallowing problem is thought unlikely to improve and where the basic illness or associated conditions are not life-threatening or progressive.[17] Occasionally, stroke patients will regain considerable limb function, be left with a bulbar palsy precluding safe swallowing, and yet are able to manage their own tube feeding.

The "Hard Case"

Ethical and legal concerns are focused on the patient unable to take food

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orally and who has severe disabling illness from which recovery is most unlikely. The underlying pathology may be static (e.g., left hemisphere infarct) or progressive (e.g., multi-infarct dementia, Alzheimer's disease). There may be significant intellectual deficit (e.g., dementias) or little cognitive impairment (e.g., motor neurone disease). The onset of the swallowing problem may be abrupt or gradual – and, thus, foreseeable.

The medical contribution is to define the pathology and prognosis of the causative disease as clearly as can be done. For example, in persistent vegetative state (where all non-vegetative cortical function has ceased), it is reasonable to affirm that the patient has no awareness of his or her current predicament or past circumstances and to predict that no such awareness will ever return. Tube feeding may be indicated following onset to allow time for the diagnosis to be made and confirmed (analogous to haemodialysis allowing time for investigation of acute renal failure). Thereafter tube feeding contributes nothing to the patient's welfare but will prolong – sometimes for many years – the vegetative brain functions of respiration, elimination and circadian rhythms including apparent "awake/asleep" states.

There may be prima facie evidence of the patient's antagonism to proffered oral sustenance (e.g., rejection of being fed by others) or refusal of tube feeding (e.g., repeatedly pulls out the tube). Is such behaviour indicative of depression (and potentially reversible), of dementia – consequent upon the patient's world contracting into terminal inanition, or of anger at loss of personal control or carer's condescension? Is it the carers' behaviours which are causative and hence changeable?

Other health care professionals, principally nurses, recognize and analyse the causes of the patient's behaviour, reflecting their close physical and emotional contact with the patient during the course of the disease. In a sense, the professionals are part of that disease. It is salutary to remember that patients would never have met us or entered our domain apart from their illness so the patient's reaction to the illness may well include the response to the professional.

Families and friends are the principal resources for caring for frail disabled old people. The family usually have a lot more "inside" information and remember the past achievements (and failures) of the patient. The illness may be the presenting tip of an iceberg of family dynamics stretching over many years which preclude a disinterested contribution. Families may not reliably indicate patients' preferences (concerning resuscitation[18] or high-risk procedures).[19] Preyss-Friedman et al.[20] presenting hypothetical clinical vignettes to doctors working in nursing homes found that usually patients' preferences were the most important factor in deciding to employ tube feeding, however 37 per cent would follow families' preferences when these differed from the patients'. They concluded that American litigation and health care costs were important influences. Smith and Wigton[21] (1987) found on cluster analysis three types of response among medical students, housestaff and attending physicians in addition to the overall importance of patient preference. These were: "autonomists" who considered only

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patient and family wishes; "mixed strategists" who included other factors (e.g., expected functional status, life expectance, discomfort from disease); and "paternalists" who gave less weight to patient preferences than to other factors.

The patient has a right to expect explanation of his or her predicament, delineation of prognosis and definition of options for present and future management together with the presumption of her or his ability to make personal decisions in the light of this information.

Unfortunately, "hard case" patients are often unable to appreciate the niceties of diagnosis and prognosis and it is in these very patients that the intended objectives of tube feeding may never be achieved.[22] Indeed, tube feeding may prove burdensome rather than beneficial.[23,24] In some situations, the nature of the underlying disease thwarts recovery from the secondary malnutrition (the cachexias of metastatic cancer and established AIDS, the terminal weight loss of Alzheimer's Disease are examples). In these situations tube feeding is utterly futile. It is not a medical option and hence is not an ethical option. It might be regarded as legally negligent even to mention it!

Is it Caring?

The ethical dilemma arises from the duty to care for the patient and the assumption that the hoped for provision of nutrition via a nasogastric tube constitutes this duty. Caring for terminally ill patients requires considerable skill and effort. For example, the only common symptom of increasing dehydration is that of thirst. This can be adequately remedied with meticulous regular (two hourly) oral hygiene; this regimen also prevents acute parotitis and is demanding of nursing time and energy. Steinbrook and Lo wisely stress the many ways in which carers can express their care (e.g., control of pain and emesis, care of skin and personal hygiene); i.e. artificial feeding is not an essential feature of delivering pertinent care.[25]

The track record of health care professionals is not too reassuring. Kayser-Jones[26] in a devastating anthropological critique castigates inadequate information of institutional carers, coercive behaviour towards patients and deficient communication both between professionals and between professionals and patients/families. Tube feeding has been seen to be undertaken not for patients' benefits but rather to relieve anxiety in carers and relatives.[27]

Starting and Stopping

It is not difficult to decide not to use tube feeding in the patient who has suffered a massive cerebral haemorrhage and is still unconscious two weeks later at a time when peripheral venous access is becoming difficult. Contrariwise, for the stroke victim still profoundly dysphagic two weeks after the stroke yet who is fully alert and showing encouraging evidence of motor

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recovery, increasing postural control and virtually normal muscle tone, it is quite appropriate to proceed to nasogastric tube feeding with the prospect of PEG a month later if enteral feeding is still required and the rest of rehabilitation is progressing satisfactorily.

Consider the patient two weeks after a stroke who is conscious, with a fluctuating level of consciousness, possible cognitive impairment and on the verge of aspiration pneumonia. Patients in such grey areas deserve consideration of a trial of tube feeding. This implies both a decision to start, a time period followed by evaluation to verify that objectives have been achieved, and a willingness to *discontinue* the tube feeding if they are not. In other words, starting tube feeding should not imply permanence and invariable persistence. Elsewhere in medicine treatment is rarely pursued without evidence of some benefit to the patient. Much of medical practice would be compromised if treatment once started could not be stopped – what price empirical inquiry then?

Starting (i.e. not withholding) and stopping (i.e. withdrawing) are morally equivalent in spite of reflecting practical differences in being acts of commission and omission respectively. While this analysis may be rational, the emotional impact of withdrawing treatment must be acknowledged. Initial collaborative consensus on the nature, duration and implications of a trial of tube feeding will help obviate guilt and distress if and when the tube is removed.

Collaboration or Conflict: cui bono?

Unfortunately, the ethical dilemma surrounding tube feeding is often dichotomized into nursing care (seen as "ordinary care") or medical intervention (seen as "extraordinary care"). Real differences are lost (e.g., the evidence that doctors pay more attention to a patient's cognitive function).[28] As indicated above, tube feeding can be futile for and burdensome to the patient – hardly evidence of any kind of caring. This dichotomy may reflect an unrelated theme of professional tension and rivalry as nurses and doctors seek to stake out their territory reminiscent of John Donne's physitians. Such tension and rivalry readily degenerates to polemic, leaving the patient an innocent, but vulnerable, bystander.

The decisions to start and to stop tube feedings work best when they are collaborative and mutually supportive.

Note

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