

## **PALLIATIVE CARE TIPS**

### **Issue # 24      Total Parenteral Nutrition (TPN)**

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#### **BACKGROUND**

Gastrointestinal obstruction, impaired digestion or absorption, altered nutrient metabolism and anorexia-cachexia syndrome may all contribute to malnutrition in the advanced cancer patient (Mackenzie and Gramlich, 2008). Total parenteral nutrition (TPN) is the intravenous administration of nutrients, obviating the need for absorption through the gastrointestinal tract. In a recent review of the Northern Alberta Home Total Parenteral Nutrition (HTPN) Program, advanced cancer patients were identified as the fastest growing indication for enrollment. Bowel obstruction was the most common indication, and ovarian cancer was the most common malignancy, for initiating home parenteral nutrition in this cohort (Soo and Gramlich, 2008). Survival in the northern Alberta cohort of patients started on HTPN for advanced cancer ranges from weeks to years with an average of 3-6 months.

#### **NORTHERN ALBERTA HOME PARENTERAL NUTRITION PROGRAM ELIGIBILITY CRITERIA FOR ONCOLOGY PATIENTS**

1. Oncologic diagnosis
2. At nutritional risk (ie. bowel obstruction, fistula)
3. Estimated life expectancy of at least 6-12 weeks
4. Reasonable quality of life (Karnofsky Performance Status greater than 50)
5. Medical stability
6. Venous access
7. Psychosocial considerations
8. Ability to learn

#### **CLINICAL CONSIDERATIONS**

To date, the evidence supporting the use of TPN as an intervention to improve quality of life and prolong survival in advanced cancer patients have been controversial. In 2009, a Cochrane review concluded that the paucity of methodologically rigorous studies precluded any clinical recommendations with respect to the use of medically assisted nutrition (tube inserted into any part of the gastrointestinal tract or the venous system) for palliative care in adult patients (Good et al, 2009). The limited data from uncontrolled prospective studies would suggest that patients with good performance status and medium to long term prognosis (months to years) may benefit from medically assisted nutrition. From a practical perspective, if individual is expected to die from starvation (6 weeks) before they die from their underlying malignancy, Home TPN may be indicated. Other considerations include the presence of a good support system and palliation of other cancer related symptoms. However, the exact subpopulation of advanced cancer patients who would be appropriate TPN candidates has yet to be defined (Bozzetti, 2007).

TPN-related complications include and are not limited to: central line infection, occlusion, thrombosis, electrolyte abnormalities, hyperglycemia, bacterial translocation across the gastrointestinal tract, and hepatic dysfunction.

The Northern Alberta Home TPN program supports care of clients in their home but patients and their families are expected to be independent with respect to provision of care. Support from palliative homecare is of value in these patients. To facilitate realistic expectations on behalf of the patient, potential for HTPN should be discussed with the HTPN team prior to discussion with the client.

**CONTACT:** For further information about Home TPN, please contact the Northern Alberta Home TPN Program at (780) 735-4236.