



**Service Priorities and Programmes**  
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**To feed or not to feed: case study of home total parental nutrition for encapsulating peritoneal sclerosis patient**

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**Introduction**

Encapsulating peritoneal sclerosis (EPS) is the most severe complication associated with peritoneal dialysis (PD). Symptoms include loss of appetite with nausea, vomiting and poor gut absorption leading to weight loss. It is characterized by recurrent small-bowel obstruction and sclerotic thickening of the peritoneal membrane with high mortality (from 25 to 55%). Medical History Ms. C, a 44 year old lady with End Stage Renal Disease (ESRD) was on self-Automated Peritoneal Dialysis (APD) for 17 years without history of peritonitis. She developed PD failure and has shifted to Haemodialysis (HD) since 2014. She admitted due to frequent vomiting, abdominal pain and diagnosed to have EPS with recurrent Intestinal Obstruction (IO) and Cachexia in May 2017. Naso-gastric tube was inserted for decompression with daily drainage of over 3L of gastric content. Intra-dialytic parental nutrition (IDPN) was prescribed during HD via right arteriovenous fistula (AVF) twice weekly. Despite the above effort, the nutritional status of the patient deteriorated progressively.

**Objectives**

To maintain life and improve her quality of life by providing daily total parental nutrition (TPN) at home on non-HD dates.

**Methodology**

Multi-disciplinary approach with Hickman catheter was inserted by surgeon. Home TPN training program was developed with reference of Canadian TPN program including infection control and asepsis, Hickman catheter care and flushing, use of infusion pump, injection of additives into the TPN solution, emergency management at home etc. Nurse Consultant and an Advanced Practice Nurse were responsible for her intensive training. Surgeon with TPN experience, pharmacist and dietitian assessed and prescribed appropriate parental and enteral nutrition. Community nurse provided home environment recommendation and post training supervision to ensure safe practice at home. Medical day center provided ad hoc Hickman catheter

emergency care when necessary.

### **Result**

She was trained for self-care of TPN in thirteen days and transitional care for independent self-administration of TPN during hospitalization. TPN was adjusted from 24 hours/day to 12 hours/day to improve quality of life. She was discharge in September 2017. She has progressive improvement in her nutritional status. Her Body Weight (BW) increased from 33.5Kg to 42.1kg (8.6kg in 7 months) in December 2017 with the serum albumin increased from 27g/L to 38g/L and also improved in general well-being. Conclusion To feed Ms. C with daily home TPN is crucial to maintain her life and improve her quality of life or else she would die or long stay in hospital. And she becomes the first dialysis patient with EPS for home TPN in Hong Kong.