



Service Priorities and Programmes Electronic Presentations

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First Adult Home Parenteral Nutrition Program-A 18 Years Evaluation

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Introduction

In 1973, Broviac and associates described the indwelling Silastic catheter for home parenteral nutrition (HPN) for it was relatively less thrombosis formation and septic complications. In the past decade, enormous studies concerning HPN on improving patients quality of life, shorten hospital stay and prevention of re-admission solely due to nutrition support or fluid replacement. Therefore, an HPN program was adopted from Nutritional Centre of Hope Hospital (United Kingdom) in Department of Surgery of Queen Mary Hospital in 1999 to meet the needs of this group of patients who required long term nutrition support and fluid replacement. The training programme including education on aseptic technique, Hickman exit site dressing, Heparin lock procedure and TPN infusion procedure. Once patients or carers familiarize with all these procedures, they will be assessed by experienced surgeon and nursing staff on clinical competence. Afterwards, home visit will be organized for modification of home environment for appropriateness of performing this procedure at home.

Objectives

To evaluate the effectiveness and complications of the adopted protocol for patients' with Home Parenteral Nutrition in these 18 years.

Methodology

A retrospective review of clinical data and Hickman catheter complications for patients with HPN from January 1999 to 31 December 2017 (Total 216 months). Data was retrieved from CDARS (Clinical Data Analysis and Reporting System). Inclusion criteria included all HPN patients in Department of Surgery.

Result

From period of January 1999 - 31 December 2017 (Total 216 months), total 33 patients trained in HPN. 35% of them suffered from short gut syndrome, 19% had high output stoma and the others with intestinal fistulas, prolonged ileus, Crohns disease or malignant disease. 64% patients performed the procedure by themselves; 30% by relatives (son, daughter, wife or husband) and 6% by maid. 77% of them required Total Parenteral Nutrition, 15.3% required fluid replacement and 7.7% needed both TPN and fluid replacement. Within these 18 years, 58% patients passed away due to recurrence of malignant disease or other illness, 15% had surgical procedure done and 12% regained health and did not require nutrition or fluid replacement. 5 patients (15%) are still practicing the procedure and the longest period for a single catheter

(days) was from year 1999-2017 (6745 catheter days ~18.5 years). For the Hickman catheter related complications, central line associated blood stream infection (CLABSI) was 0.48 per 1000 catheter days compared with National Healthcare Safety Network Pooled mean of USA (2011) - (0.8 / 1000 catheter-days). The blockage rate was 0.33 per 1000 catheter days which was much less in compare with other the study (7%) performed by Ireton-jones & DeLegge (2005). For tunnel infection, dislodgement, rupture and cuff exposed (0.03, 0.03, 0.09 and 0.09 per 1000 catheter days respectively), there is no recent studies which we could be compared. The low infection and complication rate compared with international level indicated the successfulness of the training program. However, the most important point is our patients can enjoy a better quality of life in their home environment. In addition, hospital resources could be saved for other critically ill patients.