Managing Fluid-Overloaded Peritoneal Dialysis Patients by a Nurse-led Program

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Introduction
Fluid-overload is a common problem in peritoneal dialysis (PD) patients; it can be symptomatic or asymptomatic. A number of previous studies showed that fluid-overload is associated with left ventricular hypertrophy and other adverse cardiac consequences in dialysis patients. Fluid-overload was known to be one of the problems related to inadequate dietary adherence in PD patients. Provide nursing interventions such as individualized patient assessment with counselling could improve patient adherence. A nurse-led program was developed to manage fluid-overload PD patients with an aim to improve treatment adherence and correct fluid-overload condition in PD patients.

Objectives
1. To develop a nurse-led program to manage fluid-overload PD patients.  
2. To promote treatment adherence in PD patients.  
3. To correct fluid-overload conditions in PD patients.  
4. To avoid unnecessary admission of fluid-overload PD patients.

Methodology
PD patients would enter the program if they were diagnosed to have fluid-overload by means of routine bioimpedance spectroscopy (BIS) measurements or presence of fluid-overload symptoms. The patients would be managed and monitored in renal nurse clinic for at least 3 months. Renal nurses would provide nursing interventions including individual patient counselling and education according to the assessments. In symptomatic fluid-overload PD patients, renal nurses would also provide protocol driven management according to the assessments.

Result
1. More than 100 PD patients who were diagnosed to have fluid-overload had joined the program, 96 patients completed the nurse-led program till 31 December 2015.  
2. We found an improvement in the fluid status (by means of BIS measurements) in 77% of the symptomatic PD patients and 71% of the asymptomatic PD patients.  
3. The symptomatic fluid-overload PD patients in the program were treated in out-patient bases and had avoided in-patient ward admissions.  
4. Implementation of nursing
interventions in asymptomatic fluid-overload PD patients had prevented them from deteriorating to symptomatic fluid-overload.