Workflow Enhancement in Fast track Renal Cognitive Service for Peritoneal Dialysis patients

Lee Alice (1), Wan SH (1), Hui YH (2), Chan KH (2), Wong SH (3)
(1) Occupational Therapy Department (2) Nursing Service Department (3) Renal Unit, Department of Medicine & Geriatrics, United Christian Hospital

Introduction
Cognitive impairment is associated with an increased risk for peritoneal dialysis (PD)-associated peritonitis and dialysis withdrawal. Therefore early detection of cognitive impairment in PD patient is crucial to the dialysis planning. The demand for Pre-PD cognitive assessment is increasing drastically in the Occupational Therapy (OT) department of UCH with an average waiting time of 16 weeks in 2015. This could be detrimental in the dialysis planning and outcomes. In order to manage the long waiting time and to facilitate timely cognitive assessment for better clinical outcome, a fast track cognitive service involving OT department and M&G Renal team was established and has been implemented since Oct 2015 to shorten the waiting time. The workflow of renal cognitive service by Occupational Therapist was amended accordingly.

Objectives
(1) To evaluate the effectiveness of fast track cognitive service in reduction of the waiting time for Pre-PD patients referred from M&G Renal team.
(2) To provide early OT intervention in order to facilitate early dialysis planning.

Methodology
Enhancement 1: Shortening of waiting time for early OT intervention
To avoid unnecessary treatment delay induced by scheduling of appointments in different parties, patient who was recommended to have peritoneal dialysis and suspected to have cognitive impairment could be referred directly from Renal Nurse-led Clinic. Various assessments including comprehensive cognitive and hand function assessment would be offered by the designated therapist within 4 weeks post
referral received and prior to dialysis training.

Enhancement 2: Dialysis planning through team work
Standardized cognitive assessments including Montreal Cognitive Assessment Hong Kong version (HK-MoCA) and Trail Making Test (TMT) Parts A & B were used to evaluate the potential of learning PD technique. The results of patient's cognitive profile are important when renal nurse consolidating patient's dialysis plan and for early risk identification of dialysis withdrawal or PD-associated peritonitis.

**Result**

**Result & Outcome**
From October 2015 to December 2016, a total of 42 patients were assessed by OT. Waiting time for the renal cognitive service had been shortened from average 16 weeks to average 2-4 weeks. All patients completed OT assessment before PD training. Assessment result indicated that 38.1% (n=16) had adequate cognitive function to learn PD technique, 33.3% (n= 14) had cognitive impairments and were recommended to have helper support in PD and further cognitive rehabilitation. 28.5% (n=12) not opted for PD eventually.

It was concluded that this workflow enhancement in OT renal cognitive service could effectively reduce waiting time and facilitate early intervention in dialysis planning for PD patients.