Self-management Intervention Program on Sleep Disturbance and Fatigue Distress for Hepatocellular Carcinoma (HCC) Patients Receiving Transarterial Chemo-embolization (TACE)

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Introduction
Every year there are around 200 HCC patients receiving TACE in TMH, and majority of them had sedentary lifestyle result from fatigue. Data from a recent study in China indicated that HCC patients had sleep disturbance after TACE (Cao W., et al., 2013). Sleep disturbance and fatigue are interrelated and affecting daily living. Systematic reviews had showed that educational interventions could have a moderate effect on reducing cancer related fatigue (Bennett S, et al., 2016). To develop strategies to assess and educate on self-management skills to mitigate fatigue and sleep problems for HCC patients are important.

Objectives
To set up protocol to assess and arrange educational interventions to HCC patients with sleep problems and fatigue distress.

Methodology
The HCC patients pending TACE will attend the Interventional Radiological Nurse Clinic one week prior to the procedure. The hepatobiliary nurse will be the coordinator of the program, and prepare a one-week patient list to occupational therapist on every Friday. The occupational therapist will then arrange one treatment session to the patients within 48 hours while they are admitted for TACE. Patients will be interviewed and assessed on the fatigue and sleep problems symptoms. Sleep efficiency (SE) is used to assess the sleep problem of patients, which is a simple tool that can be administered in around 5 minutes. In addition, the daily life patterns of patients, different aspects which constitute fatigue are also explored. Individualized self-management skills on fatigue reduction will be provided when necessary.
**Result**
By convenience sampling, 97 patients who had finished the program were reviewed retrospectively. There were 10 female and 87 male patients, mean age of 62.3 years old. Fifty-six patients (57.7%) had unsatisfactory sleep efficiency and resulted in fatigue distress. Individualized fatigue reduction strategies including sleep hygiene, sleep restriction, relaxation training and suggestions on maintaining moderate intensity activity were advised.

**Conclusion**
With the escalating increase of cancer patients, to conduct structured and comprehensive rehabilitation program for all patients is not possible. Using simple assessment tool to identify patients’ problems and educate on self-management skills may be a cost-effective intervention. Better team coordination among different disciplines can streamline the process and delivery of patient treatment will be more effective.