



**Service Priorities and Programmes**  
**Electronic Presentations**

**Convention ID:** 874

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**Early Nurse Assessment is Effective in Improving Treatment Outcome in Subjects with Obstructive Sleep Apnea**

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**Keywords:**

Early  
Nurse  
Assessment  
Improving  
Treatment  
Outcome

**Introduction**

Obstructive sleep apnea (OSA) leads to hypertension, impaired cognitive function, impaired quality-of-life and marital relationship, and higher risk of motor car accidents. Positive airway pressure (PAP) therapy remains the gold standard in treatment of adult moderate-to-severe OSA. However, the expected benefits of PAP therapy are frequently not achieved, due to suboptimal acceptance and adherence to the therapy.

**Objectives**

- (1) To improve treatment compliance in subjects with OSA prescribed PAP therapy
- (2) To establish a nurse assessment model to achieve the above objective with the aim of coping with the escalating service demand while addressing the issue of cost containment

**Methodology**

Structured PAP education was conducted by nurses upon PAP prescription by doctors to subjects with confirmed OSA on sleep studies since 2013. Prior to June 2016, subjects were arranged the first follow up with doctor and nurse assessments at 16-20 weeks.(model 1) Earlier follow-up was almost not feasible due to constraint in manpower, and the increasing service demand. Pilot model of standalone nurse assessment was started in June 2016, providing timely support and trouble-shooting to subjects newly on PAP therapy at 4-8 weeks.(model 2) T-test was used to compare the outcomes between model 1 and 2.

**Result**

Between April 2015 to May 2016 (model 1), 264 subjects were initiated on PAP therapy, and were advised to come back for combined doctor and nurse follow-up. Despite intensive education, the attendance of first follow-up was 68%. Among the first follow-up attendees, 64% had attained and was using PAP devices. Among the PAP users, 34% fulfilled the definition of 'good adherence' (using PAP at least 4 hours

per night for more than 70% of the nights in a month). After commencement of early nurse assessment model (model 2), the attendance of first follow-up was 71% (n=247)( $p=0.513$ ) from June 2016 to May 2017. Among the first follow-up attendees, 72% had attained and was using PAP devices.( $p=0.102$ ) Among the PAP users, subjects fulfilling the definition of 'good adherence' improved to 72%.( $p<0.001$ )