

**Title:**

Emerging Nursing Roles in Collaborative Management of Sleep-Disordered Breathing and Obstructive Sleep Apnea (OSA)

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**Session Title:**

Evidence-Based Initiatives on Sleep

**Slot:**

O 02: Sunday, 30 July 2017: 1:15 PM-2:00 PM

**Scheduled Time:**

1:35 PM

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**Keywords:**

Continuous positive airway pressure, Emerging Role for Specialist Nurse Practitioner and Obstructive Sleep Apnoea

**References:**

1. Cumann Codhladh na h Eireann: Guidelines for the Assessment and Management of Patients with Sleep Disorders. Version 2 2015.[www.irishsleepsociety.org/Irish Sleep Society](http://www.irishsleepsociety.org/Irish Sleep Society).
2. McNicholas W: Sleep apnea a disease calling for attention *J Thorac Dis.* 2014 Feb; 6(2): 170–173.
3. Aurora RN, Collop NA, Jacobowitz O, Thomas SM, Quan SF, Aronsky AJ. Quality measures for the care of adult patients with obstructive sleep apnea. *J Clin Sleep Med* 2015;11(3):357–383.
4. Vanderveken OM, Dieltjens M, Wouters K, De Backer WA, Van de Heyning PH, Braem MJ. Objective measurement of compliance during oral appliance therapy for sleep-disordered breathing. *Thorax* 2013; 68:91-6.

**Abstract Summary:**

This session will outline the emerging collaborative role of the specialist nurse practitioner in the management of sleep-disordered breathing complaints. The clinical significance and management of OSA and an emerging role for the specialist nurse practitioner in the collaborative care of the target patient population will be proposed.

**Learning Activity:**

LEARNING OBJECTIVES	EXPANDED CONTENT OUTLINE
The learner will understand growing importance of sleep medicine as a global health concern.	Presenters will share international data related to the public policy aspects of sleep apnoea and its effect on downstream organ damage, morbidity and mortality, traffic and workplace accidents, etc. if left undiagnosed and treated.

The learner will gain perspective as to why specialist nurse practitioner skill sets are necessary and have a central role in the collaborative and efficient design of a service delivery platform for ongoing delivery of care to the target OSA patient cohort.	Presenters will share outcomes associated with this new and yet evolving nursing practice through competencies, facilities, protocols and service delivery platforms that demonstrate how and why specialist nurse practitioners are ideally positioned to provide care to this important patient population.
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## Abstract Text:

### Background

Current concepts in the rapidly expanding field of sleep medicine, specifically Obstructive Sleep Apnoea (OSA) management, provide a significant challenge to already overburdened healthcare demands internationally. Sleep related medical disorders are highly prevalent reportedly affecting at least 4% of the adult population alone. An overview of the physiology and significance of sleep disordered breathing speaks to the current modern understanding of this chronic disease process. The data regarding the incidence and prevalence of OSA highlights the growing significance of the condition and the potential for downstream organ damage effects if left undiagnosed or untreated. Sleep apnoea is known to be associated with significant morbidity and mortality and has a demonstrated association with heightened risk of cardiovascular and cerebrovascular events. From a public policy perspective the documented increased risks of sufferers being involved in road traffic accidents and workplace accidents when the condition is not recognised, or left untreated, is a growing concern.

Known risk factors have contributed to the development of several screening protocols that can help identify potential patient populations in a relatively cost efficient manner. Once preliminary screening is complete, polysomnography (PSG) sleep laboratory based studies, can be carried out where merited. This is especially true for suspected severe presentations of this condition. PSG remains the gold standard for definitive diagnosis and categorisation of sleep disordered breathing conditions. More recently due to the significant logistical and economic constraints of sleep laboratory facility availability, physician overseen and reported home sleep testing (HST) has been introduced. These more limited studies provide less comprehensive data but through the development of newer technologies are now becoming more commonplace.

### Methodology

Once physician lead medical diagnosis of OSA, and its relative severity, has been made, various therapeutic approaches can be prescribed. These can include lifestyle and behavioural changes, frequently with associated weight management, alongside standard mainstream therapeutic interventions. Currently continuous positive airway pressure (CPAP) and variations such as nasal CPAP, are the gold standard for management of diagnosed OSA especially in more severe spectrum presentations. Due however to documented difficulty with CPAP compliance on an ongoing basis for some patients, alternative oral appliance therapy (OAT) can also be requested by a treating physician and onward referral to a dental specialist made. OAT consists of specific custom fabricated dental appliances designed to dilate the upper airway while sleeping that can provide a viable, validated, therapeutic approach. While mean disease alleviation (MDA) levels for OAT compared to CPAP are reported as approximately 56-64%. In many instances these devices are less obtrusive and better tolerated by patients and subsequently used more consistently nightly by patients on an ongoing long-term basis.

Evolving nursing practice in this area currently focuses on the collaborative management of various manifestations of sleep disordered breathing in partnership with physicians, surgeons, specialist dentists and other allied healthcare professionals. Definitions of professional (nursing) roles and competencies in

this field are however required. Quality care requires safe, timely, effective and efficient delivery of diagnostic and interventional treatment modalities. Organisational considerations include establishment of inclusive healthcare professional network with appropriate facilities models. This allows the establishment and subsequent codifying of the most up to date sleep medicine protocols. These protocols can then be deployed for the benefit of the greatest number of patients through the designing of an effective service delivery platform.

## Results

The expanding role of the specialist/advanced nurse practitioner is a key central feature of this evolving service delivery architecture and can help maintain the focus on a more patient-centred approach. This is achieved by providing continuity and oversight of screening modalities, diagnostic and monitoring prescribed treatment intervention outcomes. Various existing and emerging diagnostic and treatment interventions, and, new digital technologies will of course influence and hopefully streamline key service delivery options providing appropriate metrics for continuous outcome data evaluation.

In the field of sleep medicine therapeutic interventions and outcomes require demonstrated adherence to prescribed therapies. Due to the progressive nature of OSA, protocols detailing ongoing monitoring of adherence and efficacy are essential aspects of the longer-term successful management of this condition. Data compilation here must also be carried out in a cost-effective, efficient, equitable and timely manner. OSA is a chronic illness and therapies must also adapt to changing personal circumstances, in for example the natural ageing process, in delivering predictable outcomes for our patients on an ongoing basis.

## Conclusion

Specialist nurse practitioners with specific knowledge based skill sets and experience, when provided with the necessary technological and organisational resources are ideally positioned to collaborate and will have a central role in the delivery of the highest levels of quality care to this target patient OSA cohort, on an ongoing basis.