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DENTAL SLEEP MEDICINE TRACK

FULL TRACK RUNS SATURDAY - TUESDAY

DENTAL TRACK OVERVIEW

TYPE	DAY	TITLE	HOURS
 COURSE	Saturday	Dental sleep medicine Part 1	8:30am - 5:00pm
 COURSE	Sunday	Dental sleep medicine Part 2	8:30am - 12:50pm
SYMPOSIUM	Monday	Prognostic value of the different available methods for upfront prediction of treatment outcome with non-CPAP therapy towards a more personalized treatment of obstructive sleep apnea	9:00am - 10:30am
SYMPOSIUM	Monday	Treatment modalities for sleep apnea patients with complex comorbidities	10:45am - 12:15pm
KEYNOTE	Monday	Oral appliance therapy for obstructive sleep apnea: Ready for prime time	2:00pm - 2:45pm
SYMPOSIUM	Monday	Imaging and sleep apnea: Can we predict the presence of disease and treatment outcomes?	3:00pm - 4:30pm
SYMPOSIUM	Monday	Advances in precision application of dental appliances: Indications, design, and prognostic risk	4:30pm - 6:00pm
SYMPOSIUM	Tuesday	Combination therapy approaches for OSA: Can we improve effectiveness?	9:00am - 10:30am

19.25 HOURS OF DENTAL CONTENT INCLUDED IN THE WORLD SLEEP 2019 FINAL SCIENTIFIC PROGRAM



DENTAL COURSES

C17 Dental Sleep Medicine

Full Day + Half Day Course

FULL: Saturday, September 21, 2019

HALF: Sunday, September 22, 2019

Room 224 | Chair Fernanda Almeida (Canada)

Summary

The two most common and effective therapies used to treat sleep apnea are: (1) Continuous or Automatic Positive Airway Pressure (PAP), and (2) Oral Appliances. Dental Sleep Medicine is one of the fastest growing fields in dentistry, with large numbers of individuals with sleep apnea being treated with oral appliances.

This full day + half day course will be focused on oral appliance therapy for the treatment of sleep apnea, as well as touching on other areas in dental sleep medicine, like pediatric sleep apnea and bruxism. This is a clinically-focused and evidence-based continuing education program combining worldwide experts to bring to attendees the newest knowledge and its application to clinical practice. The course will be divided into lectures on the first day and lectures with discussion panels for the second day.

REGISTRATION OPTIONS:

Dental Course Only	\$275
Dental Course + Monday & Tuesday Symposia	\$450
Dental Course + Congress Registration (Member)	\$670

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DENTAL COURSE AGENDA | FULL DAY, PART 1 | SATURDAY, SEPTEMBER 21, 2019

8:30am – 8:40am

Welcome

Fernanda Almeida (Canada)

8:40am – 9:10am

Treatment of mild OSA: Should I bother treating it?

Raphael Heinzer (Switzerland)

9:10am – 9:40am

CV consequences of OSA: Can we rely on PSG data, biomarkers or symptoms?

Sanjay R. Patel (United States)

9:40am – 10:10am

Impact of oral appliance on CV and diabetes

Tea Galic (Croatia)

10:10am – 10:30am

Coffee break

10:30am – 11:00am

Oral appliance in edentulous and almost edentulous patients

Marc Braem (Belgium)

11:00am – 11:30am

Pregnancy and impact of OSA: Can we use oral appliances?

Sushmita Pamidi (Canada)

11:30am – 12:00pm

Pediatric OSA and craniofacial characteristics – findings of the PDSA trial

Benjamin Pliska (Canada)

12:00pm – 12:30pm

History of oral appliance therapy

Gail Demko (United States)

12:30pm – 1:30pm

Lunch break

1:30pm – 2:00pm

Mean Disease alleviation and compliance

Kate Sutherland (Australia)

2:00pm – 2:30pm

Predictors of oral appliance therapy: Are the answers all on the upper airway

Peter Cistulli (Australia)

2:30pm – 3:00pm

Patient management before and after OA insertion

John Tucker (United States)

3:00pm – 3:30pm

Break

3:30pm – 4:00pm

Periodontal disease as a comorbidity or side effects on oral appliance therapy

Fernanda Almeida (Canada)

4:00pm – 4:30pm

Evaluating and applying the evidence around oral appliance therapy

Leslie Dort (Canada)

4:30pm – 5:00pm

The past and the future of DSM: Get your questions answered by Alan Lowe

Alan Lowe (Canada)



DENTAL COURSE AGENDA | HALF DAY, PART 2 | SUNDAY, SEPTEMBER 22, 2019

8:30am – 8:50am

Alternative, emerging and combination therapies: Phenotyping and its relevance to dental sleep medicine

Danny Eckert (Australia)

8:50am – 9:10am

Oral appliance and oxygen therapy: Distinct or complimentary interventions?

Scott Sands (United States)

9:10am – 9:30am

Cannabis, bruxism and OSA: Where is the smoke?

Gilles Lavigne (Canada)

9:30am – 9:50am

CPAP, position training and other combination therapies to OAT

Marijke Dieltjens (Belgium)

9:50am – 10:20am

Discussion panel: The pros and cons of combination therapy

Fernanda Almeida (Canada); Danny Eckert (Australia); Scott Sands (United States); Gilles Lavigne (Canada); Marijke Dieltjens (Belgium)

10:20am – 10:40am

Coffee break

10:40am – 11:00am

The latest questions on oral appliance therapy bruxism and OSA, association or causality? How to treat?

Ramesh Balasubramaniam (Australia)

11:00am – 11:20am

Titration - is just a little too little?

Satoru Tsuiki (Japan)

11:20am – 11:50am

Status of bite changes and management

Julia Cohen-Levy (France)

11:50am – 12:10pm

Long term effectiveness of OAT

Marie Marklund (Sweden)

12:10pm – 12:50pm

Panel discussion: Get your clinical question addressed by a researcher

Leslie Dort (Canada); Ramesh Balasubramaniam (Australia); Satoru Tsuiki (Japan); Julia Cohen-Levy (France); Marie Marklund (Sweden)



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■ **Prognostic value of the different available methods for upfront prediction of treatment outcome with non-CPAP therapy towards a more personalized treatment of obstructive sleep apnea**

9:00am – 10:30am | Room 119

Summary Obstructive sleep apnea (OSA) is increasingly recognized as a complex and heterogeneous disorder in terms of its causes, clinical expression and susceptibility to comorbidities. This poses challenges for a one-size-fits-all management approach to treat this disease, hence it represents an opportunity to tailor treatment to the individual patient. The pathophysiological traits of OSA comprise three phenotypical traits, one anatomical trait and one element fitting both the phenotypical and anatomical traits being the narrow, collapsible upper airway.

The different lectures within this symposium will focus on the assessment of these anatomical and phenotypical traits with various techniques, including different imaging techniques, endoscopy, multimodal techniques, remotely controlled mandibular protrusion technology, and, various types of phenotyping, based on data obtained during awake state, drug-induced sedation or natural sleep. The emerging evidence on the application of these different available methods in terms of predictive power for upfront prediction of non-CPAP treatment outcome will be reviewed, including recent results on innovative techniques including dynamic magnetic resonance imaging, feedback-controlled mandibular positioner, and non-invasive assessment of pathophysiological OSA traits derived from polysomnographic signals.

Chair *Marie Marklund (Sweden)*

4:30pm – 4:32pm

Introduction

4:32pm – 4:48pm

What have we learned from the past about prediction of treatment outcome with non-CPAP treatment for sleep-related breathing disorders

Marc Braem (Belgium)

4:48pm – 5:04pm

The application of imaging to extract anatomical predictors of non-CPAP treatment success

Richard Schwab (United States)

5:04pm – 5:20pm

Multimodal prediction: Awake versus sleep-related assessments

Peter Cistulli (Australia)

5:20pm – 5:36pm

Feedback-Controlled Mandibular Positioner (F-RCMP) to predict oral appliance therapy outcome

Shouresh Charkhandeh (Canada)

5:36pm – 5:52pm

The role of pathophysiological phenotyping in predicting therapeutic outcome with upper airway stimulation and mandibular advancement device treatment

Olivier Vanderveken (Belgium)

5:52pm – 6:00pm

Conclusion

■ **Treatment modalities for sleep apnea patients with complex comorbidities**

10:45am – 12:15pm | Room 119

Summary This symposium is focused on the clinical aspects of evaluation and treatment of patients with sleep apnea and other concomitant complex health issues. While traditional approaches to the treatment of sleep apnea are well described in the literature, when it comes to complex patients, the personalized approach is often a case by case decision. The session will describe the literature supporting the evaluation and treatment approach and other specific personalized approaches. CPAP use in psychiatric population and patients heart failure will be assessed and discussed. In the diabetic population, a team treatment approach will be examine, focused on treatment and ideal biomarker to assess outcomes. Oral appliance treatment role in the treatment of the above described diseases and more in depth in diabetes and periodontal disease will discussed.

Chair *Hiroko Tsuda (Japan)*

10:45am – 10:47am

Introduction

10:47am – 11:03am

Incidence and treatment of OSA in the psychiatric population

Nathaniel Marshall (Australia)

11:03am – 11:19am

CPAP treatment for patients with heart failure

John Fleetham (Canada)

11:19am – 11:35am

Does CPAP improve diabetes outcomes in OSA patients?

Sushmita Pamidi (Canada)

11:35am – 11:51am

Oral appliances outcomes in diabetes and other complex cases

Tea Galic (Croatia)

11:51am – 12:07pm

Incidence of periodontal disease and treatment implications:

Mask and oral appliance fitting

Lizzie Hill (United Kingdom)

12:07pm – 12:15pm

Conclusion

KEYNOTE SPEAKER



■ **K03: Oral appliance therapy for obstructive sleep apnea: Ready for prime time**

2:00pm – 2:45pm | Room 118

Keynote *Peter Cistulli, MD, PhD (Australia)*

Summary Oral appliances (OA) have emerged as the leading alternative to positive airway pressure (PAP) for Obstructive Sleep Apnoea (OSA) treatment. There is a strong evidence base demonstrating OA therapy improves OSA in the majority of patients, including some with more severe disease. They are generally well tolerated, and patients often prefer OA over PAP treatment. Despite the superior efficacy of PAP over OA, randomized controlled trials comparing the two indicate similar improvement in health outcomes such, as sleepiness, quality of life, driving performance, blood pressure, and other cardiovascular measures. The evidence base strongly supports the use of OA therapy in the management of OSA.



MONDAY, SEPTEMBER 23, 2019 | ROOM 119

■ **Imaging and sleep apnea: Can we predict the presence of disease and treatment outcome** | 3:00pm – 4:30pm | Room 119

Summary During this symposium advanced imaging techniques used for screening and prediction of treatment outcomes will be described. Simple smart phone photography accuracy in the screening of OSA will be described and the supporting literature will be discussed. Many forms of imaging have been used over the years in the search of phenotyping children and adults with OSA. Discussions of the identification of bony restriction or excess of soft tissue around the upper airway is highly important for the better understanding of future target treatment approaches and prevention of the disease. Imaging today is also used to identify function and non-static assessment of the upper airway musculature shows important insights of the disease, treatment options and outcomes.

Chair *Fernanda Almeida (Canada)*

3:00pm – 3:02pm

Introduction

3:02pm – 3:22pm

Photography for the evaluation of facial profiles in obstructive sleep apnea

Kate Sutherland (Australia)

3:22pm – 3:42pm

Facial characteristics of children with OSA: Results of the PDSA cohort study

Fernanda Almeida (Canada)

3:42pm – 4:02pm

TAG-MRI phenotyping and predicting treatment outcomes

Peter Cistulli (Australia)

4:02pm – 4:22pm

The role of CBCT in the diagnosis and oral appliance treatment outcome

Bingshuang Zou (Canada)

4:22pm – 4:30pm

Conclusion

■ **Advances in precision application of dental appliances: Indications, design, and prognostic risk**

4:30pm – 6:00pm | Room 119

Summary The clinical application of oral appliances has entered a more precise and refined stage. It plays an effective role in the treatment of various sleep-related breathing disorders, not only the obstructive sleep apnea syndrome. When considering indications, we should fully weigh the side effects and risks. Together, these constitute suitable objects for oral appliances. For adapting to the witness group, we should find ways to enhance the effectiveness and comfort of the two aspects. As a therapeutic method based on morphological changes, a large number of morphological analysis will appear in this section.

Chair *Fernanda Almeida (Canada)*

4:30pm – 4:32pm

Introduction

4:32pm – 4:48pm

Oral appliance for Downs Syndrome

Fernanda Almeida (Canada)

4:48pm – 5:04pm

Application of oral appliance in Catathrenia (groaning):

Long-term follow-up of oral therapy on OSA

Xuemei Gao (China)

5:04pm – 5:20pm

Mechanism and efficacy of magnetic levitation mandibular elevator in treatment of obstructive sleep apnea syndrome

Xilong Zhang (China)

5:20pm – 5:36pm

Prediction in obstructive sleep apnoea: Diagnosis, comorbidity risk, and treatment outcomes

Kate Sutherland (Australia)

5:36pm – 5:52pm

3D imaging application in OSA

Bingshuang Zou (Canada)

5:52pm – 6:00pm

Conclusion

TUESDAY, SEPTEMBER 24, 2019 | ROOM 212

■ **Combination therapy approaches for OSA: Can we improve effectiveness?** | 9:00am – 10:30am | Room 212

Summary OSA is a highly prevalent condition associated with daytime symptoms and cardiovascular and metabolic risk. However, available therapy options for OSA come with various therapeutic limitations. Standard care remains CPAP, a highly efficacious therapy but with the well-recognized limitation that a large proportion of OSA patients use it at suboptimal levels to achieve health effects, or abandon it altogether. Alternative therapies often fair better on patient adherence and preference. However, most alternative therapies do not eliminate all apneic events, leaving some level of residual OSA in most patients. Given that no single treatment is 'perfect', there is scope for combination therapy approaches to OSA treatment to improve treatment effectiveness. Combination therapy approaches can involve adjuncts to standard CPAP to improve effectiveness and meet patient needs.

Additionally, alternative therapies not completely efficacious on their own, can be combined to better eliminate the disease. Novel opportunities for combination therapies targeting non-anatomical pathophysiology are also emerging. This symposium will highlight advances in combination therapy approaches to OSA therapy.

Chair *Kate Sutherland (Australia)*

9:00am – 9:02am

Introduction

9:02am – 9:18am

Combining the two main device therapies: CPAP and oral appliances

Fernanda Almeida (Canada)

9:18am – 9:34am

Targeting both jaw and body position in supine OSA: Oral appliances and positional therapy

Marijke Dieltjens (Belgium)

9:34am – 9:50am

Lifestyle intervention combined with OSA device treatment: CPAP and weight loss

Craig Phillips (Australia)

9:50am – 10:06am

Targeting pathophysiological mechanisms for combination therapy options

Scott Sands (United States)

10:06am – 10:22am

Combination drug therapy for the upper airway muscles

Luigi Taranto Montemurro (United States)

10:22am – 10:30am

Conclusion