

SLEEP and BREATHING

The seventh international conference organised by the European Respiratory Society (ERS) and the European Sleep Research Society (ESRS)

April 20-22, 2023 Prague

www.sleepandbreathing.org



Aquarius Session 09:00 - 11:30*Registration for this session is additional to the conference registration fee***Skills workshop: Diagnostic techniques for adults and children**

Aims : to demonstrate how to perform and interpret sleep studies in both adults and children; to highlight the differences between paediatric and adult polysomnography and polygraphy including the complexities of sleep and respiratory testing along with the limitations, advantages, and pitfalls; to explain how to recognise when different scoring rules should be applied depending on the age of a patient; to explain how to evaluate daytime sleepiness based on self-assessment questionnaires, technical tests and electrophysiological tests.

Tag(s) : Clinical assessment**Chairs :** Chair to be confirmed**Introduction**

Speaker to be confirmed

Workstation 1: Setting up polysomnography and polygraphy in adults and children

Speaker to be confirmed

Workstation 2: Interpreting polysomnography and polygraphy in children

Athanasios G. Kaditis (Athens, Greece), Speaker to be confirmed

Workstation 3: Interpreting polysomnography and polygraphy in adults

Speaker to be confirmed

Workstation 4: Evaluation of daytime sleepiness

Speaker to be confirmed

Leo Session 15:15 - 17:45*Registration for this session is additional to the conference registration fee***Skills workshop: Continuous positive airway pressure and noninvasive ventilation**

Aims : to describe different types of positive pressure airway therapy; to assess the appropriate use of the different therapies; to list different types of positive pressure interfaces and discuss how these may suit different patients; to explain the concepts of compliance and adherence; to explain how to initiate continuous positive airway pressure and select the appropriate device and interface.

Tag(s) : Treatment and follow up**Chairs :** Chair to be confirmed**Introduction**

Speaker to be confirmed

Workstation 1: Different positive airway pressure modes in non-invasive ventilation

Speaker to be confirmed

Workstation 2: Overview of different types of masks

Speaker to be confirmed

Workstation 3: Solutions for humidification and overview of different heated tubes

Speaker to be confirmed

Workstation 4: Titration and equipment for monitoring compliance**Meridian** Session 08:30 - 10:00**Symposium: Opening session: sleep year in review****Tag(s) :** Respiratory conditions, Non respiratory conditions, Paediatric**Chairs :** Maria Bonsignore (Palermo, Italy), Dirk A.A. Pevernagie (Gent, Belgium)

08:30 **Hot topics in sleep disordered breathing**
Sophia E. Schiza (Heraklion, Greece)

08:50 **Hot topics in sleep medicine**
Sebastiaan Overeem (, Netherlands)

09:10 **Hot topics in paediatric sleep**
Brigitte Fauroux (Paris, France)

09:30 **Discussion and Q&A**

Meridian **Session** **10:30 - 12:00****Symposium: Biological clocks and multiple effects of circadian misalignment****Tag(s)** : Non respiratory conditions, Clinical assessment**Chairs** : Lino Nobili (Genoa, Italy), Erna Sif Arnardóttir (Reykjavik, Iceland)

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|--------------|--|
| 10:30 | The human clock timing system and clinical assessment of chronotype
Sara Montagnese (, Italy) |
| 10:50 | Multiple effects of circadian misalignment on sleep, metabolism, immune responses and cardiovascular function
Laura Kervezee (Leiden, Netherlands) |
| 11:10 | Chronobiotic strategies to correct circadian misalignment
Debra Skene (Guildford (Surrey), United Kingdom) |
| 11:30 | Discussion and Q&A |

Zenit **Session** **10:30 - 12:00****Symposium: From pathophysiological traits to new concepts of obstructive sleep apnoea treatment****Part I. Background: evidence and concepts****Tag(s)** : Respiratory conditions**Chairs** : Maria Bonsignore (Palermo, Italy), Sophia E. Schiza (Heraklion, Greece)

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| 10:30 | Obstructive sleep apnoea endotypes
Ludovico Messineo (Boston, United States) |
| 10:50 | Rostral fluid shift in obstructive sleep apnoea and central sleep apnoea
Stefania Redolfi (Cagliari, Italy) |
| 11:10 | Active and passive collapsibility of the airways (cases)
Dries Testelmans (Leuven, Belgium) |
| 11:30 | Discussion and Q&A |

Nadir **Session** **10:30 - 12:00****Symposium: New ideas in neuromuscular disease in adults and children****Tag(s)** : Respiratory conditions**Chairs** : Refika Hamutcu Ersu (Ottawa, Canada), Walter McNicholas (Dublin, Ireland)

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|--------------|--|
| 10:30 | New therapeutic approaches and their impact on disease natural history
Hui Leng Tan (London, United Kingdom) |
| 10:50 | Optimal ventilatory support in amyotrophic lateral sclerosis - where are we now?
João Carlos Winck (Vila Nova de Gaia, Portugal) |
| 11:10 | How did COVID impact patients with neuromuscular disease?
Anita Simonds (London, United Kingdom) |
| 11:30 | Discussion and Q&A |

Meridian **Session** **12:15 - 13:15****Meet the Expert: Chronic insomnia: state of the science****Tag(s)** : Non respiratory conditions, Treatment and follow up, Physiology and anatomy**Chairs** : Dieter Riemann (Freiburg, Germany), Elisabeth Hertenstein (Bern, Switzerland)

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|--------------|--|
| 12:15 | Insomnia: definition, diagnosis and pathophysiology
Dieter Riemann (Freiburg, Germany) |
| 12:35 | Treatment of insomnia: focus on cognitive-behavioural strategies
Elisabeth Hertenstein (Bern, Switzerland) |
| 12:55 | Discussion and Q&A |

Zenit Session 12:15 - 13:15**Pro and con debate: Continuous positive airway pressure or non-invasive ventilation: an indication related to obesity hypoventilation syndrome phenotypes**

Tag(s) : Respiratory conditions, Treatment and follow up

Chairs : Anita Simonds (London, United Kingdom), Walter McNicholas (Dublin, Ireland)

12:15 **Pro continuous positive airway pressure: continuous positive airway pressure is the first line therapy for obesity hypoventilation syndrome**
Juan Fernando Masa Jiménez (Cáceres, Spain)

12:35 **Pro non-invasive ventilation: non-invasive ventilation is still indicated in some clinical scenarios for patients with obesity hypoventilation syndrome phenotypes**
Jean-Louis Pépin (Grenoble, France)

12:55 **Discussion and Q&A**

Nadir Session 12:15 - 13:15**Break-out session: Forgotten aspects of sleep apnoea**

Tag(s) : Respiratory conditions, Clinical assessment

Chairs : Maria Bonsignore (Palermo, Italy), Milan Sova (Olomouc, Czech Republic)

12:15 **Vitamin D deficiency and sleep disorders**
Sophia E. Schiza (Heraklion, Greece)

12:30 **Erectile dysfunction**
Manuel Sanchez De La Torre (Lleida, Spain)

12:45 **Perioperative risk**
Renaud Tamisier (Grenoble, France)

13:00 **Discussion and Q&A**

Meridian Session 15:15 - 16:45**Symposium: Paediatric: what is new in paediatric obstructive sleep apnoea ?**

Tag(s) : Paediatric, Treatment and follow up, Respiratory conditions

Chairs : Athanasios G. Kaditis (Athens, Greece), Stijn Verhulst (Antwerpen, Belgium)

15:15 **Translational perspectives in paediatric obstructive sleep apnoea: guts and particles lead the way**
David Gozal (Columbia, United States)

15:35 **Can we use artificial intelligence to diagnose obstructive sleep apnoea in children?**
Gonzalo César Gutiérrez Tobal (Valladolid, Spain)

15:55 **Personalised treatment of obstructive sleep apnoea in children: are we there yet?**
Refika Hamutcu Ersu (Ottawa, Canada)

16:15 **Discussion and Q&A**

Zenit Session 17:00 - 18:30**Symposium: From pathophysiological traits to new concepts of obstructive sleep apnoea treatment**
Part 2. Upper airway obstruction

Tag(s) : Treatment and follow up, Respiratory conditions

Chairs : Renata L. Riha (Edinburgh (Edinburgh), United Kingdom), Sophia E. Schiza (Heraklion, Greece)

17:00 **From pcr it to drug-induced sleep endoscopy: how to evaluate upper airway mechanics?**
Johan Verbraecken (Edegem (Antwerp), Belgium)

17:20 **Non-invasive positive airway pressure alternatives: where do we stand with mandibular advancement device and positional therapy?**
Marijke Dieltjens (Edegem (Antwerp), Belgium)

17:40 **Orthodontic therapy and skeletal interventions**
Jan de Lange (Amsterdam, Netherlands)

18:00 Discussion and Q&A

Nadir Session 17:00 - 18:30**Symposium: Paediatric sleep: practical session****Tag(s)** : Paediatric, Treatment and follow up, Diagnostic techniques**Chairs** : Hui Leng Tan (London, United Kingdom), Athanasios G. Kaditis (Athens, Greece)17:00 **Scoring sleep with fragments**
Lizzie Hill (Oxford, United Kingdom)17:20 **Scoring respiratory events: diagnostic and positive airway pressure**
Andrew Morley (Glasgow (Glasgow), United Kingdom)17:40 **Strategies to improve positive airway pressure adherence in children**
Stijn Verhulst (Antwerpen, Belgium)

18:00 Discussion and Q&A

Meridian Session 17:00 - 18:30**Hot topic: E-health****Tag(s)** : Treatment and follow up**Chairs** : Erna Sif Arnardóttir (Reykjavik, Iceland), Timo Leppänen (Kuopio, Finland)17:00 **E-health and sleep medicine**
Anna Sigríður Islind (Reykjavík, Iceland)17:20 **Telemonitoring and big data in adults**
Jean-Louis Pépin (Grenoble, France)17:40 **Telemonitoring and big data in children**
David Gozal (Columbia, United States)

18:00 Discussion and Q&A

Exhibition area Session 18:30 - 19:30**Session: Welcome reception**

18:30

19:00

19:30

20:00

Leo Session **09:00 - 11:30***Registration for this session is additional to the conference registration fee***Skills workshop: Continuous positive airway pressure and non-invasive ventilation****Aims :** to describe different types of positive pressure airway therapy; to assess the appropriate use of the different therapies; to list different types of positive pressure interfaces and discuss how these may suit different patients; to explain the concepts of compliance and adherence; to explain how to initiate continuous positive airway pressure and select the appropriate device and interface.**Tag(s) :** Treatment and follow up**Chairs :** Chair to be confirmed**Introduction**

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Workstation 4: titration and equipment for monitoring compliance**Aquarius** Session **15:15 - 17:45***Registration for this session is additional to the conference registration fee***Skills workshop: Diagnostic techniques for adults and children****Aims :** to demonstrate how to perform and interpret sleep studies in both adults and children; to highlight the differences between paediatric and adult polysomnography and polygraphy including the complexities of sleep and respiratory testing along with the limitations, advantages, and pitfalls; to explain how to recognise when different scoring rules should be applied depending on the age of a patient; to explain how to evaluate daytime sleepiness based on self-assessment questionnaires, technical tests and electrophysiological tests.**Tag(s) :** Clinical assessment**Chairs :** Chair to be confirmed**Introduction**

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Workstation 3: Interpreting polysomnography and polygraphy in adults

Speaker to be confirmed

Workstation 4: Evaluation of daytime sleepiness

Speaker to be confirmed

Meridian Session **08:30 - 10:00****Symposium: Hypoventilation****Tag(s) :** Clinical assessment**Chairs :** Jean-Louis Pépin (Grenoble, France), Anita Simonds (London, United Kingdom)**08:30** **Chronic obstructive pulmonary disease and obstructive sleep apnoea overlap: who to treat and how?**
Walter McNicholas (Dublin, Ireland)**08:50** **Central hypoventilation syndromes: diagnosis, treatment and outcomes**
Athanasios G. Kaditis (Athens, Greece)**09:10** **How to diagnose nocturnal hypoventilation and when to ventilate?**
João Carlos Winck (Vila Nova de Gaia, Portugal)**09:30** **Discussion and Q&A**

Nadir Session 08:30 - 10:00**Symposium: Sleep and children****Tag(s)** : Paediatric**Chairs** : Refika Hamutcu Ersu (Ottawa, Canada), Hui Leng Tan (London, United Kingdom)08:30 **Sleeping too little**
Barbara Gnidovec Strazisar (Celje, Slovenia)08:50 **Sleeping too much**
Lino Nobili (Genoa, Italy)09:10 **Restless sleep in children**
Raffaele Ferri (Troina (EN), Italy)09:30 **Discussion and Q&A****Zenit** Session 08:30 - 10:00**Hot topic: Brain fingerprints of obstructive sleep apnoea: from cognition to locomotion****Tag(s)** : Respiratory conditions, Clinical assessment, Physiology and anatomy**Chairs** : Renaud Tamisier (Grenoble, France), Stefania Redolfi (Cagliari, Italy)08:30 **Cognitive consequences of obstructive sleep apnoea**
Ivana Rosenzweig (London, United Kingdom)08:50 **A neurocognitive test battery for a multiple domain assessment in sleep disorders/OSA**
Kamilla Rún Jóhannsdóttir (Reykjavik, Iceland)09:10 **Walk the line: gait and postural impairments as a signature of OSA's brain repercussions**
Sébastien Baillieul (Grenoble CEDEX 9, France)09:30 **Discussion and Q&A****Meridian** Session 10:30 - 12:00**Symposium: Addressing hypersomnolence****Tag(s)** : Non respiratory conditions**Chairs** : Walter McNicholas (Dublin, Ireland), Sebastiaan Overeem (, Netherlands)10:30 **What's in a name?**
Giuseppe Plazzi (Bologna, Italy)10:50 **The issue of 'residual' hypersomnolence**
Dirk A.A. Pevernagie (Gent, Belgium)11:10 **Multidisciplinary approach to refractory hypersomnolence**
Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)11:30 **Discussion and Q&A****Zenit** Session 12:15 - 13:15**Break-out session: European Respiratory Society/European Sleep Research Society recent guidelines****Tag(s)** : Treatment and follow up**Chairs** : Dries Testelmans (Leuven, Belgium), Carolina Lombardi (Milano (MI), Italy)12:15 **Non-continuous positive airway pressure therapies**
Johan Verbraecken (Edegem (Antwerp), Belgium)12:30 **Type 3 devices**
Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)12:45 **Paediatric: non-invasive ventilation**
Refika Hamutcu Ersu (Ottawa, Canada)

13:00 Discussion and Q&A

Meridian Session 12:15 - 13:15**Round table: Safety of medical devices: 'the Philips case'****Tag(s)** : Respiratory conditions, Treatment and follow up**Target audience** : Patient**Chairs** : Anita Simonds (London, United Kingdom), Dirk A.A. Pevernagie (Gent, Belgium), Luca Roberti (Rome, Italy), Jean-Louis Pépin (Grenoble, France), Chair to be confirmed**Nadir** Session 12:45 - 14:15**Break-out session: From pathophysiological traits to new concepts of obstructive sleep apnoea treatment****Part 3. Function and treatment opportunities for upper airway muscles****Tag(s)** : Respiratory conditions, Treatment and follow up**Chairs** : Sophia E. Schiza (Heraklion, Greece), Jan A. Hedner (Göteborg, Sweden)12:45 **Upper airway muscles: functional response to novel interventions for treating obstructive sleep apnoea**
Joerg Steier (London, United Kingdom)13:05 **Myofunctional therapy and electrical stimulation: what we need to know and how to implement**
Triin Jagomägi (Tartu, Estonia)13:25 **Hypoglossal nerve stimulation: critical appraisal and future directions**
Haralampos Gouveris (Mainz, Germany)

13:45 Discussion and Q&A

Meridian Session 15:15 - 16:45**Symposium: Clinical evaluation of obstructive sleep apnoea****Tag(s)** : Respiratory conditions, Physiology and anatomy**Chairs** : Milan Sova (Olomouc, Czech Republic), Carolina Lombardi (Milano (MI), Italy)15:15 **Are symptoms related to pathophysiology?**
Dirk A.A. Pevernagie (Gent, Belgium)15:35 **Polysomnography markers and biomarkers**
Manuel Sanchez De La Torre (Lleida, Spain)15:55 **Machine learning and big data**
Erna Sif Arnardóttir (Reykjavik, Iceland)

16:15 Discussion and Q&A

Tycho Session 08:30 - 10:00*Registration for this session is additional to the conference registration fee***Clinical update: Central sleep apnoea****Aims :** to describe central sleep apnoea in relation to sleep medicine; to explain how to differentiate, diagnose and manage central breathing disturbances during sleep; to discuss its pathophysiology, clinics and consequences; to explain how to discriminate comorbidities.**Tag(s) :** Respiratory conditions**Chairs :** Chair to be confirmed**08:30 Central sleep apnoea: recognition and differentiation**
Speaker to be confirmed**09:00 Central sleep apnoea: how to treat**
Speaker to be confirmed**09:30 Discussion and Q&A****Meridian** Session 08:30 - 10:00**Symposium: From pathophysiological traits to new concepts of obstructive sleep apnoea treatment****Part 4. The brain and central breathing regulation in obstructive sleep apnoea****Tag(s) :** Diagnostic techniques, Respiratory conditions**Chairs :** Johan Verbraecken (Edegem (Antwerp), Belgium), Sophia E. Schiza (Heraklion, Greece)**08:30 Importance of and diagnostic approach to arousals**
Ludovico Messineo (Boston, United States)**08:50 Treatment of sleep fragmentation in obstructive sleep apnoea. Can we influence arousals and arousability?**
Renata L. Riha (Edinburgh (Edinburgh), United Kingdom)**09:10 Clinical diagnosis and therapeutic interventions for loop gain and breathing regulation**
Jan A. Hedner (Göteborg, Sweden)**09:30 Discussion and Q&A****Zenit** Session 08:30 - 10:00**Symposium: Central sleep apnoea****Tag(s) :** Respiratory conditions, Treatment and follow up, Physiology and anatomy**Chairs :** Sébastien Baillieux (Grenoble CEDEX 9, France), Michael Arzt (Regensburg, Germany)**08:30 Loop gain and breathing regulation: insights into the pathophysiology of central sleep apnoea**
Elisa Perger (Milano, Italy)**08:50 Treatment emergent central sleep apnoea: better definition, realistic prevalence and treatment algorithms**
Winfried J. Randerath (Solingen, Germany)**09:10 Pathophysiology, clinical presentation and treatment of opioid-induced central sleep apnoea**
Maria Bonsignore (Palermo, Italy)**09:30 Discussion and Q&A****Nadir** Session 08:30 - 10:00**Symposium: The patient's view****Tag(s) :** Respiratory conditions, Non respiratory conditions, Treatment and follow up**Chairs :** Erna Sif Arnardóttir (Reykjavik, Iceland), Jean-Louis Pépin (Grenoble, France)**08:30 Patient-reported outcome measures: what is the issue?**
Anna Sigríður Islind (Reykjavík, Iceland)**08:50 Rationale for the European Sleep Questionnaire**
Dirk A.A. Pevernagie (Gent, Belgium)

09:10 Patient involvement in validation of patient-reported outcome measures for sleep-disordered breathing
Luca Roberti (Rome, Italy)

09:30 Discussion and Q&A

Meridian Session 10:30 - 12:00

Symposium: Predicting the effect of sleep apnoea treatment: responders versus non-responders

Tag(s) : Respiratory conditions, Treatment and follow up, Clinical assessment

Chairs : Manuel Sanchez De La Torre (Lleida, Spain), Stefania Redolfi (Cagliari, Italy)

10:30 Identification of biomarkers from animal and cellular models: utility for the prognosis of obstructive sleep apnea and response to treatment
Claire Arnaud (Grenoble, France)

10:50 Predictive biomarkers of adequate response to continuous positive airway pressure treatment: targeting obstructive sleep apnoea symptoms
Carolina Lombardi (Milano (MI), Italy)

11:10 Predictive biomarkers of adequate response to continuous positive airway pressure treatment: targeting cardiovascular outcomes
Matteo Bradicich (Zollikerberg, Switzerland)

11:30 Discussion and Q&A

Meridian Session 12:45 - 14:15

Symposium: Adaptive servo ventilation in central sleep apnoea

Tag(s) : Respiratory conditions, Clinical assessment

Chairs : Anita Simonds (London, United Kingdom), Sébastien Baillieux (Grenoble CEDEX 9, France)

12:45 Is central sleep apnoea in heart failure really relevant? Clinical symptoms and outcome
Winfried J. Randerath (Solingen, Germany)

13:05 Phenotyping of central sleep apnoea in heart failure. What does the Face-trial tell us ?
Renaud Tamisier (Grenoble, France)

13:25 SERVE-HF and Advent-HF: new data, new conclusions?
Michael Arzt (Regensburg, Germany)

13:45 Discussion and Q&A

Nadir Session 12:45 - 14:15

Symposium: Sleep disordered breathing in special groups

Tag(s) : Paediatric, Respiratory conditions

Chairs : Refika Hamutcu Ersu (Ottawa, Canada), David Gozal (Columbia, United States)

12:45 Paediatric sleep disordered breathing in the first 2 years of life
Athanasios G. Kaditis (Athens, Greece)

13:05 Down syndrome and sleep-disordered breathing
Hui Leng Tan (London, United Kingdom)

13:25 Obstructive sleep apnoea in obese children
Stijn Verhulst (Antwerpen, Belgium)

13:45 Discussion and Q&A

Zenit Session 12:45 - 14:15

Hot topic: The future of sleep diagnostics

Tag(s) : Paediatric, Diagnostic techniques, Clinical assessment

Chairs : Lizzie Hill (Oxford, United Kingdom), Anna Sigríður Islind (Reykjavík, Iceland)

12:45 The role of self-applied polysomnography
Erna Sif Arnardóttir (Reykjavik, Iceland)

13:05 **Night-to-night variability in obstructive sleep apnoea: how many nights do you need?**
Matteo Bradicich (Zollikerberg, Switzerland)

13:25 **Automatic sleep analysis: diagnostic devices and wearables**
Timo Leppänen (Kuopio, Finland)

13:45 **Discussion and Q&A**

Meridian

Session

14:30 - 15:30

Symposium: Closing session

Chairs : Maria Bonsignore (Palermo, Italy), Dirk A.A. Pevernagie (Gent, Belgium)

14:30

14:45

15:00

15:15 **Discussion and Q&A**
