



asa council news

Australasian Sleep Association **October 2018**

Do you have something of interest you would like to include in the next newsletter?

Forward any items to admin@sleep.org.au.
Your council contributors are:

- **Chronobiology Council** – Gorica Micic
- **Dental Sleep Medicine Council** – Harry Ball
- **Insomnia and Sleep Health Council** – Alix Mellor
- **Neuroscience Council** – Matthew Macfarlane
- **Occupational Health, Safety & Performance Council** – Alex Wolkow
- **Paediatric Council** – Nicole Verginis
- **Primary Care Council** – Luke Katahanas
- **Respiratory Council** – David Stevens
- **Sleep Physicians Council** – Simon Frenkel
- **Surgery Council** – Lyndon Chan

Chronobiology Council

As we head into the warmer months of the year, the daylight saving time change will move one hour of daylight from the morning into the evening.

Whilst this gives us those long summer evenings, it forces us to spring forward and advance our internal body clocks by one hour to match the clock change (i.e., delays our circadian rhythms relative to clock time). This requires us to fall asleep one hour earlier (often unsuccessfully), in an attempt to wake up earlier than we normally would and thus reduces the amount of sleep we get. For most of us, losing an hour of sleep at the start of daylight saving is more difficult to adjust to, than gaining an hour of sleep at the end of daylight saving. In much the same way, it is often more difficult to adjust after eastward travel as we lose time (i.e., struggle to fall asleep and wake earlier than our body clock would like), and easier after westward travel as we gain time (i.e., can fall asleep and wake up later in body clock time). These effects are not simply a result of a single-night of sleep restriction, rather can be explained by a misalignment in our circadian rhythm and the timing of our light exposure.

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Our circadian rhythms have a strong effect when we feel sleepy or alert and the timing of light exposure directly impacts circadian rhythm timing. Peculiarly, in the absence of light, our circadian rhythms have a tendency to 'tick' at a rate that is slightly slower than the Earth's 24-hour solar rotation. Carefully controlled experiments have shown that the average time taken for human circadian rhythms to complete one full cycle is approximately 24 hours 15 minutes. So, our circadian system (i.e., periods of sleepiness and alertness) tends to drift 15 minutes later each day. This circadian tendency to delay is successfully controlled by ambient visual light exposure. Often exposure to bright light in the morning after waking is adequate to keep our circadian rhythms synchronised and ticking at the same pace as the Earth's light/dark cycle. By advancing our clocks at the start of daylight saving time, we are effectively 'swapping' our hour of bright light in the morning into the evening period, and our evening dim light into the morning period. In addition to the circadian rhythm timing misalignment caused by the change in clock time, the absence of bright light in the morning also allows the circadian rhythms to spontaneously drift later. This delay is further exacerbated by an additional hour of sunlight exposure later into the evening, signalling alertness to the circadian rhythms. Hence, whilst we often adjust immediately at the end of daylight saving in autumn, it takes up 2-3 days to adjust to the start of daylight saving in spring. To ameliorate this one hour of 'jet lag' more quickly, avoid light exposure in the evenings and close to bedtime. Although it may be dark for some time in the mornings after pushing our clocks forward, try to get light exposure immediately after waking up.

Gorica Micic

Chronobiology Council

Dental Sleep Medicine Council

Registrations are fast filling for **the Dental Sleep Medicine Conference** in Brisbane.

This event will be the most comprehensive yet held, extending over 3 days with 12 sleep physicians, 8 dentists an ENT surgeon, a sleep scientist and a sleep psychologist presenting on all aspects of dental sleep. Included will be a demonstration of all the clinical steps,

including the fitting of a number of appliances with two actual patients.

It is exciting to be part of a study conducted by Monash Health Dental Services in Melbourne primarily focused on objective compliance of MAS in a cohort of 50 patients. Sensors embedded in the appliances will be used to determine Intra oral usage, and also assessed will be the impact of treatment on the AHI and various quality of life parameters.

The study is being done in conjunction with the sleep physician group at Monash Lung and Health, Monash Medical Centre, Clayton, Victoria.

The sensors have been validated in a study* which demonstrated significantly higher compliance of oral appliances when compared to CPAP. Using objective data, the Mean Disease Alleviation of MAS was found to be similar to CPAP.

The current study hopes to replicate these results and lead to Monash Health Dental Services providing oral appliance therapy for their public patients.

*Objective measurement of compliance during oral appliance therapy for sleep-disordered breathing.

Thorax 2013 Jan;68(1):91-6.

Vanderveken O. et al

Harry Ball

Dental Sleep Medicine Co-Chair

Insomnia and Sleep Health Council

Hailey Meaklim, co-chair of the Insomnia and Sleep Health Council, recounts her experience at the SLEEP 2018 Conference, held in Baltimore, USA. Edited by Dr Alix Mellor.

Hailey described the SLEEP 2018 conference (a joint meeting of the SRS, APSS and AASM) as 'amazing'. For those who haven't attended a SLEEP conference, think 'Sleep DownUnder', but on a massive scale, with almost 5000 delegates. Some highlights of her experience are outlined below. We hope this may inspire you to attend a future SLEEP meeting.

Hailey attended the Sleep Research Society Trainee Symposium, a free day where trainees can attend a range of talks by well-known sleep researchers. Michael Grandner's talk on 'Health Disparities in Sleep' was a

highlight and Hailey liked his comment that "Asking how much sleep do I need to catch up on the weekend, to make up for sleeping less during the week?" is like asking "How much kale do I need to eat on the weekend to make up for all the cheeseburgers I ate during the week?"!

Other memorable talks included Lisa Meltzer's account of working with paediatric insomnia, where she gave the example of how to explain classical conditioning to parents and children through YouTube videos of rats playing basketball! Lisa Meltzer is an invited speaker at Sleep DownUnder 2018. We highly recommend you see this dynamic speaker in action. Mark Aloia's talk on 'Motivational Enhancement' stressed that clinicians should normalise feelings of ambivalence towards CPAP when treating OSA. He recommends discussing the stages of change with clients and explaining that being ambivalent is a sign of progress. He also recommends that clients are shown videos of themselves having respiratory events during their overnight sleep study to show them, in a personalised manner, what OSA is really like.

Finally, Hailey was proud to see researchers from Australia, such as Dr Bei Bei from Monash University presenting her work on sleep intervention during pregnancy, and Professor Sean Drummond from Monash University speaking about couples and sleep.

The Sleep Research Society and the Society for Behavioural Sleep Medicine are great organisations that promote all things sleep and have opportunities and discounts for students/early career researchers. Check them out here at:

Sleep Research Society:

<https://sleepresearchsociety.org>

Society for Behavioural Sleep Medicine:

<https://www.behavioralsleep.org>

Hailey Meaklim and Alix Mellor

Insomnia & Sleep Health Council

Neuroscience Council

A lot of the efforts of the Neuroscience Council have been in working with the Sleep Health Foundation and a number of patient advocacy groups to put together a Short

Course at Sleep Down Under in Brisbane.

The Short Course is entitled "Assessment and treatment of excessive daytime sleepiness: Risk, rewards and patient perspectives on stimulant use" and is a unique opportunity to see this under-recognised issue from the perspective of patients and their carers' as well as the clinicians who are treating it.

Highlights include discussion from representatives from support and advocacy groups Hypersomnolence Australia and Narcolepsy Australia, as well as talks outlining best practice regarding assessment and treatment of excessive daytime sleepiness – including discussion of common concerns about stimulant misuse and how to tackle these, as well as focus on treatment-resistant cases. The day will be rounded off with an interactive Q&A session where both clinicians and patient and carer representatives will be able to answer questions and discuss future directions in improving the visibility and treatment of what can be a very debilitating condition. For more information visit:

www.sleepdownunder.com/assessment-and-treatment-of-excessive-daytime-sleepiness-risk-rewards-and-patient-perspectives-on-stimulant-use

To register click here:

www.sleepdownunder.com/registration/registration

If you have interest in neuroscience, neurology, psychology or psychiatric aspects of sleep medicine we look forward to seeing you at the short course and at our Council meeting at Sleep Down Under!

Matthew Macfarlane

Neuroscience Council

Occupational Health, Safety & Performance Council

Sleep and Performance in Elite Sport

Good sleep is important for optimal performance in the workplace, and in the case of elite athletes, another occupational population, it could mean the difference between winning and losing on game day.

Unfortunately, many athletes experience sleep problems due to demanding training schedules, pre-competition nervousness, and having to sleep and compete away

from home in different time zones and at variable times of the day (Juliff et al. 2015). Increasing evidence has shown that sleep loss may have a negative impact on athletic performance (Fullagar et al. 2015; Nedelec et al. 2015; Thun et al. 2015). For instance, inadequate sleep has been found to reduce reaction time and decision-making ability, which are two aspects of cognitive performance that play a critical role in executing many sport specific fine motor skills, such as those involved in tennis (Fullagar et al. 2015; Hurdiel et al. 2014). Disrupted sleep in athletes has also been found to worsen pre-competition mood and fatigue levels (Lastella et al. 2014), which may increase perceived exertion or effort during a sporting event and lead to poor performance (Fullagar et al. 2015). Muscular endurance, submaximal exercise and anaerobic power, which are important fitness components for performance in many sports, can also be compromised in response to sleep restriction and sleep deprivation (Fullagar et al. 2015). However, the impact of sleep loss on components such as maximal strength and aerobic performance is less clear (Fullagar et al. 2015; Knowles et al. 2018), and requires further investigation utilising varying levels of sleep loss and sporting scenarios to better understand the impact of sleep on these aspects of athletic performance.

In addition to game day performance, sleep may also play an important role in athletes' recovery from sporting events as well as training (Knufinke et al. 2018). A reduction in total sleep duration has been observed in elite athletes the night after a sporting event, especially when events are scheduled at night time (Fullagar et al. 2016). Although limited, emerging evidence indicates that sleep can influence post-match/event muscular recovery and glycogen repletion, which if impaired, could negatively impact subsequent performance, injury risk and training adaptation (Nedelec et al. 2015). Furthermore, the timing of training can impact on sleep and performance in elite athletes. In particular, early morning training sessions have been shown to restrict sleep duration in professional sports people, with athletes such as swimmers getting 1.7 hours less sleep the night before early morning training days (Sargent et al. 2014). Time of day also influences performance, with technical skills, muscular strength and power, and anaerobic and aerobic performance all shown to be better in the afternoon and evening when core body temperature is high (Thun et al. 2015). Advancements in our understanding of how sleep and circadian factors influence athletic performance and recovery has resulted in professional sports coaches and teams implementing

sleep strategies in an effort to improve athletes performance. Several strategies that have shown promising results for athletic performance include sleep extension, napping, and sleep optimisation and sleep hygiene programs (Nedelec et al. 2015; Schwartz and Simon 2015; Van Ryswyk et al. 2017).

Understanding and optimising sleep in sports people to improve performance is a rapidly growing field of research, and one that continues to expand and evolve the scope of work of interest to the OHSP Council. To hear more on the topic of sleep in elite sports people, be sure to attend the "Let's get physical - exploring the relationship between sleep and exercise" symposia session at the upcoming Sleep DownUnder conference in Brisbane (17-20 October, 2018).

Alex Wolkow

Occupational Health, Safety & Performance Council

Further Reading

- Fullagar HH, Skorski S, Duffield R, Hammes D, Coutts AJ, Meyer T (2015) Sleep and athletic performance: the effects of sleep loss on exercise performance, and physiological and cognitive responses to exercise. *Sports Med* 45(2):161-86
- Fullagar HH, Skorski S, Duffield R, Julian R, Bartlett J, Meyer T (2016) Impaired sleep and recovery after night matches in elite football players. *J Sports Sci* 34(14):1333-9
- Hurdiel R, Van Dongen HP, Aron C, McCauley P, Jacolot L, Theunynck D (2014) Sleep restriction and degraded reaction-time performance in Figaro solo sailing races. *J Sports Sci* 32(2):172-4
- Juliff LE, Halson SL, Peiffer JJ (2015) Understanding sleep disturbance in athletes prior to important competitions. *J Sci Med Sport* 18(1):13-8
- Knowles OE, Drinkwater EJ, Urwin CS, Lamon S, Aisbett B (2018) Inadequate sleep and muscle strength: Implications for resistance training. *J Sci Med Sport* 21(9):959-968
- Knufinke M, et al. (2018) Train hard, sleep well? Perceived training load, sleep quantity and sleep stage distribution in elite level athletes. *J Sci Med Sport* 21(4):427-432
- Lastella M, Lovell GP, Sargent C (2014) Athletes' precompetitive sleep behaviour and its relationship with subsequent precompetitive mood and performance. *Eur J Sport Sci* 14 Suppl 1:S123-30
- Nedelec M, Halson S, Delecroix B, Abaidia AE, Ahmaidi S, Dupont G (2015) Sleep Hygiene and Recovery Strategies in Elite Soccer Players. *Sports Med* 45(11):1547-59

- Sargent C, Halson S, Roach GD (2014) Sleep or swim? Early-morning training severely restricts the amount of sleep obtained by elite swimmers. *Eur J Sport Sci* 14 Suppl 1:S310-5
- Schwartz J, Simon RD, Jr. (2015) Sleep extension improves serving accuracy: A study with college varsity tennis players. *Physiol Behav* 151:541-4
- Thun E, Bjorvatn B, Flo E, Harris A, Pallesen S (2015) Sleep, circadian rhythms, and athletic performance. *Sleep Med Rev* 23:1-9
- Van Ryswyk E, et al. (2017) A novel sleep optimisation programme to improve athletes' well-being and performance. *Eur J Sport Sci* 17(2):144-151

Paediatric Council

The ASA Paediatric Standards (NATA accreditation) document was reviewed by the Accreditation Advisory Committee and we are awaiting to hear regarding final approval.

The working committee for the ASA Guidelines for Oximetry met again in August where some final modifications to the document were discussed and these updates are currently being implemented. This document should be ready for circulation to the wider community in the very near future.

The paediatric home ventilation revision working group have made good progress with the guideline revision process and will be meeting at the upcoming SDU 2018 meeting in Brisbane with the aim of completing the first draft of the ASA Guidelines for Home Ventilation document in October. This working party consists of paediatric respiratory and sleep physicians from all states in Australia as well as New Zealand. The group recently undertook a questionnaire and phone interview with each member to gain information about the varying structures of the home ventilation programs across Australia and New Zealand. The aim is to utilise this information in the guideline revision to advocate for equity of services within Australia and New Zealand. The working group have also recruited a child and adolescent psychiatrist with significant experience working with families of children with long-term ventilation to participate in the guideline update and ensure the psychosocial aspects of care of these patients is addressed.

The Sleep Down Under 2018 ASA/ASTA annual scientific meeting (17-20 October 2018, Brisbane) is nearly here! There is great paediatric content covering sleep

disordered breathing, use of non-invasive ventilation, sleep health in childhood and the changing face of paediatric neuromuscular disease. There is also a breakfast session on Oximetry for paediatric sleep disordered breathing: Developing ASA standards. Looking forward to seeing you in Brisbane!

Upcoming Conferences / Dates for the Diary:

- **Sleep Down Under** (ASA/ASTA annual scientific meeting): Brisbane, 17-20 October 2018
www.sleepdownunder.com
- **International Pediatric Sleep Association (IPSA):** Advance notice of the 5th International Pediatric Sleep Association meeting which will be held in Lille, France November 24-26, 2018. www.ipsa2018.fr

Nicole Verginis
Paediatric Council

Primary Care Council

It has taken some time to define the objectives of the now less than 12 month old 'Primary Care Council'.

Our intended first task is to draft guidelines for 'Best Practice' management of Sleep Disorders in the Primary Care setting. Given the issues around patient accessibility to specialist units, this document will provide an evidence based support reference for the Primary Care Practitioner committed to comprehensive management of uncomplicated Sleep Disorders (including SDB), rather than simply another education piece defining the relevance of Sleep Medicine for the purposes of tertiary referral. To that end, we call upon interested Sleep Physicians, and GPs with special interest within the association to assist with this task either prior to first draft, or perhaps for constructive comment after.

There will be a Primary Care Council Breakfast held at the 'Sleep Down Under' in Brisbane over the coming weeks where models of care & challenges for the Primary Care Practitioner will be discussed. It is our hope that this will attract many primary care providers - Doctors or other. For more information visit: www.sleepdownunder.com/program/breakfast-sessions

Luke Katahanas
Primary Care Council

Respiratory Council

So far in 2018, there have been numerous interesting, and important, findings in the sleep respiratory physiology field.

From Australia, Luke Rowsell from the Woolcock Institute published in *Thorax* a large trial examining the effects of morphine in OSA patients, jointly run by the Woolcock Institute for Medical Research (David Wang) and Neuroscience Research Australia (Danny Eckert), showing morphine does not worsen OSA, challenging previously held notions that it would. Sophie Carter from NeuRA published her RCT in the *European Respiratory Journal* showing that zopiclone, a hypnotic, does not worsen OSA severity, providing important safety data and insight into OSA pathophysiology. Scott Sands and Brad Edwards from Monash University are continuing their insightful research into identifying phenotypes of OSA from diagnostic polysomnography. This research will help identify potential alternative treatments for OSA patients, which is especially important considering the relatively low compliance to the current gold-standard treatment, the continuous positive airway pressure machine.

Overseas, the Harvard sleep research group led by Andrew Wellman have recently identified that the combination of atomoxetine, a drug commonly used for attention deficit hyperactive disorders, and oxybutynin, an anticholinergic commonly used in urinary and bladder problems, leads to significant reductions in AHI. Prior research showed that both drugs innervated the hypoglossal nerve during the sleep, meaning the upper airway muscles are more active and less prone to collapse. Whilst previous studies into potential pharmaceutical treatment for OSA has proved largely fruitless, this is an exciting development.

Finally, congratulations to the Woolcock Institute for Medical Research who have been ranked by the *Times Higher Education* as the best sleep and respiratory research centre in the world (and in the top 100 medical research centres in the world). This is a testament to the many years of fine work by those and the Woolcock. The South Australian Health and Medical Research Institute, which has also published numerous influential sleep respiratory studies, was ranked in the top 5 in Australia.

David Stevens
Respiratory Council

Sleep Physicians Council

There have been a number of significant events affecting Sleep Physicians this year.

- The MBS review process is nearly complete with revisions to current items numbers and the introduction of new item numbers scheduled for November.
- An application for the development of vigilance testing item numbers is being currently being considered by the Medical Services Advisory Committee.
- Targeted compliance measures directed against Sleep Physicians appears to have ended although the ramifications of the process continue to be felt by many of our members.
- More recently, there has been an apparent directive to excise coverage of sleep studies from all but the highest tier of private insurance policies.

Each of these has the potential to act as an existential threat to the practice of Sleep Medicine in Australia. In the current regulatory climate, proactive advocacy is mandatory and will be one of the discussion points at the upcoming Sleep Physicians Council meeting in Brisbane. We hope to see you all there.

Simon Frenkel and John Swieca
Sleep Physicians Council

Surgery Council

Sleep down under will be in Brisbane 17-20th October 2018.

Invited speakers include Stacey Ishman from Cincinnati Children's Hospital Medical Centre and Madeline Ravensloot, OLVG, Amsterdam, the Netherlands. I would highly encourage all that come to attend their lectures as well as the Sam Robinson Memorial lecture where the results of the Australian multicenter RCT for multilevel sleep surgery will be discussed. Also a surgical short course will be held on Sunday 21st October. It is a one-day course, aimed at ENT surgeons, fellows and trainees with an interest in OSA surgical treatment, as well as physicians and allied health professionals who wish to understand the potential role surgery can play in the treatment of OSA. [Click here for more](#)

information: www.sleepdownunder.com/surgical-treatments-for-obstructive-sleep-apnoea

The 9th International Surgical Sleep Society meeting was held in April 2018, Munich Germany bringing together many of the leaders in the field of sleep surgery.

Membership has been fast growing and it was the best attended meeting thus far. It included fully attended pre-course workshops in DICE, upper airways stimulation and decision making in difficult cases. Many symposiums were held including multilevel sleep surgery, hypoglossal nerve implantation, robotics, the evolving role of oral appliances/positional devices and CPAP including latest innovations. The meeting also included chances to learn about the historic city as well as taste local delicacies at the society dinner. We very much look forward to the 10th Annual International Surgical Sleep Society to be held 9 - 11 May 2019, New York, USA. Please see <https://surgicalsleepp.org> for further details and application for membership.

Lyndon Chan
Surgery Council

Dates for the diary

XXVIII Congresso Nazionale (AIMS)

Date: October 4-6, 2018 • Venue: Taormina, Italy
For more information:
www.avenuemedia.eu/event/xxviii-congresso-nazionale-aims

10th Annual Meeting of Integrated Sleep Medicine Society Japan (ISMSJ)

Date: October 5-6, 2018 • Venue: Awaji Island, Japan
For more information: <http://www.ismsj.org>

26th Annual Meeting of the DGSM / German Society for Sleep Research and Sleep Medicine

Date: October 11-13, 2018 • Venue: Nürnberg, Germany
For more information: www.klinikum-nuernberg.de/EN/index.html

4th Annual meeting of South East Asian Academy of Sleep Medicine (SEAASM) / ICSD 2018

Date: October 12-14, 2018
Venue: Lucknow, India
For more information: www.seaasm.org/index.php

Progetto Sonno e Psiche (Project Sleep & Psyche)

Date: October 19-20, 2018 • Venue: Napoli
For more information: www.progettosonnoepsiche.it

AACBT workshops with Professor Allison Harvey

Date: 22 October 2018 • Venue: Sydney
For more information:
www.aacbt.org.au/product/aacbt-national-workshop-sydney-cbt-transdiagnostic-sleep-problems

Progetto Sonno e Psiche (Project Sleep & Psyche)

Date: October 26-27, 2018 • Venue: Milano
For more information: www.progettosonnoepsiche.it

AACBT workshops with Professor Allison Harvey

Date: 27 October 2018 • Venue: Brisbane
For more information: www.aacbt.org.au/workshop-program-2018

8th International Update Course: Otolaryngology Underwater

Date: 30 Oct - 2 November 2018
Venue: InterContinental Presidente Cozumel Resort Spa, Cozumel, Mexico
For more information:
<http://oto.med.upenn.edu/category/cme-conferences-events>

2018 CSS Education Meeting/Journée de formation SCS 2018

Date: November 2-3, 2018 • Venue: Québec City, Canada
For more information:
www.eiseverywhere.com/ehome/cssquebec2018/home

XVII Congress of the Latin American Federation of Sleep Societies 2018

Date: November 9-11, 2018
Venue: Punta del Este, Uruguay
For more information: www.congresoflass.com

Australian Society for Medical Research (ASMR) 57th ASMR National Scientific Conference

Inspired creativity - When art meets science
Date: 21-23 November 2018 • Venue: Elder Hall Music Conservatorium Adelaide, South Australia
For more information: <https://asmr.org.au/asmr-nsc>

Progetto Sonno e Psiche (Project Sleep & Psyche)

Date: November 23-24, 2018 • Venue: Rome
For more information:
<https://www.progettosonnoepsiche.it>



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