



ISSUE NO: 60

SLEEP MATTERS

Lite Bite Edition – July 2017

DRIVING, THE DVLA AND THE NHS - -WHAT PATIENTS WHO DRIVE NEED!

We had thought that by now, following months of protests and discussion, that this delayed edition of Sleep Matters would be carrying news of changes to the rules concerning driving and Obstructive Sleep Apnoea (OSA). Sadly, we have been too optimistic as regards the pace at which the revised DVLA rules can be changed. We remain hopeful that soon, thanks to the efforts of many, including some within the DVLA, there will be amendments soon and stability will return.

We recognise that, for most people, the pathway of GP referral, diagnosis, CPAP treatment, compliance and informing the DVLA works really well. Renewing your licence at 70 also works well for the majority. But, the uncertainty and chaos caused by the new rules has led to mistakes being made by patients, clinicians and the DVLA, resulting in licences being unnecessarily revoked through those mistakes. SATA has become the main option for those whose licences have been revoked to get their licences reinstated, and this is completely dominating our other activities.

SATA is still working, with others, to get the DVLA guidelines changed, but in addition is recommending the following urgent action:

1. The DVLA should establish a Sleep Apnoea unit, with staff specially trained to deal with the complexities of this illness and to be able to understand the social consequences of any actions.
2. The DVLA should establish a rapid restoration of driving licence service that achieves results in hours and days, not weeks and months and is able to make executive decisions.
3. The Secretary of State for Transport should establish a New Honorary Medical Advisory Panel for Respiratory Disorders, so that expert advice can inform on policy and case decisions.
4. The Medical Profession should adopt a modified version of the Association for Respiratory, Technology and Physiology (ARTP) “Standards of Care - Sleep Apnoea Services - ARTP Voluntary Code for Sleep Apnoea Services”, including a clause that states that upon diagnosis with OSA/OSAS, a patient who drives, will immediately be set up on CPAP treatment, with compliance confirmed within days, in a One Stop Shop service.
5. The NHS should provide detailed advice to GPs on the management of drivers who may have Sleep Apnoea.

WHY DOES SATA MAKE THESE RECOMMENDATIONS? THE DETAIL.

DVLA should establish a specialist Sleep Apnoea unit.

It is clear from the feedback from the SATA Help Line, that the variation in responses from phone calls to the DVLA is wide. Patients who have not even been diagnosed are expected to understand the terms ESS (Epworth Sleepiness Scale) AHI (Apnoea-Hypopnoea Index), ODI (Oxygen Desaturation Index) etc., and most cannot differentiate between OSA and OSAS (Obstructive Sleep Apnoea Syndrome). There is a need for specialist staff, skilled in their knowledge of sleep apnoea, to provide a friendly and helpful service, to try and understand the patients concerns and fears. Most patients will have only seen their GP, therefore have little understanding. Therefore, they are shocked to find their licence has been revoked, even before a sleep test has taken place, though they may well already have voluntarily stopped driving until their sleep test, diagnosis and treatment. OSA is a very complex affliction and needs a specialist team to understand its implications, including the potential social impact of any restriction on driving.

DVLA should establish rapid driving licence restoration.

When, as in many cases, the licence has been revoked as the result of a patient's error, mistaken advice from the GP or Sleep Clinic or there is a significant delay between diagnosis and the commencement of CPAP therapy, there needs to be a system in the DVLA that brings about a very rapid restoration of the driving licence to the often quite innocent victim. The current system takes too long and should work in hours and days.

The main reasons for revoke are as follows:

- A) The patient makes a mistake on a DVLA form or during a phone call.
- B) The GP advises the patient to contact the DVLA immediately, before referral for a sleep test. If the GP has doubts about the patient's ability to drive safely, they should inform the patient to stop driving and then make an urgent referral to a Sleep Clinic.
- C) Following referral and sleep test, upon diagnosis of OSAS, the Sleep Clinic does not provide immediate CPAP therapy and informs the patient to contact the DVLA. Depending upon delay in providing CPAP, this puts the patient's licence at risk needlessly.
- D) Delays in response to enquiries from the DVLA as regards a patient's fitness to drive.

DoT Minister should establish an Honorary Medical Advisory Panel for Respiratory Disorders.

The fact is that, amongst the six medical advisory panels, to our knowledge, there is only one doctor with experience of sleep apnoea and that expertise is neurological not respiratory. There is no doctor with Consultant expertise in the treatment of obstructive sleep apnoea available to give expert opinion either on policy or case review. OSA is a very complex affliction and needs expert support, the lack of which increases significantly the potential for policy errors and mistakes in the handling of patients driving cases. Respiratory illness is a growing factor in today's society, so we think that the time has come to establish a respiratory panel that can provide the expertise necessary to deal with the many complexities.

Mandatory Standard of Care for Sleep Apnoea Services Concerning Time between Diagnosis and CPAP Therapy

The ARTP has established an excellent voluntary code for the standards of service required by a Sleep Clinic. However, it does not specify the period between diagnosis of OSAS and commencement of CPAP therapy. Feedback to SATA sees variations from a One Stop Shop service, where the patient receiving diagnosis after their sleep test commences CPAP therapy immediately, to delays of up to six months. For a driver, any delay can have significant consequences, as they cannot drive until CPAP treatment has commenced and they are assessed as compliant (up to 30 days). The social consequences of the delay can mean loss of job, major increases in family travel cost and in rural areas complete isolation. So SATA is recommending that that paragraph 5 of the ARTP Voluntary Code for Sleep Apnoea Services, be modified as follows, with an additional sentence: "Upon diagnosis with OSA/OSAS, a patient who drives will immediately be set up on CPAP treatment, with compliance confirmed within days, in a One Stop Shop service." NB. Where there are concerns about job security, vulnerable dependents, access to essential community services and shops, there should be no delay between diagnosis and the commencement of CPAP therapy.

NHS Advice to GPs

GPs need to understand that informing the DVLA need only happen after diagnosis, not before. Of course, if they feel a patient is unable to drive safely due to suspected OSAS they can tell them to stop driving and make an urgent referral to a Sleep Clinic. And, as always, it is the driver's responsibility not to drive if they think their driving may be impaired, whatever the cause.

THIS IS WHAT PATIENTS WHO DRIVE NEED

FROM THE CHAIRMAN

PHIL LAWRENCE (1943-2017)

The saddest task of being chairman of SATA is dealing with the empty space left when one of our volunteer patients dies suddenly. Phil Lawrence was a founder member of SATA, a great advocate for the treatment of sleep apnoea, both obstructive and central, as he had each and a superb Helpline volunteer. He battled for years the effect of being a childhood polio victim and the aftermath of two major operations. He was President of Redditch Lions three times in 17 years and had dedicated his life to raising hundreds of thousands of pounds for those less fortunate. Founder and Trustee of SATA, Professor John Stradling, knew him well:

“Phil was a very long term patient of the Oxford Sleep Unit from the time when he lived in Haddenham. Shortly after attending the Oxford Unit and being put on long term ventilation at night, Phil decided to organise a pram race around Haddenham to raise money for the unit. This was an extremely bizarre event that I remember vividly - the sight of large numbers of adults, racing around Haddenham in baby clothing, was a sight you do not forget easily! This was typical of Phil, keen to help and full of ideas. His place on the SATA Helpline was invaluable. Phil served on the SATA committee in the early days, until moving to the Midlands. I counted him as a friend and will miss his cheery presence.”

He will be sadly missed. To his widow Margaret and the whole family, we extend our most sincere condolences, on behalf of SATA and all the patients he advised so well and the many people who went to their GP after hearing him speak.

HR CRISIS

The loss of two important members of the SATA team has focussed us once again on the fact that not only is our small number of Committee members not getting any younger; we also desperately need more Committee members and expert help. The Helpline needs more volunteers especially from patients who have had some experience in this area or have been medical professionals. The committee needs younger volunteers who can bring specific expertise, especially concerning IT for websites and social media. But they must also have the time to do things, such as pack leaflets, insert information into envelopes, liaise with manufacturers, and chase membership subscriptions. Please contact us if you feel you could help and we will see if your skill base fits the gaps.

DRIVING AND THE DVLA

My apologies for the delay in this issue of Sleep Matters but we had been holding back in the hope that there would be an amendment to the current rules that have caused chaos for patients, the medical profession and the DVLA staff. We are hoping that by October there will be some changes that will bring clarity. If not, then we may well be asking you to help us to change the Governments rules, by contacting your local MP.

While the DVLA have to accept the responsibility of being the prime cause of the problems, we have to thank the Drivers Medical Group Administration Team at the DVLA for their help in restoring licences that have been revoked by mistake, through incorrect or misleading information from various parties.

Assembling the information, detailing the timeline then getting someone to admit they have made a mistake is a huge task and is dominating the work of the Helpline volunteers work. As a result, we have temporarily scaled back the opening hours of the Helpline from 24 hrs to 9 hours, opening at 09.00 and closing at 18.00. We hope to restore the full service as soon as possible, but it will need the rules to be changed, or perhaps SATA to issue its own guidelines. In the meantime, if someone has had their licence revoked or it seems that there is a threat it may happen, please use the new questionnaire on our website BEFORE contacting the Helpline by phone or email. This will drastically reduce the time devoted to going through all the routine information and allow us to start helping as quickly as possible.

INFORMING THE DVLA

We are surprised by the speed at which some GPs and Sleep Clinics advise patients who drive, to inform the DVLA before they are even diagnosed with OSAS. This advice is resulting in unnecessary loss of driving licences.

BUT, if a doctor you are consulting, in their professional opinion, advises you not to drive pending further medical investigation, such as a sleep test, **THEN YOU MUST NOT DRIVE.**

But, at this stage, you do not have to inform the DVLA as you have not been diagnosed with OSA or OSAS.

On the website the instruction is:

“You must tell DVLA if you have:

- obstructive sleep apnoea which affects your ability to drive safely
- obstructive sleep apnoea syndrome

Ask your doctor if you're not sure if your obstructive sleep apnoea will affect your driving.”

When you are diagnosed with OSAS, then, by law, you must tell the DVLA and we advise that you do this based on the advice of the Sleep Clinic and also, if you feel you need it, our advice.

GMC GUIDELINES

Recently, we have had cases referred to us, where we have had to consult the GMC Guidelines as regards patient confidentiality and the DVLA.

In some, it appears that the medical professional has not followed the GMC Guidelines. In one case, a self-employed taxi driver, who did not even have OSA, had his driving licence revoked as a result of a doctor misreading his notes and contacting the DVLA without informing the patient. He could not work from the beginning of February, had to feed his family from a food banks and was threatened with eviction from his home. Thanks to the superb work of Helpline volunteer Claire Mitchell, whose Maigret style detective work uncovered the line of mistakes. Then following her firm negotiations with the DVLA, his driving licence was returned and he is now working again. This case actually consumed 80 hours of a SATA volunteer's time!

SATA has published the relevant section of the GMC Guidelines on its website, to help both doctors and patients to understand their respective responsibilities. We do it to make sure both parties fully understand each other. Transparency here is one way of stopping mistakes being made.

MEMBERSHIP RENEWALS – DIRECT DEBIT CAMPAIGN

We are delighted that many of you have taken up the new direct debit facility using GoCardless, an online agency for use by email members. We have heard from postal members who would also like to set up a Direct Debit with us so we are preparing a form for these members to fill in and return to us. They would be notified in the annual letter we send to members prompting renewal of the amount we would be requesting from their bank, giving them time to modify if they wish. Direct debit does drastically reduce our administration costs and make our financial management more efficient. Thank you for your support.

SATAday 2017 - 7th OCTOBER 2017 - JOHN RADCLIFFE HOSPITAL, OXFORD

The provisional programme for this year's Conference and AGM is published in this edition of Sleep Matters. Following feedback from last year's event, we will be making some changes as detailed in the last edition of Sleep Matters. Booking have now opened on our website and places are going fast, so book early to avoid disappointment.

The timing of the AGM during the Conference continues to be a cause for concern for some, but we are bound by our constitution and legal requirements to hold an AGM. This year we will circulate the documents earlier to all members allowing you to send questions which will read out and answer at the AGM. I hope this will make more of you feel

involved and not only those fortunate enough to be able to visit Oxford. I would like to make this point though, the facilities at Oxford are provided free of charge by the hospital authorities and the lecture theatres are classically steeply tiered, which may prove difficult for some members. There is also a need to keep walkways clear in case of rapid evacuation, something that recent events have all so sadly demonstrated. Whilst we will do our best to accommodate everyone, please advise us if you are a wheelchair user or have limited mobility.

FACEBOOK PAGE

We are delighted to announce that our Facebook page is now revitalised and operating again after a delay of many months. It will be used to provide a regular flow of good ideas and suggestions to help all patients. It also gives people another channel by which to contact us and get help and advice.

May I wish you all a very enjoyable summer.

Bill Johnston

SATAday

A breathtaking experience

Saturday 7th October 2017 09.00 to 16.30

Sleep Apnoea Patients' Conference & SATA AGM
Academic Centre, John Radcliffe Hospital, Oxford, OX3 9DU

- *The Changing Face of UK Sleep Medicine – Dr Annabel Nickol, Oxford*
- *Sleep Matters: Why do we sleep and what do we do when sleep is unrefreshing despite effective CPAP – Dr Zenobia Zaiwalla, Oxford*
- *The World of Sleep Apnoea—an R&D Update – Dr Chris Turnbull, Oxford*
- *Beginners Basics – Dr Maxine Hardinge - Oxford*
- *Driving & the DVLA Update – SATA Committee*
- *SATA Question Time*
- Hear about the latest medical developments
- See the latest CPAP equipment
- Discuss matters with manufacturers and experts
- Meet other sleep apnoea patients & share experiences
- An excellent lunch is served with tea and coffee available
- Members and their guests only

Bookings open now on our website: www.sleep-apnoea-trust.org
or call 0800 025 3500 option 3

NB. The premises are provided to SATA at no cost by the hospital authorities and the lecture theatres are steeply tiered and access is narrow, which may prove difficult for some members in wheelchairs or with limited mobility. Please contact us if you are a wheelchair user or have limited mobility.

Generously sponsored by various manufacturers of CPAP equipment and the Oxford Sleep Unit

R&D SPECIAL

OSA REDUCES GREY MATTER IN CHILDRENS' BRAINS

A study of children with moderate to severe obstructive sleep apnoea (OSA) has found significant reductions of grey matter – the brain cells involved in movement, memory, emotions, speech, perception, decision-making and self-control – in several regions of the brain. The study conducted at the University of Chicago in the US and published in the journal *Scientific Reports*, compared the brains of children between seven and 11 years of age to those of children of the same age who slept normally.

The findings point to a strong connection between this common sleep disturbance, which affects up to five per cent of all children, and the loss of neurons or delayed neuronal growth in the developing brain. The researchers examined 16 children with OSA, with the brain patterns of each child evaluated overnight in a paediatric sleep laboratory. Each participant also went through neurocognitive testing and a brain scan with non-invasive magnetic resonance imaging (MRI). The researchers compared those scans, plus neuro-cognitive test results, with MRI images from nine healthy children of the same age, gender, ethnicity and weight, who did not have OSA. They also compared the 16 children with OSA to a further 191 MRI scans of children who were part of an existing database.

They found reduced grey matter in multiple regions of the brains of children with OSA. These included the frontal cortices, which handle movement, problem solving, memory, language, judgement and impulse control, plus the prefrontal cortices, which are responsible for complex behaviours, planning and personality. Reduced grey matter also occurred in the parietal cortices, which handles sensory input, the temporal lobe for hearing and selective listening, and the brainstem which controls cardiovascular and respiratory functions. This extensive reduction of grey matter in children with a treatable disorder provides one more reason for parents of children with symptoms of OSA to consider early detection and therapy. Although these grey matter reductions were rather extensive, the direct consequences can be difficult to measure. MRI scans provide a bird's eye view of the apnoea related difference in volume of various parts of the brain, but they do not reveal, what happened to the affected neurons, or whether or not the brain cells have shrunk or have been lost completely. The researchers said it was difficult to tell exactly when the damage occurred, but previous studies from the group showed that they can connect the severity of the disease with the extent of the cognitive deficits when such deficits are detectable. Without extensive tests of cognitive function prior to the onset of sleep apnoea, it is difficult to fully understand the effect of the loss of neurons. The researchers also said it may just be too soon to measure, given the children in this study were between seven and 11 years old, whereas in previous studies, the connections between greater grey matter volume and intelligence have been documented only in children with an average age of 15.4 years. If you suspect your child or grandchild has sleep apnoea, contact your GP or paediatrician for more information. Sleep apnoea in children is commonly characterised by snoring, pauses in breathing that can last between 10 seconds and a minute, and a gasping or choking sound as breathing commences again. Be aware that just like adults with sleep apnoea, children have no idea that breathing stops during sleep, and it often takes a witness to confirm the symptom. Other symptoms include profuse sweating, wetting the bed repeatedly and waking with a dry mouth.

https://www.eurekalert.org/pub_releases /2017-03/uocm-usa031517.php ,

CPAP CAN REDUCE ACID REFLUX SYMPTOMS FOR SLEEP APNOEA PATIENTS

Do you suffer from nocturnal gastroesophageal reflux? A new study has shown that continuous positive airways pressure (CPAP) may improve symptoms of reflux for people with obstructive sleep apnoea (OSA). The study, published in the *Journal of Clinical Sleep Medicine*, examined 79 veterans – 62 of which, or 78 percent, suffered symptoms of acid reflux. Each of the participants also had obstructive sleep apnoea and was prescribed treatment with CPAP therapy. Participants completed a questionnaire to assess their frequency of heartburn and acid regurgitation. All the participants were re-evaluated in a sleep clinic during follow-up visits after six months of initial enrolment. The mean heartburn score decreased by 62 percent among the sleep apnoea patients who were adherent to the CPAP

therapy. The study also found a progressive reduction in heartburn score with increasing CPAP adherence, which was the only significant predictor for acid reflux reduction in the analysis. The researchers found that CPAP treatment improved night-time acid reflux symptoms without any acid reducing medication. However – minimum CPAP usage of at least four hours per night for 25 percent of nights or more was needed to achieve any acid reflux benefit.

There are many common warning signs for sleep apnoea, including snoring, pauses in breathing during sleep and waking with a gasping or choking sensation during sleep, along with excessive daytime sleepiness or fatigue, poor concentration and poor memory. Patients suffering sleep apnoea often report symptoms of gastroesophageal reflux. The researchers downloaded objective and accurate data from the CPAP machines to check patient adherence. Those who demonstrated CPAP use for four or more hours per night for at least 70 percent of the nights were considered to be adherent to the treatment.

According to the authors, previous research studying the impact of CPAP therapy on acid reflux among patients with sleep apnoea relied on self-reports of CPAP adherence. This may be the first study to demonstrate with objective treatment adherence data that CPAP adherence improves nocturnal acid reflux symptoms.

https://www.eurekalert.org/pub_releases/2016-10/aaos-sft100316.php

SLEEP APNOEA NOT JUST A PROBLEM FOR THE OBESE

Despite popular beliefs surrounding obstructive sleep apnoea (OSA), an Australian study highlights that not all people who suffer from OSA are obese. The research, conducted by Neuroscience Research Australia (NeuRA) and the Prince of Wales Hospital (POWH) found that normal to overweight patients with OSA are most likely to require a different approach to treatment than CPAP, which can be a challenge to clinicians.

Obesity is a well-established risk factor for OSA and can cause an anatomical obstruction to the upper airway. However, more than half the participants referred to the POWH Sleep Clinic for OSA were not obese. This is the first study to highlight that respiratory arousal, a key contributor to OSA that is not related to anatomy, differs in non-obese versus obese patients. The latter population responds well to continuous positive airway pressure (CPAP) treatment, but this is not the case with normal-to-overweight patients.

The study found that the majority of non-obese patients suffer from a low respiratory arousal threshold, which means they have a greater tendency to wake easily, a factor that may limit their tolerance for CPAP therapy. Clinicians should keep BMI in mind when prescribing therapies for patients, and may need therapies that target causes other than upper airway anatomy such as sleep promotion aids to allow for deeper more stable sleep and breathing, or use these approaches in combination with the CPAP for greater therapeutic advantage. This also means that doctors and clinicians need to look for other symptoms associated with OSA when patients present with sleeping issues beyond obesity. This study will be published in the *Journal of Clinical Sleep Medicine*.

CPAP IMPROVES QUALITY OF LIFE BUT DOESN'T REDUCE RISK OF HEART ATTACK

A study led by Australian sleep specialists and involving 89 hospitals in New Zealand, India, the USA, Spain and Brazil has revealed CPAP machines do not reduce the risk of heart attack or stroke, but do significantly improve quality of life. The study involved more than 2,700 sleep apnoea sufferers with cardiovascular disease, and estimated that 25 per cent of middle-aged men and 10 per cent of middle-aged women in the study group suffer from sleep apnoea. Titled the Sleep Apnoea Cardiovascular Endpoints (SAVE) study, the research was conducted at Flinders University in collaboration with the Adelaide Institute for Sleep Health and the international universities, monitored sleep apnoea patients with a pre-existing vascular disease over a four-year period. Researchers were looking at whether a CPAP machine would prevent major cardiovascular events including heart attack and stroke. Half of the participants were given a CPAP machine to help them breathe during sleep, while the other half did not use the CPAP machine. The results of the study, which were released in August, showed the CPAP treatment made no difference to whether or not patients experienced a major cardiovascular event. Researchers said the overall risk of future cardiovascular events was not improved by the treatment for sleep apnoea. The study did show, however, that the patients who used a CPAP machine experienced a much-improved quality of life and greater lifestyle benefits

including reduced snoring, decreased daytime sleepiness and better mood. The SAVE study emphasises the benefits of CPAP to OSA sufferers, but also revealed that CPAP treatment was most effective when used for at least four hours during sleep. CPAP technology is improving on a daily basis, but speak to your sleep doctor if you feel the machine is not working for you. The mask should be comfortable and rapidly improve symptoms of excessive fatigue and daytime sleepiness. You may require additional assistance finding the right mask and machine for you, so speak to your CPAP supplier and be sure to request a trial CPAP period. If you have tried CPAP and are finding the technology is simply not helping to improve your symptoms, speak to your sleep physician about alternative treatments, which may help treat sleep apnoea and its associated symptoms.

http://www.savetrial.org/page/view_by_id/12 NB See Sleep Matters Dec 2016 SATAday 2016 Conference

MANAGEMENT OF CPAP TREATMENT COMPLIANCE USING TELEMONITORING IN OSA.

This study investigated the efficacy and cost-effectiveness of telemonitoring for improving CPAP compliance. 100 newly diagnosed OSA patients requiring CPAP (apnoea-hypopnoea index >15 events/hr) were randomised to standard management or a telemonitoring programme that collected daily information about compliance, air leaks and residual respiratory events, and initiated patient contact to resolve issues. Clinical/anthropometric variables, daytime sleepiness and quality of life were recorded at baseline and after 3 months. Patient satisfaction, additional visits/calls, side-effects and total costs were assessed. There were no significant differences between the standard and telemedicine groups in terms of CPAP compliance, symptoms, clinical variables, quality of life and unwanted effects. Telemedicine was less expensive than standard management (EUR123.65 *versus* EUR170.97) and was cost-effective. Overall patient satisfaction was high, but significantly more patients rated satisfaction as high/very high in the standard management *versus* telemedicine group (96% *versus* 74%). Telemonitoring did not improve CPAP treatment compliance and was associated with lower patient satisfaction. However, it was more cost-effective than traditional follow-up.

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EFFECTS OF CPAP ON ENERGY BALANCE – A SYSTEMATIC REVIEW

Obesity is both a cause and a possible consequence of obstructive sleep apnoea, as OSA seems to affect parameters involved in energy balance regulation, including food intake, hormonal regulation of hunger/satiety, energy metabolism and physical activity. It is known that weight loss improves OSA, yet it remains unclear why CPAP often results in weight gain. The goal of this systematic review is to explore if and how CPAP affects the behaviour and/or metabolism involved in regulating energy balance. CPAP appears to correct for a hormonal profile characterised by abnormally high leptin and ghrelin levels in OSA, by reducing the circulating levels of each. This is expected to reduce excess food intake. However, reliable measures of food intake are lacking, and not yet sufficient to make conclusions. Although studies are limited and inconsistent, CPAP may alter energy metabolism, with reports of reductions in resting metabolic rate or sleeping metabolic rate. CPAP appears to not have an appreciable effect on altering physical activity levels. More work is needed to characterise how CPAP affects energy balance regulation. It is clear that promoting CPAP in conjunction with other weight loss approaches should be used to encourage optimal outcomes in OSA patients. *ERS Journal 2016 48 Ari Schechter*

SLEEPING LONGER CAN DOUBLE THE RISK OF DEVELOPING DEMENTIA

Sleeping more than nine hours each night can double the risk of developing dementia. The study examined a large group of adult participants who were enrolled in the Framingham Heart Study, a long term study taking place at Boston University. They typically slept each night and were observed over a ten year period to determine which of the participants developed dementia, including dementia due to Alzheimer's disease. Researchers from Boston University School of Medicine then analysed the sleep duration data and examined the risk of developing dementia. Those who slept for over nine hours per night were at double the risk of developing dementia in that ten-year period, as compared to participants who slept for nine hours or less. The findings, which appear in the journal *Neurology*, also found those who slept longer had smaller brain volumes. According to the researchers, the results suggest that

excessive sleep may be a symptom rather than a cause of the brain changes that occur with dementia. Therefore, interventions to restrict sleep duration are unlikely to reduce the risk of dementia. The researchers believe screening for sleeping problems may aid in the early detection of cognitive impairment and dementia.

https://www.eurekalert.org/pub_releases/2017-02/bumc-sfp021717.php

SLEEP APNOEA HAS STRONG CONNECTION TO RATE OF MELANOMA AGGRESSION

A Spanish study has discovered an association between untreated sleep apnoea and increased aggressiveness of malignant cutaneous melanoma, a particularly aggressive form of skin cancer. For the UK melanoma is the fifth most diagnosed cancer in the country. In the world-first Spanish study, patients with OSA showed a poor prognosis in terms of the aggressiveness rate in which the melanoma spread. The study examined 412 patients, both male and female, with an average age of 55 years. All had been diagnosed with cutaneous malignant melanoma. The researchers looked at a number of factors that indicated patient prognosis, including the Clark and Breslow scales, which, when taken together, determine the stage of melanoma. All patients took part in an overnight diagnostic sleep study and those patients who have previously been treated with CPAP were excluded from further research. The researchers found that patients diagnosed with the most aggressive cancers had higher prevalence and severity of obstructive sleep apnoea. This relationship was apparent regardless of age, gender, body mass index, skin type, sun exposure and other risk factors for melanoma. Those leading the study, however, stressed that despite the apparent relationship between sleep apnoea and cancer, it is important that people with sleep apnoea do not conclude that they will necessarily develop cancer. The researchers said the findings have implications for both patients and physicians. They stated that people who snore, frequently wake up at night or have daytime sleepiness should see a sleep specialist, especially if they have other risk factors for cancer or already have cancer. Physicians, including dermatologists, cancer surgeons and medical oncologists, should consult patients if they exhibit sleep apnoea symptoms, and refer them for a sleep study. These symptoms include excessive daytime sleepiness, snoring, breathing pauses during sleep and waking with a gasp or choking sensation. The researchers have plans for additional studies, including a multinational study of melanoma and other cancer patients, to examine the influence of long-term CPAP therapy on those also diagnosed with sleep apnoea.

http://www.eurekalert.org/pub_releases/2016-05/ats-usa050916.php.

OSA MAY INCREASE RISK OF GLAUCOMA

People with obstructive sleep apnoea (OSA) may be at a higher risk of the eye disease glaucoma, according to new research from Japan. In the world first study, scientists from Hokkaido University have completed research into the eye pressure of patients with OSA while sleeping, finding a surprising relationship with glaucoma. Glaucoma is a disease that occurs when the optic nerves sustain damage as a result of increased eye pressure and causes a restricted visual field. The study found that people with OSA are around 10 times more likely to suffer glaucoma than people without the treatable sleep disorder. Until now, measuring the eye pressure of sleeping patients has proved incredibly difficult. The Hokkaido team used a special sensor, similar to a contact lens, to monitor pressure changes when patients breathing repeatedly stopped during sleep. Usually, intrathoracic pressure rises when people stop breathing, or exhaling, which results in higher eye pressure. The study found that eye pressure dropped unexpectedly when participants stopped breathing. They tended to stop inhaling, not exhaling, due to the closing airway, which should lead to lower intrathoracic pressure. The participants also experienced hypoxic effects, as pauses in breathing caused blood oxygen saturation levels to drop. These effects could possibly trigger optic nerve damage that can lead to glaucoma. The study shows that the optic nerve could be damaged due to hypoxia without a rise in eye pressure – a finding that could help unravel the details of glaucoma sufferers with normal eye pressure levels. Visit

<http://www.glaucoma-association.com/about-glaucoma/what-is-glaucoma>

TALE END

A LESSON FROM AUSTRALIA – DON'T KEEP YOUR CPAP MACHINE ON THE FLOOR AT BEDTIME

A Queensland member of the Sleep Disorders Australia charity found that he was woken from his sleep late in the night by an awful smell. The offensive smell came through his CPAP. At first he thought the heater must have been the problem. However, upon arising from his bed he found that their pet dog was asleep beside and against the air intake of the CPAP. He says the smell was still evident in the room and the dog was responsible. It serves as a reminder that the CPAP should be placed in a better position beside your bed. And, of course, don't let animals sleep in the bedroom on your CPAP machine.

SLEEPING BEAUTY SYNDROME

'Sleeping Beauty Syndrome', also known as Kleine-Levin Syndrome (KLS), is an unusual sleep disorder in which sufferers can sleep for around 23 hours a day for up to three weeks at a time. KLS typically affects males around the age of 15 and symptoms can linger for eight years, and longer in women. The disorder can disappear for six to 12 months at a time, in which the sufferer displays normal sleep habits and patterns. During sleep, it is very difficult to wake sufferers. When they do wake, KLS patients can display excessive behaviours including confusion, binge eating, hallucinations and apathy. Although the cause of the disorder is largely unknown, there are links to a preceding infection in over two thirds of patients. A mood stabiliser lithium medication may prove beneficial as treatment.

STILL RECEIVE SLEEP MATTERS BY POST—BUT HAVE A COMPUTER AND EMAIL ADDRESS?

One of SATA's largest expenses is the postage of this newsletter. If you don't really need a hard copy, electing to receive your copy of **Sleep Matters** electronically will save us some money, and will help to save some trees. For those who have trouble with the small print, getting PDF by email means that you can increase the size on screen, which makes reading much easier. To change over from hard copy to email delivery, please send an email message to our Managing Secretary, Chris Rogers providing him with your name and postcode (this will enable you to be identified on the database). Please note that you can change back to receiving a hard copy if the PDF version does not meet your needs.

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