Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Results:A sample data of several drivers that work in a passenger transport company will be used for assessment. Questionnaire responses were already collected and assessed, with sleep disorders and circadian rhythms results obtained for each driver. For the data collection phase, a mobile application was developed that gathers information continuously from the wearable device and makes it available to the user.
Conclusions: The work is in progress and for now there is a system that collects biometric data, gives feedback in real time to drivers, allows responses to questionnaires and assessment of their circadian rhythm and quality of sleep. Collaboration between the develop team and the final users was fundamental for improvements on the proposed system. Future work encompasses data collection and analysis in order to establish the patterns needed to create the alert system.
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SELECTIVE SLOW-WAVE SLEEP SUPPRESSION THROUGH AUDITORY CLOSED-LOOP STIMULATION

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Introduction: While therapeutic sleep deprivation has been shown since the 1960s to exert a strong and rapid antidepressant effect on individuals with major depressive disorder, it is also burdensome for the patients, with limited benefits due to frequent relapse after subsequent nighttime sleep. Selective suppression of slow wave sleep (SWS), potentially through modifications of synaptic plasticity, may represent an effective and more sustainable alternative, while being significantly less stressful for the patient. The purpose of this project was to develop and evaluate a fully automatized selective suppression protocol of SWS based on closed-loop auditory stimulation in a healthy population, which would allow for broader clinical implementation without the need for online supervision.
Materials and Methods: A new automatized SWS suppression approach was developed and evaluated in a healthy, young population ($N = 15$). Participants underwent a repeated measures design consisting of three sleep laboratory nights; one adaptation night and two experimental nights (auditory stimulation and sham in counterbalanced order). Stimulation was applied upon detection of SWS, until SWS was no longer detected. The SWS detection protocol relied on a topographical template of slow waves. Stimulation consisted of discrete bursts of pink noise with a randomized duration (50-500 ms) and inter-onset interval (1-4 s). A random walk (+-2.5 dB, Ornstein-Uhlenbeck process) was superimposed on the linear increase of volume (40-106 dB in 60 s) to add unpredictability in volume.
Results: The stimulation protocol lead to a significant reduction of SWS (-39.19%; $p < 0.01$), with an associated increase in sleep stage N2 (+10.94%; $p < 0.001$), and a decrease in REM sleep (-10.76%; $p = 0.03$) as compared to sham. No other significant changes in sleep continuity or architecture were observed. Slow wave activity averaged across the night and cumulative slow wave energy at the end of the night were both significantly reduced by about 30 % across channels and individuals ($p < 0.05$), without changes in other frequency bands, and with changes specific to N3 sleep.
Conclusions: We demonstrate, to our knowledge for the first time, that a fully automatized approach can suppress SWS. Future studies are needed to investigate potential functional consequences such as changes to synaptic plasticity and depressive symptomatology in patients with major depressive disorder. Further developments bear the potential for translation to broader and even ambulatory use of automated SWS detection and modulation, and potentially for new treatment developments for major depression.
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SLEEP AND COVID-19. A CASE REPORT OF A MILD COVID-19 PATIENT MONITORED BY CONSUMER-TARGETED SLEEP WEARABLES

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Introduction: COVID-19 is a potentially severe respiratory infection caused by the SARS-CoV-2 virus, first identified in Wuhan, China in December 2019. The DNA sequence was rapidly made public and numerous research studies have followed. SARS-CoV-2 is mainly transmitted by droplets and aerosols from asymptomatic and symptomatic infected subjects. The consensus estimate for the basis reproduction number (R0) ranges between 2 and 3, and the median incubation period is 5.7 (range 2–14) days. The pandemic remains active to this day with a worldwide death toll of over 5,012,337 [1]. While most cases are mild, 5–10% of patients are hospitalized, mainly due to pneumonia with severe inflammation or acute respiratory distress syndrome. Complications are respiratory and multiorgan failure; risk factors for complicated disease are higher age, hypertension, diabetes, chronic cardiovascular, chronic pulmonary disease, and immunodeficiency. The current estimate for the infection's fatality rate is 0.5–1%, and the prediction of severe forms of the disease is still a challenge for the physician [2].
The SARS-CoV-2 pandemic has been marked by the development of the use of ambulatory medical devices and nonmedical wearables for the monitoring of patients in ambulatory settings. While the diffusion of these technologies has great potential for the production of health-related information, it is important to evaluate the way the data can be used in the medical decision-making process [3].
In this paper the evolution of SARS-CoV-2-related sleep disorders and physiological parameters are examined in a SARS-CoV-2 infected patient who was routinely wearing three consumer sleep wearables before the onset of the disease and kept them throughout disease and recovery.
Objective Sleep Data Assessment: The patient voluntarily recorded his sleep and wake rhythms via three consumer sleep wearables (CSW): Oura ring Gen 2 (Oura) [4], Fitbit Versa 2 (Fitbit now part of Google) [5], and iSleep Watch for AppleWatch (iSommeil) [6]. FitBit Versa 2 watch and iSleep Watch were worn alternatively on the nondominant wrist for 55 days. Oura ring was worn in real life continuously on the nondominant finger for 55 days. Those three CSW (Table 1) had heart rate sensors and 3 axis-accelerometers to estimate sleep duration (TST), WASO. Additionally, the Fitbit Versa 2 watch recorded respiratory rate, and the Oura ring recorded skin temperature and respiratory rate.
Physiological data were recorded as per the following protocol: (1) the Oura Ring was worn continuously; (2) the Apple Watch and the FitBit Versa 2 were worn in an alternating manner, 12 h each.
Results: The mean breathing rate, heart rate, and body temperature increased significantly during the infection (Figure 1) as previously described [7].
Conclusions: This case report highlights the clinical importance of sleep evaluation in COVID-19 patients and how early intervention and management of sleep disorders in the broader population may be recommended to prevent potential sleep-induced frailty in the event of an acute infectious event.
In addition, we suggest wearables could be used for early detection of infection and remote monitoring, allowing patients to report their vital signs from home.

SLEEP REACTIVITY TO ANTICIPATORY ANXIETY: PRELIMINARY RESULTS FROM A HOME-EEG SLEEP MONITORING AND VIRTUAL REALITY STUDY

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Introduction: Sleep reactivity can be defined as the tendency to exhibit sleep disturbance following stress exposure. In this context, anticipatory anxiety (i.e. fear and worry before an upcoming stressful such as giving a