

Dentsply Sirona and Panthera Dental announce collaboration: fully digital workflow for custom-made sleep devices

Dentists now have the opportunity to use Primescan in a new area of application: Obstructive Sleep Apnea (OSA) and snoring, which affects up to 3.6¹ billion people worldwide and is a growing market. Dentsply Sirona has therefore signed an agreement to collaborate with Panthera Dental (Quebec, Canada) to offer a validated and fully digital workflow for custom-made sleep devices.

Charlotte/Quebec, November 12, 2020. Dentsply Sirona's intraoral scanner Primescan, launched in 2019, enables high-precision digital impressions with outstanding imagery. Working with Primescan offers numerous advantages: it can be used for patient consultation, treatment planning in implant dentistry and orthodontics, and for restorative treatments. With the collaboration between Dentsply Sirona and Panthera Dental, which was announced today, dentists can now use the precise scans in a validated workflow as a basis to create a custom-made Digital Sleep Apnea Device (D-SAD). The outstanding quality of the intraoral scan data delivers reliable data for the high-quality custom-made D-SAD Mandibular Advancement Device (MAD), indicated for people suffering from Obstructive Sleep Apnea and snoring.

Three steps to D-SAD: scan, send and treat

Thanks to Dentsply Sirona's Primescan, a complete and accurate full-arch scan is possible in as little as a minute to give the dentist immediate control of a 3D model. The outstanding accuracy and reliable quality of Primescan delivers reliable data for the Panthera Dental D-SAD custom-made sleep device. This saves time and nearly eliminates the necessity for adjustments during patient visits.

The data transfer to Panthera Dental is fast and secure: for North America, Germany, France, Belgium, Netherlands, Luxembourg, United Kingdom, Australia and New Zealand the data will be transferred securely via the Dentsply Sirona Connect Case Center. For other Primescan and Panthera Dental countries the data can be sent via STL to Panthera Dental through their user-friendly web portal (regulations per country and availability may vary). With one of the next software versions, there will be a full integration in the Connect Case Center for all Primescan and Panthera Dental-validated countries.

One advantage is that besides Primescan, no additional equipment is needed. After scanning the patient's complete jaw and the bite registration for the protrusion, the scan data can be sent directly to Panthera Dental, either using the Connect Case Center or via STL-file. Within 15 days, the D-SAD will be designed and manufactured by Panthera Dental's proprietary CAD/CAM process in their 4.0

Press contact

Dr. Tanja Lauinger
Senior Corporate Public Relations
Manager
Enterprise Square V Tower 2
28/F Tower, 38 Wang Chiu Rd
Kowloon Bay
Hong Kong
T +43 (0) 664 60097 629
T +852 7071 3004
tanja.lauinger@dentsplysirona.com

Marc Morisset
Director of Strategy, Sleep Division
Panthera Dental
9105 rue John-Simons
Quebec, QC Canada,
G2B 0S6
T +1 418 527 0388
marc@pantheradental.com
www.pantheradental.com

Kerstin Schicha
Edelman GmbH
Schöneberger Straße 15
D-10963 Berlin, Germany
T +49 (0) 30 2218290-70
kerstin.schicha@edelman.com
www.edelman.com

Marion Par-Weixlberger
Vice President Public Relations &
Corporate Communications
Sirona Straße 1
5071 Wals bei Salzburg, Austria
T +43 (0) 662 2450-588
F +43 (0) 662 2450-540
marion.par-weixlberger@dentsplysirona.com

manufacturing plant using numerous digital, robotic and automated technologies. It is then shipped back to the dental professional via multinational express delivery service. The dentist receives a custom-made sleep device and can start treatment immediately.

The individualized and fast result distinguishes the dental practice in its treatment of snoring and sleep apnea, and allows for happier, healthier patients with improved quality of life.

A fast and accurate solution for OSA and snoring

Physical and psychological problems that sleep apnea can cause should not be underestimated. If sleep is constantly disturbed, this can have serious effects on mental and physical health. Currently, three main treatment solutions are recommended by experts: lifestyle modifications (weight loss and exercise), Continuous Positive Airway Pressure (CPAP) and Mandibular Advancement Devices (MAD). However, sleep masks (CPAP) have considerable compliance issues with 50% and 83% of patients being non-compliant after six months and five years respectively.² Patient compliance of Mandibular Advancement Devices (MAD) remains 86% after over three years of use³. Thanks to Panthera Dental's D-SAD, patients with Obstructive Sleep Apnea (OSA), and those who refuse or are noncompliant to Continuous Positive Airway Pressures (CPAP) therapy, have a comfortable and effective treatment option available.

Dr. Shouresh Charkhandeh, dentist and dental sleep medicine educator from Canada, says: "Over one billion people worldwide suffer from sleep-related breathing disorders such as Obstructive Sleep Apnea. Many of them can benefit from Oral Appliance Therapy (OAT). We need to safely simplify OAT and make it predictable in order for many dentists to get involved in providing this life-saving treatment to patients. The validated digital workflow solution between Primescan and Panthera Dental, which combines Primescan's impressive accuracy, efficiency and ease of use, with Panthera Dental's precise and versatile manufacturing, enables dentists around the world to help many suffering patients live a longer, better and healthier life and provide an alternative solution to CPAP therapy."

Panthera Dental's D-SAD is made out of 100% medical grade biocompatible type-12 polyamide nylon. This cutting-edge material is light, smooth, strong yet flexible, very durable and resistant to bruxism. A wide range of plateaus and bands are available and allow for over 300 standard design combinations as well as maximized tongue space. Additional customization is possible, and the D-SAD can be adapted to every possible patient morphology, from basic to the most complex. It is a uniquely simple and easy to care for dental appliance.

The D-SAD's unique titration mechanism uses interchangeable rods made of the same biocompatible polymer as the device, designed to not elongate and resist to bruxism. The length of the rods varies from 16 to

34 mm and can be adjusted in 0.5 mm increments for an accurate and customized advancement. Moreover, they do not disengage during sleep thanks to a patented connection system and they are easily replaced.

"We are fulfilling an explicit request from customers and providing added value for dentists working with Primescan," said Dr. Alexander Völcker, Group Vice President CAD/CAM at Dentsply Sirona. "The combination of Panthera Dental's Digital Sleep Apnea Devices and Primescan is a great example of what can be achieved when a dental workflow starts with an intraoral scan. The digital technology integrates seamlessly into the daily workflow, enabling clinicians to provide a fast and accurate solution for sleep apnea and snoring."

Beatrice Robichaud, Co-Founder and VP Marketing & Customer Experience at Panthera Dental said: "Our collaboration with Dentsply Sirona is a natural fit that will synergize both our companies' recent technological advancements in the field of CAD/CAM solutions. Dentists worldwide will benefit from the predictability of the validated Primescan workflow while delivering an accurate, completely customized Digital Sleep Apnea Device to their patients, for greater patient satisfaction and quality of life."

The Panthera D-SAD received FDA 510(k) clearance for snoring and obstructive sleep apnea has the CE mark and complies with the Canadian Medical Devices Regulations.

More information about Primescan is available on the Dentsply Sirona Website: www.dentsplysirona.com/primescan

More information about Panthera Dental is available on the Panthera Dental website: <https://pantheradental.com/d-sad/>

The workflow is being expanded to other countries, but regulations may vary. New countries will be added shortly; announcements will be made in due time.

About Dentsply Sirona

Dentsply Sirona is the world's largest manufacturer of professional dental products and technologies, with over a century of innovation and service to the dental industry and patients worldwide. Dentsply Sirona develops, manufactures, and markets a comprehensive solutions offering, including dental and oral health products, as well as other consumable medical devices under a strong portfolio of world-class brands. As The Dental Solutions Company™, Dentsply Sirona's products provide innovative, high-quality and effective solutions to advance patient care and deliver better, safer and faster dental care. Dentsply Sirona's headquarter is located in Charlotte, North Carolina. The company's shares are listed in

the United States on NASDAQ under the symbol XRAY. Visit www.dentsplysirona.com for more information about Dentsply Sirona and its products.

About Panthera Dental

Panthera Dental designs, manufactures and markets dental prosthetic, implantology and sleep breathing disorder solutions using a cutting-edge CAD/CAM process and superior quality materials. Both a pioneer and a leader in the field of custom-made dental solutions, our proprietary technology allows us to offer next-generation products to the widest range of patients possible. Panthera Dental is headquartered in Quebec City, Canada, with subsidiaries in the USA and France, and associates worldwide.

References

1. Park JG, J G Park, Mayo Clinic, Center for Sleep Medicine. In: Encyclopedia of Sleep. Kushida A. (Ed). Elsevier, 2013: 265-268.
2. Sutherland K, Phillips CL, Cistulli A. Efficacy vs Effectiveness: CPAP and Oral Appliances. J Dent Sleep Med 2015;2(4):175-181.
3. Bachour P, Bachour A, Kauppi P, Maasilta P, Mäkitie A, Palotie T. Oral appliance in sleep apnea treatment: respiratory and clinical effects and long-term adherence. Sleep Breath 2016;20(2):805-812.



IMAGES

are available for [> Download](#) on the website.



Fig. 1: D-SAD can be used to treat sleep apnea and snoring.



Fig. 2: How a Mandibular Advancement Device (MAD) works to overcome snoring and Obstructive Sleep Apnea (OSA).



Fig. 3: Primescan achieves outstanding results and is fast, accurate and easy to use.



Fig. 4: Dr. Alexander Völcker, Group Vice President at Dentsply Sirona CAD/CAM: “The combination of Panthera Dental’s Digital Sleep Apnea Devices and Primescan is a great example of what can be achieved when a dental workflow starts with an intraoral scan.”



Fig. 5: Beatrice Robichaud, VP Marketing & Customer Experience/Co-founder at Panthera Dental: “Our collaboration with Dentsply Sirona is a natural fit that will synergize both our companies’ recent technological advancements in the field of CAD/CAM solutions. Dentists worldwide will benefit from the predictability of the validated Primescan workflow while delivering an accurate, completely customized Digital Sleep Apnea Device to their patients, for greater patient satisfaction and quality of life.”



Fig. 6: Dr. Shouresh Charkhandeh, Canada: “The validated digital workflow solution between Primescan and Panthera Dental, which combines Primescan’s impressive accuracy, efficiency and ease of use, with Panthera Dental’s precise and versatile manufacturing, enables dentists around the world to help many suffering patients live a longer, better and healthier life and provide an alternative solution to CPAP therapy.”