

INEWS 1/2021 AEEDC Special Edition INFODENT Srl - Via dell'Industria 65 - 01100 Viterbo - Italy

We can offer a worldwide visibility to your company. Even only one contract signed with one distributor of our database can help you multiply your ROI.



### HALL 4 STAND 417



### BRIGHT smiles

20





Visit Infodent Int'l Booth in AEEDC Dubai 2021 Hall 4, Stand N. 417 to get in touch with DMP SA www.dmpdental.com info@dmpdental.com











PREDICTABLE

SAFE



### MINIMALLY INVASIVE



### COST SAVING



### TIME SAVING





### COMFORTABLE ACCURATE

Rekdesign GmbH CH-6933 Muzzano Switzerland

info@dentasonic.ch www.dentasonic.ch

### 📲 GNÍ Órtho

# THE NEW orthodontics brackets



VENUS Ceramic Self-Ligating



ACTIVE

**Curving points** Provide a stable force to

minimize clip deformation

Strong hook

Engineered with a rounded edge to provide comfort and secure engagement of ligature ties

### **Bonding Base**

PATENTED double-layered cross-etched base maximized bonding retention

### PASSIVE

### Rounded sliding door

For added patient comfort and easy to open and close

### **Rounded body**

PATENTED design providing superior patient comfort

### **Ceramic injection-mold**

100% Translucent full ceramic self-ligating bracket Provides uniformity, consistent strength,and precision ACTIVE

### **Tool-inserting slot**

To ease spring clip opening with a specially designed tool

### **Curving points**

Provide a stable force to minimize clip deformation

### Slot blocker

For wire retention stabilization

### Booth NO: 4B03

### www.gniortho.com

### **Cover page**

### **DMP SA**

Kalyvion Avenue, Markopoulo Ind. Zone 19003 Markopoulo Mesogaias Attica - Greece +30 2299 02 3041 info@dmpdental.com www.dmpdental.com

### Contents

### **Back cover**

### SW Safety Solutions

33278 Central Avenue, Suite 102 CA 94587, Union City USA +1 510 429 8692 info@swsafety.com www.SWsafety.com



All our advertisers are looking for distributors worldwide. **Check here for more** information.





Gingival recession treatment with Concentrated Growth Factors (CGF) in the esthetic zone

55.3SB GRUPPO 8. ATS DENTAL 3. Avinent Implant System 64. B.M.S. Dental 17. Curasept 2. DenTag 10. Dental Devices 10. Dental Flex Italia 9. Dental Plus 31. Dentalfilm 15. DynaFlex 11. Fimet 1. GNI Ortho 10. Guangzhou Ajax Medical Equipment 53. Herbadent 8. Highness 63. IDS 51. Lares Research 24-25. LED 5. Miglionico 32-33. Miromed 45. New Life Radiology 47. Ningbo Runyes Medical Instrument 8. Öncü Dental 11. Orthosystem Torino Lab 61. Quest Corporation II Cover. Rekdesign 41. RESISTA - Ing. Carlo Alberto Issoglio & C. 39. Shenzhen Xiangtong - XTCERA 20-21. Silfradent 7. Spiro 11. Technology in Biomaterials



# Biomimetic



#### Contact local distributor (UAE)

John Delos Reyes +971 52 640 5987 J.delosreyes@pharmapal.ae

#### More information

www.avinent.com +34 93 827 34 65 avinent@avinent.com The **Ocean** system offers a geometry that favours outstanding primary stability, bone preservation, and some splendid aesthetic results with respect to tissues.

Avinent implants are made with the revolutionary **Biomimetic Advanced Surface**. By adding calcium and phosphorus it was possible to create a surface that speeds up bone-implant interaction.

### AVINENT Beyond limits

#reshapingdentistry #avinentexplorers





XIMPLANT - Currents decontaminator in the treatment of infected peri-implant and periodontal sites



Causal treatment management during mucogingival surgery procedures: application of ozone therapy at home and by professionals



The GCC Region Facts and Figures



Sultanate of Oman



The Kingdom of Saudi Arabia



The United Arab Emirates

#### inews Special Edition AEEDC 2021



www.infodent.com || infodent@infodent.com Tel: +39 0761 352198 || WhatsApp: +39 351 741 5005

Marketing & Consulting: Riccardo Bonati, riccardo.bonati@infodent.com Ilaria Ceccariglia, ilaria.ceccariglia@infodent.com Veronica Viti, veronica.viti@infodent.com

Exhibition Manager: Cristina Garbuglia, cristina.garbuglia@infodent.com

inews Special Edition AEEDC 2021 supplemento a Infodent International 2/2021 Infodent International magazine, connecting dental business worldwide V.G.98/02 aut. trib. VT n°496 del 16/02/2002

Editorial Director: Silvia Borriello

Newsroom: Claudia Proietti Ragonesi Nadia Coletta Manuela Ghirardi



Infodent s.r.l. • Headquarters: Via dell'Industria, 65 01100 Viterbo - Italy • Registered Office: C.ne Gianicolense, 68 00152 Rome - Italy VAT 01612570562 CEO - Publisher: Baldassare Pipitone, baldo.pipitone@infodent.com General Manager: Paola Uvini, paola@infodent.com

Scientific Consultant: Luca Maria Pipitone, luca.pipitone@infodent.com

Contributors for this issue: Dott. Paolo Calvani, Vanja Granberg, Prof. Felice Roberto Grassi, Dott.ssa Roberta Grassi, Dott. Luca Mangani, Prof.ssa Gianna Maria Nardi, Dott. Cesare Paoleschi

Press Officer: Claudia Proietti Ragonesi, pressoffice@infodent.com

Social Media Strategist: Ilaria Ceccariglia, ilaria.ceccariglia@infodent.com

Graphic Department: Silvia Cruciani, silvia.cruciani@infodent.com Antonio Maggini, artwork@infodent.com

Accounting Department: Fausta Riscaldati, fausta.riscaldati@infodent.com

Printer: Graffietti Stampati s.n.c. Strada Umbro Casentinese Km 4,500 01027 Montefiascone (VT)

Spedizione in Italia: Poste Italiane s.p.a. PP Economy – DCO/DCVT/N° 5 fb del 24/05/2002 Spedizione in A. P.– art.1 D.L. 353/2003 Conv. In L. n. 46/04-CDSUVT G. C.

Spedizione all'estero: IFS Italy s.r.l. Viale dell'Industria, 58/A 20037 Paderno Dugnano (MI) P.IVA: IT08577970968 Licenza Postale Generale n.3502/2014 rilasciata dal Ministero dello Sviluppo Economico

Questo numero è stato chiuso in tipografia il: 14/06/2021 Costo copia 0.77

Infodent tm is the title of this magazine as well as an applied for trademark. Any use there of without the publisher's authorization is to be deemed illegal and shall be prosecuted.

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = 150 9001/2015 =





### **IT'S TIME TO BE NICE!**

YOU ARE INVITED AT HALL 6 STAND E10 COME AND DISCOVER OUR DENTAL UNITS NICE GLASS NICE DNE NICE TOUCH





Miglionico s.r.l. 70021 Acquaviva delle Fonti (BA) - Italy export@miglionico.net f @ in •



### Back At Last!



We needed a vaccine. Plain and simple. Until most local officials allowed convention venues to fully re-open. We are finally seeing signs of life, and some international shows are starting to slowly come back. We are delighted to meet our dental community again, in Dubai, a renaissance really worth celebrating!

We needed a vaccine. Plain and simple. Until most local officials allowed convention venues to fully re-open. We are finally seeing signs of life, and some international shows are starting to slowly come back. We are delighted to meet our dental community again, in Dubai, a renaissance really worth celebrating!

While things were on hold, many organizations tried virtual meetings, but attendee engagement was generally inferior compared to the old live events. Yet, reports are coming in that many companies' sales were unaffected by their absence from trade shows. The companies saved the money that previously had been spent on sponsorships, booths, collateral material, travel, and hotels. Does this experience mean that trade shows are to die off? Not at all. When competitors start pedaling again, companies that ignore trade shows will fall behind. Trade show participation drives sales in three ways: continued sales to existing customers, buyers attracted to a new offering, and sales to new buyers dissatisfied with their current providers. Over time, picking up new business is vital. Trade shows are a great way to show off new products, including new variants of old products. Potential buyers may not be aware that the new products exist, they may not understand them, or they may not have been motivated to learn how the new products would benefit them. Business-to-business sales can survive a year or two without trade show exposure, but the value of increased sales will eventually win out relative to costs savings.

What about the attendees? Those who are spending a good bit of money will want to attend to ensure they are getting the best products for their companies. Educational sessions may be less important now that people are used to webinars, and meetings that are primarily educational, rather than trade shows, will be more often virtual. But consumers who attend trade shows want to see multiple products and services offered and will likely not bother with those businesses that are absent. Networking advantages of in-person meetings are inevitably strong.

Yes, because, since the pandemic's outbreak, many have predicted the death of exhibitions as we know them, a bit like the doomsayers who foretell the end of cities. But why people move to big cities? to be with other people. The same happens with exhibitions: we mingle with like-minded peers who do something similar or related to what we do. They are colleagues, competitors, researchers, current or future clients. For three or four days a year we are all together, under the same roof. Wouldn't it be the same to send all these people our product catalogue by e-mail, and ask them if they are interested in buying something from us? Of course not. Zoom meetings or a webpage cannot quite reproduce or replace what happens when we meet face to face, see eye to eye, shake



hands to close a deal. Of course, I am not saying that digitization has no use or influence. New technologies, virtual or hybrid events, are here to stay for they are immensely helpful to reach more people and places. They are now an integrated part of an overall marketing strategy that will later be used as an effective tool to promote a presence at a trade show, and help build an audience and engagement prior to, during, and post event. But most virtual show platforms have not addressed the most important critical factor required for a successful event, virtual or otherwise, audience engagement. A site with a few simple links, or limitations to what you, the exhibitor, can do with creating your own virtual micro-site, does not adequately build, attract, or engage an audience.

Trade fairs are similar to conglomerates, like big cities or villages. Because energy, attitude, and personality cannot be 'remoted' through even the best fiber optic lines. That inspiring energy people have, springs forth solely when we get together, when we meet in places that enhance our creativity and make us feel that we are sharing something unique, something exceptional, with a lot of other people.

In closing, I simply wanted you to know that *Infodent International* will keep doing events that no one wants to miss, they will be better and more tech-savvy than ever!

Come visit our booth to meet international manufacturers that are looking for new partners: Hall 4, Stand 417. Stay safe!

Baldo Pipitone CEO Infodent S.r.l. baldo.pipitone@infodent.com Spiro Dental

Parts ble available

### HANDPIECE REPAIR SPARE PARTS

### Completely new catalog on 250 pages!

- > Turbine rotors, push buttons, keys
- > Contra-angle rotors, shafts, gears
- > High & low speed bearings
- > Parts for micromotors
- > Bulbs and fibre optics
- > Hoses, syringes, suction tubes
- > O-rings and washers
- > Repair tools & instruments



More than 1200 different products on stock



Compatible parts with all major brands and models

### 03

Fast shipping worldwide directly to your office.

Proud partner of



Visit us in Slovenia (EU), Velika pot 24, 5250 Solkan. info@spiroteh.com / +386 40 718 184 / www.spiroteh.com



### "OMEGA IMPLANT PLUS" Powerful Implant Motor

### equipped with L.E.D. Light

It is a complete system, developed, engineered and manufactured in Italy, designed with all the functionality needed for implantology and surgery. It is equipped with an easy and simple to use integrated coolant pump, LED light and a reliable autoclavable brushless motor guaranteed up to 1000 cycles in autoclave. The contrangle calibration ensure safe treatment though accurate torque correction. The motor torque is up to 80 Ncm and the motor speed range is 400-40000 rpm (20-2000 with 20:1



contra-angle. ATS DENTAL surgical contraangle handpiece with Fiber Optic is included in the package. It is equipped with DeLuxe Multifunction Foot Control covered entirely with synthetic rubber, resistant to any leaking fluid. The rheostatic effect is ensured by a pressure sensor. There are no mechanical or moving parts.

### www.atsdental.it daniele.poli@atsdental.it

### Visit us at: Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p2b7z1268



### highness Implant System

Highness Implant System has been developing innovative next-generation implant system that overcome the limitations of modern implant system and is focusing on R&D to change the implant paradigm worldwide. As a first step, the "Highness Digital Prosthetic System", which is a next-generation prosthetic system that solves complications caused by the use of cement as an old problem in the existing prosthetic system, improper impression preparation, screw loosening and breakage due to stress concentration. By using hightech technology and infrastructure, we can use "Highness digital prosthesis" even in dental clinic without digital equipment, and it is freed from various prosthetic complications.



We are leading the digital implant era for the satisfaction both patients and clinic with short chair time. Highness is actively advancing the "Highness Digital Prosthesis System" for both domestically and globally. And is developing a fixture that dramatically increases the surface hydrophilicity of implants. The next-generation implant system pursued by Highness will soon be completed. We are in phase. We will continue to play a leading role in raising the level of dental care worldwide by developing safe, accurate, fast and convenient implant systems for patient comfortable dental care.

www.highnessimplant.com jeffkang7@gmail.com





### TRIOFILL Micro Hybrid Restorative Composite

As Dentac brand, we added our T-resto composites to our product range in order to realize our dream of being a brand exporting Turkish dental products from Turkey to the world. "Triofill", which is a micro hybrid that we first put on the market, has a universal feature. Triofill micro hybrid composite has 77-78% volumetric fillers thanks to its micro-sized particles (0.04-0.1 micron). It was confirmed that Triofill has easy manipulation, excellent consistency and long-term durability by dentists.

Dentac composites reveal their difference with

their specially designed patented packaging in order to facilitate the use of the dentist.

- Triangular prism body that allows it to stand firmly on the table
- Lid that can be easily opened and closed with one hand
- Oval mouth that allows the composite to be taken easily with the help of a spatula.
- Test slot where you can test polymerization

### www.dentac.com info@dentac.com

Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p2b2z21666



LOOKING FOR PERFECT CAD/CAM MILLING MACHINE?



BEST QUALITY AFFORDABLE PRICE EXCELLENT SERVICE



www.dental-plus.co.kr youmeeya@dental-plus.co.kr sales\_01@dental-plus.co.kr sales\_02@dental-plus.co.kr



### **Flexible Partials Denture Material & Machine**

Dental Flex Italia is a company specialized in the manufacture of injection systems and related materials for flexible prosthesis.

For over 15 years we have been supplying many laboratories and distributors in different countries of the European and No-European market, with the greatest satisfaction of all the partners.

Our commitment is mainly focused on the quality and reliability of our products, as well as immediate assistance to all users.

Our materials have been perfected on the basis

of the knowledge and experience gained in dental material's development for over a decade.

We adjust the quality factor as the needs of customers increase, this allows us to keep up with our customers and meet the most demanding requirements.

Become our distributor in your country or simply a user in your laboratory and see the benefits.

### www.dentalflexitalia.eu info@dentalflexitalia.eu Visit us at: IDS 2021, Hall 11.2, Booth K-021





### ajax NEW Ajax AJ25 Premium Dental Package

As leading manufacturer of dental equipment, AJAX provide high-quality products & service to customers worldwide. Products cover markets with various demands, including integrated Dental Chair (basic pattern & professional disinfection/implant series), Suction Unit, Oilless Compressor, Extra Oral Suction, etc.

### Ajax AJ25 Dental Chair Newest version for 2021

- Intelligent Fully-automatic Disinfection System
- Visual Intelligent Control System
- Electric motor Scaler Integrated accurate control system
- Optional built-in amalgam separator system

### **Dental Devices**

Dental Devices is a 40 Year Old Company specializing in manufacturing & export of Dental Instruments & Implants.

We have a complete manufacturing unit comprising Latest High Tech CNC Machines on which we manufacture Very High Quality Dental Instruments & Implants according to the requirement of our customers with Precision and accuracy. We have a strong workforce of 130 Employees comprising Highly Skilled workers manufacturing Supreme Quality Instruments according to the demand and requirements of our Customers.

We are cGMP (FDA CERTIFIED), ISO 9001, EN



Visit us at: IDS 2021, www.ajaxdent.com/News

46002, CE MARKING & ISO 13488 & ISO 9001 CERTIFIED COMPANY & all our instruments are manufactured according to International Quality Standards.

We can manufacture any kind of Dental Instruments as per the demand and requirements of our Customers with complete privacy and in very high and supreme quality. We use Supreme Quality German, French & Japanese Stainless Steel in the manufacturing of our instruments.

www.dentaldevices.pk info@dentaldevices.pk

### Dental Devices

the instruments company



Visit us at: IDS 2021 Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p2b0z4328

### F1 Arcus treatment center for You and Your team

FIMET has a long history in the manufacturing of dental equipment, which began in the early 1980's. Our products are proudly made in Finland. The FIMET mission is to design and produce affordable high-quality dental care units to meet your needs. The new F1 ARCUS continues the long tradition and gives excellent usability and comfort to patients, dental professionals and service engineers maintaining the product. The New touch screen GUI takes the dental care unit usability to the next level. The instrument arm is light and precise to move and works well both in left and right handed dentistry. Assistant



FINET 40 Years in Health Tech

Health Tech

arm moves effortlessly from left to right in just seconds supporting four handed dentistry. FIMET dental care unit portfolio includes floor-, ceiling- and chair mounted units and mobile cart. We are looking for new distributors.

Come and See & Meet us in IDS 2021, Hall 10.2.

www.fimet.fi // sales@fimet.fi Visit us at: IDS 2021, Hall 10.2, Booth R-030

### **TECHBIOMAT BONE Maximum efficacy and safety in bone regeneration**

Technology in Biomaterials is a Spanish company specialized in biomaterials for dental use that develops and manufactures its own products with the international cooperation of experts and universities in various countries. Techbiomat Bone<sup>®</sup> is an hydroxyapatite from bovine cancellous bone. Given the characteristics of its natural and anoganic structure, Techbiomat Bone<sup>®</sup> can be compared to human bone. We are searching for distributors. In you are interested, please contact us and we will be delighted to discuss the best way for a mutual collaboration.

www.technologyinbiomaterials.com export-tib@technologyinbiomaterials.com Visit us at: IDS 2021, Infodent Int'l Booth, Hall 4.1 Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h7p1b2z3411



### **Orthosystem Torino Lab**

We are Orthosystem Torino Lab!

"Everything has to change, so that everything remains as it was before"!

After 25 years of collaboration with Orthosystem Torino, Eleonora Pilloni and Diego Calamita founded the Orthosystem Torino Lab, with the aim of continuing and implementing the Piedmontese orthodontic reality, keeping alive and enhancing the largest and most historic orthodontic Italian laboratory!

A "brilliant" new beginning since 4 December 2018, strongly supported by the two partners who have twenty years of experience in the



orthodontic field and who have a common vision: "A healthy, serious, avant-garde company founded on profound principles and values". Some of our services: Dedicated service; 3D area; Scanner; Cephalometric tracings; SLX Clear Aligners. 360° orthodontics: Fixed, Mobile, Functional, Digital. But not only! We make mobile prostheses in polyamide (nylon) and all devices for the treatment of obstructive sleep apnea and snoring with the TAP®!

Find out more! Visit orthosystemtorinolab.it

www.orthosystemtorinolab.it segreteria@orthosystemtorino.it



### WHITE BEAUTY PROFESSIONAL

The new professional whitening system **WHITE BEAUTY PROFESSIONAL** offers a line of Hydrogen Peroxide and the optical effect thanks to the presence of the Blue Covarine molecule. The first element acts chemically on the enamel, while the Blue Covarine Molecule forms a thin film on the teeth, which gives an optical white effect.

The White Beauty Professional system includes three different kits:

**MOTIVATIONAL KIT** that is designed to motivate the patient to perform professional teeth whitening, starting with proper oral hygiene, thanks to the use of whitening **Mini Pen** and **WHITE BEAUTY PROFESSIONAL** *toothpaste* and *toothbrush*.

**MEDICAL WHITENING TREATMENT** is the kit designed to provide the dentist with all the tools to perform professional whitening in the dental office.

**BLUE LED HOME TREATMENT** is the home treatment designed for patients who want to



maintain at home the color of the teeth obtained after carrying out professional whitening in studio.

www.miromedgroup.ch info@miromedgroup.ch Visit us at: AEEDC 2021, Hall No. 6, Booth 614



### 1200+ parts for handpiece repair and only one supplier

We produce and distribute parts for handpiece repair in more than 50 countries around the world. Our products are suitable for world's best known dental brands and we cover the majority of models. We are developing innovative technical solutions and always looking for an improvement in our parts. We support our clients with technical information and repair tips.

Wide range of spare parts:

- 1. Turbine rotors, push buttons, keys
- 2. High & low speed bearings
- 3. Micromotor parts
- 4. Contra angle rotor and gears
- 5. Bulbs and fibre optics
- 6. Hoses, suction tubes, syringes
- 7. Repair tools
- 8. Washers & O-rings

Receive our brand new catalog on 250 pages.

www.spiroteh.com info@spiroteh.com

Visit us at: Smart Medical Fair 2021 www.smartmedicalfair.com/stand/h1p8b5z11317 www.smartmedicalfair.com/stand/h7p1b1z11318



inews Special Edition AEEDC 2021

13

### NANOCERAM-BRIGHT: DMP's top of the range composite

DMP, a European manufacturer of high-quality dental materials, successfully supplies the global dental market for over 35 years. Certified with ISO 9001, 13485 and MDSAP, DMP's products carry the CE mark and have U.S. FDA clearance. DMP creates bright smiles achieving excellence and reliability through integrity, passion and commitment which are ingrained in DMP's culture.

Leading the BRIGHT range of composites is NANOCERAM-BRIGHT, a strongly radiopaque nanohybrid composite with exceptional aesthetic results. Its creamy consistency and

Visit us at: AEEDC 2021, Infodent Int'l Booth, Hall 4, Stand 417

Smart Medical Fair 2021, www.smartmedicalfair.com/stand/H1P5B5Z1964



ease of sculpting make it the ideal composite for both anterior and posterior restorations. Moreover, the high filler loading combined with fine particle size distribution, leads to low polymerization shrinkage, yielding high marginal integrity and minimized postoperative sensitivity. Its benefits include:

- Outstanding aesthetic results with chameleon effect
- Excellent handling characteristics with no slumping
- Extremely high polishability
- High resistance to wear
- Universal composite

www.dmpdental.com info@dmpdental.com

### **Minimally Invasive Approximal Enamel Correction. MI-IPR**

We know and advice on how to proceed to carry out a safe, controlled, comfortable, and minimally invasive treatment, aimed at preserving your patient's enamel as much as possible and guaranteeing a perfect final result.

Follow your Set-Up (protocol), avoiding to reduce over the necessary.

All this is always under your total control also thanks to the DentaSonic system. DiaStrip files have been developed for use with Aligners, and other orthodontic treatments.

These flexible files with predefined thickness





allow you first of all to avoid excessively reducing the patient's enamel, moreover the diamond grains are less invasive (shallower micro grooves = faster finishing and polishing), but equally effective to guarantee a quick treatment.

With the resin diamond DiaStrips (no metal, no nickel), we can guarantee a much higher flexibility than metal ones, thus making the contouring much more accentuated and easier than any metal file.

www.dentasonic.ch peter.rek@dentasonic.ch

### HERBADENT

Made in the heart of Europe, Herbadent products wed the well-proven healing powers of nature with modern dentistry and dental hygiene. HERBADENT uses for centuries an unique and clinically proven recipe based on combination of extracts and essential oils of seven medicinal herbs.

The **HERBADENT ORIGINAL line** includes a full range of products for prevention of dental decay and gum inflammation: Concentrated extract, gum gel, interdental gel, mouthwash and its concentrate and the **ORIGINAL** and **HOMEO** toothpastes, accompanied by full range of dental brushes.

The **HERBADENT PROFESSIONAL** product range is designed for intensive oral care. Together with other active ingredients, the increased concentration of the active **HERBADENT 7-herb** extract in the products promote speedier healing of acute inflammation.

**HERBADENT.COM** 

**INFO@HERBADENT.COM** 



### Dental Plus CO., LTD - CAD/CAM Milling Machine From South Korea (X5)

DENTAL PLUS CO., LTD. Is one of the best dental CAD/ CAM milling machine manufacturing companies in South Korea and has been in business for 12 years. Currently exporting more than 35 countries worldwide, acknowledged with "Best Quality", "Affordable Price" and most importantly with our "Excellent Service and Support".

Here's one of our main CAD/CAM milling machines called X5. X5 is dry type with simultaneous 5-axis suitable of milling materials like zirconia, PMMA, Wax, Hybrid Ceramic etc.

Essentially, DENTAL PLUS CO., LTD hold own spindle motor development technology giving extreme advantage to the users. X5 provide intuitive interface where even nonprofessionals can easily operate and set-up the machine. Professional engineers from DENTAL PLUS Co., LTD are always ready to help and support. X5 also provide full auto-calibration system with precise milling and accurate result and compatible with all scanners and design program (open system). DO NOT miss the best dental CAD/CAM milling machine!

www.dental-plus.co.kr youmeeya@dental-plus.co.kr sales\_01@dental-plus.co.kr sales\_02@dental-plus.co.kr





### With its 3DS Intraoral Scanner, Runyes, completes its all around Dental Office equipment offer

With its 3DS Intraoral scanner, Runyes, one of Asia's main manufacturers of dental equipment, entered the digital market in 2017.

3DS is a well-designed, compact, light, easy to use device, which provides, at an affordable price, to dental professionals, what is needed to acquire a high precision dental impression, in open format files. Upgrades to the scanning software are made available free of charge.

Runyes is beefing up its existing network of distributors, in more than 100 countries, to





cope with the particularities of CAD-CAM, while adding experienced partners, and establishing three more After Sales Support Centers around the world, in order to be able to provide support in local languages, in the needed time zones.

### http://en.runyes.com runyes@runyes.com Visit us at: AEEDC 2021, Hall 4, Booth 4E10

### RESISTA

### **Monophasic Implants UNI-Q-MUA RESISTA**

The surgical technique for full arch rehabilitation, so-called All-on- $4^{\circ}$ , is nowadays the most well known and imitated. The complexity of rules around this technique is everything but simple. It has indisputable critical issues like the insertion of related angled MUA components, the fragility of retention screws and the probability of coronal bone losses, often due to inflammatory infiltration.

RESISTA, after having been introducing solutions for 25 years for dentistry, offers a revolutionary program of monophasic implants, UNI-Q-MUA, available in three different prosthetic transgingival heights: straight and preangled (17°-32°).



The Hybrid surface treatment and the special care dedicated to each detail let the UNI-Q-MUA

give to the surgeon:

- VERY FAST OPERATING TIMES
- LONG TERM LIFE TO THE IMPLANT
- OUTSTANDING MECHANICAL RESISTANCE
- BIOLOGICAL RESPECT AND LONG-TERM
  PREDICABILITY OF SUCCESS

Smooth geometrical shapes and versatility of insertion of UNI-Q-MUA can extremely simplify the daily surgical practice for every implantologist.

www.resista.it marketing@resista.it Visit us at: IDS 2021, Hall 10.2, Booth T-011

H's About Time...

- Less Chair **Time**.
- Time gained with improved workflow.
- **Time** gained with fewer visits per patient.
- **Time** saved by not repositioning brackets.
- Time you have control without compromise.











By using the Norris 20/26<sup>®</sup> Bracket System, the time you spend in your practice will decrease and time you have to grow your practice will increase. The Norris 20/26<sup>®</sup> Bracket System is a passive to active bracket system that breaks the mold on traditional, old school orthodontics.

When paired with the Norris Extra Broad Archwire, it is the biggest leap forward in 3D control and full expression. The end result? An uncomplicated system, with absolute finishing control, that produces the most extraordinary smiles.

To Learn More www.dynaflex.com/norris2026



MANN N.

Dr. Robert "Tito" Norris in conjunction with DynaFlex®, has developed the Norris 20/26® Bracket System. His unique background in mechanical engineering provides him with a distinct advantage in mastering the forces, vectors, and movements inherent in performing orthodontic treatment. Dr. Norris is devoted to creating smiles for a lifetime.



### Contact Your Local DynaFlex® Distributor In Your Respective Area/Country

Or Ralph Esguerra, Vice President Of International Sales +001-760-300-9764 | ralphe@dynaflex.com

### **Biodegradable Nitrile Gloves Changing the PPE Industry**

SW® PowerForm® nitrile gloves bring new hand protection technologies to workplace performance. From sweat management to enhanced grip design, PowerForm features enable workers to execute tasks with confidence.

SW developed a process that cleanses and removes manufacturing chemicals prior to packaging. On the outside, PowerForm reduces potential contamination from manufacturing residuals. On the inside, PowerForm reduces chemicals that can be absorbed through skin, which create irritation or painful reactions. SW gloves have been accredited by the Skin Health Alliance for advancements made in hand and skin health.

SW has been working to make nitrile gloves more sustainable by developing the biodegradable technology EcoTek® which allows nitrile to biodegrade 92.6% in 2.5 years without loss in performance and comfort. All SW nitrile gloves are produced with EcoTek Technology which reduces carbon footprints, reduces landfill waste, and limits waste pollution.

Choose SW for a Sustainable World!



www.SWsafety.com info@SWsafety.com

### **NewLife Radiology**

NEW LIFE RADIOLOGY presents DIGISMILE, one of the lightest, smallest and most compact 3D intraoral scanner on the market. Light as a turbine, practical as a pen. Ergonomic, simple and elegant, stable base, powderless, quick real time/realistic color, plug and play, single-hand scanning. DIGISMILE it's 2-in-1 device, 3D scanner and HD intraoral camera, which allows Doctor to perform full arch upper, lower and bite intelligent scan within a few minutes. Anti-fog function by builtin heater. Easy-to-use, precise and accurate, automatic calibration. Small autoclavable scanner



tips, small body with easy access to posterior area. Large depth of field for multiangle scanning, automatic scan retracing to revisit previously scanned sections and rescan missing areas. Software with 3 modules: restorations, orthodontics and implant-bone restorations, no SUBSCRIPTIONS REQUIRED, completely Open System "STL FREE" (scanner file output STL, PLY). Exocad compatible.

www.newliferadiology.it info@newliferadiology.it

### Visit us at: AEEDC 2021, Hall 6, Booth 6C09-6C18 Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p1b2z2265 www.smartmedicalfair.com/stand/h4p1b2z2267

### Curasept

Since its foundation in 2001, Curasept has specialized in developing original innovative chemical and mechanical oral hygiene products. Its patented Anti Discoloration System (ADS®) offers chlorhexidine without its well-known side effect of staining teeth.

ADS has evolved over the years to include other important formulations. Versions are available with hyaluronic acid, chlorobutanol, witch hazel, PVP-VA and colostrum. In 2020 a further evolution took place, when CURASEPT ADS<sup>®</sup> with DNA was launched in the Italian Market.

The company has also developed other lines including Curasept Biosmalto, which helps remineralise and protect tooth enamel and can reduce sensitivity. High-quality science, perseverance, detailed analysis, clinical trials and attention to the needs of its customers have been the cornerstones of Curasept's development and achievements over the past 20 years. This has allowed the Company to expand from its base in Italy to be present in over 30 countries worldwide. www.curaseptworldwide.com hello@curaseptads.com





### The NEW orthodontics bracket trend in AEEDC Dubai 2021 by GNI ORTHO

**GNI ORTHO** is an Orthodontic manufacturing company in South Korea. We introduce the new Ceramic Passive Self-Ligating Bracket (Venus-P) that will be launched in AEEDC Dubai 2021.

### 1. Perfect full-ceramic aesthetic self-ligating bracket

The new VENUS-P is a 100% translucent ceramic self-ligating bracket presenting the exceptional aesthetic choice. Smaller body, stronger resistant, smoother edges, and rounded tie-wings provides excellent intraoral comfort for your patients. No more intraoral complaints

### 2. Patented base for optimal bonding and de-bonding

Patented double layer cross-etched base is designed to strengthen the bonding retention. Easy and clean debonding with the beveled base edges giving no-stress experience.





### 3. Innovative slide mechanism for effortless wire changes

The innovative ceramic door provides effortless but reliable door sliding mechanism aids the wire changing process. The unique pin-system prevents unwanted door opening and closing to keep wires in place.

www.gniortho.com ceo@gniortho.com COMPANIES LOOKING FOR DISTRIBUTORS

### Visit us at: AEEDC 2021, Booth 4B03 Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p7b6z1542



### Miglionico: the Italian dental unit that meets the needs of your clinic

### mialionico

DENTAL EQUIPMENT

Miglionico is an Italian company specialized in the manufacturing of dental units, all of which are 100% Italian made. Our added value is that all the stages of production are carried out at the factory, from the careful selection of the raw materials to the final quality control. All of this makes our units unique and flexible for all the needs of our clients.

The Nice Glass model represents the brand's values: technology and comfort with the right quality/price compromise. Control panels are with an exclusive glass surface and touch capacitive system which allows intuitive and safe management of all functions of the unit.

The chair Syncro is designed to guarantee the maximum comfort both to the patient and to the doctor thanks to a lumbar support, a 3-axis movements headrest and 7 memorizing positions.

These are just some features of our four "NICE" lines of dental chairs. Come to visit us at our stand. It's time to be Nice!



www.miglionico.eu export@miglionico.net Visit us at: AEEDC 2021, Hall 6, Booth E10 Smart Medical Fair 2021 www.smartmedicalfair.com/stand/h1p5b8z3400

### **Discover the Ocean implant: innovative and stable**

OCEAN is the system that expands the range of AVINENT implants. A new range that introduces new concepts to respond to new clinical and prosthetic needs. The OCEAN system offers a geometry that favours outstanding primary stability, bone preservation, and some splendid aesthetic results with respect to tissues.

They have strong primary stability at a cortical level, a geometry adapted to bone's biological architecture and a positive angle platform switch with a polished surface. Available with conical connection. Do not hesitate to contact us for more information on our products.

www.avinent.com avinent@avinent.com



Visit us at: Smart Medical Fair 2021 www.smartmedicalfair.com/stand/h1p6b0z1508



### **The Norris System**





Control without compromise. To achieve superior arch development and fully expressed smiles, research has shown low-forces and less friction are the obvious routes to take. It is critical to preserve the free-sliding mechanics of passive self-ligation while reducing the learning curve.

The Norris 20/26® PSL System incorporates best-in-class features including:

- .020 x .026 Archwire Slot
- Reduced slot dimension to deliver unparalleled control while preserving free-sliding mechanics
- Auto-Open/Auto-Close Door
- The unique mechanism allows the door to actually "glide open" and "glide closed" once

the door travels 50% in either direction.

• This "Assisted" opening and closing is the first and only of its kind, and is another leap forward in PSL technology.

• Deep Tie-Wing undercuts

• This true "Twin" design easily accepts ligature ties and chain for additional control.

• Nickel-Free Cobalt-Chromium

• Cobalt-Chromium boasts superior frictional characteristics vs. 17-4 Stainless Steel, while providing a safe solution for any potential nickel-allergy patients.

### www.dynaflex.com/norris2026 ralphe@dynaflex.com

Visit us at: AEEDC 2021, Booth 3 D03 Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p5b8z2462

inews Special Edition AEEDC 2021

18

### STERIL MAXIMUM - Class B autoclave designed and manufactured according to EN13060

Classification: B-Type autoclave designed and manufactured according to EN13060. Stainless-steel chamber.

- 1. 19 different languages
- 2. Fast steam system:

• Initial pre-heating can be switch-off. The reduction of the total cycle time also leads to energy savings and an extension of the device's life-cycle. 3.The management of door opening and closing, is vacuum-assisted with an electrical door lock; it guarantees the safety of the technician/medic.

4. Software with a user interface, modern, simple and intuitive; provided also with an MTS (memory test system) a technical backup developed to assist the user with more reliable and faster diagnosis.

5.10 different sterilization cycles: 6 type-B cycles and 4 type-S cycles; according to the type of instruments, materials and condition (wrapped or unwrapped) the choices among 10 different cycles, each one for a specific load, grants a better sterilization result and savings in terms

of energy and water. Each cycle can be treated as "night-cycle", the autoclave works in stand-by mode to save even more energy.

6. 4 options for water supplying of clean water and dirty water tanks:

• Automatic filling of clean water, through an (optional) external water

purification system. Automatic and Manual draining of dirty water.

• Manual filling of clean water.

Automatic and Manual draining of dirty water. BMS autoclave is very versatile. Adaptable to environments where a water purification system is not available.

7. Printer: at any cycle, the autoclave starts a printing strip that reports all the values of the selected cycle type, model, and serial number of the machine, keeping the records of all the sterilization data ensure a reduction of related risks, both for the patient and for the dental/medical clinic.

8. Optional USB Port (for digital data record-keeping).



BMS DENTAL

### **BMS DENTAL S.r.I.** Via M.Buonarroti, 21-23-25 Z.Ind.le 56033 CAPANNOLI (PISA) ITALY Tel : +39 0587 606089 Fax: +39 0587 606875

www.bmsdental.it // info@bmsdental.it

### Visit us at: AEEDC 2021, Booth 6C09

Smart Medical Fair 2021, www.smartmedicalfair.com/stand/h1p4b5z1521, www.smartmedicalfair.com/stand/h4p6b5z1522

### BlancOne® CLICK: the game changer in cosmetic teeth whitening

### BLANCONE

The European Directive 84/2011 represents the most advanced regulation on dental bleaching. The goal is to ensure consumers a safe teeth whitening treatment, limiting hydrogen peroxides concentrations to 6%, making this type of products (now classified as cosmetics) available only through dental professionals and requiring a preliminary dental visit, first in office application and patient instruction in case of home use. In line with EU Regulations, BlancOne proposes - for the first time - an in office teeth whitening treatment combining the safety of low concentration of hydrogen peroxide, the immediacy of the result, the absence of sensitivity and affordable prices sought by patients.

Every dentist and practice owner straggles to attract new patients, wants to keep them and



create a recursive mechanism to have them regularly at the office and is aware of how many patients he could address a whiter and more beautiful smile after every dental hygiene session. BlancOne CLICK fast post hygiene teeth whitening treatment boost the value of hygiene sessions – and their revenue - in a single 10 minutes applications without gum protection! Patients will immediately discover a whiter and brighter smile right after any hygiene session, without having to book another appointment. Offering BlancOne CLICK after dental hygiene sessions for an affordable extra budget, delivers a great added value to patients and could place a large ammount of them into an Hygiene & Whitening program.

BlancOne CLICK is so mild and light that can be repeated on as often as needed to bring brightness back to a smile.

According an independent survey with over 700 Italian dentists and dental hygienists using BlancOne CLICK: 80% have increased their teeth whitening business, 95% have increased patient's compliance to dental hygiene, 95% have increased patient's loyalty, 92% are satisfied and recommending.

Discover BlancOne full teeth whitening range on www.blancone.eu/pro

www.blancone.eu/pro info@idsdental.it Visit us at: AEEDC 2021, Hall 4, Booth C21

### SILFRADENT SRL ACOMPLETE RANGE OF PRODUCTS

### MEDIFUGE CGF Blood Phase Separator

The medical device MEDIFUGE CGF-PRP for CGF fibrin clot creation.

**APAG** Heater for Albumin Denaturation

000

### **MY LIGHT**

Surgical LED lamp: 10.000-130.000 lux









Author: Luca Mangani

- In 2010 Dentistry Graduation at University of Rome "Tor Vergata". - In 2013 Oral Surgery Specialization at University of Chieti Pescara "G. D'Annunzio". - Teaching assistantship in

"Periodontology" at University of Rome "Tor Vergata".

- From 2014 attendance at "Bichacho Clinic", Prof. N. Bichacho, Tel Aviv, Israel. - From 2016 Opinion leader for "WAND STA (Single Tooth Anesthesia) SYSTEM". - From 2017 "HTD Consulting" and "Silfradent" opinion leader. - In 2020 PhD in "Materials for health, environment and energy" at University of

Rome "Tor Vergata". - Attendance in prostho-perio-implant

courses. - International lectures. - Author an co-author of scientific publications - Private practitioner in Rome.

### **Gingival recession treatment with Concentrated Growth Factors (CGF)** in the esthetic zone A CASE REPORT



Dott. Luca Mangani

Oral surgery specialist, Phd in "Materials for health, environment and energy"

Female patient, 30 years old, no smoking habits, no systemic disease. 5 years ago was placed an implant, zone 2.1, after a car accident. Unfortunately the implant developed a soft tissue loss during the following 3 months healing process and her esthetic defect was masked with

the final prosthetic crown. Patient desires were to smile once again and not to suffer anymore. It was planned to perform a coronally advanced flap technique without taking connective tissue graft from the palatal side but using only CGF membranes, =8totally painless. Looking at the



Fig. 1 Patient smile profile



Fig. 3 Pre operative X-Ray



Fig. 4 Pre operative soft tissue defect analysis



Fig. 2 Patient frontal smile



Fig. 5 CGF Membranes





Fig. 6 Flap design and CGF membranes filling



Fig. 7 Vicryl resorbable suture



Fig. 8 Immediate provisional crown



Fig. 9 3 Months post-operative soft tissue appearance





Fig. 10 3 months post-operative Fig. 11 Final crown restoration X-ray

final very good result, despite Concentrated Growth Factors (CGF) did not improve clinical outcomes when compared with Connective Tissue Graft (CTG), surely this method had a more positive effect on postoperative pain.

It was planned to perform a coronally advanced flap technique without taking connective tissue graft from the palatal side but using only CGF membranes, totally painless.



SILFRADENT Via G. Di Vittorio 35/37 - 47018 S. Sofia (FC) - ITALIA - Tel. + 39 0543970684 - info@silfradent.com - www.silfradent.com

### XIMPLANT Currents decontaminator in the treatment of infected peri-implant and periodontal sites

**Doctor Paolo Calvani\* and Doctor Cesare Paoleschi\*\*** \* Freelance in Florence, \*\* Dentist, freelance, founder of IRIS Dentistry Company

This article presents a new decontaminating method through the application of currents for the decontamination of infected peri-implant and periodontal sites.

The method is called the XIMPLANT system. The current treatment technique provides precise protocols, in terms of timing and intensity of automated currents, for each type of application, such as to carry out a non-invasive and non-traumatic treatment for healthy tissues. The concept of the treatment is based on the physical action of destruction of the bacterial biofilm. The "electrode" effect of the system is exploited, thus developing a current around its surface which decontaminates it. These treatments are performed "closed" without local anesthesia.

The XIMPLANT system involves contact with the active electrode on the implant, which is "crossed" by a high frequency electromagnetic wave that breaks the biofilm acting on the entire surface of the implant. In fact, it should be remembered that titanium has an ionic conductivity subjected to a potential difference of 3%, sufficient to induce the ionic movement on its surface, such as to induce the destruction of the bacterial biofilm.

Peri-implantitis represents a pathology that poses serious survival problems for a high percentage of prosthetic rehabilitations on implants. The bacterial flora forms a biofilm that undermines osseointegration by inducing a resorption of the peri-implant bone which, in the long run, leads to the loss of implant anchorage, as in periodontitis occurs for a natural element. The bacterial flora in question is the same responsible for periodontal problems. The formation of the biofilm begins with the adhesion of microorganisms to a surface. When a certain amount of bacteria accumu-



are essentially based on home and professional hygienic maneuvers, in order to prevent irritative spines from which bacterial colonization can start, first of the gingival sulcus, creating a mucositis, then of the peri-implantation creating frank peri-implantitis. In the initial stage of mucositis, bone resorption is usually of little entity, but the bacterial biofilm already extends to affect the deep implant surface, that is, a contaminated area that is not evident in this phase with instrumental examinations.

Peri-implantitis represents a pathology that poses serious survival problems for a high percentage of prosthetic rehabilitations on implants.

lates on a surface and reaches a certain cell density, it begins to secrete a substance which is basically a polymer made up of polysaccharides, proteins and DNA. This substance mixes with the water present in the environment and gives rise to a matrix where bacterial cells are strongly rooted in the form of biofilms. Peri-implant mucositis occurs in about 80% of subjects and in 50% of implants. Peri-implantitis occurs in 28% and in a percentage greater than or equal to 56% of the subjects (Zitzmann, Berglund T. - J Clin Periodontol 2008 Sep, 35 (8 Suppl) 286-91). Currently, the therapeutic treatments of peri-implantitis involve mechanical maneuvers associated or not with topical and / or general pharmacological treatments, such as antibiotic therapy. Prevention actions

It is precisely at this stage that it is interesting to have a device available that allows the "breaking" of the bacterial biolfilm along the entire surface of the implant, even the one where bacterial colonization has not yet caused pathology (not visible.)

In fact, even managing to remove the biofilm in the exposed parts of the implant, one does not act on those bacteria that colonize the perimplant in the areas where it is still anchored to the bone, but since the surface of the implant is an easily etched surface, it allows maturation and bacterial aggregation. Also, even in the face of "frank" peri-implantitis with bone resorption and suppurative state, an instrument that allows the deep decontamination of the implant and of the deep peri-implant areas would be particularly effective from the point of view of survival of the implants themselves. Until now, this profound preventive-therapeutic action was not feasible.

### **Treatment methodology**

Once the infection and the stage of mucositis and / or frank peri-implantitis (probing depth, plaque index, bleeding index) have been diagnosed, professional hygienic treatment is carried out. At the end of the peri-implant toilet, the active electrode is applied to the implant collar. The ground electrode is held in the patient's hand. The XIMPLANT decontaminator is set on the peri-implantitis program and the currents are applied, according to pre-set times and methods. The treatment is painless. The patient is then invited to adopt an adequate home hygiene attitude. The bactericidal action of the current is reported by numerous studies in the literature. Particularly significant are the works of Del PozoJ, L, M.S. Rouse, (1) where there is an effective action of the electric current against the biofilm in culture, consisting of Pseudomonas aeruginosa, staphylococcus aureus and Staphylococcus epidermidis. Sy et all.

Other particularly significant works are those of Dreesa (2) on electrochemical inhibition of 2003, and of LEE, Sy et all (3) of 2012.

A recent work, currently being published, by Prof. Giammarco Raponi and Dr. Lisa Valentini, of the Department of Public Health and Infectious Diseases of the Sapienza University, highlighted the effectiveness of the XIMPLANT system: "In the experimental procedures, a strong bacterial biofilm produced by Enterococcus faecalis from ATCC collection has been layered on the implants that were successively treated in a treatment chamber by electric cur-



rent produced by the X-IMPLANT machine. Evidences are provided that the electric treatment granted by the X-IMPLANT system completely removed the bacterial biofilm".

Particularly interesting in this method is the prevention of peri-implant infections.

The "prevention" protocol provides at the end of a normal scaling session the preventive application on the implant collar in the subgingival prosthesis-implant passage area of the active electrode. For "Toronto" rehabilitations, the application takes place directly through contact with the passing structure.

#### References

- David Freebairn, David Linton, Eileen Harkin-Jones, David S Jones, Brendan F Gilmore and Sean P Gorman: "Electrical methods of controlling bacterial adhesion and biofilm on device surfaces". Expert Rev. Med. Devices 10(1), 00-00 (2013)

 Mah TF, O'Toole GA. Mechanisms of biofilm resistance to antimicrobial agents. Trends Microbiol. 9(1), 34–39 (2001).
 Del Pozo JL, Rouse MS, Patel R. Bioelectric effect and bacterial biofilms. A systematic review. Int. J. Artif. Organs 31(1), 786–795 (2008). •• Excellent, comprehensive review of bioelectric effect-related literature. • Archibald LK, Gaynes RP. Hospital\_acquired infections in the United States. The importance of interhospital compari\_sons. Infect. Dis. Clin. North Am. 11(2), 245–255 (1997). • Nicolle LE. Uncomplicated urinary tract infection in adults including uncompli\_cated pyelonephritis. Urol. Clin. North Am. 35(1), 1–12 (2008).

• Nielsen PH. Biofilm dynamics and kinetics during highrate sulfate reduction under anaerobic conditions. Appl. Environ. Microbiol. 53(1), 27-32 (1987).

- Hall-Stoodley L, Costerton JW, Stoodley P. Bacterial biofilms: from the natural environment to infectious diseases. Nat. Rev. Microbiol. 2(2), 95–108 (2004).

· Costerton JW. Overview of microbial biofilms. J. Ind. Microbiol. 15(3), 137-140 (1995).

· Douglas LJ. Medical importance of biofilms in Candida infections. Rev. Iberoam. Micol. 19(3), 139–143 (2002).

www.led.it info@led.it

### Visit us at:

Smart Medical Fair 2021
 www.smartmedicalfair.com/stand/h1p1b6z11648
 AEEDC Dubai 2021
 Infodent Int'l Booth, Hall 4, Stand N. 417



The **Smart Medical Fair** is an international virtual exhibition open all year round that gives you the power to connect with a global audience and virtually showcase your products and services to meet your business objectives.

Do you want to join our Smart Medical Fair? Write to advertise@infodent.com and ask our Marketing Consultants! Be online anytime and anywhere on www.smartmedicalfair.com



Infodent Infomedix International Publishing & Consulting House

### Causal treatment management during mucogingival surgery procedures: application of ozone therapy at home and by professionals

TBM and DOHMA (Digital Oral Hygiene Motivation Approach)

Prof.ssa Gianna Maria Nardi\*, Dott.ssa Roberta Grassi\*\*, Vanja Granberg\*\*\*, Prof. Felice Roberto Grassi\*\*\*\*

\*Certified Researcher, Sapienza University of Rome

\*\*Orthodontist, Vita-Salute San Raffaele University

\*\*\* Department of Dentistry and Dental Prosthestics, Aldo Moro University of Bari

\*\*\*\* Professor SSD MED/28 (Odontostomatologic Diseases), Medical School, Aldo Moro University of Bari

To effectively manage the patients' oral hygiene care is essential for the patients themselves and for professionals in complex clinical cases. Therapies may fail in case a patient undergoes intricated rehabilitative therapies without being previously informed and motivated towards committing to an oral hygiene regime and consistent medical follow-ups (Garmyn et al. 1998; Westfelt et al. 1985). For the therapy to be successful, it is necessary to implement an approach that involves tailored, personalised and shared protocols (Nardi et al. 2020) discussed and agreed upon by the patient. In the few instances where the mechanical control of the bacterial biofilm is insufficient, it is necessary to correctly manage the chemical control by the professionals and at home through the use of mouthwashes and gels that contain specific ingredients (Lang et al. 2008). Combining periodontal therapy with the application of ozone therapy at home and by professionals leads to the successful maintenance of healthy gingival tissues.

### **CASE REPORT**

The patient selected for the study is a 25-yearold non-smoker healthy woman with a Zucchell's class III gingival recession of 12 mm (Zucchelli, 2011). The patient received orthodontic treatment (Verrusio et al. 2018) and was later subjected to a gum recession surgery. The condition has intensified after the patient was subjected to a frenectomy procedure using diode lasers (SICOI, 2011) which did not improve the aesthetic aspect and caused a scar-

### **DEFECT EXAMINATION**



Zucchelli Classification



Baseline

ring in the deeper tissues, thus worsening the clinical condition. A further issue consists of the thin tissue biotype (Cortellini et al. 2018) and a scarce gingival papilla in the teeth #41-#31 zone. fig. 1 (Zucchelli et al. 2006).

#### **MATERIALS AND METHOD**

After a thorough assessment, the dental team designed a diagnostic- therapeutic approach that involves an integrated treatment strategy where the patient actively participates to the oral hygiene therapy at home. The general risk factors were evaluated (Van Dyke et al. 2005),



Mucogingival surgery steps

### **SURGERY PHASES**



Sharp dissection to prepare a full-thickness tunnel



De-epithelialization of the papillae



Coronally advanced flap with the connective tissue graft to the CEJ

the clinical situation was photographically documented and the pictures taken with the intraoral scanner were shown to the patient in order to include her in the evaluation of the local, aesthetic and biomechanical risk factors (Papapanou et al. 2017). The patient is affected by a class III gingival recession of 12 mm according to the Zucchelli classification in tooth #41.

### NON-SURGICAL PERIODONTAL THERAPY

The motivational approach towards healthy lifestyles and the non-surgical periodontal therapy



Deep incision to achieve a split-thickness envelope flap



Connective tissue graft



Surgey site after 6 months

Superficial incision to achieve a split-thickness envelope flap



Sutures



1 year after surgery

should be tailored to the patient before, during and after the surgical procedures.

### **BEFORE THE SURGERY**

The anti-COVID-19 measures were put in place (Ministero Della Salute, 2020). The three-tone plaque disclosing gel containing Erythrosine was applied to the oral cavity surfaces in order to carry out the deplaquing and debridement through the D-BIOTECH Clinical Approach (Dental BIOfilm Detection Topographic Techniques): the assessment of the shape of the existing bacterial biofilm can be used to encourage the patient to improve their oral hygiene at home especially in the more retaining areas, to select the most suitable technologies and clinical approaches to identify the areas with the highest risk of inflammation. Managing the bacterial biofilm in the interproximal spaces was found to be inefficient.

The periodontal debridement is not going to be carried out manually to avoid inducing a recession of the interdental papillae and the nearby soft tissues (Zucchelli, 2011). The non-surgical periodontal treatment was performed using the Comby touch (Mectron) device, consisting of a multifunctional piezoelectric scaler and a water jet, air and a sodium bicarbonate and glycine powder polisher. The debridement and deplaquing procedures were performed along the operations of double surgical aspiration and OzoActive virucide aspiration (ozonized water that through an aerosol function works as a biocide, fungicide, bactericide and virucide).

The polishing process during the deplaquing stage utilized air and glycine powder, which particles were  $<63\mu$ m. The implementation of a handpiece that can rotate to 90° or 120° allowed for an efficient clinical intervention which



Combi Touch Mectron

did not damage the mucogingival tissues while also being as non-invasive as possible. The professional should evaluate and choose the most suitable powder depending on the clinical status of the oral cavity according to the tailored approach. Glycine powder, which particle size was around  $25\mu m$ , was selected for the deplaquing. The soft setting was then selected in order to regulate the vibrations intensity.

### **ORAL HYGIENE AT HOME**

The patient was then encouraged towards carrying out the mechanical management of the bacterial biofilm at home with a "shared and personalized tailor-made" protocol (Nardi et al, 2016). This protocol involves an accurate evaluation of the behaviour tendencies and skill of each patient while performing oral hygiene care tasks. It is not necessary to instruct the patient on the different ways of brushing their teeth, however it is essential to discuss and agree on the most suitable tools to use in the various clinical and anatomical dental situations. The patient was not passive during the treatment process but through the interaction with the professional she agreed on the treatment options that appeared to be the most appropriate after a careful clinical evaluation. The pa-













Periodontal ultrasonic inserts: P3, P10, P11, P12 (Mectron)









Mectron OzoActive







tient was invited to adopt a non-traumatic but efficient brushing technique in order to apply a more careful management of the areas that retain more dental plaque.

### **OZONE THERAPY AT HOME**

The patient was instructed to use the ozonated olive oil mouthwash Ialozon Blu (GEMAVIP) twice a day, each time for 30 seconds. The ozonated olive oil has anaesthetic, anti-inflammatory and antioedema properties due to the reversible action of the neurofibrils which regulate the level of pain and oxygen transport to the inflammation site (7,10). Recently, numerous studies (11) determined the efficiency of the combined use of the ozonated olive oil contained in the mouthwash on the restoration of the gingival tissue conditions, on the reduction of the plaques clusters and on the treatment of the chronic gingival phlogosis (Nardi et al, 2020b). The patient was advised to apply the chemical instead of the mechanical at home management of the bacterial biofilm in the operation site to avoid potentially damaging the gingival tissue. The patient was informed not to brush the recession site and to apply the lalozon gel (GEMAVIP) (Nardi et al. 2020a). A bilaminar trapezoidal flap surgery with a palate connective tissue graft was scheduled due to the extension of the recession, to the existing mesial and distal papillae and to the integrity of the cemento-enamel junction in tooth #41 (Zucchelli et al. 2003).

### **PROFESSIONAL OZONE THERAPY**

Perioral 3 is applied on the stitches. In case of periodontal disease, a suitable antiseptic is

It is not necessary to instruct the patient on the different ways of brushing their teeth, however it is essential to discuss and agree on the most suitable tools to use in the various clinical and anatomical dental situations.

going to be applied on the affected area with a 3 ml disposable syringe after the periodontal debridement session. The patient should not rinse or eat anything in the 30 minutes following the product application. Solid food can be consumed after 3 hours.

Among the oral cavity antiseptics, Perioral 3 is non-traumatic, antiseptic and anti-inflammatory medical solution that allows for the maximum patients' comfort. Perioral 3 stands out because of its chemical composition consisting of natural elements which makes for an innovative and efficient solution that is even suitable for those patients with nickel, lactose and gluten allergies or intolerances.

The active components comprise:

• Ozonated EVO olive oil which when activated combines the therapeutic effects of the olive oil to the active ozone molecules. Therefore, the product has antibacterial, fungicide and anti-inflammatory properties which specifically target the epithelial restoration.

• Cetilperidiunum which has bactericide and antiseptic effects.

• Chlorphenesin is an antimycotic and myorelaxant agent.

• Low-Molecular-Weight (LMW) Collagen is easily absorbed and targets the cellular regeneration.







• LMW and High-Molecular-Weight (HMW) Hyaluronic acid which promotes the cellular regeneration and does not affect the natural shade of the dental enamel.

Professionals endorse the use of specific mouthwashes containing ozonated olive oil and hyaluronic acid (Ialozon GEMAVIP) which have anaesthetic, anti-inflammatory, antioedema, antiseptic and healing properties and reactivate the microcirculation.

### ADHERING TO AN AT HOME ORAL HYGIE-NE THERAPY WITH THE HELP OF ADVAN-CED TECHNOLOGIES: TBM AND DIGITAL ORAL HYGIENE MOTIVATION APPROACH (DOHMA)

Patients undergoing mucogingival surgical treatment need accurate and constant followups. COVID-19 restrictions urged professionals to use telemedicine methods. The DOHMA clinical approach establishes a new follow-up tactic where teleconsultation appointments are scheduled allowing for the evaluation of the clinical situation through listening to the patient, and remotely sharing and discussing clinical pictures. The professional-patient interaction is essential to the monitoring of the clinical index, of the clinical evolution, of the presence of inflammation or gingival oedema, of the colour of the mucosa, and of the possible presence of discoloration. The patient can report on the symptoms: the presence of painful symptoms, potential bleeding during brushing, dentine hypersensibility, tongue dryness, the potential

lack of taste perception or presence of unpleasant smells in the oral cavity, in which case the patient can carry out the sniff test in order to detect possible halitosis. The patient is further motivated towards the biofilm control and is presented with an individual maintenance procedure which is agreed upon by the patient and the professional through the DOHMA. This approach includes a revaluation stage during the teleconsultation, in order for the professional to support the clinical evolution of the patient in case it is not objectively possible for them to go to a dentist's office. Patients claim they are satisfied by the way in which issues are solved during the DOHMA teleconsultation. This ergonomic and efficient approach regarding the monitoring of the patients' health leads to a more thorough control of the oral hygiene at home and of the possible existence of painful symptoms. Therefore, a personalized and shared patient-professional relationship can be maintained. The continuous clinical discoveries contribute to the identification of the most suitable tools to solve any highlighted issue, accomplishing an absolute at home compliance.

### CONCLUSIONS

Oral health maintenance requires an integrated approach consisting of:

• The constant critical evaluation of the scientific evidence

• The careful assessment of the biological, psychological and social aspects of the patient

• The professional's clinical experience

Regarding the causal therapy management during mucogingival surgeries, professional and at home ozone therapy has been found to be beneficial because of its biostimulant effects on tissues and its analgesic properties, and because of its antioedema, anti-inflammatory and analgesic effects during the post-surgery treatment. The patients' well-being is favoured by the selection of ergonomic and less invasive technologies.

#### **Reference list**

Arweiler NB, Netuschil L. The Oral Microbiota. Adv Exp Med Biol. 2016; 902:45-60.

Cortellini P, Bissada NF. Mucogingival conditions in the natural dentition: Narrative review, case definitions, and diagnostic considerations.. J Periodontol. 2018 Jun;89 Suppl 1:S204-S213.

Garmyn P, Van Steenberghe D, Quirynen M. Efficacy of plaque control in the maintenance of gingival health: plaque control in primary and secondary prevention. In: Lang N.P. Proceeding of the European Workshop on Mechanical Plaque Control. Chicago: Quintessence Publishing, 1998; 107-120.

Lang NP, Tan WC, Krähenmann MA, Zwahlen M. A systematic review of the effects of full-mouth debridement with and without antiseptics in patients with chronic periodontitis. J Clin Periodontol. 2008 Sep; 35(8 Suppl):8-21.

Nardi GM, Cesarano F, Papa G, Chiavistelli L, Ardan R, Jedlinski M, Mazur M, Grassi R, Grassi FR. Evaluation of Salivary Matrix Metalloproteinase (MMP-8) in Periodontal Patients Undergoing Non-Surgical Periodontal Therapy and Mouthwash Based on Ozonated Olive Oil: A Randomized Clinical Trial. Int J Environ Res Public Health. 2020 Sep 11;17(18):6619.

Papapanou PN, Sanz M, et al. Periodontitis: Consensus report of workgroup 2 of the 2017 World Workshop on the Classification of Periodontal and Peri-implant Diseases and Conditions, S162-S170.

SICOI-Società Italiana Di Chirurgia Orale e Implantologia. (2011). SICOI-Manuale di Chirurgia Orale. In Elsevier (Ed), Tecnica Chirurgica Laser (pp. 538-539).

Van Dyke TE, Sheilesh D. Risk factors for periodontitis. J Int Acad Periodontol. 2005 Jan;7(1):3-7.

Verrusio C, lorio-Siciliano V, Blasi A, Leuci S, Adamo D, Nicolò M. The effect of orthodontic treatment on periodontal tissue inflammation: A systematic review. Quintessence Int. 2018;49(1):69-77.

Westfelt E, Bragd L, Socransky SS, Haffajee AD, Nyman S, Lindhe J. Improved periodontal conditions following therapy. J Clin Periodontol. 1985 Apr; 12(4):283-93.

Zucchelli G, Amore C, Sforza NM, Montebugnoli L, De Sanctis M. Bilaminar techniques for the treatment of recession-type defects. A comparative clinical study. J Clin Periodontol. 2003 Oct; 30(10):862-70.

Zucchelli, G., Testori, T. and De Sanctis, M. (2006), Clinical and Anatomical Factors Limiting Treatment Outcomes of Gingival Recession: A New Method to Predetermine the Line of Root Coverage. Journal of Periodontology, 77: 714-721.

Zucchelli G. (2011) Chirurgia Estetica Mucogengivale. Quintessence Publishing. Trattamento della superficie radicolare (pp. 135-142)

Zucchelli G. (2011) Chirurgia Estetica Mucogengivale. Quintessence Publishing. Tecniche Bilaminari (pp. 449-488).

### DENTALFILM







### self developing x-ray dental film



Via Verga, 30 - 10036 Settimo T.se (TO) - Italy - Tel: +39 011.800.00.90/800.03.98 - Fax: +39 011.800.00.62 DENTAL FILM FZCO - LIU 4 - UNIT A05 - DUBAI SILICON OASIS - U.A.E.

DISCOVER OUR NEW PROFESSIO WWW.WHITEBEAUTYPR

# WHITE



### BEAUTY PROFESSIONAL

NAL WHITENING SYSTEM OFESSIONAL.COM



Visit us at AEEDC 2021, Hall No. 6, Booth 614

### **The GCC Region** Facts and Figures

A changing demographic and epidemiologic structure, unprecedented reforms, and effective responses to curb the rising cases of Covid-19 infection, coupled with strong emphasis towards economic diversification and private sector participation are currently transforming the region's health systems at an unprecedented pace and scale, aiding economic growth in the long run.

### **General Outlook**

The Gulf Cooperation Council (GCC) is an intergovernmental organization made up of six oil rich member nations, Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE), lying at the North East of Africa (separated by the Red Sea) and South West of Iran (separated by the Arabian Gulf). Significant investments in healthcare infrastructure by GCC governments were observed in the past 25 years in the form of large medical cities and complexes. This increase in hospitals and clinics raised the quality of healthcare services in the region, reflecting a rise in health status. According to WHO World Health Statistics, the life expectancy in GCC countries has increased to 77.2 years in 2018, with Qatar topping the region, and infant mortality decreased to 6.9 deaths per 1,000 live births in 2018, from 8 in 2013. Growing at a faster annual rate than the world average of 1.0%, the GCC population size is projected to increase to 61.6 million by 2022, also as direct consequence of the huge influx of expatriates (about 48.1% of





### **GCC Region**



### **GROWTH OPPORTUNITIES**

- High investments in technology, digitization, telemedicine, and remote care. Acceleration in Al solutions innovation
- Regional governments strengthening the healthcare sector as one of the most critical avenues for the region's long-term economic diversification strategy
- Greater focus on public-private partnerships (PPP) and Mergers & Acquisitions (M&A)
- Implementation of mandatory health insurance presents significant opportunities for providers and insurers
- Ageing population, high prevalence of NCDs, and greater focus on preventive care and quality enhancing reforms are reshaping the GCC healthcare industry
- Increased investments in specialized health centers

	Population, 2020	% in Total Population Nationals Non-Nationals	Type of Government	GDP (current US\$, billion), 2019	GDP per capita (current US\$), 2019	GDP per capita, PPP (current International \$), 2019
Kingdom of Saudi Arabia	34,813,871	62% 38%	Absolute mon- archy	792.967	23,139.8	49,040.3
United Arab Emirates	9,890,402	11.5% 88.5%	Federal monarchy, Absolute mon- archy	421.142	43,103.3	70,089.3
Sultanate of Oman	5,106,626	56.0% 44.0%	Absolute mon- archy	76.332	15,343.1	28,507.5
State of Kuwait	4,270,571	30.8% 69.2%	Parliamentary system, Constitutional monarchy	134.629	32,000.4	52,059.7
State of Qatar	2,881,053	14.3% 85.7%	Absolute mon- archy	175.838	62,088.1	94,028.6
Kingdom of Bahrain	1,701,575	48.0 % 52.0%	Constitutional monarchy	38.574	23,504	47,002.5

Source: worldmeter, elaboration of data by United Nations, Department of Economic and Social Affairs. / International Monetary Fund, 2019 and 2021 / The World Bank.

### total population, mainly migrant workers), of which nearly 17% will be aged 50 years and above.

Sedentary lifestyle and poor dietary habits have led to the rise in diabetes and obesity to epidemic levels with incidence rate of cardiovascular disease, diabetes, cancer, and respiratory ailments amongst the highest in the world. Moreover, lack of adequate focus on disease management, prevention and early-stage intervention is driving noncommunicable diseases (NCDs) as being major cause of the deaths and disability in the region. The confluence of these factors is challenging the capability of the already limited available healthcare resources and rising healthcare expenditure, while at the same time representing a key driver to the region's healthcare system. Both regional governments as well as private operators have consequently laid out plans to increase the number of hospitals, primary healthcare centers, clinics, and laboratories. An ageing population, high prevalence of NCDs, focus on preventive care and quality enhancing reforms are reshaping the GCC healthcare industry.

### **Recovery and Growth**

The GCC nations were swift in their response to the COVID-19 crisis, however the pandemic has had a much more of a profound impact on the GCC than in many other countries, as the region is also dealing with an economic slowdown due to lowest oil prices in the past 17 years. GCC governments took several fiscal and economic measures to mitigate economic consequences stemming from the outbreak, and to help regenerate growth. Although these measures have helped in restoring confidence, according to the IMF, the GCC's 2020 shrink in GDP, at around 6.0%, is in line with contraction of the global economy and other major economies, while the region is expected to rebound over the next two years with the GDP likely to see a 2.3% and 3.5% growth in 2021 and 2022, respectively, as the COVID-19 situation normalizes. The GCC is then expected to revert to prepandemic levels by as early as 2022, marginally surpassing projections in peer countries like the US, UK, Singapore, Japan, and Germany.

With healthcare expenditure averaging 5% of GDP, much below other developed countries, the region offers immense scope for growth. Even though challenges like shortage of skilled healthcare professionals, limited specialized care centers and medical inflation exist, private players are making inroads to capitalize on the growing demand, technological advancements, and medical tourism. Saudi Arabia, representing around 56.3% of the region's healthcare market has started focusing on developing the sector through increased private sector participation and PPP (Private-Public Partnership) projects. In contrast, spending growth in the UAE, the second largest market in the GCC, recorded a negative CAGR of -0.1% between 2012 and 2017. The slowdown can be attributed to a fall in government as well as private spending. While expenditure in the UAE, Kuwait and Bahrain revived in 2017, an estimated lower private spending in Saudi Arabia and lower government spending in Qatar and Oman led to a downfall in the overall expenditure for these countries.

The Covid-19 outbreak has nevertheless eroded profits in the private sector as demand for primary and secondary care, dental services, mental healthcare, and allied health services have contracted significantly due to rise in COVID-19 medical procedures. This has led to around 8 million fewer patient contacts per week in the region, hampering profitability for many operators. The private healthcare sector is largely facing the heat as people opt for public providers as cheaper alternatives for treatment. As a result, hospitals are lowering their prices to stay competitive, which is likely to erode profit margins, strain revenues and derail any expansion strategy. On the other hand, health insurers in Saudi Arabia and the UAE face a profit squeeze as insurance premiums are failing to keep pace with the rising value of medical claims amid the COVID-19 pandemic. While treatment is free for the nationals of the two nations, foreign residents - who constitute approximately 38% and 88% of the Saudi and UAE populations respectively - rely on private insurance provided by their employer, consequently, insurers are likely

to tweak their product offerings with a potential increase in rates.

### **The Healthcare System**

Health services in GCC are provided free of cost to all residents and, despite the current economic slowdown and budget constraints, regional governments continue to bear a sizeable part of the healthcare expenditure, which has put significant burden on state finances however, the gradual rollout of compulsory health covers across the region will increase the utilization of medical services at private healthcare facilities in a bid to transfer some of the cost to individual citizens, employers, and insurers. **Currently at different stages within the GCC countries, the implementation of mandatory health insurance is already widespread in the UAE and Saudi Arabia and is expected to be fully implemented by 2021-22 in the rest of the GCC countries.** Significantly increasing the utilization of medical services at private healthcare facilities, the health insurance market in the GCC is estimated to have reached US\$ 13.4 billion in 2019

### CURRENT HEALTHCARE EXPENDITURE GROWTH PER COUNTRY (CAGR: 2012-2017)



Source: WHO. Taken from Alpen Capital, GCC Health Industry Report 2020

Note: Current Health Expenditure (CHE) for Saudi Arabia in 2017 is an average of last 5 years CHE (2012-2016)





Source: WHO. Taken from Alpen Capital, GCC Health Industry Report 2020

and is expected to reach US\$ 25.5 billion by 2025. As part of their economic diversification plans, medical tourism has been receiving stimulus from the GCC governments. Dubai and Abu Dhabi are at the forefront amongst the GCC nations and ranked as the sixth and ninth most popular medical tourism destinations in the world during 2020-21. Dubai witnessed a 4% y-o-y rise in medical tourism arrivals in 2019 to reach 350,118, with Asian tourists as the highest share of 34%, followed by neighboring Arab countries at 28%, and 17% from Europe. The growth can be largely attributed to the Emirate's modern healthcare facilities and its commitment to enhance the experience of international patients and wellness tourists. Within Dubai, dentistry, orthopedics, and dermatology were found to be the key treatments for inbound tourists. Dubai is also a prominent hub for cosmetic surgery and is home to the largest number of cosmetic surgeons per capita in the region, at about 50 specialists per million people. To attract over half a million medical tourists by 2021, the Dubai Health Authority (DHA) issued 3.397 licenses to healthcare facilities in Dubai, while 45 new health facilities, a hospital, and 10 general and specialized medical clinics were

### Dependence on Highly Skilled Expatriate Talent

inaugurated during the first half of 2020.

The lack of home-grown professionals can be partly attributed to the limited number of healthcare educational institutions in the region. On an average, the GCC had 5.7 nurses and 2.9 physicians and dentists per 1,000 population as of 2017. While the number of physicians (including dentists) density has grown in the years and was close to that in developed nations, nurse density in the region was significantly lower.

However, due policies adopted to increase the number of nationals entering the workforce, the growing nationalization of jobs within the region is likely to present a unique challenge for healthcare operators going forward. In Saudi Arabia, for example, authorities recently denied the renewal of employment contracts of many expatriate health employees who exceeded 10 years of service in the Kingdom, in line with their 'Saudization' plans. Similar localization initiatives are being implemented in the other GCC nations such as Oman. As of 2017, the GCC was home to 139 healthcare education institutes with Saudi Arabia (77 institutes) and the UAE (24 institutes) accounting for 73% of the total. While there are several nursing schools in the

### **CURRENT HEALTH EXPENDITURE PER CAPITA, 2017**



#### **CURRENT HEALTH EXPENDITURE AS % OF GDP, 2017**



Source: WHO, World Bank, IMF. Note: CHE for Saudi Arabia in 2017 is an average of last 5 years CHE (2012 2016). Taken from Alpen Capital, GCC Health Industry Report 2020

region, institutes for other health disciplines such as dental, medical, and pharmaceutical are inadequate. For instance, there is a need to establish a college of dentistry in Bahrain and Qatar so that the nations are less reliant on international dental graduates. Moreover, the region should focus on scaling up the training capacity of their existing schools and aim for international accreditation for the development of higher quality healthcare programs. This will reduce the shortfall in nationally trained medical professionals and the subsequent dependency on expatriate workforce.

#### Among Main Sources:

-Extracts (both text and graphs) from Alpen Capital, GCC Health Industry Report 2018 and 2020, for full and detailed report: http://www.alpencapital.com/industryreports.html

Alpen Capital\* offers a comprehensive range of financial

Source: WHO. Taken from Alpen Capital, GCC Health Industry Report 2020

advisory services to institutional and corporate clients across the GCC and South Asia. Alpen Capital combine the disciplines of strategy, organisation, leadership and finance into an integrated approach to help clients grow the long-term value of their companies. Alpen Capital works with some of the leading business groups in the GCC and South Asia providing them with unique investment banking advisory solutions based on their requirements. Alpen Capital's team comprises of experienced and innovative professionals who create value through extensive knowledge of local and international markets and access to key decision makers. It was established in 2005 in Dubai at the

#### 16 Physician Nurses GCC Avg. Physicians ..... GCC Avg. Nurses 14 14.5 12 12.0 Per 1,000 people 10 8 8.2 ч. Ч 6.6 6 5.8 5.7 5.6 4.6 4 4.3 3.4 3.4 3.0 3.0 3.0 2.8 2.6 2.7 2 2.3 0 Kuwait Bahrain Oman Saudi Arabia UAE US Singapore Qatar X Germany

Source: Health Ministries of Bahrain, Oman, Qatar, and Saudi Arabia, FCSA, CSB, MDPS, IMF, OECD, WHO, Alpen Capital

### PHYSICIANS AND NURSES DENSITY (2017)

### GROWTH IN THE NUMBER OF DENTISTS IN THE GCC IN 2017, COMPARED TO 2013



Dubai International Financial Centre and expanded its operations to Qatar, Oman, Abu Dhabi and India. (\*Alpen Capital refers to Alpen Capital (ME) Limited, Dubai, Alpen Capital (ME) Limited, Abu Dhabi branch, Alpen Capital Investment Bank (Qatar) LLC, Alpen Capital LLC, Oman and Alpen Capital India Private Limited collectively). -Embassy of the United Arab Emirates, https://www.uaeembassy.org/about-uae/health-care - Health Care in Gulf Cooperation Council Countries: A Review of Challenges and Opportunities Monitoring Editor: Alexander Muacevic and John R Adler, Tawfig Khoja, 1 Salman Rawaf, 2 Waris Qidwai, 3 David Rawaf,2 Kashmira Nanji,3 and Aisha Hamad2 Cureus. 2017 Aug; 9(8): e1586. Published online 2017 Aug 21. doi: 10.7759/cureus.1586. For full article: https:// www.ncbi.nlm.nih.gov/pmc/articles/PMC5650259/ -https://www.statista.com/statistics/1120429/gcc-increase-

in-dentists-by-country/



Rate of increase of dentists



## Sultanate of Oman

Oral healthcare in Oman faces several challenges and has a long way to go; with high incidence of oral diseases, like dental decay, cavities, and gum disease, evident is the need to ensure that future demand for oral healthcare is met by the most appropriate health professionals.





### we design and plan your success.



Uni-Q-Mua 2.0

Solutions for implantology proudly made in Italy.

Guided surgery, immediate load, digital experience and more... WWW.resista.it



COUNTRY	DENTISTS per 10,000 population
USA	16.3
Germany	7.9
UAE	7
Qatar	5.8
UK	5.3
Saudi Arabia	5.2
Kuwait	3.5
GCC average	3.2
Oman	3.1
Global average	2.6
Bahrain	1.5

Source CIA World Health Organization. World health statistics. Geneva: WHO; 2013. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490677/

Over the last 40 years, the Sultanate of Oman has invested heavily in the health sector, creating a relatively modern healthcare system, boosting a universal healthcare coverage for both citizens and non-nationals. High social welfare benefits, as well as access to medical facilities and doctors has greatly improved the lifespan of Omani citizens, as well as other health indicators, placing the country on a par with many advanced western nations. Free healthcare is provided to all Omani citizens, as well as expats from GCC countries, covering primary care, specialist appointments, and almost all medical treatments as needed. Employed in the private sector and visitors from outside the GCC are not covered by the public system and will need to have a health insurance, compulsory since 2018. The Unified Health Insurance Policy (UHIP), introducing mandatory health insurance for all private sector workers and visitors (the Dhamani scheme), is one of the leading projects in the Sultanate and is expected to provide insurance cover for over 2.1m expatriate workers in the private sector. Of this group, around 70-80% were uninsured in 2018. Overall, the health insurance industry grew by 30.5% from 2011 to 2018, making it one of the fastest-growing segments. A national insurance scheme would in fact allow for the outsourcing of specialised care to private facilities, which would enable more private clinics to be established, also stopping residents of Oman from needing to go abroad to receive specialised treatment that is not currently available in the sultanate. The scheme, now implemented amongst expatriates living in Oman, will be further expanded to Omanis, thus guaranteeing the sustainability of the health system, greater access to specialized treatments as well as guality healthcare and services.

The UHIP regime stipulates a set of essential benefits that must be covered, including in- and outpatient services, emergency care, doctors' fees, diagnostic services, medicines, and ambulance trips. The employer is responsible for the payment of the premium and in agreement with the employee he can include added benefits for pregnancy, childbirth, dental and eye care. Thus, you may have to pay a premium on your health insurance policy for dental care and most dental treatment is provided through private clinics.

#### **Oral Healthcare and Future Needs**

With an over 2% population growth rate, it is anticipated that Oman will exceed 7 million people by 2050. Although a young population, 20-24-year group making up almost 41.7% of the total, the proportion of older people is increasing significantly, together with a need for oral health. In recognizing the importance of oral health, the Sultanate is placing greater emphasis on education and training of dentists and, in line with the Omanization policy carried out by the Government on the whole workforce, including health professionals, Oman is developing an Omani-majority dental workforce. Until recently in fact, Omanis who wished to study dentistry had to train abroad as no dental education was available in the Sultanate, thus relying on expatriate dentists, together with a minority of overseas-qualified Omanis. In 2010 only 24% of the dentist workforce was Omani, ranging from 53% in the Ministry of Health, 68% in non-Ministry of Health government sector which includes the military services, and with only 2% of Omanis in the private sector. With the establishment of the Oman Dental College in 2006, the only dental school in Oman, over 300 dentists graduated so far thus improving the dentist-to-population ratio and helping the Sultanate to realize its most significant challenge of developing an Omani-majority dental workforce. Oman's dentist density remains lower than the GCC average and second worst in the region, substantially below high-income countries such as the UK and the U.S.A. Well over half of the dental workforce works in the private sector with a total number of private dental facilities almost double the number of public dental clinics, while 74% of dentists working in the public segment are Omanis. There is further need to strengthen the private sector as the demand for private sector facilities is growing and many patients prefer avoiding long queues in government facilities.

#### **Oral Health Status**

A recent local survey of adult health acts as a reminder that dental caries experience in adults remains high, and the majority of disease in children appears to be unmet. This suggests the need for a dentist workforce with a diverse range of skills, including good restorative and surgical skills, and highlights the importance of having a strong emphasis on oral health promotion as well as a dental team approach, very much lacking within the country. Almost all 6-year-olds (85%) have evidence of dental caries experience with an average of five teeth affected, high in relation to most countries. Although much has been done through important dental public

YEAR	2000	2010	2016
Number of Dentists	262	654	1,149
Dental Therapists	n/a	8	n/a
Dental lab technicians (over half working privately)	n/a	Between 85-128	n/a
Dental Hygienists/dental nurses	n/a	68	n/a
Private Dental Clinics	n/a	n/a	500

Source: Ministry of Health - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4490677/figure/Fig3/ / https://capp.mau.se/country-areas/oman/

Dr. S. Al Bulushi, Director of Dental & Oral Health Ministry of Health (2010)

www.wfpha.org/tl\_files/doc/about/OHWG/Oral%20health%20and%20workforce%20issues%200Co%20reflections%20from.pdf

High social welfare benefits, as well as access to medical facilities and doctors has greatly improved the lifespan of Omani citizens, as well as other health indicators, placing the country on a par with many advanced western nations.





health initiatives, especially in schools, contributing to promising oral health improvements amongst the 12-year-olds, however, the effects of dental caries in the permanent dentition are cumulative and lifelong.

Considering the high levels of dental caries experience in the Omani population, the rapidly increasing life expectancy and high-population growth, the existing dental workforce capacity, including the anticipated numbers of dental graduates from Oman Dental College, will be insufficient to meet the population needs in the foreseeable future. In addition, there is a need to develop a workforce of dental specialists with the introduction of postgraduate and speciality training programs. **Oman presently only supports specialty training in oral and maxillofacial surgery locally, thus, graduates**  seeking to train in other dental specialties must do so abroad, joining a general drift in healthcare workforce personnel with no, or limited, career development opportunities nationally towards countries which offer specialization and postgraduate education. Health workforce migration is a challenge, and if Oman wishes to retain its workforce it must consider the necessary factors to monitor and manage migration, considering also that health education is state funded, while also recognizing the rights of healthcare workers. Furthermore, access to dental care should be equitable, and this will require a coordinated approach to ensure that intra-country planning and action ensures that dentists work across all areas of the country, rather than being concentrated in the capital city. There is an

unquestionable need for primary prevention of oral and dental disease, supported by appropriately trained dental personnel. This approach involves team working and team training involving dental hygiene and/or dental therapists as well as dental nurses, in addition to community health workers promoting oral health. **There is a pressing need to establish a substantive and coordinated program of dental nurse training to ensure that there are enough suitably trained dental nurses to support the safe, effective practice of dentistry in the Sultanate, followed by wider team development.** 

### **Domestic Medical Supplies**

The Omani government currently spends an estimated OR120m (\$311.7m) a year on

#### **DMFT IN CHILDREN**

AGE GROUP	% AFFECTED	DMFT*	YEAR
6 years		4.6 (DFT)	1994
6 years		4.25	2007
6 years	84.5%	5.1	2011
12 years		2.5	1991
12 years		1.5	1993
12 years	51%	1.3	2006
15 years		3.4	1996
15 years	60.5%	2.0	2006

\*Note: DMFT = decayed, missing and filled teeth

Source http://www.mah.se/CAPP/Country-Oral-Health-Profiles/EMRO/Oman/Oral-Diseases/Dental-Caries/

#### **MEAN DMFT OF ADULTS IN OMAN\***

AGE GROUP	Mean DMFT	CARIES FREE
23 – 50 years	6.3	7%

\* Al Harthi L., Cullinan M., Leichter J., Thomson M. Oral health of an adult group in Oman – poster presentation at Oman International dental conference 2013

Cross sectional study of 319 teachers who are randomly selected from Muscat Governorate public schools in Oman

Source: http://www.wfpha.org/tl\_files/doc/about/OHWG/Oral%20health%20and%20workforce%20issues%200Co%20reflections%20from.pdf

medicines, with more than 93% of medical supplies, including laboratory, surgical equipment, and pharmaceuticals, needing to be imported from abroad. There are at present only few pharmaceutical manufacturing plants ant there is an ongoing push to establish a domestic pharmaceuticals industry. Authorities in the country are also looking to local manufacturers to provide the healthcare system with 100% of its needs when it comes to more basic medical items, such as surgical gloves and gauze.

Several constraints affect trade and investment in Oman. The country has a relatively small population and there is no high-value consumer market beyond the capital area. This situation is exacerbated by intense competition from nearby global trading hub Dubai and wellestablished industries in Saudi Arabia. In addition, other countries in the GCC typically offer higher industrial subsidies and lower quotas for hiring nationals. In fact, of particular concern for many international firms is the

#### "Omanization" process, wherein the government sets quotas for Omani employment on a sectoral basis. Many companies,

both Omani and international, have noted that some of the quotas are difficult to satisfy. Further, obtaining labor clearances for new foreign workers can be a challenge. Despite considerable government efforts to replace expatriate workers with Omanis, Oman still heavily depends on South Asian and other foreign labor. The divide between the government and the private sector is not well-defined in Oman, leading to potential conflicts of interest. Of note are the oligarchic, closely held businesses with familial ties to government officials. Government decision-making is often opague. Firms that have been successful in Oman usually have previous experience in the Middle East or a fulltime in-country representative or office.

#### Among main sources:

-Extracts from "Sultanate of Oman: Building a Dental

Workforce". For full report: https://www.ncbi.nlm.nih.gov/ pmc/articles/PMC4490677/

-Extracts from "Oman's health care system increasingly ready to meet the population's need". For full report, Oxford Business Group: https://www.oxfordbusinessgroup. com/overview/rise-growing-population-finds-health-caresystem-ready-meet-its-needs

-U.S. Department of Commerce: https://www.export.gov/ article?id=Oman-Healthcare

-http://www.wfpha.org/tl\_files/doc/about/OHWG/ Oral%20health%20and%20workforce%20issues%20 OCo%20reflections%20from.pdf

-http://timesofoman.com/article/74784/Oman/Health/ Inspections-start-as-soon-as-an-application-is-made-toopen-a-clinic-and-continue-throughout-the-lif -https://www.cia.gov/library/publications/the-worldfactbook/geos/mu.html

-The Economist Intelligence Unit: http://country.eiu.com/Oman -International Monetary Fund: http://www.imf.org/en/ Countries/OMN

-https://www.omanobserver.om/article/34709/Main/ details-of-mandatory-health-insurance-in-oman-revealed -Health Vision 2050, by Oman Ministry of Health -https://www.omanobserver.om/article/6136/Main/ health-insurance-mandatory-for-the-employees-of-theprivate-sector-and-visitors



### All the nuances of radiology.

**DIGISMILE - your fast, accurate** and smart 3D intraoral scanner



- · Plug and play
- Powderless
- Realistic Colors
- · Anti-fog function by built-in heater
- Automatic scan retracing
- No Subscriptions required







### **New Life Radiology**

Corso Giuseppe Canonico Allamano 13/15 Int. G 10095 | Grugliasco (TO) | Italy

info@newliferadiology.it www.newliferadiology.it

www.newliferadiology.it

# The Kingdom of **Saudi** Arabia





In spite of an increasing focus on oral hygiene and a growing demand for better oral healthcare, challenges remain within public primary healthcare centers, which play a central role in Saudi Arabia; while most dental care is provided by non-Saudi dentists, with rising unemployment among Saudi dentists, the governmental bodies have come up with a policy to gradually, but carefully, replace the non-Saudi dentists in both the public and private sectors.

46



### The Easiest Way to entering into Digital Dentistry



RUMPS

### Runyes Medical Instrument Co.,Ltd.

Ningbo,China Http://en.runyes.com

FOCUS ON DENTA

Tel:+86-574-27709922 E-mail:runyes@runyes.com





acebook

instagran

#### **Public and Private Oral Healthcare**

According to the Saudi constitution, healthcare services, including dental, are provided by the government and all citizens and residents have the right for complete and free accessibility to the health services. The healthcare system consists of a mix between the public (governmental) and private health sector. The same health services are provided by the private sector but under governmental supervision.

Although dental care services are supplied by the government at no cost, yet a large part of the Saudi population chooses to be treated in the private sector. Governmental primary dental care provides basic level of treatment; procedures such as implants, dentures, cosmetic dentistry, and other complicated procedures are not available in primary dental care and patients are referred to higher governmental dental centers with long waiting lists. On the other hand, in private practice patients receive the needed treatment and desired procedures in one place and in less time. Furthermore, most patients believe that, with paid care they can get enough time with doctors, better care and expect an enhancement in the way they look rather than just treating a dental problem.

As healthcare services budget remains one of the challenges faced by the Ministry of Health in the kingdom, a health insurance has been introduced to compensate a rapidly growing population and to maintain the desired level of health services at no cost. The health insurance, planned to be extended to cover all Saudis in the future, is now compulsory for non-Saudis working in the private sector. Also, the government allows insurance companies to extend their services to cover the Saudis working in private companies who prefer to be treated in the private health sectors. Healthcare insurance usually covers consultations, laboratory tests, diagnostic radiographs, medications, and follow-up. Unfortunately, many companies do not provide health insurance covering dental

### DISTRIBUTION OF DENTISTS ACROSS PRIVATE AND PUBLIC SECTORS

SPECIALTY	Sector Private N (%)	Sector Public N (%)	Total
General Dentist	8,773 (74.85%)	3,151 (60.98%)	11,924 (70.61%)
Prosthodontics	721 (6.15%)	694 (13.43%)	1,415 (8.38%)
Pedodontics	242 (2.06%)	202 (3.91%)	444 (2.63%)
Periodontics	207 (1.76%)	180 (3.48%)	387 (2.29%)
Oral Maxillofacial Surgery	482 (4.11%)	432 (8.36%)	914 (5.42%)
Oral Maxillofacial Radiology	9 (0.08%)	8 (0.15%)	17 (0.10%)
Oral Maxillofacial Pathology	48 (0.41%)	57 (1.10%)	105 (0.62%)
Orthodontics	1,077 (9.19%)	296 (5.73%)	1,373 (8.13%)
Endodontics	201 (1.72%)	209 (4.04%)	410 (2.43%)
Dental Biomaterials	3 (0.03%)	9 (0.17%)	12 (0.07%)
Dental Public Health	49 (0.42%)	78 (1.51%)	127 (0.75%)

Note: data are expressed as frequency and percentage.

Source: http://www.sciencedirect.com/science/article/pii/S1319016417301603

### CHARACTERISTICS OF SAUDI AND NON-SAUDI LICENSED DENTISTS

	Nationality Saudi No. (%)	Nationality Non-Saudi No. (%)	Total No. (%)
Age (average)	37.7	40.76	40.09
Gender: Male Female	2,292 (61.45%) 1,438 (38.55%)	8,019 (60.95%) 5,138 (39.05%)	10,311 (61.06%) 6,576 (38.94%)
Sector: Private Public	1,255 (33.65%) 2,475 (66.35%)	10,465 (79.54%) 2,692 (20.46%)	11,720 (69.40%) 5,167 (30.60%)
Specialist Dentists in Public Sector	924 (24.77%)	1,092 (8.30%)	2,016 (11.94%)
Specialist Dentists in Private Sector	428 (11.47%)	2,519 (19.15%)	2,947 (17.45%)

Note: data are expressed as mean  $\pm$  standard deviation for age and frequency and percentage for the other variables. Source: http://www.sciencedirect.com/science/article/pii/S1319016417301603

### **ORAL HYGIENE HABITS**

Teeth brushed, at least once a day	71.5%		Dentists-to population (per 10,000 people) ratio	5.2	
Never brushed teeth	16.3%			11000	
Use of dental floss, at least once a day	6.3%		Dentist-to population ratio	1:1,880	
Use of Miswak, at least once a day	30.3%		Number of public dental clinics	2,408	

care for its workers, as well as other medical conditions such as pregnancy and delivery, as it is usually expensive, or they create obstacles to minimize the use of insurance in dental care. These issues play a role in demoting the level of dental health especially between foreigners living in the kingdom, especially in the low educated category of workers.

### **Dental Workforce**

The Saudi population faces difficulties to meet proper dental care, resulting in incompatibility between dental care provided in the public system and the increasing population with lifestyle changes, creating deficiencies in the quantity and quality of public dental care. **Over the last 20 years however, the Kingdom of Saudi Arabia has shown steady growth in the dental workforce. According to the Saudi Commission for Health Specialties (SCF-HS), there were 16,887 licensed dentists as of December 2016, compared to 786**  Also, most licensed Saudi dentists are practicing in the public health sector (66.35%), because of high salaries and higher level of job security compared to the private sector.

and 12,785 dentists in the year of 1987 and 2014, respectively, with the majority professionally registered as general dentists (70.6%). Most dental care is still provided by non-Saudi dentists (77.91% of total number), with Saudi representing only 22.09% of the licensed dental workforce. Almost 70% of the licensed dentists are working in the three main regions of the kingdom (Riyadh, Makkah, and the Eastern province). Finally, around 80% of the non-Saudi dentists are working in the private sector compared to only 33.65% of the Saudi dentists and the percentage of non-Saudi dental specialists in the private health sector is also significantly higher than their Saudi counterparts. The fact that most of the Saudi dentists are registered as general dentists may be due to lack of accredited SCFHS residency programs in dental specialties within the kingdom.

A surprisingly high unemployment rate among fresh Saudi dental graduates can be attributable to significant growth in the educational sector, with the number of dentistry colleges that has increased to over 20, from a handful back in the year 2000. Also, most licensed Saudi dentists are practicing in the public health sector (66.35%),

49

SPECIALTY	Nationality Saudi No. (%)	Nationality Non-Saudi No. (%)	Total No. (%)
General Dentist	2,378 (63.75%)	9,546 (72.55%)	11,924 (70.61%)
Prosthodontics	532 (14.26%)	883 (6.71%)	1,415 (8.38%)
Pedodontics	174 (4.66%)	270 (2.05%)	444 (2.63%)
Periodontics	122 (3.27%)	265 (2.01%)	387 (2.29%)
Oral Maxillofacial Surgery	162 (4.34%)	752 (5.72%)	914 (5.42%)
Oral Maxillofacial Radiology	3 (0.08%)	14 (0.11%)	17 (0.10%)
Oral Maxillofacial Pathology	33 (0.88%)	72 (0.55%)	105 (0.62%)
Orthodontics	238 (6.38%)	1,135 (8.63%)	1,373 (8.13%)
Endodontics	156 (4.18%)	254 (1.93%)	410 (2.43%)
Dental Biomaterials	3 (0.08%)	9 (0.07%)	12 (0.07%)
Dental Public Health	45 (1.21%)	82 (0.62%)	127 (0.75%)

Note: data are expressed as frequency and percentage.

Source: http://www.sciencedirect.com/science/article/pii/S1319016417301603

because of high salaries and higher level of job security compared to the private sector. Furthermore, the ability of Saudi dentists to compete in the private market is limited due to employers' preference to employ non-Saudi who usually work more hours for less pay. All this has resulted in a decision (May 2017) by Saudi Arabia's Labour and Social Development Ministry, to stop recruiting foreign dentists in a bid to provide better employment opportunities for Saudis. **The** "Saudisation" policy to replace, in almost all professions, foreigners with Saudis, is being inexorably implemented in the vast kingdom where foreigners make up one third of the total population.

### **Oral Health Status**

According to surveys, prevention and oral hygiene practices are limited. Only an estimated 11.5%-15% of Saudi Arabian people aged 15 and older visited a dental clinic for a routine check-up during the last year, whilst 48.6%-51% visited a dental clinic because of a complaint, 19% for dentures and 11% for braces. The unavailability of a dentist in primary healthcare centers perhaps explains why most of the sampled patients indicated visiting private dental clinic more frequently (77 %) than public primary healthcare centers (45 %).

An interesting finding is the high prevalence of use of Miswak, a traditional chewing stick made from the plant *Salvadora persica* used as natural toothbrush. Among those who never brushed their teeth (16.3%), 93.2% also never flossed, but only 47.9% never used Miswak. Lack of appropriate geographic distribution of primary healthcare centers often cause overcrowding in some centers and underutilization in others, causing a mismatch between primary healthcare services and population needs, a possible reason why caries prevalence in primary and permanent teeth and deepened periodontal pockets remain high among the population. The ratio of one dentist to 1,880 people is in fact variable across regions, with the highest in Riyadh region (1:1536) and the lowest in Jizan region (1:4101). Nonetheless, the current dentists-to-population ratio of 5.2 per 10,000 people, remains higher than most developing countries and the Asia-Pacific region.

### MAJOR DIFFICULTIES IN SEEKING DENTAL CARE % patients considering major challenge



*Note: PHCC = Primary Healthcare Center* 

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5096290/

### New! Pastel Plus Prophy Handpiece 🙎

### Smaller, lighter, quieter ...

Truly a breakthrough in ergonomics, Pastel Plus is the smallest, lightest prophy handpiece in dentistry. Combined with exceptionally quiet operation and splatter-minimizing smooth startups. Pastel Plus generates much less aerosol than air polishers. You can count on Lares quality and precision for the reliable, high performance instruments your practice needs.

Seeking International Distributors! Visit us at the International Dental Show, Septembe U.S. Pavilion Hall 10.2 - T - 47	r 22-25, 2021	ProStyle SF Highspeed Handpleces	Swivel backend models	
Featured as a <b>Best Product of 2021</b> by the leading independent research institution, Lares quality highspeed handpieces deliver enhanced performance, long life and the power you need to provide your patients the best care.	STER GRIP		Fis favor couplers	
DynamicPrecision <sup>™</sup> balancing for quiet operation  SteelGrip push button chucking system for  long-lasting bur retention and cutting precision  Solid rod cellular optics for bright,  lasting illumination (optional)  Kavo MULTIflex5 compatible 360° swivel  and quick disconnect (optional)  Stainless steel construction with non-slip  Signature <sup>™</sup> or TactilSense <sup>™</sup> grip  Long-life precision ceramic bearings (optional)	Choice of compact or standard head size for both ProStyle SF & Legacy 5 models	Legacy 5 Highspeed Handpieces	Fits KAVO caudies	RESEARCH RECEIPTION RESEARCH Recision Performance www.laresdental.com

Brand & Model

Reared No.

**Compare Lares Pastel Plus to the Leading Competitors** 

Weight

350" Sv

Length

82

#### WHERE PATIENTS TYPICALLY RECEIVE DENTAL TREATMENT



*Note: PHC = Primary Healthcare* 

Source: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5096290/

In general, dental clinics in Saudi Arabia provide standardized preventive and curative oral health care services. About 2,408 public dental clinics provide oral healthcare. These providers are classified as clinics in primary healthcare centers, dental clinics located within hospitals and dental clinics in specialized centers. There are also portable dental clinics that provide similar services. The unavailability of a dentist in primary healthcare centers perhaps explains why most of the sampled patients indicated visiting private dental clinic more frequently (77%) than public primary healthcare centers (45%). Patients reported lack of advanced dental treatments in primary healthcare centers given that these centers are known for primary dental treatment.

#### Among main sources:

-Extracts from "The characteristics and distribution of dentist workforce in Saudi Arabia: A descriptive cross-sectional study". For full survey: http://www.sciencedirect.com/ science/article/pii/S1319016417301603 -Extracts from "Primary health care centers, extent of challenges and demand for oral health care in Riyadh, Saudi Arabia". For full survey: https://www.ncbi.nlm.nih.gov/ pmc/articles/PMC5096290/-Extracts from "Use of dental clinics and oral hygiene practices in the Kingdom of Saudi Arabia, 2013". For full survey: https://www.ncbi.nlm.nih. gov/pmc/articles/PMC4834803/

-http://gulfnews.com/news/gulf/saudi-arabia/banon-recruiting-foreign-dentists-means-more-jobs-forsaudis-1.2025564

-Journal of International Oral Health 2016 "Health-care System and Accessibility of Dental Services in Kingdom of Saudi Arabia: An Update



### HERBADENT

### Natural herbal products for efficient oral hygiene.



### Produced in the heart of Europe since 1897.





**HERBADENT.COM** 

### The United Arab Emirates

The United Arab Emirates dental market is among the most dynamic in the world with increasing emphasis on high-end and quality products not only for its residents but also for its constantly growing health tourism.







Preformed Resin has been producing for more than 40 years resin preforms for skeletal prothesis with unique features recognized around the world.

With the gained experience over the years, Preformed Resin is investing a lot of resources looking for new products to be included in its portfolio, to face the new challenges that the market holds for us.

A big thank-you to everyone who uses our products around the world.



info@preformedresin.com | www.preformedresin.com

We are looking for distributors Visit us at Infodent International stand at AEEDC - Hall 4, Booth #417 The United Arab Emirates (UAE) is a federation of seven emirates with a population of 9.8 million made up of various demographic groups from different ethnic, cultural, and socioeconomic backgrounds. Demographic factors such as an aging population, high birth rate, and expatriate majority have resulted in an increase in healthcare expenditures. Health insurance coverage is universal for nationals, and laws have been instituted to ensure health insurance to be mandatory for nonnationals in the emirates. There is nonetheless a tendency, from insurance companies, to increasingly exclude dental care within their insurance coverage, mainly due to high costs of treatment.



### NO. OF DENTISTS IN THE UAE

Total no. of Dentists	6,273
Dentists per 10 000 population	7
Male	2,987
Female	3,286
Working in the public sector	845
Working in the private sector	5,428

The UAE dental market focuses on high guality products and advanced technology. Most clinics and dental offices are equipped with modern and innovative devices and dentists focus on high-level treatments for their patients. According to statistics from the UAE Ministry of Health and Prevention, there are over 6,000 dentists in the UAE, of which around 90% are non-nationals. In recent years, there has been a strong influx of foreign professionals, a trend also characterizing the whole health sector, not only because of growth in the resident population and in investments in service facilities, but also due to higher salaries for professionals as well as health tourism growth. The growing medicaldental tourism is generating further demand for modern facilities and advanced equipment.

Source: UÆ Ministry of Health & Prevention, Report 2018

#### NO. OF DENTISTS BY EMIRATE

	No. of Dentists	Dentists per 10 000 population
Abu Dhabi	2,149	8
Dubai	2,322	5
Sharjah	1,025	9
Ajman	307	9
Umm Al Quwain	58	6
Ras Al Khaimah	232	5
Fujairah	180	7

Source: UAE Ministry of Health & Prevention, Report 2018

# **THE UNITED ARAB EMIRATES**

### **DENTISTS PER 10 000 POPULATION**

As per below mentioned countries, Highest dentist density per 10 000 population is in UAE with 7. Second highest dentist worker density per 10 000 population is in Paraguay with 1.64.



The strong growth in the number of dentists has created oversupply and competition. Most dental professionals (over 45% of the total) are concentrated in the Emirate of Dubai, followed by Abu Dhabi (31.8%). As in many countries, most dentists (85%) are working in the private sector. Public services are mainly used by Emirati citizens and offer almost exclusively basic dental care. More generally, the UAE has a relatively advanced healthcare system in terms of facilities, even if it suffers from a shortage of qualified and specialized staff. Both public, but mainly private investments are resulting in many health facilities, including dental clinics, being under construction or refurbished.

### **Emirate of Dubai**

According to the Dubai Health Authority's (DHA) annual statistical book, Dubai has about 3.4 physicians per 1,000 people. **The proportion of dentists and nurses per 1,000 people has reached 0.8 and 7.2, respectively. These data indicate a gap in the number of health care professionals per population ratio especially for dental health services.** On this regard, the results of an oral screening conducted on schoolchildren (2013) in Dubai showed that children from different age groups have high levels of oral health problems, with a caries prevalence of 65% among children under the age of 7 and a DMFT of 3.8. In addition, in 2016, out of 164,036 patients treated in dental clinics of the Dubai Health Authority (DHA), 20% of these treatments were related to periodontitis. Dental health services in the Emirate of Dubai are provided by the governmental sector managed by Dubai Health Authority (DHA), and by the private sector. Community Dental Services (government sector) are linked to the Primary Oral Health Care Centers. There are 14 health care centers spread all over Dubai providing multidisciplinary approach (oral surgery, orthodontics, periodontics, conservative, restorative, and community dentistry) where comprehensive treatment is available to the public, free of charge.

In recent years, there has been a strong influx of foreign professionals, a trend also characterizing the whole health sector, not only because of growth in the resident population and in investments in service facilities, but also due to higher salaries for professionals as well as health tourism growth.

#### **UAE Dental Market in Figures**

Dental products and devices are supplied to the market essentially through imports, since local production covers only a small part of the demand and mainly low value-added products.

#### Among main Sources:

- Abu-Gharbieh, Eman & Saddik, Basema & Faramawi, Mohammed & Hamidi, Samer & Basheti, Mohammad. (2019). Oral Health Knowledge and Behavior among Adults in the United Arab Emirates. BioMed Research International. 2019. 1-7. 10.1155/2019/7568679. https://www. researchgate.net/publication/330917698\_Oral\_Health\_ Knowledge\_and\_Behavior\_among\_Adults\_in\_the\_United\_Arab\_Emirates -Italian Trade Commission ITA, Italian Dental Industry Association -UNIDI

-WITS-World Integrated Trade Solution - https://wits.worldbank.org/trade/country-byhs6product.aspx?lang=en -United Arab Emirates Ministry of Health & Prevention https:// www.mohap.gov.ae/en/OpenData/Pages/default.aspx

 https://capp.mau.se/bank-of-ideas/united-arab-emiratesdental-public-health-programs-implemented-by-dentalservices-department-dubai/

#### EXPORTS (MILL. EUROS) OF DENTAL PRODUCTS TO THE UAE

	2013	2015	2017	2017 (Jan-Oct.)	2018 (Jan-Oct.)	Market Share (%) 2017	Market Share (%) 2018 (Jan-Oct.)
TOTAL	349	493	525	422	425	100	100
United States	59	95	107	93	88	20.4	20.7
Germany	54	86	77	60	64	14.7	15.1
China	29	45	41	29	35	7.8	8.2
ик	35	39	42	31	32	8.0	7.5
Netherlands	17	32	33	28	29	6.3	6.8
Belgium	11	23	36	27	28	6.9	6.6
Italy	13	25	22	16	17	4.2	4.0
Switzerland	13	22	24	20	16	4.6	3.8
South Korea	10	14	26	21	14	5.0	3.3
Saudi Arabia	11	18	18	15	11	3.4	2.6

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

### EXPORTS TO UAE OF DENTAL INSTRUMENTS AND APPLIANCES, MARKET SHARE (%)

	(Products: 901849)		
	2017	2018 (JanOct.)	
Germany	37.8	30.5	
Japan	8.1	10.9	
China	7.8	8.6	
Switzerland	8.9	8.6	
United States	6.4	8.2	
France	3.9	5.2	
Netherlands	0.3	5.1	
Italy	4.7	4.3	
Poland	4.0	3.5	
South Korea	4.3	2.9	

	(Pr	(Products: 902213)		
	2017	2018 (JanOct.)		
Finland	29.4	40.1		
Germany	31.5	16.0		
Japan	8.7	15.6		
Italy	14.0	12.5		
South Korea	4.9	6.4		
France	3.3	4.5		
Slovakia	4.7	2.2		
United States	0.7	0.8		
India	0.8	0.8		
China	1.1	0.6		

EXPORTS TO UAE OF DENTAL X-RAYS, MARKET SHARE (%)

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

### EXPORTS TO UAE OF DENTAL DRILLS, AND OTHER DENTAL EQUIPMENT, MARKET SHARE (%)

	(Products: 901841)		
	2017	2018 (JanOct.)	
Italy	58.0	46.4	
China	8.0	17.6	
South Korea	5.9	11.4	
Germany	9.5	8.1	
Switzerland	2.9	7.2	
Slovakia	0.8	2.3	
United States	3.3	2.2	
UK	0.3	1.7	
Netherlands	0.2	1.1	
South Africa	0.0	0.9	

### EXPORTS TO UAE OF DENTAL PROSTHESIS (NOT ARTIFICIAL TEETH), MARKET SHARE (%)

	(Products: 902129)		
	2017	2018 (JanOct.)	
Switzerland	24.1	28.0	
United States	13.5	27.6	
South Korea	43.5	26.8	
Germany	5.4	5.3	
Netherlands	5.6	5.2	
Italy	2.8	2.3	
UK	0.1	1.4	
France	0.8	1.3	
South Africa	0.0	0.8	
Jordan	1.4	0.7	

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

### EXPORTS TO UAE OF ARTIFICIAL TEETH, MARKET SHARE (%)

	(P	(Products: 902121)		
	2017	2018 (JanOct.)		
United States	38.4	66.8		
India	1.0	12.1		
UK	4.8	6.9		
Japan	0.5	3.4		
Italy	1.1	2.5		
Germany	2.4	2.4		
Switzerland	49.9	2.1		
Hungary	0.7	1.4		
South Korea	0.3	0.9		
Netherlands	0.0	0.6		

EXPORTS TO UAE OF MEDICAL-SURGICAL-LABORATORY STERILIZERS, INCLUDING AUTOCLAVES, MARKET SHARE (%)

	(Products: 841920)		
	2017	2018 (JanOct.)	
Italy	19.9	44.5	
Belgium	3.2	15.4	
Sweden	9.3	11.6	
China	16.6	6.0	
Germany	9.7	3.5	
UK	2.7	3.1	
India	3.6	2.9	
Turkey	4.3	2.0	
Slovenia	3.6	1.9	
South Korea	2.3	1.9	

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

### EXPORTS TO UAE OF ORAL HYGIENE PRODUCTS, MARKET SHARE (%)

	(Products: 330610)		
	2017	2018 (JanOct.)	
UK	25.8	22.6	
Thailand	9.6	13.3	
Saudi Arabia	15.6	11.8	
China	6.0	10.5	
Egypt	6.5	5.0	
Belgium	7.7	4.6	
India	3.4	3.9	
Italy	3.6	3.3	
Indonesia	2.5	2.4	
Poland	2.8	1.6	

### EXPORTS TO UAE OF GYPSUM, MARKET SHARE (%)

	(Products: 252020)		
	2017	2018 (JanOct.)	
Iran	30.9	37.8	
Thailand	15.6	15.7	
UK	17.7	15.1	
Turkey	4.4	8.3	
Saudi Arabia	9.8	7.9	
Germany	1.8	5.0	
United States	2.1	3.5	
France	11.9	3.4	
Italy	0.8	1.0	
Spain	0.9	0.8	

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

Source: Data processed by the ITA-Italian Trade Agency from Trade Data Monitor source

### QUEST Distributor Wanted

We manufacture dental materials from 1957. Since we hold ISO 13485:2016, we can offer you the Japanese high performance products. We offer your better workability and environment.



### Model Cup

### Pure SCAN POWDER



### Artificial Teeth



If you are interested in any products, please feel free to contacts us.

### **QUEST** Corporation

https://www.quest-pure.com/en/ info@quest-pure.com 53-1 Shibo-cho Azanishiiyashiki, Komatsushima, Tokushima, Japan Phone:+81-885-38-9777 Fax:+81-885-38-9888



### NON PROFIT Give Back a Smile



RESTORE A Smile RESTORE A life

- Providing volunteer members of the AACD
- Civing volumeer members of the AACD

- Giving survivors hope for a better tomorrow Since its inception in 1999, over 900 dental treatment cases have been completed, resulting in over \$9 million dollars' worth of donated dental work. Today, over 350 patients are being treated through the program. The American Academy of Cosmetic Dentistry's efforts to give back to the community has earned it worldwide recognition, including the 2001 Award of Excellence from the prestigious Associations Advance America Summit Awards, which recognizes excellence in charitable organizations.

#### **The Whitening Fundraiser**

You don't have to be a cosmetic dentist to participate in Give Back a Smile. The recent establishment of the Give Back a Smile Whitening Program allows everyone to give back and help heal the effects of domestic violence while whitening their smiles. Discus Dental, Inc., the makers of the Zoom!<sup>®</sup> teeth whitening system, have agreed to donate whitening kits to volunteer dentists. Profits from the purchase of these dental products will be donated to the AACD Charitable Foundation. For a list of participating providers, contact the American Academy of Cosmetic Dentistry.

#### Eligibility

Both men and women who have received injuries from a former partner or spouse are eligible for the Give Back a Smile program. Give Back a Smile is only responsible for correcting injuries to teeth in the smile-zone as a result of domestic violence. A volunteer dentist will perform an exam to finalize entry into the program and rule out other causes, such as previous neglect.

The Give Back a Smile program is a charitable foundation of the American Academy of Cosmetic Dentistry, a prominent national dental association committed to the art and science of cosmetic dentistry. To meet the Give Back a Smile program's requirements, individuals must have been out of an abusive relationship for at least a year. Survivors are required to provide proof of domestic abuse, such as a signature from a counselor, social worker or case manager. Potential patients must fill out an application and undergo an interview process prior to being matched with a participating dentist who will make the final decision on the applicant's acceptance into the program.

#### **Contact Information**

If you or someone you know is a domestic abuse survivor in need of dental care, you can contact Give Back a Smile for help. You may apply online at www.givebackasmile.com or call their hotline at (800) 773 4227 or send an e-mail to

### givebackasmile@aacd.com

Donations can be made to the AACD Charitable Foundation at the address listed below. There is a waiting list of applicants in some areas and volunteers are needed to help. The AACDCF needs dentists, laboratory technicians and other dental professionals to donate time and services to survivors of domestic abuse. If you're interested in giving back to your community, consider participating in the Give Back a Smile program.

### For further information on the Give Back a Smile program, please contact the American Academy of Cosmetic Dentistry.

### American Academy of Cosmetic Dentistry

402 West Wilson St. Madison, WI 53703 (800) 773 4227 www.givebackasmile.com

Article taken from: www.1800dentist.com/dental-charities/give-back-a-smile

### Boost your hygiene!

Add to your sessions a whiter & brighter smile in just one Click!



3 to 5 shades of white\* in only 10 minutes with no gingival protection and zero sensitivity

### ☆☆☆☆☆☆ Patient satisfaction Rating\*

"Absolutely delighted with the results, was a bit sceptical as my teeth are already pretty white but was amazed by how much whiter they became. Fantastic product. Will most definitely be using again. Thank you."

Elaine





21.700 cases documented by the BlancOne PRO App (Classic VITA colour guide reviewed

\*\* Patient rating 4,63 on 5,00 average rating from 1.473 patients





The teeth whitening for everyone



Visit us: Hall 4 - Stand C21

### www.blancone.eu/pro

 $\mathsf{BlancOne}^{\circledast}$  is a registered product and brand by:



IDS Spa - Italy - www.idsdental.it © IDS Spa 2020 - all rights reserved







Cleanmed Ready Disinfection



Lubrioil



BMS White 38% Whitening



Steril Maximum Sterilization

...and much more

### Welcome to



the virtual trade fair open all year round

### **NOT YET AN EXHIBITOR?**

Drop us an email: customercare@smartmedicalfair.com and discover our special offers.

### **ARE YOU A DISTRIBUTOR?**

Visit the international virtual exhibition open all year round, e-meet 245 medical and dental companies looking for worlwide distributors. You can be their next customer!

www.smartmedicalfair.com



### POWERFORM NITRILE GLOVES WITH BIODEGRADABLE TECHNOLOGY

### EcoTek

SWsafety.com

### **Biodegrades**

92.6% in 2.5 years without any impact on glove performance\*

### **Exam Grade**

CE and 510K Certified AQL 1.5

### High Quality Construction

Versatile 5mil for maximum comfort and control

\* Under test method ASTM D5526-12, a standard test method for determining anaerobic biodegradation of plastics in accelerated landfill conditions. Current biodegradation results do not predict future results.



33278 Central Avenue, Unit 102, Union City, CA 94587, USA Tel: +1.510.429.8692 | Fax: +1.510.487.5347 Trademarks and registered trademarks are the property of SW and its affiliates. ©2021 SW. All rights reserved.



FEEL THE SW DIFFERENCE

SW





gloves with EcoTek Biodegradable Technology provide the PPE industry with new sustainability options.

SW PowerForm nitrile