Heartburn drugs Prilosec, Nexium block benefits of blood thinner Plavix warns FDA

USA — A popular variety of heartburn medications can interfere with the blood thinner Plavix, a drug taken by millions of Americans to reduce risks of heart attack and stroke, Federal health officials said.

The Food and Drug Administration said the stomach soothing drugs Prilosec and Nexium cut in half the blood-thinning effect of Plavix, known generically as clopidogrel.

Regulators said the key ingredient in the heartburn medications blocks an enzyme the body needs to break down Plavix, muting the drug’s full effect. Procter & Gamble’s Prilosec OTC is available over-the-counter, while Astrazeneca’s Nexium is only available with a prescription.

“Patients at risk for heart attacks or strokes who use clopidogrel to prevent blood clots will not get the full effect of this medicine,” the agency said in a statement.

Plavix is marketed by Sanofi-Aventis and Bristol-Myers Squibb. With global sales of $8.6 billion last year, it’s the world’s second-best selling drug behind Pfizer’s cholesterol drug Lipitor.

Because Plavix can upset the stomach, it is often prescribed with stomach acid-blocking drugs.

The FDA says patients who need to reduce their acid should take drugs from the H-2 blocker family, which includes Johnson & Johnson’s Mylanta and Boehringer Ingelheim’s Zantac. FDA scientists say there is no evidence those drugs interfere with Plavix’s anti-blood clotting action.

Nexium and Prilosec are part of a class of drugs known as proton pump inhibitors, but FDA regulators said they don’t have enough information to say whether other drugs in that class shouldn’t be used with Plavix.

The FDA said the warnings on Plavix have been strengthened based on a 150-patient study submitted by Sanofi over the summer.

But some consumer advocates said the agency’s action fell short, arguing that regulators should have placed the information in a “black box” warning label, the most serious available.

“This information still has not risen to as prominent a level of warning as it should have,” said Dr. Sidney Wolfe, director of health research at the consumer advocacy group Public Citizen.

Information about the drug interaction between Plavix and other medications is not new. Researchers at pharmacy benefit manager Medco Health Solutions reported last year that taking Plavix with Nexium significantly increased patients’ chances of being hospitalized for a heart attack, stroke or chest pain.

WBB Securities analyst Steven Brozak said the news would put pressure on Paris-based Sanofi and New York-based Bristol-Myers to provide more safety data on their best-selling product.

“This is going to create a chain reaction as patients start calling their physicians, and they are forced to make a spot decision on limited information,” said Brozak. “That’s not gonna help either company’s bottom line.”

While the economic recession has eroded the growth rate for medical and dental tourism by approximately 15.6 percent from 2007 to 2009, the economic recovery may help spur a sustainable 55 percent annual growth rate for the medical tourism industry by 2010, according to a new report released by the Deloitte Center for Health Solutions in the US.

Medical tourism has experienced a significant slow down driven by consumers putting off elective medical procedures over the past two years. However, a better economy and health care reform in the US will likely propel growth in the elective outpatient market, particularly if elective cosmetic and dental procedures are not considered basic benefits, the report states. In 2009, a projected number of 648,000 Americans will travel abroad for out-bound medical and dental care.
The judging and evaluation process of the first edition of the awards was completed and the much anticipated results were announced on November 05th, at the prestigious Jumeirah Beach Hotel, where winners, nominees and judges from Middle East were gather with the elite of the aesthetic dentistry to pay tribute to the most outstanding achievements in dental treatment.

Members of the jury panel faced a tough evaluation process due to the large number of quality cases submitted but finally came to a conclusion. The event showcased 29 short listed dental professionals from 88 entries, from 14 countries across the MENA Region. All winning Doctors attended the Gala Dinner Ceremony at Jumeirah Beach Hotel. The trophies were presented by Emirates Medical Association – Dental Society, Ministry of Health and CAPP- Centre for Advanced Professional Practices.

The winners were awarded with special selection of professional equipment with the generosity of Sirona, Nikon, Al Mazroui, Nobel Medical, Al Hayat, Glaxo Smith Kline, Dentiform and Canon. We would like to thank all participants who entered the awards for their hard work, and dedication to the Dental Industry.

MENA “Aesthetic Dentistry” Awards 2009 is the biggest, one of the most remarkable dental assembly in the region which marks the dental calendars and puts the regional dental achievements on the World Dental Professional map.

We would like to invite all dental professionals to join the 2nd Edition of the Aesthetic Dentistry Awards 2010. Presented by CAPP Centre of Advanced Professional Practiced and EMA Dental Society.
What is dry mouth?
We can all suffer from dry mouth at some point, for example, if we are nervous or stressed. So most of us are familiar with the feeling of not having enough saliva in our mouth to keep it moist and lubricated.
For some people, however, dry mouth can be a regular problem. As we get older we are more likely to experience dry mouth, but it’s also a problem that can affect people from their 50s onwards.

What causes dry mouth?
Dry mouth occurs when the salivary glands stop working effectively. Medicines are known to cause over 60% of dry mouth cases, with more than 400 different medications linked to dry mouth. The number of medicines a patient takes is also directly related to the likelihood of experiencing dry mouth. Health conditions are also linked to dry mouth, such as diabetes or Sjögren’s syndrome. People who smoke, who are pregnant, stressed, anxious or dehydrated are also more likely to have dry mouth.

What are the symptoms?
The symptoms of dry mouth can include:
- difficulty in eating, especially with dry foods, such as cereals or crackers
- difficulty in swallowing and speaking
- a burning sensation in the mouth
- taste disturbances
- painful tongue
- dry, cracked, painful lips
- bad breath
- persistent difficulty in wearing dentures
- feeling thirsty, especially at night
- dry, rough tongue.

Sometimes the amount of saliva a person produces may be reduced by up to 50% before these symptoms are noticed. These symptoms can sometimes have a profound effect on self-confidence. Does dry mouth cause other problems? Saliva plays a very important protective role in the body. It not only keeps our mouth moist, it also helps to protect our teeth from decay, helps to prevent infections and helps to heal sores in the mouth.

What else can a patient do to manage dry mouth?
- Sip water or sugar-free drinks often
- Avoid drinks which dry out the mouth, such as caffeine-containing drinks (coffee, tea, some fizzy drinks) and alcohol
- Chew sugar-free gums or sweets to stimulate saliva flow
- Avoid tobacco as this has a drying effect
- Use a humidifier at night to keep the air full of moisture.

To help keep healthy teeth and avoid tooth decay:
- Brush teeth with a soft toothbrush after meals and at bedtime
- Floss teeth gently every day. If there is bleeding from gums when flossing, this could be a sign of gum disease.
- Use an SLS-free fluoride toothpaste, like Biôtène, with its gentle formulation
- Avoid alcohol-containing mouthwashes as these can dry out the mouth
- Avoid sweet, sugary foods
- Visit the dentist at least twice a year for a check-up.

Try the Biôtène range
A complete dry mouth treatment

Do you suffer from dry mouth?

Visit www.biotene.com to learn more about dry mouth.

leaders in dry mouth treatment
Dubai International Implantology Summit concludes with overwhelming Success

Dubai, United Arab Emirates, Dubai International Implant Summit has successfully concluded last Thursday. High end profile attendees, specialized in Implantology have strongly praised the high level of the first DIIS edition in terms of participation and organization. “We are proud to achieve this success during the first edition of Dubai International Implant Summit, we are very pleased with the highly positive response from all attendees to the high level sessions in terms of attracting an elite of the most prominent experts in implantology in addition to presenting the latest techniques and treatments and the opportunity of exchanging knowledge and experiences related to this field. This achievement encourages us to continue putting all the efforts to develop the medical sector in UAE and the region” said Anas Al Madani, Vice President, Index Holding.

Latest international advanced technologies related to implantology have been presented and discussed at Dubai International Implantology Summit. Sessions continued for three days highlighted the current major issues related to and implantology and ways of development.

“The summit sessions are of a very high level in terms of participation as well as organization. And we had highly benefited from the opportunity of exchanging knowledge and experiences in major implantology issues from different countries around the world” said Dr. Khaled Saadek, who was among the summit attendees.

Alkalines can damage teeth too

A new study from the Sahlgrenska Academy in Sweden has revealed that substances with high pH values damage enamel, a condition usually associated with acid erosion. The researchers exposed extracted teeth to a number of alkaline substances such as household degreasers and found that organic material on the surface of the tooth dissolves rapidly indicating that the organic components of the enamel are also affected, as the enamel becomes more porous.

Alkaline degreasers are mainly used in the food industry, among other things to clean professional kitchens, but are also common in the automobile care industry and to remove paint from walls and other surfaces.
The launching of Astra Tech Implants in UAE comes as a second step to the Pre-Launching seminar that was held at the Crowne Plaza Hotel, Sheikh Zayed Road, Dubai, on 13th and 14th of June 2009. During those 2 days, 4 well renowned speakers presented their latest clinical and experimental researches (Prof. Stig Hanson (one of the engineers of the Astra Tech implant system), Dr. John Sorensen from USA, Dr. Tarek Bourzek and Dr. Hadi AL Saffar from Kuwait). Around 25 dentists from all over UAE had the opportunity to participate in this major event.

The theme tackled the issue of "Immediate Concept" in implantology in a demanding and fast moving environment. The seminar focused on developing implant esthetics utilizing Immediate Concepts, Minimal Invasive Protocols, Tissue Management, Restorative Techniques, Design and Material Selection.

Medicals International who hosted the event with the collaboration of Astra Tech Dental, is a regional organization servicing 12 countries in the Middle East, Arabian Gulf and North Africa. It was established in 1994 in Lebanon, and it supplies now 4 different businesses in the medical industry (Contact Lenses, Optical, Ophthalmology and Dental).

We have been in the United Arab Emirates market for over 10 years now. We have a very successful and well-experienced team bringing us to the top as Market Leaders in different segments and fields. We are situated in 48 Al Dhiaba Street, in Dubai. Our phone numbers are 04 3460998 while the fax number is 04 3460986.

Our transparent “Business with Ethics” style of work helps us establishing greater visibility between final user and supplier through our entity thus ensuring smoother communication and on all levels, product, clinical support and service.

Our Mission Statement “We Think of the Patient First”, describes exactly what Medicals International is all about. We believe that a better clinical outcome is the end result of a true team work effort combining good understanding of the product in question along with proper training for the professional who will end up prescribing or using this important tool. From this angle, we work hard and around the clock in search for better alternatives, get trained on how to present and service them better to ensure that the final outcome is optimized.

Patients in danger of zinc overdose

The US Consumer Healthcare Products Association has recently issued a national alert against the use of denture creams containing zinc. According to the organisation, exposure to excess zinc through these creams can lead to unexplained weakness, loss of sensation or other nerve symptoms.

China rivals US in research race

A new report by Thomson Reuters has found that Chinese researchers have more than doubled their output of scientific papers in recent years and now rank second after the United States in terms of volume. In 2008, China published 112,000 papers compared to 340,000 in the US.

Astra Tech Dental Implants

Astra-Tech is a company in the AstraZeneca Group, one of the world’s leading pharmaceutical companies.

Astra Tech is divided into four business areas, where Astra Tech Dental is the fastest growing. Astra’s focus is clear: advanced research and development in the field of implant dentistry.

Astra Tech Dental has designed and developed a dental implant system based on years of scientific research and clinical documentations, which end resulted in a unique system with perfect balance of Simplicity, Reliability, and Esthetics. This system has proven, through long-term working relationships with dental professionals, that it does improve the quality of life.

The main advantages of using Astra Dental Implant System are many:

Microthread

Uniquely designed to optimize load transfer from the implant to the surrounding bone, the Microthreads on the implant neck lower the stress peaks in the marginal cortical bone. Through this, the marginal bone is successfully preserved. This provides an increased durability and stability of the implant plus theesthetic and functional results are predictable and reliable

Conical Seal Design

The conical relation between fixture and abutment is the backbone of Astra Implant, which provides a tight seal between the two components. Thus, the risk of micro movements and micro-leakages between the components are minimized. The self-guiding nature of the CSD simplifies handling and ensures easy and precise seating of the components.

OsseoSpeed

The first in the world with a chemically modified titanium surface that stimulates early bone healing and speeds up the bone healing process. The result of the micro-roughened titanium surface treated with fluoride is increased bone formation and stronger bone-to-implant bonding.

Connective Contour

The Connective Contour is the unique contour that is created when you connect the abutment to the implant. This contour allows for an increased connective soft tissue zone both in height and volume, which integrates with the transmucosal part of the implant, sealing off and protecting the marginal bone.
Smile Design Wheel™: A practical approach to smile design

Dr Susheel Koirala
Nepal

Modern trends in cosmetic dentistry and media coverage of smile makeovers have increased public awareness of dental aesthetics. People now know that smile aesthetics plays a key role in their sense of well-being, social acceptance, success and relationships, and self-confidence. The aesthetic expectations and demands of dental patients have increased substantially. Now, a glowing, healthy and smiling face is no longer available only to millionaires and movie stars. Therefore, many dentists are incorporating various smile design protocols in their daily practice to meet the increasing aesthetic demands of their patients.

Smile aesthetics

A smile is a facial expression that is closely related to the emotions and psychological state of a person. A smile is exhibited when a person expresses happiness, pleasure or amusement. It is the most important of facial expressions and is essential in expressing friendliness, agreement and appreciation. A smile requires the coordination of facial, gingival and dental components that are stimulated voluntarily or involuntarily by various emotions. It is evident that each smile is different and particular to each individual.

An impaired smile on the other hand, has been associated with higher incidences of depression.

Aesthetics deals with objective and subjective beauty.

Objective beauty is based on the appreciable properties possessed by the object itself. However, subjective beauty is relative to the perception and emotion of the observing person. Perception, however, in smile aesthetics is based on personal beliefs, cultural influences, aesthetic trends and fashion, and input from the media. Hence, smile aesthetics is a multifacual issue, which needs to be adequately addressed for any aesthetic treatment. The objective beauty of a smile incorporates the principles of the facial, dento-facial and dento-gingival components. The creation of subjective beauty may enhance cosmetic value.

Indeed, mathematics has been considered the only frame of reference for comprehending nature. Therefore, the cosmetic dentist needs to be familiar with various mathematical and geometric concepts for achieving smile aesthetics and their clinical protocols.

The Smile Design Wheel

For any smile design procedure, the clinician needs to consider thinking and designing smile design pyramids - psychology, health, function and anatomy of the facial, dento-facial and dento-gingival components. The pyramid of psychology (PHP) is listed here according to order of importance. It is necessary to determine the patient's psychological status, establish a healthy oral environment, restore function and then give attention to enhancing the aesthetic aspect. All four pyramids are essential for achieving equal importance to achieve a desirable clinical result.

By integrating these PHFA pyramids, I developed the Smile Design Wheel (Fig. 1), in which each pyramid is subdivided into three related zones. The Smile Design Wheel will help clinicians to easily comprehend the complex smile design features of aesthetic dentistry. In the next section, I briefly explain the Smile Design Wheel protocols with PHFA pyramids assessment and their basic objectives.

Step I: Understand - The pyramid of psychology

According to Prof. Robert A. Baron, psychology is best defined as the science of behaviour and cognitive processes. Behaviour deals with any action or reaction of a living organism that can be observed or measured. The pyramid of psychology assesses the interrelation of the human mind and the desires and levels of expectation in many patients are highly subjective and fluctuate constantly because of identity, peer and media pressure.

In smile design, we normally try to understand the second part of psychology, i.e. the human mind or rather the minds of our patients. There are three fundamental zones we consider in detail for the psychological pyramid assessment: perception, personality and desire.

Perception

Perception is the process through which a person can select, organise and interpret input from their sensory receptors. A person cannot imagine beauty and aesthetics without some input in advance. The media is the most common source of formation at present regarding beauty and aesthetics. A patient usually conceives his or her own perception of smile aesthetics based on his or her own personal beliefs, cultural influences, aesthetic trends within society and information from the media.

Desire

Desire is a subjective component. Increased public awareness of smile aesthetics through the media has led to a rapid increase in patients' desires and levels of expectation. Patients are now willing to pay for the enhancement of their smile aesthetics. Therefore, the ethical responsibilities of cosmetic dentists in identifying the need or want-based desires of patients have also increased. The desires and levels of expectation in many patients are higher than what is clinically achievable, and it is the clinician's duty to explain and guide patients towards a realistic aesthetic goal.

The psychological assessment of any person is very subjective; however, aspects like perception, personality, expectation or desire are important for the smile design procedure. Patient satisfaction is closely related to these aspects. Hence, understanding the pyramid of psychology is an integral aspect in smile design.

Fig. 1

Step II: Establish - The pyramid of health
The pyramid of health is divided into three zones: general health, specific health and dento-gingival health. The health pyramid assessment and its management play a vital role in most cases, as patients may have certain limitations owing to their health, like uncontrolled diabetes, soft-tissue pathology, poor bone structure, poor oral hygiene, tooth decay, periodontal disease etc., which should be addressed prior to functional and aesthetic treatment.

The health pyramid assessment process includes patient history (medical, dental, nutritional), examinations (extra-oral, intra-oral) and investigations (radiographs, pulp vitality test, study models analysis). Various types of questionnaires and clinical examination and investigation protocols can be used to obtain the necessary information relating to the patient's health. The clinician can use this information to prepare a person-alised treatment protocol. All three components of the pyramid of health should be established within limits before starting any aesthetic restorative procedure on a patient.

Step III: Restore — The pyramid of function

Function is related to force and movement. Hence, for the pyramid of function assessment, the existing occlusion, comfort and phonetics are properly examined with the evaluation of para-functional habits, level of comfort during chewing and deglutition, and temporomandibular joint movement. The clarity of normal speech and pronunciation are also examined. The occlusion, comfort and phonetics components of the functional pyramid should be restored and maintained at an acceptable level before starting the treatment of any aesthetic component.

Step IV: Enhance — The pyramid of aesthetics

The pyramid of aesthetics is the last but most sensitive pyramid of the Smile Design Wheel, as aesthetics has both subjective and objective aspects. The assessment of the subjective aspects—perception, personality, desire—is carried out during the pyramid of aesthetics assessment. It is to be noted that the assessment of the objective aspects depends on the distance (focal length) used to visualise the aesthetic component. Hence, the aesthetics pyramid can broadly be divided into three major zones: macro, mini and micro.

Macro-aesthetics

Macro-aesthetics deals with the overall structure of the face and its relation to the smile (Fig. 6). To appreciate the macro-aesthetic components of any smile, the visual macro-aesthetic distance should be more than 5 feet. However, in clinical practice, the assessment of the macro-aesthetic components is done using various facial photographs with geometric and mathematical appraisals, using reference points and their interrelation. Various facial reference points and guidelines are the main foundation for orthognathic and facial cosmetic surgery; however, in smile design the following macro-aesthetic guidelines are considered fundamental:

- facial midline;
- facial thirds;
- interpupillary line;
- nasolabial angle; and
- Rick ett's E-plane.

Mini-aesthetics

Mini-aesthetics deals with the aesthetic correlation of the lips, teeth and gums at rest and in smile position (Fig. 7). The aesthetic correlation can be appreciated properly when viewed at a closer distance than the visual macro-aesthetics distance. The visual mini-aesthetic distance is similar to the across-the-table distance, which is normally within 2 to 5 feet. There are various guidelines in aesthetics based on the relationship and ratio between lips, teeth and gingival tissue. These can be analysed during mini-aesthetic assessment using frontal, vertical and transverse characteristics of the smile. Clinical photographs are the basic tools for mini-aesthetic analysis. The smile can be assessed at rest (M-position) or smile (E-position).

In the M-position, the following references are measured and analysed:

- commissure height;
- philtrum height; and
- visibility of the maxillary incisors.

In E-position the following references should be analysed:

- smile arc (line);
- display zone and teeth visibility;
- smile index; and
- lip line.

Micro-aesthetics

Micro-aesthetics deals with the fine structure of dental and gingival aesthetics (Fig. 8). Mini-aesthetics can be appreciated at a visual micro-aesthetic distance of less than 2 feet or a normal make-up distance. For the clinical assessment of micro-aesthetic components of the teeth and gingival tissue, appropriate illumination and magnification tools are required for intra-oral examination. Necessary clinical intra-oral photographs should be taken for documentation and future reference.

For micro-aesthetics, the detail of the individual tooth structure and its relation to the surrounding gingiva and the adjacent teeth should be analysed. The following are the major points to be considered:

- upper centrals (tooth size ratio);
- principle of golden ratio;
- incisal embrasures;
- contact point progression; and
- shade progression and surface micro-texture.

In smile design, the aesthetic conditions related to gingival health and appearance are an essential component. The gingival shape, position, embrasure, and contour in relation to the teeth are independent. The following are major aspects that should be addressed during smile design to achieve gingival or pink aesthetics:

- gingival shape;
- gingival contour;
- gingival embrasure; and
- gingival height (position or level).

To achieve higher patient satisfaction and long-lasting treatment results, the following should be the sequence in any smile design procedure: proper comprehension of psychological aspects, the establishment of health and the restoration of function within its normal limit, and the subsequent enhancement of aesthetic components.

Conclusion

Today, various protocols of smile design are available in cosmetic dentistry. However, most clinicians wish to use the simplest protocol with the most predictable results. It is to be noted that smile design should always be a multifactorial decision-making process that allows the clinician to treat patients with an individualised and interdisciplinary approach.
GlaxoSmithKline to re-launch the leading dry mouth brand, Biotene, in the Middles East.

GlaxoSmithKline Consumer Healthcare is planning to re-launch the Biotene® Oral Care products in the Middle-East early next year. The company finalized the agreement with Lacelle, a privately held company, to purchase the leading mouth brand, Biotene, in the Middle East.

Dry Mouth brand Biotene® end 2008.

The re-launch of Biotene extends our portfolio in therapeutic oral healthcare to include a proven treatment for Dry Mouth in the Middle East,” said Mazen Zaytoun, Biotene Brand Manager, GSK Consumer Healthcare. “This opportunity leverages our established capability with dental and medical professionals in the region and is a further step towards our mission of improving the quality of life of our Middle-East consumers.”

Biotene joins a world-class portfolio of Oral Healthcare Brands, including:
- Sensodyne®, the leading toothpaste to treat dental hypersensitivity
- Aquafresh®, a leading range of toothpastes, toothbrushes, mouthwashers and whitening products
- Corsodyl®, Chlorhexidine® gingivitis treatment
- Parodontax®, a toothpaste for healthy gums
- Coreg®+, a range of denture adhesives & cleansers

How Biotene works
Biotene is a proprietary system founded on three enzymes: glucose oxidase, lactoperoxidase and lysozyme, each found in healthy saliva. The augmentation of these enzymes through the introduction of Biotene into an oral healthcare regimen aids the symptomatic relief of Dry Mouth. The Biotene range includes mouthwash, toothpaste, gel, spray and gum formulations for convenient, effective relief. New innovation in 2008 added additional enzymes that attack and breakdown plaque biofilm.

GlaxoSmithKline – one of the world’s leading research-based pharmaceutical and healthcare companies – is committed to improving the quality of human life by enabling people to do more, feel better and live longer. For further information please visit www.gsk.com.
AAE: Issue in implant debate comes down to saving teeth

Sierra Rendon
DT America

CHICAGO, IL, USA: The American Association of Endodontists (AAE) has expressed serious concerns over recent assertions by the American Academy of Implant Dentistry (AAID). According to the endodontist group, the implantologist group’s position reinforces outdated myths about root canal treatment.

A press release distributed by the AAID on 21 September positioned implants as a better option than root canal treatment for a variety of reasons, including higher success rates and lower financial burdens — claims that root canal specialists say are inaccurate and misleading to potential patients.

“Not only has it been proven that both treatments have the same success rates,” said Dr Gerald N. Glickman, president of the AAE, “but several studies show that root-canal treated teeth are retained at about 95 to 97 per cent after eight years, versus implant retention of 85 to 90 per cent during a similar time period. The AAID chose to ignore the scientific literature in its news release.”

Dr Glickman also noted the inference that diseased teeth are not worth saving, which he said does a disservice to both patients and the dental profession as a whole.

“Do patients with a broken arm expect their doctor to give them a prosthetic arm?” he asked. “Why would the same patients believe they need to get a prosthetic tooth screwed into their jaw if the real tooth could be healed?”

Saving teeth is not so much a matter of ‘dental heroics’ as it is serving the best interests of the patient, and root canal specialists proudly do so in a manner that is consistent with the American Dental Association’s Principles of Ethics and Code of Professional Conduct.

“And arguments that root canal treatment is more costly are fatuous,” Dr Glickman added. “Recent research has proven that saving the natural tooth with a root canal rarely requires follow-up treatment and generally lasts a lifetime; implants, on the other hand, have more post-operative complications, and therefore would probably present the more significant financial burden.”

Dr Glickman recognises that there are cases when a tooth cannot be saved, for which implants would be a realistic option. He pointed out that root canal specialists are ideally qualified to make such a determination with a patient’s general dentist, and that all dental professionals are ethically obligated to inform patients of all available treatment options. “This whole paradigm is ultimately not about which treatment modality is better, but what is best for each patient. And that is the preservation of the natural dentition,” he said.
Testing the bluephase 20i
A user report on the new bluephase 20i LED light

Dr Niklas Bartling
Switzerland

We have been using a first-generation bluephase LED light for more than two years in our dental practice. This curing light offers a light intensity of 1.200 mW/cm² and achieves a wavelength range similar to the spectrum of halogen lights, owing to its poly-wave LED technology. There was therefore no need to purchase a new light unit. Nonetheless, I let myself be persuaded into testing the bluephase 20i for three weeks in my practice, focusing on assessing the light’s performance in the Turbo programme when used at a maximum light intensity of 2.000 mW/cm².

In the past, several suppliers offered curing lights that were claimed to provide high light intensities and short polymerisation times. Unfortunately, most of these lights failed to live up to these claims when they were evaluated in field tests. Against such a background, the employees in my practice were less than enthusiastic about conducting the trial. To overcome their resistance, they were first shown how to operate the four programmes of the bluephase 20i light. In addition, we drew up a table of all the materials that would be used in the trial and their respective curing times in conjunction with the Turbo programme (Fig. 1). Normally, we select the curing programme individually at each step in the treatment together with the dental assistant. It transpired that the well-known bluephase programmes—High, Low and Soft modes—were used whilst the Turbo programme of the bluephase 20i was studiously avoided.

Reclaiming trust

The objective of our field test was to identify the limitations of the new LED light. Given the reservations of the team members, we decided to establish the depth of cure achieved using the Turbo programme of the bluephase 20i. It was hoped that this would dispel the objections of the team members. The Heliotest kit, which used to be available for the fabricating of custom-made shade samples, is no longer manufactured. We therefore created our own test samples by cutting an approxi- mately 1 cm-long piece from a straw. Next, we pressed a small amount of low-viscosity silicone into one side of this piece of straw and allowed the material to set. Then, we inserted the piece of straw into an empty composite syringe and filled the syringe with composite. If a light probe is placed on the composite and the material is polymerised, the depth of cure can be established as an alternative test method.

As it is not always possible to place the light probe directly onto the tooth in dental applications, I increased the distance to the material with a matrix in the course of conducting my tests. The results were unambiguous: the bluephase 20i successfully passed all test series conducted with the Turbo programme in conjunction with the composites used in our practice.

I repeated the tests in front of the practice team with good effect and all reservations regarding the Turbo programme and its short curing time of five seconds suddenly vanished. From then onwards, nothing hindered the Turbo programme being used routinely. On the contrary, this programme became very popular amongst the team members and they used it frequently. The usual waiting times associated with the layering technique decreased drastically and swift working during light-curing was soon established. All team members repeatedly commented on the substantial amount of time that can be saved by reducing the polymerisation time from twenty to five seconds.

Field test in the dental practice

Several patient cases treated during the trial phase of bluephase 20i are described below to provide examples of how the new light unit may work.

In the first case, two defective restorations had to be replaced, one on the distal side of tooth 11 and the other on the mesial side of tooth 12 (Fig. 2). The defective fillings were removed and the cavities filled with EvoCeram (Figs. 3 & 4). Next, the restorative material was polymerised using the Turbo programme and allowed the bluephase 20i (Figs. 5 & 6). As can be seen on the pictures, the material was polym erised in five seconds.

Fig. 1: Curing times in conjunction with the Turbo programme of the bluephase 20i.

Fig. 2: A typical case treated during the trial phase: replacement of defective fillings on teeth 11 and 12.

Fig. 3: The defective restorations were removed...

Fig. 4: ...and the composite was polymerised with the Turbo programme of the bluephase 20i light. A common situation: the light probe cannot always be placed in an optimal position. With the Turbo light probe (d > 5 mm), the curing time only has to be disabled if the distance to the material is 8 mm or more. — Fig. 6: Completed Tetric EvcEervam composite restoration.

Fig. 5: Another test case: a gap between two anterior teeth had to be closed. Veneers made of IPS Empress Esthetic were selected for this purpose.—Fig. 8: If ceramic veneers and Variolink II are polymerised using the Turbo programme (five seconds per mm of ceramic), it is advisable to protect the margin with Liquid Strip.

Fig. 6: The time-saving was clearly noticeable when the six veneers were placed.—Fig. 10: The result: six IPS Empress Esthetic veneers placed on teeth 13 to 23 and bleaching of the mandibular teeth.
light probe cannot always be positioned directly onto the tooth. It is therefore essential to use a high-performance polymerisation light to ensure a complete depth of cure in every situation. The polymerisation time only has to be doubled if the distance between the composite and the light emission window is larger than 8 mm if a Turbo light probe (10 > 8 mm) is used.

Furthermore, the blue-phase 20i provides a clear advantage when treating children. In such cases, swift working is of paramount importance to prevent the treatment from turning into a struggle. Reducing the polymerisation time to twice five seconds in conjunction with Compoglass F is very helpful in these circumstances.

Light-curing through ceramic
Ceramic restorations are usually more opaque than composite ones. If a luting composite is light-cured through an all-ceramic restoration, the polymerisation time has to be increased to ensure complete polymerisation. In this case, we had to close a gap between two anterior teeth, as the patient was unhappy with the appearance of his teeth (Fig. 7). The patient did not desire orthodontic treatment. As an alternative, we decided to insert IPS Empress Esthetic veneers. If the Turbo programme of the bluephase 20i light is used, a polymerisation time of five seconds for each millimetre of ceramic and for each segment is required (Fig. 8).

The built-in fan presents a real advantage in these situations. Curing lights without integrated cooling tend to overheat after a short time when used in continuous operation and, as a result, have to be switched off repeatedly to allow them to cool down for a few minutes. This situation can be avoided with the bluephase 20i light. The restorations can be placed swiftly. In this case, six veneers had to be placed in the upper jaw and the gain in time was clearly noticeable (Fig. 9).

The time-saving is particularly substantial when placing extensive multiple restorations (Fig. 10).

Given the high power of this curing light, a few glimpses of doubt emerged at times. In particular, concerns around heat development during polymerisation were voiced. We asked ourselves if the gingival tissues might suffer thermal damage during polymerisation. To clarify this issue, I tested the curing light on myself by having various sites on my tooth necks irradiated with the light strength of the Turbo programme for five seconds. I then took the light probe and placed it directly onto my gingiva without help. During all these cycles of irradiation I did not feel the slightest heat-induced pain. Similarly, none of the patients complained about pain when cervical restorations were cured with the bluephase 20i, even when the restorations were inserted without anaesthetic.

Conclusion
Although I had a few reservations at the beginning of the trial, I was satisfied with the bluephase 20i in every aspect. All composites can be reliably cured, as this curing light emits light in a similar spectrum as halogen lights. In addition, the Turbo programme offers substantial time-saving when treating patients.

“None of the patients complained about pain when cervical restorations were cured with the bluephase 20i”
How many orthodontists are taking part in these workshops and where do they come from?

There are 55 orthodontists in attendance today; all of them come from across the Middle East region.

What will you be your topic of discussion in today’s program?

I will be discussing self-ligation and how to utilize modern wire materials in orthodontics. I will look at the developments made in the technology and the benefits of using these new self-ligation methods. I will also look at the differences these new treatments provide compared to older mechanisms. In addition, I will demonstrate the benefits of 3M Unitek’s SmartClip™ SL5 Self-Ligating Appliance System. What benefits does using Smart Clip™ have compared to other braces?

We are now working with the 3rd generation of the Smart Clip™ which has been developed to offer better control and increased versatility. The Smart Clip™ bracket system increases efficiency through their versatility and the reduction of target time. Self-ligation technology offers reduced friction leading to more efficiency in the treatment using lighter forces and reduced chair time. The increased efficiency in treatment time is due to the ‘click in, click out’ action of the wire into the SmartClip™.

Where can patients receive this treatment?

This treatment is available at most orthodontist surgeries across the region.

What is your role within 3M Unitek?

I work as the Professional Services Manager for 3M Unitek and head up a team which runs product development, education and professional services for orthodontics. Working for 3M is not just about the products on offer. Education and development are also crucial, and with my background as an orthodontist, I use my knowledge and experience of the field to show how 3M’s products can be used efficiently in practice.

A little bit about your background?

I am from Stockholm, Sweden and I have over 25 years of experience in clinical work in Pedodontics (dentistry for children) and Orthodontics. I got my Dental License in Sweden in 1975. In 1985 I joined the board of Pedodontics, Sweden and in 1986 I specialized in orthodontics and joined the Swedish board of Orthodontics.

Since 2001, I have been a visiting Professor at USC in L.A.. I am additionally a member of the Swedish Dental Association, Swedish Dental Society, Swedish Orthodontic Society, British Orthodontic Society, European Orthodontic Society, IADR, World Federation of Orthodontists (WFO) and the American Orthodontic Society.

I also run a private practice in Stockholm.

3M Unitek’s plans for the future?

We have three Invigilator workshops planned for 2010 and our next Unitek Symposium planned for 2011. These are all important, because as we are continually developing our products, we need to share the changes with the orthodontists that will later use them. These workshops, like the one here in Dubai, are very hands on and the orthodontists present will be able to test out what 3M Unitek has to offer.

I personally think the future of orthodontics is digital. Digital technologies are still in their development and evolutionary stages and we are working on a way for these digital technologies to be more cost-effective.
The “Champions” inspire customers to all indications, cost performance, patient compliance with time and everyday life.
- Bone condensation and implantation according to the minimally invasive, flapless, transgingival method.
- Gentle MIM implantation with more than 20,000 successful immediately loaded implants since 1994.
- Best primary stability through crestal micro thread — safe immediate loading.
- Zirconium-blasted, etched Ti/N surface.
- “Intelligent” dental neck area for each mucosa thickness.
- Zirconium ‘Prep Caps’ (for optional cementing) for compensating divergences & aesthetics & immediate loading for dentist chamfer preparation (GOZ 221 / 501).
- Excellent German Milling and Laboratory Center, including the Master Dental Technician, for biocompatible, first-class & perfectly priced tooth replacement.

Zirconium framework: 94 €
Ceramic laminate: 94 €
Best primary stability through crestal micro thread — safe immediate loading.
Zirconium-blasted, etched Ti/N surface.
“Intelligent” dental neck area for each mucosa thickness.
Zirconium ‘Prep Caps’ (for optional cementing) for compensating divergences & aesthetics & immediate loading for dentist chamfer preparation (GOZ 221 / 501).
Excellent German Milling and Laboratory Center, including the Master Dental Technician, for biocompatible, first-class & perfectly priced tooth replacement.

Zirconium framework: 94 €
Ceramic laminate: 94 €

For more information, course dates, orders:
Phone: +49 (0) 6734 - 6991 
Fax: +49 (0) 6734 - 1053
Info & online shop: www.champions-implants.com
For those of you not following the news over in the Great White North I will fill you in a little bit. Last month the ‘distracted driving’ law came into effect, where-as you will not be able to chat away on a cell phone while driving without risk of incurring a fine of up to $500. It seems one Canadian politician wants to take it one step further!

Jim Bradley (Ontario’s transportation minister) made this statement Thursday after telling reporters he was proud of the new legislation he helped draft and as they walked away he mentioned his plans to make this law much more encompassing in the near future. He was quoted as saying: “Sure talking on a cell phone while driving is dangerous but there are many other activities occurring during driving that are just as dangerous if not more-so.” “For example the other day I was almost side-swiped by a man that was completely distracted while picking his nose, and I don’t mean just a nose scratch - he was in up to his knuckle”.

There has been testing done that has shown that picking your nose while driving is even more dangerous than using a cell phone because of the high occurrences of physical injury while conducting this type of behavior. I would like to see all types of distractions lead to a hefty fine, my advice for this particular offense would be an $850 fine.

Experts have questioned the effectiveness of distracted driving laws. In other jurisdictions they have not always changed drivers’ habits. After an initial reduction in New York, for example, cellphone use was reportedly back to pre-ban rates within one year.

The insurance industry says the new law is a good first step in making distracted driving socially unacceptable. In fact Bill Crespen of Walden’s Insurance says, “personally we would like to see all distractions result in large fines, whether it is picking your nose, applying make-up or talking on a cell phone - they can all potentially kill you”.

A Birmingham mother has been fined £75 for feeding the ducks at her local park - but her toddler son was allowed to carry on as he’s too young to prosecute.

Vanessa Kelly, 26, was accosted by a council warden as she and 17-month-old Harry threw the birds scraps of bread in Smethwick, reports the Daily Telegraph. She said: “The warden walked towards me and asked me to stop feeding the ducks because of complaints about children slipping over on their way to school on duck mess. “I said fair enough, but then she started doing a fine. I asked ‘what for?’ and she said ‘littering’. “Harry was still throwing the bread though and the warden told me he could carry on as he was too young to prosecute. I couldn’t believe it.

“I was horrified. It is ridiculous. I take my son to feed the ducks every week. He loves it. It is for his entertainment and to keep him happy.”

Miss Kelly said there are no signs warning people they could be fined for feeding the ducks and vowed: “I do not intend to pay the fine. I am going to fight this to the end.”

Only in Canada! No Picking (your nose) Law!
Time to talk about dry mouth?

Dry mouth is an increasingly common condition, primarily related to disease and medication use. In fact more than 400 medicines can cause dry mouth1 and the prevalence is directly related to the total number of drugs taken.2

Ask your patient
Some patients develop advanced coping strategies for dealing with dry mouth, unaware that there are products available that can help to alleviate the symptoms, like the biotène system.

Diagnosis may also be complicated by the fact physical symptoms of dry mouth may not occur until salivary flow has been reduced by 50%.3

Diagnosing dry mouth
Four key questions have been validated to help determine the subjective evaluation of a patient’s dry mouth:4

1. Do you have any difficulty swallowing?
2. Does your mouth feel dry when eating a meal?
3. Do you sip liquids to aid in swallowing dry food?
4. Does the amount of saliva in your mouth seem to be too little, too much or you do not notice?

Clinical evaluations can also help to pick up on the condition, in particular:
- use of the mirror ‘stick’ test - place the mirror against the buccal mucosa and tongue. If it adheres to the tissues, then salivary secretion may be reduced
- checking for saliva pooling - is there saliva pooling in the floor of the mouth? If no, salivary rates may be abnormal
- determining changes in caries rates and presentation, looking for unusual sites, e.g. incisal, cuspal and cervical caries.

Consequences of unmanaged dry mouth include caries, halitosis and oral infections.

Saliva’s natural defences
Saliva’s natural defences contain a mixture of proteins and enzymes, each of which plays a specific role.5

Protein:
- lactoferrin – chelates iron. Deprives bacteria of iron, which is essential for bacterial growth.

Enzymes:
- lysozyme – disrupts cell walls of bacteria, resulting in cell death
- lactoperoxidase – synthesis of hypohiociyanite, a potent antimicrobial agent.

The biotène patented salivary LP3 enzyme system
The biotène formulation supplements natural saliva, providing some of the missing salivary enzymes and proteins in patients with xerostomia and hyposalivation to replenish dry mouths.

The biotène system allows patients to choose the right product to fit in with their lifestyles:
- relief products - Oral Balance gel
- hygiene products - toothpaste and mouthwash.

The range is specifically formulated for the sensitive mucosa of the dry mouth patient:
- alcohol free
- SLS free
- mild flavour.

The biotène formulation:
- helps maintain the oral environment and provide protection against dry mouth
- helps supplement saliva’s natural defences
- helps supplement saliva’s natural antibacterial system weakened in a dry mouth.

GSK welcomes biotène to its oral care family

Are children receiving prompt cleft lip/palate treatment?

The timely repair of orofacial cleft (OFC) can greatly improve a child’s medical and psychosocial well-being.

The American Cleft Palate-Craniofacial Association (APCA) has set forth guidelines for the optimal time by which primary repair surgery should be received, broken down by type of OFC.

A retrospective study, published recently in The Cleft Palate-Craniofacial Journal (Vol. 46, Issue 6, Nov. 2009) was conducted to determine whether children with OFC receive primary repair surgery within the time recommended by these guidelines.

The study, conducted in North Carolina, found that most children in that state are undergoing primary repair surgery by the recommended age.


The many variables analyzed fell into five broad categories: maternal, child and system characteristics, perinatal care region and place of residence.

The findings suggest that most 78.1% (percent) North Carolina children with OFC received primary repair surgery by the time recommended by the APCA guidelines.

Percentages varied among cleft lip (about 90 percent), cleft palate (57.5 percent) and cleft lip and palate (89.6 percent).

According to the authors of the study, “Children whose mothers received maternity care coordination, received prenatal care at a local health department, or lived in the southeastern or northeastern region of the state were more likely to receive timely cleft surgery.”

The populations least likely to receive the surgery in a timely manner were African-American/Hispanic and those in the southwestern region of the state.

This is most likely due to the distance to the craniofacial center and the services provided by the different centers.

To read the entire article, “Timeliness of Primary Cleft Lip/Palate Surgery,” visit www.pinnacle.allenpress.com/doi/abs/10.1597/08154.17
journalCode=cpcj.