Dear reader,

Much has been said and written about the last decade and how it has changed the way we live. Take the iPod for example. Back in 2000, who would have thought that in only ten years, you would be able to carry a little touch screen device that allows you to check your electronic mail, measure your heart rate or tell you where you can find the closest Italian restaurant?

Given all of the recent hype, it is easy to think that the future of dentistry also lies in digital technology. According to industry experts, the advantages seem to be at hand. Tooth restorations and replacements, for example, will be less time consuming for the patient, saver and much more reliable.

However, while digital technology is a welcome advancement in most fields of dentistry, it is far from being a revolutionary paradigm shift. It may improve office efficiency or be useful for practice marketing, but it is not likely to make better dentists. The fundamentals of the profession basically remain the same. Whether these technologies will become a must-have for dental practices in the years to come will depend on their affordability and whether insurance companies are willing to reimburse treatment concepts based on them.

As a dental news company, we cannot turn a blind eye to these developments. With a new specialist title called CAD/CAM, the international magazine of digital dentistry to be released this spring, we aim to inform you about the latest trends in all fields of digital dentistry. Therefore, the range of topics will include not only CAD/CAM, but also digital imaging or software processing.

If you are interested in receiving a sample copy, we invite you to check our website or visit our booth at all major dental trade shows this year.

Yours sincerely, Daniel Zimmermann Group Editor Dental Tribune International

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"Those new dental weapons are a pain"

Daniel Zimmermann

In the past few weeks, various media sources have published articles regarding high exposure to radiation from medical CT scans. Unfortunately, these have generated misconceptions about the dental CBCT, or 3-D CBCT, scans. The dental CBCT imaging method allows dentists to obtain vital 3-D information without exposing patients to high levels of radiation that come from medical CT scans. An in-office imaging method is more convenient: it saves the patient travel time to and from the hospital and time for follow-up examinations after treatment.

Dentists and other medical professionals ascribe to the ALARA (as low as reasonably achievable) approach concerning radiation levels. This approach guides practitioners to expose patients to the least amount of radiation possible, while still gaining the most pertinent information for proper diagnosis. For example, for dentists placing implants, having this information beforehand is imperative to determining anatomical variations that can affect the procedure’s success or failure.

The differences between dental and hospital scans derive, in part, from the method of capturing the information. The average medical CT scan of the oral and maxillofacial area can reach levels of 1,200 to 5,300 micro-sieverts, the measurement of radiation absorbed by the body’s tissue. These significant levels are attributed to the method of exposing tissues to radiation. With the hospital scan, the anatomy is exposed in small fan-shaped or flat slices as the machine makes multiple revolutions around the patient’s head. In order to collect adequate information, there is overlapping of radiation. In contrast, the dental scan captures all the anatomy in one single cone-shaped beam rotation, decreasing the patient’s exposure to radiation by up to 10 times. For example, radiation exposure using the standard full field of view (an1-CAT CBCT machine (Imaging Sciences International) is 50 micro-sieverts. These machines are also available in different fields of view, thereby reducing radiation exposure even more, depending upon the needs of the patient.

For other comparisons of exposure, consider that a typical 2-D full-mouth series runs 150 micro-sieverts, while a 2-D digital panoramic image ranges between 4.7 and 14.9 micro-sieverts.

Dentists who do not own their own CBCT machines can take advantage of this imaging method, by referring patients to imaging centres in order to acquire this valuable information.

The knowledge obtained from capturing 3-D scans can influence the effectiveness and efficiency of dental treatment. A dental CBCT scan offers the views and information gained from medical CT without the additional radiation absorbed by the body’s tissue. In contrast, the dental CBCT scanning lowers the unnecessary higher levels of radiation from hospital scans. As the technology continues to evolve, the possibilities for improved dental care can only increase.

Increased software compatibility with surgical guides and orthodontic applications has made CBCT scanners an imperative for some dental offices.

As an oral and maxillofacial radiologist and an educator, I firmly believe that with knowledge comes responsibility to provide patients with the best dental care in the safest way possible—a dental CBCT accomplishes this goal without the additional risks involved with hospital scans.

The earthquake that struck Haiti in January will be remembered for a long time. Its devastating magnitude has spread desolation amongst the population and resulted in the gravest crisis in Haiti’s history, leaving behind a completely destroyed country with little likelihood of recovery without assistance.

As the first Latin American nation, Haiti gained independence from France in 1804. Even before disaster struck on 12 January 2010, it had suffered deeply from poverty and political unrest. It is the duty of developed nations to help rebuild this nation so that our Haitian brothers can look forward to a new and improved country.

Many of our colleagues in Haiti have lost everything: family, work, resources and, even worse, hope. The dental profession cannot be oblivious to this reality.

The Latin American Dental Federation (FOLA) has launched an international campaign to assist dental colleagues in Haiti by providing resources to rebuild their lives and their professional practices. FOLA, FDI, Dental Tribune and dentists from all over Latin America are making great efforts to collect instruments, materials and equipment to restore oral health services in Haiti. We hope you also join us in this effort.

We are also planning a dental congress in the Dominican Republic to collect funds for the reconstruction of Haiti.

Dr Samuel Prophet, the President of the Association Dentaire Haïtienne, wrote in an e-mail from Port-au-Prince to Dental Tribune Latin America: “Knowing that FOLA, FDI and Dental Tribune will help dentists in Haiti is great news because it gives us hope!”

This is a call to cooperate with us to help those who have been left without work or resources. Now is the time to show solidarity with our Haitian colleagues.