

# roots

international magazine of endodontology

1 2016



**CE article**

Endodontic diagnosis

**technique**

Removing separated files with the Terauchi File Retrieval Kit

**case report**

Use of mineral trioxide aggregate in endodontic retro-filling

# ROOTS SUMMIT

30 NOVEMBER - 3 DECEMBER, 2016

## THE MASTERS OF ENDODONTICS



Antonis Chaniotis  
Greece



David E. Jaramillo  
USA



Freddy Belliard  
Dominican Republic/Spain



Oscar von Stetten  
Germany



Rafaël Michiels  
Belgium



Enrico DiVito  
USA



Sergio Rosler  
Argentina



Imran Cassim  
South Africa



Siju Jacob  
India



Bojidar Kafelov  
Bulgaria



Mile Churlinov  
Bulgaria



Roberto Cristian  
Cristescu  
Romania/Netherlands



Luis Chávez  
de Paz  
Peru/Sweden



Ronald Ordinola  
Zapata  
Peru



Carlos Aznar  
Portoles  
Spain/Netherlands



Ahmed Abdel  
Rahman Hashem  
Egypt

ARE MEETING IN DUBAI  
WITH THE ROOTS COMMUNITY

DATE: 30 NOV - 3 DEC  
LOCATION: CROWNE PLAZA, DUBAI

ROOTS  
SUMMIT

30 NOVEMBER - 3 DECEMBER, 2016

**EARLY BIRD 20% OFF**  
REGISTER AT [WWW.ROOTS-SUMMIT.COM](http://WWW.ROOTS-SUMMIT.COM)

# Re-establishing biological order



Prof. Philippe Sleiman

Root canal treatment is a therapy as old as time. Truly, it is still a fast-evolving science, even now improving. The main objective of the treatment is to block the access of any kind of aggression to the supporting tissue, as well as to remove what has already infiltrated the pulp complex. Once this has been achieved, the human body will be able to heal itself.

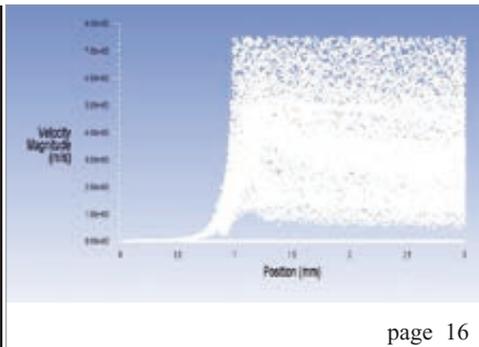
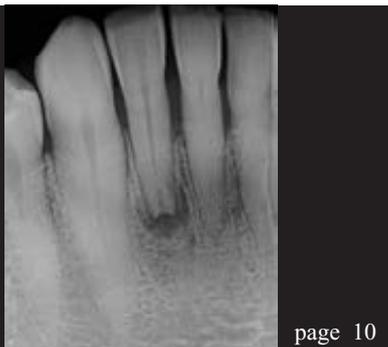
Sometimes, it is not easy to establish a final diagnosis, and this is where many of today's clinicians commit their first error: by not listening attentively to one's patient, it is very easy to mistake simple sensitivity for cervical restoration or pulp inflammation. Small clues in the patient's account, the right questions to clarify the story in combination with basic diagnostic tools, such as cold and hot pulp testing, as well as bite testing, are the pillars of diagnostics for endodontics. Only by knowing and properly applying them can one make proper use of the detailed knowledge of complex pulp innervation systems and their potential modification due to pathology. When the basics are covered, additional tools, such as conventional radiographic examination and CBCT scans, or 3-D radiographic exploration, provide certainty and new data. Relying only on technology can sometimes be problematic, as endodontics is a science that deals not only with dental and bony structures but also with vessels and nerves, which do not appear in our radiological findings.

An endodontist can be best described as a medical artist who handles nerves, vessels and bone in a very delicate area where one's medical knowledge is put to the test and state-of-the-art technologies, including the microscope, rotary files and ultrasonic waves plus chemicals are to be properly used to biologically shape, clean and seal the complex system so that the human body can accept this treatment and heal itself.

We should never underestimate the healing power of the human body once it is given the opportunity. Dentists need to trust this great gift and provide the body with this opportunity based on the correct diagnostics and appropriate treatment. Both primary endodontic treatment and retreatment have high success rates reported in the literature, and it is irresponsible to deny our patients what is best for their health, and potential financial gains from alternative treatment, such as dental implants, should not determine the decision on whether to preserve or extract a natural tooth.

Be a doctor to find it, be an artist to fix it and let nature do the rest.

Prof. Philippe Sleiman, DDS, MSc, DDSc  
Adjunct Associate Professor, University of North Carolina, USA  
Assistant Professor, Lebanese University, Lebanon



**| editorial**

03 **Re-establishing biological order**  
Prof. Philippe Sleiman

**| practice management**

06 **Treatment coordinator:  
The bridge to case acceptance**  
Lina Craven

**| CE article**

10 **Endodontic diagnosis**  
Dr Gerald N. Glickman

**| review**

16 **Irrigation dynamics in root canal therapy**  
Prof. Anil Kishen

**| technique**

20 **Removing separated files with the Terauchi  
File Retrieval Kit**  
Dr L. Stephen Buchanan

**| literature review**

24 **Fibre posts and tooth reinforcement:  
Evidence in the literature**  
Drs Leendert (Len) Boksman, Gary Glassman,  
Gildo Coelho Santos Jr. & Manfred Friedman

**| case report**

30 **Use of mineral trioxide aggregate in endo-  
odontic retro-filling**  
Dr Fernanda Maria Klimpel

34 **“Find it, fix it, and leave it alone”**  
Prof. Philippe Sleiman

**| news**

38 **Only half of US dentists use recommended  
dental dam** during root canal treatment

38 **Scientists test new nanodiamond  
biomaterials** for root canal therapy

**| products**

40 **Detailed images without noise or artefacts  
with Planmeca’s endodontic imaging mode**  
Planmeca

40 **New cordless Ultrasonic Activator  
significantly improves debridement**  
Vista Dental Products

**| meetings**

42 **FKG Dubai Training Center** opens to  
Eastern European and Greek clients

44 **Roots Summit 2016**—Premier global forum  
for endodontics takes place in Dubai

46 Where **innovation comes** to life—  
Nobel Biocare Global Symposium

48 **International Events**

**| about the publisher**

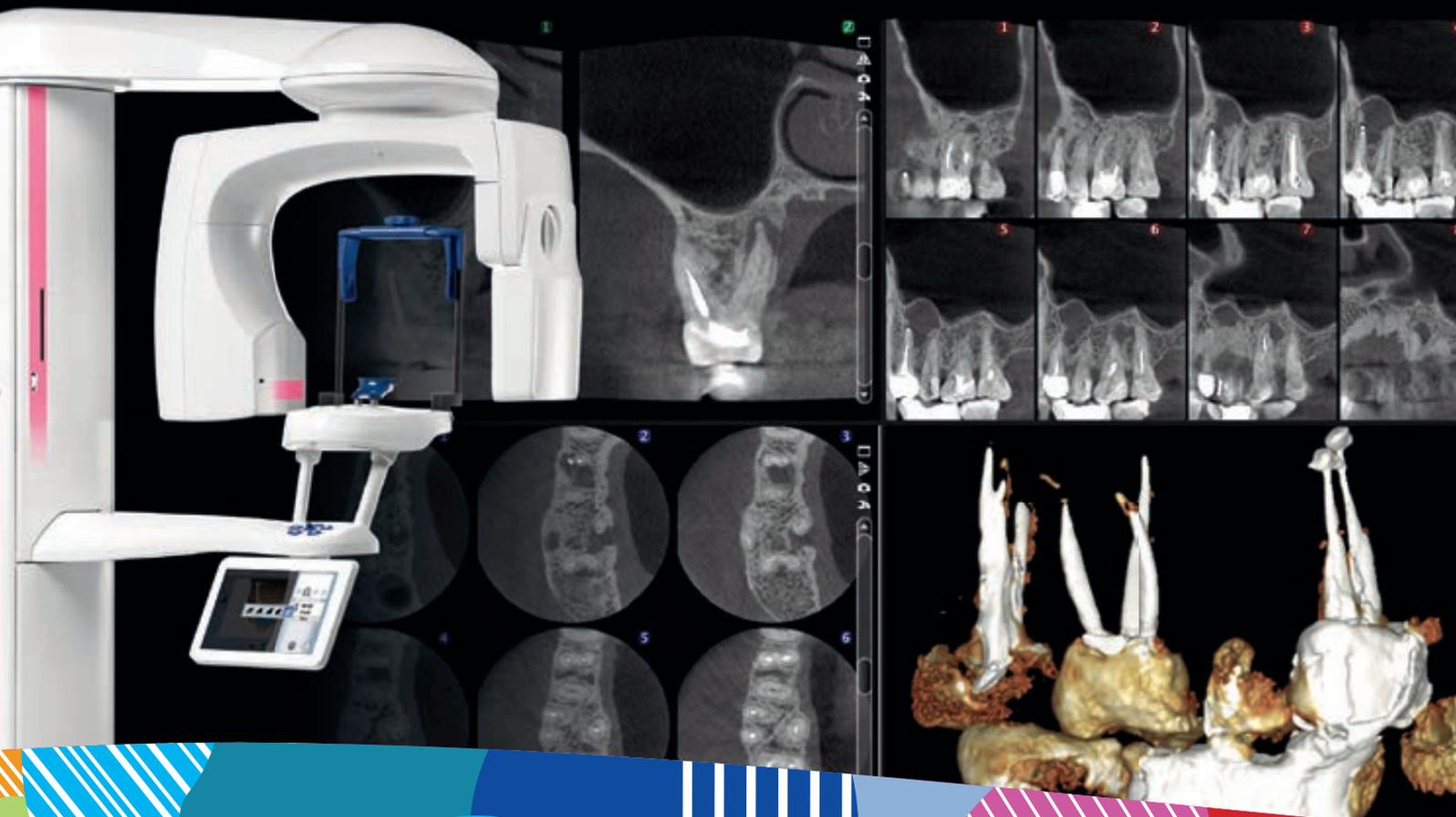
49 submission guidelines  
50 imprint



Cover image courtesy of Planmeca  
(www.planmeca.com).

# Planmeca ProMax<sup>®</sup> 3D

## Endodontic imaging mode – a new era in precision



### Perfect visualisation of the finest details

- Extremely high resolution with 75  $\mu\text{m}$  voxel size
- Noise-free images with intelligent **Planmeca AINO<sup>™</sup>** filter
- Artefact-free images with efficient **Planmeca ARA<sup>™</sup>** algorithm

Other unique features in Planmeca ProMax<sup>®</sup> 3D family units:



#### Ultra low dose imaging

CBCT imaging with an even lower patient dose than panoramic imaging.

Adult female, FOV  $\varnothing 200 \times 170$  mm  
Effective dose **14.7  $\mu\text{Sv}$**   
Planmeca ProMax<sup>®</sup> 3D Mid



#### Create your virtual patient

A world first:  
One imaging unit,  
three types of 3D data.  
All in one software.

CBCT + 3D model scan + 3D face photo

Find more info and your local dealer  
[www.planmeca.com](http://www.planmeca.com)

# PLANMECA



Planmeca Oy Asentajankatu 6, 00880 Helsinki, Finland. Tel. +358 20 7795 500, fax +358 20 7795 555, sales@planmeca.com

# Treatment coordinator: The bridge to case acceptance

Author: Lina Craven, UK



© Dusan Felkovic / Shutterstock

**You might think** that in financially challenging times the last thing you need is a new member of staff. For a practice to thrive and prosper in a difficult financial climate, however, it has to become more efficient, more competitive and more profitable. One way to do that is to introduce a treatment coordinator (TC) into the team or if you already have one then to offer appropriate training. This is a relatively new role to the European market, but in the US, where the role is a central part of any practice, it has proven to dramatically add value to the patient experience, reduce in chair time and increase case acceptance.

The introduction of a well-trained TC will change your entire approach to new patient care, as well as increase profitability. While many practices know how to attract patients, their case acceptance ratio is low. The first contact, first visit and follow-up are the most important elements of the new patient process,

yet they frequently represent a wasted opportunity because of a lack of skill, focus, time or all three.

In my experience, a major downfall of practices is the unwillingness of practitioners to delegate the new patient process to staff, or what we call the TC role. This is often due to a wide range of factors, including the practitioner's perception that the patient wants communication on his or her treatment to come from the practitioner, the perception that patients pay to see the practitioner, a lack of trust to empower staff or time to train staff, and the financial implications of introducing the new role.

Relinquishing new patient management to well-trained staff is not a new trend, although its application has been limited in Europe. However, patients' expectations, competition for private work and the team's demand for career progression and job satisfaction are key drivers for introducing the TC role.



**Seriously better outcomes.**  
No Cords Attached



## ENDO|ULTRA™

Experience improved therapy and procedural efficiency with the lightweight, cordless EndoUltra, the only battery-powered ultrasonic activator capable of producing acoustic streaming and cavitation.

**Ultrasonic energy makes EndoUltra the only cordless activator that can promise:**

- **Up to 100%** irrigant penetration, including the apical anatomy.<sup>1</sup>
- **82% more effective** debris removal than sonic devices.<sup>2</sup>

ULTRA effective. ULTRA efficient. **ULTRA sonic.**

## AutoSyringe™

This cordless, compact, safe, device offers controlled flow of irrigating solutions with variable flow rate settings. Pair with EndoUltra for **better patient outcomes.**



## The TC concept

A TC is someone in your practice who, with the right skills and training, will facilitate the new patient process. He or she bridges the gap between the new patient, the practice and the staff. The TC promotes and sells the practice and its services by demonstrating their true value to prospective patients, frees up the practitioner's time, increases case acceptance ratios and, resultantly, increases practice profits.

Consider the time spent by the practitioner with the new patient and calculate how much of that time is non-diagnostic. A TC can often reduce up to 60 per cent of practitioner-patient time. Rather than this being a barrier to patients—which is indeed what many practitioners perceive to be the case—in my experience, patients actually feel much more at ease with the TC and therefore better informed. Doctor time is not always doctor time. As a typical example: if a new patient appointment is 30 minutes, but the clinical part is actually only 15 minutes, there is potentially 15 minutes still available. Think about the impact an additional 15 minutes for every new patient in the appointment diary could have.

A good TC will manage all aspects of the patient journey, from referral to case start, and potentially increase your case starts. He or she is the first point of contact. People buy from people, so the development of a relationship and establishing of rapport between the TC and the new patient are crucial to the success of your conversion from referral to start of treatment. The TC informally chats to the new patient prior to consultation. This helps not only to foster rapport but also to gain a better idea of the patient's needs and wants.

I recommend to all my TCs to be present at the consultation to listen and understand clinically what is and is not possible in order to allow the TC to determine how he or she will conduct a top-notch case presentation. The TC carries out the case presentation, reiterates the treatment options available to the patient, discusses these, answers any questions the patient may have, and clarifies proposed treatment. He or she also discusses the informed consent, shows before and after photographs of similar cases, and addresses any barriers or concerns the patient may have. The TC also explains the financial options and determines the most suitable payment method for the patient's needs, as well as prepares the walk-out pack. The value of a walk-out pack should not be underestimated and should reflect the values of the practice, including all information the patient needs, the finance agreement or contract, diagnostic re-

port, photographs of the patient (an excellent marketing tool), informed consent and anything else the practitioner feels adds value to the consultation.

Too many new patients are lost due to lack of follow-up. A good TC follows up and provides monthly information on patient conversions to assist with strategic planning. All practices should have a patient journey tracker.

## Filling the role: An internal solution?

There are no hard and fast rules. It depends upon the size and aspirations of your practice and the qualities of existing members of your team. If you have a team member who fulfils the characteristics of a TC and he or she wants the challenge, then the answer is yes. Keep in mind that you may well need to fill that person's current position.

Some practices streamline job descriptions allowing them to create the new role without having to hire another staff member. Whether it is a full-time role or not depends upon various factors, including the size of the practice; the number of practitioners, chairs and patients; and the profit aspirations. Many practices implement the role and monitor its progress and impact. This often helps the team to accept the change and gives the practitioner the opportunity to assess any training needs of the TC and to access how remuneration will be affected.

The role of your TC should fit in with your practice's culture and aspirations for patient care. However you choose to implement the role, the only guarantee is that you will benefit enormously. Augmenting your team with a well-trained TC can reap tremendous rewards for you, the team and your patients. A TC's tailored and personal approach to care, follow-up and communication with patients fosters trust and increases patient satisfaction and retention.

## contact



**Lina Craven** is founder and Director of Dynamic Perceptions, an orthodontic management consultancy and training firm in the UK helping specialist practices across Europe to increase their case acceptance. She can be contacted at [info@linacraven.com](mailto:info@linacraven.com)



CROIXTURE

PROFESSIONAL MEDICAL COUTURE



NEW COLLECTION

EXPERIENCE OUR ENTIRE COLLECTION AT [WWW.CROIXTURE.COM](http://WWW.CROIXTURE.COM)