

Members Present: Drs. Erica Teixeira (Chair), Omar Alburawi, Piriya Boonsiriphand, Manuel Gomez, Theodoros Katsaros, Charles W. McBrearty, Ivan Medin, Patty Meredith, Rodrigo Rocha Maia, John Syrbu, Marcos Vargas, Gracie Deery (D3), Morgan Lauer (D2), Monzer Shakally (D1), Trishul Allareddy, Lily T. Garcia

Absent: Drs. David A. Jones, Leo Marchini, Kyle Stein, Kyle Nicholson (D4), Ron Elvers

Guest: Dr. Michael Murrell

Meeting called to order 12:01 p.m.

- I. **Approval of February 13, 2019 minutes** – Dr. E. Teixeira
MOTION: to approve the minutes as submitted and seconded.
MOTION APPROVED.

- II. **Outcomes Update**– Dr. Murrell, Dr. Gomez and Mr. Medin

- A. Clinical Camera Usage - Dr. Murrell (Handout)
- Dr. Murrell said overall response from faculty, students and patients has been positive. He presented findings from his study on use of the intraoral camera. Fifty-one (51) students completed 198 surveys, 86.6% response rate.
 - Results suggest use of the intraoral camera has improved student ability to make and explain treatment recommendations for their patients.
 - Results also suggest crown completion rate is higher with the use of the camera.
 - The outcomes presented support placing an intraoral camera in each operatory.
 - At this time, there are 9 intraoral cameras, each costing \$2000.
- B. Revision of Endodontics course – Dr. Gomez (Presentation)
- Dr. Gomez presented an update on the outcomes of using new technology – ProMark® Endo Motor and handpieces – in the preclinical endodontic course. In addition to acquisition of fifty (50) ProMark electric motors, there was implementation of a new typodont with apex locator capability, eighteen (18) electronic apex locators, and WaveOne™ Gold reciprocating system; all incorporated in spring 2017.
- Outcomes of endo procedures using new technology:
- Preclinical course follows the same protocol used in the clinic
 - Use of electronic apex locator learned for length determination
 - Less procedural errors
 - More conservative technique
 - More predictable outcome of endodontic treatment
 - Reduced number of visits for patient
 - More productivity
- C. Digital Clinical Data - Mr. Medin
- AY 2017-18 Axiom Reservations for use of Scanners:
E4D – 16; OmniCams – 721; True Def – 21
 - Requests for milling blocks: 168 (01-12/17), 113 (01-12/2018) block requests for CEREC
 - (July 2018 – March 2019) Number of single-appointment CAD/CAM workflow crowns:
~589 crowns were done in FamD from July-March 2018-2019 (PFM 211, FCC 122, etc).
 - Jan 2018-Dec 2018 111 crowns milled in-house according to AxiUm milled codes (xxx.5)

With increased production via CAD/CAM workflow, it is strongly encouraged to use AxiUm for scheduling use of scanners. It is important to track usage in order to have data that supports use of the equipment.

III. **Management of CERECs** – Dr. E. Teixeira

- Dr. Alburawi requested and agreed to explore locating an OmniCam scanner on the 4th floor. He was requested to identify an individual who will be responsible for the equipment, be available to support use by students, and who will report to Ivan Medin for accountability in maintenance and use.
- It was stated that the scanners are collegiate assets and cannot be monopolized by a solo department.

IV. **CEREC Training – Limited to 10 predoctoral faculty** – Dr. E. Teixeira

In-house training will be available for 10 predoctoral faculty. It will be important to identify new faculty with similar digital experience levels in order to coordinate training on behalf of the college.

ACTION ITEM: Drs. Teixeira and Garcia send information to identify interested faculty.

V. **Roundtable Comments** – Dr. E. Teixeira

Next Meeting: April 10, 2019

Minutes recorded: Ms. Brenda Selck

EVALUATION OF INTRAORAL CAMERA USE IN A PREDOCTORAL CLINIC

The primary aims of this project were: 1) assessing perception from dental students, faculty members and patients about benefits/pitfalls of intraoral camera use; and 2) comparing completion rate of treatment planned posterior crowns with and without intraoral camera use.

Results: Students, faculty and patients viewed intraoral camera use overwhelmingly in a positive way, and completion rate of posterior planned crowns was significantly higher ($P=0.0005$) when intraoral cameras were used to present images to the patients.

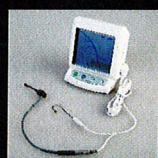
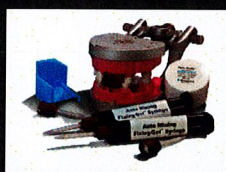
40.16% of the non-camera group were completed, while 54.20% of the camera group were completed.

UPDATE ON THE OUTCOMES OF USING NEW TECHNOLOGY IN THE PRECLINICAL ENDODONTIC COURSE

Manuel R. Gomez, DDS
Clinical Associate Professor
Course director

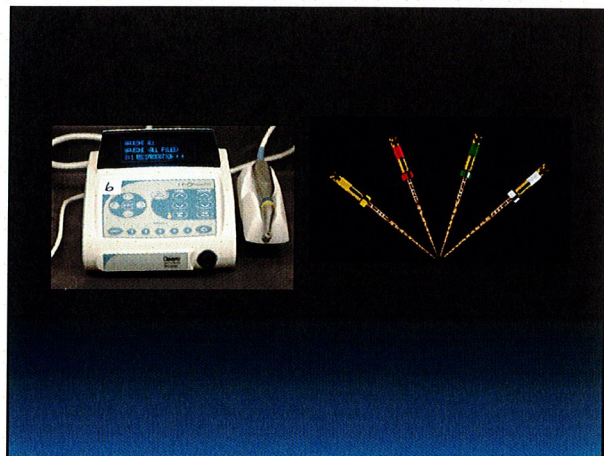
Implementation of new technology

- Spring of 2017.
- New typodont with apex locator capability.
- 18 electronic apex locators.
- 50 Promark electric motors and hand pieces.
- Wave One Gold reciprocating system.



Accuracy of apex locators

• Czerw (1995)	Accuracy <i>in vitro</i>	100 %	n= 30
• Shabahang (1996)	Accuracy <i>in vivo</i>	96 %	n= 26
• Vajrabhaya (1997)	Accuracy <i>in vivo</i>	100 %	n= 20
• Dunlap (1998)	Vital vs Necrotic <i>in vivo</i>	82 %	n= 34
• McDonald (2001)	Accuracy <i>in vivo</i>	95 %	n= 20
• Welk et al (2003)	Accuracy <i>in vivo</i>	91%	n= 32



Why Wave One Gold

- The cleaning effectiveness of reciprocating files is comparable to full rotary file sequence systems.
Plotino et al JOE 2015, 41: 1939-50.
Gande et al, Endo practice 2016, 9: 37-42.
- Excellent centering ability of WO regardless the clinician's level of experience.
Goldberg et al, Int J Dent 2012, 1-7.
- There is a short learning curve for the reciprocating technique and that it is suitable for teaching purposes.
Goldberg et al, Int J Dent 2012, 1-7.

Why Wave One Gold: Instrument separation

- The incidence of instrument separation using WO reciprocating instrument was considerably low.
Sanchez et al JOE 2014, 40: 922-24.
Plotino et al, IEJ 2015, 48:199-205.
- Separation of files when used under continuous rotation was higher compared with reciprocating motion.
Varela - Patiño JOE 2010, 36: 157-59.
You et al, JOE 2010, 36: 191-94.
Kim et al, Joe 2012, 38: 541-44.

Outcomes of endo procedures using new technology

- Preclinical course follows the same protocol used in the clinic.
- Use of electronic apex locator learned for length determination.
- Less procedural errors such as ledges, perforations, canal transportation, separated instruments.
- More conservative technique.
- More predictable outcome of endo treatment.
- Less number of visits for the patient.
- More productivity.

