THE UNIVERSITY OF IOWA | College of Dentistry and Dental Clinics

Health Technology Committee
Minutes – September 12, 2018

Members Present: Drs. Erica Teixeira (Chair), Omar Alburawi, David A. Jones, Leo Marchini, Patty Meredith, Rodrigo Rocha Maia, Kyle Stein, Marcos Vargas, Theodoros Katsaros, Kyle Nicholson (D4), Gracie Deery (D3), Morgan Lauer (D2) and Monzer Shakally (D1)

Absent: Drs. Piriya Boonsiriphant, Manuel Gomez, John Syrbu, Trishul Allareddy, Ron Elvers, Lily T. Garcia, Mr. Charles W. McBrearty and Mr. Ivan Medin

Guest: N/A

Meeting called to order 12:03 p.m.

I. **Approval of August 8, 2018 minutes** – Dr. E. Teixeira
MOTION: to approve the minutes as submitted and seconded.
MOTION APPROVED.

II. **Electric Handpieces – Decision on Dept. of Periodontics Request** – Dr. LTGarcia
The periodontics department had a request for cordless handpieces, which was sent to administration. Dr. LTGarcia is absent, so Dr. E.Teixeira read the response from administration. Administration suggested to continue use of the current handpieces for this academic year until further decisions are made.

III. **Current use of digital scanners - protocols** – Mr. I. Medin
E4D Status – Since Mr. I. Medin was absent, this is tabled for the next meeting.

IV. **CEREC and E4D: decision for use/replacement** – Dr. Boonsiriphant and Mr. I. Medin
Dr. E.Teixeira led the discussion due to absences.

A. CEREC is the preferred system for use. Students think that using the CEREC in the simulation clinic would make for a smoother transition into the actual clinic.
B. E4D complications. E4D company has a new owner and they promised that they would look into fixing the issues. The reason E4D was purchased initially for use of the Compare software. Current efforts to update scanning software does not include updating Compare.
C. CEREC has a comparable software called prepCheck, although costly. The students on the committee mentioned that they did not find Compare that useful. They thought the professor was much more helpful in feedback. Compare was being used to grade the students and if it is not usable, then it may be worth the investment to switch. If course directors believe there is a benefit to CEREC without the prepCheck software, this may a viable option.
D. Dr. Meredith spoke on behalf of the work group who recommended to continue Use of both E4D and CEREC this academic year while negotiating with CEREC to see how much they will support the CoD becoming a CEREC school in predoctoral education, planning for implementation the next academic year.
E. Sirona has a workshop the day before ADEA starts that faculty members can attend.

ACTION ITEM: Dr. E.Teixeira will follow up with Dentsply Sirona regarding price negotiations.

V. **Digital Training:** - Dr. E.Teixeira

A. 3Shape Training – October 24-25, 2018

- There will be training for 3Shape that Ivan will coordinate. 3Shape recently purchased is located in 3rd floor FamD dental lab (Ivan's lab). If interested, please contact Ivan.
- Separate training for 3Shape is available outside the school. Feel free to forward this information to the faculty in your department. Dr. LTGarcia sent information about this training program focused on use of 3Shape. Registration fee required.

B. CEREC Scholarship for Faculty Training

- We will be receiving applications for CEREC training in NC. There is no registration fee. Faculty paid for flight and CEREC will pay a per diem. CEREC just moved facilities and will be waiting to hold trainings until 2019. Dates have not been released yet. Please let your department faculty know.

VI. **Workgroup for Digital Tech Info on the Intradent** – Dr. E. Teixeira

Goal: have information about technologies readily available to everyone.

A. Define what should be available for students/faculty.

B. Dr. Rocha Maia volunteered to help create educational materials and references. Other volunteers include: Monzer Shakally, Gracie Deery, Kyle Nicholson, Morgan Lauer, John Syrbu, and someone from the Department of Prosthodontics.

C. Materials can include FAQs, compliance information, video tutorials, videos, pdf files, troubleshooting instructions, etc., as well as new instructional information. Navigation through the software, available readily on the IntraDent.

D. The students do not feel like the Intradent will be used much, but if materials were located on ICON, this may be the preferred site.

E. A brief recorded lecture on how the computer system works would be really helpful and how to improve computer usage for best time management. Clinically the computer systems are slow to respond.

ACTION ITEM: Dr. Rocha Maia will meet with the Work Group on Digital Technology Information.

ACTION ITEM: Chuck McBrearty will review the computer systems/equipment to determine if improvements can be made to improve usage.

VII. **Other items for discussion:**

Updated version of Electric Handpiece Programs are included with the minutes.

Next Meeting: October 11, 2018

Minutes recorded: Ms. Lauren Moniot

Electric Handpiece: PROGRAM SETTINGS

(Clinical Use)

Program 1 = FG Preparation (Friction Grip, Tooth Preparation)

Ratio 1:5 = CA 1:5 L handpiece
Speed = 200,000 RPM
Torque = 0.70 Ncm (100%)

- Used for initial access cavity preparation, crown preparation, and endodontic access preparation, i.e. used as a high speed handpiece. Reduce speed to 6000 rpm for smoothening external cavity walls as part of the final cavity preparation steps.

Program 2 = FG Caries removal (Friction Grip, Caries removal)

Ratio 1:5 = CA 1:5 L handpiece
Speed = 1,500 RPM
Torque = 0.70 Ncm (100%)

- Used with FG carbide round burs for caries removal.

Program 3 = FG Restor Polish (Friction Grip, polish restorations)

Ratio 1:5 = CA 1:5 L handpiece
Speed = 4,500 RPM
Torque = 0.70 Ncm (100%)

- Used with FG restoration finishing and polishing burs. With soflex discs attached to a FG snap on mandrel use 4,500 rpm. Could increase the speed to 6,000 rpm for FG carbide and FG diamond finishing and polishing burs.

Program 4 = Latch Restor Polish (Latch handle, polish restorations)

Ratio 1:1 = CA 1:1 L handpiece
Speed = 6,000 RPM
Torque = 3.5 Ncm (100%)

- Used for latch resin-based composite polishing burs: Green Jiffy Cup Pre-polisher (Ultradent), Pasteless cup and point brushes (Brasseler), Gloss polisher cup and flame (Kerr Hawe), Hi Luster Dia poliser cup and Flane (Kerr Hawe).

Program 5 = FG Prosth (Friction grip, refining final tooth preparation)

Ratio 1:5 = CA 1:5 L handpiece
Speed = 20,000 RPM
Torque = 0.70 Ncm (100%)

- Used with FG diamond finishing burs to smooth crown preparations.

Program 6 = Straight Adjustment (Used with long-shank burs)

Ratio 1:1 = Straight Attachment
Speed = 40,000 RPM
Torque = 3.5 Ncm (100%)

- Used for extraoral adjustment.
- Used for Prophy, using the contra-angle CAP 15:1 or straight handpiece for standard disposable heads PMP 10:1.

Program 7 = Straight Polish (Used with long-shank burs)

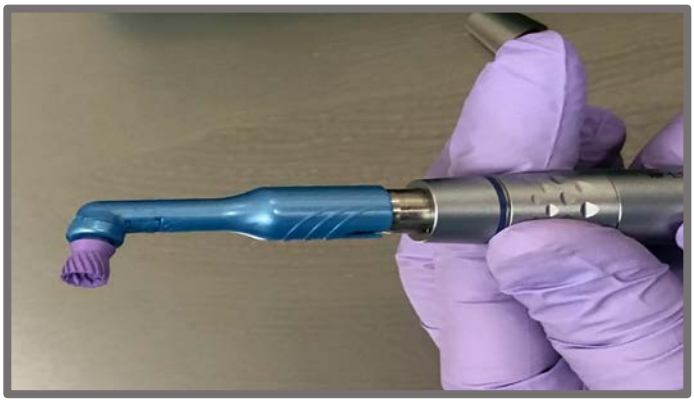
Ratio 1:1 = Straight Attachment
Speed = 20,000 RPM
Torque = 3.5 Ncm (100%)

- Used for extraoral polishing.

Program 8 = Straight Prophy (Used for oral prophylaxis procedures)

Ratio 1:1 = Straight Attachment
Speed = 3,000 RPM
Torque = 3.5 Ncm (100%)

- Used with Vera prophy cup. Remove the cone from the straight attachment, unlock the straight attachment, gently place the Vera prophy cup, do not press firmly, and lock the straight attachment. NOTE: The Vera prophy cup does not seat all the way to the collar of the handpiece, see picture below.



Program 9 = Latch EndoSLAccess (Latch handle, used with peeso reamers or gates glidden)

Ratio 1:1 = CA 1:1 L handpiece
Speed = 800 RPM
Torque = 3.5 Ncm (100%)

- Used with Gates Glidden drills for straight-line access and with Peeso reamer drills for post canal preparation.

Electric Handpiece PROGRAM SETTINGS

(Simulation clinic use)

Program 1 = FG Preparation

Ratio 1:5 = CA 1:5 L handpiece
Speed = 200,000 RPM
Torque = 0.70 Ncm (100%)

- Used for initial access cavity preparation, crown preparation, and endodontic access preparation, i.e. used as a high speed handpiece. Reduce speed to 6000 rpm for smoothening external cavity walls as part of the final cavity preparation steps.

Program 2 = FG Caries removal

Ratio 1:5 = CA 1:5 L handpiece
Speed = 750 RPM
Torque = 0.70 Ncm (100%)

- Used with FG carbide round burs for caries removal.

Program 3 = FG Restor Polish

Ratio 1:5 = CA 1:5 L handpiece
Speed = 4,500 RPM
Torque = 0.70 Ncm (100%)

- Used with FG restoration finishing and polishing burs. With soflex discs attached to a FG snap on mandrel use 4,500 rpm. Could increase the speed to 6,000 rpm for FG carbide and FG diamond finishing and polishing burs

Program 4 = Latch Restor Polish

Ratio 1:1 = CA 1:1 L handpiece
Speed = 6,000 RPM
Torque = 3.5 Ncm (100%)

- Used for latch resin-based composite polishing burs: Green Jiffy Cup Pre-polisher (Ultradent), Pasteless cup and point brushes (Brasseler), Gloss polisher cup and flame (Kerr Hawe), Hi Luster Dia poliser cup and Flane (Kerr Hawe).

Program 5 = FG Prosth

Ratio 1:5 = CA 1:5 L handpiece
Speed = 20,000 RPM
Torque = 0.70 Ncm (100%)

- Used with FG diamond finishing burs to smooth crown preparations.

Program 6 = Straight Adjustment

Ratio 1:1 = Straight Attachment
Speed = 40,000 RPM
Torque = 3.5 Ncm (100%)

- Used for extraoral adjustment.

Program 7 = Straight Polish

Ratio 1:1 = Straight Attachment
Speed = 20,000 RPM
Torque = 3.5 Ncm (100%)

- Used for extraoral polishing.

Program 8 = Latch EndoSLAccess

Ratio 1:1 = CA 1:1 L handpiece
Speed = 800 RPM
Torque = 3.5 Ncm (100%)

- Used with Gates Glidden drills for straight-line access and with Peeso reamer drills for post canal preparation.