

Health Technology Committee Meeting Agenda	
May 10, 2017	12:00 – 12:50; N304
Dr. Erica Teixeira, Chair	Recorder: Ms. Lauren Moniot

Agenda Items	Responsible Individual
1. Approval of April 12, 2017 Minutes	Dr. E. Teixeira
2. AxiUm Code for <i>In-House Milled Fixed Unit</i>	Dr. E. Teixeira
3. CEREC Training 2017 – Dr. Mike Murrell & Dr. Cristina Vidal	Dr. Murrell
4. Update on Electric Handpieces <ul style="list-style-type: none"> • “All or none” • Implementation • Invited to discuss: Scott Arneson, Curtis Iburg, Pediatric Dentistry, Periodontics 	Dr. Vargas
5. Next Meeting: June 14, 2017	

Action Items			
Status	Action to be taken	Responsible	Due Date
Pending	HTC Content on Intradent	Maia/Garcia	
Pending	Educational video tutorials re: digital equipment	Restrepo-Kennedy/Maia/Medin	
Pending	DSG – Jon Simon	E.Teixeira/LTGarcia	

Health Technology Committee (2016-2017)

Dr. Erica C. Teixeira – Chair
 Dr. Zeina I. Al-Salihi
 Dr. Piriya Boonsiriphant
 Dr. Manuel R. P. Gomez
 Dr. David A. Jones
 Dr. Leo Marchini
 Mr. Charles W. McBrearty
 Mr. Ivan Medin
 Dr. Patricia K. Meredith
 Dr. Michael D. Murrell
 Dr. Rodrigo Rocha Maia
 Dr. Kyle M. Stein
 Dr. Marcos Vargas
 D3 – Elliott Glenn

ex officio:

Dr. Veeratrishul Allareddy, University Academic Technology
 Advisory Committee
 Dr. Ronald D. Elvers, Director of Clinics
 Dr. Lily T. Garcia, Associate Dean for Education
 Ms. Michelle M. Krupp, Director of Education Development
 Dr. Galen Schneider, Executive Associate Dean

Health Technology Committee Minutes – May 10, 2017

Members Present: Drs. Erica Teixeira (Chair), Zeina I. Al-Salihi, Piriya Boonsiriphandt, Manuel Gomez, David A. Jones, Patty Meredith, Michael D. Murrell, Marcos Vargas, Trishul Allareddy, Ron Elvers, Mr. Charles W. McBrearty and Mr. Ivan Medin

Absent: Drs. Leo Marchini, Rodrigo Rocha Maia, Kyle Stein, Lily T. Garcia, Galen Schneider and Elliott Glenn (D3)

Guest: Dean Scott Arneson, Ms. Cristina Vidal, Ms. Chandra Wojno and Dr. Georgia Johnson

Meeting called to order 12:03 p.m.

I. **Approval of February 8, 2017 Minutes** – Dr. Erica Teixeira

Motion: approve the minutes. **Motion approved.**

II. **AxiUm Code for In-House Milled Fixed Unit** – Dr. Erica Teixeira

Chuck McBrearty created an AxiUm code for use when a crown is milled in house; this code will allow tracking of the procedure for reporting purposes. There is a fee difference between ceramic and resin, but unrelated to this code.

III. **CEREC Training 2017** – Dr. Murrell

- Dr. Michael Murrell thought it was a great trip, there were 12 attendees. Good food, good lodging, good transportation and good learning. Each attendee had their own CEREC units to use during the training. Dr. Vidal agreed that the training was worth it. They each were able to scan, design, and mill 4-6 units. It was well organized and on return, Dr. Murrell did his own patient scans, designs, and milled units with the help of Ivan. Sirona recommends wiping the unit clean including the tip. University of Michigan suggests wiping the scanner twice: once before and once after use, no high level disinfection of the wands is done at Michigan.
- This training course is offered annually and difficult to schedule travel without sufficient advance notice. Based on the CEREC Club agreement from Dentsply/Sirona with the College, only two faculty can attend each year, which covers the tuition. Generally they do more basic training, until the need for advanced training is warranted.

Future Agenda Item – Review sterilization of the scanner tip; invite Curtis Iburg for discussion.

IV. **Update on Handpieces** – Dr. Marcos Vargas/ Dr. Rodrigo Rocha Maia (See Attachment)

Performance of the electric handpieces and feedback was reviewed:

- Fewer attachments required.
- Hygienists in the department of Periodontics did not like the electric handpieces. Periodontics Faculty practice uses a special setup (aqua sept) in which the electric handpieces cannot be used. For, hygiene procedures, it was suggested to use a disposable Prophy head & Prophy cup. Currently, the Prophy head with the air-driven turbine handpieces are not being sterilized well. Dr. Georgia Johnson inquired if the dental hygienists could continue to use the air driven for certain procedures. It is hard for hygienists to look at both models at the same time between disposable and electric. Is it possible to move forward with other aspects and look into something different for the prophylaxis?
- Department of Prosthodontics stated the straight nose cone (air-driven) is not effective. The maximum speed on air-driven = 40,000 rpm vs. 5x speed of electric.
- Department of Orthodontics did not discern much of a difference.
- Department of Pediatric Dentistry does not want to use electric handpieces with unpredictable nature in treating children. For hospital use, they prefer air-driven and would use electric at the COD.

- Purchasing managed an open bid; costs ruled out some companies. The committee selected five manufacturers for review. Brasseler and Dental EZ were closest in comparison. The departments that conducted trial use were given a "score" sheet to score each trial piece. The decision to switch to electric handpieces would require faculty training.
- A-dec and Bien Air were the top choices. The budget would be \$1.6m. The on-going cost would be equal long term. The selection supports Bien Air after scoring is audited. Bien Air and A-dec have varying motors, heads, etc. The Bien Air is the top of the line and the A-dec is the 2nd from the top of the line. The nose cones from both companies will work for prophylaxis.
- Implementation Plan: Initially switch to electric handpieces in the faculty practice, then D1 through D4, while slowly phasing out the air-driven handpieces.
- Bien Air is the original company that contacted the College. When the handpieces require replacement in ~4-5 years, there is no obligation to keep purchasing from the same company. Bien Air offered an additional 10% free components to stock for use during maintenance. Currently, Bien Air electric handpieces are used in 23 dental schools and none of those schools still retain air-driven handpieces. Some converted immediately while one regrets having both available during the transition, according to Scott Arneson.
- The original Bien Air proposal was over three years ago when they offered the motors for free, requiring purchase of the handpieces. There is a potential of needing additional help with the maintenance of the electric handpieces. Patients ask why dentists are spinning the head to get the turbine started for our current air-driven hand-pieces. Electric handpieces require changing the head.
- It was mentioned that when radiology converted to digital imaging, the benefits far outweighed other issues. The committee inquired as to how many general dentists use electric handpieces; what percentage of hygienists use electric. It was speculated that the industry is slowly converting to electric handpieces.
- Bien Air is the intended awardee. Additional request may include more handpieces for additional trial use, but no change in vendor is possible after the vendor is notified of selection.
- The decision was made that the College will not invest further in air-driven handpieces; those that exist now will be used until no longer functioning and will not be replaced.

Motion: COD replaces air-driven handpieces with the electric handpieces over the next 3 years. **Motion approved.**

Motion: COD selects Bien Air as the contract awardee. **Motion approved.**

Motion: HTC establish an ad hoc committee to evaluate the issue related to use for prophylaxis. **Motion approved.**

V. **Next Meeting: May 10, 2017**

Minutes recorded: Ms. Lauren Moniot

Electric Handpieces

Background info

- Bien Air promise 1,000,000.00 US in donation.
- Dean appointed the tech committee to investigate and evaluate if the technology was beneficial for the COD.
- Technology committee appointed Ad-Hoc group to eval tech.
- Members: Leonardo Marchini, Kecia Leary, Rodrigo Maia, Manuel Gomez, Zeina Al-Salihi, Scott Arneson, Chandra Wojno & MV.
- Curti Iburg & Justin Bringhman.

EHP vs air driven

Torque	3.0x	1.0x	60W vs 20W
Noise	Low	High	
Concentric	High	Low	Gear to gear vs ball bearings produce more precise margins faster with much less effort
Price	1.5x	1.0x	
Weight	1.5x	1.0x	
Illumination	Equal	Equal	
Speed	200,000	400,000	

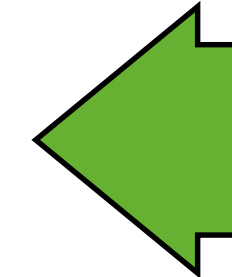
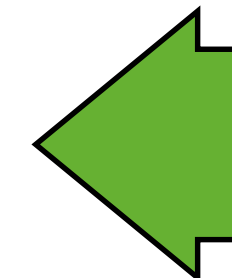


Selection process

10+ companies submitted
bids for evaluation

5 selected for trial base on cost
and compatibility with COD use

- Adec - W&H
- Bien Air
- Brasseler
- Dental EZ
- Kavo



Selection process

- Adec - W&H
 - Bien Air
 - Brasseler
 - Dental EZ
 - Kavo
- FGP
PROS
PEDO
FAMD
PERIO - Hyg
ENDO

OS

Date: _____

Electric Dental Handpiece Evaluation Form

Vendor (please circle)	ADEC	BienAir	Brasseler	DentalEZ	Kavo
Evaluator Name and Specialty					

Evaluation Criteria

Score	Grade of:	Description
5	A+	Product or feature is 'best-of-breed'.
4	A	Product or feature is exceptional.
3	B	Product or feature meets all or exceeds the minimum expectations.
2	C	Product or feature meets all minimum expectations in an acceptable manner.
1	D	Product or feature is deficient.
0	F	Product or feature has major deficiencies.

Feature	Score (please circle)				
Weight and balance	1	2	3	4	5
Noise	1	2	3	4	5
Illumination	1	2	3	4	5
Cooling / water spray	1	2	3	4	5
Speed Control	1	2	3	4	5
Torque	1	2	3	4	5
Caries removal	1	2	3	4	5
Quality of preparation / finished product	1	2	3	4	5
Size of the head	1	2	3	4	5
How important is it to you to have 2 separate handpieces versus one hand piece that covers both high and low speed functionality?	Not Important				Very Important
	1	2	3	4	5

Comments:

1

Date: _____

Electric Dental Handpiece Evaluation Form

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Comments:

			Adec	Bien Air USA	Brasseler USA	DentalEz Group	Kavo Dental Technologies
	Weight	Possible Points	Score	Score	Score	Score	Score
Pricing	40.00%	4000	3788	4000	3743	3887	2421
Trial	60.00%	6000	4886	5143	3771	3771	4029
	100.00%	10000	8674	9143	7515	7659	6450

Excessive water spray in high speed. Slow speed very jumpy and not easy to use.

Too much water!

almost too quite. Switching for slow speed use is time consuming.

Head large, user interface for touch pad confusing.

I wish I didn't have to switch between low and high speed handpieces. Overall, very nice and efficient.

Kind of spooky not having noise as bur speeds up, so quite I tend to forget the bur is turning.

I felt very heavy after doing crown prep. Position of the control box is located in a horrible position for the DA. Water is really difficult too.

Assistant likes that the back of the head is white instead of metal, doesn't blind her!

- Adec - W&H
- Bien Air

		1:5 Friction Grip	1:1 Latch	1:1 Straight	Motors	Control Units needed
Year 1	Supply	20	20	20	20	3
	Sims	80	80	80	80	80
	Oper/Prev	105	105	80	175	47
	FGP	55	50	80	130	18
	Family Faculty Pros	40	30	30	60	9
	Faculty/Grad Endo	30	20	40	50	13
	Faculty/Grad	30	30	10	30	8
	Total	360	335	340	545	178
Year 2	Perio Clinic	25	0	90	115	22
	Pros Clinic	30	10	0	30	23
	Endo	35	25	0	35	7
	Pedo	50	5	40	65	20
	Total	140	40	130	245	72
Year 3	Family clinic	40	30	50	85	60
	OD/OPRM	0	0	0	0	9
	Ortho	40	5	20	55	20
	SCC	0	0	20	20	11
	Admissions	0	0	0	0	7
	Total	80	35	90	160	107
Overall Total		580	410	560	950	357

Adec						Bien Air				
Description	Units Needed	Retail each Price	Ext.	UI Price	Ext UI Price	Ext. Retail Price	UI Price	Ext UI Price		Min. Price
Year 1										
		Year 1	2,825,420.00		969,156.80	3,167,960.00		996,150.00		
Year 2										
		Year 2	1,047,655.00		358,578.70	1,122,970.00		362,275.00		
Year 3										
		Year 3	930,180.00		319,792.20	907,660.00		236,575.00		
		4,803,255.00		1,647,527.70		5,198,590.00	1,595,000.00			1,595,000.00
						UNIVERSITY PRICE EA	DISCOUNT TOTAL	TOTAL		
						FREE	\$ 1,053,150.00	FREE		
						FREE	\$ 19,200.00	FREE		
						FREE	\$ 3,000.00	FREE		
						FREE	\$ 118,900.00	FREE		
						FREE	\$ 75,850.00	FREE		
						FREE	\$ 47,824.00	FREE		
						FREE	\$ 170,050.00	FREE		
						\$ -	\$ 1,317,924.00	\$ -		