2013 ANNUAL SEMINAR
PHILADELPHIA, PA

Special Care Advocates in Dentistry
2013 Literature Review

(SAID’s Search of Dental Literature
Published in Calendar Year 2012*)
History of Literature Review

• Dr Joe Dicks
• Dr Paul Burtner
• Drs Scott Monroe & Bobby Turner
• Drs Robert Henry & Douglas Veazey

90 day deployment in El Paso, TX for Army Reserve
Oct 11 till Jan 12, 2014
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Literature Review Process

• 2,955 -> 682 -> 145 articles
• Dr Henry uses PubMed search of literature with 40 search terms (see website) such as MR, epilepsy, sedation, bruxism, etc.
• Dr Henry reduced 2,955 -> 682 and kept articles that were “new, interesting, or intriguing” Family asks “Why do you do this?”

• Dr Veazey 682 -> 145 Discuss process (next)

• CONCLUSION: The findings of the study suggest that periodontal treatment can provide additional benefits in the improvement of ED. However, further studies are needed to understand the mechanisms of interaction between these diseases.

• It is generally recommended that non-emergent procedures be avoided in patients with a blood pressure of greater than 180/110 mm Hg.

• CONCLUSION: Acute dental disease had a comparative and, in some aspects, greater impact on a child's quality of life than acute asthma.

• Impact on adults quality of life-???????

• Therefore, to achieve the desired tooth surface cleaning and less surface lesion on the dentin surface, toothbrushing should be performed at least 1 hour after cola consumption.
Brushing after Acidic (continued)

- pH soda = 2.45, pH lemon juice = 2.1
- pH OJ = 3.8, pH white wine = 3.35
- pH sports drinks = 3.78
- GERD and Bulimia patients
- Hypothesized that toothbrushing after erosive pre-tx would alter the dentinal tubular diameter leading to more sensitivity. Found to be true.

70 yo man from Brazil. Associated with periapical lesions on maxillary and mandibular teeth.

The three lesions containing pus were drained from anterior and posterior brain region and the laboratory evaluation revealed the presence of Streptococcus viridians and Bacteroides. May reach brain by 1.) lymphatic 2.) hematological 3.) direct extension thru the fascial planes
Brain Abscess (continued)

• Difficulty in determining whether tumor vs. brain abscess.
• Mortality rate now 10%
• Most cases middle aged individual
• PubMed 2001-2011 14 cases of BA from odontogenic origin.

• RESULTS: Enamel Pro had the greatest cumulative fluoride release. There was no significant difference between Duraphat and Vanish. Vanish XT had the lowest cumulative fluoride release. The rate of fluoride release from 1 week to limit of detection was Enamel Pro > Vanish > Duraphat > Vanish XT.

• Conclusion: Tooth extractions can be performed safely while patients continue to receive combined anticoagulant-aspirin therapy. Most MD rec. NOT to stop therapy. Patient decides to stop!

• Group A (OAT+ASA) n=71, 3 post-op problem treated with gelfoam & suture. INRs-2.8->3.2
• Group B (OAT) n=71, 2 post-op problem treated with gelfoam & suture. INRs-2.3->3.4
• Group C (ASA) n=71 0 post-op problem

• Data supports periodic (2-4wk) use as adjuvant to normal brushing/flossing in subjects unable to maintain proper oral hygiene due to physical and/or mental impairment. 40 yrs of use.

• Broad spectrum activity against Gram+ and Gram- bacteria and certain mycetes.

• Substantivity allows CHX to attach to tissues and action lasts for 8-12 hrs.

• CHX- rinse, gel, spray, disks, chips, varnish(?)
Chlorhexidine (continued)

- Antiplaque activity not affected by toothpaste with SLS. Rec: CHX rinse after oral hygiene.
- Brushing with or w/o toothpaste is essential to removing/breaking up biofilm so CHX can adhere to tooth surface.
- CHX shown to be effective in preventing ventilator associated pneumonia. Life thrt compl
- In Radiation or chemo pat. CHX reduces mucositis and over infection.
- CHX can play role in reduction of Halitosis.
Chlorhexidine (continued)

- No evidence to support pre-op use of CHX to prevent cross-infection during dental procedure. Even though AHA rec. for endocarditis patients.
- Does not induce bacterial resistance.
- Light and high temp. inactivate CHX. Brwn btl
- “CHX remains to date the gold standard oral antiseptic.”

• **Lidocaine**—”perfect” local anesthetic for dent.

• **Mepicaine**-Higher pH, so good choice for local anesthetic when there is infection- which causes local tissue to be more acidic. Multiple injections??

• **Articaine**- Low systemic toxicity. Diffuses thru bone and tissue better. UC@SF Studies did NOT find more paresthesia with articaine. Do not use on pregnant patients.

• **Bupivacaine**- Lasts longer 6-8 hrs. Not for preg. patients Cardiotoxic- use caution with beta-blocker & Digoxin

• **Benzocaine**- ester. More allergic potential. Never used on children 2 yrs or younger.
Local Anesthetic (continued)

- Position of mandibular canal is extremely variable. 16% lingula < 1mm above occl plane, 48% was 1-5mm above, 27% was 9-11mm above, 4% 11-19mm above.
- Influence of sphenomandibular ligament.
- Lingual n. injury- barbed needle from bone contact. Most resolve in 10-14 days. Up to 6 mo
- Broken needle- usually due to 30 gauge. Never give IA.
- Max. dose- rule of 25 for kids  25lb=1 cartridge but is double for lidocaine w 1:100K epi
Local Anesthetic (continued)

- Epi in 2 cart. of 1:100K can significantly increase circulating Epi levels. Cardiac patients rec. 2 cartridges with Epi.

- REC: limit # of cartridges containing Epi, give slow injections, and aspirate carefully and often.

- True allergic Rx are extremely rare. Adverse reaction are more common.
• D. A. Apatzidou. “Modern approaches to non-surgical biofilm management.” Front Oral Biol 15: 99-116

• Inhabitants of the biofilm are effectively protected within this dense film from host responses and from therapeutic agents, including antimicrobials.

• Constant crevicular fluid flow and saliva washing prevent attachment of pathogens.

• For supragingival plaque, takes 4-8 wks for sub-g microflora to shift back to pre-tx values.
Biofilm (continued)

• Ultrasonic instruments are equally effective as hand instruments. “When one considers the demands of clinical skill, time, and stamina, the sonic/ultrasonic scaler seems to be the instrument of choice.”

• Bacterial plaque rather than calculus has greater pathogenic potential.

• “Meticulous” plaque control??????????

• Use of CHX does not augment the beneficial outcome of perio therapy.
Biofilm (continued)

• No benefit from addition of antiseptic agent to irrigation of ultrasonic devices.

• Full mouth tx using ultrasonic debridement combined with systemic antibiotics may prove to be the optimal protocol for management of specific patient groups.

CONCLUSIONS: With a history of RAS, stressful events may mediate changes involved in the initiation of new RAS episodes. Mental stressors are more strongly associated with RAS episodes than physical stressors. Experiencing a stressful life event increased the odds of an RAS episode by almost three times.

• Clonazepam (Klonopin), a GABA agonist designed as an antiepileptic drug significantly improved (effective in 70%) the pain rating in BMS patients. Agonistic action at inhibitor GABA receptor, which is found in the taste pathways. Results DO NOT justify long term use of benzodiazepine.