# **CLINIC NEWSLETTER**



#### **Reviewing Topics:**

**GLASS IONOMERS** AND **COMPOSITES** 

SILVER DIAMINE **FLUORIDE** 

**PULP CAPS AND INDIRECT** RESTORATIONS **PROTOCOLS** 

**Faculty Crosstraining Summer 2018** 

Week 1

No faculty training

Week 2

**Clinic Policies and Protocols** 

Week 3

**Faculty Orientation Week** 

Week 4

**ODTP Competencies** 

Week 5

**Rem Pros** 

Week 6

**Treating Geriatric Patients** 

Week 7

Rescheduled

Week 8

**Indirect Competencies** 

Week 9

Audiology

Week 10

**Faculty Grading** 

### **Glass Ionomers and Composites**

#### **Glass Ionomers**

#### Indications:

- In process filling: if a student cannot complete a permanent direct filling during the appointment duration and has to reschedule to finish treatment
- Temporizing after endodontic treatment
- Emergency treatment
- After placement of SDF, as part of SMART restorations: Entire tooth should be cleaned with grey pumice to remove biofilm and pellicle. Polyacrylic tooth conditioner should be applied to remove smear layer prior to placement of Glass lonomer restoration
- · Class V cervical lesions when lesion is sub-gingival and moisture control is an issue
- Non restorable teeth prior to extraction

#### Not Recommended:

- · For use as a build up material
- In any situation when a composite can be used

## Glass lonomers are more often used in a hospital setting, the special care clinic and in Union City AEGD.

#### **Flowable Composite**

#### Indications:

- As a thin cavity liner (.25 mm) prior to composite restorations
- Repairing small patches in buildups
- Thin layer over the orifices of endodontically treated teeth prior to placing buildup material

#### Not Recommended:

For use as a direct restoration in a load bearing area

#### Composite

#### Indications:

All direct restorations

#### Not Recommended:

· When moisture control is an issue

#### Amalgam

#### Indications:

· When patient requests amalgam for direct restorations

#### Not Recommended:

As a build up material

#### **Build up**

- Anchor (dual cure) with Prelude 3 step: Primer, Adhesive and Link
- Photocore (light cure) with Prelude 2 step: Primer and Adhesive
- Photocore (light cure) with Scotchbond 2 step (for sclerotic dentin): Etch and Adhesive
- Photocore (light cure) with Scotchbond 1 step: all in one Adhesive

#### Silver Diamine Fluoride

Silver Diamine Fluoride is a dental material, dispensed as liquid, that arrests caries lesion and provides antimicrobial effects.

#### Indications of SDF

Extreme and High Caries Risk

- All surfaces with patient consent
- · Geriatric and adult root caries
- For elderly and immunocompromised patients, at the discretion of clinician and patient and based on patient's individual situation, SDF may be applied at crown margins. Reapplication (minimum of 2 applications per year) is based on caries risk and placement of glass ionomer restoration.

#### **Procedure Code**

Once Caries Risk Assessment is completed, determine the treatment plan and appropriate sequence:

- · CAMBRA products and conventional dentistry
- CAMBRA products and SDF
- CAMBRA products and SMART restoration

D1354: SDF placed per tooth (Interim Caries Arrest Medicament on tooth surface), no restoration on the same day of appointment

Glass lonomer /Composite code based on number of surfaces: SDF placed, Glass lonomer restoration on the same day of appointment

#### **Recall Frequency**

Based on patient's caries risk level and lesion

Extreme: Apply every 2-3 weeks and then every 1-2 months

High: Apply every 4-6 weeks and then every 4-6 months

## Silver Diamine Fluoride (SDF)

#### Pre-Op

- Patient agrees to SDF placement, Risks, Benefits and Alternatives discussed with patient)
- Informed Consent viewed and signed (SDF stains the caries lesion, patient must understand color change will occur. If SDF accidentally gets on soft tissue it will stain and takes a couple of weeks to go away)
- · Reapplication frequency is determined

#### Application of SDF For Occlusal Surfaces

- 1. Cover counter tops with liners to prevent staining (e.g. patient bibs with shiny side up)
- 2. Place vaseline on soft tissue
- 3. Excellent isolation
- 4. Remind patients of side effects: color change will occur on lesion
- 5. DO NOT handle SDF with bare hands
- 6. DO NOT scrub the stain off tissues
- 7. Recommend to debride the tooth surfaces
- 8. Air dry and desiccate lesion
- 9. Dip microbrush in the SDF vial
- 10. Carefully place micro brush on lesion with minimal movement
- 11. Leave for 1 minute

12. May apply Fluoride varnish, helps with taste specifically in younger patients. **Treatment plan Fluoride varnish in addition if applying.** 

13. Do not rinse



#### **Application of SDF For Proximal Surfaces**

Steps 1-9 as above:

10. Insert Superfloss onto lingual embrasure and pull towards buccal embrasure

11. Place 1 drop of SDF onto the fuzzy surface of Superfloss on the lingual and partially pull through. Protect the cheek with gloved finger as SDF will go up the Superfloss by capillary action

- 12. Repeat if necessary
- 13. Do not rinse



Duffin, J Cal Dent Assoc 2012



time 0

1 day

1 week

Castillo et al, J Dent Res 2011

## Silver Diamine Fluoride (SDF)

#### SMART RESTORATIONS Silver Modified Atraumatic Restoration Technique

- 1. Isolate lesion
- 2. Remove caries leaving soft material close to the pulp (Clean perimeter of the lesion from the cavosurface to 1mm past the DEJ prior to polyacrylic acid and GI placement)
- 3. Dry, desiccate lesion
- 4. Place SDF for 1 minute
- 5. Place Glass lonomer over the SDF



Photo credit: Dr.Kenneth Han

Details on SDF indications and placement can be found at: <u>http://www.pacmanual.com/silver-diamine-flouride.html</u>

- Gao, S. S., et al. "Clinical trials of silver diamine fluoride in arresting caries among children: a systematic review." JDR Clinical & Translational Research 1.3 (2016): 201-210.
- Young DA, Alvear Fa B, Rogers N, Rechmann, P. The Effect of Calibration on Caries Risk Assessment performance by Students and Clinical Faculty. Journal of Dental Education June 2017, 81(6): 667-674.
- Chibinski AC, Wambier LM, Feltrin J, Loguercio AD, Wambier DS, Reis A. Silver Diamine Fluoride Has Efficacy in Controlling Caries Progression in PrimaryTeeth: A Systematic Review and Meta-Analysis. Caries Res 2017;51(5):527-41.
- Fontana M, Young DA, Wolff MS, Pitts NB, Longbottom C. Defining Dental Caries for 2010 and beyond. Dent Clin North Am. 2010;54(3):423-440. Young DA, Novy BB, Zeller GG, et al. The American Dental Association Caries Classification System for Clinical Practice: A report of the American Dental Association Council on Scientific Affairs. J Am Dental Assoc 2015; 146(2):79-86.
- Horst JA, Ellenikiotis H, Milgrom PL. UCSF Protocol for Caries Arrest Using Silver Diamine Floride: Rationale, Indications and Consent. J Calif Dent Assoc 2016:44(1):16-28.

Thank you for your comments. Listed below are answers to questions we received from faculty and students.

- 1. Question: Can you provide some references for decisions in caries treatment? Answer: Listed below are some references.
- Young DA, Novy BB, Zeller GG, Hale R, Hart T, Truelove EL. et al. American Dental Association Caries Classification System for clinical practice: a report of the American Dental Association Council on Scientific Affairs. J Am Dent Assoc 2015,146 (2), 79-86.
- Schwendicke F, Frencken JE, Bjørndal L, Maltz M, Manton DJ, Ricketts D, Van Landuyt K, Banerjee A, Campus G, Doméjean S, Fontana M, Leal S, Lo E, Machiulskiene V, Schulte A, Splieth C, Zandona AF, Innes NP. Managing Carious Lesions: Consensus Recommendations on Carious Tissue Removal. Adv Dent Res. 2016, 28(2):58-67.
- Treatment of deep carious lesions by complete excavation or partial removal: a critical review. Thompson V1, Craig RG, Curro FA, Green WS, Ship J A J Am Dent Assoc. 2008, 139(6):705-12.
- Pitts NB, Richards D.International Caries Detection and Assessment System Committee. Personalized Treatment Planning. Monogr Oral Sci 2009, 21:128-43 doi: 10.1159/000224217. Epub 2009 Jun 3.
- Pitts NB, Ekstrand KR on behalf of the ICSDAS Foundation. International Caries Detection and Assessment System (ICDAS) and its International Caries Classification and Management (ICCMS)methods for staging caries and enabling dentists to manage caries. Community Dent Oral Epidemiol 2013, 41,e41-e52.
- Question: Can you use Scotchbond with Link for a Buildup?
  Answer: No you should not. Link should be used with Prelude Primer and Adhesive for dual cure build ups such as Anchor.
- 3. Question: For a two step final impression using a putty wash technique, should I apply adhesive on the putty before loading the light body material? Answer: No, you do not need to apply adhesive on the putty prior to loading the light body/wash material.

## Protocols

## **Pulp Caps and Indirect Restorations**

For a tooth with a direct pulp cap requiring an indirect restoration, endodontic treatment and complete caries removal must be done prior to fabricating the indirect restoration.

For a tooth with an indirect pulp cap requiring an indirect restoration, it should be decided on a case by case basis. If there is gross caries, soft dentin near and around the pulp, endodontic treatment is recommended. If there is decalcification near the pulp and most of the soft dentin has been removed and the tooth is asymptomatic an indirect restoration can be fabricated.

