

# CONTENTS

---

1	Prevention and Sensitivity .....	1
1.1	Duraphat Varnish .....	1
1.2	Helioseal .....	1
1.3	Seal and Protect .....	1
1.4	Tooth Mousse Plus .....	2
2	Periodontitis .....	3
2.1	PrefGel .....	3
2.2	Emdogain .....	3
3	Composite and Compomer .....	4
3.1	DeTrey Conditioner 36 .....	4
3.2	Prime & Bond NT .....	4
3.3	Spectrum TPH3 .....	4
3.4	X-Flow .....	4
3.5	Dyract eXtra .....	4
4	Amalgam Restorations .....	6
4.1	ANA 2000 Amalgam .....	6
4.2	Prime & Bond NT .....	6
5	Glass Ionomer Composite (GIC) .....	7
5.1	Chemflex .....	7
5.2	Chemfil Superior .....	7
5.3	ChemVarnish .....	7
5.4	Fuji II .....	7
5.5	Fuji II Light Cure .....	8
5.6	Fuji IX .....	8
5.7	Fuji Varnish .....	8
5.8	Ketac Conditioner .....	9
5.9	Ketac Bond Aplicap .....	9
5.10	Ketac-Fil Plus Aplicap .....	9
5.11	Ketac Silver Aplicap .....	9
6	Endo .....	10
6.1	Sodium Hypochlorite (0.5-5%) .....	10
6.2	Chlorhexidine Gluconate (2%) .....	10
6.3	EDTA Solution (17%) .....	10
6.4	Glyde .....	10
6.5	Sealapex .....	10

6.6	Tubli-seal .....	11
6.7	Hypocal.....	11
6.8	Ledermix Paste .....	11
6.9	ProRoot MTA .....	11
7	Liners, Bases and Pulp Caps .....	12
7.1	Dycal.....	12
7.2	ProRoot MTA .....	12
7.3	Vitrebond.....	12
8	Luting Cements.....	13
8.1	AquaCem .....	13
8.2	DyractCem .....	13
8.3	Tempbond .....	13
9	Temporary Crowns and Bridges .....	14
9.1	Trim .....	14
9.2	Integrity.....	14
10	Oral Surgery.....	15
10.1	Bio-Oss .....	15
10.2	Bio-Gide.....	15
11	Miscellaneous.....	16
11.1	Viscostat – Astringent .....	16
11.2	Poly F Plus.....	16
11.3	Panavia 21 .....	16
11.4	Kalzinol .....	17
11.5	De Trey Zinc .....	17
11.6	Rely X Aplicap .....	17
12	Disinfection .....	18
12.1	Perform .....	18
12.2	Continu.....	18
12.3	Sterilox .....	18

# 1 PREVENTION AND SENSITIVITY

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## 1.1 DURAPHAT VARNISH

- A varnish for the topical delivery of high concentration fluoride. Suitable for caries prevention in high-risk individuals and desensitisation of teeth.
- 50 mg/ml dental suspension (2.26% or 22,600ppm Sodium Fluoride)
- Directions:
  - Remove plaque from teeth
  - Dry tooth surface with cotton roll or 3-in-1
  - Apply very thin layer with microbrush
  - Instruct patient to avoid eating, drinking and tooth brushing for at least 30 minutes.
- Frequency:
  - Caries prevention – 2 to 4 times a year depending on risk status
  - Desensitisation - 2 to 3 times within a few days
- Recommended doses:
  - Primary dentition – 0.25ml
  - Mixed dentition – 0.40ml
  - Permanent dentition – 0.75ml
- Contra-indications:
  - Bronchial asthma
  - Ulcerative gingivitis
  - Stomatitis

## 1.2 HELIOSEAL

- Fissure sealant - light cured, resin-based material.
- Suitable for sealing deep pits and fissures in high caries risk individuals.
- Directions:
  - Thoroughly clean the enamel surface
  - Isolate (preferably with rubber dam)
  - Etch for 30s to 60s
  - Rinse and dry
  - Apply HeliOSEAL
  - Wait for 15s
  - Light cure for 20s
  - Check seal and occlusion

## 1.3 SEAL AND PROTECT

- A protective sealant for exposed dentine that:
  - Seals dentine tubules, reducing any hypersensitivity.
  - Physically reinforces dentine, reducing abrasion (ideal for class V lesions).
  - Contains Triclosan, reducing plaque accumulation.
- Directions:
  - Clean surface with prophylaxis paste
  - Rinse and dry
  - Apply first layer of Seal and Protect
  - Leave for 20s
  - Remove remaining solvent with air
  - Light cure for 10s
  - Apply 2<sup>nd</sup> layer, then treat as first layer

## 1.4 TOOTH MOUSSE PLUS

- Tooth Mousse Plus is a water-based product that contains Recaldent and fluoride (900ppm). Recaldent is composed of casein phosphopeptide and amorphous calcium phosphate (CPP-ACP). As such, GC Tooth Mousse Plus increases availability of calcium, phosphate and fluoride, facilitating remineralisation.
- Directions:
  - Dry off excess saliva with cotton rolls
  - Apply GC Tooth Mousse Plus to tooth surfaces
  - Leave for at least 3 mins (the longer the better)
  - Ask the patient to use the tongue to spread the remaining GC Tooth Mousse Plus throughout the mouth
  - Ask the patient to spit out excess and if possible avoid rinsing
  - This may be performed on clinic or at home by the patient

## 2 PERIODONTITIS

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### 2.1 PREFGEL

- Root surface conditioner (pH neutral, 24% EDTA)
- It removes the smear layer generated during surgical periodontal procedures. This is necessary as the smear layer may impair periodontal healing.
- Directions:
  - Remove from fridge 30 mins prior to need, providing time for it to return to room temperature.
  - Remove storage tip from syringe (keep this safe) and attach application needle
  - Apply PrefGel to exposed root surfaces and leave for 2 mins.
  - Rinse thoroughly.
  - Usually followed by application of Emdogain, avoid contamination until Emdogain is applied.
  - Use within 2hrs

### 2.2 EMDOGAIN

- Emdogain is a resorbable, implantable material consisting of enamel matrix proteins. It is applied topically onto exposed root surfaces during periodontal surgery. Once applied to the cleaned root surface, Emdogain forms an insoluble protein matrix that initiates periodontal tissue regrowth.
- Directions:
  - Remove from fridge 30 mins prior to use, allowing it to return to room temperature.
  - Remove storage tip from syringe (keep this safe) and attach application needle.
  - Use within 2hrs.

## 3 COMPOSITE AND COMPOMER

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### 3.1 DETREY CONDITIONER 36

- 36% orthophosphoric acid for the etching of tooth enamel and conditioning of dentine.
- Suitable for composite and compomer restorations.
- Directions:
  - Cover the surface of the tooth with the gel for 15 seconds.
  - Rinse thoroughly, collecting waste etch with aspirator tip.
  - Dry.

### 3.2 PRIME & BOND NT

- A light-cured dentine bonding agent.
- Suitable for:
  - Direct, light-cured, composite and compomer restorations.
  - Indirect restorations such as resin cemented veneers.
  - Composite inlays.
  - Adhesive repairs with amalgam and porcelain.
- Directions:
  - Apply a layer using a microbrush
  - Gently blow dry with air to evaporate the solvent
  - Light cure for 20s

### 3.3 SPECTRUM TPH3

- A resin-based restorative material.
- Suitable for all cavity classes in anterior and posterior teeth.
- Directions:
  - Prior to procedure select shade using composite shade guide on hydrated tooth
  - Etch tooth surface (see DeTrey Conditioner 36)
  - Apply prime and bond to tooth surface (Dentsply Prime & Bond NT)
  - Insert capsule into composite (prisma) gun
  - Incremental placement of <3mm at a time, followed by light cure for 30s

### 3.4 X-FLOW

- Universal flowable restoration.
- Indications:
  - Minimally invasive restorations.
  - Cavity lining.
  - Repair of direct and indirect restorations.
- Instructions for use:
  - Etch and apply prime and bond (see 3.1 and 3.2 respectively).
  - Insert capsule into composite (prisma) gum.
  - Incremental placement of 2mm followed by light cure for at least 30 seconds.
- Finishing
  - Remove excess and polish with “enhance”™ burs.

### 3.5 DYRACT EXTRA

- A universal, light-cured, compomer. As it is a compomer the restoration releases fluoride ions and acts on the tooth as an acid buffer.
- Suitable for all cavity classes in anterior and posterior teeth.
- Directions:
  - Prior to procedure select shade using shade guide on hydrated tooth

- Etch tooth surface (see DeTrey Conditioner 36)
- Apply prime and bond to tooth surface (Dentsply Prime & Bond NT)
- Incremental placement of <2mm at a time, followed by light cure for 20s

## 4 AMALGAM RESTORATIONS

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### 4.1 ANA 2000 AMALGAM

- High copper alloy, therefore non-gamma II
- Comes in 2 capsule sizes
  - Single (green) – 5s to mix
  - Double (blue) – 7s to mix

### 4.2 PRIME & BOND NT

- This light-cured dentine bonding agent may be used as a cavity varnish for use with fresh amalgam restorations.
- Directions:
  - Apply a layer using a microbrush
  - Gently blow dry with air to aid evaporation of the solvent
  - Light cure for 20s



## 5 GLASS IONOMER COMPOSITE (GIC)

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### 5.1 CHEMFLEX

- High strength glass ionomer restorative material that comes in capsules.
- Suitable for:
  - restoration of class V lesions and cavities
  - restoration of class III cavities
  - restoration of class I and II cavities of deciduous teeth
  - long term temporary restoration of class I and II cavities in permanent teeth
  - fissure fillings
  - base/core build up
  - traumatic restorative treatment
- Directions:
  - Keep cavity preparation to a minimum
  - Place capsule in the ketac gun and squeeze once, discard ring
  - Place capsule in amalgamator mix for 10 seconds
  - Place capsule into gun, remove end of tip and squeeze trigger to release mixed material
  - Restore tooth
  - Coat restoration with ChemVarnish, if available
  - Once finished remove capsule from gun by pressing the release button on the top
- Working time - 1 min 30s
- Setting time - From start of the mix 5 minutes

### 5.2 CHEMFIL SUPERIOR

- Fast setting glass-ionomer restorative material that comes in powder form (requires mixing with water).
- Suitable for:
  - Class V lesions and cavities
  - Class I and II cavities of deciduous teeth
  - Class III cavities
  - Temporary and semi-permanent restorations
  - Fissure fillings (minimal Class I)
- Directions:
  - Mix 2 scoops powder : 2 drops water using a spatula on a mixing pad
  - Restore tooth
  - Coat restoration with ChemVarnish
- Working time - 2 mins
- Setting time - 2-3 Minutes

### 5.3 CHEMVARNISH

- Glass ionomers are susceptible to moisture contamination and dehydration after placing. The restorations should therefore be protected with a varnish.
- Directions:
  - Apply ChemVarnish on the surface of the set restoration with a cotton pellet or microbrush.
  - To ensure a continuous film dry the first coat with a gentle stream of air from a dental syringe.
  - Apply a second layer of varnish and dry again by air.

### 5.4 FUJI II

- This is a radiopaque glass ionomer restorative cement.
- Suitable for:
  - restoration of primary teeth
  - core build up

- restorations of class III, V and limited class I cavities
- Directions:
  - tap capsule on a hard surface
  - activate by pushing in the plunger on base
  - immediately mix for 10 seconds in the amalgamator
  - place capsule into gun and place in cavity
  - once set apply Fuji varnish
- Working time - 2 mins

## 5.5 FUJI II LIGHT CURE

- This is a resin-modified, radiopaque glass ionomer cement.
- Suitable for:
  - restorations of class III, V and limited class I cavities
  - restoration of primary teeth
  - core build up
  - as a base or liner
  - geriatric applications
- Directions:
  - Tap capsule on a hard surface
  - activate by pushing in the plunger on base
  - immediately mix for 10 seconds in the amalgamator
  - place capsule into gun and place in cavity
  - Light cure for 20 seconds
  - Apply Fuji varnish

## 5.6 FUJI IX

- Radiopaque posterior glass ionomer restorative cement.
- Suitable for:
  - Class I and II restorations in deciduous teeth
  - non-load bearing Class I and II restorations in permanent teeth
  - intermediate restorative and base material for heavy stress situation in Class I and Class II cavities using sandwich laminate technique
  - Class V and root surface restorations
  - Core build-up
- Directions:
  - tap on a hard surface
  - activate by pushing in the plunger on base
  - immediately mix for 10 seconds in the amalgamator
  - place capsule into gun and place in cavity
  - once set apply Fuji varnish
- Working time - 2 mins

## 5.7 FUJI VARNISH

- Prevention of water and saliva contamination to exposed surfaces of glass ionomer cements during the first 24 hours after placement.
- Directions:
  - Using a microbrush apply to all exposed glass ionomer and adjacent surfaces
  - Dry by gently blowing air from triple syringe
  - Maintain moisture isolation for 2 – 3 minutes
  - Close bottle immediately after use as the varnish is volatile

## 5.8 KETAC CONDITIONER

- Ketac Conditioner is a polyacrylic acid solution for removal of the smear layer after tooth preparation. Dentin conditioning with Ketac Conditioner significantly increases the bond of glass ionomer cement fillings.
- Directions:
  - Dispense into a dappens dish
  - Brush onto surface and leave in place for 10 seconds
  - Rinse with copious amounts of water
  - Dry (but not excessively as this can lead to post-op sensitivity)

## 5.9 KETAC BOND APLICAP

- Ketac Bond Aplicap is a fast-setting, radiopaque, glass ionomer cement. It is only available in one colour (yellow) and as such is not ideal for aesthetic restorations.
- Suitable for:
  - base linings under composite and amalgam
  - extended fissure sealing without acid etching
  - core build ups
- Directions:
  - First condition the surface with Ketac Conditioner
  - Activate capsule by placing in activator (silver with orange base)
  - Mix in amalgamator for 8 seconds
  - Use ketac gun to place material in cavity
- Setting time - 4 mins from start of mixing (2 mins 15s inside of mouth)

## 5.10 KETAC-FIL PLUS APLICAP

- Ketac-Fil Plus is a conventional glass ionomer, available in eight shades, making it ideal for aesthetic restorations.
- Suitable for:
  - Class III and V fillings
  - Wedge shaped defects
  - Fissure sealing
  - Restoration prior to crown preparation
  - Primary tooth fillings
- Directions:
  - Remove carious substance only
  - Requires 0.05mm wall thickness
  - Activate capsule by placing in activator (silver with orange base)
  - Mix in amalgamator for 10 seconds
  - Use ketac gun to place material in cavity

## 5.11 KETAC SILVER APLICAP

- Silver reinforced glass ionomer restorative cement.
- Suitable for:
  - Linings under amalgam fillings
  - Core build-ups
  - Uni-planar fillings and cervical fillings, if aesthetics is not the prime consideration
  - Primary tooth fillings
- Directions
  - First condition the surface with Ketac Conditioner
  - Activate capsule by placing in activator (silver with orange base)
  - Mix in amalgamator for 8 seconds
  - Use ketac gun to place material in cavity
- Working time - 2 mins
- Setting time - 5 mins

## 6 ENDO

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### 6.1 SODIUM HYPOCHLORITE (0.5-5%)

- Sodium hypochlorite (NaOCl) is an effective irrigant as it is bactericidal and it dissolves the organic debris.
- **WARNING: CAUSTIC.** Consequently isolation must be achieved and it should not be extruded beyond the apex! If isolation cannot be achieved chlorhexidine gluconate is indicated instead of NaOCl. Note that NaOCl and chlorhexidine gluconate should never be used together as they form a precipitate.

### 6.2 CHLORHEXIDINE GLUCONATE (2%)

- Chlorhexidine is also bactericidal but it does NOT dissolve the organic debris. Hence, sodium hypochlorite should be first choice.

### 6.3 EDTA SOLUTION (17%)

- EDTA is a chelating agent which dissolves the inorganic component of the smear layer (neither NaOCl nor chlorhexidine gluconate do this). By decalcifying the dentine surface on the canal wall it makes it easier to enlarge and shape the canal with files and reamers.
- Directions:
  - Apply EDTA to the canal using a file or pipette.
  - Reapply EDTA as necessary until canal is enlarged to the desired size.
  - Rinse the canal thoroughly until the EDTA is removed (ideally with sodium hypochlorite).

### 6.4 GLYDE

- Glyde is a root canal conditioner. It contains a combination of EDTA and carbamide peroxide in a water soluble base.
  - The base acts as a lubricant.
  - EDTA acts as a chelating agent (see 6.3)
  - When combined with sodium hypochlorite the carbamide peroxide component releases oxygen, resulting in effervescence which helps clean the tooth surface. This combination also encourages lightening of the tooth if discoloration exists from non-vitality.
- Directions:
  - Rinse the canal with sodium hypochlorite and enter the canal with the first instrument.
  - Apply Glyde straight into the cavity using the disposable tip.
  - Reinsert the first instrument and begin to prepare the canal.
  - Rinse with hypochlorite and apply the Glyde again into the access cavity.
  - Continue preparing the canal alternating with sodium hypochlorite and Glyde between each instrument.
  - Once the canal has been shaped, rinse it with plenty of sodium hypochlorite until the effervescence subsides.
  - Dry and fill.

### 6.5 SEALAPEX

- Calcium hydroxide based root canal sealer.
- Suitable for permanent obturation of the root canal space with GP points.
- Directions:
  - Mix the base and acceleration on a mixing pad with a spatula until a uniform colour is achieved
  - Use a spiral filler or small file to insert sealer into the canal
  - GP point may be rolled in the sealer on the paper pad
- Setting time - 2hrs

## 6.6 TUBLI-SEAL

- Zinc oxide eugenol based root canal sealer
- Suitable for permanent obturation of the root canal space with GP points.
- Directions:
  - Mix the base and catalyst on a mixing pad with a spatula until a uniform colour is achieved
  - Use a spiral filler or small file to insert sealer into the canal
  - GP point may be rolled in the sealer on the paper pad
- Working Time
  - Tubli-Seal – 20 to 60 mins
  - Tubli-Seal E.W.T – 150 mins
- Setting time
  - Tubli-Seal – less than 60 mins
  - Tubli-Seal E.W.T – less than 120 mins

## 6.7 HYPOCAL

- Hypo-Cal is a non-setting calcium hydroxide. It has a pH of 12, resulting in bacteriostatic and bactericidal properties, as well as encouraging the formation of reparative dentine. When used to line a root canal the latter will obviously not occur.
- Suitable for dressing canals when a definitive restorations cannot be placed to seal them, such as in between appointments.
- May be placed with a file, rotated counter-clockwise, or with a spiral filler.

## 6.8 LEDERMIX PASTE

- Ledermix paste is a combination of triamcinolone (anti-inflammatory) and demeclocycline (antibiotic).
- The pain associated with pulp and peri-apical disease results from inflammation. The antibiotic component reduces the cause of the inflammation, while the anti-inflammatory limits the reaction.
- Suitable for:
  - Acute reversible pulpitis
  - Acute irreversible pulpitis
  - Acute apical periodontitis
  - Acute apical abscesses
- Directions for narrow or unprepared canals:
  - Place a very small amount of paste on a small file (e.g. size 10/15).
  - Insert the file into the canal as far as possible without forcing it.
  - Rotate 1/8<sup>th</sup> of a turn counter-clockwise to release the paste.
  - Withdraw and reinsert about 3mm to smear the ledermix along the canal wall.
- Directions for large canals and canals that have been biomechanically prepared:
  - Place a small amount on the final 2-3 mm of a spiral filler.
  - Insert the spiral filler into the canal, stopping 3-4 mm short of the working length.
  - Once positioned rotate clockwise to deposit the Ledermix paste and move it 2-3mm vertically, backward and forward, while still rotating clockwise.

## 6.9 PROROOT MTA

- Hydrophilic root repair material used to seal the root canal system from the surrounding tissues.
- Suitable for:
  - Apical plug during apexification
  - Repair of root perforations during root canal therapy
  - Treating internal root resorption
  - Root-end filling material
- Directions:
  - Place desired amount in a dappens dish
  - Incorporate the liquid into the powder slowly until all the powder has dissolved and a thick creamy consistency is produced
  - Place the MTA with a retrograde amalgam carrier

## 7 LINERS, BASES AND PULP CAPS

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### 7.1 DYCAL

- Radio-opaque, setting calcium hydroxide.
- Suitable for
  - direct and indirect pulp capping
  - protective liner under dental filling materials, cements and other base materials
- Directions:
  - Mix equal amounts on a mixing pad with a spatula until a uniform colour is achieved.
- Setting time – 2½ mins to 3½ mins.

### 7.2 PROROOT MTA

- Originally developed for endodontic procedures, MTA may also be used direct and indirect pulp capping procedures.
- Directions:
  - Place desired amount in a dappens dish
  - Incorporate the liquid into the powder slowly until all the powder has dissolved and a thick creamy consistency is produced
  - Place the MTA with a retrograde amalgam carrier

### 7.3 VITREBOND

- Light cure glass ionomer liner/base
- Suitable for lining and basing applications under composite, amalgam, ceramic and metal restorations
- Directions:
  - Mix powder and liquid on mixing pad with spatula (ratio 1:1)
  - Place on tooth as required
  - Light cure for 30s

## 8 LUTING CEMENTS

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### 8.1 AQUACEM

- Permanent luting cement
- Glass ionomer based material
- Suitable for cementation of crowns, bridges and inlays
- Directions:
  - 1 scoop of powder : 2 drops of water
  - Mix on mixing pad with spatula
- Working time – 2½ mins
- Setting time – 3 to 5 mins

### 8.2 DYRACTCEM

- Permanent luting cement
- Compomer (polyacid modified composite) based material
- Combines the benefits of glass ionomer cements (adhesion to tooth substance and fluoride release) with the mechanical strength of a luting composite.
- Suitable for:
  - Cementation of conventional metal or porcelain fused to metal inlays, onlays, crowns, bridges, posts and post –core units.
  - Adhesive cementation of porcelain or composite inlays, onlays and crowns.
  - Cementation of Maryland bridges.
- Directions:
  - 1 scoop of powder : 1 drop of liquid
  - Mix on mixing pad with spatula
- Working time – 1 min
- Setting time – 4 mins

### 8.3 TEMPBOND

- Temporary luting cement
- Self-curing zinc-oxide eugenol based material
- Suitable for temporary crowns, bridges, inlays and onlays and splints
- Directions:
  - Mix in even ratio until uniform in colour
  - Mix on mixing pad with spatula
- Setting time – 7 mins

## 9 TEMPORARY CROWNS AND BRIDGES

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### 9.1 TRIM

- Fast setting methacrylate based material
- Suitable for:
  - Temporary restoration for crowns and bridges
  - Relining temporary crowns and bridges
- Mixing instructions:
  - Place a small amount of liquid in a dappens dish (7ml)
  - Add powder until creamy and slightly thick in consistency
- Setting time – 2 mins (Don't leave in mouth for >3 mins)
- Directions for use as temporary crown or bridge:
  - Take putty index prior to crown prep
  - After tooth prep fill putty index at site of prepared tooth
  - Relocate putty index intra-orally, then remove once set
  - Remove temp restoration from putty index and trim/finish
  - Bond in place with temporary luting cement (Tempbond)
- Directions for use when relining temporary crown or bridge, such as prefabricated, polycarbonate based, Directa crowns:
  - Partially fill crown
  - Seat on prepared tooth and allow to set
  - Remove and check margins
  - Bond in place with temporary luting cement (Tempbond)
- Note that trim chemically adheres to the polycarbonate-based Directa crowns and so mechanical retention is not necessary.

### 9.2 INTEGRITY

- Fast setting methacrylate based material
- Suitable for:
  - Temporary restoration for crowns and bridges
  - Relining temporary crowns and bridges
- Setting time – 2 to 3 mins
- Directions for use as temporary crown or bridge:
  - Take putty index prior to crown prep
  - After tooth prep fill putty index at site of prepared tooth
  - Relocate putty index intra-orally, then remove once set
  - Remove temp restoration from putty index and trim/finish
  - Bond in place with temporary luting cement (Tempbond)
- Directions for use when lining temporary crown or bridge, such as prefabricated, polycarbonate based, Directa crowns:
  - Partially fill crown
  - Seat on prepared tooth and allow to set
  - Remove and check margins
  - Bond in place with temporary luting cement (Tempbond)
- Note that trim does NOT chemically adhere to the polycarbonate-based Directa crowns. Consequently, the inside surface of the crown must first be 'roughened' to aid mechanical retention.



## 10 ORAL SURGERY

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### 10.1 Bio-Oss

- Bio-Oss is a natural bone mineral substitute for bone grafting in oral surgery.
- Instructions for use:
  - Complete elimination of granulation tissue.
  - Mixing of Bio-Oss granulate with the patients' blood or with physiological saline solution before the implementation.
  - Place the Bio-Oss into the defect.
  - It is recommended that Bio-Oss is covered with membrane barrier.
  - When closing the wound the mucoperiosteal flap should cover the implanted Bio-Oss as completely as possible and fixed by sutures.
  - If primary wound closure cannot be achieved completely further mobilisation of the flap should be performed or wound covering should be achieved subperiosteally with a membrane.

### 10.2 BIO-GIDE

- Bio-Gide is a resorbable bilayer membrane for tissue regeneration in oral surgery.
- Instructions for use:
  - If necessary surgically expose the bone.
  - Fill the space with Bio-Oss.
  - Trim the membrane to the desired shape and size at least 2mm overlap.
  - The dense surface should face the soft tissue, rough side should face the defect.
  - The membrane is applied over the defect and held in place with moderate pressure.
  - Complete penetration of the membrane by blood.
  - Fixation may be indicated to avoid membrane displacement due to shear loading or mobilisation.
  - The soft tissue flap is sutured over the membrane securely and without tension (single sutures and deep mattress) if possible.
  - The wound should be closed completely to avoid accelerated absorption of the exposed membrane.

# 11 MISCELLANEOUS

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## 11.1 VISCOSTAT – ASTRINGENT

- Viscostat causes haemostasis.
- Suitable for a variety of dental and oral surgery procedures to arrest surface capillary bleeding
- Instructions for use:
  - Place an adequate amount into a dappens dish.
  - Cut retraction cord to desired length and place in the dappens.
  - Using a flat plastic place cord around the margin of the tooth.
  - Remove cord from the sulcus before taking the impression and clean with air/water check for haemostasis.

## 11.2 POLY F PLUS

- Zinc polycarboxylate cement
- Suitable for:
  - Cementation of crowns, bridges, inlays and orthodontic brackets.
  - Cavity lining under all restorative materials.
  - Temporary restorations.
  - Restorations in deciduous teeth.
- It comes as a powder which must be mixed with water. Instructions:
  - Using a glass slab divide the powder into 2 halves.
  - Add 1 half to the water, mix then add the second half.
- The mixing ratio depends on the intended use:
  - Cementation.....1 scoop powders : 2 drops water (creamy)
  - Lining and temporary restoration.....2 scoops powder : 2 drops water (putty-like)
- Mixing time
  - Cementation – 15 seconds
  - Lining and temporary restorations – 20 – 25 seconds
- Working time
  - Cementation – 2 minutes
  - Lining and temporary restoration – 2 1/2 minutes
- Setting time
  - Cementation 5 – 7 minutes
  - Lining and temporary restoration – 4 1/2 - 6 1/2 minutes

## 11.3 PANA VIA 21

- Panavia 21 is an advanced dental adhesive cement that directly bonds to cut enamel, dentin, composite, porcelain, base, semi-precious and precious metals.
- Indications:
  - Cementation of adhesion bridges or splints.
  - Cementation of metal inlays, onlays crowns or bridges.
  - Cementation of porcelain or composite inlays, onlays or crowns.
  - Cementation of root canal posts or metal cores.
  - Bonded amalgam restorations.
- Instructions:
  - Apply etch to the tooth, rinse off after 1 minute and dry completely.
  - Mix 1 drop of ED Primer A with 1 drop of ED Primer B, mix for 3 seconds, apply to the tooth and gently dry with the 3 in 1.
  - Using a paper pad slowly turn the black end of the Panavia dispenser 360o until it clicks. Mix together with the plastic spatula until a uniform colour appears. Apply to restoration and seat on the tooth.
  - Working time is 4 mins; complete setting time is 3 mins.

- Remove excess.
- Apply Oxyguard around the margins for 3 minutes, remove with water spray.

#### 11.4 KALZINOL

- Polymer reinforced fast setting zinc oxide eugenol cement.
- Suitable for:
  - base under filling materials
  - soothing temporary filling
  - temporary seal for medicament dressings
  - indirect pulp capping
- Mixing ratio = 5:1 (powder to liquid)
- Mixing instructions = clean glass slab adding small increments of powder to liquid until putty like consistency is obtained.
- Working time is 2 mins; setting time is 3 ½ - 4 ½ minutes

#### 11.5 DE TREY ZINC

- Crown and Bridge Fixodent Plus
- Suitable for:
  - Cementation of inlays, crowns, bridges.
  - Cavity lining/bases under amalgam, composite or silicate restorative materials.
  - Temporary restorations.
  - Cement build –up.
- Mixing instructions = using a glass slab to mix on add small portions of powder at a time to 1 drop of liquid to desired consistency.
  - Cementation and liner – smooth and creamy.
  - Base, cement build up and temporary filling – add more powder for putty like consistency
- Mixing time is 1 ½ mins; working time is 2 ½ mins.
- Setting time when used as a cement is 5 - 8 mins and when used as a base 2 - 3 mins.

#### 11.6 RELY X APLICAP

- Self-adhesive universal resin cement.
- Suitable for:
  - permanent cementation of ceramic, composite or metal inlays, onlays, crowns and bridges
  - permanent cementation of posts and screws
- Precautions
- May set quicker in day or artificial light
- Mixing time - 10s
- Light Cure
  - Single surface – 20s
  - Any other surfaces an additional – 20s
  - Posts – 40s
- Self-curing working time
  - From start of mix
  - Intra oral clear up time - 2 minutes
  - Setting time - 5 minutes
- Instructions for use:
  - Protect area from all liquids.
  - Evenly cover the cavity, inlay, onlay or crown with the cement.
  - Briefly light cure before removing the excess cement.

#### 11.7 CAVIT

- Cavit is a temporary filling material that self-cures under humidity for temporary filling of cavities.

- There are 3 varieties Cavit, Cavit W and Cavit G, which set with increasing hardness.
- Indications:
  - Cavit for occlusal temporary fillings
  - Cavit W with increased bonding for endodontic treatments
  - Cavit G for temporary inlays
- Instructions:
  - Use an instrument to fill the required quantity into the wet cavity. The hardening process starts after a few minutes.
  - Avoid any exposure to chewing pressure for about 2 hours after application.
  - Deep cavities need not be filled completely.

## 12 DISINFECTION

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### 12.1 PERFORM

- Perform is used as a disinfectant to clean impressions before they are processed by the lab.
- Instructions:
  - After removing impression from patients mouth rinse under running water.
  - Place in pre-prepared disinfection bath for 10 minutes.
    - 2 litres of water to 40g of perform granules.
  - Remove the impression material from the solution and rinse under running water.
  - Wrap and package as appropriate for impression material.
  - Mark clearly that the impression has been disinfected.

### 12.2 CONTINU

- Continu is an alternative to Perform when disinfecting dental impressions. It offers a faster solution, saving time.
- Its active ingredients are quaternary ammonium compounds (quats) and polymeric hexamethyl biguanide.
- Directions:
  - Rinse impressions to remove debris
  - Spray until thoroughly wet
  - Allow to dry naturally
  - Alternatively, Continu may be used as a dip. This is indicated if impression is to be stored for >48hrs. Submerge for at least 30s and allow to dry naturally.

### 12.3 STERILOX

- Sterilox solution is a disinfectant that is mixed with water in the bottles that supply each dental unit. It is a hypochlorous acid (HOCl) based solution that kills harmful pathogens, inactivates the polysaccharide protective slime layer, and facilitates the removal of the biofilm in dental unit water lines.
- It is automatically formulated by the Sterilox dental generator, located on clinic.
- The amount to add depends on the volume of the water bottle. **In LUDH you should add...**