Immediate Dentine Sealing

If not already in place, place rubber dam

Re-confirm the tooth is caries free and that there are no remnants of any previous restoration

Using 37% phosphoric acid, etch the exposed dentine (and 1-2mm enamel) for 5-15 seconds (based on the adhesive system used)

Thoroughly rinse

Blot dry or suction- do not over dry

Bond – primer and adhesive, Apply each with a ball ended probe onto dentine for approximately 20 seconds (based on the adhesive system used)

Light cure for 20 seconds

If there are deep dentine areas or undercuts, apply heated composite or flowable composite to create an even bonding surface, keeping the preparation conservative

Cure through glycerine to remove the oxygen inhibition layer

Reprepare the enamel margins to remove excess resin

Continue with impression taking and temporisation

This concept is based on the traditional bonding protocol of a composite restoration. It has been adapted for use after an indirect restoration preparation, primarily when a resin based luting cement is planned.

Advantages:

- Less bacterial leakage/contamination of dentine during temporisation
- 2. Reduced post-operative sensitivity due to less polymerisation shrinkage
- 3. Increased bond strengths as bonding to fresh cut dentine
- 4. Better fitting restorations as uniform bonding surface