



RESTORATIVE DENTISTRY V (D553)

Quiz #2 October 28, 2011 Correct answers in RED

1. In their review of clinical studies related to the partial removal of caries lesions, Thompson *et al* (JADA 2008) observed that teeth in which restorations were placed directly over residual carious dentin frequently exhibit these outcomes (CIRCLE ALL THAT APPLY):

- a. **reduced counts of viable bacteria several months later** b. fractured restorations
c. **hardening of the residual carious dentin and little or no evidence of lesion progression**

2. The RCT by Mertz-Fairhurst *et al* (*Ultraconservative and cariostatic sealed restorations: results at year 10*. JADA. 1998), a landmark study in cariology, tracked the progression of large dentin lesions sealed into restored teeth using (CIRCLE ONE)

- a. **conventional bite-wing radiography** b. digital subtractive radiography c. serial tomography

3. Is this a reasonable clinical application of the findings of the Mertz-Fairhurst clinical trial (*Ultraconservative and cariostatic sealed restorations: results at year 10*. JADA. 1998)?

Use amalgam and flowable resin-based composite in combination for Class I PRRs.

Circle one: **Yes** No

4. The self-etching resin adhesive systems are distinguished from the total-etch (etch and rinse) systems in that SE materials may retain some of the "smear layer". Circle one: **T** F

5. Prime&Bond-NT, the adhesive used in the Phase 1 clinic, is a _____ system. (CIRCLE ONE)

- a. **one-bottle, total-etch** b. two-bottle-total etch
c. one-bottle, self-etch d. two-bottle, self-etch

6. The primary source of adhesion between a resin bonding agent and dentin is the hybrid layer or collagen/resin hybrid zone.

7. Glass ionomer materials release fluoride to the surrounding tooth structure, which results in a scientifically-proven reduction in the incidence of secondary caries around these restorations.

Circle one: T **F**

8. A list of risk factors that are relevant in the determination of periodontal prognosis includes (CIRCLE ALL THAT APPLY)

- a. **bleeding upon probing** b. **periodontal attachment loss** c. **furcation involvement**

9. If an evaluation of the structural integrity of a tooth requiring a crown reveals an inadequate ferrule, a possible solution might be crown-lengthening surgery (or orthodontic extrusion).

10. Which of the following are common risks or disadvantages of tooth replacement using a conventional PFM fixed partial denture? (CIRCLE ALL THAT APPLY.)

- a. **adverse short- and long-term effects on the periodontium** b. low patient satisfaction ratings
c. **adverse effects on the natural abutment teeth** d. unpredictable esthetics

11. High caries risk patients who cannot comply with hygiene and medical management recommendations are NOT good candidates for conventional FPDs with natural tooth abutments.

Circle one: **T** F

12. The single greatest advantage of replacing a missing tooth with a crown on an implant, instead of a FPD, is conservation of natural tooth structure.

13. Significant mesial tilting of a molar abutment for a FPD tends to result in excessive total occlusal convergence of the tooth preparation. Circle one: **T** F
14. The primary reason for using a shoulder in a tooth preparation for a crown is to make room for the restorative materials (metal and porcelain).
15. The principal reason for using a sloping shoulder or heavy chamfer finish line for the facial margin of an anterior PFM crown instead of a traditional beveled shoulder is to (CIRCLE **ONE**)
 a. reduce the risk of porcelain fracture b. conserve tooth structure
 c. eliminate the metal collar for better esthetics d. improve resistance and retention
16. According to lecture, the very first instrument that should be used in the process of “protective tooth preparation” for a PFM crown is the perio probe.
17. According to Goodacre *et al* (*Tooth preparations for complete crowns: an art form based on scientific principles*, J Prosth Dent, 2001), the axial walls of molars prepared for crowns with a total occlusal convergence of 10-20° should be at least ___ mm long occlusogingivally for adequate resistance and retention. (CIRCLE **ONE**)
 a. 3 b. 4 c. 5 d. 6
18. Which of the following are possible outcomes of flexure (elastic deformation) of a PFM fixed partial denture substructure? (CIRCLE **ALL THAT APPLY**)
 a. fracture of the veneering porcelain b. fracture of the prosthesis
 c. failure of the cement seal of the abutment crowns
19. The most reliable way to compensate for molar crown preparations that are short occlusogingivally, and therefore offer little resistance to dislodgement of the restoration, is to use a glass ionomer luting agent. Circle one: T **F**
20. When replacing existing crowns in the maxillary anterior area, it is usually reasonable and prudent to remove the defective crowns, install provisional crowns, and postpone the final impression to a subsequent appointment. Circle one: **T** F
21. In their discussion of restoration overhangs (“Interactions between the gingiva and the margins of restorations”, J Clin Perio, 2003), Padbury *et al* present evidence that overhanging margins are associated with a plaque mass that contains an unusually large proportion of periodontal pathogens. Circle one: **T** F
22. If a tooth to receive a crown is broken off at the base of the gingival sulcus, which of the following desirable attributes is missing? (CIRCLE **ALL THAT APPLY**)
 a. a ferrule for the crown b. the biological width
 c. a “buffer zone” between the planned margin of the crown and the gingival attachment
23. According to guidelines given by Chiche and Harrison (*Impression considerations in the maxillary anterior region*, Compendium 1994), if the margins of a PFM crown must be placed sub-gingival strictly for esthetic purposes, they should be extended no farther than half the depth of the sulcus, to a maximum of 0.5-0.7 (will accept any answer within the range 0.5-1.0) mm.
24. The most appropriate way to manage chronic gingival inflammation associated with anterior teeth prepared for crowns is to apply an astringent at the time of impression-making. Circle one: T **F**
25. Which of the following qualities of an impression for a PFM crown can be assessed readily at the time of impression-making, *i.e.*, by examining the impression? (CIRCLE **ALL THAT APPLY**)
 a. three-dimensional accuracy (absence of distortion) b. available space for occlusal porcelain
 c. completeness of the impression (entire preparation is recorded)