

Mid-Term Examination - D373 Principles of Periodontology I, fall, 2006

Instructions: Select the single best answer for each question and enter response onto the computer bubble sheet, onto which you also enter **your name** and the **last 4 digits of your student number**. You have 60 minutes to complete the examination. You must turn in both this examination copy and your answer sheet.

1. A hopeless prognosis is given to a tooth with:

- A. advanced alveolar bone loss not approaching the root apex
- B. poor oral hygiene after phase I therapy
- C. PSR score = 4
- D. Class III mobility

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2. Surgical dental implant placement takes place in:

- A. Phase I
- B. Phase II
- C. Phase III
- D. Phase IV

3. In studies of treated and untreated periodontitis patients, the average number of teeth lost per 10 years is:

- A. the same in both treated and untreated periodontitis patients.
- B. markedly more in untreated as compared to treated periodontitis patients.
- C. less in untreated as compared to treated periodontitis patients.
- D. unrelated to periodontal status.

4. Which of the following may be performed prior to formulation of a periodontal treatment plan?

- A. Phase I
- B. Phase II
- C. periodontal maintenance
- D. emergency dental care

5. Prognosis in periodontics is:

- A. a blueprint of therapy to be carried out on a patient.
- B. determined only after a treatment is formulated.
- C. a prediction about a disease and its response to proposed therapeutic measures.
- D. unrelated to long-term tooth mortality.

6. Phase I periodontal therapy involves which of the following?

- A. periodontal scaling and root planning
- B. periodontal surgery
- C. fixed prosthodontics
- D. acquisition of medical consultations

7. The criteria for localized, severe periodontal attachment loss is:

- A. ≥ 4 mm of attachment loss on $< 50\%$ of sites
- B. ≥ 6 mm of attachment loss on $\leq 50\%$ of sites
- C. ≥ 6 mm of attachment loss on $< 10\%$ of sites
- D. ≥ 5 mm of attachment loss present on $\leq 30\%$ of sites

8. Upon examination of your 50-year old, systemically-healthy patient you find 50% of their periodontal sites exhibit 3-4 mm of periodontal attachment loss, with periodontal health on the remaining periodontal sites. Which of the following most appropriately applies to the patient?

- A. localized severe aggressive periodontitis
- B. localized severe chronic periodontitis
- C. generalized severe chronic periodontitis
- D. generalized moderate chronic periodontitis

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9. Clinical periodontal attachment level is measured with a periodontal probe from the:

- A. free gingival margin to the most apical penetration of the periodontal probe into the periodontal pocket (i.e., bottom of the periodontal pocket).
- B. CEJ of the tooth to the most coronal aspect of the adjacent crestal alveolar bone.
- C. CEJ of the tooth to the most apical penetration of the periodontal probe into the periodontal pocket (i.e., bottom of the periodontal pocket).
- D. none of the above

10. A four millimeter distance is measured from the CEJ of a tooth to the apical extent of penetration with light pressure of a periodontal probe into the gingival sulcus. What is the severity of clinical periodontal attachment loss on the periodontal site?

- A. slight
- B. moderate
- C. severe
- D. cannot determine from the data provided

11. A five millimeter distance is measured from the free gingival margin of a tooth to the apical extent of penetration with light pressure of a periodontal probe into the gingival sulcus. What conclusions can be made about the periodontal site.

- A. Moderate periodontitis is present.
- B. The probing depth is deep in size.
- C. A moderate probing depth is present.
- D. Severe clinical periodontal attachment loss is present.

12. When 8.0 millimeters in length is measured between the radiographic CEJ to the most coronal level of intact supporting bone, what is the actual loss of alveolar bone on the site?

- A. 4.0 to 4.5 mm
- B. 6 to 6.5 millimeters
- C. 7.5 to 8.0 mm
- D. cannot be determined from the data provided

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13. What is the time relationship between the occurrence of episodes of clinical periodontal attachment loss and detectable changes that can be seen on conventional dental radiographs with visual analysis?

- A. The radiographic changes can be detected approximately 6-8 months prior to clinical detection of the periodontal breakdown.
- B. The occurrence of the periodontal breakdown can be detected at the same time point by both clinical measurements of periodontal attachment loss and radiographic analysis.
- C. The radiographic changes can be detected approximately 2-3 months prior to clinical detection of the periodontal breakdown.
- D. The clinical detection of periodontal breakdown can be detected approximately 6-8 months prior to detection of radiographic changes.

14. Which of the following is correct.

- A. Dental radiographs overestimate the true extent of alveolar bone loss.
- B. Radiographs reveal the status of the entire perimeter of a tooth.
- C. Radiographs do not conclusively determine the presence of furcation involvements.
- D. A periapical radiographic series is generally needed for periodontal purposes even if a patient clinically does not have any recession and probing depths are less than 5 mm.

15. The presence of bleeding on probing at a periodontal site is a poor predictor of progressive periodontal attachment loss. The absence of bleeding on probing at a periodontal site indicates that the risk of progressive periodontal attachment loss is low.

- A. Both statements are true
- B. The first statement is true and the second statement is false
- C. The first statement is false and the second statement is true
- D. Both statements are false

16. The presence of marked gingival inflammation with bleeding on probing:

- A. alters determination of the histologic level of periodontal attachment on a tooth.
- B. can lead to deeper probing depth measurement as compared to the presence of minimal gingival inflammation.
- C. occurs when the width of attached gingiva is less than 3 millimeters.
- D. corresponds to a Gingival Index = 1

17. Subgingival calculus formation is:

- A. influenced by salivary gland secretions.
- B. generally localized to areas where gingival inflammation absent.
- C. usually black in color
- D. easily visualized in routine clinical examinations

18. A 14-year old African-American female patient is sitting in your dental chair without a remarkable health history. Your clinical findings include severe bone loss around the first molars and incisor teeth with deep pocket formation around the same teeth. Your presumptive diagnosis is:

- A. Chronic Periodontitis
- B. Periodontitis associated with Systemic Disease
- C. Aggressive Periodontitis-Localized Juvenile type
- D. ANUG

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19. The prognosis for gingivitis cases diagnosed in systemically healthy persons is:

- A. good
- B. questionable
- C. outstanding
- D. excellent

20. Which of the following is not part of Phase I periodontal therapy:

- A. periodontal maintenance ("recall")
- B. occlusal therapy
- C. restoration of caries
- D. oral hygiene instructions

21. An excellent periodontal prognosis is found with:

- A. non-incipient furcation involvements.
- B. moderate amounts of periodontal attachment loss.
- C. an absence of clinical periodontal attachment loss.
- D. all of the above

22. Removal of plaque-retentive overhanging dental restorations is carried out at which time point in a periodontal treatment plan?

- A. Phase I
- B. Phase II
- C. Phase III
- D. Phase IV

23. The role of herpesviruses in disease-active periodontitis lesions is postulated by Kamma et al. (2001) to be which of the following?
- A. To act as an opsonin in promoting phagocytosis of pathogenic bacteria and arresting clinical disease.
 - B. To suppress host immune responses and permit subgingival overgrowth by periodontopathic bacteria.
 - C. To directly induce periodontal tissue damage in the absence of known periodontal bacterial pathogens.
 - D. To neutralize trypsin-like proteolytic enzymes secreted by red-complex microbial species.
24. According to the study by Haffajee & Socransky (2001), smoking has what effect on microbial colonization of shallow (< 4 mm) periodontal sites as compared to non-smoking?
- A. Greater shallow (< 4 mm) periodontal site colonization by red and orange complex species
 - B. Less shallow (< 4 mm) periodontal site colonization by red and orange complex species
 - C. No effect on shallow (< 4 mm) periodontal site colonization by oral microorganisms
 - D. Greater shallow (< 4 mm) periodontal sites colonization by herpesviruses and amoeba
25. The red complex microbial species in periodontitis lesions include which of the following organisms?
- A. *Porphyromonas gingivalis*, *Tannerella forsythensis*, *Treponema denticola*
 - B. *Porphyromonas gingivalis*, *Entamoeba gingivalis*, *Capnocytophaga gingivalis*
 - C. *Porphyromonas gingivalis*, *Actinobacillus actinomycetemcomitans*, *Treponema denticola*
 - D. *Eubacterium nodatum*, *Selenomonas noxia*, *Porphyromonas gingivalis*
26. Non-specific host immune defenses include which of the following?
- A. epithelial lining of the oral cavity
 - B. serum antibodies
 - C. hypersensitivity reactions
 - D. all of the above
27. The process by which circulating neutrophils migrate through vascular walls into tissues is called:
- A. phagocytosis
 - B. diapedesis
 - C. opsonization
 - D. margination

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28. Which of the following organism(s) are associated with the initiation of periodontitis in human clinical studies?
1. *Porphyromonas gingivalis*
 2. *Tannerella forsythensis*
 3. *Selenomonas noxia*
 4. *Streptococcus sanguis*
- A. all of the above
B. 1, 2 and 4 only
→ C. 1, 2 and 3 only
D. none of the above
29. Decreased saliva from medications, neutrophil dysfunction from diabetes, smoking, and poor oral hygiene, all contribute to an increased risk of periodontal disease by:
- A. decreasing selection of pathogenic plaque microorganisms.
B. increasing colonization resistance to exogenous non-oral bacteria.
→ C. inducing loss of protective microbial homeostasis in the dental plaque microflora.
D. all of the above
30. An #11-12 extended explorer is best used for:
- A. Detection of supragingival dental plaque.
B. Removal of dental plaque from mesial surfaces of molars and premolars.
→ C. Detection of subgingival calculus.
D. Evaluation of furcation lesions.
31. You note that a tooth upon clinical examination can be depressed in a vertical movement. What tooth mobility score would be most appropriate for the tooth?
- A. Class 0
B. Class 1
C. Class 2
→ D. Class 3
32. A deep probing depth is:
- A. at least 5 mm in depth.
B. 6 mm or more in depth.
→ C. 7 mm or more in depth.
D. all of the above

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33. PMN's do not play a pivotal role in host response against bacteria. When PMN's are markedly compromised in their functions, the risk for Aggressive Periodontitis may be significantly decreased.

- A. The first statement is true and the second is false
- B. The first statement is false and the second is true
- C. Both statements are false
- D. Both statements are true

34. Genetics does not appear to play a role in most, if not all forms of Aggressive Periodontitis.

- A. True
- B. False

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