Level 3 Diploma in Dental Nursing - 5234

Unit 313 Assessment of oral health and treatment planning

Below contain all areas that make up the 313 dental exam, please be aware of all the learning outcomes, assessment criteria and range, and ensure you revise thoroughly in all these areas.

The aim of this unit is for learners to understand the organisational and legal requirements which apply to the assessment of oral health and treatment planning, the types of assessment used, and a knowledge of dental anatomy referred to during the assessment process.

Learning outcome: 1. understand the organisational and legal requirements which apply to the assessment of oral health and treatment planning

Assessment criteria:

1.1 explain the organisational and legal requirements relating to patients’ records and confidentiality
1.2 explain the importance of informed consent prior to any treatment undertaken
1.3 outline the policy and procedure for responding to patients’ complaints.

Range:

Organisational and legal requirements
a) Data protection act
b) Department of Heath guidelines and regulations.
c) GDC Standards for Dental Professionals
d) Learner’s own dental practice policies and procedures

Learning outcome: 2. Understand methods of oral health assessment

Assessment criteria:

2.1 describe methods of oral health assessment
2.2 explain types of charting used to record oral health assessment
2.3 explain reasons for taking dental images during assessment and treatment planning
2.4 explain materials used for oral health assessment
2.5 describe methods of measuring pulp vitality and their advantages and disadvantages.
Range:

Assessment
a) Visual, probes, dyes, transillumination, vitality testing, radiographs, study models

Types of charting
a) BPE
b) Full periodontal charting
c) FDI (Federation Dentaire International)

Dental images
a) Radiographs
b) Photographs

Materials
a) Impression materials e.g. Alginate, Silicone, Elastomer

Learning outcome: 3. know the structure and function of oral and dental anatomy in relation to patient assessment

Assessment criteria:
3.1 explain the morphology and structure of primary and secondary dentition
3.2 describe the structure and function of the periodontium
3.3 identify the position and function of:
   a. salivary glands
   b. muscles of mastication
3.4 describe the structure of the maxilla and mandible
3.5 explain the movements of the temporo-mandibular joint
3.6 describe the nerve and blood supply to teeth

Range:

Morphology
a) number of roots
b) anatomy of the tooth

Learning outcome: 4. understand how medical conditions and oral diseases inform treatment planning

Assessment criteria:
4.1 identify medical conditions that may affect oral tissues
4.2 describe the effects of ageing on oral tissues
4.3 explain how medical conditions may inform treatment planning
4.4 explain how common oral diseases may be:
   a. prevented
   b. diagnosed
   c. managed.

Range:

Medical conditions
a) oral cancer
b) herpes simplex 1
c) HIV
d) Hepatitis
e) Diabetes
f) Epilepsy
g) eating or digestive disorders
h) varicella zoster virus (chicken pox) herpes zoster virus (shingles)
i) mental illness
j) lichen planus
k) leukoplakia
l) erythroplakia
m) salivary gland disorders
n) osteoporosis
o) glossitis
p) oral candidiasis
q) xerostomia

**Oral diseases**
- a) malignant/potentially malignant lesions

**Managed**
Address concerns with patient and team

**Learning outcome:** 5. know the classifications of drugs referred to in treatment planning

**Assessment criteria**
5.1 list the main classes of drugs which are used in dentistry and the reasons for their use
5.2 explain the procedure for storing drugs safely in the dental setting.

**Range:**

**Main classes of drugs**
- a) Analgesics
- b) Antibiotics
- c) sedatives/hypnotics
- d) emergency drugs
- e) drugs which reverse the action of other drugs

**Learning outcome:** 6. know how to respond to medical emergencies which may occur during assessment and treatment planning

**Assessment criteria:**
6.1 describe the function of human respiratory and circulatory systems
6.2 identify changes in human respiratory and circulatory systems which may indicate a potential medical emergency
6.3 Explain the signs and symptoms of medical emergencies
6.4 Explain how to respond to medical emergencies that may occur during assessment and treatment planning.

**Range:**

**Medical emergencies**
- a) fainting/syncope
- b) hypoglycaemia/hyperglycaemia
- c) asthma attack
- d) angina/myocardial infarction
- e) epileptic seizure
f) respiratory arrest
g) cardiac arrest
h) anaphylaxis
i) stroke
Revision Questions & Exercises

Please use Third Edition Diploma in Dental Nursing Level 3 book chapters:

2 - 302 reflect on and develop your practice
3 - 268 first aid essentials
6 - 306 provide chairside support during the assessment of patients’ oral health
13 - 313 assessment of oral health and treatment planning

1. What are the following and how do you adhere to them in your workplace?
   • Data Protection Act
   • Department of Health guidelines and regulations
   • GDC Standards

2. Why is it important to gain consent before treatment?

3. The following can all be used during dental assessment, please complete the table below:

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probes</td>
<td></td>
</tr>
<tr>
<td>Transillumination</td>
<td></td>
</tr>
<tr>
<td>Vitality Testing</td>
<td></td>
</tr>
<tr>
<td>Radiographs</td>
<td></td>
</tr>
<tr>
<td>Study Models</td>
<td></td>
</tr>
<tr>
<td>Photographs</td>
<td></td>
</tr>
</tbody>
</table>

4. Explain Briefly the following charting types:
   • BPE
   • Full Periodontal Chart
   • FDI(Federation Dentaire International)

5. Complete the following table:

<table>
<thead>
<tr>
<th>Method of Pulp Testing</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Complete the tables below to show the eruption dates, how many cusps and how many roots each tooth has in deciduous and permanent dentition:

**UPPER PERMANENT:**

<table>
<thead>
<tr>
<th>Upper Teeth</th>
<th>Number</th>
<th>Eruption date</th>
<th>Cusps</th>
<th>roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Incisor</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caninine</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Premolar</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Premolar</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Molar</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Molar</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Molar</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOWER PERMANENT:**

<table>
<thead>
<tr>
<th>Lower Teeth</th>
<th>Number</th>
<th>Eruption date</th>
<th>Cusps</th>
<th>roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>1</td>
<td></td>
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<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Premolar</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Premolar</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Molar</td>
<td>6</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Second Molar</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Molar</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**UPPER DECIDOUS:**

<table>
<thead>
<tr>
<th>Upper Deciduous</th>
<th>Number</th>
<th>Eruption date</th>
<th>Cusps</th>
<th>roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Incisor</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caninine</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First molar</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second molar</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOWER DECIDOUS:**

<table>
<thead>
<tr>
<th>Lower Deciduous</th>
<th>Number</th>
<th>Eruption date</th>
<th>Cusps</th>
<th>roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Incisor</td>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caninine</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First molar</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second molar</td>
<td>E</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. How does aging effect the oral tissue?
8. The following are all medical conditions complete the table below describing briefly what the medical condition is and how it can affect oral tissue:

<table>
<thead>
<tr>
<th>Medical Condition</th>
<th>Brief description</th>
<th>How can it affect the oral tissue?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Herpes Simplex type 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epilepsy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating/ digestive disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella Zoster Virus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lichen Planus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leukoplakia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erythroplakia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salivary Gland Disorder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glossitis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Osteoporosis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Candidiasis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xerostomia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. What are the signs of oral cancer?

10. How can Oral Cancer be diagnosed?

11. How is oral cancer treated?

12. What are the common causes of oral cancer?

13. Complete the table below for the main classes of drugs:

<table>
<thead>
<tr>
<th>Class of drug</th>
<th>Use</th>
<th>Example of drug e.g.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analgesics</td>
<td></td>
<td>Metronizadole</td>
</tr>
<tr>
<td>Antibiotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sedatives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Complete the table below explaining the signs and symptoms of medical emergencies and how the patient should be treated including any drugs that may need to be given:

<table>
<thead>
<tr>
<th>Medical Emergency</th>
<th>Signs/Symptoms</th>
<th>Treatment required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faint</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypoglycaemia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyperglycaemia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma Attack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angina</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epileptic Seizure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardiac Arrest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anaphylaxis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stroke</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. What changes in the circulatory and respiratory system could lead to a medical emergency?
Extra resources:

Levisons multiple choice questions website:
http://bcs.wiley.com/he-bcs/Books?action=index&bcsId=8225&itemId=111850044X

Please use both interactive multiple choice questions and interactive extended multiple choice questions. See chapters:

2 - the dental nurse
3 - legal and ethical issues
5 - general anatomy and physiology
6 - medical emergencies
9 - head and neck anatomy and physiology
10 - oral anatomy and physiology
11 - oral diseases
12 - oral health assessment and diagnosis

Match the descriptions to the numbered positions on the diagram:
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>NUMBER</th>
<th>Describe the following layers of the tooth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enamel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anatomical Crown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gingiva (gums)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulp Chamber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dentine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alveolar Bone (jawbone)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Root Canal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cementum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Periodontal Ligament</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Label the 3 Main Salivary glands and explain briefly where each are positioned in the mouth:
**Muscles of Mastification**

Complete the diagram below labelling the muscles of Mastification and explain briefly where they are positioned:

Temporalis, Masseter, Medial pterygoid, Lateral pterygoid, mandible, maxilla
Structure of the Mandible

Label the diagram below:

Mental Foramen, angle, ramus, mandibular condyle, coronoid process, alveolar bone
Structure of the Maxilla:

Label the bones of the maxilla:

Temporal bone, Frontal Bone, Maxilla, Zygomatic Bone, Nasal Bone, Mandible, Styloid process, Occipital bone, Parietal bone
Nerve Supply to the teeth:

Label on the diagram below the nerves of the mouth and underneath list which nerve anesthetises what teeth:
Circulatory system:
Label the diagram below showing how the circulation system works and explain briefly the circulation system:
Respiratory System

Label the diagram below showing how the respiratory system works and give a brief description how it works:
1. Analgesics are drugs used to:
   A) fight infection
   B) kill viruses
   C) relieve pain
   D) reduce inflammation

2. The vasoconstrictor used in the majority of dental local anaesthetics is:
   A) lidocaine
   B) prilocaine
   C) adrenaline
   D) Octapressin

3. A common antiviral drug used in dentistry is:
   A) acyclovir
   B) nystatin
   C) metronidazole
   D) amphotericin

4. Hypoglycaemia is a medical emergency that may occur, and is due to:
   A) shortness of breath
   B) low oxygen levels in the blood
   C) low glucose levels in the blood
   D) rapid pulse causing faintness

5. The correct term for a cardiac arrest is:
   A) myocardial infarction
   B) angina
   C) hypoxia
   D) embolism

6. A patient having an epileptic fit in the surgery should be treated by:
   A) being left where they are until the fit has passed
   B) moved away from other patients
   C) held down until the fit has passed
   D) be placed in the recovery position

7. All of the following are the correct actions to take in the event of a simple faint except:
   A) loosen tight clothing
   B) keep the casualty sitting upright
   C) maintain the airway
   D) give a glucose drink
8. The following emergency drugs should be given in the event of anaphylaxis:

A) Oxygen  
B) Adrenaline  
C) Antihistamine  
D) all of the above

9. Aspirin may be given in the event of the following medical emergency:

A) Reactionary Haemorrhage  
B) Epileptic Fit  
C) Suspected myocardial dysfunction  
D) Needle stick injury

10. The premolar that normally has two roots is:

A) the lower second premolar  
B) the upper first premolar  
C) the lower first premolar  
D) the upper second premolar

11. The molar which has the cusp of carrabelli is:

A) upper second deciduous molar  
B) lower first permanent molar  
C) upper first permanent molar  
D) upper second permanent molar

12. The internal layer of the tooth which contains tubules is:

A) dentine  
B) pulp  
C) enamel  
D) cementum

13. The bone forming the tooth sockets is the:

A) zygomatic Arch  
B) frontal bone  
C) alveolar bone  
D) maxilla

14. The lower permanent central incisors usually erupt at age:

A) 14-15 years  
B) 9-11 years  
C) 3-4 years  
D) 6-7 years
15. Sensation in the dentine is transmitted to the pulp via:

A) odontoblasts  
B) cementum  
C) dentine fibrils  
D) enamel prisms  

16. The normal concentration of adrenaline present in 2.2ml local anasthetetic cartridge is:

A) 1:8000  
B) 1:100000  
C) 1:80000  
D) 1:1000  

17. If a dentist requested a long needle what nerve would they be going to numb:

A) Inferior superior nerve  
B) mental foramen  
C) Inferior Dental Nerve  
D) Naso palatine nerve  

18. If the dentist needed to numb LR1 what nerve would they numb?

A) Mental Foramen  
B) Long Buccal  
C) Inferior Dental Nerve  
D) Greater Palatine nerve  

19. What act protects patients information?

A) Patient confidentiality act  
B) Data Protection Act  
C) Health and safety at work Act  
D) Confidentiality act  

20. A dentist is about to complete a full gum health check what chart would you record the notations on:

A) BPE  
B) Periodontal Chart  
C) FDI Chart  
D) Palmer Notations