

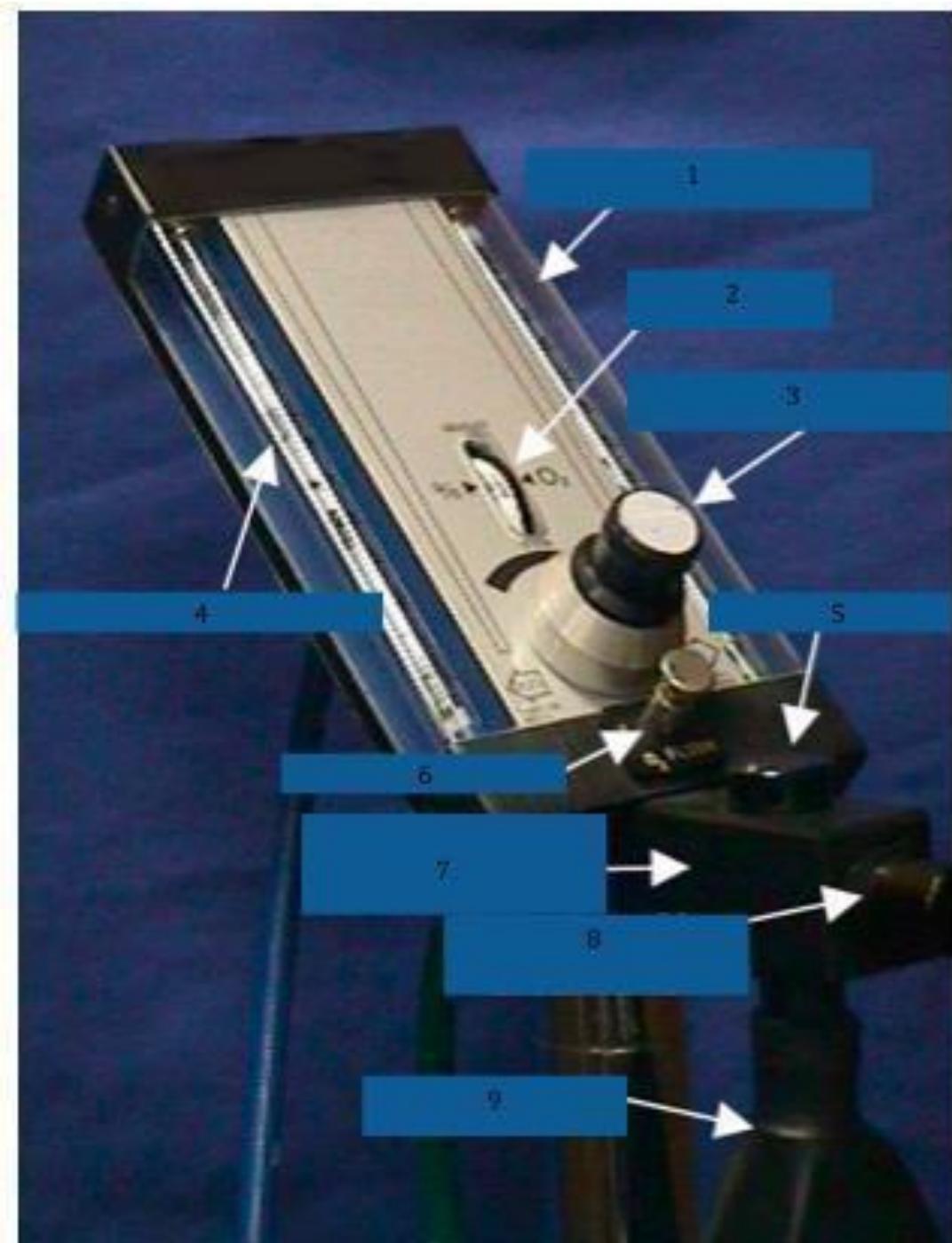


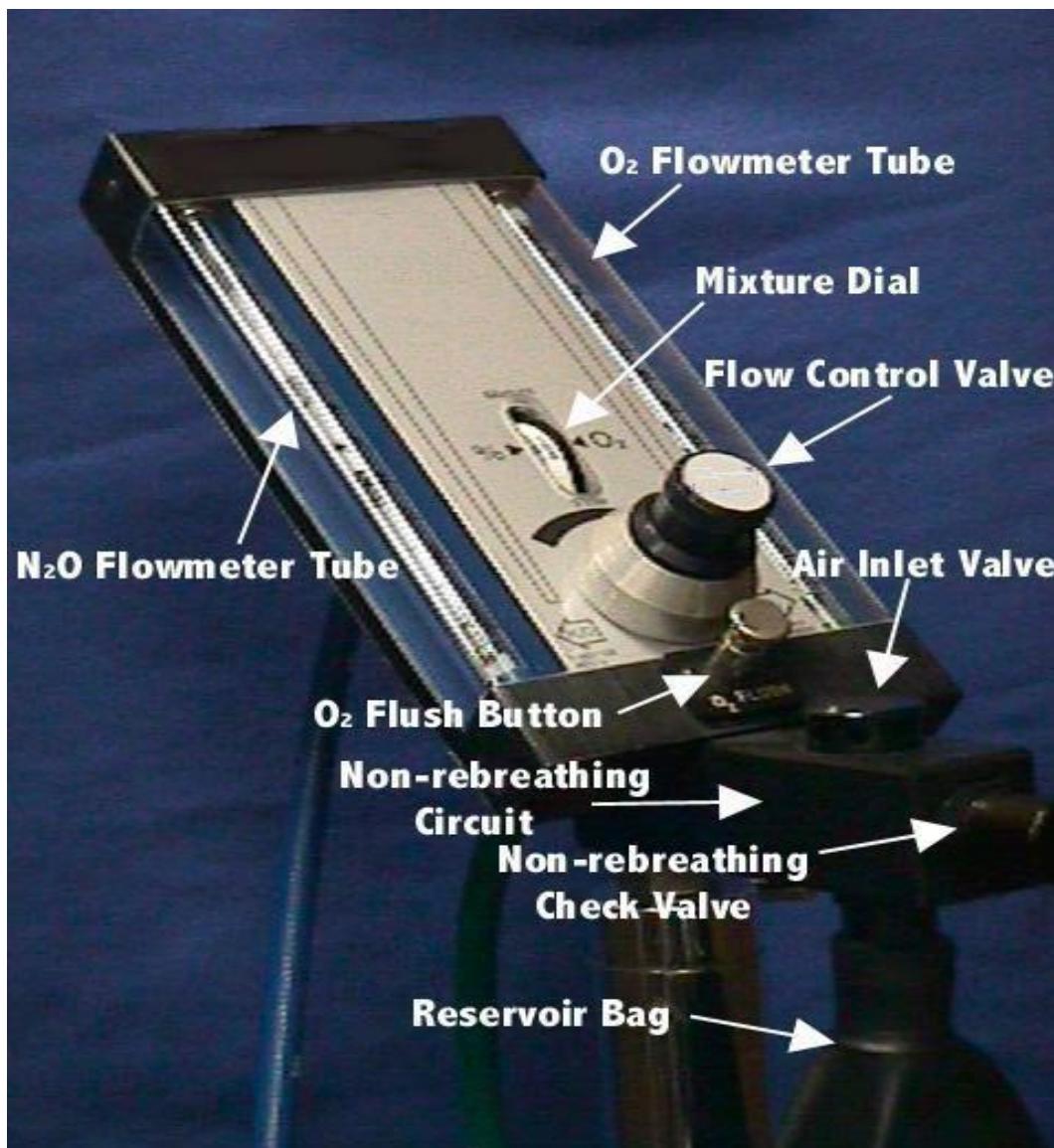


OSCE  
OBJECTIVE STRUCTURED CLINICAL  
EXAMINATION

Written OSCEs

## Conscious sedation machine





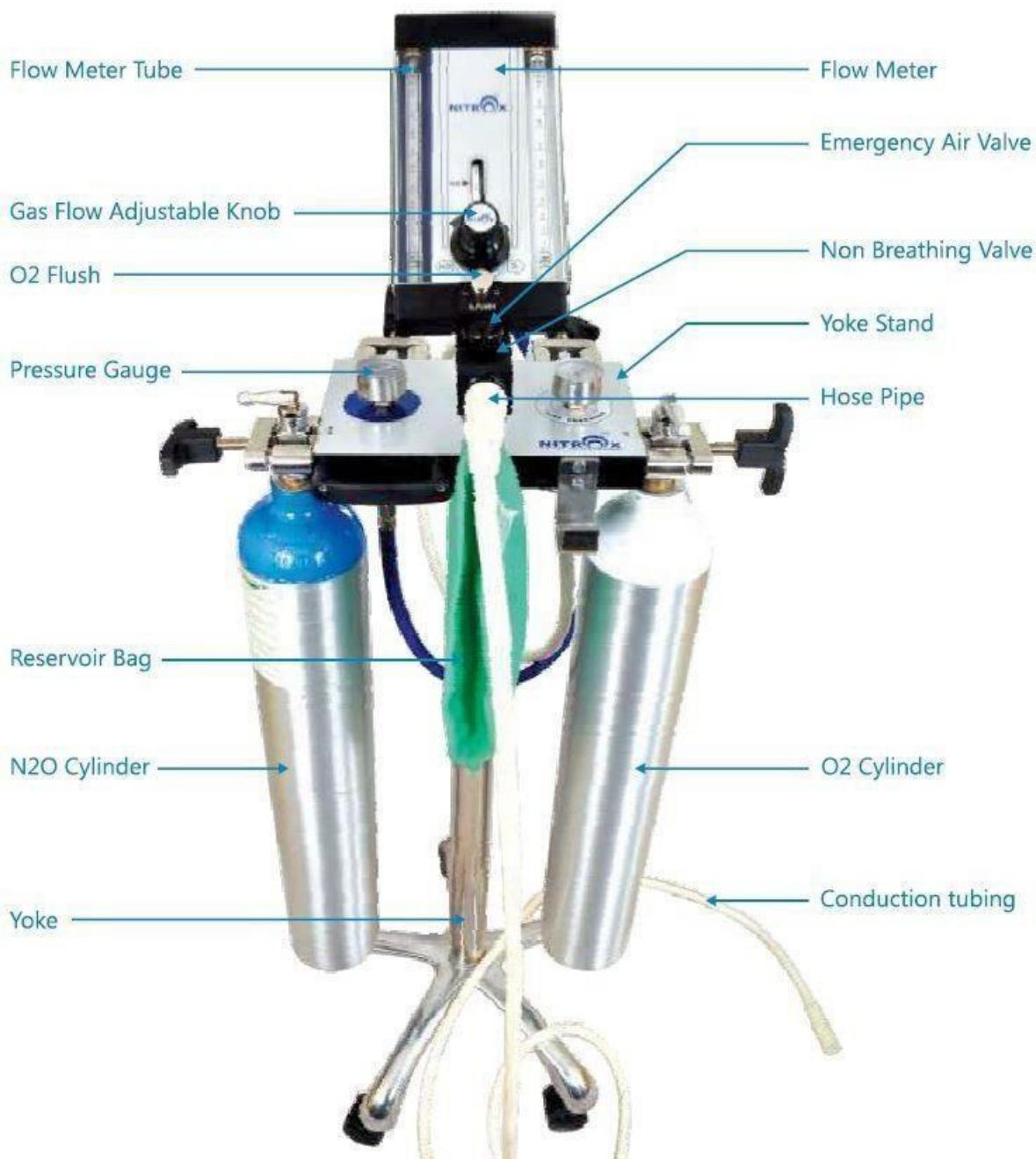
### **What are the conscious sedation machine checks?**

1. Oxygen failsafe check
2. Reservoir bag check
3. Seal of all tubing
4. The scavenger is functional and turned on
5. Accuracy of the fit of the nose piece
6. Ensure that all reserve cylinders are full
7. Check the gas level in both oxygen and nitrous oxide cylinders

(Pressure of the oxygen cylinder is 2000 psi, the cylinder must be half full/ Pressure of the nitrous oxide cylinder is 750 psi)

### **What are the safety features on the conscious sedation nitrous oxide machine?**

1. Colour-coded cylinders
2. Two cylinders labelled in use and reserve
3. Child safety lock and a Colour coded tubing (white for oxygen and blue for nitrous oxide)
4. 30% minimum oxygen delivery
5. Emergency oxygen flush
6. Scavenging unit
7. Reservoir bag for monitoring of breathing
8. One-way valve on the nosepiece
9. Emergency cut out of nitrous oxide if oxygen supply fails.



## Station (2)

### Fluoride and dietary chart

**Scenario:** James Smith is 10 years of age, and he is at high risk with 5 active carious lesions. You have asked his mother Mrs. Emily Smith to fill in his dietary chart to reduce the incidence of tooth decay.

4 day diet analysis sheet for John Smith

	Thursday		Friday		Saturday		Sunday	
	Time	Item	Time	Item	Time	Item	Time	Item
Before breakfast			7.00	2 cups of tea with 2 sugars	7.30	4 chocolate biscuits tea with 2 sugars		
Breakfast	8.30	sausages pitta bread ketchup tea with 2 sugars	8.30	banana			8.00	chocolate puffed rice breakfast cereal 1 glass cola drink
Morning	9.20 11.15	1 glass cola drink hot chocolate chocolate bar	9.30	mug hot chocolate packet crisps can of diet cola drink	11.00	1 slice cherry cake	10.30	4 slices toast and peanut butter 1 piece cake
Mid-day meal	12.30	turkey salad sandwich 1 glass cola drink tea with 2 sugars	1.00 pm	2 pieces cheese on toast, garlic sausage 1 slice cake 1 glass cola drink	12.30	1 slice cake tea with 2 sugars	1.00 pm	fish pie 1 glass cola drink
Afternoon	4.00 pm	fizzy drink chocolate bar 1 slice cake	4.30 pm 5.00 pm	ham 1 piece cake tea with 2 sugars 1 glass cola drink	3.00 pm	sausages, beans, toast, an orange 1 can cola drink	2.00 pm 4.30 pm 6.00 pm	tea with 2 sugars 1 biscuit 1 piece cake tea with 2 sugars bar of chocolate
Evening meal	6.00 pm	salad, garlic sausage, ham, coleslaw	7.30 pm	burger and chips 1 can of cola drink	8.00 pm	spaghetti bolognaise ice cream	9.00 pm	fish and chips, peas 1 cola drink
Evening	10.30 pm	sausages crisps 1 glass fizzy drink			9.30 pm	tea with 2 sugars		

**Based on the provided dietary chart how will you manage the patient to reduce his dental caries risks?**

1. Prescription of high fluoride toothpaste based on the patient's age
2. Fluoride varnish application 3-4 times a year
3. Dental recall intervals every 3 months
4. Restore all active carious lesions with RMGI (Fluoride release)
5. Dental radiographs every 6 months

**Gives examples for:**

1. Monosaccharide: Glucose, fructose, and galactose
2. Disaccharide: Sucrose and lactose
3. Polysaccharide: Cellulose and starch

**Based on the provided dietary chart list five necessary changes that need to be made to the patient's diet to improve his oral health**

1. Reduce the amount and frequency of sugar consumption
2. Limit the sugar intake to main meals
3. Replace fizzy drinks with milk or water
4. Replace fruit juice (high in sugar and acidic content), with a whole fruit (high in fiber)
5. Healthy snacks (Cheese, boiled eggs or vegetables)

**What further investigations will you conduct for this patient?**

Horizontal bitewings

**What are the two different forms of fluoride prescribed by a dental practitioner?**

1. Topical fluoride therapy
2. Systemic fluoride therapy

**What are the benefits of topical fluoride in comparison to systemic fluoride?**

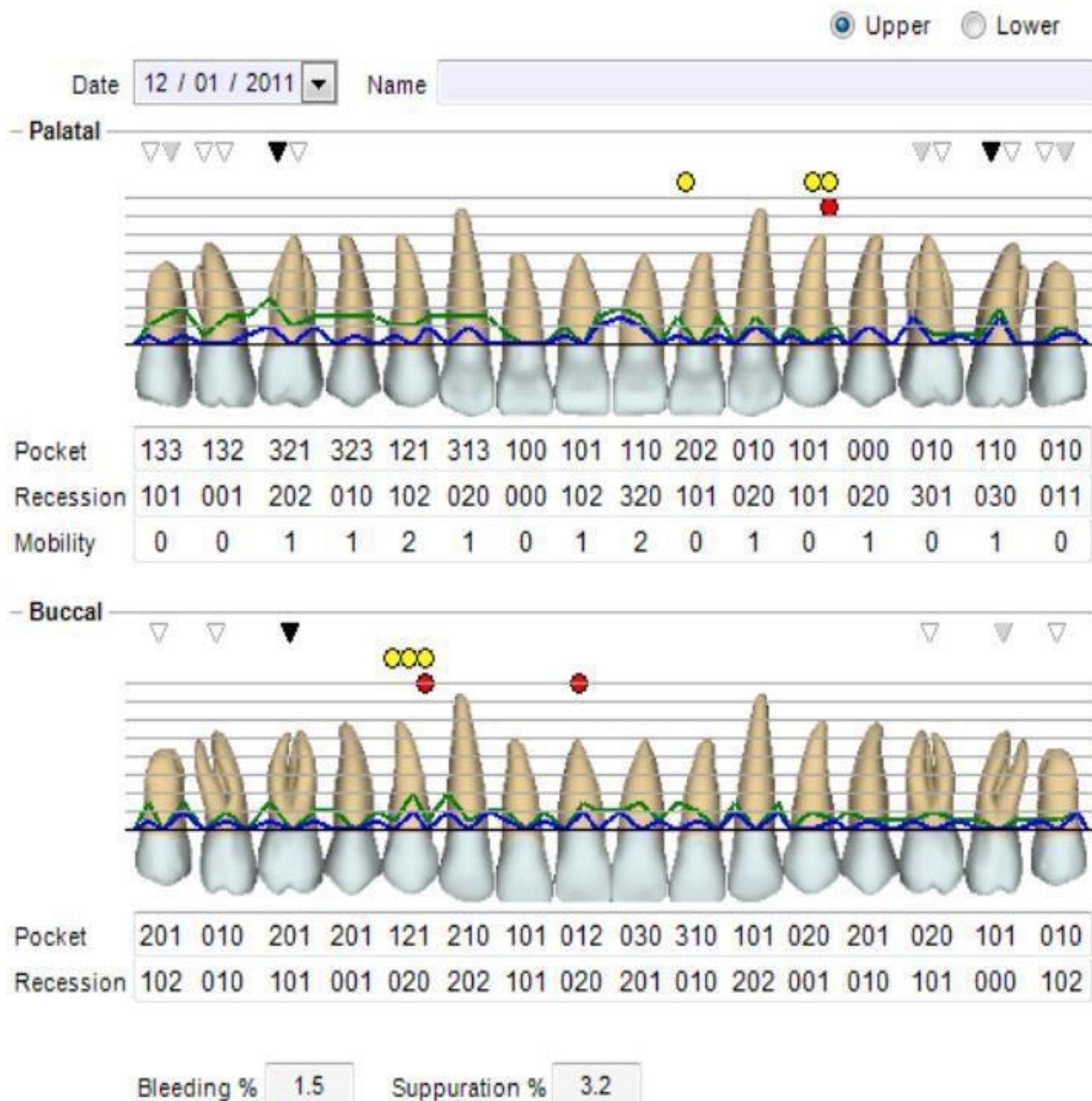
1. No reliance on patient's compliance
2. No risk of fluorosis
3. No risk of fluoride overdosage or toxicity

**Mention three different caries studies and explain one briefly?**

1. Vipeholm study: was a study that dental researchers conducted on a group of mentally challenged residents of the *Vipeholm Institution*. Dental researchers fed mentally handicapped people high amounts of sugar to study tooth decay. Unfortunately, many of these patients ended up losing their teeth to cavities. It concludes that the **frequency** of sugar consumption is more important than the **amount** of sugar consumed. The study also showed that foods that stick around in the mouth longer have a greater potential to cause cavities
2. Hopewood house study
3. Turku sugar studies

## Station (3)

### Six Point Pocket Chart



**What does the blue line and green line signify?**

Blue line: Free gingival margin

Green line: The probing depth

**Where is the clinical attachment loss, probing depth and recession measured from?**

**Probing depth (PD):** Is the distance between the free gingival margin to the depth of the pocket sulcus measured in millimeters using the William's probe. The periodontal probe is placed in the sulcus on 6 different locations around the tooth: (Mesio-buccal, mid-buccal, distobuccal, disto-lingual, mid-lingual, and mesio-lingual)

**Gingival recession:** Is measured from the cementoenamel junction (CEJ) to the free gingival margin (GM) in millimeters using a William's probe

**Clinical attachment loss (CAL):** Is measured from the CEJ to the base of the pocket in millimetres using a William's probe

The CAL is calculated after the periodontal probing has been carried out and after determining the distance from the gingival margin to the CEJ. The value of the probing depth is added to the value for the distance between GM-CEJ measurement.

For example, if the probing depth is 2 mm and there is a recession of 2mm ( $PD + (GM - CEJ) = CAL$ ), the CAL will be 4mm. If the probing depth is 3 mm, and the gingival margin is 1mm above the CEJ ( $PD - (GM - CEJ) = CAL$ ), the CAL will be 2mm. The value calculated for the CAL is necessary for diagnosing periodontal disease.

CAL (clinical attachment level) can be **negative when the gingival margin is coronal to the CEJ**—i.e., in **gingival enlargement/edema (a pseudopocket)**.

Quick rules:

- If margin **at CEJ**:  $CAL = PD$
- If margin **apical to CEJ** (recession):  $CAL = PD + \text{recession}$
- If margin **coronal to CEJ** (covers CEJ):  $CAL = PD - (\text{CEJ is } X \text{ mm apical to margin})$   
→ can be **negative** if the coronal coverage is greater than the probing depth.

Example:  $PD = 2 \text{ mm}$ ,  $CEJ$  is  $3 \text{ mm}$  apical to the gingival margin →  $CAL = 2 - 3 = -1 \text{ mm}$  (no attachment loss; tissue is overgrown).

**What's the difference between bleeding on probing and bleeding when probed?**

**Bleeding on probing** refers to active periodontal disease

**Bleeding when probed** refers to traumatic probing

**If the clinical attachment loss is 8 mm and the recession is 2 mm what's the value of the probing depth?**

Probing depth is 6mm

**Which probe is used to measure the 6PPC and furcation involvement?**

- 6-point pocket chart: William's probe
- Furcation involvement: Naber's probe

**Based on the above 6PPC what's the clinical attachment loss at the mid buccal surface of the upper right 6 and the mid palatal surface of the upper left 5?**

- Clinical attachment loss UR6: 0 mm
- Clinical attached loss UL5: 2 mm



**PERIODONTAL CHART**

Date 25/9/2025

Patient Last Name Rose

First Name Emily

Date Of Birth 20/10/1988

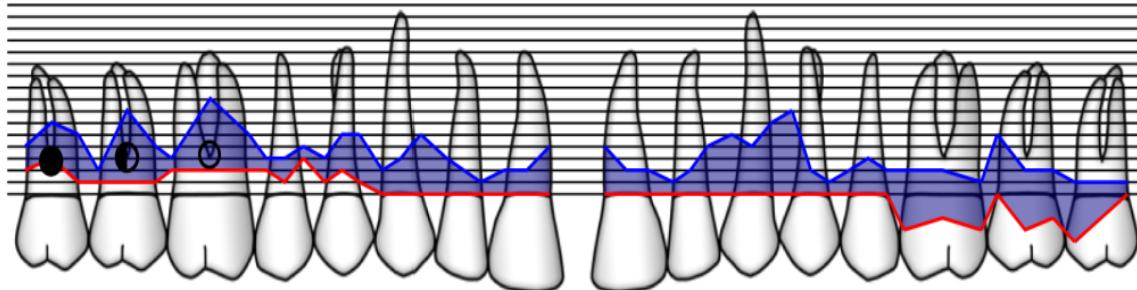
 Initial Exam Reevaluation

Clinician Ebtisam Elhamalawy

	18	17	16	15	14	13	12	11
Mobility	2	2	1	0	0	0	0	0
Implant								
Furcation	●	○	○					
Bleeding on Probing								
Plaque								
Gingival Margin	-2	-3	-1	-1	-1	-2	-2	-2
Probing Depth	2	3	4	1	6	3	1	2

	21	22	23	24	25	26	27	28
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	3	2
	2	2	1	2	4	5	2	0
	4	2	1	6	4	6	3	2

Buccal

**What does the blue line and red line signify?**

Red line: Free gingival margin

Blue line: The probing depth

**Based on the above chart answer the questions:**

-What's the CAL in relation to Midbuccal aspect of UR6?

-What's the probing depth in relation to the Mesiobuccal aspect of UR3?

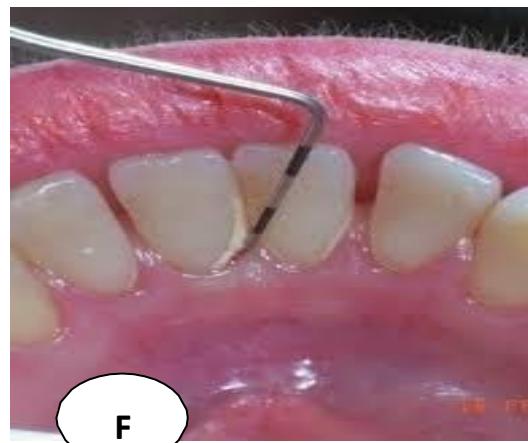
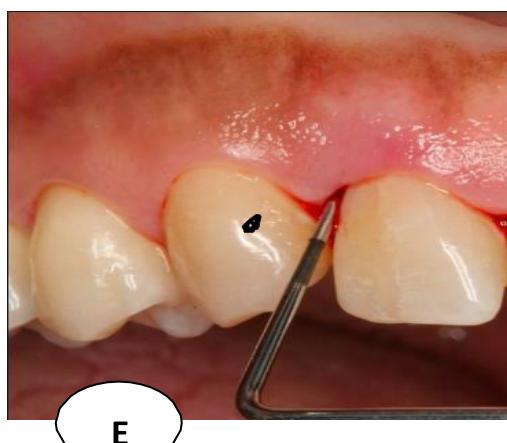
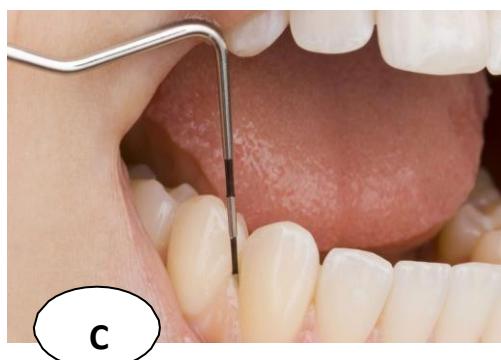
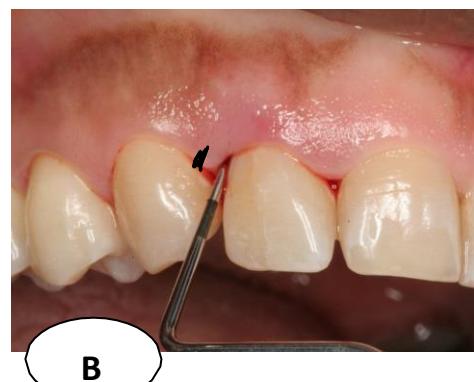
-What's the recession in relation to the distobuccal aspect of the UL3?

-What's the probing depth in relation to the Mesiobuccal aspect of UL1?

## Station (4)

### BASIC PERIODONTAL EXAMINATION

Based on the provided photographs write the patient BPE score



**What's the BPE scoring for the provided pictures?**

- A. BPE:
- B. BPE:
- C. BPE:
- D. BPE:
- E. BPE:
- F. BPE:
- G. BPE:
- H. BPE:

**Which of the above cases will require further radiographs and what type of radiographs will you choose?**

**Which of the above cases will you be referring to a specialist?**

**Which additional investigations will you run for the sextant in picture A?**

**List the treatment required for the sextant shown in picture F?**

BPE	Diagnosis	Description	Treatment
0	Healthy periodontium	No bleeding, no calculus, no overhang, the black band on a who probe is completely visible	Reinforce oral hygiene measure and repeat BPE every 12 month
1	Gingivitis	Bleeding on probing, no calculus, no overhang, black band is completely visible	Customized oral hygiene instruction and repeat BPE every 12 month
2	Gingivitis	Bleeding on probing, calculus, overhang, black band is completely visible (probing depth is less than 3.5mm)	Customized oral hygiene instructions, removal of plaque retentive factors including supra and sub gingival scaling. and repeat BPE every 12 month
3	Mild-moderate periodontitis	Bleeding on probing, calculus, overhang, black band is partially visible (probing depth is more than 3.5- but less than 5.5 mm)	<ul style="list-style-type: none"> <li>-Radiographs (bitewings) for code 3 sextant</li> <li>-Plaque and bleeding index full mouth</li> <li>-Customized oral hygiene instructions, removal of plaque retentive factors including supra gingival, sub gingival scaling</li> <li>-Review in 3 months: Detailed pocket chart, RSD if residual sites <math>\geq 5\text{mm}</math>, plaque and bleeding index</li> </ul>
4 , *	Sever periodontitis	Bleeding on probing, calculus, overhang, black band is completely invisible (probing depth is more than 5.5 mm)	<ul style="list-style-type: none"> <li>-Radiographs (periapical) for code 4 sextant</li> <li>-Detailed full mouth pocket chart</li> <li>-Plaque and bleeding index full mouth</li> <li>-Customized oral hygiene instructions, removal of plaque retentive factors including supra gingival, sub gingival scaling, root surface debridement</li> <li>-RSD if residual sites <math>\geq 5\text{mm}</math></li> <li>-Review in 3 months: Repeat detailed pocket chart Plaque and bleeding index</li> </ul>

## Additional information

Radiographs are only required for: BPE score of 3, 4, \*

### **Periodontal Treatment Assessment:**

Based upon the Basic Periodontal Examination (BPE)

#### **Criteria for complexity index 1: “Can be treated in primary dental care”**

BPE Score 1 - 3 in any sextant

#### **Criteria for Complexity 2: “Can either be treated in primary care or requires referral”**

BPE Score of 4 in any sextant

#### **Criteria for Complexity 3: “Referral to a periodontist is necessary”**

- Surgery involving the periodontal tissues
- Surgical procedures associated with Osseointegrated implants
- Surgical procedures involving periodontal tissue augmentation and / or bone removal (e.g., Crown lengthening surgery)
- BPE score of 4 in any sextant and including one or more of the following factors:
  - Patients under the age of 35
  - Smoking 10+ cigarettes daily
  - A concurrent medical factor that is directly affecting the periodontal tissues
  - Root morphology that adversely affects prognosis
  - Rapid periodontal breakdown >2mm attachment loss in any one year = Complexity 3

#### **Modifying Factors that are Relevant to Periodontal Treatment**

A modifying factor can only increase complexity by one increment. Multiple factors are not cumulative

- Co-ordinated medical (e.g., renal: cardiac) and / or dental (e.g., oral surgery: orthodontic) multi-disciplinary care
- Medical history that significantly affects clinical management (See below)
- Special needs for the acceptance or provision of dental treatment.
- Mandibular dysfunction
- Atypical facial pain
- Undiagnosed facial pain
- Presence of a retching tendency
- Limited operating access
- Concurrent mucogingival disease (e.g., Erosive Lichen Planus)

#### **Medical History that Significantly Affects Clinical Management**

- Patients requiring IM or IV medication as a component of clinical management.
- Patients with a history of head / neck radiotherapy.
- Patients who are significantly immuno compromised or immuno suppressed.
- Patients with a significant bleeding dyscrasia / disorder.
- Patients with a potential drug interaction.

## **Station (5) Scope of practice**

### **List the duties of dental nurses:**

1. Prepare and maintain the clinical environment, including the equipment
2. Carry out infection prevention and control procedures to prevent physical, chemical and microbiological contamination in the surgery or laboratory
3. Record dental charting and oral tissue assessment carried out by other registrants
4. Prepare, mix, and handle dental biomaterials
5. Provide chairside support to the operator during treatment
6. Keep full, accurate and contemporaneous patient records
7. Prepare equipment, materials, and patients for dental radiography
8. Process dental radiographs
9. Monitor, support and reassure patients and give appropriate patient advice
10. Support the patient and their colleagues if there is a medical emergency
11. Make appropriate referrals to other health professionals

### **Additional skills dental nurses could develop include:**

1. Further skills in oral health education and oral health promotion
2. Assisting in the treatment of patients who are under conscious sedation
3. Further skills in assisting in the treatment of patients with special needs
4. Further skills in assisting in the treatment of orthodontic patients
5. Intra and extra-oral photography
6. Pouring, casting, and trimming study models
7. Shade taking, tracing cephalographs

### **Additional skills carried out on prescription from, or under the direction of, another registrant:**

1. Taking radiographs
2. Placing rubber dam
3. Measuring and recording plaque indices
4. Removing sutures after the wound has been checked by a dentist
5. Constructing occlusal registration rims and special trays
6. Repairing the acrylic component of removable appliances
7. Applying topical anaesthetic to the prescription of a dentist
8. Constructing mouthguards and bleaching trays to the prescription of a dentist
9. Constructing vacuum formed retainers to the prescription of a dentist
10. Taking impressions to the prescription of a dentist or a CDT (where appropriate)

- Dental nurses can apply fluoride varnish either on prescription from a dentist or directly as part of a structured dental health programme.
- Dental nurses do not diagnose disease or treatment plan. All other skills are reserved to one or more of the other registrant groups.

**List the duties of a dental hygienist:**

1. Provide dental hygiene care to a wide range of patients.
2. Obtain a detailed dental history from patients and evaluate their medical history.
3. Carry out a clinical examination within their competence.
4. Complete a periodontal examination and charting and use indices to screen and monitor periodontal disease.
5. Diagnoses and treatment plan within their competence.
6. Prescribe radiographs; take, process, and interpret various film views used in general dental practice.
7. Plan the delivery of care for patients and give appropriate patient advice.
8. Provide preventive oral care to patients and liaise with dentists over the treatment of caries, periodontal disease, and tooth wear.
9. Undertake supragingival and subgingival scaling and root surface debridement using manual and powered instruments. Use appropriate anti-microbial therapy to manage plaque related diseases.
10. Adjust restored surfaces in relation to periodontal treatment.
11. Apply topical treatments and fissure sealants
12. Give patients advice on how to stop smoking
13. Take intra and extra-oral photographs
14. Give infiltration and inferior dental block analgesia
15. Place temporary dressings and re-cement crowns with temporary cement
16. Place rubber dam
17. Take impressions
18. Care of implants and treatment of peri-implant tissues
19. Identify anatomical features, recognise, and interpret common pathology
20. Carry out oral cancer screening
21. If necessary, refer patients to other healthcare professionals
22. Keep full, accurate and contemporaneous patient records
23. If working on prescription, vary the detail but not the direction of the prescription according to patient needs

Additional skills which dental hygienists might develop include:

1. Tooth whitening to the prescription of a dentist
2. Administering inhalation sedation
3. Removing sutures after the wound has been checked by a dentist

Dental hygienists do not:

1. Restore teeth
2. Carry out pulp treatments
3. Adjust unrestored surfaces
4. Extract teeth

**List the duties of a dental therapist:**

1. Obtain a detailed dental history from patients and evaluate their medical history
2. Carry out a clinical examination within their competence
3. Complete periodontal examination and charting and use indices to screen and monitor periodontal disease

4. diagnose and treatment plan within their competence
5. Prescribe radiographs; Take, process, and interpret various film views used in general dental practice
6. Plan the delivery of care for patients and give appropriate patient advice
7. Provide preventive oral care to patients and liaise with dentists over
8. Treatment of caries, periodontal disease, and tooth wear
9. Undertake supragingival and subgingival scaling and root surface debridement using manual and powered instruments
10. Adjust restored surfaces in relation to periodontal treatment
11. Apply topical treatments and fissure sealants
12. Give patients advice on how to stop smoking
13. Take intra and extra-oral photographs
14. Give infiltration and inferior dental block analgesia
15. Place temporary dressings and re-cement crowns with temporary cement
16. Place rubber dam
17. Take impressions
18. Care of implants and treatment of peri-implant tissues
19. Carry out direct restorations on primary and secondary teeth
20. Carry out pulpotomies on primary teeth
21. Extract primary teeth
22. Place pre-formed crowns on primary teeth
23. Identify anatomical features, recognize, and interpret common pathology
24. Carry out oral cancer screening

Additional skills which dental hygienists might develop include:

- a. Tooth whitening to the prescription of a dentist
- b. Administering inhalation sedation
- c. Removing sutures after the wound has been checked by a dentist

**Recommended reading:**

- SCOPE OF PRACTICE DEC 20 BY GDC  
<https://www.gdc-uk.org/information-standards-guidance/standards-and-guidance/scope-of-practice>

## **Scope of practice**

Based on the below treatment plan list the treatments which can be performed by the following dental professionals

### **Dentist**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

### **Dental therapist**

- 1.
- 2.
- 3.
- 4.
- 5.

### **Dental hygienist:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

## PERIODONTAL CHART

PATIENT NAME: Emily Rose

FILE NO.: EA DENTAL

DATE: 07/04/2019

<b>Diagnosis</b>																								
CAL, BOP	3	1	3	3	2	1	2	3	6	5	2	5	3	6	5	9	9	6	3	4	5	3	4	2
PD, PI, Calc	2	1	2	3	2	1	2	3	4	5	1	2	3	4	5	6	7	4	1	3	5	3	4	2
CEJ-GM	1	0	1	0	0	0	0	0	2	0	1	3	0	2	0	3	2	2	1	0	0	0	0	0
<b>FACIAL</b>	18	17	16	15	14	13	12	11	21	22	23	24	25	26	27	28								
<i>Mobility</i>																								
<b>LINGUAL</b>																								
CEJ-GM	0	1	0	0	1	0	2	0	1	0	0	1	0	2	0	3	0	1	0	1	0	3	0	1
PD	2	1	2	3	2	1	2	3	4	5	1	2	3	4	5	6	7	3	4	5	6	7	3	2
CAL	2	2	2	3	2	1	2	5	4	6	1	2	4	4	6	6	8	4	1	3	5	4	6	3
CAL, BOP	3	1	3	3	2	1	2	3	6	5	2	5	3	6	5	9	9	6	3	4	5	3	4	2
PD, PI, Calc	2	1	2	3	2	1	2	3	4	5	1	2	3	4	5	6	7	4	1	3	5	3	4	2
CEJ-GM	1	0	1	0	0	0	0	0	2	0	1	3	0	2	0	3	2	2	1	0	0	0	2	0
<b>LINGUAL</b>																								
<i>Mobility</i>																								
<b>FACIAL</b>	48	47	46	45	44	43	42	41	31	32	33	34	35	36	37	38								
CEJ-GM	0	1	0	0	1	0	2	0	1	0	0	0	0	0	0	0	0	1	0	1	0	2	0	1
PD	2	1	2	3	2	1	2	3	4	5	1	2	3	4	5	6	7	3	3	2	1	1	1	3
CAL	2	2	2	3	2	2	5	4	6	1	2	4	4	6	6	8	4	1	3	5	4	6	3	1
<b>Diagnosis</b>																								

GM- Gingival Margin. CAL- Clinical Attachment Loss. CEJ- Cementoenamel Junction. PD- Probing Depth  
 PI- Plaque, if presents put \*. CAL- Calculus, if presents put \*. BOP- Bleeding on probing, if presents put red

Plaque Index    70%

Bleeding Index    60%

Periodontal Diagnosis: Chronic generalised periodontitis


 Verified by PDF  
06/28/2019

Supervisor's Signature

## Station (6)

### Denture Drawing:

#### Clasps:

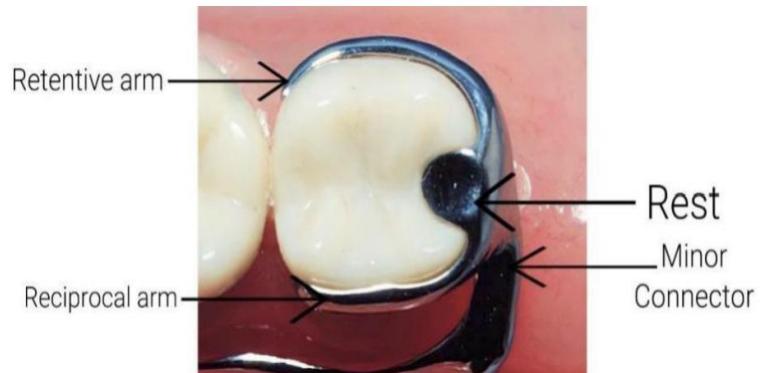


Figure 2.4 Embrasure clasp

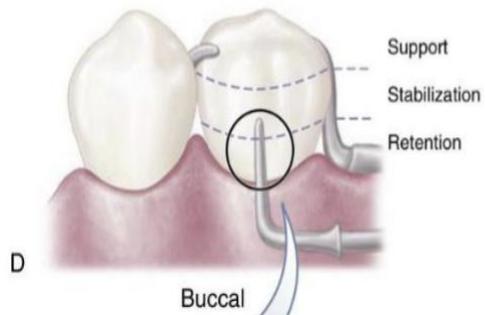


Figure 2.7 Buccal view of RPI Clasp

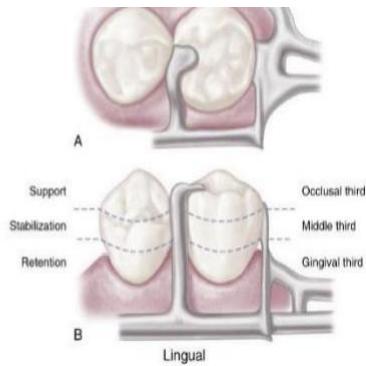
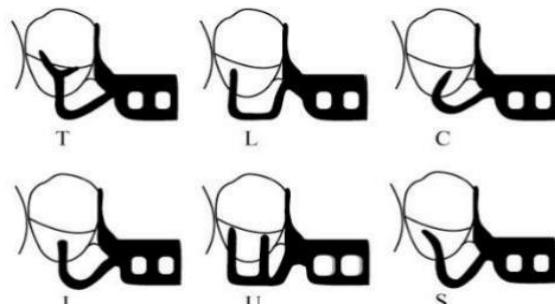
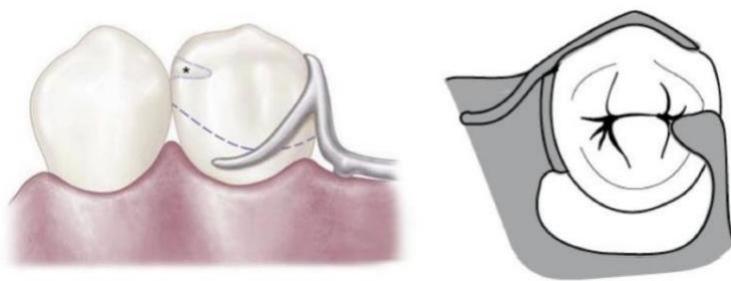


Figure 2.8 Occlusal and Lingual view of RPI clasp

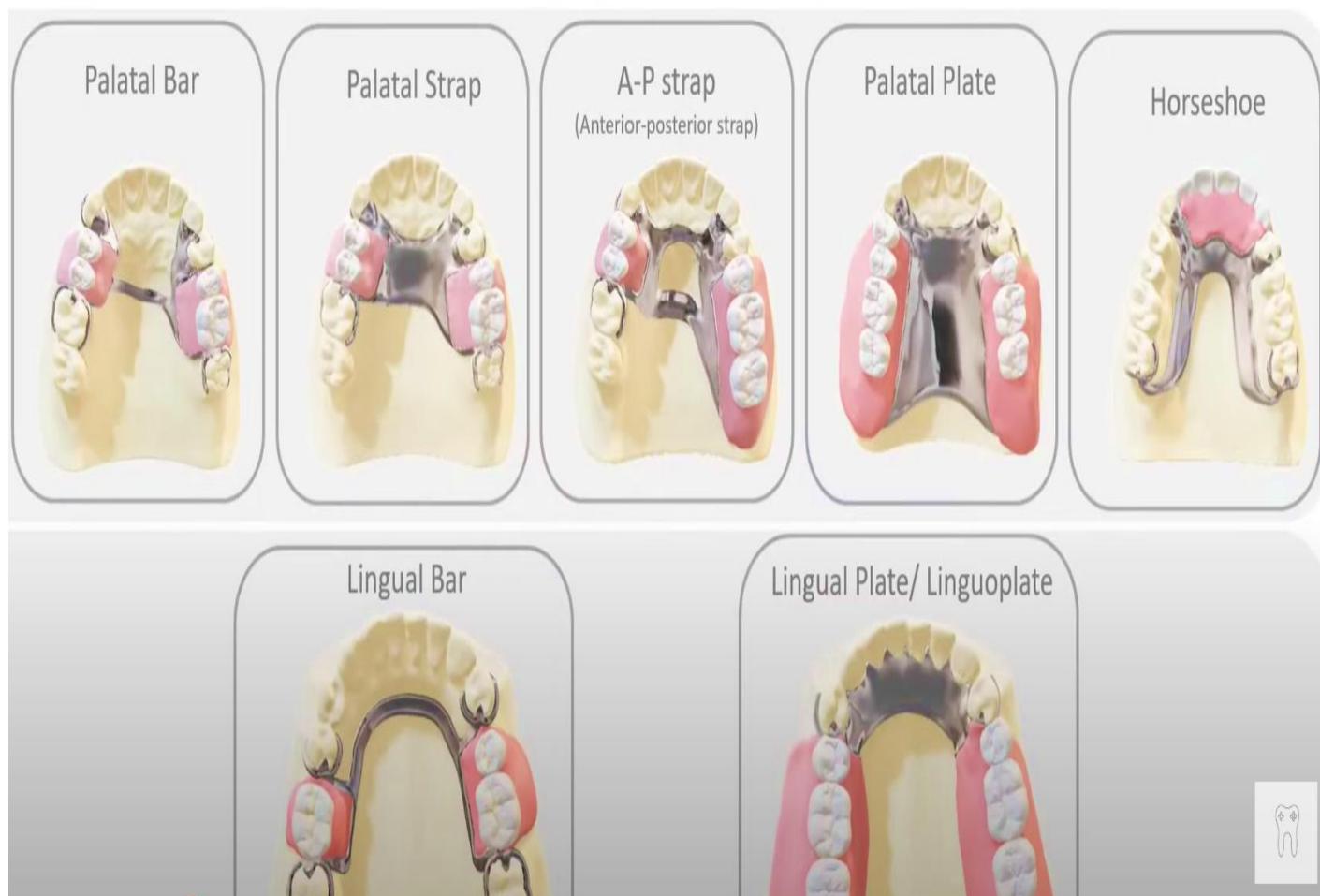
Retentive clasps are identified by shape of retentive terminal (**i.e., T, Y, L, I, U and S**) (figure 2.6)





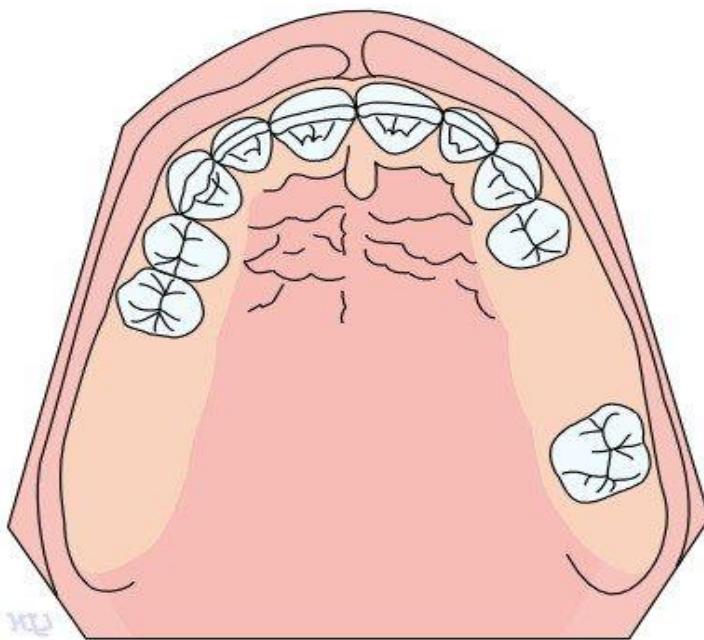
**Figure 2.9 RPA Clasp; Rest, proximal plate and Akers clasp is indicated when a bar-type clasp is contraindicated, and a desirable undercut is located in the gingival third of the tooth away from extension base area (Alan B. Carr,2016).**

## **Major connectors:**



## Practice denture drawing:

### Case 1: (Live online course)



### List the denture components:

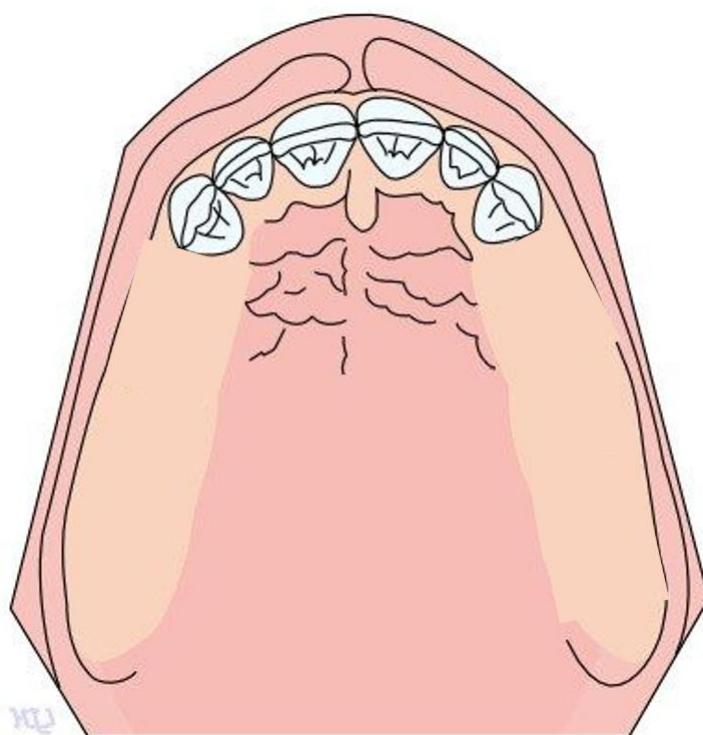
Rest seats:

Retention:

Major connector:

## Practice denture drawing:

Case 2:  
(Live online course)



List the denture components:

Rest seats:

Retention:

Major connector:

## **Case 3:** **(Live online course)**



**List the denture components:**

**Rest seats:**

**Retention:**

**Major connector:**

## Prescription:

### **5-Minute Written OSCE Station: Dentoalveolar Infection with Systemic Involvement**

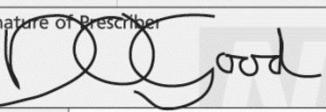
#### **Scenario:**

A 4-year-old child, otherwise fit and healthy, presents to your clinic with swelling in the lower right face, difficulty opening their mouth, and a fever of 38.5°C. On examination, there is significant swelling in the right buccal region, tenderness on palpation, and a carious lower right primary molar with evidence of pus discharge. The child's parent reports that the symptoms began 2 days ago and have worsened. Prescribe an appropriate antibiotic.

#### **NICE/ BNF**

#### **Prescription requirements:**

- **Legibility and Legal Requirements:** Prescriptions must be written legibly in ink or an indelible format, signed in ink by the prescriber, and dated.
- **Patient and Prescriber Details:** Prescriptions should include the patient's name, address, age (mandatory for children under 12), and preferably date of birth, along with the prescriber's address, type, and signature.
- **Dosing Details for Children:** the dose should normally be stated in terms of the mass of the active drug (e.g. '125 mg 3 times daily'); terms such as '5 mL'
- **Strength and Quantities:** Clearly state the strength and quantity of medicines, especially for liquids (e.g., 125 mg/5 mL). Use correct units (e.g., mg, micrograms) and avoid unnecessary decimal points.
- **Terminology:** Avoid abbreviations for terms like "micrograms," "nanograms," and "units." Use "mL" for milliliters; avoid "c.c." or "cm<sup>3</sup>."
- **Dose and Frequency:** State the dose and frequency explicitly, specifying minimum dose intervals for "as required" medications. Prefer mass of active drug (e.g., "125 mg") over general terms like "1 tablet."
- **Clarity of Drug Names:** Write drug names in full without abbreviations, using approved titles.

Pharmacy Stamp	Age 1yr 3mths  D.o.B 2/4/2010	Title, Forename, Surname & Address Master Peter Patient  Flat 1 50 Stanhope Street Newtown TE22 1ST
<i>Please don't stamp over age box</i>		
Number of days' treatment N.B. Ensure dose is stated	5	
Endorsements	Amoxicillin oral suspension 125mg/5ml sugar-free 125mg three times daily Supply 100ml [No more items on this prescription]	
Signature of Prescriber 		Date 02/07/11
For dispenser No. of Prescns. on form  <input type="text"/>	Anyborough Health Authority Dr D O Good 345543 7 High Street Anytown KB1 CD2 Tel: 0111 222 333	
NHS	FP10NC0105	

## Prescription

**Scenario:** Susana James attended an emergency appointment complaining of severe pain in relation to the lower right third molar. On clinical examination you have noticed she has severe facial swelling and a fever of 38C.

She is asthmatic, allergic to Amoxicillin and is currently pregnant. Prescribe an antibiotic and an analgesic. Personal details: Susana James, DOB: 1/9/1988, 7 Australia Road, Hammersmith Postcode: W78 3Z

Pharmacy Stamp	Age D.o.B	Title, Forename, Surname & Address
<i>Please don't stamp over age box</i> Number of days' treatment N.B. Ensure dose is stated		NHS Number:
Endorsements		
<div style="text-align: center;"> </div>		
Signature of Dentist		Date
For dispenser No. of Prescns. on form	Dentist's name and address	
<span style="float: right;">FP10 D0608</span>		
62336274550		

Name of the Analgesic	Number of days	Concentration	Regimen

### **Management of acute dento-alveolar infections:**

- Phenoxycephalothin is now recommended as the preferred first line antibiotic. This is due to its narrower spectrum of activity, which is less likely to drive antimicrobial resistance.
- Metronidazole is recommended for dental abscesses as an alternative for patients allergic to penicillin, the adult dose increased to 400 mg three times a day for five days.
- Clarithromycin tablets are not licensed in children under 12 years. Clarithromycin oral suspension should be prescribed for this age group.
- Amoxicillin is no longer recommended for treatment of acute sinusitis. Local measures are recommended in the first instance, with antibiotic therapy only used if symptoms persist or if symptoms are severe. Phenoxycephalothin is the first drug of choice. Doxycycline is appropriate for penicillin allergy or intolerance.

### **Analgesic and Antibiotic Contraindications and Cautions Supplement May 2021**

- Antibiotics are not indicated in the absence of swelling or other signs of infection.
- Patients already taking an NSAID (prescribed or not) regularly for a non-dental condition should not take an additional NSAID to control dental pain.
- Prescribe ibuprofen with caution for patients taking low dose aspirin.
- Diclofenac is not recommended in this guide for patients taking low dose aspirin.
- Elderly patients: prescribe ibuprofen with caution, diclofenac is not recommended
- Prescribe paracetamol with caution for people who weigh under 50kg, alcohol dependence, chronic alcoholism, chronic malnutrition, or dehydration.
- NSAIDs should be avoided in people with dehydration, due to risk of acute kidney injury. Also, for patients with chronic alcoholism and alcohol dependence.
- Paracetamol is the analgesic of choice during pregnancy and NSAIDs should be avoided.
- Paracetamol is the analgesic of choice for women who are breastfeeding
- Prescribe NSAIDs with caution to people with allergic disorders as they may be at increased risk of NSAID induced allergy.
- Prescribe NSAIDs with caution to people with asthma. All NSAIDs have the potential to exacerbate asthma, either acutely or as a gradual worsening of symptoms.
- Prescribe ibuprofen with caution to people with cardiac impairment or mild to moderate heart failure and avoid NSAIDs in severe heart failure.
- Paracetamol is a suitable analgesic option in most people with liver disease.
- Prescribe paracetamol with caution to people with severe renal impairment and avoid NSAIDs
- For people taking anticoagulants, paracetamol is considered safer than aspirin or

## NSAIDs

- Avoid concomitant use of NSAIDs with anticoagulants (e.g. warfarin, dabigatran).
- Prescribe NSAIDs with caution for patients with bleeding disorders (e.g. Haemophilia, von Willebrand disease and clotting factor deficiencies). Consult with the patient's GMP or haematologist.

**CASE 2:**

Pharmacy Stamp	Age	Title, Forename, Surname & Address	
D.o.B			
Please don't stamp over age box Number of days' treatment N.B. Ensure dose is stated		NHS Number:	
Endorsements			
(Large area for endorsements)			
Signature of Dentist		Date	
For dispenser No. of Prescns. on form	Dentist's name and address		
<input type="text"/>			
NHS	FP10 D0608		
62336274550			

## Dental Abscess:

### First line of antibiotics, an appropriate 5-day regimen of:

**1).**

**Phenoxycephalpenicillin Tablets,  
250 mg**

Send: 40 tablets

Label: 2 tablets four times daily

**For children:**

**Phenoxycephalpenicillin Tablets,  
250 mg, or Oral Solution\*, 125 mg/5 ml  
or 250 mg/5 ml**

6-11 months	62.5 mg four times daily
1-5 years	125 mg four times daily
6-11 years	250 mg four times daily
12-17 years	500 mg four times daily

NB: For severe infection in adults, the dose of phenoxycephalpenicillin should be doubled. For severe infection in children up to 11 years, increase dose up to 12.5 mg/kg four times daily. For severe infection in children aged 12-17 years increase dose up to 1 g four times daily.

Phenoxycephalpenicillin, like other penicillins, can result in hypersensitivity reactions, including rashes and anaphylaxis, and can cause diarrhoea. Do not prescribe phenoxycephalpenicillin to patients with a history of anaphylaxis, urticaria or rash immediately after penicillin administration as these individuals are at risk of immediate hypersensitivity.

\*Sugar-free preparation is available

**2).**

**Amoxicillin Capsules, 500 mg**

Send: 15 capsules

Label: 1 capsule three times daily

**For children:**

**Amoxicillin Capsules, 250 mg, or Oral Suspension\*, 125 mg/5 ml or 250 mg/5 ml**

6-11 months	125mg three times daily
1-4 years	250 mg three times daily
5-11 years	500 mg three times daily
12-17 years	500 mg three times daily

NB: The dose of amoxicillin should be doubled in severe infection in adults and children aged 12-17 years. In severe infection in children aged 6 months to 11 years, the dose of amoxicillin should be increased up to 30 mg/kg (max 1 g) three times daily.

Amoxicillin, like other penicillins, can result in hypersensitivity reactions, including rashes and anaphylaxis, and can cause diarrhoea. Do not prescribe amoxicillin to patients with a history of anaphylaxis, urticaria or rash immediately after penicillin administration as these individuals are at risk of immediate hypersensitivity.

\*Sugar-free preparation is available.

**3).**

In patients who are allergic to penicillin, an appropriate 5-day regimen is:

**Metronidazole Tablets, 400 mg**

Send: 15 tablets

Label: 1 tablet three times daily

**For children:**

**Metronidazole<sup>†</sup> Tablets, 200 mg,  
or Oral Suspension, 200 mg/5 ml**

1-2 years	50 mg three times daily
3-6 years	100 mg twice daily
7-9 years	100 mg three times daily
10-17 years	200 mg three times daily

NB: Advise patient to avoid alcohol (metronidazole has a disulfiram-like reaction with alcohol).

Do not prescribe metronidazole for patients taking warfarin.

<sup>†</sup>Metronidazole is not licensed for use in children under 1 year (see Section 1.1.5)

## Second-line antibiotics

If a patient has not responded to the first-line antibiotic prescribed, check the diagnosis and either refer the patient or consider speaking to a specialist before prescribing clindamycin, co-amoxiclav or clarithromycin.

**If patients do not respond to first-line amoxicillin or metronidazole treatment, or in cases of severe infection with spreading cellulitis, an appropriate 5-day regimen is:**

### **Clindamycin Capsules, 150 mg**

Send: 20 capsules

Label: 1 capsule four times daily,  
swallowed with water

### **For children:**

12-17 years	As for adults
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NB: Advise patient that capsule should be swallowed with a glass of water.

Do not prescribe clindamycin to patients with diarrhoeal states.

Advise patient to discontinue use immediately if diarrhoea or colitis develops as clindamycin can cause the side-effect of antibiotic-associated colitis.

### **Co-amoxiclav 250/125 Tablets**

Send: 15 tablets

Label: 1 tablet three times daily

### **For children:**

12-17 years	As for adults
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NB: Co-amoxiclav 250/125 tablets are amoxicillin 250 mg as trihydrate and clavulanic acid 125 mg as potassium salt.

Cholestatic jaundice can occur either during or shortly after the use of co-amoxiclav; this condition is more common in patients above the age of 65 years and in men. Do not prescribe co-amoxiclav to patients who have a history of co-amoxiclav-associated or penicillin-associated jaundice or hepatic dysfunction.

Co-amoxiclav, like other penicillins, can result in hypersensitivity reactions, including rashes and anaphylaxis, and can cause diarrhoea. Do not prescribe co-amoxiclav to patients with a history of anaphylaxis, urticaria or rash immediately after penicillin administration as these individuals are at risk of immediate hypersensitivity.

**An appropriate 7-day regimen is:**

### **Clarithromycin Tablets, 250 mg**

Send: 14 tablets

Label: 1 tablet two times daily

### **For children:**

### **Clarithromycin Tablets, 250 mg or Oral Suspension 125 mg/5ml or 250 mg/5 ml**

1-11 years Body weight 8-11 kg	62.5 mg two times daily
1-11 years Body weight 12-19 kg	125 mg two times daily
1-11 years Body weight 20-29 kg	187.5 mg two times daily
1-11 years Body weight 30-40 kg	250 mg two times daily
12-17 years	250 mg two times daily

NB: Use with caution in patients who are predisposed to QT interval prolongation including electrolyte disturbances and those with hepatic impairment or renal impairment. Do not prescribe for pregnant women or nursing mothers. Do not prescribe clarithromycin for patients taking warfarin or statins.

## Necrotizing Ulcerative Gingivitis and Pericoronitis

If drug treatment is required, an appropriate 3-day regimen is:

### **Metronidazole Tablets, 400 mg**

Send: 9 tablets

Label: 1 tablet three times daily

### **For children:**

### **Metronidazole<sup>‡</sup> Tablets, 200 mg, or Oral Suspension, 200 mg/5 ml**

1-2 years	50 mg three times daily
3-6 years	100 mg twice daily
7-9 years	100 mg three times daily
10-17 years	200 mg three times daily

NB: Advise patient to avoid alcohol (metronidazole has a disulfiram-like reaction with alcohol).

Do not prescribe metronidazole for patients taking warfarin.

<sup>‡</sup>Metronidazole is not licensed for use in children under 1 year (see Section 1.1.5)

## Oral candidal infection

### **Miconazole Oromucosal Gel\*, 20 mg/g**

Send: 80 g tube

Label: Apply a pea-sized amount to fitting surface of upper denture after food four times daily

### **For children:**

### **Miconazole Oromucosal Gel\*, 20 mg/g**

2-17 years As for adults

NB: Advise patient to remove upper denture, apply gel sparingly to fitting surface and then reinsert.

Advise patient to continue use for 7 days after lesions have healed.

Do not prescribe miconazole for patients taking warfarin or statins.

\*Sugar-free preparation is available.

### **Nystatin Oral Suspension, 100,000 units/ml**

Send: 30 ml

Label: 1 ml after food four times daily for 7 days

### **For children:**

As for adults

NB: Advise patient to remove dentures before using drug, rinse suspension around mouth and then retain suspension near lesion for 5 minutes before swallowing.

Advise patient to continue use for 48 hours after lesions have healed.

**If drug treatment is required, an appropriate 7-day regimen is a choice of:**

### **Fluconazole Capsules, 50 mg**

Send: 7 capsules

Label: 1 capsule daily

### **For children:**

### **Fluconazole Capsules 50 mg or Oral Suspension, 50 mg/5 ml**

6 months-11 years	3-6 mg/kg on first day and then 3 mg/kg (max. 50 mg) daily
12-17 years	50 mg daily

NB: Fluconazole can be administered for a maximum of 14 days for the treatment of denture stomatitis.

Do not prescribe fluconazole for patients taking warfarin or statins.

## Viral infection:

For infections in immunocompromised patients and severe infections in non-immunocompromised patients, an appropriate 5-day regimen is:

### **Aciclovir Tablets, 200 mg**

Send: 25 tablets

Label: 1 tablet five times daily

### **For children:**

#### **Aciclovir Tablets, 200 mg, or Oral Suspension\*, 200 mg/5 ml**

6 months-1 year	100 mg five times daily
2-17 years	200 mg five times daily

NB: In both adults and children, the dose can be doubled in immunocompromised patients or if absorption is impaired.

\*Sugar-free preparation is available.

Antiviral creams such as aciclovir can be used to treat herpes labialis in non-immunocompromised patients. Administer this topical agent at the prodromal stage of a herpes labialis lesion to maximise its benefit.

### **An appropriate regimen is:**

### **Aciclovir Cream, 5%**

Send: 2 g

Label: Apply to lesion every 4 hours (five times daily) for 5 days

### **For children:**

As for adults

## Sinusitis:

### **Phenoxycephalpenicillin Tablets, 250 mg**

Send: 40 tablets

Label: 2 tablets four times daily

### **For children:**

#### **Phenoxycephalpenicillin Tablets, 250 mg, or Oral Solution\*, 125 mg/5 ml or 200 mg/5 ml**

6-11 months	62.5 mg four times daily
1-5 years	125 mg four times daily
6-11 years	250 mg four times daily
12-17 years	500 mg four times daily

NB: For severe infection in adults, the dose of phenoxycephalpenicillin should be doubled. For severe infection in children up to 11 years, increase dose up to 12.5 mg/kg four times daily. For severe infection in children aged 12-17 years increase dose up to 1 g four times daily.

Phenoxycephalpenicillin, like other penicillins, can result in hypersensitivity reactions, including rashes and anaphylaxis, and can cause diarrhoea. Do not prescribe phenoxycephalpenicillin to patients with a history of anaphylaxis, urticaria or rash immediately after penicillin administration as these individuals are at risk of immediate hypersensitivity.

\*Sugar-free preparation is available.

**Station (8)****Retained deciduous**

1. **Based on the above radiograph which deciduous teeth are retained?**
  - Upper and lower E
2. **Which teeth are still developing?**
  - Upper right 7,6,5
  - Upper left 6,7
  - Lower left 8,7
  - Lower left 7,8
3. **Based on the based OPG what's the IOTN score of the patient?**
  - 4 h
4. **Is the patient eligible for NHS orthodontic treatment?**
  - Yes
5. **Based on the based OPG which teeth are congenitally missing?**
  - Upper right 8
  - Upper left 5,8
  - Lower right 5
  - Lower left 5
  
1. **List the treatment following the future exfoliation of the retained deciduous teeth?**
  - Orthodontic space closure
  - Restorative treatment

(Implant/ Removable partial dentures/ Fixed partial denture)

## Station (9)

### Candidal infection

List the possible differential diagnosis?



1. Chronic atrophic candidiasis
2. Bacterial infection
3. Mechanical or chemical irritation
4. Denture allergy

What's the name of the microorganisms causing such a condition?

Candida tropicalis, Glabrate, Albicans

List possible risk factors?

1. Pregnancy
2. Prolonged use of antibiotics
3. Poor denture hygiene
4. Immunocompromised
5. Haematinic deficiency

Why is it most common under the upper denture?

Due to the absence of the salivary cleansing action

Which medication will you prescribe for the patient if on warfarin?

-Nystatin Oral suspension, 100,000 units/ml

-One ml after food four times a day for 7 days

**Station (10)****Oral ulcers****1. Describe the lesion?**

It's a well-defined oval ulceration on the middle lateral right border of the tongue 1x1 cm in diameter

**2. What's the differential diagnosis of the lesion?**

- a). Squamous cell carcinoma
- b). Traumatic ulcer
- c). Major aphthous ulcer

**3. What's the symptomatic management for the ulcer?**

1. Benzylamine Mouthwash, 0.15% rinse or gargle using 15 ml every 1½ hours as required
2. Benzylamine hydrochloride Oromucosal spray, 0.15%, 4 sprays onto affected area every 1½ hours
3. Lidocaine Ointment 5%, rub sparingly and gently on affected areas 4. Lidocaine Spray, 10% apply as necessary with cotton bud

**4. Which antimicrobial mouthwash will you recommend for the patient?**

Chlorhexidine mouthwash 0.2%, rinse mouth for 1 minute with 10ml twice a day

**5. What's the treatment if the ulcer persists for more than 3 weeks?**

Referral for biopsy

**6. What additional investigations are required?**

Haematological investigations to rule out haematinic deficiency or autoimmune diseases

## Station (11)

### Referral letter

Ms. Emily James is not happy with the appearance of her teeth. Write a referral letter to the orthodontist requesting treatment using the information provided and incorporate the IOTN scoring of the provided cast (Provided picture) in the referral letter. Emily white, DOB: 1/12/1985, Tel: 072377992, Address: 12 Woodway Crescent, Wembley, Southampton, Postcode: W12 7ZY. She has adequate oral hygiene, brushes twice daily, flosses regularly, with low plaque scores. She is asthmatic on a salbutamol inhaler with a family history of diabetes and hypertension. She consumes a low carbohydrate diet, non-smoker, 2-3 units of alcohol daily.

Dr. James Smith  
Brighter smile dental practice  
13 Burgess Road  
Southampton  
Postcode: SO1 67P Tel:  
0245678897

Dr. Ali Samir  
Ortho. Smile dental  
practice 15  
Hammersmith Road  
London  
Postcode: W1 67P Tel:  
0245678899

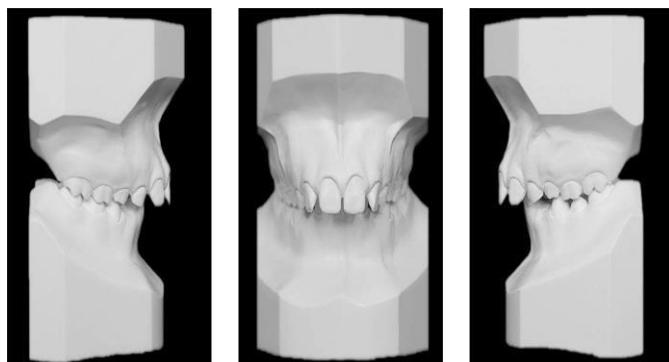
Dear Sir

RE: Emily James, DOB: 1/12/1985, Tel: 072377992, Address: 12 Woodway Crescent, Wembley, Southampton, Postcode: W12 7ZY

I will be grateful if you can see Ms. Emily James and assess her needs regarding orthodontic treatment. Ms. James is not happy with the appearance of her teeth she has a Class II division 1 malocclusion with an overjet of more than 9 mm, with an IOTN score of 5h. She has good oral hygiene; she brushes twice a day and flosses regularly. She is asthmatic on a salbutamol inhaler with a family history of diabetes and hypertension. She consumes a low carbohydrate diet, 2-3 units of alcohol daily and is a non smoker.

Please find enclosed: Radiographs, photographs, and study models Yours sincerely

Dr James Smith

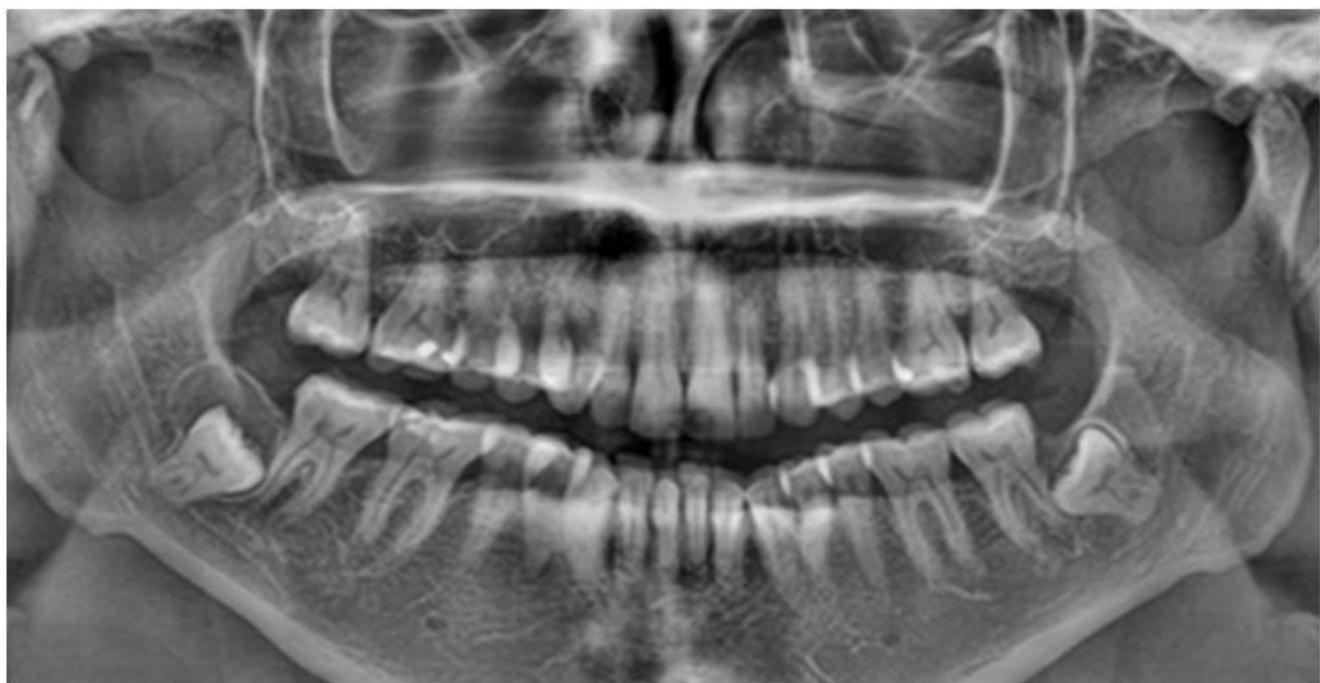
**Case 1:****Write a referral letter regarding the below patient**

**Oral and Maxillofacial consultant:** Mr. James Chopper, Valley Road Dental Practice, Address: 14 Bridge Road, Plaistow, London, Post code: WD2 12 DT, Tel: 0234556678

**Periodontist:** Dr Katy Holes, Smile care dental practice, 10 Kenton Road, Harrow, Middlesex. Postcode: HA3 7BQ, Tel: 0266778890

Patient details: Mr. Thomas Smith, DOB 13 Aug. 1971. Adress: 54, Burnt Ash Avenue, Thames Town, contact number is 020 3456 7892.

Mr. Thomas Smith presented to your dental practice as a new patient, complaining of bleeding on brushing. Clinical examination revealed the presence of generalised periodontitis, stage II, grade A, currently in remission. You have performed a radiographic examination which revealed the presence of a lesion and have decided to refer the patient to the relevant specialist for further management. He is an irregular dental attendee, brushes his teeth once a day. He has type 2 diabetes and hypertension, for which he is on Metformin, B-blockers, and statins. He consumes 4-5 units of alcohol a week and smokes 3/4 cigarettes a day and has done so for the last 10 years.

**Patient radiograph**

Dr. James Smith  
Brighter smile dental practice  
13 Burgess Road  
Southampton, Postcode: SO1  
67P Tel: 0245678899

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**CASE 2:**  
**Live online lecture**

Dr. James Smith  
Brighter smile dental practice  
13 Burgess Road  
Southampton, Postcode: SO1  
67P Tel: 0245678899

Mrs. Lilly Chopper  
Valley Road Dental Practice,  
Address: 14 Bridge Road,  
Plaistow, London  
Post code: WD2 12 DT  
Tel: 0234556678

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**Station (12):**  
**Impacted canine**



**1. Name the radiographic technique used to locate the position of the impacted tooth?**

Horizontal or Vertical parallax

**2. Based on the provided radiographs is the tooth buccal or palatally impacted?**

Palatally impacted

**3. What are the treatment options for an impacted tooth?**

- No treatment (Monitor)
- Surgical removal
- Orthodontic treatment
- Transplantation

**4. What is the possible pathological complication of an impacted tooth?**

- Tooth necrosis
- Root resorption
- Dentigerous cyst formation
- Alveolar bone resorption

**5. What's the IOTN score of the patient?**

5I

**6. What's the prevalence of canine impaction?**

1.5%

## Station (13)

### Dental charting

#### **Reference:**

chrome-extension://efaidnbmnnibpcajpcglclefindmkaj/https://www.nebdn.org/app/uploads/2020/07/Dental-Charting-V0.5-July-2020.pdf

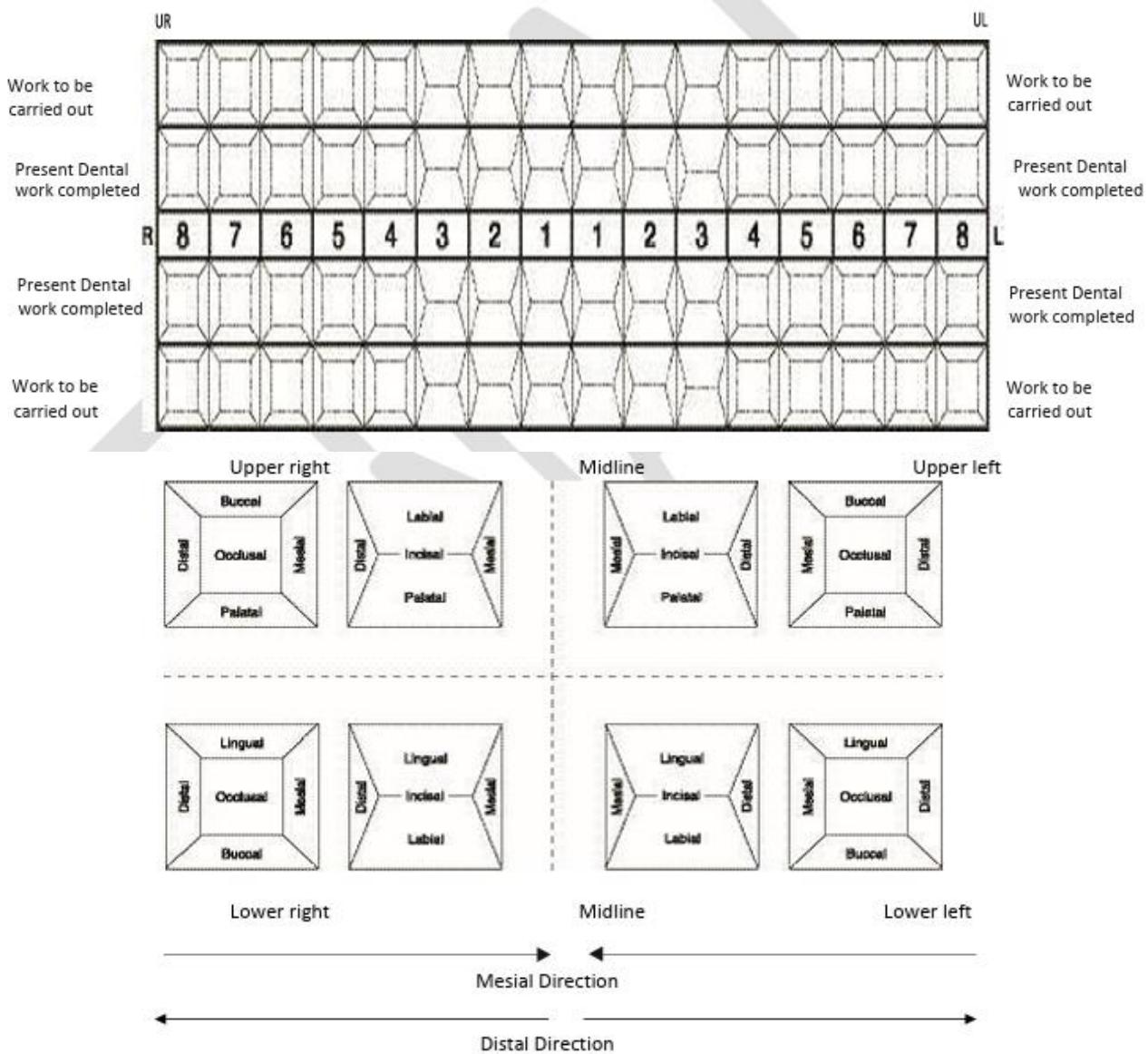
#### **Forensic Notation**

Most charts have an inner and outer grid. NEBDN has introduced a new grid, which will make

clear the work that has been completed in the mouth and the work which needs to be done.

The inner grid is present for work already present in the mouth. The outer grid is for work to be carried out.

An example of the grid is given below:



## **Example case:**

Mrs. Jessy James is your colleague's patient who is currently on maternity leave. She has performed a dental examination one month ago and charted the teeth as provided below. Today you will be seeing the patient for a dental hygiene appointment.

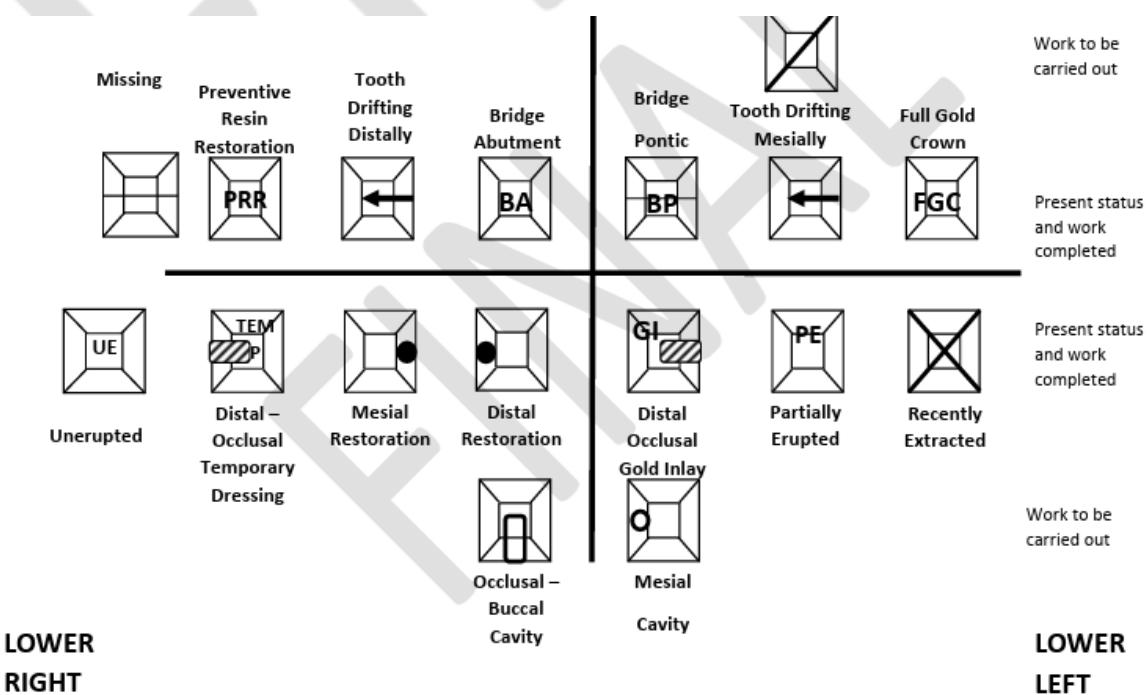
Write down the details of the provided dental chart

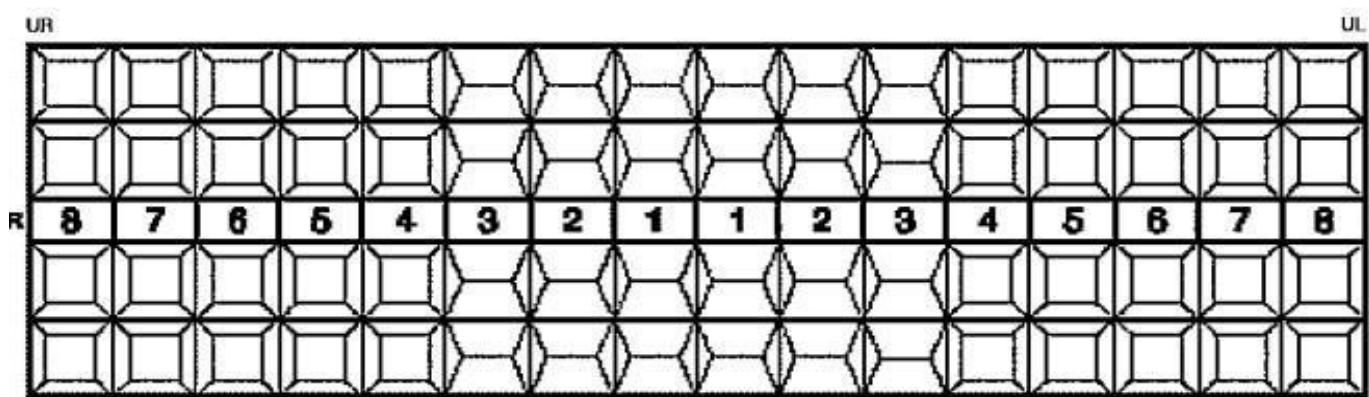
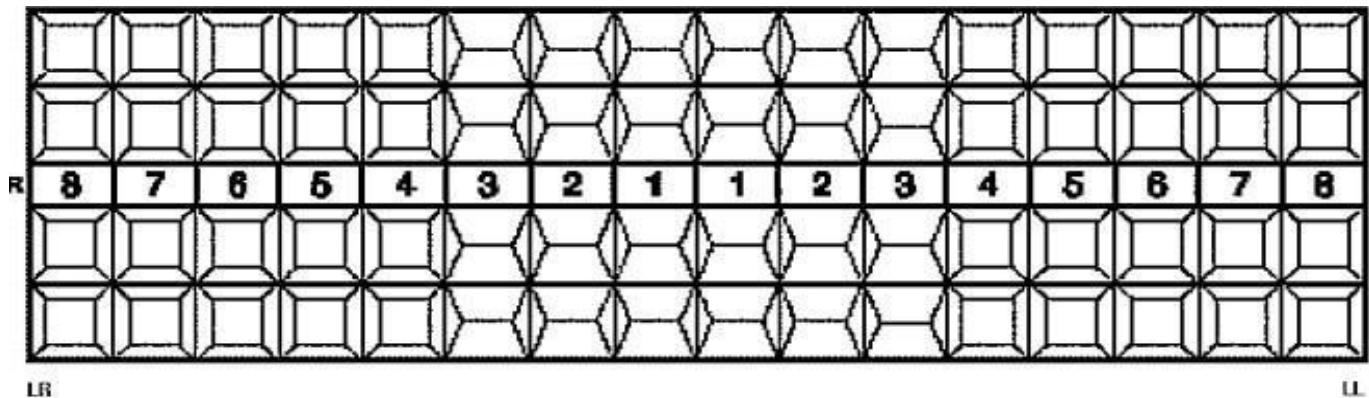
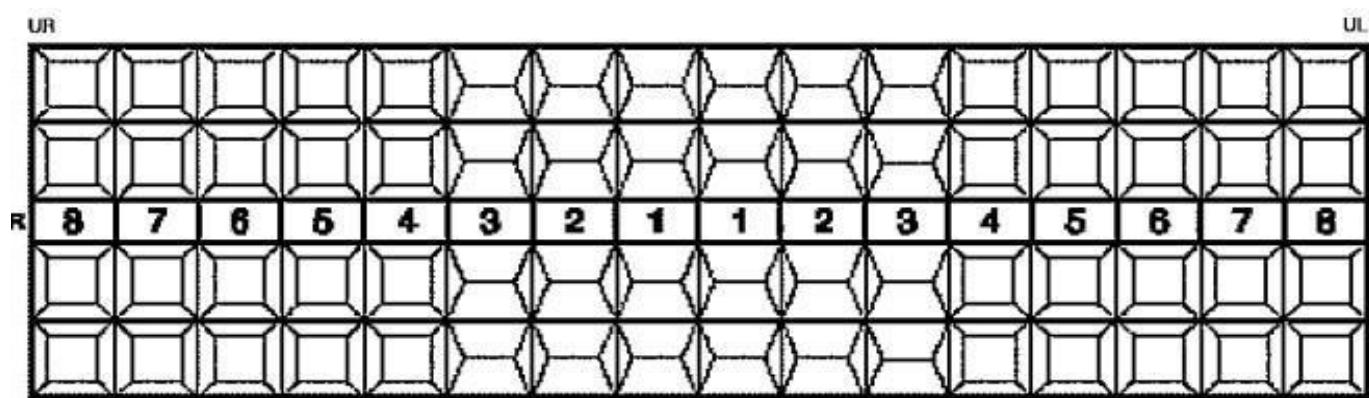
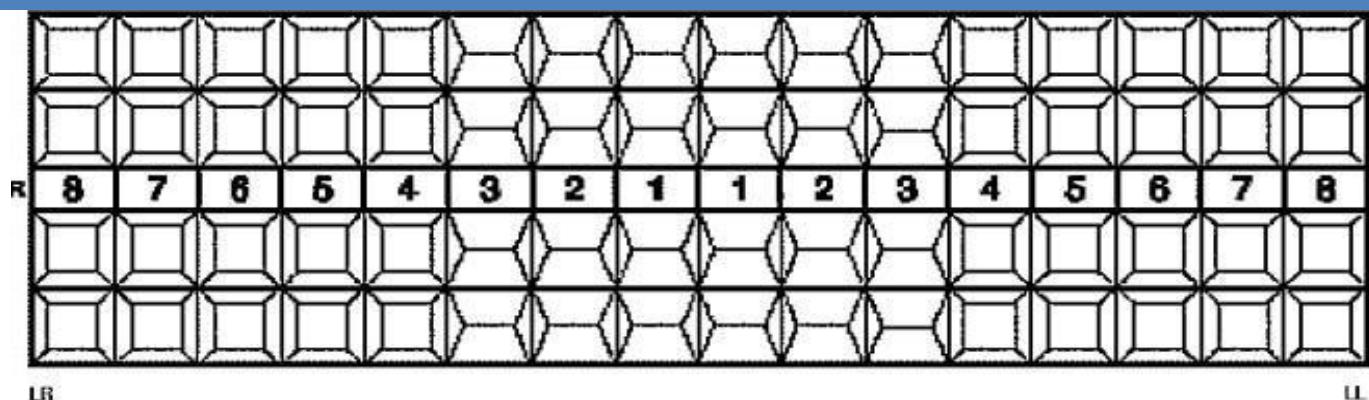
- a. 18 is partially erupted
- b. 17 has an occlusal restoration
- c. 16 has an occluso-palatal filling
- d. 14 is missing and the gap has closed
- e. 13 has a porcelain jacket crown in place
- f. 12 has a fracture of the incisal edge which requires treatment
- g. 21 needs distal and palatal restorations
- h. 24 is root filled with an occlusal restoration
- i. 25 has a mesial-occlusal restoration present
- j. 26 to be extracted
- k. 28 is unerupted
- l. 38 is missing
- m. 37 has an occlusal cavity
- n. 34 has a full gold crown
- o. 32 has a distal and labial restorations
- p. 41 has mesial and lingual cavities
- q. 44 has a mesial-occlusal-buccal cavity
- r. 48 has been recently extracted

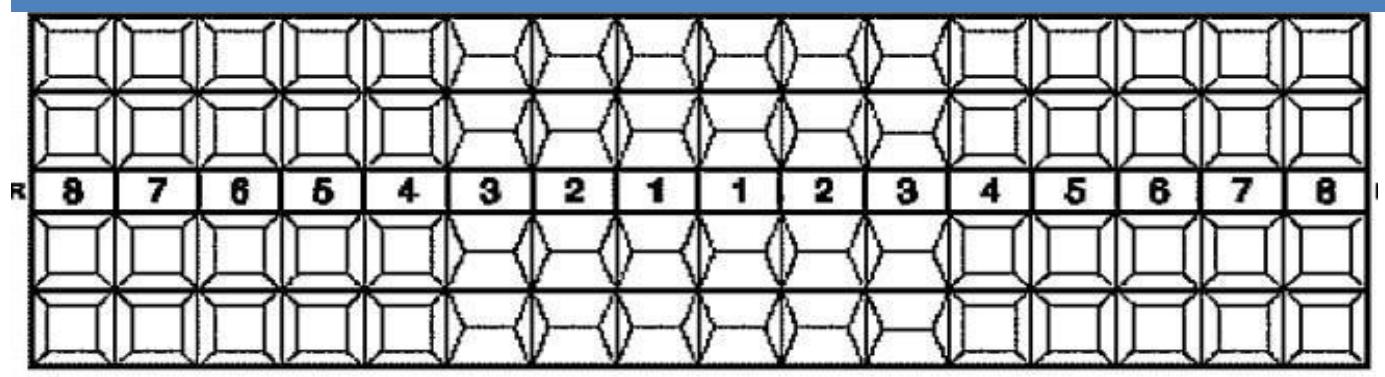
UR													UL		
PE	*			X	PJC					RF				UE	
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
X										FGC					
								O							

**Case 1:**

- a. Upper right second molar has a mesio-occlusal cavity
- b. Upper right first molar has a disto-occlusal temporary dressing
- c. Upper right first premolar is for extraction
- d. Upper right canine has a buccal restoration
- e. Upper right central incisor is an abutment for a cantilever resin retained (Maryland) bridge
- f. Upper left central incisor is a resin retained (Maryland) bridge pontic
- g. Upper left lateral incisor has a fracture on the incisal edge which requires treatment
- h. Upper left second premolar needs a root filling
- i. Upper left second molar has preventive resin restoration (PRR) occlusally
- j. Upper left third molar has a fissure sealant restoration
- k. Lower left third molar has been recently extracted
- l. Lower left first molar has a lingual restoration to be replaced
- m. Lower left first premolar has a bonded porcelain crown
- n. Lower right lateral incisor has a mesial restoration and a separate distal cavity
- o. Lower right first premolar is missing
- p. Lower right second premolar has rotated mesially
- q. Lower right first molar has a MOD porcelain inlay
- r. Lower right second molar has a full restoration gold crown
- s. Lower right third molar is partially erupted





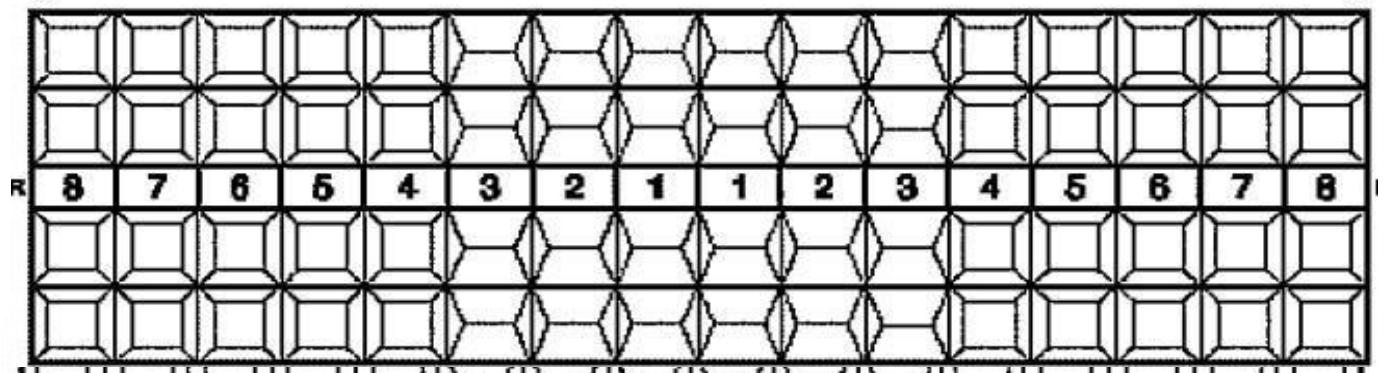


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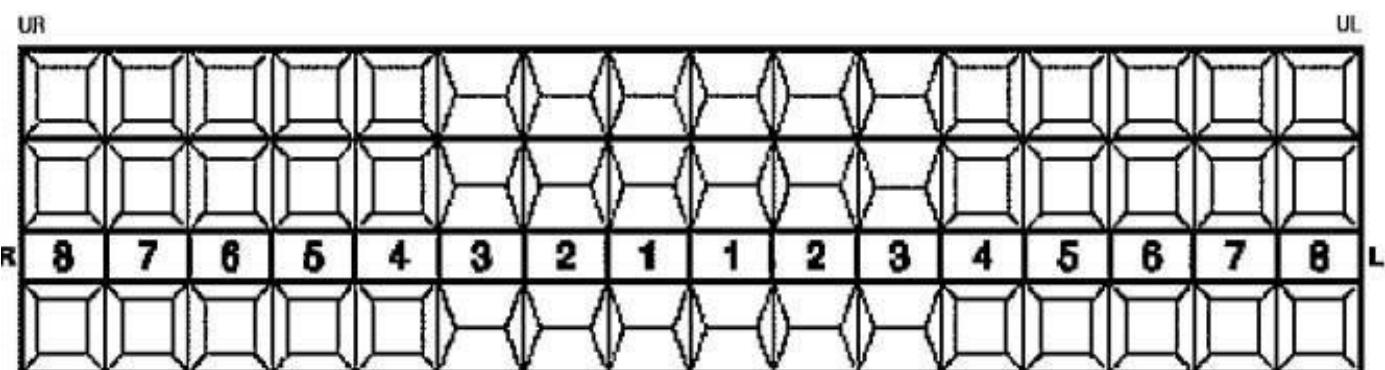


R

L

LR

LL



LR

LL

**Station (14) :****Radiographic report****1. State the type of the radiograph provided:**

- Sectional Ortho panoramic tomogram {A}
- Ortho panoramic tomogram {B}

**2. Describe the lesion:**

**When reporting a radiographic lesion, you need to state if its:**

Well defined/ill-defined. Radiopaque/radiolucent. Unilocular/multilocular. Surrounded with sclerotic margin or not. Relation to the neighboring teeth. Presence or absence of bone resorption

**3. Differential diagnosis of Lesion {A}:**

- Unilocular ameloblastoma
- Odontogenic keratocyst
- Residual cyst
- Inflammatory periapical cyst

**4. What's the Provisional diagnosis for Lesion {A}:**

- Residual cyst

**5. Differential diagnosis of a multilocular lesion {B}:**

- Multilocular ameloblastoma
- Central giant cell granuloma
- Central haemangioma

**6. What's the Provisional diagnosis for Lesion {B}:**

- Multilocular ameloblastoma

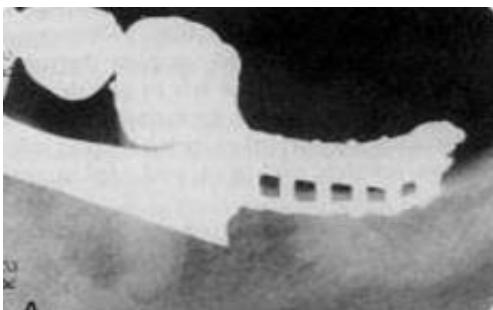
**7. List the possible treatment:**

- Enucleation
- Marsupialization

**8. What are the possible pathological complication of the lesion:**

- Pathological fracture
- Nerve parenthesis
- Tooth resorption, necrosis or displacement

## **Station (15)** **X-ray Faults**



**Foreign object: Co-cr denture**



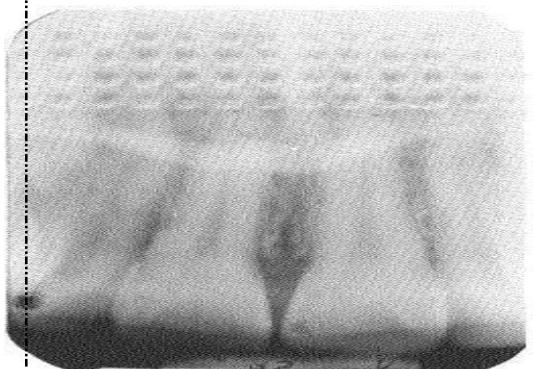
**Cone cut with a circular collimator**



**Double exposure**



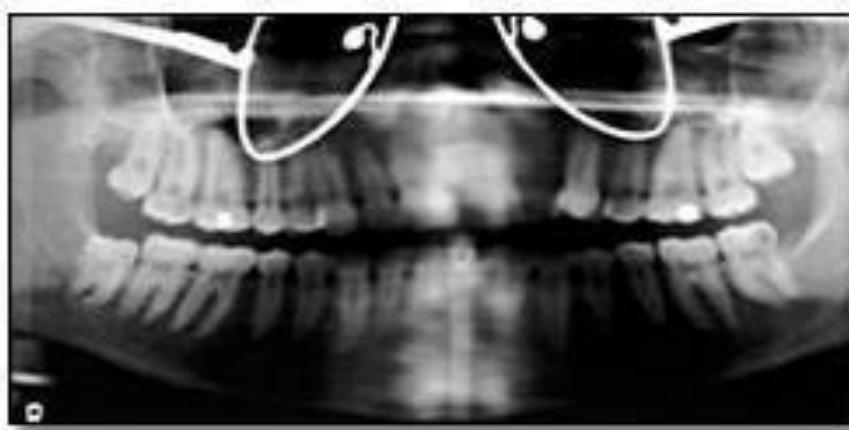
**Fixer spots**



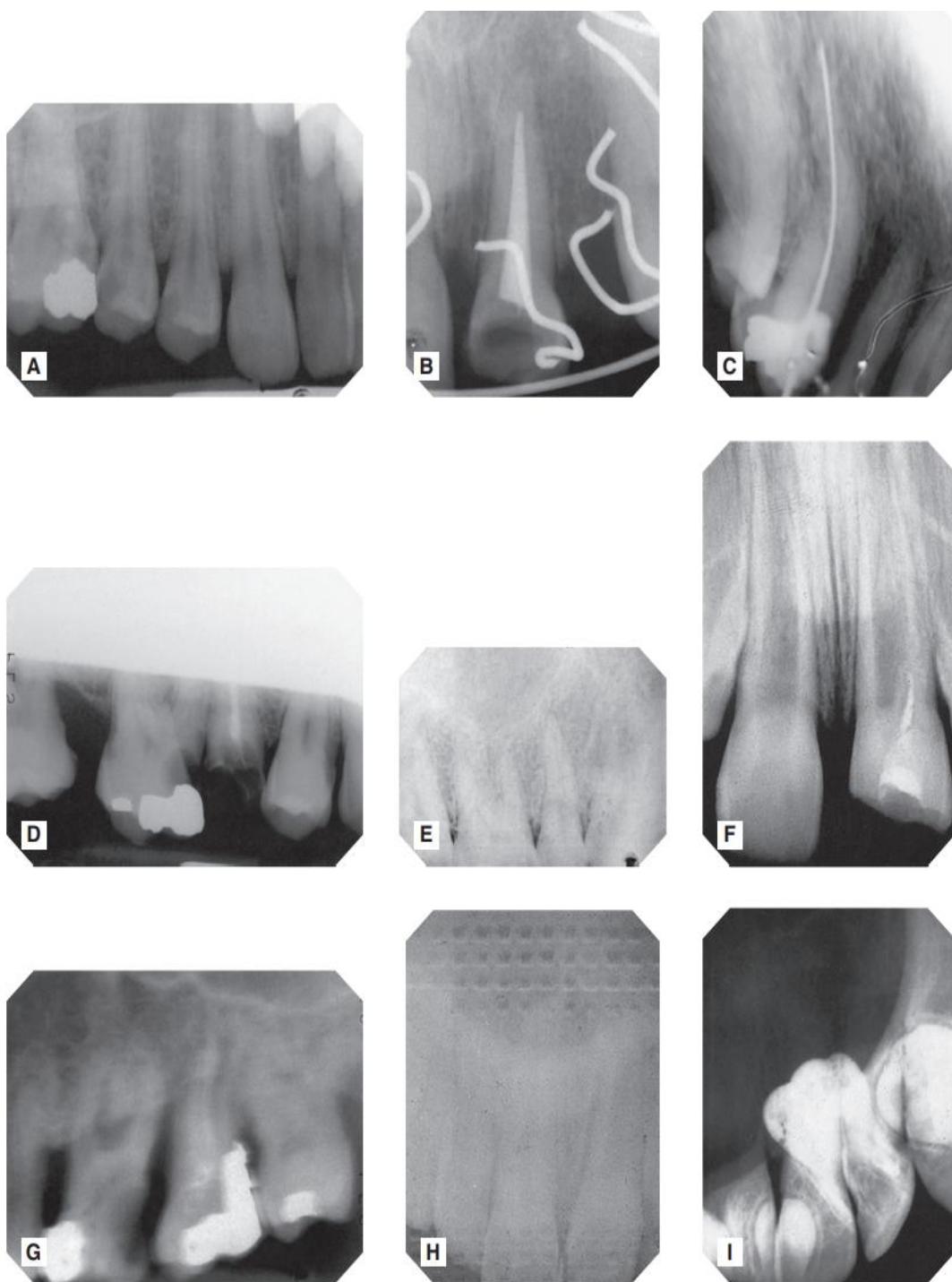
**Backward Placement**



**Elongation**



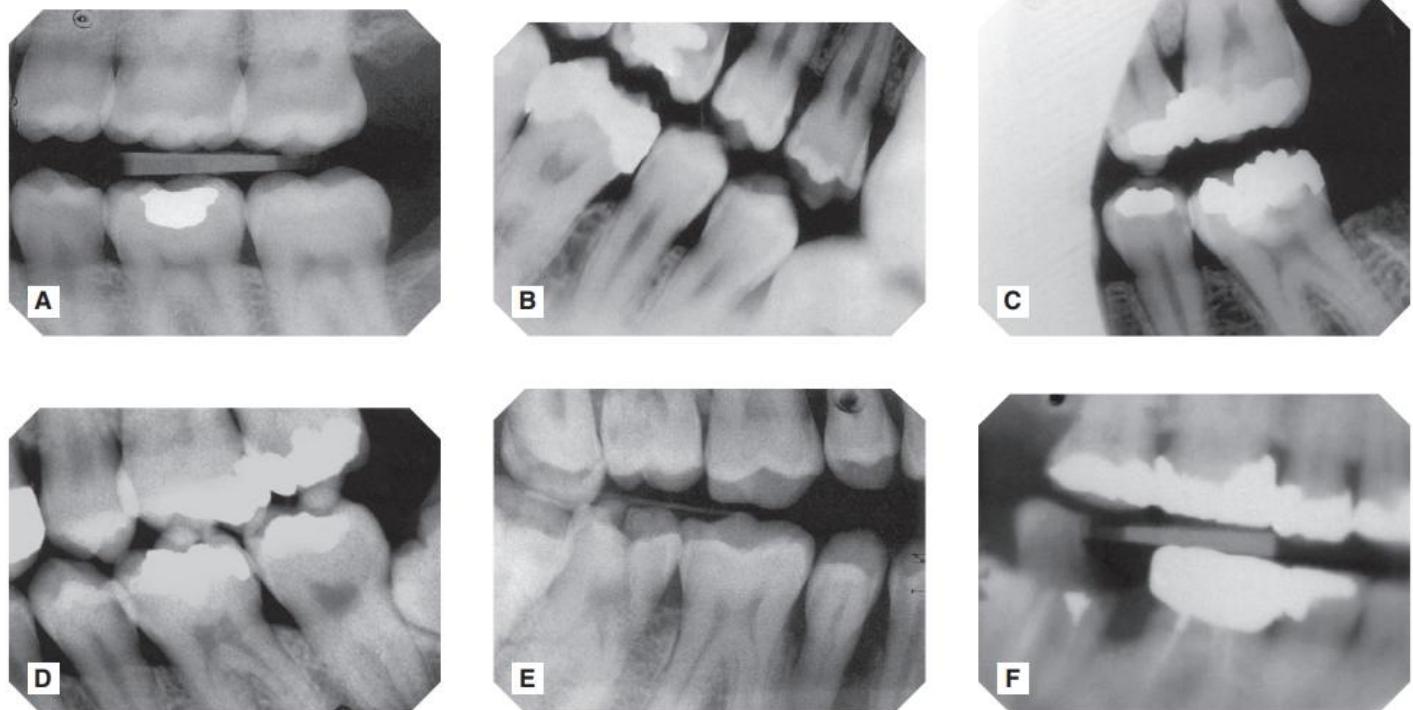
**Foreign object: Co-Cr denture**



**Fig. 9.44** A selection of patient preparation and positioning (radiographic technique) errors.

- A Image receptor not positioned sufficiently apically to cover the area of interest – apices and periapical tissues not shown.
- B Failure to remove an orthodontic appliance.
- C Image receptor positioned incorrectly and bent during exposure – image geometrically distorted.
- D Failure to align the X-ray tubehead correctly in the vertical plane – coning off of the superior part of the image.
- E X-ray tubehead positioned at too steep an angle in the vertical plane – foreshortening and geometrical distortion of the image.
- F X-ray tubehead positioned at too shallow an angle in the vertical plane – elongation and geometrical distortion of the image.
- G Failure to instruct the patient to remain still – image blurred as a result of movement.
- H Image receptor (film packet) incorrectly placed back to front – pattern of the lead foil is evident.
- I Image receptor (film packet) inadvertently used twice – double exposure.

To access the self assessment questions for this chapter please go to [www.whitesentialsdentalradiography.com](http://www.whitesentialsdentalradiography.com)



**Fig. 10.13** A selection of bitewings showing patient preparation and positioning errors.

**A** Image receptor positioned too far posteriorly – the edentulous area distal to the lower second is imaged but not the premolar teeth.

**B** Image receptor displaced by tongue – occlusal plane not horizontal.

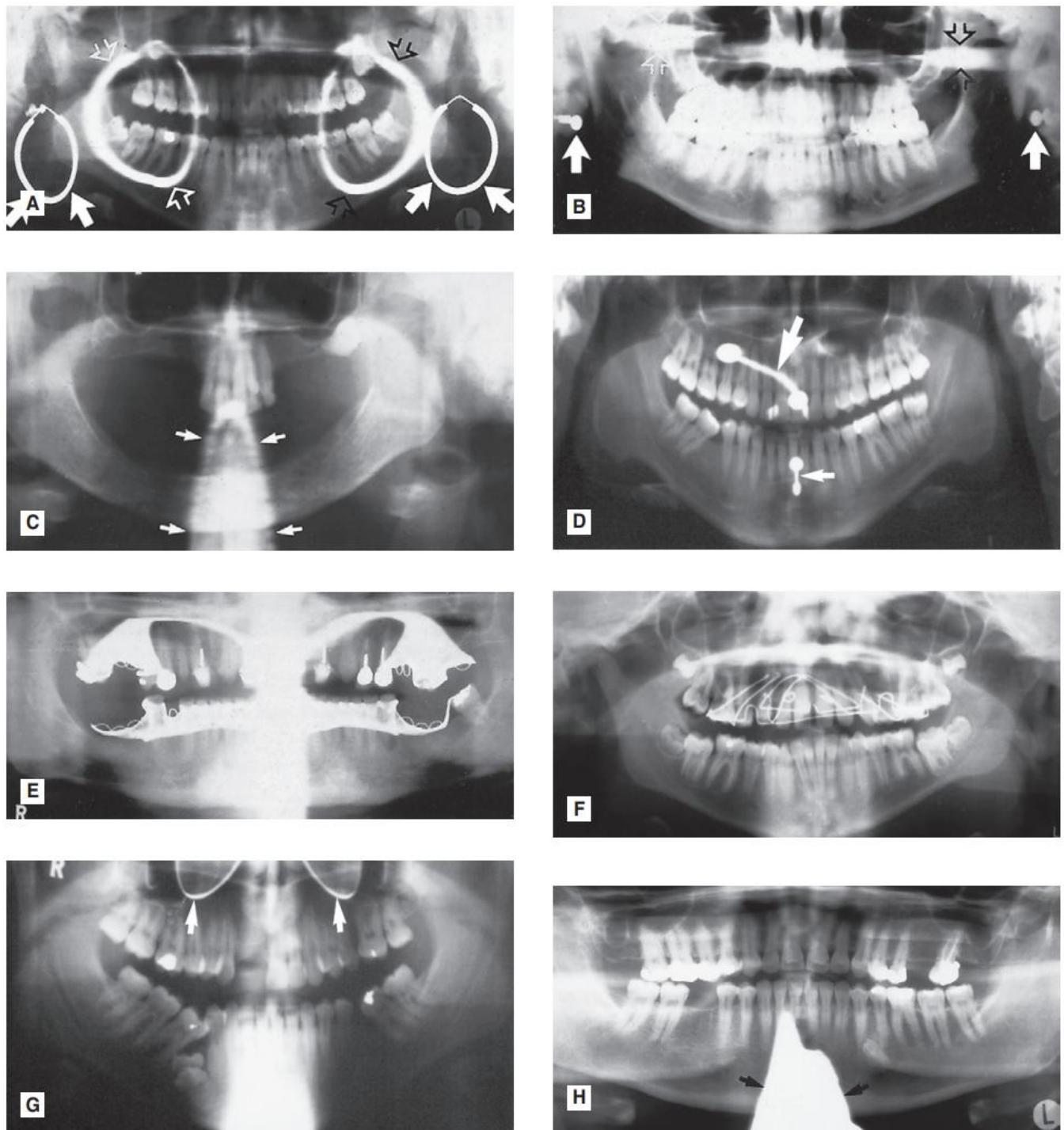
**C** Failure to align the X-ray tubehead correctly in the horizontal plane – *coning off* of the anterior part of the image.

**D** Failure to align the X-ray tubehead correctly in the horizontal plane – overlapping of the contact areas.

**E** Failure to align the X-ray tubehead correctly in the vertical plane – buccal and lingual cusps not superimposed and distortion of the teeth.

**F** Failure to instruct the patient to remain still – image blurred as a result of movement.

To access the self assessment questions for this chapter please go to [www.whaitesessentialsdentalradiography.com](http://www.whaitesessentialsdentalradiography.com)



**Fig. 15.27** Examples of common patient preparation errors.

**A** Failure to remove large ring-shaped earrings – note each earring casts two shadows, one real (in focus, solid arrows) and one ghost (blurred, open arrows). The ghost shadow of the LEFT earring is marked with white open arrows, that of the RIGHT earring with black open arrows.

**B** Failure to remove stud earring, real shadows (solid arrows) with ghost shadows (open arrows).

**C** Failure to remove a necklace – blurred ghost shadow (arrowed).

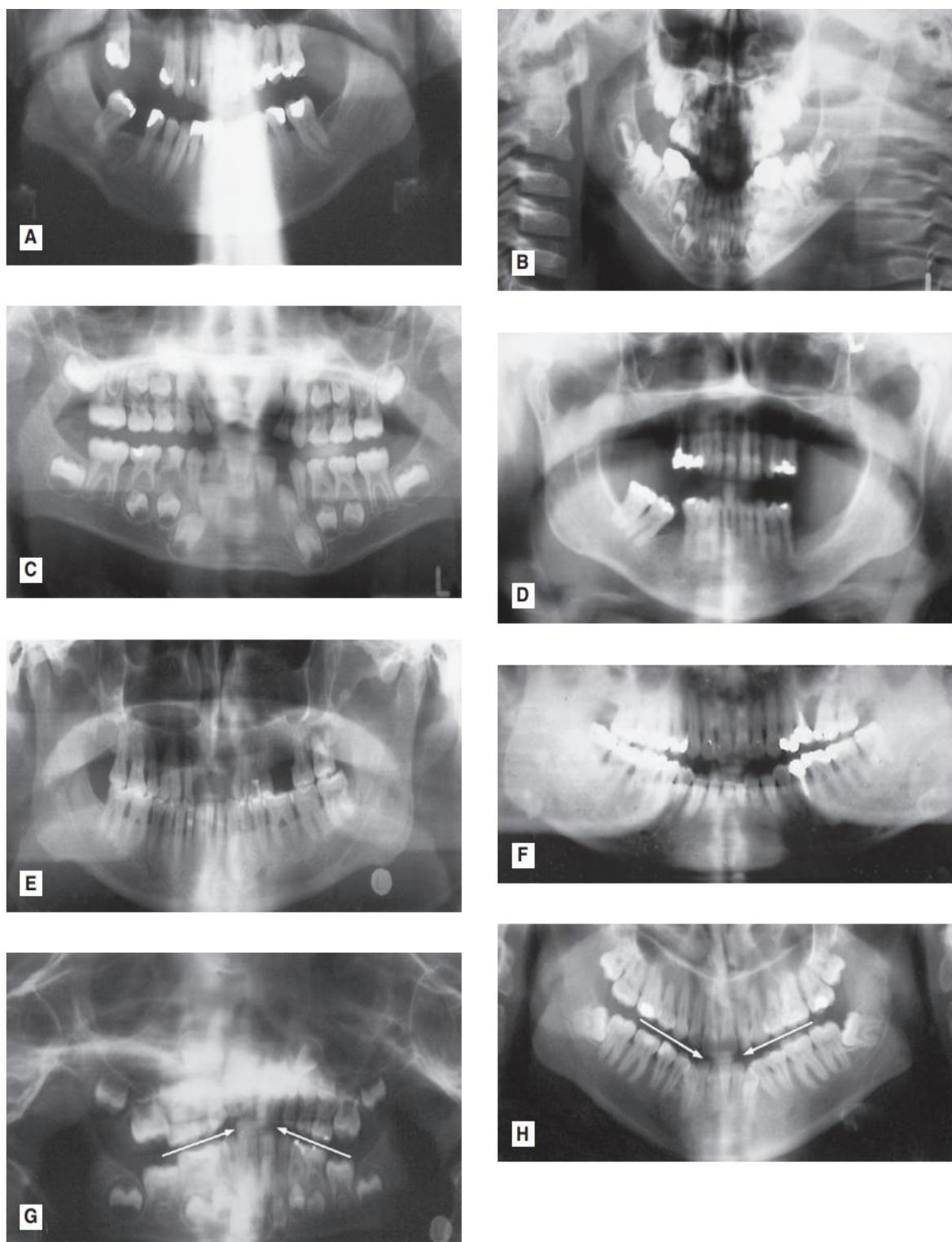
**D** Failure to remove piercing in the tongue (large arrow) and lower lip (small arrow).

**E** Failure to remove upper and lower metallic partial dentures.

**F** Failure to remove an upper orthodontic appliance.

**G** Failure to remove spectacles (arrowed).

**H** Inappropriate use of a protective lead apron – too high on the neck casting a dense radiopaque shadow (arrowed) over the anterior part of the mandible.



**Fig. 15.28** Examples of common patient positioning errors. **A** Failure to position the neck correctly – extension of the neck causing excessive spinal ghosting shadows over the anterior teeth. **B** Anteroposterior error – patient positioned too far forwards (too close to the image receptor) and vertical error – Frankfort plane not horizontal (chin tipped down) creating narrow, out of focus anterior teeth, distorted occlusal plane (so-called *smiley face*) and excessive peripheral spinal shadowing. **C** Anteroposterior error – patient positioned too far back (too far away from the image receptor) creating widened, magnified and out of focus anterior teeth. **D** Anteroposterior error – patient positioned too far forwards (too close to the image receptor) creating narrowed incisors and failure to instruct patient to keep their tongue in contact with the palate creating the radiolucent band across the film. **E** Horizontal error – patient asymmetrical, rotated to the RIGHT. The RIGHT molars are closer to the image receptor and smaller, the LEFT molars are further away from the image receptor and larger. **F** Vertical error – Frankfort plane not horizontal (chin tipped down) creating out of focus lower incisors and excessive ghosting shadows of the contralateral angles of the mandible. **G** Vertical error – Frankfort plane not horizontal (chin tipped up) creating out-of-focus upper incisors and distorted occlusal plane (arrowed) (so-called *grumpy face*). **H** Vertical error – Frankfort plane not horizontal (chin tipped down) creating out of focus lower incisors and distorted occlusal plane (arrowed) (so-called *smiley face*).

## **QA of clinical image quality Image quality rating**

A principal objective of the employer's QA programme is to ensure the consistent production of radiographs of adequate quality for diagnostic purposes, while minimising patient exposure as much as possible.

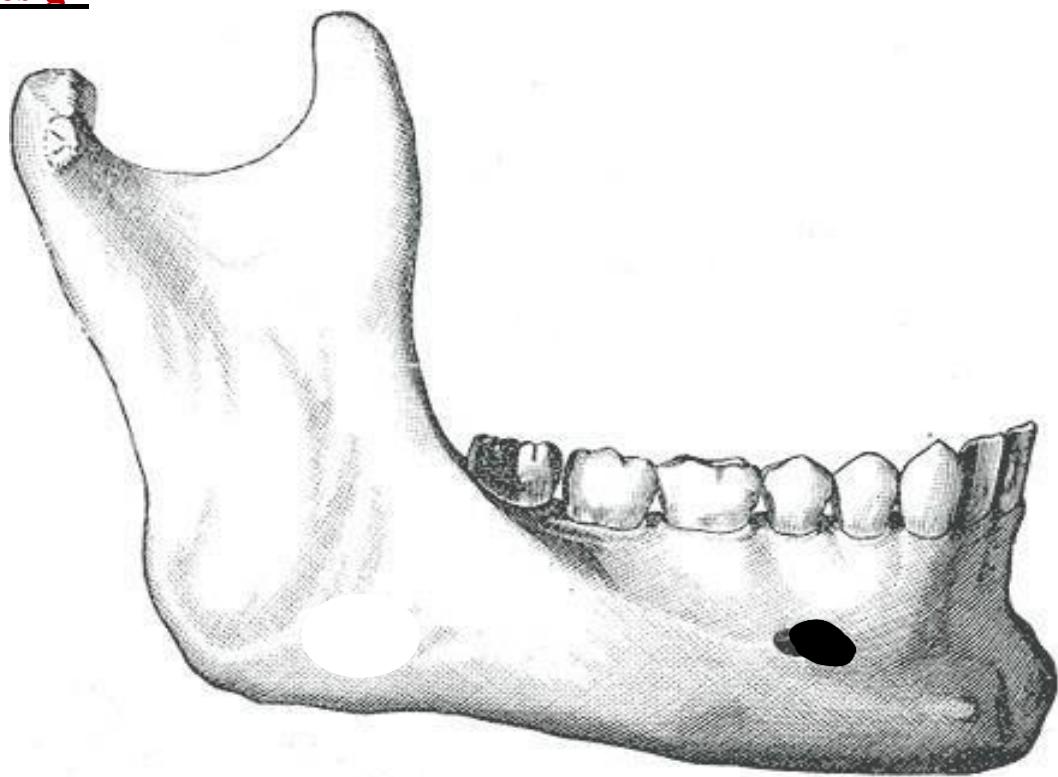
It is important to monitor image quality performance on a regular basis and a simple subjective image quality rating system is proposed. However, with the widespread use of digital imaging systems replacing film-based imaging, one major source of reduced image quality (wet chemical processing) has been effectively removed.

Regarding dental CBCT, metallic restorations in the teeth will inevitably cause artefacts in clinical images that will often be of adequate diagnostic value although not of 'excellent' quality.

Consequently, the use of a two-point scale is now recommended for all forms of dental radiography and dental CBCT imaging, where the images are rated either 'diagnostically acceptable' ('A') or 'not acceptable' ('N') in accordance with Table 5.2

**TABLE 5.2 Subjective image quality ratings of dental radiographs and CBCT images**

Quality rating	Basis	Target (percentage of radiographs or CBCT images in sample)	
		Digital imaging	Film imaging
<b>Diagnostically acceptable ('A')</b>	No errors or minimal errors in either patient preparation, exposure, positioning, image (receptor) processing or image reconstruction and of sufficient image quality to answer the clinical question	Not less than 95%	Not less than 90%
<b>Diagnostically not acceptable ('N')</b>	Errors in either patient preparation, exposure, positioning, image (receptor) processing or image reconstruction which render the image diagnostically unacceptable	Not greater than 5%	Not greater than 10%

**Station (16)****Flap Design****Answer the following questions:**

1. You are planning to surgically extract the lower right first molar draw the flap design that you will use?  
Triangular flap
2. What are the advantages of the selected flap?
  - Adequate visibility
  - Large base with adequate blood supply
3. Illustrate on the drawing the location of the sutures?
4. Which type of suture will you use and why?  
Vicryl 3-0, because:
  - Resorbable
  - Adequate tensile strength
  - Minimum tissue reaction
5. From the labelled instruments provided which one will you use in flap elevation, list the name and the label of the instrument?  
Mitchel trimmer or mucoperiosteal elevator

6. From the labelled instruments provided which one will you use in flap retraction, list the name and the label of the instrument?

Minnesota retractor - Austin retractor

7. From the labelled instruments provided which two will you use in tooth extraction, list the name and the label of the instrument?

Lower molar forceps - Cryer

### **Additional information:**

#### **List the types of oral flaps?**

- Gingival/ Sulcular flap (Fig 1)
- Intrasulcular flap (marginal): Triangular (Fig 3) – Rectangular (Fig 2)
- Semilunar flap (fig 4)
- Sub marginal flap (fig 5)

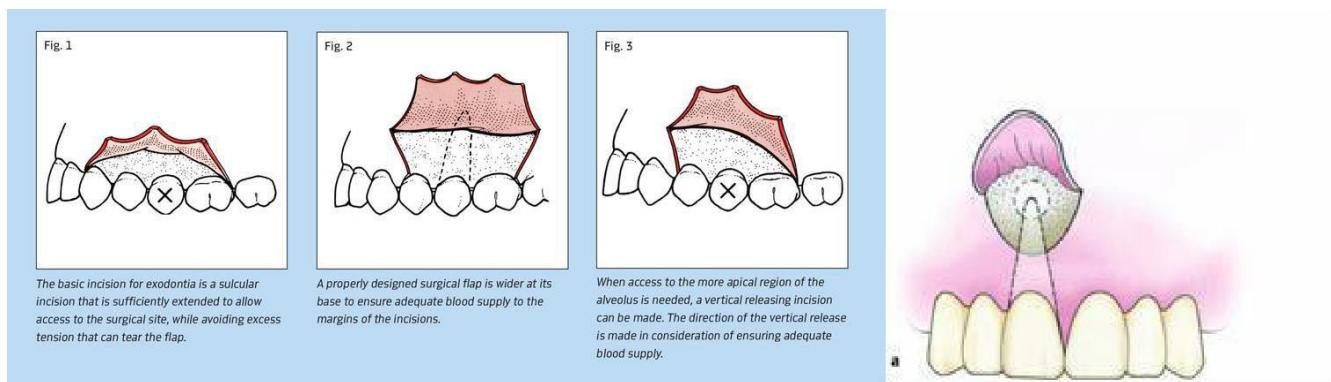
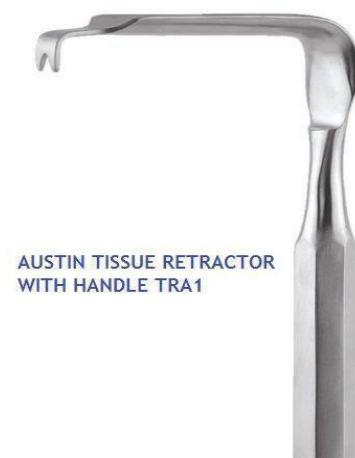
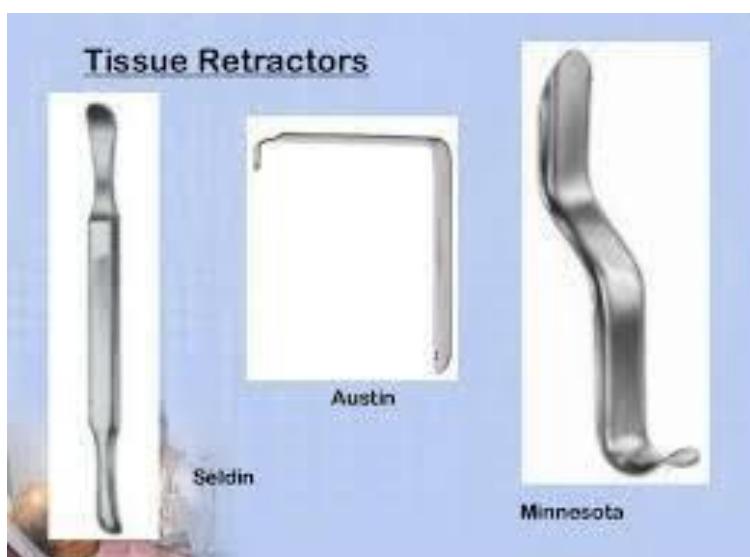


Fig. 5



## Flap Design

### Computer-Based Exercise (5-Minute Station)

You have 5 minutes to complete this computer-based MCQ station on oral surgery instrument selection and flap design. Choose the single best answer for each question. Answers pertain to flap design principles and common instruments used during flap surgery and extractions.

**Q1. Which instrument is BEST to raise (reflect) a full-thickness mucoperiosteal flap?**

- a) Adson toothed forceps
- b) Howarth periosteal elevator
- c) Mosquito artery forceps
- d) College tweezers

**Q2. Which instrument is used to HOLD the suture needle during suturing?**

- a) Iris scissors
- b) Gillie's needle holder
- c) Mosquito artery forceps
- d) Adson non-toothed forceps

**Q3. Which instrument is MOST appropriate for CUTTING sutures?**

- a) Blunt suture scissors
- b) Castroviejo needle holder
- c) Scalpel handle with No. 15 blade
- d) Mayo dissecting scissors

**Q4. Which instrument is BEST to hold/retract the cheek during a maxillary flap?**

- a) Minnesota retractor
- b) Kilner's retractor
- c) Howarth periosteal elevator
- d) Tongue depressor

**Q5. For extraction of an upper right premolar (UR4/UR5), which forceps are MOST appropriate?**

- a) Universal mandibular forceps (No. 151)
- b) Upper molar forceps (No. 53)
- c) Universal maxillary forceps (No. 150)
- d) Cowhorn forceps (No. 23)

**Q6. For extraction of a lower incisor, which forceps are MOST appropriate?**

- a) Universal maxillary forceps (No. 150)
- b) Universal mandibular forceps (No. 151)
- c) Upper anterior forceps (No. 1)
- d) Upper premolar forceps

**Q7. To REMOVE small loose bone fragments and debride a socket after extraction, you should use a:**

- a) Molt curette
- b) Rongeur
- c) Bone file
- d) Coupland elevator

**Q8. To TRIM sharp bony spicules to smooth cortical bone after rongeur use, choose:**

- a) Bone file
- b) Lucas curette
- c) Scalpel with No. 11 blade
- d) Cryer elevator

**Flap Design:**

**Q9. The PRIMARY reason the flap base must be wider than the apex is to:**

- a) Improve access for instruments
- b) Maintain adequate blood supply/perfusion
- c) Reduce tissue tension on closure
- d) Prevent haematoma formation

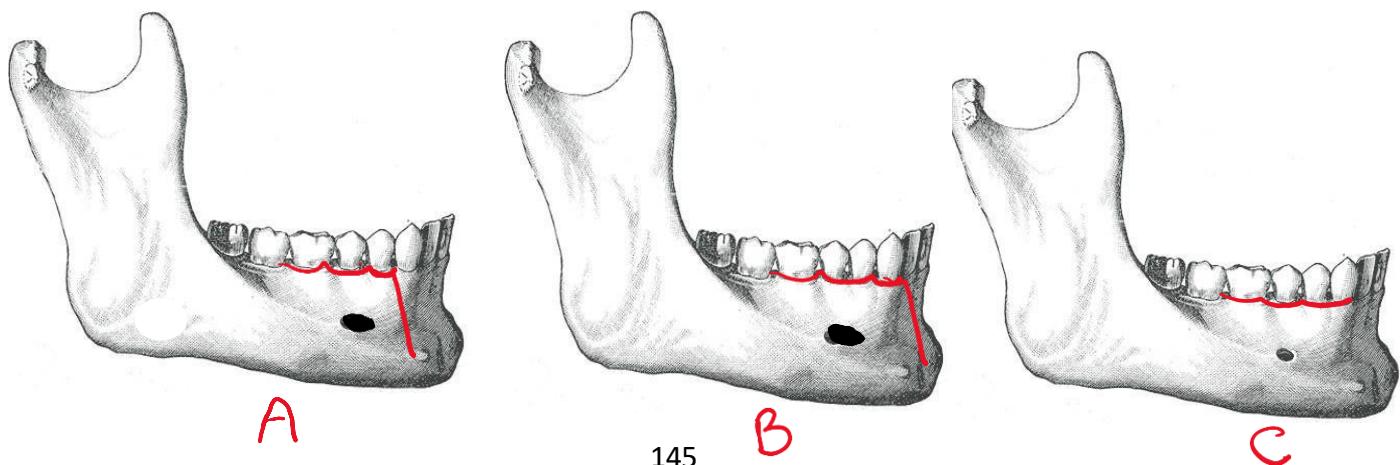
**Q10. Which FLAP QUALITY best helps PREVENT marginal gingival recession?**

- a) Vertical releases that cross the interdental papilla
- b) Placing incisions over bony prominences
- c) Placing vertical releases at line angles and preserving the papillae
- d) Creating a split-thickness flap

**Q11. To MAXIMISE flap viability, which principle is MOST important?**

- a) Create sharp angles at the flap corners
- b) Keep incisions over the surgical defect
- c) Design full-thickness mucoperiosteal flap with gentle handling and minimal tension
- d) Make the base narrower than the apex to increase reach

**Q12. Select the correct flap design?**



## **Surgical Instruments**

### **Molt periosteal elevator:**

**Function:**

**Label (A)**



Image courtesy of Hu-Friedy, [www.hu-friedy.com](http://www.hu-friedy.com)

### **Cryer Elevator:**

**Function:**

**Label (B)**



### **Molt Curettes:**

**Function:**

**Label (C)**



Image courtesy of Hu-Friedy, [www.hu-friedy.com](http://www.hu-friedy.com)

### **Austin Tissue Retractor:**

**Function:**

**Label (D)**



Image courtesy of Hu-Friedy, [www.hu-friedy.com](http://www.hu-friedy.com)

**Seldin Tissue Retractor:**

**Function:**

**Label (E)**



Image courtesy of Hu-Friedy, www.hu-friedy.com

**Minnesota Tissue and Cheek Retractor:**

**Function:**

**Label (F)**



**Wieder Tongue and Cheek Retractor:**

**Function:**

**Label (G)**



**Mitchel's Trimmer:**

**Function:**

**Label (H)**



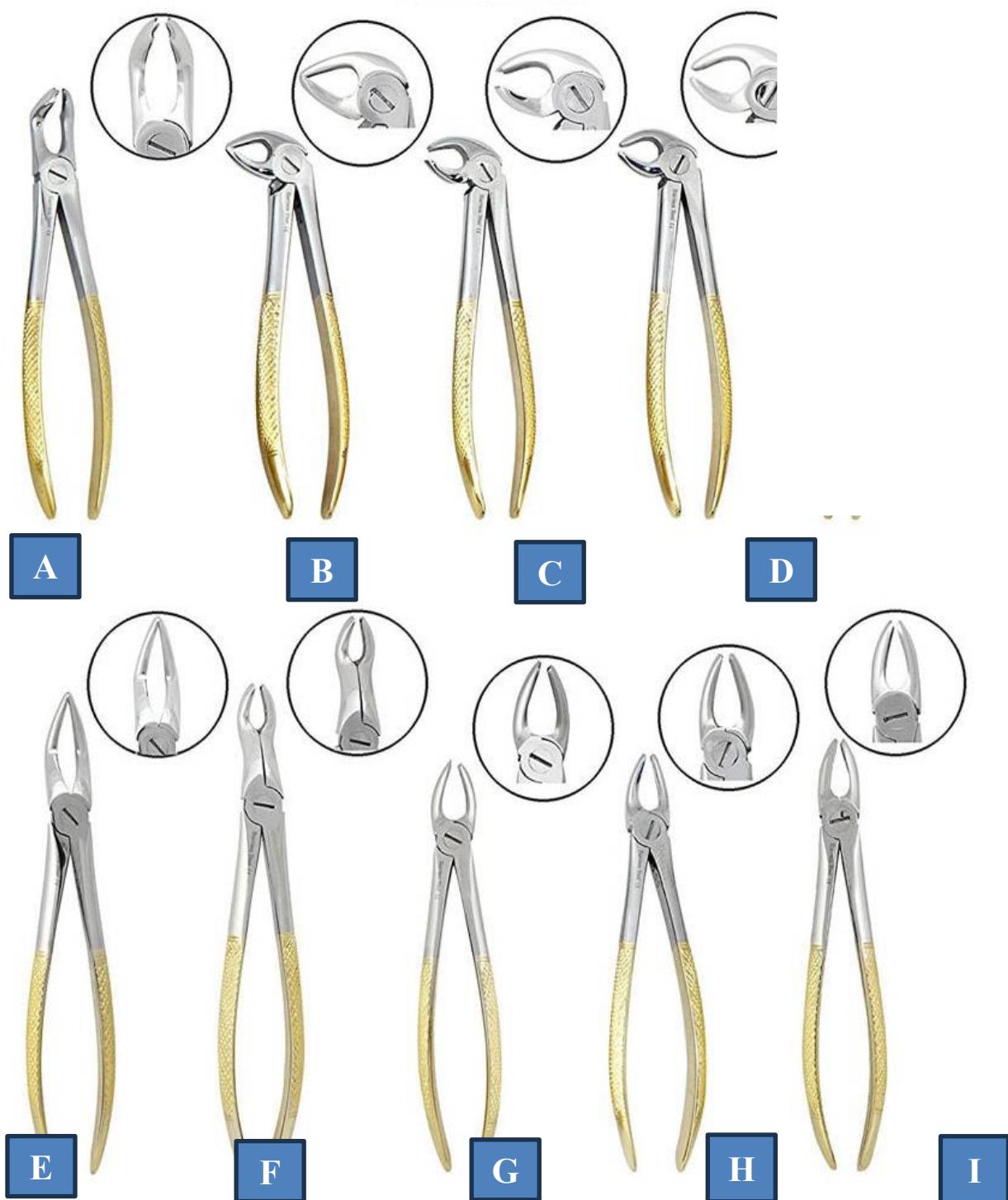
**Howarth mucoperiosteal elevator:**

**Function:**

**Label (I)**



**Forceps:**



**Name the above instruments:**

- A.
- B.
- C.
- D.
- E.
- F.
- G.
- H.

## Station (17) Dental Trauma

From the picture what is the age of the patient?

8-9 years old



What investigations will you carry out for this patient?

- Radiograph
- Vitality testing
- Teeth percussion & palpation to check for alveolar bone fracture

What are the factors affecting the treatment?

- Age of the patient
- Time elapsed
- Contamination of the fracture site
- Extent of the fracture

If the size of the pulp exposure is less than 1mm what is the intended treatment? If the injury was sustained 1h ago what is the success rate?

-Direct pulp capping

For the above patient what is the management if the tooth has been exposed for over 48 hours? What's the aim of the treatment?

-Apexification, complete the apical closure

If the patient is 13 years old, the fracture is complicated, and more than 48 hours has elapsed after the accident what is the treatment?

-Root canal treatment

What is the sequelae of dental trauma?

- Pulp necrosis
- Root resorption
- Tooth ankylosis

What's the recall regimen for this patient?

-Follow up: One month, three-months, six-months, one year

## **Station (18)**

### **Complaint handling**

**Feedback:** is an opinion, whether invited or spontaneous, that can be positive, negative, or neutral.

**Complaint:** is an expression of dissatisfaction about an act, omission, or decision of the provider, either spoken or written, and whether justified or not, which requires a response

### **The six core principles of good complaint handling:**

#### **1 All of your feedback is important to us:**

- All feedback is welcomed, such as what we did well, what we could do better, or any other feedback
- We will use your feedback to help us improve, and we will show you how we have learned
- You can use our complaints procedure to provide feedback. If you don't want to do this, speak to a member of staff

#### **2 We want to make it easy for you to raise a concern or complaint if required.**

- Information about our complaint's procedure is easy to find, without you having to ask
- You can write to us or tell us in person
- We will take your complaint seriously
- Our complaints information also tells you how to raise a complaint about us with another organization

#### **3 We follow a complaints procedure and keep you informed**

- We will tell you who is dealing with your complaint and when to expect a response
- We will keep you informed of the progress of your complaint, including information on any delays
- You should feel confident we are following our complaints procedure

#### **4 We will try to answer all your questions and any concerns you raise**

- It should be clear to you what happened, and why
- Our response should be empathetic in tone and coordinated
- We will deal with your complaint in the timeframe stated

#### **5 We want you to have a positive experience of making a complaint**

- You should feel we have followed a clear procedure in the timeframe stated
- You should not be treated differently if you complain
- You understand how the outcome of your complaint was reached
- You feel you could raise a complaint again if needed, and could recommend our procedure to others
- You feel we have listened to you and have acted in a fair way

- You know what further help is available if you are unhappy with the way we have handled your complaint. Joint statement on handling feedback and complaints in the dental practice

## **6 Your feedback helps us to improve our service**

- We are learning all the time from your feedback and complaints
- We show you how your feedback and complaints are listened to and acted upon
- All members of our dental team are committed to improving the service we provide

### **Reference:**

General Dental Council. (2017). How to report a dental professional to us. Available at: <https://www.gdc-uk.org/api/files/HowtoReportEnglishfinal1.pdf> [Accessed 27.11.17]

### **The NHS provides some useful time-limits for patients to complain:**

1. Within 12 months of the cause or when it was first noticed (England and Wales)
2. If you are working under an NHS contract, you must comply with the NHS timescales for **acknowledging a complaint: within three working days** in England, Northern Ireland, and Scotland; and within two working days in Wales.
3. For a complaint relating to the provision of treatment under the NHS, you should provide **the patient with a response of investigation** within the required timescale:
4. England: promptly – within **10 working days**, for example. There is an outer limit of six months if the delay can be justified.
5. When **you have completed your investigation**, you should provide the patient with a full written response, signed by the complaints manager, which explains how you considered each concern that was raised and your conclusions
6. The action that has been, or will be, taken to prevent the issue recurring.
7. Where appropriate, you should include an apology.

### **Key points to be included in your acknowledgment letter:**

1. Offer the patient the opportunity to discuss the cause of the complaint.
2. It should indicate the independent bodies that can provide advice – for example:
  - England – Citizens Advice Bureau or local patient groups and the contact details of NHS England and the Health Service Ombudsman
  - Northern Ireland – the Patient and Client Council
  - Wales – local health boards do not investigate complaints directly but will deal with the practice on the patient's behalf.
3. You must inform the patient who will be dealing with their complaint and keep them up to date with the complaint progress.

**Scenario:**

A patient in your practice, Mrs Angela Smith wishes to complain about your colleague. Write an acknowledgement letter and include the below details.

-When should an acknowledgment letter be sent?

-When should the patient be contacted with the results of a formal investigations to their complaint?

**Read the letter and respond accordingly**

Harrow on the hill, London Susie James  
The Complaints Manager Smile Dental Clinic  
62 Harrow Street London IBD XYZ

Date: 26-1-19

Dear Susie James

Re: NHS Complaint – Mrs. Angela Smith- DOB:19 May 1965. Tel: 010 232 3205.

Address: 25 Bridge Street, Pinner, HA5 3HR

I am writing to complain about the way I have been treated by Dr Jones at the Smile dental clinic. I was seen by Dr Jones three times, on 26th April 31st May and 13th December 2018. He first told me that I need a root canal on my lower right 6 and I had no pain in that tooth. Then after the root canal he told me it was unsuccessful, and he will have to extract it. While removing my lower right 6, he damaged the tooth next to it. Then he told me he will now have to remove my tooth number 7 as well. I think first I did not need the root canal, and your colleague being a junior dentist was incompetent and hence the root canal was unsuccessful. Then he also damaged the tooth next to it. I came to this practice with good healthy teeth, and after coming here I will now be losing two. I want to make a complaint about Dr Jones.

I would like the following points addressed in response to this complaint.

1. Why did Dr Jones perform the RCT and why was it unsuccessful?
  2. Why did he damage my tooth, and is now asking me to remove that? Along with answers to my questions, I would now like,
- Dr Jones clinical skills to be reviewed
  - Dr Jones to explain why he did, what he did

An apology from him for the unnecessary stress for losing my teeth and I'd like to know what arrangements the practice has for reviewing the clinical skills of the dentists. I have had very good care from the practice in the past, from Dr Rose until she retired. I was then moved to Dr Jones. I would like to regain confidence in the care provided by the practice. I would like you to carry out a full investigation into my concerns in accordance with the NHS Complaints Regulations.

Yours sincerely Angela Smith

Smile Dental Clinic 62  
Harrow Street London IBD  
XYZ  
Date: 26/10/19

**Shorter version:**  
**5-minutes**

**Dear Mrs. Smith,**

**RE: Mrs. Angela Smith – DOB: 19 May 1965 | Tel: 010 232 3205 | Address: 25 Bridge Street, Pinner, HA5 3HR**

Thank you for your complaint. We take all concerns seriously and aim to resolve any issues promptly and fairly.

Below is a brief outline of our complaints process:

- Complaints are handled by myself.
- We will acknowledge your complaint within 3 working days.
- A full written response will be provided within 10 working days.
- We keep full records of all complaints.
- If your concern is about NHS care and you're unhappy with our response, you may contact the NHS directly.

Please contact me if you have questions or would like to discuss this further.

**Yours sincerely,**

**Susie James**

*Practice Manager*

**CASE 2:**  
**Live online lecture**

Brighter smile dental practice  
13 Burgess Road  
Southampton, Postcode: SO1  
67P Tel: 0245678899

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**Station (19)****Radiographic reporting** (5-minute)**Report the provided radiographs:**

(A)



(B)



(C)

**A).**Radiograph: Intraoperative periapicalSide: lower left quadrantTeeth: LL4, LL5, LL6, LL7Restoration: Full coverage restoration in relation to LL6 with defective distal margin, Inadequate RCT on the LL6, Disto-occlusal restoration on the LL7 with a large ledge distally.Caries: Caries on the distal aspect of the LL6Alveolar bone level: horizontal alveolar bone loss, furcation involvementOthers: Periapical radiolucency in relation to the mesial root of the LR6 with loss of lamina dura, not associated with root resorption.Quality rating: A**B).**Radiograph: SideTeeth: Restoration: Caries:Alveolar bone level: Others:Quality rating:**C).**Radiograph: SideTeeth: Restoration: Caries:Alveolar bone level: Quality rating:

**Station (20)**

**Based on the clinical photograph provided, list the health and safety**

**hazards:**



**Based on the provided clinical photograph, list the health and safety hazards:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.

12.

## **Health and Safety Hazards in the Dental Surgery Image**

**1. Patient Not Wearing Protective Gear:**

- The patient is not wear a bib or protective eye goggles, which are necessary to prevent contamination and eye injury during treatment.

**2. Dentist Not Wearing Protective Equipment:**

- The dentist is performing treatment without gloves, mask, or any protective eyewear, increasing the risk of contamination and infection transmission.

**3. Dentist Wearing Jewelry:**

- The dentist is wearing jewelry, which is against infection control protocols as it can harbor bacteria and pose a contamination risk.

**4. Dentist's Sleeves Not Rolled Up:**

- The dentist's clothing sleeves are not rolled above the elbows, contrary to safety regulations to avoid cross-contamination.

**5. Nurse Not Wearing PPE:**

- The assisting nurse is also not wearing any personal protective equipment (PPE), such as gloves, mask, or protective gown, compromising safety standards.

**6. Cluttered Room:**

- The dental surgery room is cluttered, making it difficult to maintain a sterile environment and increasing the risk of accidents.

**7. Overflowing Clinical Waste Bin:**

- The clinical waste bin, identified by its orange bag, is overflowing with waste, creating a contamination hazard and increasing the risk of infection.

**8. Uncovered Dental Needle:**

- A dental needle has been left uncovered on the bracket table, posing a risk of accidental needlestick injury.

**9. Instruments Placed Directly on Bracket Table:**

- Dental instruments are placed directly on the bracket table without an instrument tray, which compromises sterility and increases the risk of cross-contamination.

**10. Sharp Box Positioned Near Patient's Spittoon:**

- A sharp box is located inappropriately near the patient's spittoon, increasing the risk of needlestick injury or contamination.

**11. Handpiece Not Properly Stored:**

- The dental handpiece is left on the bracket table instead of being placed back in its normal holder, further compromising infection control.

**12. No Protective Barriers:**

- There are no protective barriers covering critical surfaces such as the dental chair headrest, handles, or switches, which increases the risk of cross-contamination between patients.

This comprehensive list highlights the multiple hazards presented in the image, demonstrating the importance of adhering to health and safety protocols in the dental setting.

## Station 21

### Dental Caries station:



**1.Identify carious lesions?**

**2.Which lesion will require immediate treatment?**

**3.Which lesions will you monitor?**

**4.How often will you need to repeat radiographs for this patient?**

Every 6 month

**5.What's the recall interval for this patient?**

Every 3 month

**6.Which guidelines decides the recall timeline?**

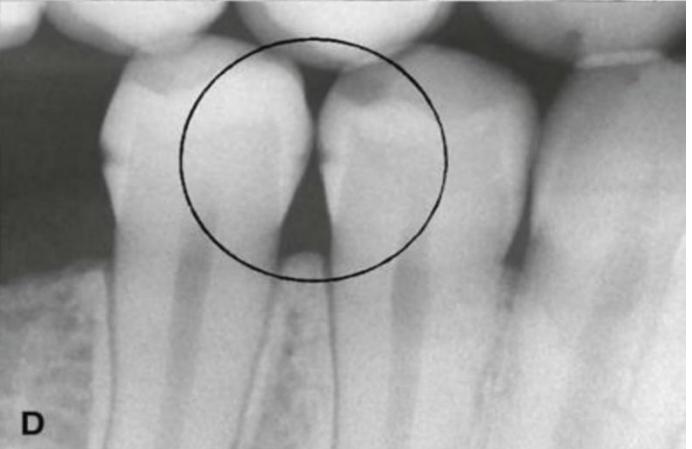
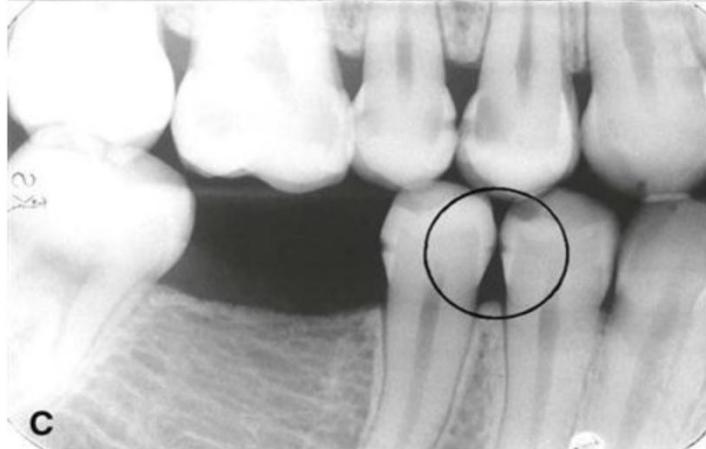
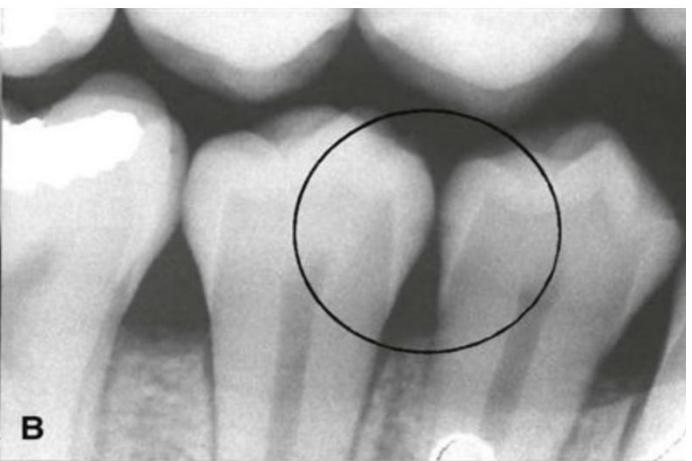
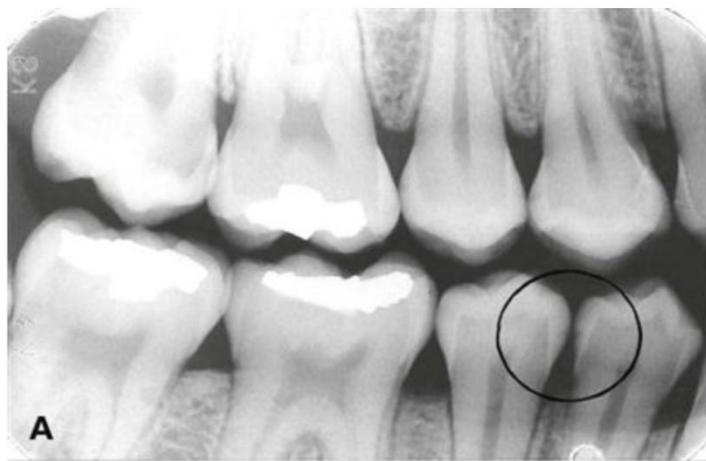
NICE guidelines

**7.How will you manage the patient to reduce his dental caries risk?**

- 1.Reinforce oral hygiene instructions
2. Fluoride applications twice or more times a year
3. Prescription of high fluoridated toothpaste 5000 ppm
4. Provide diet chart, diet analysis and give advice accordingly



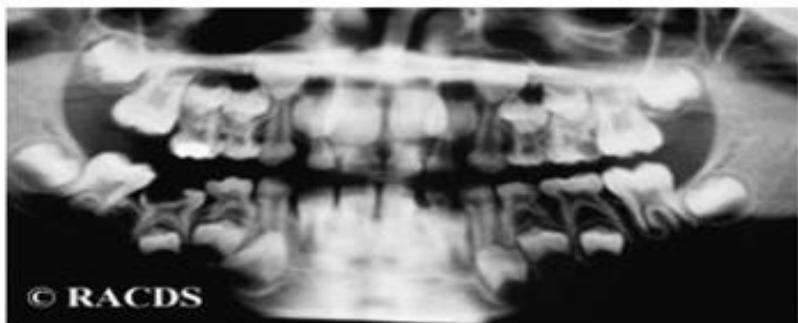
## Proximal Enamel Caries



## Station 22:

**Mixed dentition:**

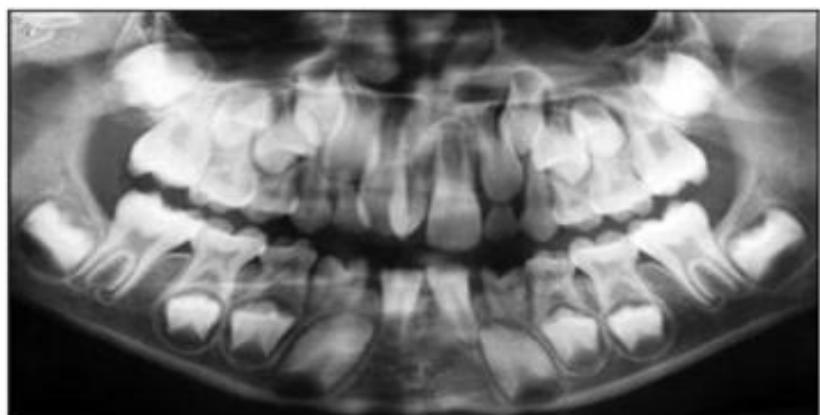
**(A)**



**(B)**



**(C)**



**1. What's the age of the patient?**

- (A) PATIENT IS 7  
 (B) Patient is 12 y

**2. Circle the abnormal impacted teeth?**

- (A) Non  
 (B) Lower left canine

**3. Which teeth are normal developing?**

- (A) Upper centrals, lower canines, lower second molars  
 (B) Upper canines, lower right canines, upper third molars and lower right second premolar

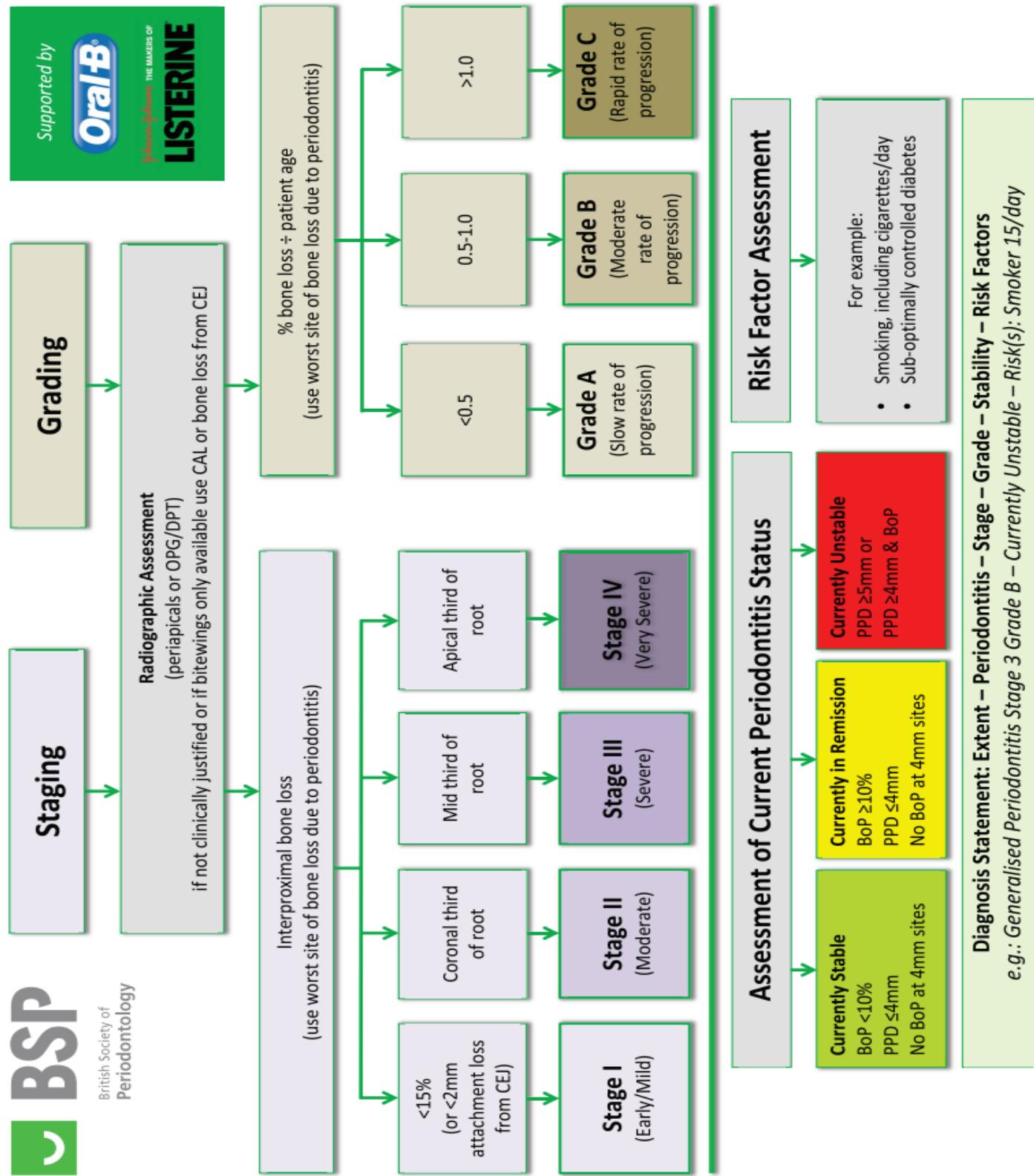
**4. Identify the supernumerary tooth?**

- (C) At the midline

Tooth	Eruption
U1	7-8
U2	8-9
U3	11-12
U4	10-11
U5	10-12
U6	6-7
U7	12-13
U8	17-21
L1	6-7
L2	7-8
L3	9-10
L4	10-12
L5	11-12
L6	6-7
L7	11-13
L8	17-21

## Station 23:

### Periodontitis Diagnosis:



## Case Scenarios

### Case A

#### Patient Demographics

Name: Mr. Ahmed Rahman

Age: 54

Gender: Male

#### Medical History:

- Type 2 Diabetes (diagnosed 6 years ago, HbA1c: 8.2%)
- Hypertension

#### Social History:

- Smokes 15 cigarettes a day for the past 20 years
- Drinks alcohol socially

#### Personal History:

- Lives alone, works as a taxi driver, irregular diet and oral hygiene habits

#### Dental History:

- Attends dental check-ups irregularly
- Reports bleeding gums and mobility of teeth
- Generalized pocketing and bone loss observed

#### Intraoral examination:

##### - BPE:

4-3-4

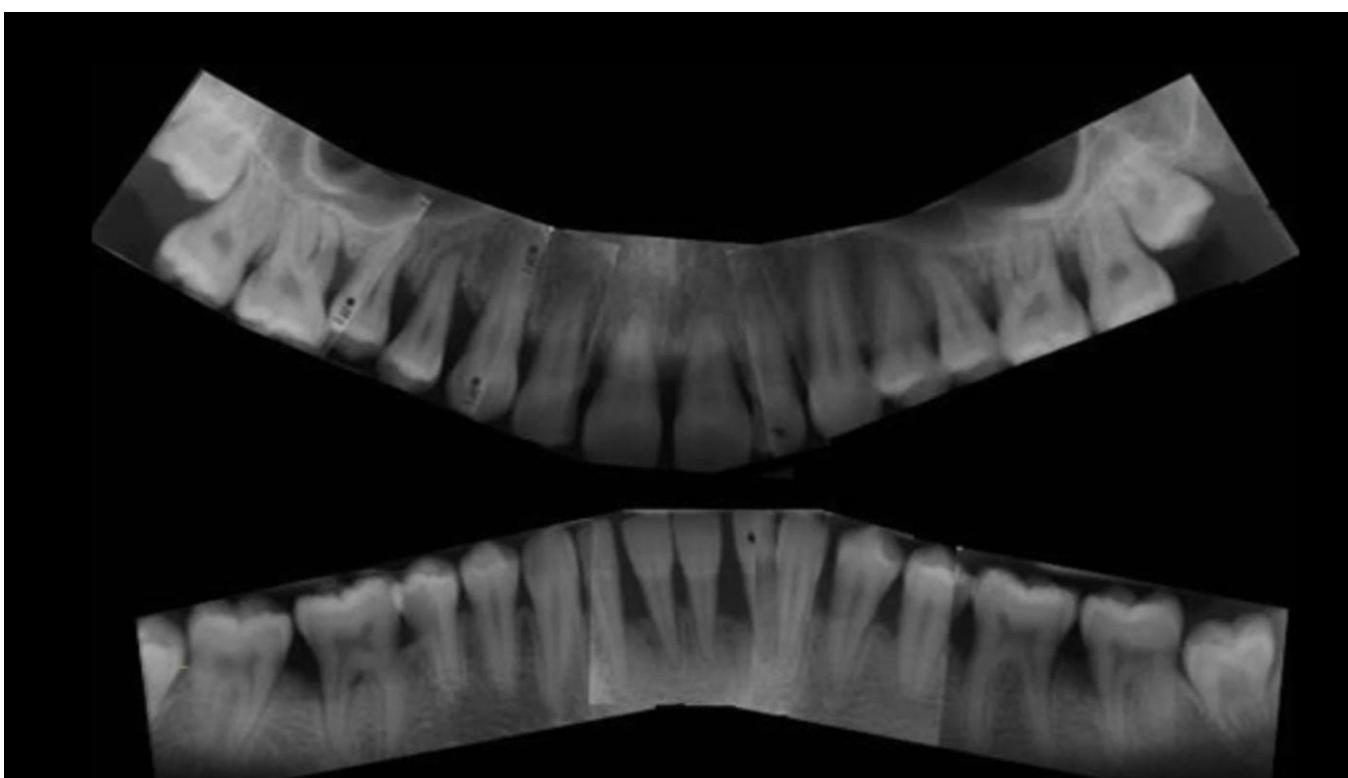
3-3-4

- Bleeding index: 71%

- Plaque index: 55%

- Worst site of bone loss: MB aspect of the upper right first premolar, **61% bone loss**

#### X-ray:



**Periodontal Diagnosis:**

Generalized periodontitis, Stage III, Grade C, currently unstable, Risk Factors: Smoking and uncontrolled diabetes

## Case B

**Patient Demographics:**

Name: Mrs. Laila George

Age: 39

Gender: Female

**Medical History:**

- Generally healthy, no systemic diseases

**Social History:**

- Occasional smoker (1-2 cigarettes per week)
- Low-stress job, active lifestyle

**Personal History:**

- Highly motivated, regular brusher and flosser
- Receives routine hygienist care every 6 months

**Dental History:**

- Previous deep cleaning for periodontitis
- No current bleeding on probing, shallow pockets

**Intraoral examination:**

- BPE:

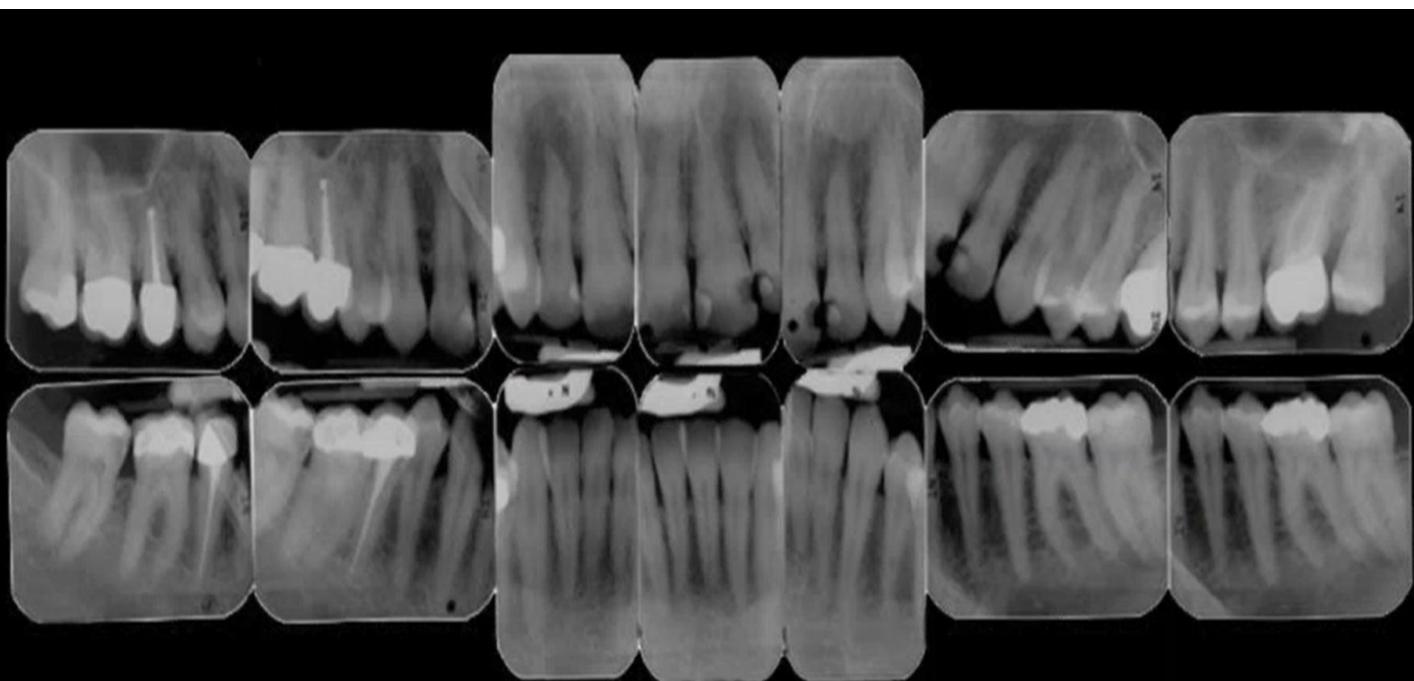
4-2-1

2-1-2

- Bleeding index: 71%

- Plaque index: 55%

- Worst site of bone loss: MB aspect of the upper right second premolar, 30% bone loss



**X-ray:****Periodontal Diagnosis:**

Localised periodontitis, Stage II, Grade B, currently in remission

Risk Factors: History of smoking and previous periodontal pocketing

## Case C

**Patient Demographics:**

Name: Miss Emily Rose

Age: 27

Gender: Female

**Medical History:**

- No other known medical conditions

**Social History:**

- Non-smoker
- Lives with parents, studies full-time

**Personal History:**

- Family history of early tooth loss (mother) because of periodontitis
- Brushes twice a day and flosses twice a day

**Dental History:**

- Reports loose upper front teeth
- Deep pockets around molars and incisors with bone loss evident on radiographs

**Intraoral examination:**

- BPE:  
4-3-4  
3-4-3
- Bleeding index: 55 %
- Plaque index: 17%
- Worst site of bone loss: MB aspect of the lower left first molar, **62% bone loss**

**Periodontal Diagnosis:**

Molar-incisor pattern periodontitis, Stage III, Grade C, currently unstable

Risk Factors: Family history of periodontitis

