



WINSPERT



# OSCE CASES

## PINK SET

## PINK SET: CLUSTER 1

(Clinical Information Gathering)

### YOUNG KID WITH MISSING PERMANENT LATERAL INCISORS



Annie, a 7-year-old girl, is attending your clinic today with her mother. They are concerned about her missing upper lateral incisors. Her mother is particularly worried about the small space available and the size of Annie's front teeth, as well as the impact on Annie's appearance in front of her classmates. The history reveals that Annie lost her deciduous lateral incisor a year ago, and the permanent tooth has not yet emerged. Annie is fit and healthy with no pain or swelling in the affected area.

**Gather more information, address her mother's concerns, and provide differential diagnoses for the problem.**

## CASE (version 1):

### Introductory paragraph:

Hello Annie's mum, my name is Dr... and I will be looking after you today. How do you want me to address you?

I see you are here for concerns regarding Julie's front teeth. What worries you the most Mrs./Ms...?

(understand is it the appearance of teeth as being big, gap between the centrals, no space for laterals, or unerupted teeth?).

### Exploring the chief complaint:

Mrs./Ms...Could you please tell me a little bit more about it?  
Anything else that bothers you or Annie?

Thank you for sharing it with me. Mrs./Ms...I would like to ask you a few additional questions that will help me to understand why Annie is facing this situation. Is that alright with you ?

### Relevant history:

#### 1 Dental History

Her baby teeth fell off in this area a year ago, right? How did they fall off? Was there any trauma? Do you recall having no gaps/ gaps between her baby teeth?  
When was her last dental check? Were any x-rays taken at that time?

#### 2 Family History

Mrs./Ms...anyone else in the close family having similar appearance or unerupted teeth?

#### 3 Social History

Do you recall Annie sucking on her thumb or mouth breathing?

#### 4 Medical History

What about her overall growth? Is she fit and healthy? Any allergies that I should be aware of?

Mrs./Ms....thank you for your patience with all my questions. Anything else you want to add in?

## Explanation about the concerns:

### Space between the teeth

At this age it's normal to have space around 2-3 mm between two front teeth. We call that as ugly duckling phase, however with the erupting eye teeth, it does close the gap. In Annie's case it appears to be more than 4mm, and thus it's concerning. The reason for that could be:

- Mesiodens: A special additional tooth is sometimes present in between embedded within gums.
- Parafunctional habits: Thumb sucking/ finger sucking/ prolonged bottle feeding can add pressure on teeth and the jaw to create spaces in between. (Prolonged such habits even after 5 years can affect the teeth).
- Deep frenum attachment: There is a thick band of tissue running from lip to the gums, if it is attached near the neck of the tooth, then thick band prevents it's closure.
- Abnormalities associated with any of the tooth like cyst, under the gums.

### Unerupted/ Missing lateral incisors:

Lateral incisors erupt around 8-9 years of age. But, Mrs./ Ms...the space in her jaw for the teeth to erupt is very less. Thus, there is a possibility, either the tooth will be erupting in different directions or will stay in the gums. This can be checked by x ray. There is also a possibility of the tooth being missing in few people. That will be judged through x-ray as well.

Are you following so far? Please do not hesitate to ask me questions at any stage.

### Big appearance of the teeth:

She has adult teeth now at the front and the adjacent teeth are still baby teeth. So, comparatively her teeth are looking big. Moreover, her jaw is at a growing stage, it should settle down within a few years.

Sometimes the reason can be that her adult teeth are too big for her jaw. We call it jaw-teeth discrepancies.

In a few situations, if the size of the jaw is inherited from one parent whose jaw is small and the size of the tooth from the other parent whose teeth are comparatively small, then the appearance of teeth can be big.

Do you have any questions for me?

(Here use anything that you could appreciate on an image given on the day of exam or whatever positive history is given by the patient.)

I know she's worried about how she looks, so in this case she'd probably need braces, which could either open the space or close the gap depending on what we find out today. Does that make sense? Do you want me to repeat anything?

Mrs./Ms..., the last thing I wanted to mention is that you said Annie doesn't feel comfortable in front of her classmates. Have you tried talking to her about it? I know it can be tough, but if you think it might help, I'm more than happy to have a chat with her and explain what we can do to support her and what can be done for her dental problem.



### Investigations:

To get a better picture, I will perform tests and x-rays if you are happy for me to go ahead.

I will start from outside of your mouth, to check the facial profile (structure from outside). Also, I will look for lip compatibility.

Inside your mouth, I will have a thorough look and count all your teeth. Check for the bulge on the gums myself. I will also measure the gap between teeth.

To check if attachment of muscle is preventing the closure of teeth, I will perform a blanch test - where I will pull your upper lip slightly to see blanching near the neck of the front teeth.

I would also prefer to take a panoramic x-ray which will give me an overview of all her teeth and if any teeth are impacted.

We may take a few pictures as well. Do you have any questions at this stage Mrs./Ms.?

Additionally, I will give you a referral to an orthodontist, as these teeth would require alignment and specialists can do a space analysis to understand if any early intervention is needed.

### Important features of this case:

- Focus primarily on the patient's main concerns. Listen to the patient very carefully as much information will be told when asked (and not written on the screen).
- Relation between early exfoliation and crowding
- Explaining possible reasons for diastema.
- Referral to an Orthodontist for early intervention.
- Jaw - teeth discrepancies
- If you have time, try to do health promotion by telling the importance of oral hygiene especially if a patient is going to have orthodontic treatment in the near future. We need to make sure that she will be ready for it by treating all dental caries and educating patients about proper oral hygiene.

### Links to understand this case better:

#### Understanding eruption of teeth:

<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/teeth-development-in-children>

#### Missing lateral incisors:

<https://www.dentalprotection.org/australia/publications-resources/case-studies/case-studies-display--/the-dilemma-of-missing-maxillary-lateral-incisors>

#### Hypodontia and anodontia:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5376450/>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10461125/>

**PINK SET: CLUSTER 1**  
(Clinical Information Gathering)  
**NON-HEALING ULCER ON LATERAL  
BORDER OF TONGUE**

**VERSION 1**



Ms. Amy Watson, a 32-year-old school teacher, is visiting your clinic today with a complaint of an ulcer on the lower right side of her tongue. She first noticed the ulcer a month ago and is concerned about it. Her last dental appointment was two years ago, during which her dentist placed a filling in tooth 46. This filling fell out a few weeks ago, but it hasn't caused her any discomfort. She is here for a filling to be done.

Medical history: Fit and healthy.

You have not yet performed an examination.

**Seek additional information from Ms. Watson, address her concerns, explain the investigations you have planned, and provide a differential diagnosis.**

**PINK SET: CLUSTER 1**  
(Clinical Information Gathering)  
**NON-HEALING ULCER ON LATERAL  
BORDER OF TONGUE**

**VERSION 2**



Ms. Amy Watson, a 35-year-old school teacher, is visiting your clinic today with a complaint of a broken filling. She also noticed the ulcer on her lateral side of tongue a month ago and is not too concerned about it. Her last dental appointment was two years ago, during which her dentist placed a filling in tooth 46. This filling fell out a few weeks ago which catches her tongue every now and then, so hopes for a filling to be done.

Medical history: Fit and healthy.

You have not yet performed an examination.

**Seek additional information from Ms. Watson, address her concerns, explain the investigations you have planned, and provide a differential diagnosis.**

## CASE (version 2):

### Introductory paragraph:

Hello Amy, my name is Dr..., and I will be helping you today. I believe you are here because of some concerns about sharp feeling to tongue/ broken filling, is it right? When did you first notice this?

### Exploring the chief complaint:

When did you first notice this?

Are you experiencing any pain or sensitivity over that area/ tooth? In the photo taken by us, Amy, I also happen to notice an ulcer present at the similar area (Point over the photo, for her/him to appreciate it). You mentioned no issues with that ulcer, right?

Amy, I will have a careful look at your tooth and also at the area around the ulcer.

Amy, do you have more such presentations in your mouth? Or anywhere else on your body?

(If a patient says no symptoms experienced with ulcer - then ask only about have you seen bleeding or any discharge come out of the area? Do you feel the area around the ulcer has become numb?

If a patient says there's been some discomfort with ulcer too. Then we will ask about do you feel pain, burning, itching or tingling sensation with it?

Do you feel your tongue movement is reduced or restricted because of ulcer?

Any swelling around the ulcer or around the neck?

(Depending on what symptoms the patient presents for the sharp tooth/ broken filling, respond accordingly).



### Relevant history:

#### 1 Medical History

Amy, when was your last complete health check with your GP? How about the last blood test?

How about your health in general, any significant changes recently? Fever?

Do you take any medications? How about any allergies?

#### 2 Dental History

Amy you mentioned you've been to the dentist 2 years ago, is that correct?

Amy, any reason for you not to visit after that?

The reason I'm asking is because we suggest visiting dentists 6 monthly for check up and cleans. In those, we have a thorough look not just at the teeth but also soft tissues of the mouth.

#### 3 Social History

I know you are a teacher, it must be quite a stressful job? How do you feel about it?

Do you feel it's affecting your day-to-day life? Have you tried anything to mitigate it? I hope it's helping. Amy, I want to extend support if you need help with it.

Do you smoke or have you ever smoked in the past?

Do you drink alcohol? How often?

Thank you Amy for your patience with my questions. That was very helpful.

### Differential diagnosis:

Amy when we think about ulcers there can be few possible reasons for that.

Firstly traumatic ulcers are most common. Also it is very likely in your case since you have a broken filling/ sharp tooth which irritates your tongue.

But, in your case you are having an ulcer present before even the appearance of that sharp portion. These non-traumatic ulcers can have different causes.

It can be because of our immune system being weakened or simply nutritional deficiencies, that is why we are going to talk to your GP, for a thorough check up and also getting a blood test done.

However, it's been present since a month, that's concerning as ulcers usually heal within 2 weeks. Thus, I would suggest getting a biopsy done with an Oral medicine specialist for this ulcer, to understand what is the cause for it and have a non-healing presentation.

What are your thoughts on this, Amy?

### Investigations:

I/O: Amy, I will have a careful look at your tooth and also at the area around the ulcer. I might take an x-ray called periapical x-ray for me to check what could be happening below the gums, as it's been a while since you have gone to the dentist.

I will check an ulcer as well for its size. I may also take a few photos for records and follow ups, with your consent. I will check the margins of the ulcer and see if I can spot any discharge coming out of there.

I would also like to check if there are any restrictions/changes to your tongue movements. Do you have any questions at this stage?

E/O: After this I would check your face and neck to see if there are any lumps especially in the area under your lower jaw.

### Important features of the case:

- The main difference between these two versions is that in version one, the patient is worried about her ulcer, which makes us focus more on that (presenting complaint). In version two, the patient is not concerned about it, so we shouldn't jump straight to the ulcer. We need to address the broken tooth complaint (ask more questions about it) and then slowly move on to talking about the ulcer.
- Referral to specialist for biopsy, by explaining how there are different causes and we need additional tests for knowing the cause.

### Links to understand this case better:

#### Therapeutic guidelines:

Therapeutic guidelines: Understand the red flag features and traumatic ulcer.

#### Mouth ulcers and its features:

<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/mouth-ulcers>

<https://www.qld.gov.au/health/condition/mouth-and-dental-health/oral-health-conditions/mouth-sores>

#### Oral cancer and its features:

<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/mouth-cancer>

<https://www.healthdirect.gov.au/mouth-cancer>

**PINK SET: CLUSTER 2**  
(Diagnosis and Management)  
**PATIENT TRAVELLING AND IN  
UNBEARABLE PAIN**

**VERSION 1**

Mr. Daniel is a new patient at your clinic who has booked an emergency appointment due to pain from a broken tooth on the lower right side. Upon examination, you observe a severely decayed tooth with no gingival or apical swelling and no lymphadenopathy.

Mr. Daniel is scheduled to leave for an interstate trip in two hours and will be away for two days. Unfortunately, your schedule is fully booked for today. You are unable to provide an immediate treatment.

Medical history: Fit and healthy.

**Explain the diagnosis, and outline both emergency and definitive management plans.**

**VERSION 2**

Mr. Daniel is a new patient at your clinic who has booked an emergency appointment due to pain from a broken tooth on the lower right side. Upon examination, you observe a severely decayed tooth with no gingival or apical swelling and no lymphadenopathy.

Mr. Daniel is scheduled to leave for an interstate trip in two hours and will be away for two days. Unfortunately, your schedule is fully booked for today. You are unable to provide an immediate treatment.

Medical history: Fit and takes cartia medication once a day.

**Explain the diagnosis, and outline both emergency and definitive management plans.**

**PINK SET: CLUSTER 2**  
(Diagnosis and Management)  
**PATIENT TRAVELLING AND IN  
UNBEARABLE PAIN**

**VERSION 3**

Mr. Daniel is a new patient at your clinic who has booked an emergency appointment due to pain from a broken tooth on the lower right side. Upon examination, you observe a severely decayed tooth with no gingival or apical swelling and no lymphadenopathy.

Patient mentions he has no pain on biting. Pain usually gets worse with hot stimulants and gets relieved with cold.

Mr. Daniel is scheduled to leave for an interstate trip in 15 minutes and will be away for two days.

You have no time to do any treatment, as you are squeezing in the patient between appointments.

Medical history: Cartia once a day.

**Explain the diagnosis, and outline both emergency and definitive management plans.**

## CASE (version 3):

### Introductory paragraph:

Daniel I'm sorry to see you in this pain and I know we don't have much time but I will try my best to manage you today.  
Can you summarise the pain that you are experiencing?  
On a scale of 1-10 how severe is your pain at the moment?  
Did you take any medication for the pain? Since when and did it help?  
Any fever/ swelling on your face?

### Understanding patient's situation:

If you don't mind me asking, how long is the trip? Are you going to the city or rural area?  
Are you travelling by road or by air?

### Explaining findings and diagnosis:

Daniel, what is happening is that most likely from your description and my examination (you can incorporate the terms associated with the diagnosis given on the screen), you are having irreversible pulpitis associated with that tooth. Apologies for using such jargon, let me explain with the diagram.  
It means that the nerves of the tooth are beyond repair ,and there is a gas created by bacteria, which is building up inside your tooth. This creates a lot of pressure, causing this unbearable pain that you are experiencing.  
I hope it's simplified now.  
Daniel, please do not hesitate if you want me to repeat anything again.

### Relevant History:

Now, let's understand how we can manage your current situation. I need to ask a few questions that will help me to manage you.

#### 1 Medical History

I can see that you are taking Cartia once a day? What's the reason for that? Any other medical conditions or medications that I should be aware of? How about any allergies?

#### 2 Social History

*This is only relevant to ask about alcohol when you are prescribing metronidazole as an antibiotic, that will be only in case spreading odontogenic infection.*



### Management:

Daniel, this is a very common reason for a toothache in practice. How we ideally proceed is by taking x-ray for that tooth to understand how it looks below the gums and accordingly we take steps. But ideally, we save the tooth by performing a nerve treatment called root canal treatment. (Let me explain with a diagram). Emergency stage involving this procedure focuses on relieving the pressure built up by bacteria.

I know we are short on time today, thus our option would be to give you some pain relieving medications of certain strength. I could also numb you up so you can have a more comfortable journey for 3-4 hours.

How do you feel about it?

These measures are temporary pain relieving methods, but we need to address the infection within the nerves and do an active treatment to resolve your pain completely. Also, there is a risk that bacteria from infected pulp in your tooth can further lead to spreading odontogenic infection. Thus, no treatment has such implications.

Thus, when you get to your destination, we can find a local dentist who can do an emergency treatment. Once you're back, we can complete the root canal treatment. What do you think about that?

The benefits of the procedure is you can save the tooth but it requires multiple visits and is expensive along with the crown procedure additionally.

Do you have any questions?

As a pain relief, I will prescribe you Paracetamol 1000 mg 4-6 hourly until you visit the local dentist/ any dentist.

***(Oxycodone is stronger but I must warn you that you may be drowsy, the medication can interact with alcohol, and you won't be able to use vehicles/ operate any machinery/ sign important documents during your trip).***

The other option to get relief is to remove the tooth which will be an economical procedure, but the replacement will be required and no option is as good as a natural tooth.

Would you like to know anything more about extraction or RCT?

### Important features of the case:

- Sometimes in this case we have Necrobiosis, which means that pulp in every canal can be at a different stage of pathosis, thus a mixed and confusing pain history will be given by our patient.
- Knowing the route of transport for a patient's travel will also help you understand the management better.
- Prescribing medications after understanding medical history appropriately.

### Links to understand this case better:

#### Pain and management:

<https://www.nps.org.au/assets/p39-Timmerman-Parashos-v2-POPUPS-REMOVED.pdf>

<https://onlinelibrary.wiley.com/doi/full/10.1111/iej.14020>

[https://www.researchgate.net/publication/363805889\\_The\\_treatment\\_of\\_mature\\_permanent\\_teeth\\_with\\_irreversible\\_pulpitis\\_by\\_cervical\\_pulpotomy\\_A\\_systematic\\_review](https://www.researchgate.net/publication/363805889_The_treatment_of_mature_permanent_teeth_with_irreversible_pulpitis_by_cervical_pulpotomy_A_systematic_review)

Therapeutic guidelines.

#### Cartia:

<https://www.cartia.com.au/>

#### Pain Medication:

[Combined ibuprofen/paracetamol medicines - NPS MedicineWise](#)

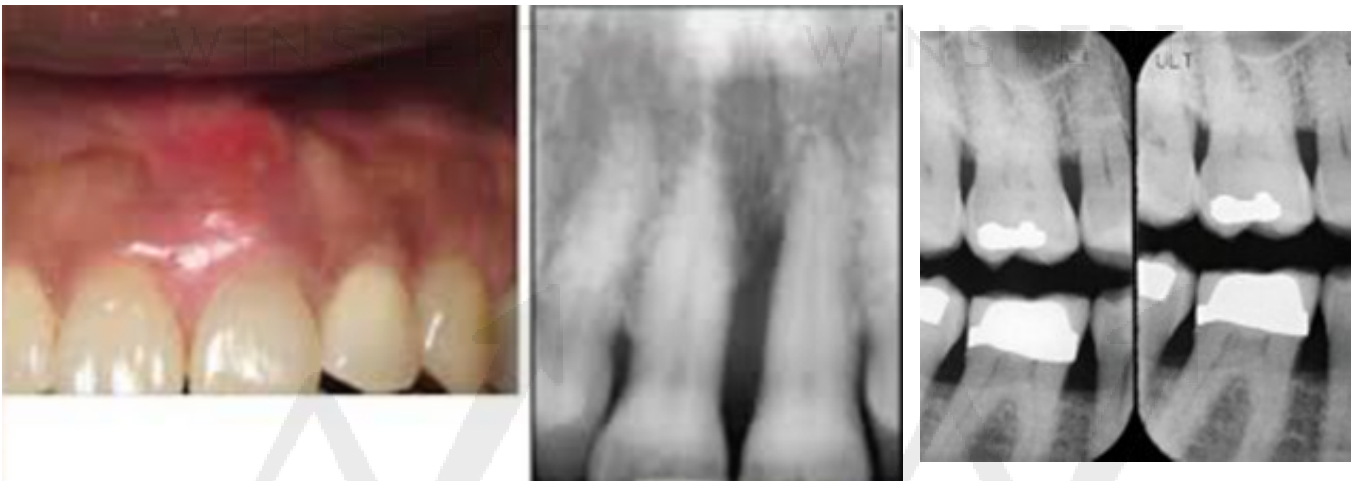
[Paracetamol/ibuprofen combinations for acute pain - NPS MedicineWise](#)

## PINK SET: CLUSTER 2

(Diagnosis and Management)

### PATIENT WITH A PERIODONTAL ABSCESS

#### VERSION 1:



Mrs. Amy Highland, a 55-year-old regular patient at your clinic, presents today with a complaint of a sore tooth on the upper left side. Upon examination, you observe that tooth 21 exhibits grade 2 mobility and is vital. A periapical radiograph reveals horizontal bone loss around teeth several teeth with significant bone loss around tooth 21. The probing depth for tooth 21 is 8 mm on the mesial side, while the rest of the mouth shows 4-5mm probing depths. Tooth appears slightly extruded and slight gums are swollen in that tooth region. The patient is generally fit and healthy but smokes around 25 cigarettes per day.

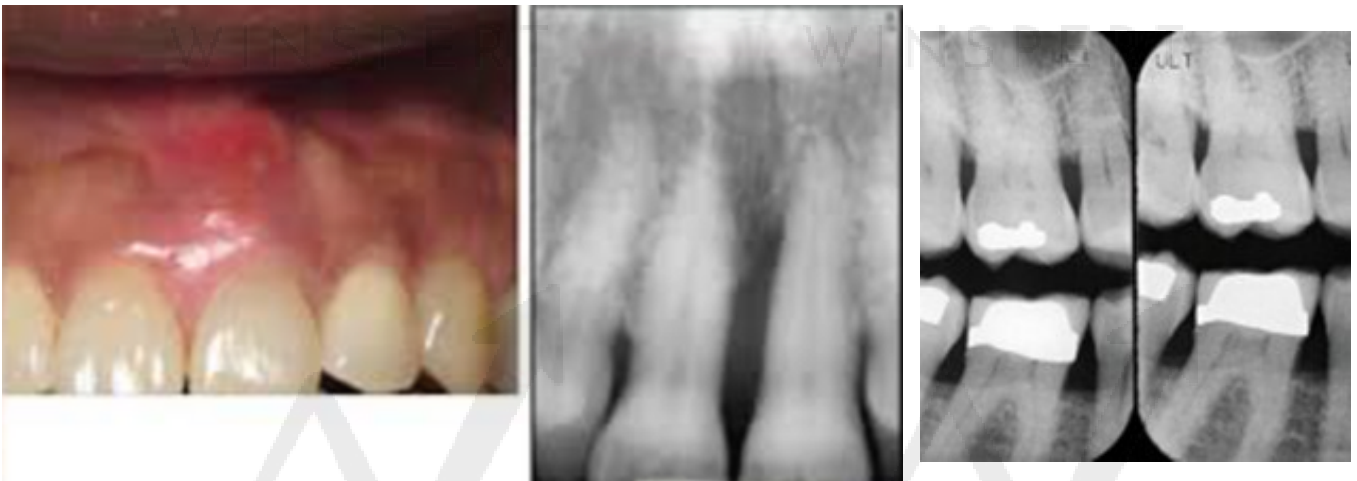
**Manage the case by providing a diagnosis and explaining the treatment options.**

## PINK SET: CLUSTER 2

(Diagnosis and Management)

### PATIENT WITH A PERIODONTAL ABSCESS

#### VERSION 2:



Mrs. Amy Highland, a 55-year-old regular patient at your clinic, presents today with a complaint of a draining sinus on the front upper side. Upon examination, you observe that tooth 21 exhibits grade 2 mobility and is vital. A periapical radiograph reveals horizontal bone loss around teeth several teeth with significant bone loss around tooth 21. The probing depth for tooth 21 is 8 mm on the mesial side, while the rest of the mouth shows 4-5mm probing depths. Tooth appears slightly extruded and has a pimple on the gums in that region. The patient is generally fit and healthy but smokes around 25 cigarettes per day.

**Manage the case by providing a diagnosis and explaining the treatment options.**

## CASE (version 1):

### Introductory paragraph:

Amy, thank you so much for your patience while I was having a look, in this painful condition. Can you please tell me a little bit more about the character of the pain with this upper front tooth?

Do you experience any sensitivity? Bleeding gums perhaps?  
Any swelling over your face? Any fever?

### Explanation of findings and diagnosis:

When I was examining you I noticed that one of your teeth is slightly lower than the others , was it like this before as well or did it happen recently?

Amy, let's take a look at this x-ray. Can you see the white line here? That's your bone level. It's different in every area, right? Normally, it should be at the level of the neck (Point in the picture), but in your case, it's much lower. That means you're losing bone in this area. When I measured, it was around 8mm, which is about 5-6mm deeper than healthy gums. Also before you mentioned your gums are bleeding. Bleeding gums with bone loss indicates inflammation, a condition we call periodontitis. In your case, it's generalised moderate to severe periodontitis.

With this tooth in specific, the severity has led to a condition called periodontal abscess. Which means, deeper depths of gums have led to the foci of infection proceeding to collection of pus, which is periodontal abscess.

Amy, please do not hesitate if you want me to explain anything again.

### Association of risk factors and relevant history:

To manage this condition it's really important to understand why it is happening to you.

We can see a general bone loss but I'm especially concerned about your front tooth because that is giving you pain.

Do you remember any trauma happening there? Or have you noticed any food impaction? Are you having trouble cleaning this area?

#### 1 Dental History

Mentioning that, Amy, could you please tell me how you toothbrush and floss?

Effective oral hygiene techniques are important for us to control the bacteria responsible for any oral diseases. I will walk you through the important techniques at the end of the appointment.

#### 2 Medical History

Do you remember your last blood test? Was there anything abnormal?

Any medical conditions or medications that you are taking?

Our body impacts gum and bone health, especially few medical conditions and medications.



### 3 Social History

Also, Amy if you don't mind me asking, I noticed you are smoking 25 cigarettes per day. Since how long have you been smoking?

Unfortunately gum disease seems much more often in smokers than non smokers. Also the progression is much more rapid. Would you like me to explain what exactly it does to your gums?

Smoking reduces blood supply and saliva which are responsible for healing, thus in turn it aggravates gum and bone disease.

Amy, I hope everything is making sense. I can explain again if needed.

### Management:

Amy if we don't treat your gum condition the infection can spread and get worse. So it would be wise to start earliest. What I can suggest is to drain the pus today and do a deep clean around that area. I will begin by giving you local anaesthetic to make the treatment comfortable. After the procedure, I will flush the area with sterile saline (which is salt and water).

I would want to review you after that in 24 hours to see how your pain is coming along with that tooth. If it doesn't settle down I might have to refer you to a periodontist, who is a specialist to manage.

As specialists have expertise in the field, they can surgically approach the gum and bone condition. However, they have waiting times and are expensive.

I will also prescribe you painkillers that will help with pain. Shortly after draining the pocket you should feel pain relief already. I would like to see you 3 monthly for your check up and cleans. We will closely follow your situation and if there will be no improvement we may need to refer you to a periodontist.

Also Amy knowing, how smoking is impacting the foundation of your teeth. Would you consider quitting smoking? Or have you tried in the past? It is not a straightforward journey, but I want to extend my support in quitting smoking. I will provide you with all the brochures and important links and we can discuss this in detail, when you are comfortable.

Meanwhile I would highly recommend getting a blood test done from your GP just to rule out any underlying condition like diabetes and we will focus on improving your brushing and flossing techniques.

Is everything clear, Amy? Would you like me to repeat anything?

### Important features of the case:

- Understanding what is the primary concern of the patient.
- In diagnosis, not to just focus on abscess but the generalised periodontal condition as well.
- Explaining the main risk factors in detail (take 2 or 3). Modifying those risk factors at the same time.
- A holistic management of the periodontal condition. And not just the abscess.

**Links to understand this case better:****Management:**

Therapeutic guidelines - management and understanding signs and symptoms. Refer to videos of TC.

**Understanding periodontal abscess:**

Therapeutic guidelines

<https://www.ncbi.nlm.nih.gov/books/NBK560625/>

**PINK SET: CLUSTER 3**  
(Clinical Treatment and Evaluation)  
**INFORMED CONSENT FOR TOOTH REMOVAL**

**VERSION 1:**



Mr. Mackenzie, a regular patient at your clinic, is here today for the removal of a badly broken upper left second molar.

Upon examination, you note that the palatal root of the tooth is in close proximity to the sinus. You also notice the canals are thin or calcified.

He smokes around 3-5 cigarettes/ day.

**Describe the procedure for tooth removal, explain the associated risks, and obtain the patient's consent for the extraction.**

## **PINK SET: CLUSTER 3**

(Clinical Treatment and Evaluation)

### **INFORMED CONSENT FOR TOOTH REMOVAL**

#### **VERSION 2:**



Mr. Mackenzie, a regular patient at your clinic, is here today for the removal of a badly broken upper left second molar.

Upon examination, you note that the palatal root of the tooth is in close proximity to the sinus.

He smokes around 3-5 cigarettes/ day.

**Describe the procedure for tooth removal, explain the associated risks, and obtain the patient's consent for the extraction.**

## CASE (version 2):

### Introductory paragraph:

Mr. Mackenzie, I understand that you are here for a tooth extraction, and I would be happy to discuss the procedure with you. Before we begin, I would like to just confirm that this is your final decision. If you have any questions or concerns, please do not hesitate to ask. I want to ensure that you are fully informed and comfortable with the procedure before we proceed. Did you experience swelling over the face in the last few days?  
Mr. Mackenzie, is this your first tooth removal?

### Explaining the findings:

Before I explain the procedure, let's understand the x-ray. Can you appreciate the dark shadow over the tooth? It suggests the decay progressed and it's involving the tooth to an extent where we cannot save it.  
Because a tooth is removed from the bone, we need to look at the area surrounding it as well. Especially with the upper teeth, there are important structures around our head. Can you appreciate this white line running across the root? It is the floor of the maxillary sinus, maxillary means upper jaw.

### Explanation of risks and possible complications in our patient's case:

- With this sinus being in close proximity, there are chances of forming an oro-antral communication. Depending on the size of the communication, we need to take appropriate measures.

#### Explaining patient about estimate of the fistula diameter:

**1-2 mm:** No treatment required, as it will usually naturally heal.

**2-4 mm:** Carefully follow the patient after 1-2 weeks and advise to avoid straining the area (no holding back sneezes, no smoking, no use of straws, no pressure on the sinus).

**6 mm or larger:** The primary purpose is closure of the defect and prevention of sinusitis. Immediate management will include referral to an oral surgeon and that will incur additional costs and surgical intervention.

- There are a few possibilities regarding the extraction of your tooth. Due to the extent of the decay, the crown of the tooth has been significantly weakened, increasing the risk of it fracturing during the procedure. Should this occur, it may necessitate a change in technique, potentially resulting in additional costs of surgical extraction. Depending on the severity of the breakage, I may need to separate the tooth into several parts and remove them individually. However, if at any point I determine that the procedure poses a risk to you, I would refer you to an oral surgeon.

**You do have an option of seeing an oral surgeon for the procedure from the beginning.**

**(If time permits, explain or just innumerate these risks or complications:**

**• short term swelling • infection • bleeding • dry socket: occurs when a blood clot does not form in the hole where the tooth was or the blood clot is disrupted: -the bone underneath will be exposed to air and food -this can be very painful and can cause a bad taste and/or odour in your mouth -this is more likely to occur if you smoke • temporary numbness • pain or difficulty opening your mouth)**

Do you have any further questions? Would you like me to elaborate on any specific aspect?



### Explaining the extraction procedure:

In this procedure, I will ensure your comfort by administering local anaesthesia to eliminate any pain. My intention is to extract the affected tooth in a single piece. However, with the broken down tooth, there are more complications associated. Thus, I would suggest being seen by an experienced colleague or an oral surgeon. (Explain advantages of seeing an experienced colleague or oral surgeon).

What are your thoughts on this? Do you have any questions at this stage?

### Post-extraction care:

In addition, I will provide you with a detailed list of necessary actions and precautions to follow after the extraction procedure. However, I believe it is important to mention some key points. After the extraction, you will be asked to bite on a piece of gauze for approximately 30 minutes before you are able to return home. Once we have ensured that the bleeding has stopped, you should refrain from brushing or rinsing the affected area for a period of 24 hours. First 24 hours are very crucial for healing, which can extend to 7 days.

I will prescribe you pain relief medications. Before that, I just want to check with you. Any allergies? Any medical conditions or medications I should be aware of? Or any interactions with medications in the past?

Paracetamol 1000 mg every 4-6 hours, combined with Ibuprofen 400mg every 6-8 hours until pain subsides.

Additionally, you should avoid chewing on the side of your mouth where the extraction occurred. It is also advisable to avoid consuming hot food and beverages, taking hot baths, and engaging in strenuous exercise. Also, avoid using straw to drink for 3 days. Applying a cold cloth to the affected area can help to reduce swelling and alleviate pain that is expected in the first 24-48 hours.

Mr. Mackenzie, do you happen to smoke or drink alcohol? (Depending on the patient's answer we will educate on their habits and it's association with healing).

It is normal to experience some discomfort during the first three days following the extraction. However, the pain should gradually subside after this period.

Paracetamol 1000 mg every 4-6 hours, combined with Ibuprofen 400mg every 6-8 hours until pain subsides.

If at any point you feel that the pain is unbearable or if you experience any additional symptoms such as a foul taste in your mouth, or bad breath, swelling not settling down, it is important to contact the clinic as soon as possible, as these symptoms may indicate an impediment towards healing.

Our team will contact you within the next business day to assess your well-being and schedule a follow-up appointment.

Any questions Mr. Mackenzie?

If you don't have any more questions and you are happy to proceed could you please sign the consent.

### Links to understand this case better:

#### Risks and complications associated with extraction:

<https://www.healthdirect.gov.au/tooth-extraction>  
[https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0029/362468/dental\\_06.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0029/362468/dental_06.pdf)  
[https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0026/364652/dental\\_07.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0026/364652/dental_07.pdf)

#### Risks and complications associated with extraction:

<https://oasisdiscussions.ca/2013/03/19/oc-2/>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8479434/>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8692004/>  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5339603/>  
[https://www.dhsv.org.au/\\_data/assets/pdf\\_file/0005/155921/Information-about-Oro-Antral-Communication-OAC.pdf](https://www.dhsv.org.au/_data/assets/pdf_file/0005/155921/Information-about-Oro-Antral-Communication-OAC.pdf)

#### Pain Medication:

[Combined ibuprofen/paracetamol medicines - NPS MedicineWise](#)  
[Paracetamol/ibuprofen combinations for acute pain - NPS MedicineWise](#)

## PINK SET: CLUSTER 3

(Clinical Treatment and Evaluation)

### TOOTH CRACKED WITH RESPECT TO RCT DONE BY ANOTHER DENTIST

#### VERSION 1:



Mr. Burke had a root canal treatment on a lower right molar three days ago by another dentist. Mr. Burke has a follow-up appointment with that dentist in two weeks but came to see you today due to post-treatment pain. Pain is mainly from biting. He mentions, the previous dentist did not explain potential complications. Upon examination, you found a stainless steel band and glass ionomer cement (GIC) used as a temporary restoration. He experiences pain when biting and sensitivity to hot and cold. An X-ray reveals slightly inadequate obturation in one of the roots and radiolucency in the furcation area.

**Provide a differential diagnosis for his pain and address the patient's concerns.**

## PINK SET: CLUSTER 3

(Clinical Treatment and Evaluation)

### TOOTH CRACKED WITH RESPECT TO RCT DONE BY ANOTHER DENTIST

#### VERSION 2:



Mr. Burke had a root canal treatment on a lower right molar three days ago by another dentist. Mr. Burke has a follow-up appointment with that dentist in two weeks but came to see you today due to post-treatment pain.

Dentist is away for 2 weeks, and he is seeing you for a crown appointment next.

Pain is mainly from biting. Upon examination, you found a stainless steel band and glass ionomer cement (GIC) used as a temporary restoration. An X-ray reveals slightly inadequate obturation in one of the roots (around 1-2 mm). (It looked like a good RCT with a good seal).

**Provide a differential diagnosis for his pain and address the patient's concerns.**

## CASE (version 1):

### Introductory paragraph:

Mr. Burke, thank you for your patience while I was checking. I understand you have been experiencing pain since 3 days after your RCT, is it right?  
Can you describe a little bit more about your pain ?  
Did you have swelling on your face in the last 3 days?

### Understanding patient's situation:

Have you had similar pain before starting treatment? Is there any pain around the gums? Any particular trigger for pain?  
Did you have any pain in between appointments?  
Did the pain start shortly after filling the canals or was it a few days later?  
On a scale of 1-10 how severe is it?  
Are you taking any medications for the pain? Is it helping?  
I also noticed that you have a band around your tooth, did your dentist mention why he is putting it?

### Explanation of findings:

Mr. Burke, it is quite normal to experience some discomfort after undergoing root canal treatment (RCT). This is known as post-operative pain and can occur due to mechanical or chemical irritation of the root tip. Typically, this pain should gradually decrease over time as more healing occurs.

Let's have a look at the x-ray together. At this moment, the RCT appears to be satisfactory based on the X-ray. Can you appreciate this one root has a short filling. There are reasons for us to have a short filling, it does not always mean bad. Moreover, this x-ray is a 2D representation of a 3D structure. To confirm this, we may need to take another X-ray from a different angle or consult with your dentist for further information.

What are your thoughts on this?

While RCT has a high success rate, there are instances where additional canals may be present that are too small to be detected during the procedure. These canals can still harbour bacteria, leading to persistent discomfort.

The shadow at the end of the roots of teeth usually takes 3-6 months to heal completely.

The band placed around the tooth could be placed to prevent further breaking down of the tooth. RC treated teeth have a risk for fracture, as the living structures are removed from the tooth making it more brittle.

Pain on biting could be experienced because of a high spot on the tooth or because of impingement of the band over the gums.

Are you okay, Mr Burke?

### Treatment and evaluation:

So for today, I will ensure that I check for any high points and trim them if necessary. Regarding your pain, since I cannot find an obvious cause, I suggest we wait 3-4 more days. If it is postoperative pain, it should subside by the 7th day.

Also I will check for the band if it's impinging on the gums and giving you discomfort, I would understand that by seeing if your gums look blanched on biting down.

I can see that your temporary filling is in good condition, so it should provide an adequate seal. Another option would be to consult a specialist, but that may come with a higher cost and a longer waiting period.

I will prescribe pain relievers, tablet Paracetamol 1000 mg every 4-6 hours, and Ibuprofen 400 mg every 6-8 hours until I see you for a follow up.

I would recommend a follow-up appointment in 3-4 days to assess your progress. Once your dentist returns, you can consider visiting him for a crown appointment.

If the pain persists, we will discuss further treatment options, including retreatment to save the tooth or extraction.

Do you have any questions? Please do not hesitate, if you want me to repeat anything.

### Links to understand this case better:

#### Dilemma whether to place a crown after RCT:

[https://www.researchgate.net/publication/352858571\\_Crown\\_or\\_not\\_to\\_Crown\\_after\\_RCT](https://www.researchgate.net/publication/352858571_Crown_or_not_to_Crown_after_RCT)

The following links are for reference with good understanding but not as direct Australian guidelines:

<https://parramattagreendental.com.au/root-canal-tooth-cracked/>

<https://www.wahroongadentalgroup.com.au/cracke-tooth-after-root-canal/>