



WINSPERT



# OSCE CASES

## GOLD SET



**GOLD SET: CLUSTER 1**  
(Clinical Information Gathering)  
**CONSENT FOR EXTRACTION WITH M/H OF  
PREDNISOLONE AND ACTONEL**

Mrs. Xiao, a 55-year-old patient, visited your clinic today, complaining of pain in tooth 37 for the past 10 days. Upon examination, you find that tooth 37 is severely decayed and beyond repair, necessitating extraction. Medically, she is in good health. She has been taking Actonel 150 mg once a month for osteoporosis for the past four months and prednisolone 10 mg daily for rheumatoid arthritis for the past seven years. Additionally, she had a hip replacement three years ago.

**3 versions of possible diagnosis**

- 1 **Irreversible pulpitis**
- 2 **Periapical infection**
- 3 **Wobbly tooth with no pain**

**Obtain consent for the extraction, explain the necessary investigations, and address her concerns.**

## CASE:

### Opening remarks/ statement:

Mrs. Xiao with the pain of 10 days, it's not the best few days for you, how are you coping with this pain? I hope you are able to eat and sleep well. Did you eat this morning? (If no and you feel unwell, let me know, I can arrange something for you).  
I have had a look inside your mouth, to help you best today can I ask you a few relevant questions?

### Exploring the chief complaint

(Ideally, pain questions need to be asked in detail, but this case has extensive medical history that needs to be addressed, because of the time constraint: asking relevant questions about pain like the nature of the pain, if it has changed in its intensity, any swelling or fever? And if pain is affecting her daily routine?

(If any question you ask in the opening remarks, do not ask them again).

#### Site

- "Where is the pain?"
- "Can you point to the tooth or area in question?"

#### Onset

- "When did the pain start?"
- "Did it come on suddenly or gradually?"

#### Character

- "How would you describe the pain?" (e.g. achey, sore, throbbing, sharp)
- "Is the pain constant or does it come and go?"
- "Is it similar to the one experienced before getting any treatment?"

#### Radiation

- "Does the pain spread elsewhere?"

#### Associations

- "Are there any other symptoms that seem associated with the pain?" (e.g. bad taste, fever, discharge)
- "Any swelling around the gums or on the face observed?"
- "Any wobbly teeth appreciated?"

#### Time course

- "How has the pain changed over time?"

#### Exacerbating or relieving factors

- "Does anything make the pain better?" (e.g. analgesics)
- "Does anything make it worse or trigger it?" (e.g. cold, touch, bending, lying down)

#### Severity

- "On a scale of 0-10, how severe is the pain, if 0 is no pain and 10 is the worst pain you've ever experienced?"

### Relevant history and explanation of risk factors:

(Patient has an elaborate medical history. So, most of the time will be consumed with this. Additionally you can ask about the extraction associated history).

I have had a brief look inside the mouth and I can say the tooth does not look promising and unfortunately needs to come out. However, what caught my attention was the medications that you take.

#### 1 Medical history

Thank you for filling out the detailed form for us. I happen to notice you have been taking prednisolone for 7 years and actonel since 4 months.

First, I would like to know how GP follow ups are going with respect to medications and medical conditions? (That's good to know Mrs. Xiao)

Both these medications have quite an impact on our body if taken for a longer duration.

How did you go after the hip replacement procedure? (Great to know everything is going well).

#### 2 Social History

Do you smoke Mrs. Xiao? How about alcohol?

#### 3 Risk Factors

My priority is to take you out of this painful situation. However, risks need to be considered to prevent you from landing into a complication.

When I mentioned an impact on the general body, it means Prednisolone medication suppresses our immune system if taken for more than 3 weeks and thus it will affect the healing process after tooth removal. But, what's more concerning is the medical emergency Adrenal crisis associated with this medication taken in the long run. This situation arises if a patient taking this medication is going through physiological stress, which means your body is in a tensed state possibly because of a tooth removal procedure and because of this stressed state, stomach upset and the body's blood levels drop down to an extent where the patient can collapse any time even while asleep. Thus, to prevent this situation from happening, patients need an action plan or recommendation of antibiotic prophylaxis given by a treating medical practitioner, be seen for the morning appointment and be accompanied by a responsible adult for 2-3 days.

Are you alright so far? Please do not hesitate to stop me and ask at any time.

Also, with the medication Actonel, it's a bone modulating drug meaning having an impact on the growth of low jaw bone. And, if this medication is taken along with other risk factors present like immunosuppression (other factors present like periodontal problem, local pus, smoking, denture use), it puts you in a situation to develop a complication called Medication related osteonecrosis of the jaw. This is a condition where the bone fails to heal and dies especially if the tooth is taken out and the bone is still exposed after 8 weeks.

Because of these risks involved, Mrs. Xiao, the best person to take care of your teeth and manage if complications arise, is an oral surgeon. What are your thoughts?

### Antibiotics

- In this case, usually, the patient will say can you please give me antibiotics as the previous dentist gave them to prevent infection in the hip replacement joint.
- Based on GP's decision, antibiotic prophylaxis could be needed if the patient is taking prednisolone for a really long time.
- Active and acute peri-apical infection if present, then we will give antibiotics, unless we are doing an active treatment within 24 hours).

Depending on the given above situation, you will decide to give antibiotics.

For the first situation, mention, that Mrs Xiao I understand your concern, let me understand the notes from the previous dentist for the need of antibiotics. The reason I'm hesitant is because there have been changes in the guidelines and we prevent antibiotic prescription in avoidable situations because of risks associated with antibiotic use.

The risks range from having stomach upsets to hypersensitivity reactions.

Moreover, there is more risk of developing infection from our daily oral hygiene habits.

### Investigations

How about Mrs. Xiao, I perform few tests to confirm the status of your tooth and make the best plan for you to decide on?

E/O: I will begin with checking the symmetry of your face. Also, I will feel with my hands if there are any sore spots on your face and if we could appreciate any swollen lymphnodes around the face.

I/O: Inside the mouth I will have a look at the area of concern thoroughly. Have a feel of the gums in the area with my gloved fingers to know if you feel the pain or appreciate any pus coming out of the area. The next I will check if the teeth are wobbly in the region.

I have a calibrated instrument to check the depths of gums of teeth in the area.

Also, I will do a test called as pulp sensibility where I'm going to apply a cold spray onto your teeth. You let me know when you feel the cold sensation and when the sensation disappears, as depending on that I will understand the status of the tooth.

Later after all these tests, I will take one xray specific to this area called as a periapical x-ray.

### Important aspects in this case

- To understand the history of patient in terms of pain history given. Whether its an irreversible pulpitis, periodontal abscess or periapical infection and the prognosis of the tooth. (remember this is a cluster 1 case, try to gain information more than management).
- This case could be about patient requesting for antibiotic prophylaxis, instead of saying no, try to understand why patient wants it, if previously given was it consulted with GP and given.
- Bold part would most probably ask for consent for extraction: Consent is mainly about informing the patient about the risks and patient understanding the risks associated with it. Risks mainly involving the medication actonel and prednisolone.

**Important links to read to understand this case better:****Learning about actonel:**

<https://www.nps.org.au/assets/medicines/e2fe712a-94d0-4165-9b61-a53300ff0a89.pdf>

**Prednisolone:**

Read therapeutic guidelines.

<https://www.healthdirect.gov.au/prednisolone>

**The risk of MRONJ:**

Read therapeutic guidelines. Specially the flow chart about the risk.

**Adrenal crisis:**

<https://www.rch.org.au/uploadedFiles/Main/Content/endo/CPG%20adrenal%20suppression%20secondary%20to%20exogenous%20glucocorticoids%20for%20website.pdf>

## **GOLD SET: CLUSTER 1**

(Clinical Information Gathering)

### **FIVE YEARS OLD WITH A DRAINING SINUS**

#### **VERSION 1:**



Five-year-old Sally is here today with her mother, who reports that Sally is experiencing discomfort and has a pimple on the upper right side. The pain experience is dull and also has some bad taste in the mouth. At times she also experiences sensitivity in some other teeth which is triggered by hot and cold.

Upon examination, you observe a draining sinus in tooth 54 region. Sally had a GIC filling done by the school dentist a few months ago. Sally is not bothered by the filling but her mother is upset with the dentist.

Sally's diet consists of juices and muesli.

**You need to gather more information, determine the necessary investigations, and address her mother's concerns.**

**GOLD SET: CLUSTER 1**  
(Clinical Information Gathering)  
**FIVE YEARS OLD WITH A DRAINING SINUS**

**VERSION 2:**



Five-year-old Sally is here today with her mother, who reports that Sally is experiencing discomfort and has a pimple on the upper left side. The pain experience is dull and also has some bad taste in the mouth. At times she also experiences sensitivity in some other teeth which is triggered by hot and cold.

Upon examination, you observe a draining sinus in tooth 54 region. Sally had a GIC filling done by the school dentist a few months ago. Sally's diet consists of natural juices and sultanas.

**You need to gather more information, determine the necessary investigations, and address her mother's concerns.**



## CASE:

### HOPC

Sally's mum, it must not be easy for you to see Sally in this condition. (Especially with mother, be extra empathetic). Sally's mum, how would you want me to address you today? Okay Mrs/ Ms....., so let's understand more about Sally's situation. How will you describe the pain experienced by Sally? When did you notice a pimple ? Is it the first time she has got pimple on gums? Did the pimple burst anytime?

**If pain is present ask the following questions:**

### Site

- "Where is the pain?"
- "Can she point to the tooth or area?"

### Onset

- "When did the pain start?"
- "Did it come on suddenly or gradually?"

### Character

- "Did you notice any change in Sally's routine habits?" (e.g. unable to sleep well, eat well or play)
- "Is the pain constant or does it come and go?"

### Radiation

- "Does the pain spread elsewhere?"

### Associations

- "You mentioned she has bad taste, are there any other symptoms that seem associated with the pain?" (e.g. swelling, fever).

### Exacerbating or relieving factors

- "Have you noticed, does anything make the pain better?" (e.g. analgesics)
- "Have you noticed, does anything make it worse or trigger it?" (e.g. cold, touch, bending, lying down)

### Addressing the complaint:

(If the mum wants to talk about this first, focus on this first before HOPC).

Mrs./ Ms....., when was the filling done for Sally? How did she go with the treatment? Any discomfort that was experienced immediately? Did the school provide with the details of Sally's treatment?

Mrs./ Ms....., I can understand your apprehension, which is valid.

(If patient's mum is insisting on complaints: Mrs./ Ms....., you have all rights to complaint, however, how about we discuss the situation with school, get her records transferred? You can also have a word with the dentists/nurses of school and get clarity. What are your thoughts on this Mrs./Ms...? If you are not comfortable to talk to school nurse or dentist, we can discuss this with school authorities and they would help us)

### Explanation of possible causes:

Mrs./ Ms..., a pimple on gums appear after a decay from the tooth has progressed to the end of the tooth and then the infected pus formed by germs over a long time comes out through the least resisted way via gums. If that pimple bursts, there would be pus coming out from it. And that least resisted way could be anywhere in the gums which is not directly related to the tooth nearby. Thus, performing few tests would give us clarity on that.

And there could be more than one reason for it to happen in her case. So, Mrs./Ms... will it be okay for you to answer few relevant questions for me?

### Relevant history and explanation of risk factors:

#### 1 Dental History

Other than the school visit to dentists. How often does Sally visit dentist? Have any concerns been raised in the previous dental visits?

**Correlation:** What happens within teeth and gums couldn't be appreciated with our eyes, hence few tests by dentists can help us intervene early stages of decay.

#### 2 Oral History

How does sally go with her brushing of teeth? Do you assist her? Have you introduced floss to her? What toothpaste does she use?

**Correlation:** The start of any disease or its progression is best controlled by our own efforts. Hence, taking care of teeth at home major contribute to decay or further stages. I understand children and toothbrushing don't go well always. I will help you with some interesting videos to tackle this in kids.

#### 3 Social History

How is Sally's diet? Kids have sweet tooth and that's alright too. Does Sally have one? Do you think she frequently snacks? And how is her water intake?

**Correlation:** Why do I ask about this, our diet plays an important part as it's the fuel for the progression of decay. Moreover, if given frequently we could imagine how much damage it will cause. Thus, we need to give enough water to rinse it away, as well as innate mechanism of our saliva also helps to prevent decay.

#### 4 Medical History

Sally looks fit and well to me. Did she have any major illnesses or fever during her early few months of life? How is she medically Mrs./Ms...? Is she on any medications? Does she have any allergies?

**Correlation:** Our mouth is a mirror to the medical conditions. Also medications we consume could have an impact on our teeth, gums and saliva.

### Investigations:

Mrs./Ms.... Will you be okay if I perform the tests and have a thorough look to help you out the best and to get a clearer picture for Sally?

I will begin with the outside of her mouth. Feel her cheeks and look for any appreciable swelling.

Inside her mouth, I will have a thorough look at the side which is affected. Look clinically at each tooth, and check if any of the teeth are wobbly. Then, I will also have a careful look at the gums in the area and have a feel with my gloved finger.

Also, I will take a few x-rays with your consent. Primarily I will take a periapical x-ray. ( If the lower tooth is affected say - But, that is uncomfortable for the kids. Then I can take a bitewing x-ray).

### Important points for this case:

- Addressing the complaint, if mother wants to talk about the complain procedure, walk her through the process.
- With young kids, parents will be emotionally thinking, so be considerate and try to promote health later after understanding concerns.
- If she is in pain and did not sleep or eat well, try to encourage mum about looking into the cause as we want the best for Sally.

### Important links to read to understand this case better:

#### Tooth calcification times and defects associated:

<https://aapd.org.au/resources/enamel-defects/>

#### Brochure on teeth and maternal health:

[https://www.dhsv.org.au/\\_data/assets/pdf\\_file/0016/152251/teeth-oral-health-information-for-maternal-and-child-health-nurses-manual.pdf](https://www.dhsv.org.au/_data/assets/pdf_file/0016/152251/teeth-oral-health-information-for-maternal-and-child-health-nurses-manual.pdf)

#### Oral health guidelines for child health:

[https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2014\\_020.pdf](https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/GL2014_020.pdf)

#### Defects on the teeth because of early issues in life:(not too relevant article, but can have a read).

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671208/>

**GOLD SET: CLUSTER 2**  
(Diagnosis and Management)  
**GENERALISED SEVERE PERIODONTITIS  
IN A PATIENT (VERSION 1)**



Mr./Mrs. Baldowski, a 55-year-old patient, is attending your clinic today with complaints of bleeding gums and sensitivity. He also feels his teeth are becoming wobbly. Upon examination, you find that some of the teeth have grade 3 mobility. An OPG taken today reveals generalised bone loss. You diagnose the condition as generalised periodontitis with stage 4 and grade C.

His last visit to the dentist was long time ago.

His medical records indicate that he hasn't seen a GP in 10 years.

You decide to refer her to a specialist.

**Explain the reasons for the referral and address any concerns he may have.**



**GOLD SET: CLUSTER 2**  
(Diagnosis and Management)  
**GENERALISED SEVERE PERIODONTITIS  
IN A PATIENT (VERSION 2)**



Mr./Mrs. Baldowski, a 55-year-old patient, is attending your clinic today with complaints of bleeding gums and sensitivity. He has travelled for hours to visit you and belongs to an aboriginal community. He also feels his teeth are becoming wobbly. Upon examination, you find that some of the teeth have grade 3 mobility. An OPG taken today reveals generalised bone loss. You diagnose the condition as generalised periodontitis with stage 4 and grade C.

His last visit to the dentist was long time ago as he lives in the remote area.

His medical records indicate that he hasn't seen a GP in 10 years. She doesn't smoke or drink alcohol.

You decide to refer her to a specialist

**Explain the reasons for the referral and address any concerns he may have.**

## CASE:

### Introductory remarks:

Mr. Baldowski, thank you for your patience while I was checking inside your mouth. Can you tell me, more about the bleeding gums and the sensitivity that you are experiencing? I also appreciate how far you have travelled to get here and hope to help you in the best possible way.

While examining you and from your history provided, there are areas that caught my attention and possibly the reason for you to have bleeding gums and sensitivity.

Let me explain you with my findings and on the x-ray here.

### Explanation of findings:

(You did hear me call out few numbers while I was checking the gums, those were the gum depths and they usually range between 2-3mm. Now, in your case, it ranged between 8-10 mm. - mention this only if present in the scenario).

Can you see the overview of all your teeth in this x-ray? Now, the usual bone levels for any tooth are somewhere near the neck of the tooth (point it out on the xray). However, the levels of your bone has gone way beyond the neck of the tooth in most of your teeth and that too at an angle. Because, bone supports the tooth, a compromised bone has resulted in most of your teeth to become wobbly.

Are you following so far Mr. Baldowski?

### Discussion of medical records/ history given:

Also, Mr Baldowski, our oral health is a reflection of our general body health. And they have a two way relationship.

I happened to notice, you mentioned that you haven't been to the GP in a long time. Thank you for being honest, Mr. Baldowski, may I know the reason for this ?

And when was your last blood test done?

Why I was stressing on this, is because few medical conditions like diabetes mellitus and immunological conditions could be impacting oral health, specially our gums and bone. We wouldn't want to lose healthy teeth if the supporting structures are compromised?

Because of a greater extent of supporting structures are affected in your situation, and that concerns me.

Do you smoke or have you smoked in the past, Mr. Baldowski? (If no - lets focus on other risk factors)

Mr. Baldowski, I respect your decision, however I would want to encourage you on quitting smoking (If patient used to smoke for lot of years - congratulate on quitting, and say I'm so proud of you, as it is not an easy task). To explain in short, smoking reduces the blood supply and saliva thus increasing the bad bacteria responsible for gum disease. Moreover, body's capacity to fight these bacteria reduces. All in all, worsens the gum and bone condition.

### Diagnosis:

And because of the compromised supporting structures, you are experiencing bleeding gums and sensitivity. All these features are characteristic of a gum and bone disease, we term it as periodontitis.

And in your situation it is Stage 4 and Grade C periodontitis. What this means, is:

Stage 4 - relates to the excessive amount of bone loss of the teeth affecting the wobbliness of the teeth.

Grade C - Probably your medical status and smoking, has reflected on gums and led to the severe condition. These are modifying factors.

Is there any part you want me to repeat? Please do not hesitate, Mr. Baldowski.

### Relevant history and explanation of risk factors:

Mr. Baldowski, to help you out in a holistic way, is that okay if I ask you a few more relevant questions? As I don't want you to be losing teeth.

What are your hopes and expectations with your teeth?

#### 1 Dental History

When was your last dental visit? What was the purpose for the same?

Why was I asking this, is because, we try our best to look after the teeth but what's happening below the gums and within our teeth is best judged by a dentist. And thus to intervene any issues at the earliest best we see a dentist 6 monthly to keep our mouth healthy.

#### 2 Oral History

How do you look after your teeth?

Taking care of teeth is combined efforts from an individual and dentist with major contributing factors from individuals.

Most missed areas by us is between two teeth. And that's where the beginning of gum disease is. Hence, incorporating floss or interdental brushes in our routine is very important.

### Management:

For the bleeding and sensitivity concerns of yours, they are interdependent on your gums. Thus we need to manage it stepwise.

And with the severity of your condition Mr Baldowski, it's best to be seen by the expertise of a periodontist, a gum specialist.

Because, a specialist has special instrumentation and will have a surgical approach, which will help to clean the deepest areas as well gauge prognosis for each tooth.

I understand the travel is not easy for you. And thus to prioritise your health, Victorian Patient Transport Assistance Scheme (VPTAS) by

government of victoria would be of help. If you want to consider this, Royal dental hospital provides assistance with transport and accommodation both for specialist treatment.

In terms of treatment for today, Mr. Baldowski, how far is a medical centre from you? (After knowing the possibility of patient visiting medical centre whether it's early or far, decide on doing superficial clean today - if patient's visit to a GP is after 2 weeks or more - do superficial clean for him today as we do not want his medical health to compromise more).

As my superficial clean won't suffice and stabilise your situation. Rather, it can even create areas of non-healing wounds. So, I do not want to rush. I hope you are able to understand?

But, Mr. Baldowski, I'm going to help you and provide a detailed plan to help you with your gun situation.

And after the blood test, we can take steps in accordance with your GP and specialist to improve your oral health.

### Important points for this case:

- Patients are negligent about oral and medical health so understanding the patient's thoughts on health is important.
- Stressing the importance of correlation of risk factors to his/her condition.
- It's a lengthy case, so stressing on medical history, dental history and smoking prioritise that.
- Providing an appropriate rationale for the referral to periodontist and GP.
- Management and approach changes as the patient is travelling from rural areas and if belongs to an aboriginal community.

### Important links to read to understand this case better:

#### Medical conditions and periodontal disease

<https://health.adelaide.edu.au/arcpoh/dperu/colgate-periodontal-education-program/practice-information-sheets/medical-conditions-affecting-the>

<https://www.colgateprofessional.com.au/content/dam/cp-sites/oral-care/professional/global/general/pdf/OSCD.pdf>  
(Chapter 5 and 6)

[https://ada.org.au/getmedia/7ec60bb3-9139-456c-9e4b-1ea5cc05c98e/ADA\\_Submission\\_Inquiry-into-Diabetes-ADA-submission-31-Aug-2023-final-approved.pdf](https://ada.org.au/getmedia/7ec60bb3-9139-456c-9e4b-1ea5cc05c98e/ADA_Submission_Inquiry-into-Diabetes-ADA-submission-31-Aug-2023-final-approved.pdf)



<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/diabetes-and-oral-health>

<https://www.qld.gov.au/health/staying-healthy/oral-health/information-for/people-living-with-disability-or-health-conditions/diabetes-and-oral-health>

<https://www.teeth.org.au/diabetes>

**Transport and accommodation assistance by government:**

<https://www.dhsv.org.au/archived/preparing-for-your-appointment/travelling-from-rural-or-remote-area>

(At this stage applicable only to royal dental hospital)

**Brochures for patients to read about periodontal treatment:**

<https://adavb.org/news-media/latest-news/new-fact-sheet---periodontal--gum--disease->

**Smoking quitlines:**

<https://www.quithq.initiatives.qld.gov.au/>

## **GOLD SET: CLUSTER 2**

(Diagnosis and Management)

### **PATIENT WITH HAEMATOMA**

Mrs. Heather James is a regular patient at your clinic. Last week, you administered an inferior alveolar nerve block (IANB) and extracted her severely decayed tooth 36. The procedure was uneventful, and you provided her with post-operative instructions, advising her to return for a follow-up after a week.

Today, one week later, Mrs. James has returned, complaining of pain, swelling, and limited mouth opening. Upon examination, you observe facial swelling and a mouth opening of approximately 20 mm. You diagnose her with:

1. A hematoma, myospasm, and trismus.
- 2..A hematoma.

**Explain that these conditions may have developed due to complications from the local anaesthesia technique used during the procedure. Then, outline the steps you will take to manage her condition.**

## CASE:

### Introductory paragraph/ empathetic remarks:

Mrs. James, it's not in the best state that you are visiting me today. Unfortunate situations are not foreseeable and I'm sorry to see you in this state. However, I'm glad you have faith in me and have visited me. I want to assure you Mrs. James, I will be with you until you feel better. To manage you best Mrs James, let's understand from the beginning how did pain and swelling start ?  
I hope you ate and slept well.

### Understanding the seriousness:

(In any swelling situation, first begin with asking the severe features from therapeutic guidelines)

Mrs. Heather, do you feel breathless or unable to swallow because of swelling ? Also, you are unable to open your mouth, I will know the seriousness of that by checking how many of your fingers can fit in your open mouth.

The reason I was asking these questions, Heather, is to understand the seriousness and need to get medical attention first.

### Explaining the condition/ Diagnosis:

Now, Mrs. James, after having a look inside your mouth and from your symptoms, I'm considering the possibility of you having a haematoma and because of your limited mouth opening the swelling has led to myospasm and trismus. Apologies Heather, for using all the jargon words here. Let me explain to you each term.

Before proceeding to the removal, we discussed a few complications, one of which was haematoma, which is swelling due to pooling of blood. How does this happen? - injection technique used in your case targets a very deep area, we use few landmarks as a reference. However, because it's deep into the skin, there are bundles of nerves and blood vessels. Thus, chances of nicking the vessel are more. We take all the precautions however, while moving the needle inside or outside, it can happen.

When the pooling of the blood results in swelling it causes pressure and limits the muscle movement and the mouth opening, we call it myospasm and trismus respectively.

### Management:

Heather, I will be with you until you are out of the pain and this situation, I assure you this. Haematoma usually takes a few weeks to resolve, ranging from a couple of weeks to 4 weeks and the opening of mouth will take a week or 14 days to resolve. Management involves home remedies and wait and watch policy. There are several methods involved, I will tell you as well as give you in writing.

### Application of heat:

Placement of moist hot towels on the affected area for 10-20min/h for the dissociation of pooled blood.

I will prescribe you **painkillers**, so just confirming Heather, any changes to your medical history or allergies since I saw you last? (if no)

**Paracetamol 1000 mg 4 times a day for 3 days.**

**Ibuprofen 400 mg thrice daily for 3 days.**

I will review you after 3 days.

For physiotherapy, I will suggest jaw exercises: opening and closing, as well as lateral movements of the lower jaw for 5 minutes every 3 to 4 hours.

### How are you after all this information Heather? I understand it's a lot.

Haematoma usually resolves on its own and I will be doing follow ups every week and monitoring. However, if you are comfortable seeing an oral surgeon from the start, you also have that as an option. An oral surgeon will take a radiograph for muscles and intervene in the best possible way.

### What are your thoughts on this Heather?

### Important points for this case:

- Patients in pain and swelling need to be heard. So active listening to what patient needs are.
- Before giving management, knowing about the seriousness of the patient's situation. So, ask about the severe features of spreading odontogenic infection.
- In this case, it's probably because of your procedural complication, so accepting and reassuring patient that you will take active efforts.
- Providing the option of visiting an oral surgeon from the beginning.

### Important links to read to understand this case better:

#### Haematoma, pain and trismus following IANB:

<https://www.iosrjournals.org/iosr-jdms/papers/Vol18-issue5/Series-14/F1805142630.pdf>

#### Haematoma on cheek after infiltration:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6301842/>

#### Therapeutic Guidelines



**GOLD SET: CLUSTER 3**  
 (Clinical Treatment and Evaluation)  
**PATIENT WORRIED ABOUT OAC AND  
 INFECTION CONTROL (VERSION 1)**



Terry Jones, a student nurse from New Zealand and of Torres Strait Islander heritage, is visiting your clinic today with a complaint of pain from a top right tooth. During your examination, you observe that tooth 16 is severely decayed, with roots nearly reaching the sinus. You diagnose the condition as irreversible pulpitis and explain options to treat this tooth.

She prefers to extract the tooth as her family beliefs are to go for extraction over other treatments.

**Terry is interested in learning more about Oroantral Communication (OAC). And the infection control protocols your clinic follows to prevent the transmission of HIV and hepatitis.**

**GOLD SET: CLUSTER 3**  
(Clinical Treatment and Evaluation)  
**PATIENT WORRIED ABOUT OAC AND  
INFECTION CONTROL (VERSION 2)**



Terry Jones, a student nurse from New Zealand and of Torres Strait Islander heritage, is visiting you in clinic today. You work in a public hospital, where she studies. She has a complaint of unbearable pain from a top right tooth. During your examination, you observe that tooth 16 is severely decayed, with roots nearly reaching the sinus. You diagnose the condition as irreversible pulpitis and explain options to treat this tooth.

She prefers to extract the tooth as her family beliefs are to go for extraction over other treatments.

**Terry is interested in learning more about Oroantral Communication (OAC). And the infection control protocols your clinic follows to prevent the transmission of HIV and hepatitis.**

## CASE: (public hospital version)

### Introductory paragraph/ empathetic remarks:

Ms. Jones, having a painful tooth is one of the most unbearable pain experience. How are you coping with it?  
I have had a thorough look inside mouth and I would like to describe few options to you. Just before that, did you eat and sleep well in the last 24 hours?

### Introductory questions to judge situation/ need of antibiotics:

**(Patient is in uncontrollable pain, do not ask all the history questions)**

How about any swelling near your gums or on face? (If yes - Did the swelling affect closing of your eyes?)

Did you happen to check if you had fever? (Do not worry, I will check with thermometer too).

### Explanation of situation:

Terry, the unbearable pain experienced by you is because of the nerves of the tooth being involved. Let me explain you with the help of x-ray and my diagram here. A tooth has 3 layers and the decay started from the top most and reached the 3rd layer which encompasses the nerves and vessels of the tooth. As you can appreciate on the x-ray that I'm pointing at. (If it's an irreversible pulpitis as mentioned in scenario then you can say as follows:)

This painful tooth condition is very common within patients, we call it as irreversible pulpitis which means the nerves of the teeth are irreversibly damaged.

Ms. Jones, what are your hopes or expectations with this tooth?

### Clinical treatment and evaluation:

Terry, I will walk you through each option advisable for this tooth, however, you always have an option of no treatment.

Having said that Terry, with no treatment there would be worsening of the situation followed by an involvement of the tooth supporting tissues and the infection spreading further. This is not something I would want for you.

The most common treatment by saving a tooth is what we call as root canal treatment. We gauge the remaining tooth structure and decide for this treatment. It's a procedure where we remove the inflamed nerves from the tooth and fill it followed by the placement of crown on top of it.

Are you following so far Ms. Jones?

(If patient says I want to extract the tooth when you ask about expectations/ hopes - then mention Ms. Jones I respect your decision however, as your practitioner it's my responsibility to tell you all the options and that too best ones).

The advantage is we save the tooth, however, it is a multi-step procedure, it involves more finances and has an additional procedure after it.

The next one is tooth removal, this procedure we do not encourage unless prognosis is bad for a tooth. The reason being Ms. Jones, after tooth removal we have to look for replacement option immediately as it impacts the adjacent teeth and also the chewing potential in a back tooth.

Terry, I respect the cultural beliefs on taking this tooth out, however there are few concerns that I wanted to voice out. First being, how are your medical records? When was your last blood test and is everything well? The reason I ask is because healing process is impacted in few medical situations. And do you smoke Ms. Jones? The reason for that being a delay in healing process, also I will give you set of instructions to follow after tooth removal.

But, before everything, I need to discuss the striking possibility of a complication in your case with the tooth removal. Let's understand on the x-ray, can you appreciate this white line? That is a lining of a maxillary sinus which is a bone cavity filled with air. It looks like its overlapping, but we are not too clear on this as x-rays are 2-D representation of a 3-D tooth. And thus, there is a possibility of developing oro-antral communication in your case, oro means mouth and antral means that bone cavity. (Sometimes, because the patient is nurse would be aware of all the medical terms, so no need to go into details of it).

What are your thoughts on this Terry? I hope I'm making it clear for you.

In terms of this complication, depending on how big the communication is, the management would be either by me or by an oral surgeon. I would confirm the presence of communication by performing few tests.

Because of the possibility of OAC being more in your case, it would be best to see an oral surgeon for taking the tooth out. As, he would be more comfortable to manage it.

The great news is Ms. Jones, because you are visiting us in a public hospital, there won't be longer waiting times, you would be seen on a priority basis by our onboard oral surgeon.

Do you think this would be more comfortable for you?

In the mean time, I do not want you to have pain or other consequences of infection of nerves. So, I would advise to relieve the pain by performing extirpation of inflamed nerves, which is to remove the inflamed nerves from the tooth. Do you think, that will be convenient way for you in the mean time?

Terry, do not hesitate if you want me to repeat any options. As, we won't proceed with anything unless you understand and consent for the treatment.

### Infection control protocols:

**(Patient is concerned about blood borne transmission, so just provide information about that).**

Also for your concerns with respect to the HIV and hepatitis. For these blood borne viruses as well, Australian dental association/ Dental board of Australia adopts standard levels of precaution. These are set to a higher level to accommodate precaution against most of the organisms.

All the staff members of the clinic are upto date with their immunisation schedule.

All instruments sterilised by autoclave that also kills the spores and are verified by the sterilisation nurse in the room as well as by dentist in front of the patient. And then we open the packets. Moreover, extra precautions are taken with respect to needle injury, while handling them and making sure all the sharps are disposed off by the dentist.

In case of any needlestick injury, there is an appropriate protocol followed to prevent the transmission.

Our sterilisation room and staff are accredited timely by clinic first aid officer with all the updates by Dental board of Australia.



**Important points for this case:**

- Patient is a student nurse, she is going to be aware of medical terminologies. Respecting her cultural beliefs if at she mentions them.
- Torres strait islander's have free treatments in public hospitals including an emergency. Only specialist costs at reduced price incur.
- No antibiotic if no signs or symptoms of systemic features. Refer to therapeutic guidelines for the systemic features.
- Management approach has to be culturally respectful.

**Important links to read to understand this case better:****Understanding public dental care:**

<https://www.health.vic.gov.au/dental-health/access-to-victorias-public-dental-care-services>

<https://www.health.vic.gov.au/dental-health/victorias-public-dental-care-fees>

[https://www.rdhm.org.au/rdhm\\_patients/dental/dental-services-for-aboriginal-and-torres-strait-islander-peoples](https://www.rdhm.org.au/rdhm_patients/dental/dental-services-for-aboriginal-and-torres-strait-islander-peoples)

**Irreversible pulpitis and management:**

Refer to Therapeutic Guidelines.

**Infection control guidelines:**

[https://ada.org.au/getmedia/e99d888d-c0ab-4be1-b889-85e5193fd7e7/ADA\\_Guidelines\\_Infection\\_Control\\_Guidelines.pdf](https://ada.org.au/getmedia/e99d888d-c0ab-4be1-b889-85e5193fd7e7/ADA_Guidelines_Infection_Control_Guidelines.pdf)

**Management of OAC:**

[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)

<https://journalimplantdent.springeropen.com/articles/10.1186/s40729-019-0165-7>

<https://pocketdentistry.com/management-of-oroantral-communications-2/>

## GOLD SET: CLUSTER 3

(Clinical Treatment and Evaluation)

### ATHLETIC PATIENT SEEKING DIETARY ADVICE

Day	one	two	3
<b>Breakfast</b>	Orange juice Whole milk Muesli Wholemeal bread Margarine Jam	Orange juice Whole milk Muesli Cookies Jam	Orange juice Whole milk Muesli Wholemeal bread York Ham Toasted bread Jam
<b>Midmorning</b>	Bananas Cookies	Nonfat yogurt Honey Orange Cookies	Bananas Apple pie Wholemeal bread Jam
<b>lunch</b>	Spaghetti with tomato Grilled beef with cooked potato Apple	Paella Grilled horse steak Peach syrup	Peas with serrano ham Roast chicken with peppers Rice pudding
<b>Snack</b>	Fruit yogurt Cookies Jam	Orange juice Toasted bread Jam Rice pudding	Fruit yogurt Cornflakes Cookies
<b>Dinner</b>	Mashed vegetables Croquettes Egg flan	Rice salad Grilled sole with potatoes Apple	Salad Beef fillet with potatoes Nonfat yogurt Fruit juice Honey

**GOLD SET: CLUSTER 3**  
(Clinical Treatment and Evaluation)  
**ATHLETIC PATIENT SEEKING DIETARY ADVICE**

Mr. Sam Smith, a 28-year-old gym trainer and regular patient at your clinic, had a check-up during his last visit where you noted several interproximal caries/ erosion lesions and observed that his saliva is thick and stringy. You provided him with oral hygiene instructions, advised him to get some restorations, and asked him to fill out a diet chart.

Today, he has returned with the completed diet chart and is seeking advice on how to modify his diet. He is very health-conscious and follows a good diet regimen. Medically, he is fit and healthy.

**Address his concerns and provide guidance on diet modification.**

## CASE:

### Introductory paragraph:

Sam, its great to see you again and thank you for getting a diet chart along. How have you been since I last saw you?

And how did you go with the new oral hygiene routine? Initial few days will be difficult but once a habit sets in, you will ace in optimum oral care.

Other than discussing your diet chart I will be giving you tooth and gums healthy options. However, based on your body's nutritional requirements for your exercise/ gym/ sports routine, the best person would be a sports nutritionist. And then, me and your sports nutritionist can work out a plan for you.  
All good so far, Sam?

Sam, any changes or updates to your medical history/ allergies since the last time I saw you?

### Discussion of diet chart:

**(In exam it is going to be different and may vary each time, find the crucial food stuffs or drinks).**

Sam, good on you to keep up with a set dietary requirement and following the routine. However, there are few things catching my eye. When it comes to food it's not just the sugars Sam, but also the frequency of its consumption, acidic drinks or foods, sticky sugars and also the quality of our saliva affecting it. I noticed, you happen to consume sugars for each meal and also have several acidic foodstuffs.

Sam, it's not just you, all of us have a sweet tooth. I'm glad/ proud as you are actively seeking to optimise your oral health. And it's never too late.

### Discussion and Correlation of risk factors from diet chart:

As I mentioned earlier, the sugars are not solely responsible for tooth decay. As we noticed in the previous appointment, you have few early decay in between teeth and also erosion lesions which are primarily due to acidic reaction.

Let me explain you, whenever we consume sugars they increase the acidity within our mouth and you can imagine if we drink direct acidic drinks, how much of damage will it cause on our teeth.

Now, to balance the acidity, our saliva helps the mouth to maintain the pH levels. But, it does take a few hours to neutralise the acidity. But, if we feed our mouth continuously, the balancing time is compromised and that's when critical pH is crossed. Why we call it as critical, because the acidity is uncontrollable and the teeth starts to get affected (dissociates).

Sam, please do not hesitate to stop me at any explanation stage. Do you have any questions so far?

(Take any one or 2 foodstuffs from diet chart and acknowledge them in explanation).

Also, at night time for dinner, it's best we do have any sugars because at night time our body produces negligible saliva. So, all the decay fighting factors from the saliva are less. Hence, we advise to focus on optimising the oral hygiene before bed time in addition to usual routine.

(This is for sports drinks, if present in diet chart - Also I do understand there will be few dietary foods which you cannot give up on like sports drinks or energy bars. So, with sugary or acid drinks I would suggest to take sips of it with a straw followed by a sip of water to minimise contact with teeth.

And for energy bars - because there are sticky in nature, they do not easily wash off from the teeth, make sure you target the right areas to brush off these from teeth).

Sam, to sum up, I will draw a diagram and give brochures to you for better understanding of tooth healthy food and habits.

### **Treatment Plan:**

Sam, is there any information you want me to repeat? How should we go from here then - Along with the brochures to understand teeth healthy foods, I will send you contact of sports nutritionist.

I'm happy to know you are motivated to adopt a healthy lifestyle for your oral health which will also impact your general health as sugars are not great for our health in general too.

On website of sports dietitians australia (SDA) - you will find all the detailed information on nearby and suitable nutritionist for you. There is also other important knowledgeable facts to understand.

And for your initial decay lesions we can keep on monitoring those. I will see you in 3 months to have a follow up on diet and your oral hygiene routine. I will do a thorough check up and we will go from there until your condition of these initial lesion stabilises.

Are you allergic to milk? The reason I ask is I'm going to write a tooth mousse cream, which has mineral and milk protein to help mineralise the initial lesions of teeth. You can apply pea size on teeth after brushing teeth and let it be on teeth for 30 minutes to maximise it's effect.

For erosion lesions, we can keep on monitoring in the following appointments. I will also refer you to GP, to get clearance from internal acidity issues.

### **Important points for this case:**

- Have a careful look at the diet chart. Check if its the sports drinks frequency of sugars or sugars before night time as the issue.
- Do not state, that his diet chart isn't great at all, it could be insensitive. Always say everyone has sweet tooth and glad he is here. Now, we can work as a team for your general health and oral health.
- Congratulate him on how motivate he is to make change, as he has come back after first appointment for an active change.
- It's a cluster 3 case, so do not forget the treatment plan in terms of recalls and intervention for the early lesions or erosion lesions.



**Important links to read to understand this case better:**

**Sports dietitians Australia:**

<https://www.sportsdietitians.com.au/factsheets/fuelling-recovery/dental-health-for-athletes>

**Sports drinks and oral health:**

<https://strokefoundation.org.au/news-and-events/latest-news/2015/08/australians-urged-to-rethink-sports-drinks-for-dental-health-week>

<https://www.diabetesaustralia.com.au/blog/dental-health-sports-drinks/>  
<https://www.teeth.org.au/sports-drinks>

**Evans Article:**

Watch the videos on our app.