

# ONCOLOGY

M Lie

lieamichael@gmail.com

True or False?

Oncology cluster = Breaking bad news

# Topics

## Assess Knowledge

- Lymphoma
- Skin cancers: SCC, BCC, Melanoma

## Assess Communication

- Breaking bad news

# Case 01

You are working in a general practice in a small country town. A 58-year-old farmer, who lives with his family, 160 km outside of town, comes to see you as he is concerned about his family members, having seen a television program about skin cancer. He has taken photographs of his family's various skin lesions and asks for your advice about the need for them to seek medical attention, and whether attendance is urgent. They are all very busy harvesting crops and will be so for several weeks. The farmer presents the following photographs showing (see the following slides).

■ Tasks:

- a. Indicate which lesions are likely to be benign, and which are likely to be malignant or suspicious of malignancy.
- b. Indicate which member(s) of the family require(s) the most urgent treatment.
- c. Indicate the mode of spread of any malignant lesions you diagnose.



Lips of his 35 years old son



Neck: 50 y.o Brother



Chest 52 y.o brother (drinks a lot alcohol)



Face: 82 y.o Father



Leg 58 y.o wife



Cheek 22 y.o daughter

# Case 01 – ANALYSIS → knowledge assessment!!

You are working in a **general practice in a small country town**. A 58-year-old **farmer**, who lives with his family, 160 km outside of town, comes to see you as he is **concerned** about his family members, having seen a television program about **skin cancer**. He has taken photographs of his family's various skin lesions and asks for your advice about the need for them to seek medical attention, and whether **attendance is urgent**. They are all very **busy harvesting crops** and will be so for several weeks. The farmer presents the following photographs showing (see the following slides)

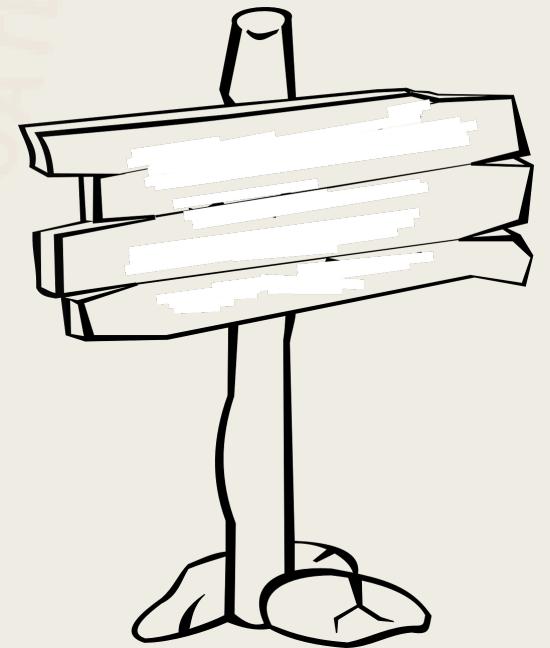
## ■ Tasks:

- a. Indicate which lesions are likely to be benign, and which are likely to be malignant or suspicious of malignancy.
- b. Indicate which member(s) of the family require(s) the most urgent treatment.
- c. Indicate the mode of spread of any malignant lesions you diagnose.

**Got 6 pics, so can only explain each for approximately 1 mins → give more time to the important one!**

# Tips

- Appreciate patient for coming
- Address the concern → skin cancer
- Grouping: some are not dangerous, other is concerning
- Sign posting:
  - *'firstly.. Let's have a look at.. Secondly...'*
  - *'The other may be a bit concerning...'* (sign posting that you're going to explain some bad news)
- Start from the good one first
- Explain:
  - *Case*
  - *Cause*
  - *Complication*
  - *Red flags*
- Encourage patient to ask questions / express feelings in between.



# Face of his 22 y.o daughter = melanocytic naevi (common moles)



- **Reason:**
  - Color
  - Smooth surface
  - Border distinct
  - No other dangerous sign
- Important to tell the patient:
  - Its common
  - Its benign
  - Cosmetic issue → can be removed
  - Red flags

# Face of his 82 y.o father (seborrheic keratosis)



- Reason:
  - Age groups (extremely common in >60 y.o)
  - Well defined border, warty (finger like surface or rough surface)
  - Can be anywhere but palms and soles
  - Benign conditions
- Red flags:
  - Typical malignancy characteristics
  - 'The Ugly Duckling'

# Chest of his 52 y.o brother (drinks a large amount of alcohol) → Spider Naevi



- **Reason:** Dilated small blood tubes on the skin, resembling a spider appearance
- Can be a normal findings, but can also be an abnormal findings (multiple)
- On the background of alcoholism
  - *Better get it check!*
    - Tell what to expect → LFT, US liver if necessary, alcohol cessation program

“The next condition we’re about to discuss is something more concerning”

# Neck of his 50 years old Brother → BCC



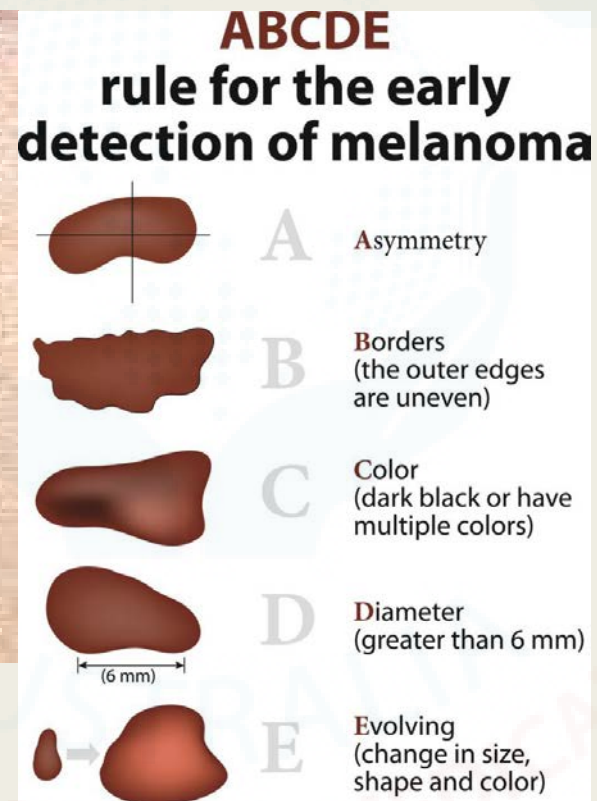
- This is likely to be a type of skin cancer called BCC.
- **Reason:** It appears to be a pearly looking bump, with visible blood vessels (telangiectasis)
- Essentially all skin cancers mainly caused by prolonged exposure of UV light, as.....
- Least dangerous type when compared to other skin cancer
- Less likely to spread to distant organ, but if left untreated, cause **local** destruction
- Management is readily available by removing the cancer surgically, and he should seek urgent review

# Lips of his 35 years old son → Lip SCC



- I'm afraid that this is highly suspicious of a cancer we called SCC on the lips
- Consideration: location (upper part of lips), painless ulcer with elevated border.
- Unlike the BCC, this type of cancer has the potential to spread to distant organ and causing serious problem.
- It can spread mainly through a specialised vessel we call the lymphatic vessels, although on some cases may also spread through the blood tubes.
- More importantly, Lip SCC is more aggressive!
- Advise to meet me urgently for further assessment and treatment which may include: surgery removal, radio or chemotherapy.

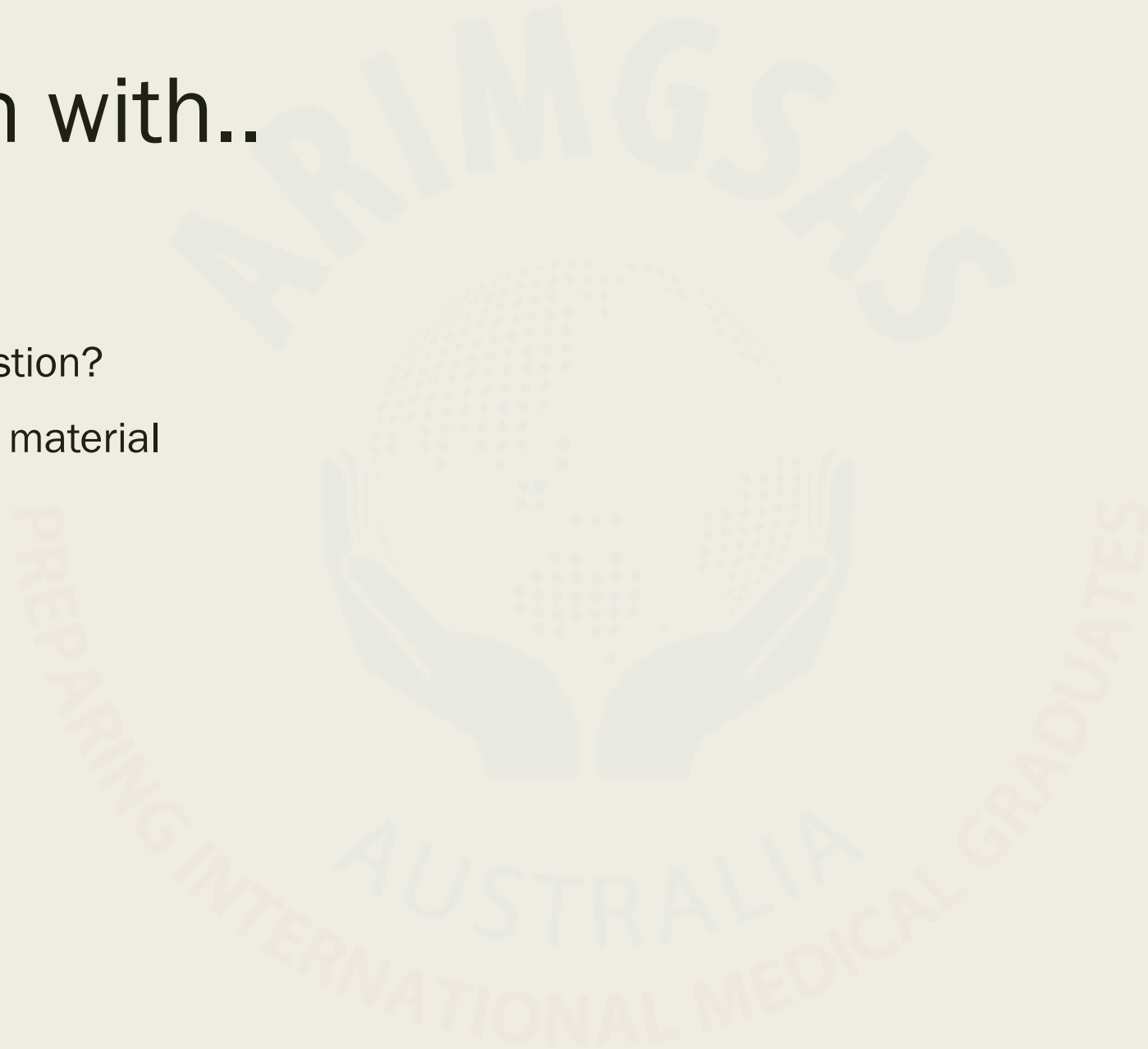
# The leg of his 56 y.o wife → Malignant Melanoma



- Most dangerous
- Spread mainly through blood vessels
- Need the most emergent assessment and management

# Finish with..

- Any question?
- Reading material
- Review



# Case 02

You are working as a resident in a GP clinic. The next patient is a 60-year-old, Ms. James who had seen one of the other doctors about a week ago complaining about a 6 months' history of nausea, regurgitation and right upper abdominal discomfort. He had undergone a cholecystectomy in the past but no other history. A range of investigations were ordered, and he comes back today for the results. He now complains of lower leg swelling and back pain.

The main results are:

- *A microcytic hypochromic anaemia with Hb. of 97 g/L*
- *CT of the liver which shows multiple round defects all over the liver which could be either a primary liver cancer or disseminated, metastatic cancer from another organ.*

Because of the iron deficiency anaemia, one would consider a gastrointestinal primary tumour first. This situation is most likely an incurable condition but needs further investigations to confirm the nature of the malignancy and possible interventions.

■ Your tasks are to:

- *Explain the results and the most likely diagnosis to the patient*
- *Advise the patient regarding further management*



# Case 03 - ANALYSIS

- You are working as a **resident in a GP clinic**. The next patient is a 60-year-old, **Ms. James** who had seen one of the other doctors about a week ago complaining about a 6 months' history of nausea, regurgitation and right upper abdominal discomfort. He had undergone a cholecystectomy in the past but no other history. A range of investigations were ordered, and he comes back today for the results. He now **complains of lower leg swelling and back pain**.
- The main results are:
  - *A microcytic hypochromic **anaemia** with Hb. of 97 g/L*
  - *CT of the liver which shows **multiple round defects all over the liver** which could be either a primary liver cancer or disseminated, metastatic cancer from another organ.*
- Because of the iron deficiency anaemia, one would **consider a gastrointestinal primary tumour** first. This situation is most likely an **incurable condition** but needs further investigations to confirm the nature of the malignancy and possible interventions.
- Your tasks are to:
  - *Explain the results and the most likely diagnosis to the patient*
  - *Advise the patient regarding further management*

# The SPIKE approach

- S: nothing to do
- P: do you know why we do the test?
- I: tell me how much do you want to know about your medical condition? Do you make your own medical decision ?
- K:
- E: RECOGNISING is important!!
- S: ensure to summarise in the end (if time permits)

**S**etting up and starting. Mentally rehearse and arrange for privacy.

**P**erception. Elicit the patient's perspective.

**I**nvitation. Ask the patient what they would like to know.

**K**nowledge. Provide information in small pieces.

**E**motions. Recognize and empathize with the patient's emotions.

**S**trategy and summary. Set out a medical plan of action.

# Breaking bad news example

- [https://www.youtube.com/watch?v=\\_u0S7hfKkVI&t=404s](https://www.youtube.com/watch?v=_u0S7hfKkVI&t=404s)



# Tips (based on common mistakes)

- Active listening is important
- Follow the emotions, not everyone will cry!
- Control yourself, patient might be mad
- Don't be afraid to say 'cancer'. Last thing you want is a misunderstanding
- SPIKE is a guide
  - *The point is, put just enough empathy, and allow some silence*
  - *Be as natural as you can be*
  - *Each candidate will be different, so allow yourself some training, and see what suits you best*

# First step – build rapport, set expectation

- Hi, How are you?
- appreciate for coming
- Address symptoms now: leg swelling and back pain (the extend of discomfort)
  - *Have you had any pain medication? How does that helps?*
- Set agenda: I can understand that you're here to discuss your investigation findings
- Do you know why we did all the investigation? Do you have any expectation regarding the findings?

# Time to break the bad news

- As you recall, we did a CT scan of your tummy and also some blood test.
- And I have here your investigation results with me..
- I'm afraid I don't have a good news for you today, Ms. James..
- .
- .
- Allow silence.. (silence DOES NOT mean you do not do anything) → body language
- Do you want anyone to be here with you?
- The scan show that you are likely to have cancer in your liver, and the pattern show that it is likely a spread from cancer elsewhere.

“do you want to go through the scan together with me?” (only if they give you pic)



- Here is the scan of your tummy.
- L is R, R is L
- This grey part is your Liver which located on the upper right side of your tummy
- The liver supposed to only have 1 color, which is grey.
- However, here we can see multiple specks of darker shade in the liver. In this case, the pattern is highly suspicious for cancer

# If they don't give you pic

- Ms. James... The scan show that you have multiple lesion in your liver, and the characteristic is very suspicious for a cancer.
- When we consider the possibility of cancer on the liver, we need to consider its origin
  - *Can be primary → from liver cells*
  - *Can be secondary → from elsewhere, and spread to the liver*
    - Looking at your symptoms with A, B, C.. This could be a secondary one. The common one is that this is likely coming from the bowel, and further investigation need to be done to find this out.
- Allow silence.....
- React to how the patient react..
  - *Angry?*
  - *Sad?*
  - *Cry?*
- Tell me how do you feel?? Do you need anything? anyone?

## Cont... (IV)

- Do want me to continue, Ms. James?
- I would like to discuss on what can we do to help you. Is that ok?



# Management Plan (investigation, immediate, long term)

## ■ Investigation:

- *Basic blood*
- *LFT, UEC (albumin is important – leg swelling)*
- *To look for primary:*
  - Tumor marker: CEA, Ca19-9, Ca125
  - Colonoscopy
  - CT chest
  - Mammography?
- *For staging: imaging of the back / PET scan*

# Immediate

- Referral to specialist →MDT
  - *Further assessment, and*
    - Biopsy?
  - *Ongoing management plan*
    - Includes chemo/radiotherapy

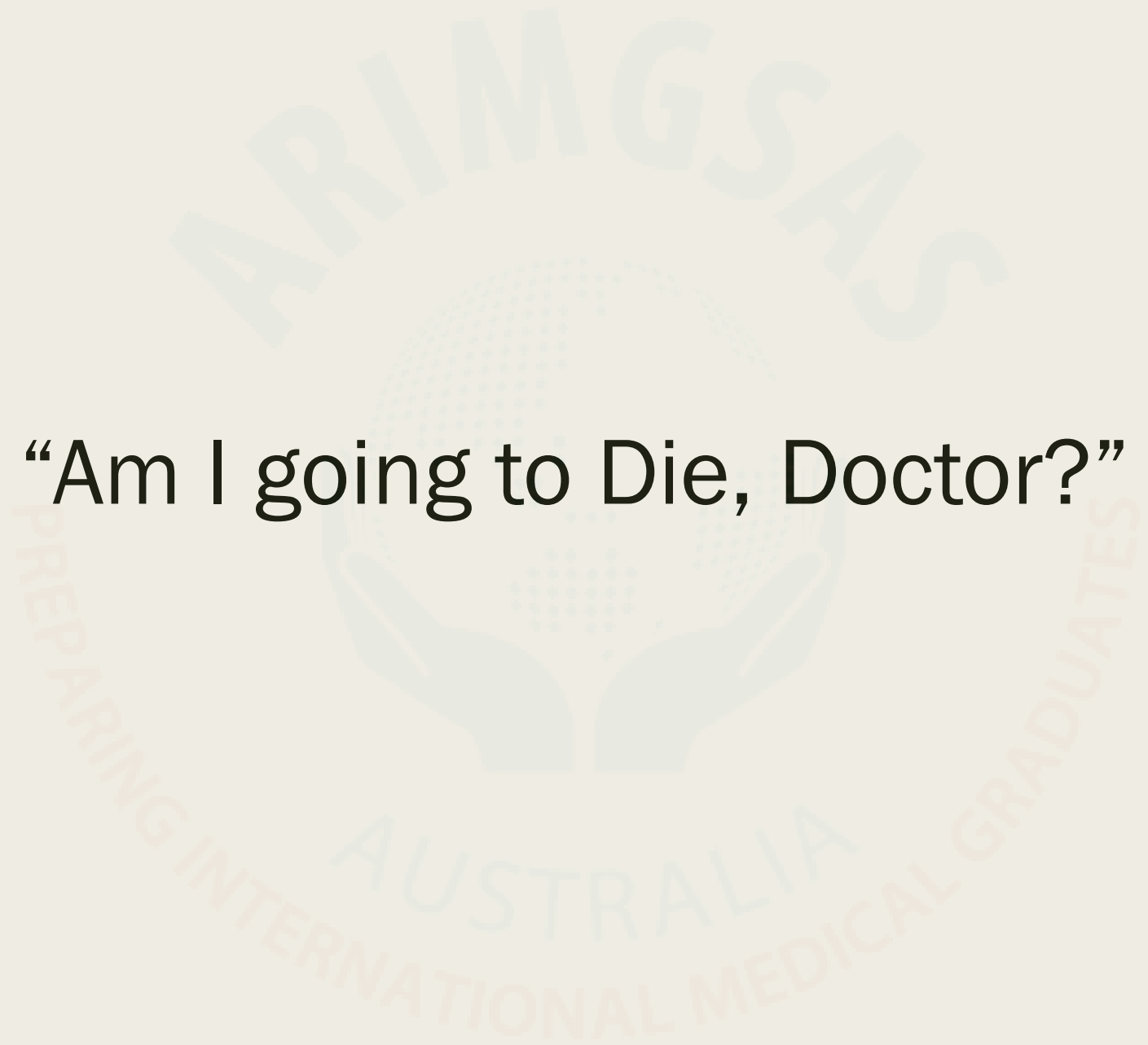
# Long term

- Ms. James, unfortunately if the cancer has been confirmed, the outcome is not really promising as it may have spread to the liver. And perhaps the things that we can offer not intended to cure the cancer, but to make sure you have the symptoms well managed.
- Allow silence...
- However, there are still so much things that we can do, especially to improve your quality of life, because we want you to live your life with as little discomfort as possible.
- I will make sure that I make a regular communication with you and the specialist and manage your symptoms accordingly
- I can also liase with the social worker and other support system that available to help you and your family with any issues that may arise.

# Tips at the end of the consultation, you can say:

- “I can understand that this is a lot of things to take at this time, Ms. James. Let's meet again in 2 days' time, you can write down all of your question, and we can discuss that. You can also bring your family if they need to ask anything, and I will be here to discuss this with you.”

“Am I going to Die, Doctor?”



# Be ready for:

- Am I going to Die, Doctor?
  - *I can understand your concern.. And the outcome is also not very promising. But there are a lot of things that we can do Ms. James, and I will make sure that we will be with you and your family throughout the whole process.*

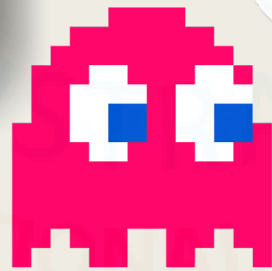
# Case 03

- You are a GP and your next patient is a 30-year-old male with a lesion on the right temporal site. The lesion was removed for cosmetic reasons. No abnormal physical examination findings detected. Later on, the histology report showed that it's squamous cell carcinoma without any perineural invasion and tumor margins are clear.
- Tasks: (there won't be any prompt time in this station)
  - a. Discuss the results with the patient.
  - b. Explain further management with a plan for follow up.

# Case 02 – ANALYSIS

- You are a **GP** and your next patient is a **30-year-old** male with a lesion on the right **temporal** site. The **lesion was removed for cosmetic reasons**. No abnormal physical examination findings detected. Later on, the histology report showed that it's **SCC without any perineural invasion** and tumor is **margins are clear**.
- Tasks: (there won't be any prompt time in this station)
  - a. Discuss the results with the patient. → **3-4mins**
  - b. Explain further management with a plan for follow up. → **4-5mins**

Is this a breaking bad news station?



# First step: Build rapport (Mini BBN)

- How are you doing?
- How do you feel? Any concern with the wound?
- **Set agenda:** I believe that we're here to discuss your biopsy result
- Do you know why we did a biopsy?
- Are you coming here alone? Anyone you would like to present here with you?
- So.. Biopsy result is here, and unfortunately it is positive for a skin cancer we called SCC

# How do you explain SCC? (I)

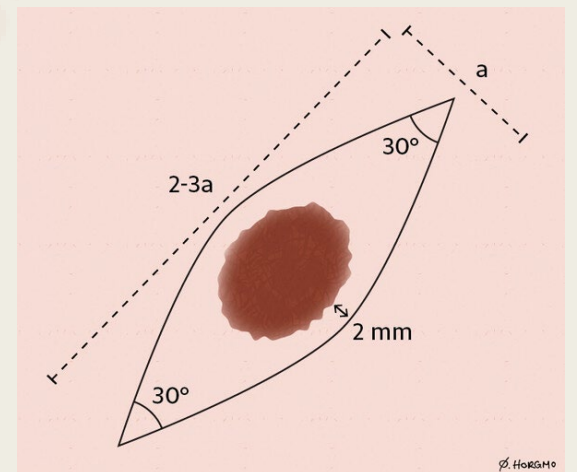
- A type of skin cancer, and it is the second most common skin cancer in Australia
- If we see skin really-really close, it consist of multiple layer, and in SCC, the top most layer undergo some changes into cancer cells...
- Many reason why, the most important is UV exposure → ask hobby or occupation
  - *Some may also have family history*

## Cont... (II)

- If this skin cancer left untreated, it may cause the cancer to spread to various organ and causes a big problem
- Many times, people may not aware that they have cancer, because it may resemble a common skin condition, and only detected through biopsy like in your case. (refer back to stems → show you have a high understanding on the case and approach this as a case-by-case basis)
- Any question?

# Biopsy margins are clear → good news!

- Although I understand the word cancer is really alarming, but here is the silver lining on this case.
- The reason we did a biopsy are not only to know what the lesion is, but also to see if we have removed it completely.
- Explain a little bit about excision margin



## Cont... (II)

- The report mention that we have a clear margin → removed completely
- Other: perineural invasion is not detected → good outcome
  - *Here you can breakdown the word perineural (peri= around, neural = nerve)*
- So, all in all (summarise) .....
- As this has been fully removed, at the moment there's no need for another surgical removal.

# Follow up

- Ensure wound healing first, +/- remove suture. ?in a week time.
- Every 3-6 months at first few years, goal is to detect new lesion early and detect the possibility of spread
  - *So, during follow up, we will do skin check and thorough physical examination*
- Then can reduce the frequency,
- But if during those time you feel (red flags) → come right away
  - *New lesion → mention symptoms*
  - *Metastasis → mention symptoms*
- Give advice regarding sun smart
  - *Cover*
  - *Sunscreen*
  - *Avoid*



# Close the consultation with: (can be used in ANY case)

- Arrange follow up
- Give red flags:
  - *Regrow*
  - *Complications*
  - *Bleeding or infection of the wound*
- Provide reading material
- Allow discussion or questions



What if margins are not clear??

# What if margins are not clear ?? (I)

- In most cases, SCC can be managed effectively through surgical removal.
- After each surgical removal, we would have a look on the biopsy to see some specific information
- Can I discuss with you into more detail about the biopsy result? (sign posting that there are still something more in biopsy)
- Firstly (signposting), the report shows that there are no perineural invasion, which means that there are no cancer cells detected at around the nerve cells on the skin.
  - *Here you can breakdown the word perineural (peri = around, neural = nerve)*

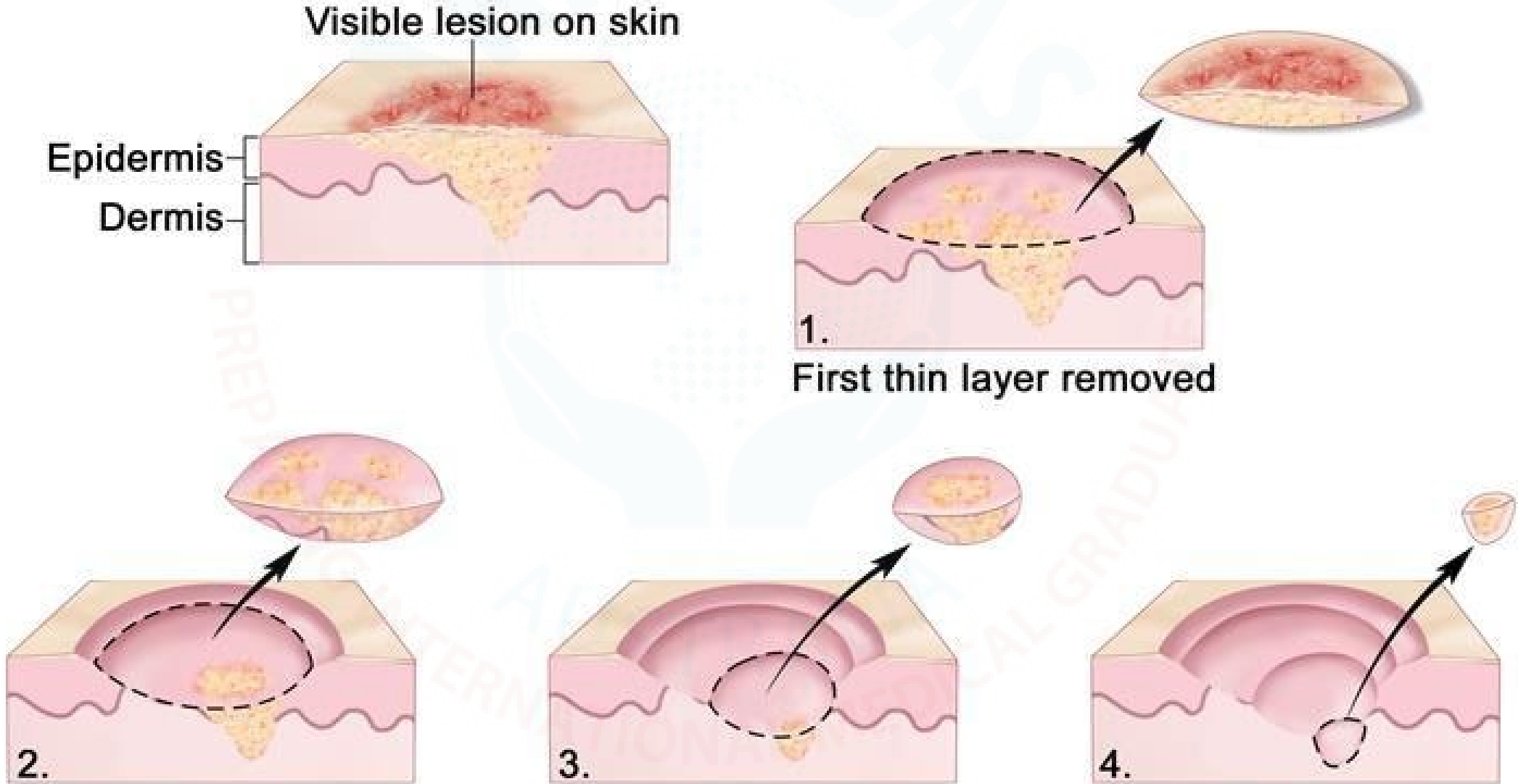
## Cont.. (II)

- Secondly, the other thing that we see on the biopsy is whether we have removed all the cancer cells from your skin and left a clear and adequate normal skin around it to be very confident that we have really cleared the cancer.
- In this case, unfortunately, there are still a positive margin, which means that there is likely some cancer cells left in your skin.

# Problem → solution

- This is not an uncommon case, and if this occur, we generally recommend you have further excision. As if left untreated, the cancer may regrow, or worse, may spread deeper / distant spread to another organ.
- Management:
  - *Further surgery: what is this, and pros and cons*
  - *Other: chemo or radiotherapy – generally not as the first line unless there are a significant condition which makes surgery not achievable (pros and cons)*
- How do you feel about this? Do you have any preference from the options that we have discussed? (patient centred care)

# Mohs Surgery



<https://wiki.cancer.org.au/australia/Guidelines>

## Practice point?

**PP 7.7.1.** For patients with cutaneous squamous cell carcinoma, consider referral to a specialist or multidisciplinary team if there are any risk factors for poor prognosis, such as:

- size >2 cm in diameter
- tumour depth > 4 mm
- recurrent lesion
- high-risk anatomic location
- perineural invasion or lymphovascular invasion
- poorly differentiated subtype
- immunosuppression.

# Case 04

- You are a GP and 34-year-old female comes to you 2 weeks ago with a neck lump. Your colleague has arranged some investigations including an ultrasound and FNAC. The results are with you that shows papillary carcinoma of thyroid.
- Task (no prompt time)
  - *Explain the result of the biopsy*
  - *Discuss management*

# Case 04 - Analysis

- You are a **GP** and **34-year-old Mary** comes to you 2 weeks ago with a **neck lump**. Your colleague has arranged some investigations including an ultrasound and FNAC. The results are with you that shows **papillary carcinoma of thyroid**. This is the first time you see Mary
- Task (no prompt time)
  - *Explain the result of the biopsy → 3-4 mins*
  - *Discuss management → 4-5 mins*

# Approach

- How are you doing? As this is the first time we meet, Can you please tell me what's been happening?
- How do you feel? Any concern with the wound?
- Set agenda: I believe that we're here to discuss your investigation results
- Are you coming here alone? Anyone you would like to present here with you?
- So.. investigation result is here, and unfortunately.... (break the bad news → thyroid cancer)
- I am going to discuss this condition with you in a little bit more detail. Please feel free to stop me if you want to ask question, or if you just want me to stop.

# Explaining Papillary carcinoma: Example 01.

- The type of cancer that you have is called papillary carcinoma.
- It is the most common type of thyroid cancer that usually affects young people.
- Fortunately, this cancer is a slow-growing nodule.
- It usually spreads by way of the lymphatic system to the local lymph glands.
- The good news is that it carries a good prognosis which means that it is quite responsive to treatment.

## Example 01: too many medical jargon, no background (RP not happy → examiner not happy)

- The type of cancer that you have is called papillary **carcinoma**.
- It is the most common type of **thyroid** cancer that usually affects young people.
- Fortunately, this cancer is a slow-growing **nodule**.
- It usually spreads by way of the **lymphatic system** to the local **lymph glands**.
- The good news is that it carries a good **prognosis** which means that it is quite responsive to treatment.



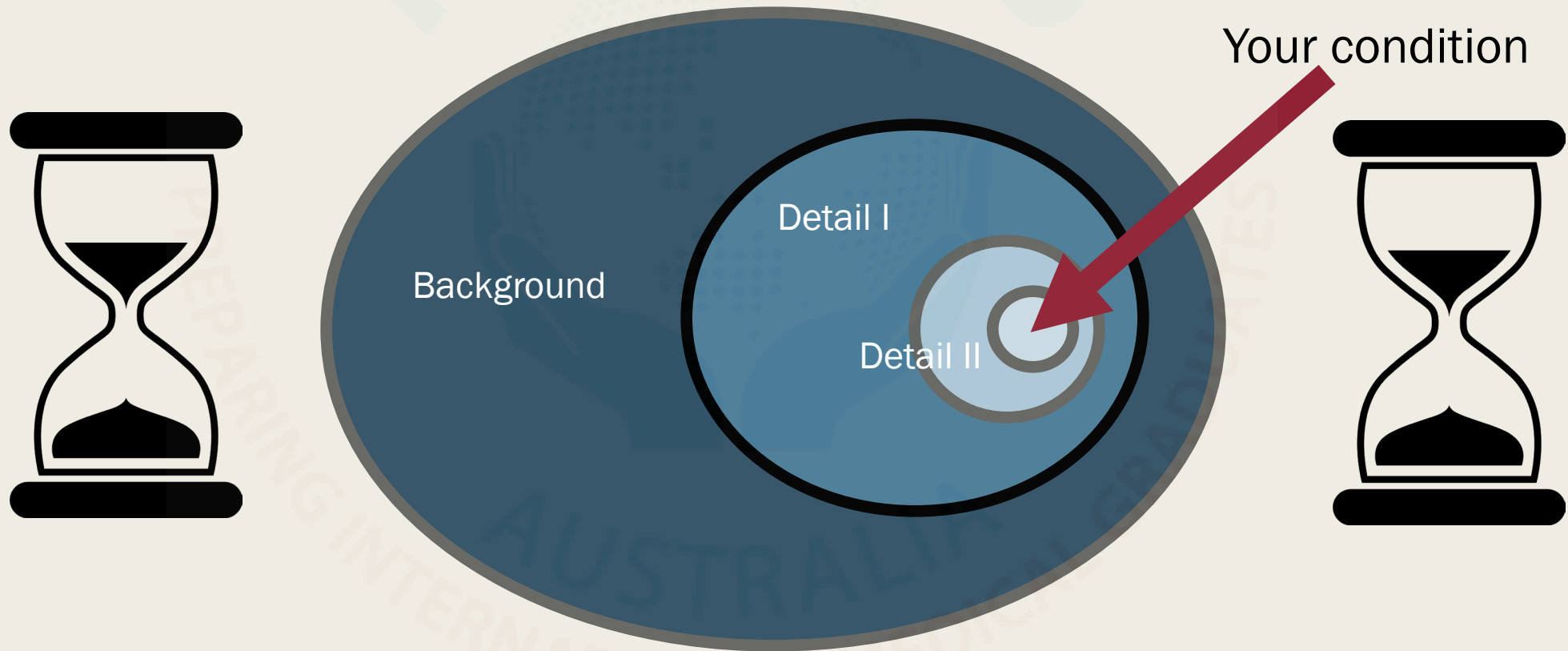
# Explaining Papillary carcinoma: Example 02.

- We have a gland in the front of our neck called the thyroid gland. It is a butterfly shaped gland that will move during swallowing. It's just located below the Adam's apple
- Its function is to produce a thyroid hormone which will work in our metabolism, it works on our heart to regulate how many times our heart beats, on our intestine to regulate its movement, to our body in general to regulate body heat and body weight, to our brain to regulate our mood. In children, it's also important for the brain development
- In the thyroid gland, there's 2 main type of cells which are the C cells and follicular cells. The follicular cells arranged in circular manner and the one which produce and store thyroid gland. It is in this cell that some mutation occurs and causing the cells to grow uncontrollably.
- There are many types of thyroid cancer like papillary, follicular, medullary, anaplastic, and other. In your case the type of cancer is papillary thyroid cancer
- This type of cancer typically have a good outcome, but in some cases may spread through a specialized tubes called the lymphatic system. This system carries liquid which a side product of blood back to the heart. There's a complex lymphatic system in our neck. Imagine like a train going in a railway, and stop at numerous stations, the railway is lymphatic tube and the stations are something we call lymph nodes. At times, the cancer cells may spread to those lymph nodes and grow there as well.
- Although rare, it may also spread through blood vessels to distant organ like the lungs or bones.

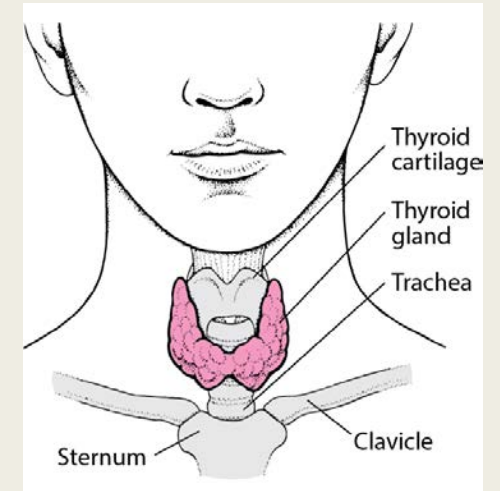
# Explaining Papillary carcinoma: Example 02.

- Too Detail! → patient confused and examiner not happy
- Imagine being told that you have cancer and bombed with too many irrelevant information
- “There are many types of thyroid cancer like papillary, follicular, medullary, anaplastic, and other. In your case the type of cancer is papillary thyroid cancer” → **digging your own grave**
  - *What is follicular, Dr?*
  - *What is medullary, Dr?*

# My personal approach in explanation of condition: Big picture



# Explaining the result



## ■ Background:

- *What is thyroid → butterfly shaped organ on the front part of the neck called the thyroid gland.*
- *Function → important function in producing certain hormone that will regulate our body function.*
- *Sometimes, some of the cells may undergo a changes to cancer cell and grow uncontrollably.*
- *This is usually due to an error in a certain gene. Sometimes, a family history can be seen as well.*

## ■ Papillary Thyroid cancer

- *When we see the FNAB result (sign posting), it tells us that this is type of thyroid cancer called Papillary Thyroid cancer*

# Papillary Thyroid Cancer

- Most common type of thyroid cancer
- More common in female aged 30-50 years.
- If left untreated, it may have the chance to spread to other organ and potentially causing more problem
  - *Nodes (common)*
  - *Distant: lung, bone (rare)*
- I can understand that the word cancer sounds really alarming, but:
  - *If managed accordingly, the outcome is relatively better when compared to other. (Have a high cure rate)*

# Management: investigation, immediate, long term

## ■ Investigation:

- *Blood test: basic blood + basic biochemistry + TFT*
- *Imaging: US neck +/- CT scan chest → to know the size precisely and whether it has spread*

## ■ Immediate:

- *Referral for MDT (surgeon, oncologist, radiotherapy specialist)*
- *Management option:*
  - *Surgery usually done in this case, in which the surgeon will remove the cancer cells and a part or the whole thyroid gland.*

# Management cont... (II)

- About how much thyroid gland to be removed will be based on further assessment and shared decision making between you and the attending surgeon.
  - *Some complication of surgery:*
    - Anaesthetic: blood pressure may drop during surgery, nausea, vomiting
    - Surgery: infection, bleeding, nerve damage causing hoarseness (rare), some other gland at the back of the thyroid may also be damaged or removed, causing low calcium level.
    - If the surgeon decide to remove all the thyroid gland, we must give you pills to substitute the thyroid hormone and to be taken regularly.
- But generally speaking, this is a common procedure, and complication can be prevented in the hand of experienced surgeon, and what's the most important is to get rid of the cancer. (give reassurance)
- How do you feel about this?
- The thyroid is then will be evaluated under a microscope to identify high-risk features which will guide on whether radiotherapy is necessary or not.
- If it is necessary, then you will have a set number of Rtx/ but we will discuss this later once we know things better.

# Management cont... (III)

- Long term:
  - *Follow up for:*
    - Complication
    - Assess the need of thyroxine pills and to regulate the dose
    - Recurrence of cancer cells
    - Your overall health and if we can provide you with some other support
- Give reading material, follow up schedule

# Tips at the end of the consultation, you can say:

- “I can understand that this is a lot of things to take at this time, Mary. Lets meet again in 2 days time, you can write down all of your question, and we can discuss that. You can also bring your family if they need to ask anything, and I will be here to discuss this with you.”

# Case 05.

- 62 year old Jake comes to your GP practice. He complains of rash that has been on the sides of his tummy for the last 3 days. He also complains of being excessively tired these days with an enlarging neck lump. The rash is very painful.
- TASKS
  - *Take focused history for 4 minutes*
  - *PE on card*
  - *Explain the most likely condition, along with your immediate management*



# Physical examination

- Clinically well
- Vitals stable, afebrile
- Rash exam: as per picture
- Neck exam: multiple cervical lymphadenopathy, rubbery in nature
- Abdominal exam: Splenomegaly, otherwise NAD
- Cardiovascular exam: heart sound dual, no murmur
- Respiratory: air entry equal, no additional breath sound
- ENT exam: within normal limits
- Palpable bilateral inguinal lymph nodes, rubbery in consistency

# History

- Pain question: SIQORA-1
- Rash question (pic suggestive of herpes zoster, but why??)
  - *Since?*
  - *Start where, go where?*
  - *Distribution*
  - *On/off?*
  - *First time? Previous chicken pox?*
  - *Old age? Vaccination?*
  - *Immunosuppression??*
    - Medication (mention steroid specifically)
    - stress?
    - Cancer (will be explored later)
- Tiredness: should we ask full HEMIFADO??
  - *Remember: focused history*
    - Describe!
    - Since when? A new thing or not?
    - On/off? Continuously?

# History (II)

- Neck lump
  - *Since when?*
  - *Painful?*
  - *How many?*
  - *Other location?*
  - *Blocked nose, ear pain / deafness, mouth ulcer, smoker*
  - *Previously investigated?*
  - *B symptoms: fever, night sweats, weight loss, tiredness.*
- Weight loss
  - *How much?*
  - *Since when?*
  - *Intentional?*

# <https://www.health.gov.au/health-topics/shingles-herpes-zoster>

- Anyone around you
  - *pregnant?*
  - *Baby?*
  - *Not fully vaccinated?*

Shingles is less contagious than chickenpox. The risk of spreading the disease is low if the rash is covered. When the rash has developed crusts, you are no longer infectious.

If you have shingles, you should:

- cover the rash (if possible)
- avoid touching or scratching the rash
- [wash your hands often](#) to prevent the virus from spreading.

Avoid contact with these people until the rash has developed crusts:

- pregnant women who have never had chickenpox or the chickenpox vaccine
- premature or low birthweight babies
- children who have not had chickenpox or the chickenpox vaccine
- people with weakened immune systems, such as people who:
  - have had chemotherapy
  - are taking other medicines that weaken their immune system
  - have had a transplant
  - are living with HIV.

# Explanation:

- Based on the history and PE,
- A condition we called shingles or herpes zoster. Is a reactivation of a certain virus causing chicken pox → refer to history
- When we got chicken pox, usually the virus can hide in our nerve for a long time even after cured.
- Anytime our immune system is weakened, the virus can get reactivated and causing rash with severe pain.
- The rash typically affecting one side of the body and appear to be a collection of blisters with red skin underneath them, as we can see in your case.
- Shingles is readily manageable with antiviral medication and pain medication. In most of the time, it should get better within 7 days

# Explanation (II)

- Whenever we see someone is having shingles, we should consider why their immune system is weakened.
- Most of the time, it can be due to stress, ageing, or medication.
- In your case, what I concerned the most is that it may be something more serious.
- As we see that you have weight loss, and tiredness, and I also found a neck lump and enlargement of your organ on examination, and I think this needs to be further evaluated.
- At this stage, there is a long list of possibilities. What I don't want to miss the most, and perhaps is the one thing that I wish I am wrong, is a type of cancer we called lymphoma.
- It is a type of cancer where a specific type of your immune cells, the lymphocytes grow uncontrollably, causing neck lumps and defect in your immunity.

# Explanation (III)

- I believe it's necessary at this time to do an ultrasound of your neck and try to get a sample to get the diagnosis right. Should this confirmed to be a lymphoma, I will refer you to a blood doctor for advice.
- How do you feel about that?
- For now, we can manage your shingles and provide you comfort from the pain
- Please cover the rash and avoid contact (until all the rash become crust) with:
  - *Pregnant lady*
  - *Babies*
  - *People with weakened immune system*
  - *Because although rare, but it may spread through direct contact*
- Any question you got for me?
- Reading material, review.