## **Bowel Cancer Screening & Risk Assessment**

# AMC Recalls: Bowel Cancer Screening & Risk Assessment

## I. Case 37: 47 y.o. Lady, Concerned about Bowel Cancer (Father recently diagnosed)

- Stem Summary:
  - o 47-year-old lady, GP setting.
  - o Concerned about bowel cancer.
  - o Reason: Her father was recently diagnosed with bowel cancer.
- Tasks:
  - 1. Take a history.
  - 2. Counsel the patient accordingly (this involves risk assessment and explaining the screening plan).
- A. Structured History Taking (Focus on Cancer Risk & Red Flags):
  - 1. Opening & Addressing Concern:
    - Open-ended Q: "Hello Lily, how can I help you today?"
    - Patient: Expresses significant worry about getting bowel cancer because of her father's diagnosis.
    - Empathetic Statement: "I'm so sorry to hear about your father's diagnosis. I know how stressful that can be. Thank you for coming in for an assessment today. Let me ask you a few questions, and then we can figure out the best plan for you."
  - 2. Explore the Primary Concern (Father's Diagnosis Key to Risk Assessment):
    - "First of all, how is your father doing?" (Builds rapport).
    - **CRITICAL QUESTION (Most Important):** "Can I know at what age was he diagnosed with bowel cancer?" (This is the key determinant for risk stratification).
  - 3. Screen for Bowel Cancer Symptoms (Red Flags to determine if it's screening or diagnostic):
    - **Tutor's Note:** Screening is for *asymptomatic* people. If a patient has symptoms, they need diagnostic investigation (colonoscopy), not screening.
    - General Cancer Screen: "Have you lost any weight lately? Noticed any changes in your appetite? Any lumps or bumps in your body? Feeling unusually tired? Any night sweats?"
    - Bowel-Specific Symptoms:
      - "Any abdominal pain?"
      - "Any recent changes in your bowel habits, like new diarrhoea or constipation?"
      - "Any vomiting or bloating?"
      - Bleeding: "Have you had any dark, tarry stools or noticed any bright red blood in your stools?" (Ask both).
      - (Another way to ask about bowel habit change): "Any recent changes in your usual bowel habit pattern?"
  - 4. Previous Screening History:
    - "Have you ever been screened for bowel cancer before?"
  - 5. Assess Personal Risk Factors:
    - Lifestyle:
      - "Do you drink alcohol?"
      - "Do you **smoke**?"
      - "Can you describe your diet? For example, do you eat a lot of red meat? Do you eat many vegetables?"

- Past Medical History:
  - "Any previous history of having any polyps in the bowel?"
  - "Any history of inflammatory bowel disease (IBD), like ulcerative colitis or Crohn's disease?"
- 6. Assess Other Family History (for hereditary syndromes like Lynch):
  - "Do you have any family history of other types of cancers?"
- 7. (Optional If time is long) Screen for Metastatic Symptoms (less relevant for screening but good for completeness):
  - Lungs: "Any cough or shortness of breath?"
  - Liver: "Any yellowish discoloration of your skin (jaundice)?"
  - Brain: "Any headaches?"
- B. Bowel Cancer Risk Assessment (Based on RACGP Red Book 2024 updates noted):
  - Tutor's "Flagging System" (A Mnemonic, NOT for explaining to patient/examiner):
    - First-degree relative with bowel cancer = 1 point (1 flag).
    - Age of diagnosis in relative < 60 years = 1 point (1 flag).
    - Second-degree relative with bowel cancer = 0.75 points (3/4 flag).
  - o Three Risk Categories:
    - 1. Category 1: Average Risk (or slightly increased)
      - Criteria: No family history, OR one 1st-degree relative diagnosed ≥ 60 years old, OR one 2nd-degree relative at any age.
      - "Flag" Score: Maximum of 1 point. (e.g., 1st degree relative gets 1 point, but age ≥60 gets 0 points, total = 1).
    - 2. Category 2: Moderately Increased Risk
      - Criteria: One 1st-degree relative diagnosed < 60 years old, OR two 1st-degree relatives at any age, OR one 1st-degree and one or more 2nd-degree relatives at any age.
      - "Flag" Score: More than 1 point. (e.g., 1st degree relative gets 1 point, age <60 gets 1 point, total = 2).
    - 3. Category 3: High Risk (Potentially Hereditary)
      - **Criteria: Three or more** 1st or 2nd-degree relatives with bowel cancer diagnosed across generations. (Also includes known genetic syndromes like Lynch or FAP).
      - Tutor's simplified rule: If you have  $\geq 3$  affected relatives, it's high risk.
- C. Counseling & Management Plan (Based on Risk Category):
  - o (The history taking will place the patient into one of the categories, which then dictates the counseling).
  - 2. If Category 1 (Average Risk e.g., Father diagnosed at 70):
    - Screening Method: Faecal Occult Blood Test (FOBT) now more commonly called Faecal Immunochemical Test (FIT).
    - Frequency: Every 2 years.
    - Starting Age: From age 45 up to age 74.
    - Counseling: "Based on our discussion, since your father was diagnosed over the age of 60, you are considered to be at a similar risk to the general population. The recommendation for you is to do a stool test, called an FOBT or FIT, every two years, starting now at age 45."
  - 3. If Category 2 (Moderately Increased Risk e.g., Father diagnosed at 55):
    - Screening Method: Colonoscopy.

- Frequency: Every 5 years.
- Starting Age: Start at age 50 OR 10 years younger than the earliest diagnosis in the family, whichever is earlier.
- Counseling: "Based on our discussion, because your father was diagnosed under the age of 60, you are in a moderately increased risk category. The recommendation for you is to have a colonoscopy every 5 years. We would need to start this at age 45, which is 10 years younger than when your father was diagnosed. So, I will refer you for your first colonoscopy soon."

## 4. If Category 3 (High Risk - e.g., Multiple affected relatives):

- Screening Method: Colonoscopy.
- **Frequency:** Every **1-5 years** (often more frequent than Cat 2, guided by specialist/genetics). For OSCE, "every 5 years" is a safe starting point.
- Starting Age: Start at age 40 OR 10 years younger than the earliest diagnosis in the family, whichever is earlier.
- (Referral to a familial cancer clinic for genetic assessment is also key).

#### 5. Aspirin for Prevention (Newer Guideline for Cat 2 & 3):

- "For people in your higher-than-average risk category (Category 2 or 3), recent guidelines now recommend considering a long-term, low-dose **aspirin** (100mg daily). It has been proven that aspirin can reduce the risk of developing bowel cancer in the future."
- "We would start this around age 45 and continue it for many years, up to age 70. The main side effect we watch for is tummy upset or ulcers, and if needed, we can give you another medication to protect your stomach."

## 6. Lifestyle Modification (For All Categories):

- "Lifestyle is also very important. I would advise you to maintain a healthy diet, which for bowel cancer prevention specifically means cutting down on red meat and processed meats like sausages and bacon, while eating more fruits and vegetables."
- "It's also important to **cut down on alcohol**, **stop smoking** if you smoke, maintain a **healthy weight**, and get **regular exercise**."

#### 7. Red Flags & Safety Netting (For All Categories):

"It's very important that you come back to see me immediately if you develop any 'red flag' symptoms. This would be any unexplained weight loss, any blood in your stools or dark stools, or any significant change in your bowel motions."

#### 8. Reading Material & Follow-up:

- "I'll give you some reading material from the Cancer Council about this."
- "We will arrange a review based on your screening plan every 2 years for the stool test, or every 5 years after your colonoscopy."

#### IV. Key Learning Points for Bowel Cancer Screening Case:

- Age of Relative is CRITICAL: This is the single most important piece of information from the history to determine the patient's risk category.
- **Know the 3 Risk Categories:** Be able to differentiate between Average, Moderately Increased, and High risk based on family history.
- Know the Screening Modalities: FOBT/FIT for Average risk, Colonoscopy for Moderate/High risk.

- **Know the Frequencies & Starting Ages:** FOBT every 2 years from 45. Colonoscopy every 5 years from 50 (or 10 years younger than relative).
- **Aspirin is a New Guideline:** Be aware of the recommendation for low-dose aspirin in higher-risk individuals (Cat 2 & 3).
- **Differentiate Screening vs. Diagnosis:** If the patient has red flag symptoms, they need a diagnostic colonoscopy, not a screening FOBT.
- This is a structured counseling case that tests knowledge of current Australian screening guidelines and the ability to communicate risk and management plans clearly.

#### Care of a Cast

This is a detailed walkthrough of a classic AMC counseling case: **Care of a Cast at Home** for a patient with a Colles' fracture. The tutor emphasizes that while the cast care advice is important, the **key points for passing** relate to the long-term follow-up plan, specifically safety netting for **compartment syndrome** and arranging a **bone mineral density scan for osteoporosis** due to the minimal trauma nature of the fracture.

Here's the organized breakdown:

AMC Recalls: Care of a Cast at Home (Colles' Fracture)

# I. Case 38: 60 y.o. Patient, ED, Fall at Home, Colles' Fracture, Below-Elbow Cast Applied, About to be Discharged

- Stem Summary:
  - o 60-year-old patient.
  - o Fell at home (implying a minimal trauma fracture).
  - o X-ray shows a Colles' fracture with minimal displacement.
  - o A below-elbow plaster of Paris cast has been applied.
  - o Patient is about to be discharged from the ED.
- Tasks:
  - 1. Explain the care of the cast at home.
  - 2. Explain your follow-up plan.
- **Tutor's Critical Insight:** The "follow-up plan" is where most candidates fail. It's not just about a fracture clinic appointment. It MUST include:
  - **o** Key Point #1: Red Flags for Compartment Syndrome.
  - **o** Key Point #2: Osteoporosis Assessment (Bone Density Scan).

#### II. Background Knowledge & Definitions:

- Colles' Fracture: A fracture of the distal radius where the fractured fragment is tilted upwards (dorsally). (If it tilts downwards/volarly, it's a Smith's fracture).
- Treatment: Below-elbow cast for ~6 weeks if minimally displaced.
- Scaphoid Fracture (for comparison): Also needs a below-elbow cast, but typically a **thumb spica** that immobilizes the thumb to stabilize the scaphoid bone. The hand is often set in a "can-holding" position. In a Colles' fracture cast, the thumb and fingers are free.

- Cast Types: Plaster of Paris (heavy, takes time to dry, weakens if wet this is the recall version) vs. Fiberglass (lighter, stronger, more water-resistant).
- Why Compartment Syndrome is a Risk: Even if the cast is applied perfectly, the fracture site will continue to swell for the next 24-48 hours. This swelling inside a rigid cast can compress nerves and blood vessels, leading to compartment syndrome.

## III. Structure of the Counseling Station:

## 1. Opening & Initial Questions:

- o "Hello [Patient's Name], I'm Dr. [Your Name]. I understand you're about to go home with your new cast. How can I help you?"
- o Acknowledge any concerns: "Do you have any specific concerns about managing at home?"
- o Check immediate status: "Are you in any pain right now?" (Patient: "They've already given me painkillers").

# 2. Explain the Fracture & Purpose of the Cast:

- o "First, let me explain the fracture. You've had what we call a **Colles' fracture**. This is a fracture in the radius bone, which is one of the two bones in your forearm, right near your wrist. The broken part has tilted slightly upwards, which is what defines it as a Colles' fracture."
- o "The purpose of the cast is to **immobilize the broken bones and keep them in a proper position**. This is very important to allow the bone to heal correctly. We'll need to keep this cast on for about **six weeks**."

# 3. Initial Follow-up Appointment:

"We will arrange for you to be seen in our fracture clinic in one week's time. At that appointment, we will review you and may do another X-ray just to make sure the bones are still in a good position."

## IV. Explaining Care of the Cast at Home (The "Stupid Points"):

#### 1. Pain Management:

- o "I'll give you some painkillers that you can take regularly for the first few days."
- o **Safety Advice:** "Please be careful as some of them can cause drowsiness. I don't want you to be driving while you're taking these and while your arm is in a cast."

## 2. Swelling Management (Crucial for preventing compartment syndrome):

- o "It's expected to have some mild swelling of the forearm in the first few days. To reduce this swelling, there are a few important things you need to do:"
- Elevation: "I want you to keep the cast elevated above the level of your heart as much as possible. When you're awake and walking around, the sling I'm giving you will do this. At night when you're sleeping, I want you to put a pillow under your hand and arm to keep it elevated."
- o **Ice:** "You can apply a **bag of ice, wrapped in a thin towel**, to the outside of the cast for about 15-20 minutes every few hours for the first couple of days. This will also help minimize the swelling."

#### 3. Keeping the Cast Dry (Plaster of Paris specific):

- o "It's very important to keep this plaster cast dry, as water will make it soft and it won't support your fracture properly."
- o "When you are taking a shower, please **cover it with two plastic bags** and tape the bags securely to your skin above the cast."

o "In case the cast becomes slightly damp, you can use a **hairdryer on a cool setting** to dry it. Please do not use a warm or hot setting as it could burn your skin underneath."

## 4. Keeping the Cast Clean & Skin Care:

- o "Try to keep the cast clean. Please **do not apply any powder, lotion, or oils** close to or under the cast."
- o **Itchiness:** "If the skin under the cast becomes itchy, which is very common, please **do not stick** any items inside to scratch it, like a pen or a knitting needle. This can injure your skin and cause a serious infection."
- o (Tutor's tip for itchiness: A hairdryer on a cool setting blown into the ends of the cast can sometimes provide relief).

#### 5. Movement & Circulation:

- o "I want you to **regularly move and wiggle your fingers** often. This helps to keep the blood circulating and will also help to avoid stiffness in your fingers."
- o "I will give you a fact sheet with some simple finger exercises that you can do as soon as you are pain-free."

## V. Explaining the Follow-up Plan (The KEY POINTS for passing):

## 1. Key Point #1: Red Flags (Compartment Syndrome & Infection):

- o "Now, I need to tell you about some very important red flag signs. You must come back to the emergency department immediately if you experience any of the following:"
- o **Infection Signs:** "If you develop a **fever**, or notice any **blisters**, **rash**, **or redness** on the skin around the edges of the cast, or if there is a **bad smell** coming from underneath the cast."
- o Compartment Syndrome Signs (Neurovascular Compromise):
  - "If your pain is severe and not responding to the painkillers."
  - "If you are unable to move your fingers."
  - "If you start having pins and needles or numbness in your fingers or hand."
  - "Or if your fingers go pale or blue in color, or feel very cold compared to the other hand."
- Explanation (optional, if time): "These can be signs of too much swelling inside the cast, which can put pressure on the nerves and blood vessels. It's an emergency, and we would need to remove the cast immediately."

## 2. Rehabilitation Plan (Post-Cast Removal):

- "After the six weeks, when we remove the cast, we will make a **rehabilitation plan** for you. I will refer you to a **physiotherapist**."
- o "We expect some **stiffness** in **your wrist** after it has been in a cast for six weeks. The physiotherapist will give you some **strengthening** and **stretching** exercises to help you regain your movement and strength."

## 3. Key Point #2: Osteoporosis Assessment (Minimal Trauma Fracture):

- o "Finally, because you've had a fracture from what we call a 'minimal trauma fall' meaning a fall from standing height where we wouldn't normally expect a bone to break we need to consider the possibility of **osteoporosis**."
- o "Osteoporosis is a condition where your bones become more fragile or brittle. To investigate this, I will refer you for a scan called a **bone mineral density scan**, or a DEXA scan. This scan will assess your bone density and check for osteoporosis."

# 4. (Optional, if extra time) Fall Prevention:

o "In the future, I can also refer you to a 'falls clinic' or discuss strategies to help prevent any further falls at home."

## VI. Key Learning Points for Cast Care Case:

- Look Beyond the Obvious: The task is not just about reciting cast care rules. It's about comprehensive patient management.
- **Minimal Trauma Fracture = Osteoporosis Screen:** This is a non-negotiable link. Any fracture from a fall from standing height in a patient over 50 should trigger a DEXA scan referral.
- Compartment Syndrome is the Critical Red Flag: The safety netting advice must be clear, specific, and emphasize immediate return to ED.
- **Structure the Counseling:** Start with the immediate (fracture, cast purpose), move to home care (pain, swelling, hygiene), and finish with the crucial follow-up and long-term plan (red flags, rehab, osteoporosis).
- Even in a seemingly simple "procedural counseling" case, AMC is testing deeper clinical reasoning and patient safety awareness.

#### **Influenza Vaccination**

This is a detailed walkthrough of an **Influenza Vaccination Counseling** case, often seen in the AMC pediatric cluster but with principles applicable to adult counseling as well. The tutor focuses on a patient-centered, educational approach, addressing specific parental concerns (egg allergy, recent steroid use) with evidence-based information from Australian guidelines.

Here's the organized breakdown:

#### **AMC Recalls: Influenza Vaccination Counseling (Pediatric Case)**

#### I. Introduction & Context:

- **Relevance:** Knowledge is needed for both adult cardiovascular risk assessment cases (where flu vaccine is a task) and this specific pediatric counseling OSCE.
- Case Focus: Mother of a 4-year-old girl is hesitant about the influenza vaccine and has specific concerns.
- Counseling Principle: The goal is patient education, not coercion. Provide information on pros and cons to help the parent make an informed decision. Maintain a non-judgmental, open, and supportive rapport.

## II. Background Knowledge on Influenza Vaccination (Australian Context - Immunisation Handbook):

- Who is it Recommended For (High-Risk Groups)?
  - o Children aged 6 months to < 5 years.
  - Adults  $\geq$  65 years.
  - o Pregnant women (at any stage of pregnancy).
  - Aboriginal and Torres Strait Islander people.
  - o People with **chronic medical conditions** (e.g., asthma, COPD, diabetes, cardiovascular disease).
- Schedule:

- o Annual vaccination is required because influenza virus strains change each year.
- o First-time vaccination for children < 9 years old: Requires two doses, given at least 4 weeks apart. From the following year onwards, only a single annual dose is needed.
- Vaccine Type in Australia:
  - o **Inactivated vaccine:** Contains only a **part of the virus**, not a live or weakened virus. This is a key point for patient education it cannot "give you the flu."
- Contraindications (Very Few):
  - o Anaphylaxis after a previous dose of any influenza vaccine.
  - o Anaphylaxis after exposure to any component of an influenza vaccine.
- Special Considerations:
  - Egg Allergy:
    - Influenza vaccines are prepared using eggs and contain trace amounts of egg protein.
    - However, the amount is so small that it is **SAFE** for individuals with egg allergy, including those with a history of anaphylaxis to egg.
    - **Recommendation:** For concerned parents, the child can be observed for a longer period post-vaccination (e.g., 30 minutes instead of the standard 15).
  - Recent Steroid Use:
    - Influenza vaccine is **NOT a live vaccine**, so steroid use is generally not a concern.
    - Even for *live* vaccines, short courses of steroids (< 2 weeks) are not considered significantly immunosuppressive and do not require vaccination delay.
    - Conclusion: Recent short-course steroids for asthma is **NOT** a reason to delay the flu vaccine.
- Side Effects:
  - o Common/Minor: Injection site reactions (pain, redness, swelling).
  - o **Less Common/Systemic:** Fever, malaise (feeling unwell), myalgia (muscle aches). These are signs of the immune system responding and are *not* the flu.
  - o Rare/Serious: Anaphylaxis.

#### III. Structured OSCE Approach: History & Counseling

- Case Stem: 4 y.o. girl brought by mother to discuss influenza vaccination.
- Tasks: 1. Take a history. 2. Explain about the influenza vaccine recommendations.
- A. History Taking (Focused on Concerns, Allergies, and Suitability):
  - 1. Opening & Establishing Agenda:
    - Open-ended Q: "Hello, how can I help you today?"
    - Mother: "I'm here to discuss the influenza vaccine. I don't understand why my daughter needs it."
    - Acknowledge & Validate: "I appreciate you coming in to discuss this topic. It's good to ask these questions. Before we go any further, do you have any **specific concerns** about the vaccine?"
    - (Mother reveals key concerns): "Yes, she has an egg allergy, and I've heard the vaccine is made from eggs. She is also asthmatic and recently had a course of steroids."
  - 2. Explore Concerns & Relevant History:
    - Egg Allergy:

- "Can you please describe the allergic reaction she had to egg?" (Mother: "She had lip swelling, we went to the ED, they said it was anaphylaxis, and she has an EpiPen now.").
- (If unclear): "How soon did the reaction happen after eating eggs?" (To differentiate immediate vs. delayed reaction).
- Other Allergies: "Does she have any other allergies?"
- Vaccine History (Contraindication Check): "Has she had any history of anaphylaxis (a severe allergic reaction) to a previous influenza vaccination or any other vaccine?"
- **Current Health:** "Is your child currently unwell? Does she have a fever or any flu-like symptoms right now?"
- Past Medical History: (Asthma already mentioned).
- **Medications:** (Steroids already mentioned).
- Gauge Parent's Stance (Builds Rapport): "Can I ask, what are your overall opinions and feelings on vaccinations in general?"

## • B. Counseling & Explaining Recommendations:

## 1. What is a Vaccine? (Basic Principle):

- "Let me first explain about vaccinations for you. A vaccination exposes your child's immune system to a part of the virus. This triggers an immune response and prepares her immune system to fight future infections more efficiently."
- "The influenza vaccine we use contains **only a part of the virus** and has **no live virus** in it, so it cannot cause the flu."

## 2. What is Influenza & Why Vaccinate?

"Influenza, or 'the flu', is a virus that can cause severe respiratory symptoms, especially in young children and people with chronic medical conditions like your daughter's asthma. We recommend the vaccine to prevent this severe disease."

#### 3. Why is it Annual?

- "Every year, different strains of the flu virus become more common. We prepare the vaccination for those specific strains each year, and this is the reason that we need to repeat the vaccination every year to ensure she is protected against the most common types."
- **Best Time:** "The best time to get the flu vaccination is just before the flu season starts, which is usually around April."

#### 4. Schedule for Her Child:

• "For children who are receiving the flu vaccine for the first time, like your daughter, we need to give **two shots, four weeks apart**. From next year onwards, she will only need one shot each year."

#### 5. Funding:

"This vaccine is government-funded for children her age and is part of the National Immunisation Program."

## 6. Herd Immunity (Community Benefit):

"By vaccinating a large part of the population, we create something called herd immunity. This means most people are vaccinated and protected against the infection, which reduces the rate of transmission and spread in the community, helping to protect those who are too young or too sick to be vaccinated."

#### 7. Address Specific Concerns (Egg Allergy & Steroids):

Egg Allergy:

- "I understand your concern about her egg allergy. The influenza vaccination is prepared in eggs, but the vaccine itself contains a very small, insignificant amount of egg protein."
- "The official Australian guidelines state that it is safe to give her the vaccine, even though she has a history of anaphylaxis to egg."
- Safety Net/Reassurance: "However, to be extra safe and to help you feel more comfortable, we will observe her for longer after the vaccination, for at least 30 minutes, to ensure she does not develop any allergic reactions or symptoms. You will be here in the medical centre, and I will be able to help immediately if anything happens."

#### Steroid Use:

• "Regarding the recent steroid course for her asthma, you don't need to worry. A recent, short course of steroids does not interfere with the vaccination, and we don't need to postpone or delay it. This is because the flu vaccine is not a live vaccine, and the steroid course was very short."

#### 8. Discuss Side Effects:

- Like any medication, the vaccine can have some minor side effects. The most common are at the **injection site**, like some swelling, redness, or pain for a day or two."
- "Rarely, some children can get a mild fever, body aches, or feel tired. This is the immune system responding and is not the flu."

#### 9. Patient-Centered Closure:

- "I will give you some reading material about the vaccine, for example from the Royal Children's Hospital website."
- "We can also arrange a **family meeting** if you'd like to come back with your partner to discuss this further."
- "The decision to proceed is ultimately yours. My role is to give you the information so you can make an informed choice."

### IV. Australian Policies ("No Jab, No Play/Pay" - Background Info, use with caution in OSCE):

- Tutor's Note: This is for awareness, NOT for leading a consultation or using as a threat.
- **No Jab, No Play:** In some states/territories, childcare centres can refuse enrolment for children who are not up-to-date with their vaccinations (without a valid medical exemption).
- No Jab, No Pay: Certain Commonwealth family tax benefits and childcare subsidies are linked to a child's immunisation status.
- **OSCE Context:** Do not bring this up in an initial counseling session where the parent is seeking information. It would only be relevant in a much later, complex refusal-of-vaccination scenario, and even then, would need to be handled very carefully.

#### V. Key Learning Points for Influenza Vaccine Counseling:

- Establish Agenda & Elicit Concerns Early: The case hinges on addressing the parent's specific fears.
- Use a Patient-Centered, Educational Approach: Your role is to inform, not to force.
- Know the Key Facts: Annual schedule, two doses for first-timers <9yrs, inactivated (not live) virus.
- Master the Egg Allergy & Steroid Arguments: These are the specific "hidden agenda" items in this recall. Be confident in reassuring the parent based on official guidelines.

- Discuss Side Effects and Herd Immunity.
- **Provide a Safety Net:** The offer to observe the child for longer is a powerful reassurance tool.
- Close by empowering the parent to make an informed decision and offering further support.

#### **HPV**

This is a detailed walkthrough of a **Gardasil® 9 (HPV Vaccine) Counseling** case, a common pediatric/adolescent health topic in the AMC exam. The tutor emphasizes a patient-centered, educational approach, focusing on explaining the rationale for the vaccine, addressing specific parental concerns, and providing information from Australian guidelines.

Here's the organized breakdown:

## AMC Recalls: Gardasil 9 (HPV Vaccine) Counseling

## I. Case 39: 13 y.o. Teenager brought by Mother to Discuss Gardasil 9 Vaccination (offered at school)

- Stem Summary:
  - o 13-year-old teenager.
  - o Brought by mother to GP.
  - o Offered Gardasil 9 vaccination at school as part of the National Immunisation Program (NIP).
  - o Mother is here to discuss the vaccine and has concerns.
- Tasks:
  - 1. Counsel the mother about the vaccine.
  - 2. Address her concerns.
- Counseling Principle: This is a full counseling station. The goal is to provide comprehensive, evidence-based information in a non-judgmental way so the parent can make an informed decision. It's about education, not coercion.

## II. Background Knowledge on Gardasil 9 (HPV Vaccine - Australian Context):

- What is it? Gardasil 9 is a vaccine that protects against nine high-risk types of the Human Papillomavirus (HPV).
- **Key HPV Strains:** It covers HPV types **16 and 18** (which cause  $\sim$ 70% of cervical cancers) plus other cancer-causing types, and types 6 and 11 (which cause  $\sim$ 90% of genital warts).
- What does HPV cause? Cervical cancer, genital warts, and other cancers (anal, penile, vaginal, vulvar, and oropharyngeal/throat cancers).
- Vaccine Type: It's a protein vaccine made of small, virus-like particles. It contains NO live virus, NO killed virus, and NO viral DNA. It cannot cause HPV infection or cancer.
- Who is it for?
  - o **Primary Target (NIP):** Young people aged 12-13, given at school. It's most effective when given before exposure to HPV (i.e., before sexual activity begins).
  - o Catch-up (NIP): Free for anyone up to the age of 25 who missed it at school.
  - Older Individuals: Can be given to older individuals (e.g., women up to 45, men up to 26, or older for men who have sex with men MSM) but may be less effective if they have already been exposed to HPV, and it is privately funded.

• What if someone already has HPV? Vaccination is still recommended. It will not treat an existing infection but will protect against the other HPV types in the vaccine that they have not yet been exposed to, and may protect against re-infection.

## • Schedule (Updated Guideline):

- o For most people aged 9-25 with a normal immune system: **ONE single dose** is now sufficient.
- o For those who are immunocompromised or who start the course at age 26 or older: A **three-dose schedule** is required.

#### • Contraindications:

- o Anaphylaxis to a previous dose of HPV vaccine or any of its components.
- o Anaphylaxis to **yeast** (as the vaccine proteins are produced in yeast cells).
- Myths: The claim that the HPV vaccine affects fertility has been disproven by extensive research.

## **III. Structured OSCE Approach: Counseling the Mother:**

## 1. Opening & Establishing Agenda:

- o Open-ended Q: "Hello, how can I help you today?"
- o Mother: Explains her daughter was offered the vaccine at school and she's here to discuss it.
- o Acknowledge & Validate: "Thank you for coming in and having a discussion about this. It's a very good idea to get all the information."
- o Elicit Specific Concerns (Agenda Setting): "Before we go any further, can I ask how much you already know about the vaccine? And do you have any specific concerns that you'd like me to address today?"
- o (Mother reveals key concern): "I'm worried that if she gets this vaccine at this age (12-13), it will just encourage my daughter to have sex earlier."

## 2. Explain the Basics (Vaccination & HPV):

- o "First, let me explain a little bit about the vaccine. Vaccines are a useful prevention method for many infections. The Gardasil vaccine protects us against the HPV virus. It does this by preparing the immune system to fight the virus more efficiently if she is ever exposed to it in the future."
- o "Now, about HPV itself. **HPV, or Human Papillomavirus, is a very common sexually transmitted infection**. It is transmitted during sex and is the **main cause of cervical cancer** and also **genital warts** in the private parts."

# 3. Explain the Vaccine Itself (Composition & Safety):

- "The vaccine is made of small proteins which are similar to the proteins on the outer surface of the virus. It's important to know that the vaccine does not contain any live virus or killed virus, so it cannot cause an infection or any symptoms."
- "The Gardasil 9 vaccine specifically covers against the nine high-risk strains of HPV, especially types 16 and 18, which are the ones that cause most cervical cancers."

#### 4. Explain the Schedule & Rationale for Timing:

- o "As part of the National Immunisation Program, we now just give **one single dose**, usually at school for children aged 12 to 13." (Tutor notes she can catch up for free up to age 25 if she misses it).
- Rationale for Early Vaccination (Crucial for counseling):
  - **Prevention:** "The vaccine works best if it is given before any exposure to the virus. It's a preventive or prophylactic vaccine, meaning it prevents future infections from happening if she comes into contact with the virus."

Stronger Immune Response: "It is also most effective when given at 9 to 14 years of age. This is because young people's immune systems are stronger at this age and they produce a better and stronger antibody response compared to older individuals."

# 5. Address the Specific Concern (Sexual Activity):

- o "I understand your concern about sexual activity. It's important to know that the vaccine is **not meant to encourage teenagers to have sex**."
- o "We still strongly advocate for and educate young people about **having safe sex**, the importance of **consent in sexual activity**, and using other forms of protection like condoms."
- o "The main reasons we give the vaccine at this early age are, as I mentioned, to give it **before potential exposure** to the virus and because it **gives the best and strongest immune response** at this age, providing the best possible protection for her future."

#### 6. Discuss Side Effects & Contraindications:

- Side Effects:
  - Like all vaccines, there can be some minor side effects. Most common is a little bit of pain, swelling, or redness at the injection site for a day or two."
  - "Very rarely, a person can have a severe allergic reaction (anaphylaxis). This is a side effect we see with all vaccines, but it is extremely rare."

## Contraindications (Ask to ensure safety):

"Just to be sure, does your daughter have a history of a severe allergic reaction (anaphylaxis) to a previous HPV vaccine or a severe allergy to yeast? Does she have any severe bleeding disorders?"

## 7. Patient-Centered Closure & Shared Decision Making:

- o "I'm going to give you some **reading materials**, some fact sheets about the vaccine from reliable sources like the Australian Immunisation Handbook, the Department of Health, or the Royal Children's Hospital."
- o "I'd like you to read them and think about it. We can also have another **family meeting** if you'd like to come back with your daughter or your partner to discuss this again."
- o "Ultimately, you can **make the best decision** for your daughter. My role is to provide you with the information to help you do that."
- o "Do you have any other questions or any other concerns that you'd like me to address today?"

#### IV. Key Learning Points for Gardasil 9 Counseling Case:

- Full Counseling Station: This requires a detailed, structured conversation over the full 8 minutes.
- Elicit Concerns Early: The case revolves around addressing the mother's specific concern about early sexual activity.
- Patient-Centered Approach: The goal is informed consent, not forcing a decision.
- **Know the Key Rationale:** Be able to clearly explain *why* the vaccine is given to young adolescents (pre-exposure timing and stronger immune response).
- **Be Specific:** Mention HPV, cervical cancer, genital warts, the vaccine type (protein, not live), and the new single-dose schedule.
- Address Myths Directly but Respectfully: Directly counter the "encourages sex" concern with the medical and public health rationale.
- Safety Netting: Discuss common side effects and rare but serious ones (anaphylaxis).

• **Shared Decision Making:** Conclude by providing resources and offering further discussion, empowering the parent to make the final choice.

#### Vaccination

This section provides a detailed overview of three important vaccination counseling scenarios for the AMC exam: Gardasil 9 (HPV), MMR (Measles, Mumps, Rubella) and its link to autism, and vaccinations in pregnancy (Boostrix for pertussis). The tutor emphasizes a patient-centered, educational approach, especially when dealing with vaccine hesitancy.

Here's the organized breakdown:

AMC Recalls: Vaccination Counseling (Gardasil 9, MMR, Pregnancy)

## I. Case: Gardasil 9 (HPV Vaccine) Counseling

- Case Stem: 13 y.o. teenager brought by mother to discuss Gardasil 9 vaccination offered at school via the National Immunisation Program (NIP).
- Tasks: Counsel the mother and address her concerns.
- Key Background Knowledge (Gardasil 9):
  - What it is: A vaccine protecting against 9 high-risk types of Human Papillomavirus (HPV), including types 16 and 18 (cause most cervical cancers) and types that cause genital warts and other cancers (anal, oropharyngeal, etc.).
  - o **Type:** A **protein vaccine**, containing NO live, killed, or DNA from the virus. It cannot cause infection.
  - Who gets it:
    - NIP: Routinely for 12-13 year olds at school.
    - NIP Catch-up: Free up to age 25.
    - Privately: Women up to 45, men up to 26 (especially MSM Men who have Sex with Men).
  - What if already HPV positive? Still recommended. It protects against the other 8 types and may prevent re-infection.
  - o Schedule (New Guideline):
    - **Single dose** for immunocompetent individuals aged 9-25.
    - Three doses for those  $\geq 26$  years old or who are immunocompromised.
  - o Contraindications: Anaphylaxis to a previous dose, or to yeast.
  - o **Myths:** The link to infertility is a disproven myth.
- Structured Counseling Approach:
  - 1. Opening & Agenda Setting:
    - "Hello, how can I help you today?" (Mother explains situation).
    - Acknowledge: "Thank you for coming in to discuss this."
    - Elicit Knowledge & Concerns: "Can I ask how much you know about the vaccine? And do you have any specific concerns you'd like me to address?"
    - (Mother's Key Concern/Agenda): "I'm worried that if she gets this vaccine at this age, it will encourage my daughter to have sex earlier."
  - 2. Explain the Basics (Vaccine & HPV):

- "Let me explain a little bit about the vaccine. Vaccines are a useful prevention method for many infections. The Gardasil vaccine protects us against the HPV virus by preparing the immune system to fight it more efficiently."
- "HPV, or Human Papillomavirus, is a very common sexually transmitted infection. It's the main cause of cervical cancer and also genital warts."

## 3. Explain the Rationale for Timing:

- **Prevention:** "The vaccine works best if it is given **before any exposure to the virus**. It's a preventive vaccine; it can't treat an existing infection but is very effective at preventing one."
- Stronger Immune Response: "It is also most effective when given at 9 to 14 years of age because the immune system is stronger then and gives a better and more lasting antibody response compared to when it's given to older individuals."

## 4. Address Specific Concern (Sexual Activity):

- "I understand your concern. It's important to know that the vaccine is not meant to encourage teenagers to have sex."
- "We still strongly educate young people about having safe sex and the importance of consent in any sexual activity."
- "The main reasons we offer it at this early age are to provide protection before they are potentially exposed and because their immune system gives the best response at this time."

## 5. Discuss Vaccine Details (Safety, Side Effects, Contraindications):

- "The vaccine is very safe. It's made of small proteins and does not contain any live virus, so it cannot cause an infection."
- Side Effects: "The most common side effects are minor, like pain, swelling, or redness at the injection site. Rarely, a severe allergic reaction can happen, as with any vaccine."
- Contraindications: (Briefly confirm no history of anaphylaxis to yeast or previous HPV vaccine).

#### 6. Shared Decision Making & Closure:

- "I'm going to give you some **reading materials** and fact sheets from reliable sources like the Australian Immunisation Handbook or the Cancer Council."
- "I'd like you to read them, and we can have another **family meeting** if you'd like to come with your daughter or your partner to discuss it further."
- "Ultimately, you can make the best decision for your daughter. My role is to give you the information so you can make an informed choice. Do you have any other questions?"

### **II. Case: MMR Vaccination Counseling (Autism Concern)**

- Case Stem: Mother of a 6 or 12-month-old child, refusing vaccination today because a friend told her it's harmful and linked to autism.
- Tasks: Take a brief, relevant history. Counsel the mother regarding her concerns.
- Counseling Principle: Non-judgmental education. Your job is to inform, not to convince or argue. Acknowledge the concern is valid from her perspective.
- Key Background Knowledge (MMR & Autism):

- The link between the MMR vaccine and autism originated from a **fraudulent study in 1998** by Andrew Wakefield.
- o The study was later **retracted**, and the doctor lost his medical license.
- Numerous, large-scale, international studies since have found NO link between the MMR vaccine and autism.
- Measles is a serious disease: Can cause severe complications (~10% rate) like pneumonia, encephalitis (brain inflammation), and death.

# • Structured Counseling Approach:

# 1. Opening & Agenda Setting:

- Open-ended Q. Mother expresses refusal due to autism concern from her friend.
- Elicit Specific Concerns: "Is there anything else you're specifically concerned about?"

#### 2. Brief History:

- Previous Vaccinations: "Has he received any vaccinations so far? Did he have any side effects?"
- Contraindication Check: "Does he have any history of a severe allergic reaction (anaphylaxis) to any previous vaccination?"
- Gauge Stance: "Can I ask how you feel about vaccinations in general and how much you know about how they work?"

#### 3. Acknowledge and Address the Autism Concern Directly and Empathetically:

- "I understand that hearing and reading about a potential link between the MMR vaccine and autism can be very distressing."
- "This idea was suggested in a single study many years ago. However, that study was later reviewed by many experts, and multiple, large research studies since then have found no link between the vaccine and autism. It was also later shown that the initial research was conducted incorrectly and was retracted."

#### 4. Educate about the Diseases (Focus on Measles):

- "The MMR vaccine protects against Measles, Mumps, and Rubella, which are viruses that can cause serious infections in children."
- "Measles, in particular, can cause a severe fever and rash, and it can lead to serious complications like severe lung infections (pneumonia) and inflammation of the brain (encephalitis), which can be life-threatening."
- "Before vaccinations became available, we had many outbreaks of measles which had a significant rate of complications and death in children."

# 5. Explain Herd Immunity:

• "By having a high rate of vaccination in the community, we have achieved **herd immunity**. This means the virus spreads much less because most children are immune to
it, which also helps protect babies who are too young to be vaccinated or children who
can't be vaccinated for medical reasons."

#### 6. Be Honest About Real Side Effects:

- "Like any vaccine, the MMR vaccine can have some side effects."
- Minor: "The most common are a mild fever, and some swelling and redness at the injection site."
- Major (Rare):
  - "It can rarely cause a **severe allergic reaction (anaphylaxis)**. This is why we **observe your child for 15 minutes** after each vaccination, so if a reaction does happen, we are here to treat it immediately."

"Very rarely, it can cause encephalopathy (inflammation of the brain). However, the risk of this is much, much lower than the risk of getting brain inflammation from the measles infection itself."

# 7. Weighing Risks vs. Benefits:

- "Overall, we have to consider the benefits of vaccination versus the rare possibility of side effects. In this case, preventing a serious and potentially life-threatening infection like measles far outweighs the rare possibility of the side effects from the vaccine."
- 8. **Patient-Centered Closure:** (Same as Gardasil case) Offer reading material (e.g., from RCH website), offer a family meeting, and empower the parent to make an informed decision.

## III. Case: Vaccinations in Pregnancy (Boostrix for Pertussis)

- Case Stem: 28-week pregnant lady comes to discuss required vaccinations in pregnancy.
- Tasks: Counsel the patient.
- Key Background Knowledge (Pertussis/Whooping Cough):
  - Pertussis is **extremely dangerous for infants < 6 months old**, with a high morbidity and mortality rate.
  - o "Cocooning" strategy: Vaccinate the mother during pregnancy, and also vaccinate the partner, other household contacts, and caregivers to create a protective barrier around the newborn.
- Structured Counseling Approach:
  - 1. **Opening:** "Hello, how is the pregnancy going so far?" Then explain the recommendations.
  - 2. Recommended Vaccines in Pregnancy (2):
    - "In pregnancy, we recommend two vaccinations."
    - A. Whooping Cough (Pertussis) Vaccine:
      - "The first is the whooping cough, or pertussis, vaccine. This comes in a combined vaccine with **Tetanus and Diphtheria** (it's called the Boostrix vaccine)."
      - Timing: "It is recommended to get this vaccine between 20 to 32 weeks of pregnancy."
      - Rationale (Maternal Antibody Transfer): "Once you receive the vaccine, your body creates protective antibodies against whooping cough. These antibodies are then passed through the placenta to your baby. This is very important because whooping cough can cause a severe lung infection in children below the age of six months. By getting the vaccination in pregnancy, both you will be immune, and your baby will also receive these protective antibodies before they are old enough to get their own vaccinations."
      - Funding & Schedule: "This vaccination is part of the National Immunisation Program and is government-funded in pregnancy. It's recommended for each and every pregnancy."
      - Cocooning: "It is also recommended that your partner, other household contacts, and regular carers get vaccinated, at least two weeks before they have close contact with the baby, to create a protective circle."
      - Safety: "The vaccine is very safe and does no harm to the pregnancy or the baby. The minor side effects are just some pain or redness at the injection site."
    - **B.** Influenza Vaccine:

- "The second vaccine we recommend is the influenza (flu) vaccine."
- Rationale: "When you are pregnant, your immune system is naturally a bit suppressed, which puts you at a higher risk of developing severe disease if you catch the influenza virus."
- **Timing:** "You can receive the flu vaccine **anytime during your pregnancy**, but it is preferred to be done just before or during the flu season (which is around May to October in Australia)."
- **Funding:** "This vaccine is also part of the National Immunisation Program and is government-funded for pregnant women."

## IV. Meningococcal Vaccine (Briefly Mentioned):

- Vaccines on NIP: The Meningococcal ACWY vaccine is part of the routine schedule (e.g., at 12 months, and a booster for teens).
- Meningococcal B Vaccine (Bexsero®):
  - o Currently on the NIP only for Aboriginal and Torres Strait Islander children and other high-risk groups (e.g., asplenia).
  - o For other children, it is available **privately**.
  - o **Counseling Point:** Explain that the government-funded vaccine covers the ACWY types. The B type is also a cause of serious meningococcal disease. Explain the risks of the disease (sepsis, brain damage, death), the side effects of the vaccine (fever is common, paracetamol recommended), and let parents make an informed decision about whether to purchase it privately.

## 肺功能

This is the introductory session to **Spirometry Interpretation**, a critical skill for AMC clinical cases in both medicine and counseling. The tutor aims to simplify what can be an intimidating topic by breaking it down into a clear, step-by-step process, focusing only on what is essential for the exam.

Here's the organized breakdown:

# AMC Approach: Spirometry Interpretation - The Basics & Step 1

#### I. Introduction & Goal:

- **Problem:** Spirometry charts with many numbers can be overwhelming in an exam, leading to a "mental breakdown."
- **Common Pitfall:** Candidates often guess the diagnosis (Asthma, COPD, Restrictive Disease) based on the clinical stem rather than demonstrating a true interpretation of the chart. The examiner is assessing the *process* of interpretation.
- **Tutor's Goal:** To provide a simple, step-by-step method that will build confidence and ensure a clear demonstration of knowledge to the examiner.

• **Focus:** Only what is needed for the exam and primary healthcare level (GP/HMO). Advanced topics (e.g., mixed diseases, FEF 25-75%) will be omitted to avoid confusion.

## **II. The Three Key Spirometry Values for AMC:**

- 1. FEV1 (Forced Expiratory Volume in 1 second):
  - Explanation to Patient: "This is the amount of air you can breathe out in the first second after taking a deep breath in."
- 2. FVC (Forced Vital Capacity):
  - Explanation to Patient: "This is the total amount of air that you can forcefully breathe out after taking a deep breath in."
- 3. FEV1/FVC Ratio (or FER Forced Expiratory Ratio):
  - **Function:** This ratio is the key initial indicator used to differentiate between obstructive and restrictive patterns.
  - **o** Explanation to Patient:
    - An obstructive pattern means there is a narrowing in your airways.
    - A restrictive pattern means there is a restriction in the gas exchange in your lung OR a restriction in your chest expansion/movements.

## III. Understanding the Spirometry Chart Layout:

• The Chart Contains Multiple Columns: You need to understand what each column represents to find the correct numbers.

#### 1. "Predicted" (or "Normal Range"):

- o This is the value the computer *predicts* for the patient based on their demographics (age, height, weight, sex, ethnicity, smoking status).
- o It's derived from large population databases.
- This is your primary POINT OF COMPARISON for what is "normal" for this specific patient.
- 2. "Measured" (or "Best," "Actual," "Pre-Bronchodilator"):
  - This is the patient's actual result from performing the spirometry test *before* any puffer/bronchodilator is given.
  - o The name of this column can vary between charts, so it's important to identify it.

#### 3. "% Predicted":

- o This is a calculated percentage: (Measured Value / Predicted Value) x 100.
- o For example, if Measured FVC is 4L and Predicted FVC is 5L, the % Predicted is (4/5) \* 100 = 80%.
- o It tells you what percentage of the expected value the patient achieved.

#### 4. "Post-Bronchodilator":

 This column shows the patient's results after they have been given a bronchodilator (like Ventolin) and have repeated the test. This is crucial for assessing reversibility in obstructive patterns.

## IV. Step 1 of Interpretation: Look at the FEV1/FVC RATIO

- This is the very first and most important step. Do not look at anything else first.
- The Action: Compare the patient's Measured (Actual / Pre-Bronchodilator) Ratio to the Predicted Ratio.
- The Two Branches: This comparison will send you down one of two diagnostic pathways.
  - 1. If the Measured Ratio is DECREASED (compared to the Predicted Ratio):
    - This indicates an **OBSTRUCTIVE PATTERN** (e.g., Asthma, COPD).
  - 2. If the Measured Ratio is NORMAL or INCREASED (compared to the Predicted Ratio):
    - This indicates either a **RESTRICTIVE PATTERN** or a **NORMAL** patient.
- **Tutor's Crucial Point:** The comparison is always against the **Predicted value**, not a fixed number like 0.7 or 70% (which is a simplification).
  - $\circ$  **Example of DECREASED:** Predicted Ratio is 0.80 (or 80%). Patient's Measured Ratio is 0.60 (or 60%). Since 0.60 < 0.80, the ratio is decreased. -> Obstructive.
  - o **Example of NORMAL:** Predicted Ratio is 0.80. Patient's Measured Ratio is 0.80. -> Normal.
  - **Example of INCREASED:** Predicted Ratio is 0.80. Patient's Measured Ratio is 0.85. -> Increased -> Restrictive or Normal.

## V. Practice Examples of Step 1:

- Example 1:
  - o Patient's Pre-Bronchodilator Ratio = 40%.
  - o Mean Predicted Ratio = 73%.
  - $\circ$  Conclusion: 40% < 73%, so the ratio is **DECREASED**. This suggests an **obstructive pattern**.
- Example 2:
  - o Patient's Baseline Ratio = 67%.
  - o Predicted ("Normal Range") = >71%.
  - **Conclusion:** 67% is less than the lower limit of normal (71%), so the ratio is **DECREASED**. This suggests an **obstructive pattern**.
- Example 3:
  - o Patient's Actual ("Pre") Ratio = 68%.
  - $\circ$  Predicted Ratio = 80%.
  - o Conclusion: 68% < 80%, so the ratio is **DECREASED**. This suggests an **obstructive pattern**.

#### VI. Summary of Session 1:

- The first step is to master the layout of the spirometry chart and understand what the "Predicted," "Measured," and "% Predicted" columns mean.
- The second step is to execute Step 1 of interpretation flawlessly: Compare the patient's measured FEV1/FVC ratio to their predicted ratio to determine if you are dealing with a likely obstructive pattern (decreased ratio) or a restrictive/normal pattern (normal/increased ratio).
- Master this first step before moving on.

This is the second part of the **Spirometry Interpretation** series, focusing on the diagnostic pathway when the initial FEV1/FVC ratio is **normal or increased**. This pathway leads to either a **restrictive pattern** or a **normal** spirometry result.

Here's the organized breakdown:

# AMC Approach: Spirometry Interpretation - The "Normal/Increased Ratio" Branch (Restrictive & Normal Patterns)

## I. Recap of Initial Steps & The Diagnostic Branches:

- Spirometry has two phases: A Pre-Bronchodilator test and a Post-Bronchodilator test (after giving a puffer like Ventolin).
- Step 1 is always the FEV1/FVC Ratio: You compare the patient's Measured (Pre-Bronchodilator) Ratio to their Predicted Ratio.
- Today's Focus (The "Right Branch"): This video covers the scenario where the patient's Measured Ratio is Normal or Increased compared to their Predicted Ratio.
  - o This result immediately points you towards two main possibilities:
    - 1. A Restrictive Pattern.
    - 2. A Normal Patient.
- Important Note for this Branch: For this pathway (normal/increased ratio), you ONLY need to look at the Pre-Bronchodilator values. The Post-Bronchodilator results are irrelevant for diagnosing a restrictive pattern or a normal patient.

# II. Step 2 for the Normal/Increased Ratio Branch: Look at FEV1 and FVC Individually

- After establishing the ratio is normal or increased, your next step is to examine the absolute values of FEV1 and FVC from the **Pre-Bronchodilator** test.
- The Action: Compare the patient's Measured (Actual) FEV1 to their Predicted FEV1, and compare their Measured (Actual) FVC to their Predicted FVC.
- The Two Outcomes:
  - 1. **If FEV1 is DECREASED AND FVC is DECREASED** (compared to their respective predicted values):
    - This is the classic picture of a RESTRICTIVE PATTERN / RESTRICTIVE DISEASE.
    - **Mathematical Reason:** The ratio (FEV1/FVC) remains normal or even increases because both the numerator (FEV1) and the denominator (FVC) are reduced proportionally.
  - 2. If FEV1 is NORMAL AND FVC is NORMAL (compared to their respective predicted values):
    - This confirms the patient is **NORMAL**. Their ratio is normal, and their individual lung volumes are also normal.

#### **III. Practice Examples:**

- Practice Case 1: Restrictive Pattern
  - o Step 1 (Ratio):
    - Measured (Actual) Ratio: 91%.
    - Predicted Ratio: 84%.
    - Conclusion: The ratio is INCREASED (91% > 84%). This puts us in the restrictive/normal branch.
  - Step 2 (FEV1 & FVC):

- **FEV1:** Measured (Actual) = 1.57 L. Predicted = 3.65 L. -> **FEV1 is significantly DECREASED.**
- **FVC:** Measured (Actual) = 1.73 L. Predicted = 4.37 L. -> **FVC is significantly DECREASED.**
- o **Final Diagnosis:** The ratio is increased, and both FEV1 and FVC are decreased. This is a **RESTRICTIVE PATTERN**.
  - This is a common pattern for the Interstitial Lung Disease (ILD) case in the AMC medicine cluster.
- Practice Case 2: Normal Patient (with good lungs!)
  - Decoding the Chart: This chart is more complex.
    - "Normal Range" = Predicted value.
    - "Baseline" = Measured/Actual/Pre-Bronchodilator value.
    - "% Predicted" is in the brackets.
    - "FER" = FEV1/FVC Ratio.
  - o Step 1 (Ratio):
    - Measured (Baseline) Ratio: 85%.
    - Predicted (Normal Range): >74%.
    - **Conclusion:** The ratio is **INCREASED** (85% > 74%). This puts us in the restrictive/normal branch.
  - Step 2 (FEV1 & FVC):
    - **FEV1:** Measured (Baseline) = 3.16 L. Predicted (Normal Range) = >2.35 L. -> **FEV1 is INCREASED** (better than predicted).
    - **FVC:** Measured (Baseline) = 3.70 L. Predicted (Normal Range) = >2.82 L. -> **FVC is INCREASED** (better than predicted).
  - o **Final Diagnosis:** The ratio is increased, and both FEV1 and FVC are normal or even better than predicted. This is a **NORMAL PATIENT** (likely an athlete or someone with very good lung function).
    - Tutor's Note: It is very rare to get a completely normal spirometry in an OSCE. It would be a "trick" question to test if candidates invent a pathology.

## IV. Summary of the "Right Branch" (Normal/Increased Ratio):

- 1. Start with the FEV1/FVC Ratio. If it's normal or increased, proceed down this pathway.
- 2. Look ONLY at the Pre-Bronchodilator values for FEV1 and FVC.
- 3. Compare the measured FEV1 and FVC to their predicted values.
  - **o** Both DECREASED -> Restrictive Pattern.
  - o Both NORMAL (or increased) -> Normal Patient.
- 4. This branch is the "easy" side of the spirometry flowchart.

This is the third and most detailed part of the **Spirometry Interpretation** series, focusing on the diagnostic pathway when the initial FEV1/FVC ratio is **decreased**. This is the "challenging branch" that leads to a diagnosis of an **obstructive pattern**, which must then be differentiated into **Asthma** or **COPD**.

Here's the organized breakdown:

# AMC Approach: Spirometry Interpretation - The "Decreased Ratio" Branch (Obstructive Patterns: Asthma vs. COPD)

# I. Recap of Step 1 & Entering the "Left Branch":

- Step 1 is always the FEV1/FVC Ratio: You compare the patient's Measured (Pre-Bronchodilator) Ratio to their Predicted Ratio.
- Today's Focus (The "Left Branch"): This video covers the scenario where the patient's Measured Ratio is DECREASED compared to their Predicted Ratio.
  - o A decreased ratio confirms an OBSTRUCTIVE PATTERN.
  - o For the AMC exam, the two main obstructive diseases you need to differentiate are **Asthma** and **COPD**. (The tutor explicitly states to ignore Asthma-COPD Overlap for exam purposes).

## II. The Bronchodilator Challenge Test & The Concept of Reversibility:

- The Principle: When an obstructive pattern is identified, the next step is to assess for reversibility. This is done by giving the patient a bronchodilator (a puffer like Ventolin/Salbutamol) and then repeating the spirometry.
- Why it's important:
  - o **Asthma** is characterized by significant, often dramatic, **reversibility** of airway obstruction after a bronchodilator.
  - o **COPD** is characterized by largely irreversible or poorly reversible airway obstruction.
- **Tutor's Key Clarification:** A common misconception is that COPD shows *no* improvement with a bronchodilator. This is incorrect. COPD patients *do* show some improvement (which is why they are prescribed reliever puffers), but the improvement is **not significant** compared to the dramatic response seen in asthma. The goal is to quantify this change to differentiate the two.

#### III. Step 2 for the Decreased Ratio Branch: Look at the CHANGE in FEV1

- Once the ratio is confirmed as decreased, you no longer care about the ratio itself or the FVC.
- Your entire focus shifts to **ONE VALUE: FEV1.**
- The Action: You are looking at the CHANGE in FEV1 from the Pre-Bronchodilator test to the Post-Bronchodilator test.
- The Two Criteria for "Significant Change" (Reversibility -> Asthma):
  - You must meet **BOTH** of the following criteria:
    - 1. An absolute increase in FEV1 of more than 200 millilitres (> 200 mL or > 0.2 L).
    - 2. A percentage increase in FEV1 of more than 12% (> 12%).
- How to Calculate the Change:
  - Volume Change (> 200 mL): Subtract the Measured (Actual) Pre-Bronchodilator FEV1 (in Litres) from the Measured (Actual) Post-Bronchodilator FEV1 (in Litres).
  - o Percentage Change (> 12%): The simplest way is to subtract the % Predicted Pre-Bronchodilator FEV1 from the % Predicted Post-Bronchodilator FEV1. (Some charts conveniently calculate this for you).
- The Two Outcomes (The Diagnosis):
- 1. If the change in FEV1 is > 200 mL AND > 12%:
  - This is a **significant** change (significant reversibility).

- The diagnosis is **ASTHMA**.
- 2. If the change in FEV1 is < 200 mL AND/OR < 12%:
- This is **not** a **significant** change (poor/no significant reversibility).
- The diagnosis is **COPD**.

## IV. Practice Examples:

- Practice Case 1: COPD
  - Step 1 (Ratio):
    - Measured (Pre) Ratio = 40%. Predicted Ratio = 73%. -> DECREASED. (Obstructive branch).
  - Step 2 (Change in FEV1):
    - Volume Change: Post-FEV1 (0.90 L) Pre-FEV1 (0.85 L) = **0.05** L (**50** mL). (This is < 200 mL).
    - Percentage Change: Post-%Predicted (37%) Pre-%Predicted (35%) = 2%. (This is < 12%).</li>
  - o Final Diagnosis: Both criteria are below the threshold. This is COPD.
  - Tutor's Common Mistakes to Avoid:
    - Don't compare the *ratios* pre- and post-bronchodilator.
    - Don't compare the *FEV1* to the predicted value at this stage; you are only interested in the *change* between pre- and post- measurements.
- Practice Case 2: Asthma
  - o Step 1 (Ratio):
    - Measured (Baseline) Ratio = 67%. Predicted (Normal Range) = >71%. -> DECREASED. (Obstructive branch).
  - Step 2 (Change in FEV1):
    - **Volume Change:** Post-FEV1 (3.7 L) Pre-FEV1 (3.0 L) = **0.7** L (**700 mL**). (This is  $\geq$  200 mL).
    - Percentage Change: The chart conveniently provides this as 23%. (This is > 12%).
  - Final Diagnosis: Both criteria are met. This is a dramatic, significant improvement. This is ASTHMA.
- Practice Case 3: Asthma (another chart format)
  - Step 1 (Ratio):
    - Measured (Actual Pre) Ratio = 54%. Predicted Ratio = 83%. -> DECREASED.
       (Obstructive branch).
  - Step 2 (Change in FEV1):
    - Volume Change: Post-FEV1 (4.65 L) Pre-FEV1 (3.31 L) = 1.34 L (1340 mL). (This is > 200 mL).
    - Percentage Change: The chart provides this as 40%. (This is > 12%).
  - o Final Diagnosis: Both criteria are met. This is ASTHMA.

#### V. Summary of the "Left Branch" (Decreased Ratio):

- 1. Start with the FEV1/FVC Ratio. If it's decreased, you have confirmed an obstructive pattern.
- 2. Move your focus ONLY to FEV1.

- 3. Calculate the change in both absolute volume (Litres) and percentage between the Pre- and Post-Bronchodilator FEV1 values.
  - o If change is  $> 200 \text{ mL AND} > 12\% \rightarrow \text{Asthma}$ .
  - o If change is < 200 mL and/or < 12% -> COPD.
- 4. This is the complete process needed to differentiate Asthma and COPD on spirometry for the AMC exam.

This is the final and concluding part of the **Spirometry Interpretation** series, designed as a comprehensive practice session. The tutor recaps the complete interpretation flowchart and then walks through numerous spirometry chart examples, reinforcing the step-by-step method and highlighting how to navigate different chart formats.

Here's the organized breakdown:

## AMC Approach: Spirometry Interpretation - The Full Flowchart & Practice Session

## I. The Complete Spirometry Interpretation Flowchart (Recap):

- Step 1: Look at the FEV1/FVC RATIO.
  - o Compare the patient's Measured (Pre-Bronchodilator) Ratio to their Predicted Ratio.
- Decision Point (The Two Branches):
  - o If the Ratio is NORMAL or INCREASED ("Right Branch"):
    - Step 2: Look at the Pre-Bronchodilator FEV1 and FVC individually.
    - Compare each to its predicted value.
    - If BOTH FEV1 and FVC are DECREASED -> RESTRICTIVE PATTERN.
    - If BOTH FEV1 and FVC are NORMAL -> NORMAL PATIENT.
  - o If the Ratio is DECREASED ("Left Branch"):
    - **Step 2:** An **OBSTRUCTIVE PATTERN** is confirmed. Now, differentiate Asthma vs. COPD.
    - Look at the CHANGE in FEV1 between the Pre- and Post-Bronchodilator tests.
    - If the change is > 200 mL (0.2 L) AND > 12% -> ASTHMA (significant reversibility).
    - If the change is < 200 mL (0.2 L) AND/OR < 12% -> COPD (poor/no significant reversibility).

#### II. Comprehensive Practice Session (Tutor walks through multiple examples):

- **Tutor's Method:** For each example, he first identifies the key columns (Predicted, Pre-BD, Post-BD, % Predicted), then systematically applies the flowchart.
- Practice 1: COPD
  - o Step 1 (Ratio): Measured (Pre) Ratio 40% vs. Predicted 73% -> DECREASED (Obstructive).
  - o Step 2 (FEV1 Change): Volume change = 0.05 L (50 mL). Percentage change = 2%.
  - o Conclusion: Change is < 200 mL and < 12%. Diagnosis: COPD.
- Practice 2: Asthma
  - Step 1 (Ratio): Measured (Baseline) Ratio 67% vs. Predicted >71% -> DECREASED (Obstructive).
  - o Step 2 (FEV1 Change): Volume change = 0.7 L (700 mL). Percentage change = 23%.

o Conclusion: Change is > 200 mL and > 12%. Diagnosis: Asthma.

#### • Practice 3: Asthma

- o Step 1 (Ratio): Measured (Actual) Ratio 78% vs. Predicted 82% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 0.65 L (650 mL). Percentage change = 30%.
- o Conclusion: Change is > 200 mL and > 12%. Diagnosis: Asthma.

## • Practice 4: Asthma (with many distractor values like TLC, RV, DLCO)

- o **Tutor's Note: IGNORE** TLC, RV, DLCO, Z-scores. They are for specialist interpretation and not needed at the GP/HMO/AMC level. Do not panic.
- o Step 1 (Ratio): Measured (Actual) 57% vs. Predicted 81% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 1.0 L (1000 mL). Percentage change = 112%.
- o Conclusion: Massive, significant change. Diagnosis: Asthma.

#### • Practice 5: Restrictive Pattern

- Step 1 (Ratio): Measured (Actual) 91% vs. Predicted 84% -> INCREASED (Restrictive/Normal).
- Step 2 (FEV1 & FVC):
  - FEV1: Measured 1.57 L vs. Predicted 3.65 L -> **DECREASED**.
  - FVC: Measured 1.73 L vs. Predicted 4.37 L -> **DECREASED**.
- o Conclusion: Increased ratio with both FEV1 and FVC decreased. Diagnosis: Restrictive Pattern.

#### • Practice 6: Asthma

- o Step 1 (Ratio): Measured (Best Pre) 54% vs. Predicted 83% -> DECREASED.
- o **Step 2 (FEV1 Change):** Volume change = 1.34 L (1340 mL). Percentage change = 30% (difference between 75% and 105%).
- o Conclusion: Change is > 200 mL and > 12%. Diagnosis: Asthma.

## • Practice 7: Restrictive Pattern

- o Step 1 (Ratio): Measured (Actual) 87% vs. Predicted 80% -> INCREASED.
- Step 2 (FEV1 & FVC): FEV1 Measured vs. Predicted -> Decreased. FVC Measured vs. Predicted -> Decreased.
- o Conclusion: Increased ratio, both FEV1/FVC decreased. Diagnosis: Restrictive Pattern.
- o **Chart Note:** This chart cleverly omits the Post-Bronchodilator column, as it's not needed for a restrictive diagnosis.

#### • Practice 8: COPD (The Classic Exam Case)

- o Step 1 (Ratio): Measured (Pre) 67% vs. Predicted 81% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 0.12 L (120 mL). Percentage change = 3%.
- o Conclusion: Change is < 200 mL and < 12%. Diagnosis: COPD.

#### • Practice 9: Asthma

- o Step 1 (Ratio): Measured (Pre) 77% vs. Predicted 81% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 0.61 L (610 mL). Percentage change = 13%.
- o Conclusion: Change is > 200 mL and > 12%. Diagnosis: Asthma.

## Practice 10: Restrictive Pattern

- o Step 1 (Ratio): Measured (Pre) 91% vs. Predicted 81% -> INCREASED.
- Step 2 (FEV1 & FVC): FEV1 Measured vs. Predicted -> Decreased. FVC Measured vs. Predicted -> Decreased.
- o Conclusion: Restrictive Pattern.
- Practice 11: Restrictive Pattern

- Step 1 (Ratio): Measured (Best Pre) 86% vs. Predicted 86% -> NORMAL. (Restrictive/Normal branch).
- Step 2 (FEV1 & FVC): FEV1 Measured vs. Predicted -> Decreased. FVC Measured vs. Predicted -> Decreased.
- o Conclusion: Normal ratio with both FEV1/FVC decreased. Diagnosis: Restrictive Pattern.

#### • Practice 12: COPD

- o Step 1 (Ratio): Measured (Pre) 54% vs. Predicted 83% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 0.02 L (20 mL). Percentage change = 1%.
- o Conclusion: No significant change. Diagnosis: COPD.

#### • Practice 13: Asthma

- o Step 1 (Ratio): Measured (Actual) 68% vs. Predicted 84% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 1.09 L (1090 mL). Percentage change = 25%.
- o Conclusion: Significant change. Diagnosis: Asthma.

#### • Practice 14: Asthma

- o Step 1 (Ratio): Measured (Baseline) 78% vs. Predicted 79% -> DECREASED (even if close).
- o Step 2 (FEV1 Change): Volume change = 0.5 L (500 mL). Percentage change = 18%.
- o Conclusion: Significant change. Diagnosis: Asthma.

# • Practice 15: Normal Patient (Good Lungs)

- o Step 1 (Ratio): Measured 85% vs. Predicted >75% -> INCREASED (or Normal).
- o Step 2 (FEV1 & FVC): Both FEV1 and FVC are higher than their predicted normal ranges.
- o Conclusion: Normal Patient.

#### • Practice 16: COPD

- o Step 1 (Ratio): Measured 50% vs. Predicted 79% -> DECREASED.
- o Step 2 (FEV1 Change): Volume change = 0.02 L (20 mL). Percentage change = 2%.
- o Conclusion: No significant change. Diagnosis: COPD.

#### III. Final Conclusion & Key Takeaways:

- **Practice is Key:** The tutor emphasizes that doing the interpretations yourself, even making mistakes, is the best way to learn and build confidence.
- **Don't Be Overwhelmed by Numbers:** The charts are designed to look intimidating with extra, unnecessary values. Your job is to know which specific numbers to look for and ignore the rest.
- **Master the Flowchart:** The two-branch system (based on the initial ratio) is a reliable method for reaching the correct diagnosis for Asthma, COPD, or a Restrictive Pattern.
- Understand Different Chart Formats: Be prepared for "Predicted" to be called "Normal Range," or "Measured" to be called "Baseline," "Actual," or "Pre-Bronchodilator." The principles remain the same.

#### • Avoid Common Mistakes:

- o Do not compare ratios pre- and post-bronchodilator. Once the ratio is decreased, your focus is entirely on the **change in FEV1**.
- o In the obstructive branch, do not compare the FEV1 values to the *predicted* value; compare the **pre- and post-bronchodilator values to each other.**
- With this systematic approach, spirometry interpretation should no longer be a source of fear or confusion in the AMC exam.

This section provides a detailed walkthrough of a classic AMC counseling case involving an **angry relative** after a **post-operative complication (slipped clip after laparoscopic cholecystectomy)**. The tutor emphasizes

that this case is less about medical knowledge and more about communication skills, empathy, and a structured approach to de-escalation and explanation.

Here's the organized breakdown:

# AMC Recalls: Counseling an Angry Relative (Post-Op Bleed / "Slipped Clip" Case)

# I. Case 40: Patient Post-Laparoscopic Cholecystectomy (4 hours ago), now has internal bleeding, partner is annoyed

- Stem Summary (Typical):
  - o 45-year-old lady, 4 hours post-laparoscopic cholecystectomy.
  - o Surgeon detected a post-op drop in blood pressure and/or hemoglobin.
  - o Internal bleeding is suspected.
  - o Patient may have already received blood.
  - o Patient is now stable but is being prepared for an **open surgery (laparotomy)** to find and stop the source of bleeding.
- Tasks:
  - 1. Counsel the annoyed/angry partner.
  - 2. Answer his questions.
- **Tutor's Note:** This is an old, common case. The key challenge is managing the angry role player, not complex medical facts. The likely cause of bleeding is a **slipped clip** from the cystic artery.

# II. The Partner's Likely Questions/Concerns (The "Agenda"):

- "Why did this happen?"
- "Was there a mistake by the surgical team?"
- "Should we have been told about this risk before the surgery?"
- "What are you doing next?"

#### III. Structured Counseling Approach (De-escalation & Education):

• **Tutor's Warning:** Expect an angry role player. They are instructed to be aggressive and blameful. Your job is to **stay calm, be patient, and let them vent.** Do not get defensive or argumentative.

## 1. Opening the Consultation (Acknowledge and Listen First):

- o Introduce self and state purpose: "Hello Mr. [Partner's Name], my name is Dr. [Your Name]. I'm here to discuss your wife's/partner's condition."
- o Open the floor to him (this allows him to vent): "May I know how much you know about her situation so far?"
- o LISTEN SILENTLY: Let him complain and express his anger and frustration. Do not interrupt.
- o After he finishes his initial outburst, check if there's more: "Is there any other concern that you have? Is there anything else you'd like me to address?" (Get all concerns out on the table first).

#### 2. Empathy and Reassurance (Calm the Situation):

• Acknowledge his feelings: "I understand this is a very stressful moment/situation for you. It's completely understandable to feel upset and worried."

o Provide reassurance about patient care: "I would like to reassure you that we will take good care of your partner/wife and provide the best possible care for her."

# 3. Provide Education & Explanation (Answer his questions systematically):

- Set the stage: "Let me explain about the procedure and why this has happened. If you have any questions at any point, please don't hesitate to ask me."
- Explain the Initial Surgery (Laparoscopic Cholecystectomy) Simply:
  - "Your wife underwent or had a **keyhole surgery** to remove her gallbladder."
  - "Once we removed the gallbladder, we blocked off the blood vessels and the ducts with some **small clips**."
- Explain the Complication ("Why did this happen?"):
  - This procedure has a rare complication where one of the clips can sometimes slip off the blood tube. This is what we believe has happened, and this causes bleeding inside the abdomen."
- Explain How it was Detected (Shows vigilance):
  - "After any surgery, we observe the patient's blood pressure and other vital signs very closely for a few hours to monitor for complications and make sure there is no bleeding."
  - "In your wife's case, we detected a drop in her blood pressure. When we checked her blood, we also noticed a drop in her hemoglobin, which is the part of the red blood cells that carries oxygen."
- Explain the Diagnosis & Next Steps ("What are you doing next?"):
  - "Because of these findings, the surgeon is suspecting a slipped clip and an internal bleed.
     We have already given her some blood to keep her stable."
  - "The surgeon has decided that the best and safest course of action is to perform an open surgery now. This will allow us to go in, find the exact source of the bleeding, and stop it."
- Address the "Mistake" Question Directly:
  - "This is not a mistake by the surgical team. Although we try our very best to avoid such complications, in a small number of surgeries, complications are sometimes inevitable they can happen even when everything is done perfectly."
  - **Reassure again:** "But again, I would like to reassure you that we detected this early, and we will try to provide the best care for her."
- o Address the "Informed Consent" Question ("Should we have been told?"):
  - "Usually, in our last consultation before the surgery, we discuss all the possible complications of the surgery with the patient."
  - "We also provide a **fact sheet and a consent form**, which includes all the details of the procedure, including the possible complications like bleeding."
  - "So, it's very likely that your partner was already notified about this possible, though rare, complication before she agreed to the surgery." (This is a gentle way of stating that informed consent was likely obtained without directly blaming the partner for not knowing).
- 4. Closure (Communication & Support):
  - o "I will **keep you updated** on her progress throughout the surgery and afterwards."
  - o "If you have any further questions or concerns, I'm always here to help you."
  - (End by re-checking if he has any other immediate questions).

# IV. Key Learning Points for the Angry Relative Case:

- Communication Over Medicine: This case is a test of your interpersonal skills, empathy, and ability to remain professional under pressure.
- Let the Patient/Relative Vent: The first step to de-escalation is active listening without interruption.
- Acknowledge and Validate Emotions: Start with empathy ("I understand this is stressful...").
- **Structured Explanation:** Break down the complex situation into simple, logical parts: what the surgery was, what the complication is, how it was found, and what the plan is now.
- Avoid Medical Jargon: Use simple terms like "keyhole surgery," "blood tubes," and "small clips."
- Be Clear and Direct about "Mistake" vs. "Complication": Explain that complications can occur even without error. Reassure them about the quality of care.
- **Gently Reinforce the Consent Process:** Explain the standard procedure for informed consent without being accusatory.
- Maintain a Calm and Supportive Demeanor: Your calmness can help de-escalate the situation.
- Offer Ongoing Communication: Promising to keep them updated provides reassurance and builds trust.
- The "slipped clip" is the only key medical fact required. The rest is about managing the interaction professionally and empathetically.

#### **Alcoholic Sensory Neuropathy**

This is a detailed walkthrough of a relatively new and challenging online exam case: **Alcoholic Sensory Neuropathy.** The tutor acknowledges the vagueness of the topic in official guidelines but provides a structured approach to explaining the findings, diagnosis, differentials, and both immediate and long-term management.

Here's the organized breakdown:

AMC Recalls: Alcoholic Sensory Neuropathy (Tingling/Numbness in Feet)

#### I. Case 41: 57 y.o. Male, Tingling/Numbness in Feet, Hx of Alcohol Use

- Stem Summary (Typical Online Recall):
  - o 57-year-old male, GP.
  - o **Complaint:** Tingling and numbness in both feet, worse at night.
  - o **History:** Drank 5 standard drinks of alcohol every night for 5 years. **Stopped alcohol 6 weeks ago**, but symptoms are ongoing (patient is upset about this).
- Provided Information:
  - Physical Exam: Confirmed sensory neuropathy (decreased sensation in both legs), weak ankle reflexes.
  - Investigations:
    - FBC: Macrocytic anemia (high MCV), normal platelets.
    - Vitamin B12: Normal.
    - LFTs: Liver enzymes are increased (due to chronic alcohol use).
    - (Other results like TSH, UEC would likely be provided and normal to help narrow the diagnosis).
- Tasks:
  - 1. Explain physical examination findings and investigation results to the patient.

- 2. Explain your diagnosis and your differentials.
- 3. Explain your immediate and long-term management.
- **Tutor's Note:** This is a tricky case because "alcoholic sensory neuropathy" isn't a standalone, detailed topic in many primary care guidelines like Therapeutic Guidelines. Management often follows general principles for neuropathic pain. The diagnosis of "alcoholic sensory neuropathy" is one of exclusion and strong clinical correlation.

## **II. Explaining Examination & Investigation Findings to Patient:**

## 1. Physical Examination Findings:

o "Mr. [Patient's Name], on your physical examination, I found that you had a decrease in the sensations of your legs. I also tested your reflexes, which is the jerk or sudden movement we see after a tap on the muscle, and I found you have a weak reflex in your ankles. A weak reflex is another sign of a problem in the sensory nerves."

# 2. Investigation Results:

- o "Looking at your investigation results, one of your **liver enzymes is elevated**, which is likely due to your chronic alcohol intake and shows some inflammation in the liver."
- o "We also looked at your blood cells. We have red blood cells that carry oxygen in our blood using a component called hemoglobin. In your case, the **amount of hemoglobin is a little lower** than normal, which means you have a mild anemia. We also saw that the size of your red blood cells has increased (macrocytic anemia), which is also often seen with long-term alcohol use."
- o "Importantly, the other tests were normal. You have a normal sugar level in your blood, a normal kidney function, and a normal amount of vitamin B12 in your body." (This helps rule out other common causes of neuropathy).

# III. Explaining Diagnosis and Differentials:

## 1. Diagnosis:

- "Based on your symptoms and our findings today, most likely you have a condition called alcoholic sensory neuropathy."
- Explanation: "This means that long-term alcohol use has unfortunately damaged the nerves in your legs, and this has led to the numbness and pins and needles you're feeling."

# 2. Addressing Patient's Concern (Symptoms not improving despite quitting alcohol):

"I know you mentioned you're upset that the symptoms haven't gone away even though you stopped drinking. It's important to understand that some of this nerve damage can be irreversible. However, by stopping alcohol, you will prevent further damage from happening, which is the most crucial step."

## 3. Differentials (for Peripheral/Sensory Neuropathy):

- o "While alcoholic neuropathy is the most likely cause, we also considered other possibilities for your symptoms. These include:"
- o **Diabetic sensory neuropathy** (nerve damage from high blood sugar).
- o Vitamin B12 deficiency (can cause similar symptoms).
- o **Hypothyroidism** (an underactive thyroid gland).
- Chronic liver disease or liver failure.
- Uremia (from chronic kidney disease).
- Lumbar radiculopathy (a pinched nerve in your lower back).

## o Restless Legs Syndrome.

o (Less common, but can mention if time): Brain problems like brain tumours, head injuries, Sarcoidosis, Drug toxicities, Vasculitis.

## IV. Explaining the Management Plan (Immediate & Long-Term):

#### 1. Confirmation & Severity Assessment (Referral):

o "As a first step to complete our assessment, I will **refer you to a Neurologist** (a nerve specialist). They will likely perform **nerve conduction studies (NCS)**. This test helps to confirm our diagnosis and also checks the severity of the nerve damage."

## 2. Pharmacological Management (Symptomatic Relief):

"If your symptoms of tingling and numbness are problematic and bothering you, we can start you on medication to help manage the nerve pain. Options include medications such as Amitriptyline or Gabapentin/Pregabalin."

## 3. Vitamin Supplementation:

o "I will also give you **Thiamine**, which is a type of vitamin B. It's a vitamin that people who drink alcohol for a long time are often low on, and it's important for nerve health."

## 4. Long-Term Management:

#### Alcohol Abstinence (Reinforce):

"It's excellent that you have stopped drinking alcohol, and I want to encourage you to continue avoiding it, as this is the most important thing you can do to prevent the situation from getting worse."

# • Foot Care (CRUCIAL for sensory neuropathy):

"Because you have numbness in your feet, you are at a higher risk of injuries that you might not feel. Therefore, I will refer you to a Podiatrist, who is a specialist in foot care. They will provide education on how to check your feet daily, choose appropriate footwear, and prevent ulcers or injuries."

#### • Falls Prevention (CRUCIAL for sensory neuropathy):

- "The numbness in your feet also puts you at a higher risk of falls. It's important we address this. I will:"
- "Refer you to a falls prevention clinic."
- "Refer you to a physiotherapist for balance and strengthening exercises."
- "Involve an occupational therapist to do a home safety assessment and make your home environment safer."
- "We should also check your vision and hearing, as these are also important for balance."

# V. Tutor's Final Thoughts on this "Annoying" Case:

- This is a challenging case because the management is more supportive and preventative rather than curative, and guidelines aren't as clear-cut as for other conditions.
- The OSCE station has a lot of time, so you are expected to be comprehensive. Use the extra time to explain concepts like the blood results or the rationale for referrals in more detail.
- The key to passing is covering all the necessary boxes: confirming the diagnosis, managing symptoms, providing vitamin support, and, most importantly, addressing the long-term safety implications of sensory neuropathy (foot care and falls prevention).

• Even though making a diagnosis without an NCS/EMG is not ideal in real-life practice, for the OSCE, you must follow the prompt and make the likely diagnosis based on the strong clinical clues provided.

## **Haemochromatosis Counseling**

This is a detailed walkthrough of a **Haemochromatosis Counseling** case, which is a classic, though less frequently seen, AMC OSCE station. The tutor covers the pathophysiology, diagnosis (including specific gene names), risk stratification based on genetics, management, and lifestyle advice in a comprehensive manner suitable for an 8-minute counseling station.

Here's the organized breakdown:

# **AMC Recalls: Haemochromatosis Counseling**

## I. Case 42: 30 y.o. Male, Inquiring about Haemochromatosis (Brother recently diagnosed)

- Stem Summary:
  - o 30-year-old male, GP setting.
  - o Presents to inquire about haemochromatosis.
  - o Reason: His brother was recently diagnosed, and his brother's GP recommended family members get screened.
- Tasks:
  - 1. Counsel the patient regarding the condition and management plan.
- **Tutor's Note:** This is a pure 8-minute counseling case. The goal is to provide a detailed, structured explanation covering all aspects of the condition, from what it is to how it's managed.

# II. Background Knowledge on Hereditary Haemochromatosis:

- What is it? An inherited iron storage disorder leading to excessive iron buildup in the body. The body lacks a natural mechanism (especially in men) to excrete excess iron.
- Pathophysiology: A genetic mutation causes increased iron absorption from the gut.
- **Symptoms:** Often asymptomatic until later in life (typically 30s-60s) when iron stores become very high.
  - o **Common:** Joint pain (especially in the hands "iron fist"), fatigue, sexual dysfunction (erectile dysfunction, loss of libido).
  - o Later/Severe Complications: Diabetes ("bronze diabetes" due to skin tanning + high sugar), heart disease (cardiomyopathy, arrhythmias), and liver failure/cirrhosis (most significant long-term complication, risk of hepatocellular carcinoma).
- Diagnosis:
- 1. **Initial Screening: Iron Studies**, looking for two key markers:
  - High Transferrin Saturation.
  - High **Serum Ferritin** (indicates high iron stores).
  - 2. **Confirmation: Genetic Testing** (HFE gene test) if iron studies are suggestive OR if a first-degree relative is diagnosed.
    - Key Genes to know for AMC: C282Y and H63D.
    - The **C282Y** mutation is the most clinically significant.

#### • Treatment:

- o **Primary:** Lifelong, regular **venesection** (blood donation) to remove excess iron.
- o **Alternative:** Iron chelating agents (e.g., Desferrioxamine), but less effective and have more side effects.

#### • Dietary Advice:

- o A strict low-iron diet is generally **not** necessary but can reduce the frequency of venesection.
- o **AVOID Vitamin C supplements** (as they increase iron absorption).
- o **AVOID or limit alcohol** (as it adds stress to the liver).

## **III. Structured OSCE Counseling Approach:**

## 1. Opening & Agenda Setting:

- o Open-ended Q: "Hello [Patient's Name], I can see from the notes that you're here because your brother was recently diagnosed with haemochromatosis. Can you please tell me more about it?"
- o Elicit Knowledge & Concerns: "How much do you already know about haemochromatosis? And do you have any specific concerns today that you'd like me to address?"

## 2. Explain the Condition (Haemochromatosis):

- "Let me explain the condition for you. Haemochromatosis is a result of excess iron storage in the body."
- o "It is caused by a mutation in some genes, which leads to an increased absorption of iron from the food you eat."
- o "Since the body cannot excrete or get rid of this extra iron, it starts to build up and can begin damaging your organs over time. This is why it can cause symptoms."
- o "It's important to know that the iron needs to stay high for many years before it starts causing problems. That's why symptoms usually don't appear until around the age of 30 to 60."

#### 3. Explain Clinical Features / Symptoms:

- "With the symptoms, the excess iron can damage organs like your liver, pancreas, skin, heart, and your joints."
- o "The symptoms you might get are things like joint pain (especially in the hands), tanning of your skin, tiredness or fatigue, a decrease in your sexual desire or erection problems."
- o "In the long term, it can lead to more serious problems like **liver failure** and **diabetes** (which is a high blood sugar level)."

## 4. Explain the Diagnostic & Screening Process:

- o "Because your brother has been diagnosed, it's important that we test the **first-degree family members**, like yourself. We do two main tests."
- Test 1 (Iron Studies): "First, we will do a blood test called iron studies. In haemochromatosis, we would expect to see a high transferrin saturation and a high ferritin level, which is your body's iron storage marker."
- Test 2 (Genetic Studies): "The second test we do is genetic studies, where we check for the mutated genes. The two important genes are called C282Y and H63D." (Tutor emphasizes mentioning the gene names).
- o "For first-degree family members like yourself, this genetic test is **Medicare rebated**, which means it will be free for you."

# 5. Explain Genetic Test Results & Risk Stratification (Hypothetically):

o "Depending on the results of the genetic test, we can understand your risk:"

- High Risk: "If you have two copies of the main C282Y gene, there is a high risk of developing symptomatic haemochromatosis in your lifetime."
  - (If patient asks about children): "If this were the case and you were worried about your children, we could then test your partner to assess the overall risk for them."
- Low Risk: "If you have only one C282Y gene, or one or two copies of the other H63D gene, there is generally no need for regular follow-up unless you develop symptoms."
- o Intermediate Risk: "If you have one copy of the C282Y gene plus one copy of the H63D gene, we would just need to monitor your iron levels every 2 to 5 years."

## 6. Explain the Management Plan (If Diagnosed):

- $\circ$  "If we confirm that you have haemochromatosis, we have two main treatment options."
- o Option 1 (Preferred): Venesection (Blood Donation):
  - "Our preferred option is lifelong, regular blood donations, which is also called venesection. This is the most effective way to remove the excess iron from your body."
  - "Initially, we would start with weekly blood donations until your iron storage level becomes normal. After that, we would repeat it every 3 to 4 months to keep it under control." (Mentioning target ferritin <100 and transferrin sat <50% is a nice touch).
- Option 2 (Alternative): Medication:
  - "Our second option is a medication called **Desferrioxamine**. This medication attaches to the excess iron and helps remove it from your body. However, it's generally **not as** effective as blood donations and it has more side effects, which is why we prefer venesection."

# 7. Explain Prognosis (Crucial Reassurance):

o "It's very important to know that if your iron storage levels are lowered **before there is any significant damage to your liver or other organs**, you can have a **normal life expectancy**. Haemochromatosis will not create any major problems for you if managed early."

#### 8. Provide Treatment/Lifestyle Advice:

- o "In terms of lifestyle, the most important thing is to **avoid alcohol**, as it can put extra stress on your liver, which is the main organ we're trying to protect."
- o "You should also **avoid Vitamin C supplements**, as Vitamin C increases the absorption of iron from your food."
- o "There is **no need for a strictly low-iron diet**. However, reducing red meat intake can help decrease the frequency of blood donations you might need."

## 9. Closure & Follow-up:

- o "So, the plan today is to organize those blood tests for you. I will **review you once the results are ready**."
- o "I will give you some **reading material** about haemochromatosis from a reliable source like the Better Health Channel or Healthdirect."
- o (Mention red flags the symptoms discussed earlier if at any point he develops them, he should come back).

# **IV. Key Learning Points for Haemochromatosis Counseling:**

- **Comprehensive Counseling:** This is an 8-minute station. You are expected to cover the topic in detail: what it is, symptoms, diagnosis, genetics, management, lifestyle, and prognosis.
- **Key Medical Facts:** Know the two key iron studies markers (ferritin, transferrin sat), the two key gene mutations (C282Y, H63D), and the primary treatment (venesection).

- **Structured Explanation:** Follow a logical flow from explaining the disease to how it's diagnosed and then managed.
- **Genetic Counseling Aspect:** Be prepared to simply explain the inheritance pattern and risk based on the gene results (especially the significance of having two C282Y genes).
- **Patient-Centered:** Frame the counseling around the patient's situation (as a first-degree relative) and answer his implied questions (What is it? Do I have it? What do we do? What does it mean for me?).
- **Positive Framing of Prognosis:** Emphasize that with early detection and treatment, life expectancy is normal.

#### **IBD**

This is a detailed walkthrough of the **Inflammatory Bowel Disease (IBD) Counseling** case, which is a classic AMC handbook case. The tutor emphasizes a critical pitfall: candidates see the colonoscopy photo, assume Ulcerative Colitis (UC), and fail to discuss Crohn's Disease, leading to a fail. The key is to counsel on **IBD** as a whole, differentiating between UC and Crohn's, while awaiting definitive biopsy results.

Here's the organized breakdown:

# AMC Recalls: Inflammatory Bowel Disease (IBD) Counseling

## I. Case 43: 24 y.o. Male, Chronic Bloody Diarrhoea, Recent Colonoscopy

- Stem Summary:
  - o 24-year-old male, GP setting.
  - o Chronic diarrhoea for 6 months (bloody, 6-7 times/day, no mucus).
  - o Recent colonoscopy.
  - o Told he has "inflammatory bowel disease" but doesn't remember a specific name.
  - o Given a copy of colonoscopy photos showing ulceration and redness "similar for the whole large bowel."
- Tasks:
  - 1. Counsel the patient.
  - 2. (Implicitly) Explain IBD, differentiate UC and Crohn's, discuss complications, and outline management principles.
- **Tutor's Critical Pitfall:** The photos look like classic Ulcerative Colitis (UC). However, the AMC handbook and the station's aim require a discussion of **BOTH UC and Crohn's Disease**. Counseling only on UC will result in a fail. The definitive diagnosis comes from the **biopsy**, not just the visual appearance.

#### **II. Structured Counseling Approach:**

- 1. Opening & Initial Explanation (Setting the Stage):
  - o (Start with a brief intro and open-ended question to build rapport).
  - Explain Colonoscopy Findings Simply:
    - "Okay [Patient's Name], let's look at these photos from your colonoscopy. What we can see here is the **inner layer of your large bowel**."

"As you can see, there is some ulceration and redness in this inner layer, which is not normal."

# o Introduce IBD and the Autoimmune Concept:

- "This appearance happens in a condition called Inflammatory Bowel Disease, or IBD."
- "In IBD, the layers of your bowel become inflamed, and this is the cause of the symptoms you've been having, like the diarrhoea and bleeding."
- "IBD is an autoimmune condition. This means that your own immune system, which normally fights off infections, mistakenly starts to attack and damage your own cells. In this case, the immune system is creating inflammation and damaging your bowels."

# 2. Introduce the Two Types of IBD (The Key Task):

- o "It's important to know that there are **two main types of IBD**. The first is called **Ulcerative Colitis (UC)**, and the second is called **Crohn's Disease**."
- Acknowledge Visuals but Emphasize Biopsy:
  - "Although the appearance of the inflammation on the photos is suggestive of Ulcerative Colitis, we need to wait for confirmation from the biopsy results. The specialist took small tissue samples during the procedure, and the laboratory analysis of these samples will give us the final, definitive diagnosis."

# 3. Differentiate Between UC and Crohn's (Briefly & Simply):

- **o** Ulcerative Colitis (UC):
  - Location: "UC just involves the large bowel, and especially the end part of the large bowel, which we call the rectum."
  - **Depth:** "It just involves the **superficial layers** of the bowel wall."
- **Crohn's Disease:** 
  - Location: "Crohn's Disease can involve both the small and the large bowel." (Can affect anywhere from mouth to anus).
  - **Depth:** "It involves all the layers, or the entire bowel wall."
  - Other features: "It can also cause ulcers and abnormalities around the back passage (anus), like tracts that open onto the skin (fistulas)."

# 4. Explain Potential Complications of Each Type:

- **o** Crohn's Disease Complications:
  - **Flare-ups:** "Sometimes you can get a flare-up of the inflammation, which causes abdominal pain, bloody diarrhoea, and fever."
  - Perianal Disease: "It can have ulcers or fistulas, which are tracts opening on the skin, around the back passage."
  - **Obstruction:** "It can cause obstruction and blocking of the bowel (strictures)."
- Ulcerative Colitis Complications:
  - **Flare-ups:** "UC also has flare-ups with similar symptoms of abdominal pain, bloody diarrhoea, and fever."
  - **Toxic Megacolon:** "It can cause a severe dilation of the bowel with fever and severe pain, a condition we call toxic megacolon."
  - Bowel Cancer Risk: "Ulcerative Colitis increases the long-term risk of having bowel cancer."

#### 5. Outline General Treatment Principles for IBD:

- Goal of Treatment:
  - "This condition is usually controlled well with medication. The aim of the medication is to suppress your immune system to decrease the inflammation in the bowels."

- o Medication Options (Mention classes/examples, not a full regimen):
  - Corticosteroids: "We can sometimes use steroids (like Prednisolone). They give a fast response and are very effective for flare-ups, but we cannot continue them for a long time due to side effects."
  - 5-ASAs: "There are special medications such as Mesalazine or Sulfasalazine which are often used as a first step."
  - Immunomodulators: "The next group of medications are immunomodulatory drugs. An example you might know is Methotrexate. Another common one we use is an intravenous treatment called Infliximab."

#### O Pre-treatment Safety Screen:

"It's important to know that before starting many of these treatments that suppress the immune system, we will do some blood tests to check for things like Tuberculosis (TB) and Hepatitis. We will also make sure your vaccinations are up to date, including the influenza and pneumococcal vaccines."

# Surgical Management:

"If you don't respond well to medication, we may need to consider surgery for you."
(More common for definitive cure in UC by removing the colon).

# 6. Discuss Long-Term Management & Monitoring (Complications of IBD):

- o "Living with IBD means we need to monitor for some long-term complications."
- o **Nutritional Deficiencies:** "We will need to check for some **nutritional deficiencies**, specifically **iron deficiency and iron deficiency anemia**, as the inflammation can affect how you absorb nutrients. I will send you for iron studies."
- o **Osteoporosis:** "IBD also increases the risk of **osteoporosis**. This is a condition where your bones become soft and fragile. We will need to monitor your bone health." (Can be due to malabsorption and steroid use).
- o Cancer Surveillance (Especially for UC): "For Ulcerative Colitis, as we discussed, there is a higher risk of cancer, so we need to do regular colonoscopies for follow-up to screen for any early changes." (e.g., every 1-2 years after about 8-10 years of disease).
- 7. **Closure:** Provide reassurance, offer reading material (e.g., from Crohn's & Colitis Australia), and arrange a follow-up appointment to discuss the definitive biopsy results and finalize the management plan.

# **IV. Key Learning Points for IBD Counseling Case:**

- **Do NOT Diagnose UC Prematurely:** Despite the photo, frame the discussion around "Inflammatory Bowel Disease" and explain the two types, pending biopsy confirmation. This is the main passing/failing point.
- **Know the Key Differences:** Be able to briefly state the key distinguishing features of UC vs. Crohn's (Location: large bowel only vs. anywhere; Depth: superficial vs. transmural).
- **Be Aware of Complications:** Mention key complications for each (e.g., perianal disease/strictures in Crohn's; toxic megacolon/cancer risk in UC).
- Outline Management in Broad Strokes: Mention the *types* of medications used (steroids, 5-ASAs, immunomodulators), the goal (immunosuppression), and the concept of pre-treatment screening. Naming one or two specific drugs (e.g., Prednisolone, Mesalazine, Methotrexate) is good.
- Cover Long-Term Monitoring: Don't forget to mention monitoring for nutritional deficiencies (iron), bone health (osteoporosis), and cancer surveillance.

• This case tests knowledge integration, communication of complex concepts, and adherence to the specific instructions in the AMC handbook regarding differential explanation.

#### Alzheimer's disease

This section covers a complex and challenging case: Counseling the son of a patient recently diagnosed with Alzheimer's disease. The tutor provides a comprehensive framework for taking a focused history, addressing the son's specific (and difficult) concerns, and outlining a multidisciplinary, holistic management plan for a person with early dementia.

Here's the organized breakdown:

AMC Recalls: Alzheimer's Disease Counseling (Son is the Carer)

#### I. Case 44: 65 y.o. Patient, Recently Diagnosed with Alzheimer's Disease, Son is Present for Discussion

- Stem Summary:
  - o 65-year-old patient.
  - o Recently diagnosed with Alzheimer's Disease.
  - o Son is present to discuss the father's condition.
  - o **Investigations:** CT scan shows "mild degeneration." MMSE is 25 (mild cognitive impairment, not yet severe dementia).
- Tasks:
  - 1. Take a history from the son.
  - 2. Address the son's concerns.
  - 3. Explain your management plan.
- The Hidden Agenda / Son's Concerns (Crucial to Elicit):
  - o The son is not happy to take care of his father, due to a bad relationship between them.
  - o The father's wife (the son's mother) died 9 months ago.
  - o The father has been **depressed** since his wife's death, which has worsened things.

# II. Structured History Taking (from the Son - Focused on Function & Risks):

# 1. Opening, Consent & Agenda Setting:

- o (Brief intro). **Consent:** "Before we start, do you have your father's consent to discuss his medical condition with me?"
- o Open-ended Q: "I can see from the notes that your father has been diagnosed with Alzheimer's Disease. Can you tell me a little bit more about it from your perspective?"
- o **Elicit Concerns:** "Do you have any specific concerns you'd like to discuss today?" (This is where the agenda about caregiving and the bad relationship will emerge).

# 2. Explore the Memory Problem & Associated Features:

• Onset & Progression: "When did you first notice that your father was having memory problems? Is it getting worse?"

- Associated Alzheimer's Features (Behavioural & Psychological Symptoms of Dementia -BPSD):
  - "Does your father get irritated and agitated more frequently?"
  - "Any problems with his sleeping?"
  - "Have you noticed any changes in his social engagement or his relationships with others?"

# 3. Risk Assessment (Safety at Home):

- o "We need to think about any risky behaviours. Has he ever **got lost in the streets**?"
- o "Have there been any **accidents or incidents at home**, for example, forgetting something is cooking on the stove?"

# 4. Assess Risk Factors for Dementia Progression:

- o "Does your father have any vision or hearing problems?" (Uncorrected sensory impairment worsens cognitive decline).
- o "Does he drink any alcohol? Does he use any drugs?"
- o "Are you aware of the medications he is taking?" (Some meds can worsen cognition, e.g., benzodiazepines, anticholinergics).

## 5. Geriatric Screening (Function, Support, Mood):

- o **Falls:** "Has your father had any recent falls?"
- o **Social Support:** "Who does he live with? (Son: "His wife died nine months ago"). Who takes care of him now?"
- Activities of Daily Living (ADLs Functional Assessment): "Is your father able to do his daily activities himself, like dressing, bathing, and preparing meals?"
- o **Diet/Nutrition:** "Who cooks for him?" (High risk of malnutrition).
- Mood (Depression Screen):
  - "How has his mood been since his wife passed away?" (Son confirms he is depressed).
  - "How is his sleep? And his appetite?"
  - Suicidal Ideation (CRITICAL): "Do you know if he has been having any thoughts of suicide, or has he ever made any attempts?"

# 6. (Briefly) Rule out Other Dementia Causes (Diagnosis is made, but shows thoroughness):

- o "Any history of head injuries? Any history of stroke or high blood pressure (for vascular dementia)?"
- 7. **SADMA / PMHx / FMHx:** (Much of this is covered above).

#### III. Explaining the Diagnosis (Briefly, as it's already diagnosed):

• "As you know, your father has been diagnosed with **Alzheimer's disease**. This is a **degenerative brain disease** where brain cells are affected. This is what causes the **memory problems**, and it can also affect his **thinking and behaviours**."

#### IV. Explaining the Management Plan (Holistic & Multidisciplinary):

- **Tutor's Note:** This is a very comprehensive plan. In the OSCE, cover the main headings and expand where time allows and as relevant to the son's concerns.
- 1. Address the Son's Primary Concern (Caregiving Burden) FIRST:

- o "I understand from our conversation that you are concerned about being able to care for your father, especially given your relationship. There is support available for this."
- o **Aged Care Assessment Team (ACAT):** "What I can do for your father is initiate an **Aged Care Assessment**. A special team, called the ACAT, will assess his level of function, his Alzheimer's disease, and his memory problems to figure out what level of support he needs."
- o **Support Options:** "Based on their assessment, there are two main options. They might provide support services at home, like social workers who can come a few times a week to help with cooking, cleaning, or shopping. Another service is **Meals on Wheels**, which can deliver meals to his home."
- o Long-Term Care Option: "Alternatively, if he needs a higher level of care, the assessment may find him eligible to go into a nursing home or an aged care facility." (This directly addresses the son's inability to be the primary carer).

# 2. Multidisciplinary Team (MDT) Approach:

"We will be taking care of your father as a multidisciplinary team. I will refer him to a **Geriatrician**, who is a specialist that takes care of older people. I will continue to be involved as his GP, and we will also involve nurses and social workers to help us."

#### 3. Further Investigations:

"We will need to do some further investigations to rule out any other contributing factors. This includes blood tests to check his Vitamin B12 and thyroid function (TSH), as well as baseline bloods."

#### 4. Pharmacological Management (for Alzheimer's):

o "For Alzheimer's disease itself, we can use some medications. If his condition gets worse, we can start him on a medication, for example, one called **Donepezil**. We don't need to rush to start it now, but it is an option for the future."

## 5. Managing Co-morbidities & Risks:

- o **Depression:** "You mentioned your father is depressed. This is very common, especially after losing a loved one. We need to manage this, as treating depression can often improve memory and function. We can start him on an **antidepressant medication (like an SSRI)**, and I can also refer him to a **psychologist** for therapy."
- o Medication Review: "I will refer him to a pharmacist for a medication review. This is to make sure he is taking all his medications correctly and to check if any of them might be making his memory worse."
- Vision & Hearing Check: "We will also refer him for a vision and hearing check, as problems with these can worsen dementia."

# 6. Advance Care Planning (CRITICAL for Early Dementia):

- o "A very important step now, while your father can still make his own decisions, is to start Advance Care Planning."
- o "This is a discussion where I would ask you to come in with your father. We will talk about his wishes for future care, especially for the end-of-life stage, as Alzheimer's is a progressive condition. He can also formally appoint a Medical Decision Maker someone he trusts to make decisions for him if he is no longer able to do so himself." (This is critical to do while MMSE is still high).

#### 7. Non-Pharmacological & Lifestyle:

o **Healthy Lifestyle:** "A healthy lifestyle can help slow down the progression. This includes cutting down on alcohol and stopping smoking, and ensuring a good sleep pattern."

o **Support Groups & Education:** "I will refer you to **Dementia Australia** or the Alzheimer's Association of Australia. These are excellent support groups for both patients and their families. I can also provide you with reading materials from their websites."

# 8. Driving Safety (CRITICAL):

o "Finally, we need to discuss driving. A person with a dementia diagnosis must **notify the driving authorities**. At this stage, with his current assessment (MMSE 25), he will likely still be able to drive, but he will need to undergo a formal driving assessment to ensure it is safe for him and others."

# V. Key Learning Points for Alzheimer's Counseling Case:

- **Mixed Case:** Requires both medical knowledge of dementia management and strong counseling skills to handle the distressed relative.
- Address Carer's Agenda First: The son's inability/unwillingness to provide care is the core psychosocial problem. Addressing this with the ACAT assessment plan is key to gaining rapport and moving forward.
- Comprehensive Geriatric Assessment: The history taking should cover key geriatric domains: cognition (memory), function (ADLs), mood (depression), falls, and social support.
- **Holistic Management:** The management plan must be multidisciplinary and cover pharmacological, non-pharmacological, safety (driving, home risks), legal/ethical (Advance Care Planning), and social (ACAT, support groups) aspects.
- Advance Care Planning is Urgent: Emphasize the need to do this while the patient still has the capacity to make decisions.
- This is a complex, high-level counseling case testing your ability to manage a chronic, progressive illness and its profound impact on the patient and their family.

#### **Shingles Vaccination**

This section provides a detailed walkthrough of a new and important counseling case: **Shingles Vaccination**, with a focus on explaining the **new Shingrix® vaccine** that has replaced the older Zostavax® on the National Immunisation Program (NIP) in Australia.

Here's the organized breakdown:

AMC Recalls: New Shingles Vaccine (Shingrix®) Counseling

#### I. Case 45: 70 y.o. Male, GP, Requesting Shingles Vaccine

- Stem Summary (Pilot Case):
  - o 70-year-old male, GP setting.
  - o Presents requesting the shingles vaccine.
- Tasks:
  - 1. Take a brief history (4 mins).
  - 2. Explain and educate the patient about the shingles vaccination, specifically mentioning the new vaccine (Shingrix®).

• **Tutor's Note:** This is a new pilot case. The key is understanding the differences between the old (Zostavax®) and new (Shingrix®) vaccines and being able to counsel the patient on the current recommendations.

## II. Background Knowledge on Shingles Vaccines (Zostavax® vs. Shingrix®):

- Old Vaccine (Zostavax®):
  - o A live attenuated virus vaccine.
  - o **Major limitation:** It was **contraindicated in immunocompromised patients** due to the risk of causing a disseminated zoster infection.
  - o Previously funded on the NIP but has now been replaced.
- New Vaccine (Shingrix®):
  - o This is the crucial change. It is a recombinant subunit vaccine (non-live).
  - Major advantage: It does NOT contain any live virus and is SAFE and recommended for immunocompromised patients.
  - Efficacy: It works better and provides longer-lasting protection against shingles compared to Zostavax®.
- NIP Funding for Shingrix® (Key counseling points):
  - $\circ$  People aged ≥ 65 years.
  - o First Nations peoples aged  $\geq 50$  years.
  - o **Immunocompromised** people aged  $\geq 18$  years with specific medical conditions (this is a major change).
- Schedule for Shingrix®:
  - o It is a two-dose course.
  - o Immunocompetent patients: Second dose given 2 to 6 months after the first.
  - o **Immunocompromised patients:** Second dose given **1 to 2 months** after the first (sooner to establish protection).
- Contraindications for Shingrix®:
  - o Anaphylaxis to a previous dose of Shingrix® or any of its components.
- Key Question: What if a patient has never had chickenpox?
  - o The shingles vaccine is for preventing the reactivation of the varicella-zoster virus (VZV) in someone who has already had chickenpox.
  - o If a patient has never had chickenpox, they are not at risk of shingles. They need the **Varicella** (chickenpox) vaccine, not the shingles vaccine.

#### III. Structured OSCE Approach: History & Counseling

- A. Focused History Taking (4 minutes):
  - 1. Opening & Agenda Setting:
    - Open-ended Q: "Hello Mr. [Patient's Name], how can I help you today?" (Patient: "I've heard about the shingles vaccine and came to have a chat about it").
    - Acknowledge & Set Stage: "I really appreciate that you've come in today to discuss the shingles vaccine. It's a very good idea. Is it okay if I ask you a few questions first?"
    - Elicit Knowledge & Concerns: "Can you tell me how much you already know about the shingles vaccine? Do you have any specific concerns about it you'd like me to address?"
  - 2. Key Screening Questions for Shingles Vaccine:

- Chickenpox History (Crucial): "First, have you ever had chickenpox before, for example, in your childhood?"
- Shingles History: "Have you ever had shingles before?" (If yes, vaccination is still recommended, but usually wait ~12 months after the episode).
- Previous Shingles Vaccine: "Have you received any shingles vaccine in the past (like the older Zostavax)?" (Important for timing of new vaccine).
- Allergy History:
  - "Have you ever had a history of allergic reactions to any vaccines first?"
  - "Do you have any other allergies that you know of?"
- Immunocompromise Status (Key for vaccine choice/timing):
  - "Do you have any history of medical conditions that can weaken your immune system? For example, conditions like diabetes or any cancers?"
  - "Are you currently taking any medications that can affect your immune system, such as steroids or methotrexate?"
- 3. **(Optional, if time allows) General Geriatric Screen:** (Falls, diet, etc., less critical here but good practice).
- B. Counseling & Explaining the Shingles Vaccination:
  - 1. Explain Shingles First:
    - "Let me first explain what shingles is. The shingles vaccine protects you against an episode of shingles. Shingles is the reactivation of the chickenpox virus, which most of us have had in childhood. It causes a painful rash and blisters, usually on one side of your body."
  - 2. Explain the Two Vaccine Options (Old vs. New):
    - "We currently have two vaccines approved in Australia for shingles. There is an **older** version called Zostavax, and a newer one called Shingrix."
    - Zostavax® (The Old Vaccine):
      - "Zostavax was the first vaccine we used on the National Immunisation Program. It contains a live, weakened virus. Because of this, we were not able to use it in people who have weak immune systems, like those with cancer or on certain medications."
    - Shingrix® (The New, Recommended Vaccine):
      - "Shingrix is the newer version of the shingles vaccine, and this is the one we now recommend and provide for free."
      - Advantage 1 (Safety): "The most important difference is that it does not contain any live virus. This means we can safely use it in people who have weak immune systems."
      - Advantage 2 (Efficacy): "It also works better than Zostavax and provides longer protection against shingles."
      - Funding: "It is free on the National Immunisation Program for people above the age of 65, like yourself."
  - 3. Discuss Side Effects & Contraindications of Shingrix®:
    - Side Effects:
      - Minor: "Like all vaccines, it can have some minor side effects. The most common are related to the injection site, like pain, swelling, or redness. Some people might also feel a bit unwell for a day or two with tiredness, muscle aches, headaches, a mild fever, or a bit of a tummy upset."

- Major: "The only major side effect is a very rare chance of a severe allergic reaction (anaphylaxis), which is a risk with any vaccine."
- Contraindications: "We are unable to use this vaccine only if you have a history of a severe allergic reaction to a previous dose of Shingrix or any of its components."

# 4. Explain the Dosing Schedule for Shingrix®:

- "Shingrix is given as a two-dose course."
- "We would do the **first dose now**. For the **second dose**, since you have a normal immune system, we can do it anytime **2 to 6 months later**."
- (If patient were immunocompromised): "we would get the second dose done a bit sooner, 1 to 2 months later."

#### 5. Patient-Centered Closure:

- "I'll give you some **reading material** about the vaccine from a reliable source like the Australian Immunisation Handbook website."
- "You can take some time to **think about it**, and whenever you are ready, you can come back and we can get the vaccine done."
- "Do you have any other questions or concerns I can address for you today?"

## IV. Key Learning Points for the New Shingles Vaccine Case:

- **Know the New Vaccine (Shingrix®):** This is the core of the new recall. Understand that it's non-live, safe for the immunocompromised, more effective, and requires two doses.
- Contrast with the Old Vaccine (Zostavax®): Being able to explain why Shingrix® is now preferred (non-live, safer, more effective) demonstrates a deeper understanding.
- Check Chickenpox History: A fundamental screening question. No chickenpox history means the patient needs the varicella vaccine, not the zoster (shingles) vaccine.
- Screen for Immunosuppression: This is crucial for determining eligibility, timing of the second dose, and historically was the key contraindication for the old vaccine.
- Patient-Centered Counseling: The structure should be educational and allow the patient to make an informed decision, especially as this is an elective vaccination for a healthy adult.
- This is a relatively straightforward counseling case if you are up-to-date with the recent changes in Australian immunisation guidelines.

#### Post-Thyroidectomy Haematoma

This section covers a high-stakes, urgent surgical counseling case: **Post-Thyroidectomy Haematoma.** The tutor emphasizes that this case is less about diagnostic uncertainty and more about recognizing a surgical emergency, communicating the urgency effectively, and explaining the immediate bedside procedure required.

Here's the organized breakdown:

**AMC Recalls: Post-Thyroidectomy Haematoma (Urgent Management)** 

# I. Case 46: 35 y.o. Lady, 4 hours Post-Thyroidectomy, now Complaining of SOB

- Stem Summary:
  - o 35-year-old lady.
  - o 4 hours post-thyroidectomy.

- o Complaint: New onset Shortness of Breath (SOB).
- o **Vitals:** Given as "stable" (BP okay, SpO2 97%). This is to allow the OSCE to proceed with counseling rather than an immediate primary survey.

#### • Tasks:

- 1. Explain the CAUSE of her symptoms to the patient.
- 2. Explain your IMMEDIATE MANAGEMENT PROCEDURE.
- 3. (Sometimes recalled) Mention the EQUIPMENT needed.
- **Tutor's Note:** This is a pure surgical counseling case. The key is to demonstrate understanding of the urgency and the correct immediate actions.

# II. Background Knowledge & Differentials for Post-Thyroidectomy SOB:

- Complications of Thyroidectomy:
  - o Haematoma: Bleeding under the wound, creating a collection that compresses the trachea. This is the most serious, life-threatening, and urgent complication.
  - o Tracheal/Oesophageal Injury (occurred during surgery).
  - **Hypocalcaemia:** Damage to parathyroid glands -> low calcium -> tetany, laryngospasm (later onset).
  - o Recurrent Laryngeal Nerve Injury: Hoarseness.
  - o Horner's Syndrome: Damage to sympathetic chain.
- Other general post-op causes of SOB: Pulmonary Embolism (PE), Atelectasis, Pneumonia, MI.
- **Tutor's Key Point:** While other causes of SOB exist, the presentation of new SOB hours after a thyroidectomy must be treated as a **haematoma until proven otherwise**. The urgency of a potential airway compromise outweighs all other possibilities. You do not wait for scans to confirm; you act on clinical suspicion.

#### III. The "SCOOP" Bedside Procedure for Haematoma Decompression:

- This is an emergency procedure done at the bedside. An emergency box/trolley is typically kept by the bed of every post-thyroidectomy patient for this reason.
- SCOOP Mnemonic:
  - o Skin Exposure: Remove dressings.
  - o Cut Sutures: Cut the skin stitches/staples.
  - o Open Skin: Spread the skin incision open.
  - o Open Muscles: Spread the superficial and deep muscle layers apart (strap muscles).
  - o Pack & Proceed to Theatre: Pack the wound with gauze to control surface bleeding and immediately move the patient to the operating theatre for the surgeon to find and ligate the bleeding vessel.
- Equipment needed (from the emergency box): Scalpel/blade, scissors, sterile gauze, gloves, staple remover.

#### IV. Structured Counseling Approach (Communicating Urgency & Procedure):

- 1. Opening (Acknowledge and Assess):
  - o Introduce self immediately.

- Start with a focused open-ended question: "Hello Jane, my name is Dr. [Your Name]. I understand you're feeling short of breath. How are you feeling right now?" (Patient: "I'm having difficulty breathing").
- o Provide immediate reassurance: "Okay, I understand. I want to reassure you that we're here to help you, and we'll do everything we can to help you with this problem."

# 2. Explain the Diagnosis (The Cause - Emphasize Urgency):

- o "Jane, I am concerned about a rare but serious complication of the thyroid removal surgery, and that is called a haematoma."
- Explain Haematoma: "A haematoma is a bleeding under the surgical wound, which gets trapped and creates a collection of blood. This collection of blood can then put pressure on the surrounding tissues in your neck, such as your main airway or windpipe (your trachea), which is why you're feeling short of breath."

# 3. Perform a Rapid Focused Examination (Verbalize this step):

"We usually monitor for this complication very closely after surgery. I will now quickly feel your neck and check if there is a swelling which is firm and tense under the wound." (This shows you are performing a rapid assessment before acting).

# 4. Explain the Immediate Management Plan (The "SCOOP" Procedure):

- Justify the Urgency: "Jane, because this can be a life-threatening problem and it can block your airway completely, we need to act fast."
- o **Notify the Team:** "The first thing I'm going to do is **notify the surgical team immediately** to come and see you and to get the operating theatre ready for a small operation to properly fix this."

## **o** Explain the Bedside Procedure:

- "We usually keep an **emergency box** with every patient who has had this surgery, which has the equipment we need."
- "To relieve the pressure on your airway right now, we follow a guideline called 'SCOOP'. What I need to do is:"
- "First, I'm going to **remove the dressing** to expose the skin."
- "Then, I'm going to quickly cut the stitches and open the skin wound."
- "I will then gently open the muscle layers underneath."
- "After that, I will pack the wound with some gauze."

#### **o** Explain the Goal of the Procedure:

"By doing this, we will create some extra space for the haematoma, and this will
immediately relieve the pressure off your windpipe and help you breathe more easily."

# Explain the Definitive Treatment (Theatre):

• "We will then **immediately take you to the operating theatre**. There, the surgeon will search for the source of the bleeding and will stop it."

#### 5. Seek Consent & Close:

- "Do you have any concerns or questions about this procedure?"
- o "Are you happy for me to proceed? It's very important we do this quickly."
- o (Tutor notes this is a medical emergency; if the patient refused consent, it would create a difficult medico-legal situation, but for the OSCE, explaining the urgency should lead to consent).
- (Pain management: Mentioning you will provide painkillers is fine, but the patient is likely already on strong post-op analgesia. The procedure itself is about opening an existing cut, not making a new one).

# V. Key Learning Points for Post-Thyroidectomy Haematoma Case:

- **Recognize the Emergency:** SOB post-thyroidectomy = Haematoma until proven otherwise.
- **Communicate Urgency:** Your tone and language must convey that this is a serious, life-threatening situation that requires immediate action.
- **Do Not Delay for Investigations:** The diagnosis is clinical, and action must be taken immediately. Do not suggest waiting for an ultrasound or X-ray.
- Know the Bedside Procedure (SCOOP): Be able to explain the steps simply and logically.
- **Mention Teamwork:** Stating you will "notify the surgical team" is a crucial step in showing a safe, team-based approach.
- Explain the Rationale: Clearly link the haematoma (collection of blood) to the pressure on the trachea (windpipe) and the resulting SOB. Explain that the procedure's goal is to relieve that pressure.
- This case tests your ability to recognize a surgical emergency, communicate under pressure, and describe an urgent bedside intervention in a clear, patient-centered manner.

# First Aid for Bleeding from a Varicose Vein over the Phone

This section provides a detailed walkthrough of a unique and challenging counseling case: **First Aid for Bleeding from a Varicose Vein over the Phone.** The tutor emphasizes that this is a "first aid in disguise" case, testing communication skills under pressure, a systematic approach (DRSABCD), and the ability to give clear, calm instructions to a panicked relative.

Here's the organized breakdown:

AMC Recalls: First Aid for Bleeding Varicose Vein (Telephone Counseling)

# I. Case 47: 68 y.o. Lady, Known Varicose Veins, Cut Leg on Glass, Bleeding Profusely, Partner is Panicked on the Phone

- Stem Summary (Telephone Appointment):
  - o 68-year-old lady.
  - o Known case of varicose veins.
  - o Cut herself on the leg with broken glass and is bleeding.
  - o Her elderly partner is on the phone, panicked.
- Tasks:
  - 1. Take a history / do an assessment over the phone.
  - 2. Explain your immediate management (i.e., give first aid instructions) to the partner.
- **Tutor's Note:** The varicose vein aspect is a "distractor" to create a scenario of potentially profuse or hard-to-control bleeding. The core task is demonstrating knowledge of **first aid for bleeding**, adapted for a telephone consultation with a panicked layperson.

#### II. Background Knowledge (Australian Resuscitation Council - First Aid for Bleeding):

- **DRSABCD is Still the Foundation:** Before managing bleeding, you must ensure the scene is safe and the patient is conscious and breathing.
- Control of Bleeding:

- 1. **Direct Pressure:** The most important and effective step. Apply firm, direct pressure over the wound with a pad or cloth.
- 2. **Lie the Patient Down:** Helps prevent fainting and shock.
- 3. **Elevation:** (Tutor notes guidelines say evidence is weak and it can cause pain/injury in trauma, but for a simple cut, it's a reasonable, traditional first aid step to suggest).
- 4. Foreign Bodies (Glass): Do NOT remove embedded objects. Apply pressure around the object.
- 5. **Tourniquet:** A last resort for life-threatening limb bleeding that is uncontrollable with direct pressure. Can be improvised with a belt or cloth strip. (High risk of tissue damage if left on too long).
- Communication is Key: The challenge is conveying these steps calmly and clearly to a panicked person over the phone.

# **III. Structured OSCE Approach (Telephone Counseling):**

- A. Opening & De-escalation (CRUCIAL):
  - 1. **Introduce Self & Get Name:** "Hello, this is Dr. [Your Name]. Can I please have your name?" (e.g., Ben).
  - 2. **Open-Ended Question:** "Okay Ben, how can I help you?" (He will frantically explain the situation).
  - 3. EMPATHY & TAKING CONTROL (Calm him down first):
    - "Okay Ben, I understand this is a very stressful moment for you, but I need you to **stay** calm so that we can work through this together."
    - "I am here to help you. I am going to tell you exactly what to do to stop the bleeding for your wife until help can get to you. Please listen carefully to my instructions."
- B. "History" / Assessment Over the Phone (Modified DRSABCD):
  - o **Tutor's Note:** This is not a standard history; it's a rapid assessment for immediate safety and to guide your instructions.
  - 2. Bleeding Assessment:
    - "When did the bleeding start?"
    - "Has it stopped?" (No). "Is it getting worse?"
    - "How did she cut herself?"
    - Foreign Body Check: "Can you see any pieces of glass still in the wound?"
  - 3. Patient's Risk Factors:
    - "Is she on any blood thinners?"
    - "Does she have any other major medical conditions?"
  - 4. Rapid Patient Assessment (DRSABCD adapted for phone):
    - R Responsiveness: "Is she awake or unconscious? Is she responsive and talking to you?" (If she is talking, you know her Airway and Breathing are okay).
    - (If Unconscious): "Can you check if she is breathing? Look at her chest to see if it's moving up and down. Place your hand on her chest to feel for movement. Go close to her mouth and nose and listen for any breathing sounds."
    - **D Danger:** "Is there any danger to yourself or to her at the moment? For example, are there any pieces of broken glass on the floor around you?"
- C. Counseling & Management (Giving First Aid Instructions):
  - 1. S Send for Help (Address this early and manage his pushback):

- "Ben, the first and most important thing is that we need an ambulance. Have you called triple zero?" (He says: "I called you! You call them!").
- Your Response: "Okay, don't worry about that. I will ask the nurse here with me to call an ambulance and send them to your address immediately. While I'm talking to you, help is being arranged. You don't need to do anything else for that."

# 2. Manage the Phone Situation:

• "Ben, to do this, you will need both your hands. You can **put me on speakerphone** if you know how. If not, it's okay. I will give you the instructions, you can put the phone down to do them, and I will stay on the line here if you need me."

# 3. Give Clear, Step-by-Step Instructions for Bleeding Control:

- **Step 1 (Safety):** "First of all, Ben, please make sure there is no danger. Find a safe area on the floor away from any broken glass."
- Step 2 (Positioning): "I need you to lie her down on the floor, please."
- Step 3 (Direct Pressure The CORE instruction):
  - "Now, I need you to **grab a clean cloth or a tissue**, or even a clean shirt, anything you can use as a pad."
  - "I want you to apply firm, direct pressure to the wound and hold it there firmly."
  - "If the cloth gets soaked with blood, don't panic and don't remove it. Just put another one on top of it and continue applying pressure."

#### Step 4 (Elevation):

- "While you're applying pressure, if you can, gently elevate her leg. You can just place a pillow or a cushion under her leg to lift it up slightly."
- "Ask her to try and not move the leg."

## Step 5 (Foreign Body Instruction):

"If you see any glass in the wound, do NOT remove it. Just apply pressure around it, not directly on it."

#### Step 6 (Tourniquet - Last Resort, if prompted or bleeding seems catastrophic):

- "If the bleeding is very severe and is not stopping with pressure, we can apply a tourniquet as a last resort until the ambulance arrives."
- To do this, I want you to grab a belt or a strip of cloth. Wrap it tightly around her leg, above the bleeding area, and tie a strong, firm knot."

#### 4. Address his request to drive her himself:

"No, Ben. It's much safer for you to stay where you are. I don't want you to move her. Just continue applying pressure until the ambulance arrives. They are on their way."

#### 5. Ongoing Monitoring & Reassurance:

- "While you are waiting, I want you to monitor your wife's condition. Make sure she is still breathing and responding to you."
- Reassure him: "Ben, I need you to stay calm and just follow these instructions. Most bleeding will stop with firm, continuous pressure. Take a deep breath. You can place the phone down now if you need to, just focus on putting pressure on the wound. I am here on the line to help you until the ambulance arrives. They will be with you very soon."

# IV. Key Learning Points for this Case:

• Communication is the Core Skill: Your ability to remain calm, be patient, give clear and simple instructions, and de-escalate a panicked relative is being tested.

- **DRSABCD First:** The assessment phase must follow the principles of first aid, starting with danger, response, and sending for help.
- Direct Pressure is the Mainstay: This is the most critical first aid step for bleeding.
- **Handle Pushback Calmly:** Be prepared for the role player to be difficult and refuse instructions (e.g., about calling 000). Have a calm, logical response ready.
- Adapt to the Telephone Context: You cannot perform a physical exam, so your assessment relies on targeted questions. Management relies on verbal instructions.
- The "varicose vein" and "glass" elements are there to add context and complexity (profuse bleeding, foreign body risk), but the fundamental first aid principles remain the same.

#### Angioembolization for a Diverticular Bleed

This section covers a specific and relatively new **surgical counseling case:** Angioembolization for a **Diverticular Bleed.** The tutor breaks down how to explain this complex procedure to a patient, address their concerns (specifically, "why not surgery?"), and frame the discussion in a patient-centered way that respects their autonomy.

Here's the organized breakdown:

AMC Recalls: Counseling for Angioembolization (Diverticular Bleed)

# I. Case 48: 60 y.o. Patient, Admitted for Diverticular Bleed, Now Stabilized, Surgeon planning Angioembolization, Patient is Concerned

- Stem Summary:
  - o 60-year-old patient.
  - o Admitted with a diverticular bleed.
  - o Now medically stabilized.
  - o Surgeon is planning to perform angioembolization.
  - Patient's Concern/Agenda: Worried, doesn't understand why they aren't having a traditional surgery.
- Tasks:
  - 1. Take a short history.
  - 2. Explain the procedure (angioembolization) to the patient.
  - 3. Address her concerns.
- **Tutor's Note:** This is a pure counseling case. The history is brief and targeted. The core task is explaining a complex procedure, including its pros, cons, and alternatives, to facilitate informed consent.

#### II. Background Knowledge on Diverticular Bleed Management:

- The Problem: A diverticulum (a small pouch in the colon wall) has eroded into a blood vessel, causing bleeding into the bowel.
- Treatment Options for Ongoing/Severe Bleeding:
  - 1. **Endoscopic Therapy:** Sometimes possible during a colonoscopy to clip or treat the bleeding point, but often difficult to locate the exact source.

- 2. **Angioembolization (Interventional Radiology):** A minimally invasive procedure to block the specific artery feeding the bleeding diverticulum.
- 3. **Surgery (Hemi-colectomy):** A major, invasive operation to resect (remove) the segment of the bowel that contains the bleeding diverticulum.
- The Angioembolization Process:
  - 1. **Localization First:** You must find the bleeding artery. This is typically done with a **CT Angiogram (CTA)**, a CT scan with contrast dye to visualize the blood vessels.
  - 2. **The Procedure:** An interventional radiologist inserts a catheter (thin tube) into an artery (usually the femoral artery in the groin), navigates it to the mesenteric arteries supplying the colon, finds the specific bleeding vessel identified on the CTA, and then injects materials (e.g., absorbable gel foam, tiny metal coils) to block it off (embolize it).

# **III. Structured OSCE Counseling Approach:**

- A. Brief, Focused History Taking:
  - 1. Opening & Rapport:
    - Introduce self.
    - Start with a gentle open-ended question: "Hello [Patient's Name], I understand the team is planning a procedure for you. How are you feeling now?"
  - 2. Set the Stage & Elicit Agenda:
    - "I'm here to explain the procedure that the surgeon has recommended. But before I do that, I'll need to ask you a few questions first."
    - **CRITICAL QUESTION:** "Do you have any **concerns** that you'd like me to address?" (This is where she will state her concern: "Yes, they told me they want to do this angio... procedure and not a surgery. I'm just wondering why they don't want to do a proper surgery for me.")
    - (Acknowledge her concern and promise to explain everything).
  - 3. Quick Review of Bleeding & Symptoms:
    - "When did the bleeding start?"
    - "Was it fresh, red blood or dark blood?"
    - "Can you describe the amount? Was it a few drops or a gush of blood?"
    - "Are you currently feeling dizzy or tired? Any chest pain or shortness of breath?"
  - 4. Check for Contraindications/Risks:
    - "Are you taking any blood thinners?"
    - "Do you have any other significant **medical conditions**?" (This helps frame the risk/benefit discussion of surgery vs. angioembolization).
- B. Explaining the Diagnosis (Diverticular Bleed):
  - o "First, let me explain your diagnosis. You have been diagnosed with **bleeding from some small pouches in your bowel**, which we call **diverticula**."
  - o "These pouches can form over time, often due to long-term constipation, creating weak spots in the bowel wall. Sometimes, these pouches can become inflamed, or they can bleed, which is what has happened in your case."
- C. Counseling on Management Options (Addressing the "Why not surgery?" concern):
  - 1. Frame the Discussion with Options (Patient-Centered):
    - "To treat this bleeding, we have **two main options**."
  - 2. Explain Option 1: Surgery (The more invasive option):

- "Option number one is doing a surgery. This is a major, invasive, and more complicated procedure. In this surgery, we might need to remove a part of your bowel where the bleeding is coming from."
- "If we do this, you would need to stay in the hospital for a longer period of time, and it has a higher risk of complications like infection or further bleeding related to the operation itself."

# 3. Explain Option 2: Angioembolization (The recommended, less invasive option):

- "The second option, which is the one the surgeon has recommended for you, is called angioembolization."
- Step 1 (Localization): "Before the procedure, we will initially do a scan called a CT angiogram. This is a special CT scan that helps us to find the exact blood tube which is bleeding."
- Step 2 (The Procedure): "The procedure itself aims to block that specific bleeding vessel."
  - "To do this, we make a small cut in your groin and insert a small, thin tube (a catheter) into the blood vessel there. We then travel with this tube close to the bleeding vessel in your bowel."
  - "Once we are there, we block the blood tube, often by injecting a special absorbable gel or placing a tiny coil-like device inside it. By blocking the blood tube, we will stop the bleeding."
  - (Optional detail): "Sometimes we might also give you some medication that helps to narrow the blood tube."

# 4. Compare Pros and Cons (Directly addressing her concern):

- Pros of Angioembolization: "The reason the surgeon has recommended this procedure is because it is easier on your body and is less invasive than a major surgery. It also has a lower risk of overall complications and usually means a shorter hospital stay afterwards."
- Cons/Risks of Angioembolization:
  - **Re-bleeding:** "There is a small risk of **re-bleeding**. This means that after the procedure, the bleeding may restart. If that were to happen, at that point, we would then need to proceed to a surgery to stop the bleeding."
  - Bowel Ischemia (Rare but Serious): "Very rarely, a condition called bowel ischemia can occur after the procedure. This means the part of the bowel supplied by that vessel might not receive enough blood. This is a rare risk, as the bowel has multiple blood supplies, but it's something we have to mention."

#### 5. Shared Decision Making & Closure:

- So, these are the two options. I understand this is a lot of information and I can see you are concerned."
- "What I can do for you is **ask the surgeon to come and talk to you as well**. He can also explain the pros and cons of this procedure again."
- "This will help you so you can decide which option you prefer and give us an informed consent. We will not force you to do anything; our job is to give you all the information so you can make the best choice for yourself."
- (Offer reading materials if available).

# IV. Key Learning Points for Angioembolization Counseling:

- Patient-Centered Framing: Present the information as a choice between two options, clearly explaining the pros and cons of each.
- Address the Core Concern: The key is to explain why the less invasive option (angioembolization) is being recommended over the more traditional "proper surgery."
- **Simplify Complex Procedures:** Use simple analogies (keyhole vs. open surgery, blocking a pipe) to explain what is happening.
- **Be Honest about Risks:** Clearly state the main risks of angioembolization (re-bleeding, bowel ischemia) so the patient can make a truly informed decision.
- **Involve the Team:** Offering to have the surgeon speak with the patient is an excellent step that shows teamwork and respects the patient's need for information from the primary operator.
- **Reinforce Patient Autonomy:** End the consultation by emphasizing that the final decision rests with the patient after they have had time to consider the information. This is the cornerstone of informed consent.

# **Post-Op Patient Requesting Early Discharge**

This section covers a complex counseling case involving a **post-operative patient who wants to discharge against medical advice.** The tutor discusses two versions of the case: one where the patient is clinically well, and another where a new complication (a UTI) has arisen, adding a layer of complexity to the counseling. The core skill tested is patient-centered communication, risk explanation, and shared decision-making.

Here's the organized breakdown:

# AMC Recalls: Counseling a Post-Op Patient Requesting Early Discharge

#### I. Case Scenario (General): Post-Appendectomy Patient Wants to Go Home

- Stem Summary:
  - o 27-year-old lady, post-laparoscopic appendectomy yesterday (Post-op Day 1).
  - o Surgeon has recommended 72 hours (3 days) of observation before discharge.
  - o Patient is on IV heparin (DVT prophylaxis), IV antibiotics, and IV fluids.
  - o **Patient's Agenda:** Wants to go home today (Day 2 post-op), earlier than recommended.
- Tasks (Typical for this counseling OSCE):
  - 1. Take a history.
  - 2. Explain the vital sign (obs) chart to the patient.
  - 3. Physical exam findings are provided (on screen or card).
  - 4. Counsel the patient regarding the discharge plan.
- **Tutor's Core Principle:** You cannot force the patient to stay. Your role is to provide a clear explanation of the risks of leaving early and to explore the patient's reasons for wanting to leave, facilitating an informed decision. This is a **patient-centered approach.**

#### II. Structured History Taking (Focused on Post-Op Recovery & Patient's Agenda):

#### 1. Opening & Establishing Agenda (Crucial):

- Start with an open, caring question: "Hello Jane, my name is Dr. [Your Name]. How are you feeling now?"
- State the reason for the consultation: "Jane, I was told that you have requested to leave the hospital earlier than your surgeon has recommended."
- Explore the "Why" (The Agenda): "Can I know why you'd like to leave early?" (e.g., "My elderly mother is home alone," "My dog is alone," "I need to get back to work").
- o **Offer Support:** "Is there any way I can help you and support you in this situation?" (This immediately frames the conversation as collaborative).
- Assess Understanding: "Are you aware of the potential complications after this type of surgery and why we want to keep you in the hospital for a little longer?" (This assesses her baseline knowledge).

# 2. Screen for Abdominal Complications (Specific to Appendectomy):

- o "Are you having any abdominal pain? Any fever? Any nausea or vomiting?"
- o "Have you started eating and drinking? If yes, have you had any problems?"
- "Have you passed wind and had your bowel motions since the surgery?" (Key for assessing return of bowel function).

# 3. Screen for General Post-Op Complications:

- o Respiratory (Pneumonia/Atelectasis): "Do you have any cough? Any shortness of breath?"
- o Pain Control (linked to Atelectasis): "Are you in pain? Are the painkillers helping?"
- o UTI: "Any burning or pain when passing urine?"
- o **DVT/PE:** "Have you noticed any swelling or pain in your legs?"
- o Wound Infection: "Have you noticed any discharge or redness around the wound areas?"
- o Cannula Site Infection (Thrombophlebitis): "Have you noticed any redness or pain around your IV cannula insertion sites?"

# III. Version 1: Patient is Clinically WELL (No complications found)

- **History/Exam Findings:** History is negative for complications. Obs chart is normal (no fever). Physical exam (provided) is normal. Urine dipstick is normal.
- Counseling Approach (More challenging as there's no "medical" reason to stay):
  - 1. Summarize Findings:
    - "Okay Jane, I've checked your vital signs and asked about possible complications which may happen after surgery, and I'm happy to say that at the moment, everything seems to be fine."

#### 2. Address Her Agenda & Offer Solutions:

- "Jane, I understand your concern and why you need to leave and go home to [care for your mother/deal with work]."
- Offer practical help: "I can offer some help and support. For example, I can arrange for social workers to visit and help your mother at home while you recover here. If it's a work-related problem, I can provide you with a medical certificate so you can have some time off work. If there are other family members who could help, I could have a chat with them if you'd like." (This shows you are trying to solve her problem to facilitate safe care).

# 3. Educate on the RISKS of Early Discharge (Create Awareness):

"The reason we prefer to keep you in the hospital for the recommended 72 hours is that we are concerned about some potential complications that can happen after this surgery."

- **Bowel Function:** "First, we have done a surgery on your bowel. We need to make sure that the bowel is functioning properly before we let you go. This means we need you to be eating and drinking well, and for us to see that you are passing wind and having bowel motions."
- **Infection Risk:** "Second, we are worried about infections. That's why you are on IV antibiotics to prevent infections at the surgical site or inside your abdomen."
- Clot Risk (DVT/PE): "Third, we are also worried about blood clots in your legs. That's why we are giving you a blood thinner injection (Heparin)."
- (Can also mention monitoring for lung infections, cannula site infections, etc.).

# 4. Patient-Centered Decision Making:

• "I can give you some time to think about this. If you have any questions, you can ask me. If you have any other concerns, you can share them with me. You can let me know what your final decision is."

#### 5. If She Still Decides to Leave:

- Red Flag Advice (Safety Netting): "Okay, if you do decide to leave, it's very important that you look out for these red flag signs. If you develop any fever, severe abdominal pain, vomiting, any discharge from the surgical wound, or any pain and swelling in your legs, you must come back to the emergency department immediately."
- Discharge Against Medical Advice (DAMA) Form: "Before you leave, you will need to sign a form called a 'Discharge Against Medical Advice' form. This is just a document to confirm that you have understood the risks we've discussed, but you still choose to leave. We respect your decision."

# IV. Version 2: Patient has a UTI (New complication found)

- History/Exam Findings: Same initial scenario, but on history, she reports "a slight burning when I pass urine." The obs chart shows a new fever (e.g., 38°C). The provided urine dipstick result is positive for nitrates, leucocytes, and blood.
- **Diagnosis:** Post-operative Urinary Tract Infection (UTI).
- Counseling Approach (More direct, but still patient-centered):
  - 1. Acknowledge Concern & Offer Support: (Same as Version 1).
  - 2. Raise Concerns & Educate on the New Finding (UTI):
    - "Jane, after talking with you and looking at your charts, I do have a new concern."
    - "On your examination and vital signs chart, I can see you have a mild fever. And the urine test shows signs of a urinary tract infection (UTI)."

#### 3. Discuss the Risks of the UTI:

"This is important because if we don't treat this UTI properly, the infection may spread to your kidneys or even into your blood, which can cause a much more severe infection (sepsis)."

# 4. State the Medical Recommendation Clearly:

- "This is why we **prefer to keep you in the hospital**. By staying, we can provide the correct treatment for the urinary tract infection (likely with IV antibiotics initially) and monitor your response to that treatment."
- "Overall, staying in the hospital for the recommended time will be a **safer option** for you now that we've found this infection."

- 5. **Patient-Centered Decision Making:** (Same as Version 1 give time to think, ask about other concerns, let her make the final decision).
- 6. If She Still Decides to Leave (Management must be adapted):
  - "Okay, if you still decide to leave, I will need to give you a script for **oral antibiotics** to take at home for the UTI."
  - Red Flag Advice (Now includes UTI symptoms): "It is very important that you come back immediately if your symptoms get worse, if you start running a higher fever, if you start vomiting, or develop severe abdominal or back pain."
  - DAMA Form: (Same as Version 1).

# V. Key Learning Points for Post-Op Early Discharge Case:

- Patient-Centered Approach is Paramount: You cannot force a competent adult to stay. The skill is in educating them about the risks so they can make an informed choice.
- **Identify the Patient's Agenda:** The reason *why* they want to leave is the key to unlocking the counseling. Offer practical solutions to their problem if possible.
- **Systematic Post-Op Screen:** A thorough but focused history covering common post-op complications (abdominal, respiratory, UTI, DVT, wound) is essential.
- **Differentiate the Two Versions:** Be prepared for either a "well patient" scenario (where counseling is based on potential/future risks) or a "new complication" scenario (where counseling is based on an active, tangible risk).
- **The DAMA Form:** Know its purpose and how to explain it non-confrontationally ("...to confirm you have understood the risks... we respect your decision.").
- **Involving Supervisors:** (Tutor's final point) While involving a senior is good practice, you, the candidate, are still expected to conduct the counseling yourself. Don't use "I'll ask my registrar" as a way to avoid the counseling task. The patient makes the decision, not you or your supervisor.

#### Rheumatoid Arthritis (RA) Counseling (New Diagnosis & Methotrexate Concerns)

This section provides a detailed walkthrough of two related but distinct counseling cases for **Rheumatoid Arthritis** (**RA**). The first is a classic "new diagnosis" counseling case. The second is a newer, more challenging case about counseling a patient who is angry and scared about the cancer risk associated with Methotrexate.

Here's the organized breakdown:

#### AMC Recalls: Rheumatoid Arthritis (RA) Counseling (New Diagnosis & Methotrexate Concerns)

#### I. Background Knowledge on Rheumatoid Arthritis (RA):

- What is it? A chronic, systemic autoimmune disease. The immune system attacks the synovium (lining) of the joints, causing inflammation.
- Key Features:
  - o Symmetrical polyarthritis (affects multiple joints on both sides of the body).
  - o Typically affects small joints of the hands and feet.
  - o Morning stiffness is a hallmark inflammatory feature.
  - o Family history is a significant risk factor.

• **Systemic Disease:** It's not just a joint disease. It can affect the eyes, lungs, heart (increased cardiovascular risk), and cause neuropathy.

#### Diagnosis:

- o Clinical picture is key.
- Rheumatoid Factor (RF): A screening test, but not specific (can be positive in other conditions or in healthy people).
- o **Anti-CCP** (anti-cyclic citrullinated peptide) antibody: Highly specific for RA. A positive Anti-CCP in a patient with a compatible clinical picture is considered confirmatory.
- o Inflammatory markers (ESR, CRP) are usually elevated.
- o X-rays may show bony erosions in later stages.

# Management Goals ("Treat to Target"):

- 1. Control symptoms (pain, stiffness).
- 2. Normalize physical function (maintain ADLs).
- 3. Prevent long-term joint damage and deformity (this is where DMARDs are crucial).
- 4. Minimize systemic complications (e.g., cardiovascular).
- Early Referral is Key: Prompt diagnosis and referral to a Rheumatologist is crucial to start Disease-Modifying Anti-Rheumatic Drugs (DMARDs) as early as possible.

# II. Case 49 (Old Version - New RA Diagnosis Counseling): 25 y.o. Lady, Bilateral Hand Pain, Positive RF & Anti-CCP, Mother has RA

#### Stem Summary:

- o 25-year-old lady, GP.
- o Bilateral hand pain.
- o NSAIDs (Diclofenac) were ineffective.
- o Bloods: Positive Rheumatoid Factor (RF) and **positive Anti-CCP**.
- o Family Hx: Mother has RA.

#### Tasks:

- 1. Explain the results and most likely diagnosis.
  - 2. Explain the cause, consequences, and implications of the disease.
  - 3. Discuss the initial management plan.

# • A. Structured Counseling Approach (New Diagnosis):

#### 1. Opening & Agenda Setting:

- (Open-ended Q). Patient explains her ongoing hand pain and concern.
- Elicit Specific Concerns: "Do you have any specific concerns before we start talking?" (Agenda for this case recall is often related to her occupation, e.g., she is a professional pianist, and worried about her career).

# 2. Explain Results & Diagnosis (Link them logically):

- "Jane, as I can see from the notes, you've been having pain in both hands, affecting multiple joints, and your mother also has rheumatoid arthritis."
- "This is why your previous doctor decided to check for rheumatoid arthritis factors in your blood test. The results of the Rheumatoid Factor and another test called the Anti-CCP blood test have come back positive."
- "The Anti-CCP test is very specific for rheumatoid arthritis, and a positive result, along with your symptoms and family history, confirms that you have rheumatoid arthritis."

- (Check in with patient): "How are you feeling after hearing this diagnosis?" (Acknowledge emotions).
- 3. Explain RA (The Disease):
- "I'm really sorry, I wish I had better news for you today. **Rheumatoid arthritis is an autoimmune condition**. This means your own immune system, which normally fights infections, starts attacking your own body. In rheumatoid arthritis, it mainly affects the joints, causing the pain, inflammation, swelling, and redness you've experienced."
- **Explain Systemic Nature:** "It's important to know that it can also affect other areas of your body, including your eyes, your heart, your lungs, and even the nerves in your legs."
- 4. Explain the Course & Consequences (Why treatment is vital):
- "Rheumatoid arthritis is a **chronic and long-term condition**. It can occasionally **flare up** and get worse for a period of time."
- "The problem is that these **repeated flare-ups and inflammations can damage the joints** over time and create permanent **deformities**. They can also damage the other organs we talked about. This is why we need to prevent these flare-ups as much as possible."
- 5. Explain the Management Plan (Pharmacological, Non-Pharmacological, Support):
- A. Pharmacological Management:
  - Symptom Control:
    - NSAIDs: "To control the symptoms of pain and swelling, we can use antiinflammatory painkillers, which we call NSAIDs, like Ibuprofen." (Acknowledge Diclofenac didn't work, but others can be tried). Mention side effects (tummy upset, kidney effects).
    - Corticosteroids: "We may also start you on corticosteroids, like Prednisolone tablets or injections. These work very fast to relieve symptoms, especially at the beginning or during a flare-up. However, we can't use them long-term due to side effects like increased blood pressure, blood sugar, and weight gain."
  - Disease Modification (THE KEY POINT):
    - Referral: "The most important step is that I will refer you urgently to a Rheumatologist, who is a specialist in this condition."
    - **DMARDs:** "The rheumatologist will start you on a special type of medication called a **Disease-Modifying Anti-Rheumatic Drug**, or DMARD for short. The most common one we start with is a medication called **Methotrexate**."
    - Explanation of Methotrexate: "This medication works by suppressing your immune system to decrease the inflammation throughout your body. Before starting, we will need to do some regular blood tests (to check your full blood count and liver function), check your immunisation history and give you some vaccinations if needed, and we will also start you on folic acid supplements to reduce side effects."
- B. Non-Pharmacological Management (MDT Approach):
  - "We will treat you as a multidisciplinary team."
  - **Physiotherapist:** "I will refer you to a physiotherapist. They will teach you some **stretching and strengthening exercises**, especially for your hands, which in the long run will reduce your symptoms and pain."

- Occupational Therapist: "I will refer you to an occupational therapist. They can help by making splints for your hands to provide support and can also advise on aids to help with daily activities."
- **Psychologist:** "If you feel sad or emotional about this diagnosis, we can involve a psychologist. They can help you with therapy like CBT to cope with the emotions and stress of having a chronic illness."
- Lifestyle: Regular exercise, healthy diet, stopping smoking/alcohol are helpful.

# C. Support:

- "I can refer you to support groups like **Arthritis Australia** or **MyRA**. These groups allow you to connect with other people who have the same condition."
- "I will also give you some **reading materials** to learn more about it."
- 6. Address Her Specific Concern (Pianist):
- Do NOT give a simple "yes" or "no" answer.
- Educate and be diplomatic:
  - "Your symptoms of pain and swelling in the hands can certainly interfere with your piano playing."
  - "However, if we start the appropriate treatment especially the DMARDs like Methotrexate to get the disease under control – and you work with the physiotherapist to strengthen your hands, there is a good chance that you might be able to continue playing your piano."
  - Safety Net: "The important thing is to avoid playing when you are having a flare-up, as this can make the inflammation worse."
  - Future Planning: "I will follow up your condition closely and see how you go in the future. If needed, I can provide letters for your employer to help find a suitable role for you, perhaps focusing more on teaching if playing becomes difficult during flare-ups."

# II. Case 50 (Newer Version - Methotrexate & Cancer Concern): 45 y.o. Patient with RA, started on Methotrexate, now angry about cancer risk.

#### • Stem Summary:

- o 45-year-old with known RA.
- o Started on Methotrexate by rheumatologist.
- o Presents to you (GP) very angry, having found out Methotrexate is a "carcinogenic" medication.

#### • Tasks:

- 1. Explain the management of RA.
- 2. Explain what needs to be checked when on Methotrexate.
- A. Structured Counseling Approach (Angry Patient + Complex Topic):
  - 1. Opening & De-escalation:
    - Open-ended Q. Patient launches into angry tirade about being given a cancer-causing drug.
    - Active Listening: Listen calmly without interruption. Nod. Let him vent.

- Acknowledge & Validate: "First of all, I totally understand your concern and why you are angry. It's a very valid point you're raising. Please, let's calm down, and I will explain everything to you, and we can make a plan together. Is that okay?"
- 2. Re-explain RA & Rationale for Treatment (Set the Context):
- (Briefly re-explain that RA is a serious autoimmune condition).
- Emphasize Risks of UNTREATED RA: "As we've discussed, we have two main concerns with uncontrolled RA. First, if the inflammation happens over and over again, it will damage your joints and create irreversible deformity. Second, this repeated inflammation can also damage other organs like your lungs and heart. Treating RA aims to prevent this irreversible damage."
- 3. Address the Methotrexate & Cancer Link Directly and Honestly:
- "You're right to be concerned. Any medication has side effects. Whenever we prescribe a medication like Methotrexate, we always have to consider the benefits versus the risks and side effects."
- The Nuanced Explanation:
  - "First, it's important to know that Rheumatoid Arthritis itself increases the risk of some cancers, like lymphoma, because of the chronic inflammation."
  - "We do know that Methotrexate can also slightly increase the risk of cancer. However, because it works by controlling the inflammation from the RA, it may also help to reduce the cancer risk that the RA itself causes."
  - "So, it's a very tricky situation. We are not entirely sure if a cancer that develops is because of the Methotrexate or the RA itself. But overall, any additional risk from the Methotrexate is likely to be very small."
- The "Benefit vs. Risk" Conclusion: "In your case, the benefit of controlling your rheumatoid arthritis preventing the irreversible damage to your joints and other organs far outweighs the possible small risks of taking Methotrexate."
- 4. Explain Methotrexate Monitoring & Safety (The Second Task):
- "While you are on Methotrexate, we monitor you very closely to make it as safe as possible."
- **Side Effects:** (Mention common ones) "It can cause some GI side effects like nausea or tummy upset, dry skin or thinning of your hair, and tiredness. More importantly, it can sometimes cause inflammation in your lungs and liver."
- Folic Acid: "To help reduce many of these side effects, we give you folic acid supplements to take alongside it."
- Monitoring Tests: "We also do regular blood tests. We will check your full blood count and your liver function tests. Initially, we do this every 2 to 4 weeks for the first few months, and once you are stable, we repeat it every 1 to 3 months."
- Vaccinations: "Before starting, we also make sure you are up to date with your immunisations, like for the flu and pneumonia, because Methotrexate suppresses your immune system."
- 5. Patient-Centered Approach & Offering Alternatives:
- "I will give you some **reading material** to read about RA and Methotrexate."
- "I will also arrange a joint meeting with the rheumatologist so we can all discuss your concerns with him."
- "If you still decide that you want to stop this medication, that is your choice, and we can talk about **other options**."

- 6. Explain the Rest of the RA Management Plan (The First Task):
- "If you don't take Methotrexate, we still need to manage your RA. We can use antiinflammatory painkillers and corticosteroids for symptom relief. There are also other types of DMARDs, including injections, that we can discuss with the specialist."
- (Briefly mention non-pharmacological management Physio, OT, lifestyle and support groups as in the first case).
- **Final Statement:** Reiterate that the goal is to work together to find a plan the patient is comfortable with, because controlling the disease is essential to prevent long-term damage.

# III. Key Learning Points for RA Cases:

- Anti-CCP is Confirmatory: Know its significance for diagnosis.
- Early DMARDs are Key: Emphasize the importance of early referral to a rheumatologist to start DMARDs (like Methotrexate) to prevent irreversible joint damage.
- Systemic Nature of RA: Explain that RA is more than just arthritis; it affects the whole body.
- For the "Angry Patient" Case: The core skill is de-escalation through validation and a structured, honest explanation. Acknowledge the patient's point (cancer risk) is valid, then put it into the context of risk vs. benefit.
- Patient-Centered Approach: In both cases, but especially the second, the final decision rests with the patient. Your role is to provide the information for an informed consent process, including discussing alternatives.

# **Pre-Operative Assessment Counseling (High-Risk Patient)**

This is a detailed walkthrough of a complex **Pre-Operative Assessment Counseling** case. The central scenario is a patient with multiple significant co-morbidities who has been deemed high-risk for an elective knee replacement by the anaesthetist. The tutor breaks down the focused history required to confirm this risk and how to counsel the patient on the decision not to proceed with surgery.

Here's the organized breakdown:

# **AMC Recalls: Pre-Operative Assessment Counseling (High-Risk Patient)**

# I. Case 51: 60-70 y.o. Patient, scheduled for Knee Replacement (for Osteoarthritis), Deemed HIGH RISK by Anaesthetist

- Stem Summary:
  - o 60-70 year old patient.
  - o Scheduled for knee replacement for osteoarthritis (OA).
  - o **PMHx:** COPD, Ischemic Heart Disease (IHD), mild Chronic Kidney Disease (CKD). (The "3 Cs": CAD, COPD, CKD).
  - Anaesthetist's Pre-op Assessment: Reports surgery has a high risk and has sent the patient back to you (the GP or surgical HMO) for discussion. Surgery is effectively cancelled/postponed indefinitely.

o **Investigations Provided:** X-ray (OA), Spirometry (confirms COPD), low Hemoglobin (anemia of chronic disease from CKD).

#### • Tasks:

- 1. Take a history regarding the osteoarthritis and other conditions.
- 2. Discuss the risks and benefits of surgery with the patient.
- 3. (**Important Negative:** The task specifies **NOT** to talk about alternative management for OA. The focus is purely on the surgical risk assessment).
- **Tutor's Key Insight:** The core of this case is to understand and explain *why* the patient is high-risk. The "3 Cs" are major red flags. The history taking is not for diagnosis, but to gather evidence of poor functional capacity and poorly controlled co-morbidities to support the anaesthetist's decision.

## II. Background Knowledge: Key Principles of Pre-Operative Assessment

- Goal: Identify co-morbid conditions and assess the patient's fitness to withstand the physiological stress of surgery and anaesthesia.
- Two Main Areas of Concern:
  - 1. Cardiovascular Fitness.
  - 2. Respiratory Fitness.
- **Key Predictor of Peri-operative Risk: Functional Capacity.** The ability to perform daily activities is a strong indicator of cardio-respiratory reserve.
  - Poor Functional Capacity: Inability to climb two flights of stairs or walk four blocks without significant symptoms (e.g., chest pain, severe SOB). This is a major red flag.
- The "3 Cs" as Major Risk Factors:
  - o CAD (Coronary Artery Disease) / IHD: Increases the risk of a peri-operative MI.
  - o **COPD:** Increases the risk of post-operative pulmonary complications (e.g., atelectasis, pneumonia, respiratory failure).
  - o **CKD:** Independently increases the risk of both cardiovascular events and overall morbidity/mortality after surgery.

## III. Structured History Taking (Focused on Assessing Risk):

#### 1. Opening & Agenda Setting:

- o (Open-ended Q). Patient explains they saw the anaesthetist who said surgery is risky and they are worried/confused.
- o Address concern: "I understand this can be concerning and confusing. Is it okay if I ask you a few questions first? Then I can explain the report and why this decision has been made."

# 2. Explore the Primary Problem (Osteoarthritis - focused on functional impact):

- o (Briefly ask when diagnosed, treatments tried).
- Key Functional Questions:
  - "Are you able to do your daily activities at home by yourself?"
  - "How is this osteoarthritis affecting your life?"
  - "Have you had any falls recently?"
  - "Can you rate your pain on a scale of 1 to 10?"

#### 3. Assess Co-morbidities (Looking for poor control & active symptoms):

- o COPD:
  - (When diagnosed, what treatment, compliance?).

- Key Risk Qs: "Are you still smoking?" (Smoking is a major peri-operative risk).
- Active Symptoms: "Are you currently having any shortness of breath, coughing, or wheezing?"
- Severity/Control: "How many flare-ups (exacerbations) have you had in the last 12 months? Have you ever been admitted to hospital because of a flare-up?"
- Ischemic Heart Disease (IHD):
  - (When diagnosed, treatment, compliance?).
  - Active Symptoms: "Do you have any chest pain, especially on exercise?"
  - Complications (Heart Failure): "Any swelling in your legs? Any shortness of breath when you lie down?"

# 4. Assess Cardio-Respiratory Fitness / Functional Capacity (THE KEY AREA):

- o "Are you doing any regular exercise?"
- o "How much can you walk before you start getting shortness of breath or tired?"
- o Open-ended functional question: "Can you tell me, what is the heaviest exercise or physical activity that you can do?"
- o Specific METs Questions (Simplified): "Are you able to climb two flights of stairs comfortably without symptoms? Can you walk four blocks?" (Expect "no" or "I get chest pain/SOB").

# 5. Surgical & Anaesthetic History (Standard Pre-op Qs):

- "Have you had any surgeries before?"
- o "Any history of difficult intubation or problems with airway management?"
- o "Any history of nausea, vomiting, or other problems after a surgery?"
- o "Do you have any allergies to anaesthetic medications?"
- o "Any family history of allergies to anaesthetic medications?" (Screening for malignant hyperthermia).
- o **Food Allergies:** "Do you have any allergies to egg, soy, or peanut?" (Sometimes linked to anaesthetic drug allergies).

#### IV. Counseling the Patient (Explaining the High Risk & Decision):

#### 1. Start by Explaining the Purpose of Pre-Op Assessment:

o "Before any major surgery, we always do a thorough assessment to look at the **possible risks** of both the surgery itself and the anaesthetic (putting you to sleep). This is to ensure we can proceed as safely as possible."

#### 2. State the Conclusion Clearly but Gently:

o "Based on the anaesthetist's report and my assessment today, it seems you have a **high risk of** complications both during and after the surgery."

#### 3. Explain the Reasons (Link to the "3 Cs" and Poor Functional Capacity):

- o **Heart (IHD):** "Because you have ischemic heart disease (from your previous heart attack), the significant stress of the surgery increases the risk of you having another **heart attack** during or after the procedure."
- Lungs (COPD): "Because you have COPD, this increases the risk of you developing lung problems after the surgery, like a lung collapse (atelectasis) or a serious lung infection (pneumonia)."
- o **Kidneys (CKD):** "We also know that your chronic kidney disease increases the overall risk of both heart problems and mortality (risk of dying) after a major surgery."

The "Stress" Explanation: "During a surgery, your body is put under significant stress. You lose some blood, you are given medications, you are given fluids. Because of this stress, we need your heart, lungs, and kidneys to be functioning very well to cope. In your case, because of your existing conditions and your limited ability to exercise [reference the poor functional capacity from history], we are concerned your body would not cope well with this stress."

#### 4. State the Final Decision:

o "Overall, after weighing everything up, we have decided that it is **not safe to proceed with the surgery at this time**, as the **risks of serious complications outweigh the potential benefits** of the knee replacement."

#### 5. Closure & Support:

- o "I understand this is difficult news. Do you have any specific concerns or questions about what I've told you?"
- o (If patient is unhappy/wants a second opinion): "I can arrange a joint meeting for you with your surgeon and the anaesthetologist so we can all discuss this further with you." (Shows teamwork and respects patient's feelings).

# V. Key Learning Points for Pre-Op Assessment Case:

- **History is for Risk Stratification, Not Diagnosis:** The goal is to gather evidence of poor functional status and active/uncontrolled co-morbidities.
- **Functional Capacity is Paramount:** The questions about climbing stairs and walking blocks are a simplified way to assess Metabolic Equivalents (METs) and are a key part of the history.
- The "3 Cs" (CAD, COPD, CKD): Recognize these as major independent risk factors for peri-operative complications.
- Clear Communication of Risk: The counseling must clearly and logically link the patient's specific health problems to the increased risks of surgery.
- Frame it as a Safety Decision: The decision not to proceed is based on patient safety ("the risks outweigh the benefits").
- **Team-Based Approach:** Offer to involve the other specialists (surgeon, anaesthetist) for further discussion, which validates the patient's concerns and reinforces that this is a team decision.
- Do not get sidetracked into discussing non-surgical management of OA, as the task explicitly forbids it. The focus is entirely on the peri-operative risk counseling.

## **Aboriginal and Torres Strait Islander Health**

This section provides a crucial and detailed overview of **Aboriginal and Torres Strait Islander Health**, a high-yield and complex topic for the AMC exam, particularly for OSCE stations. The tutor covers the sociocultural background, common health disparities, key screening differences, vaccination schedules, the "Closing the Gap" PBS co-payment scheme, and the vital role of the Aboriginal Health Assessment (Item 715).

Here's the organized breakdown:

AMC OSCE Approach: Aboriginal and Torres Strait Islander Health

I. Introduction & Context: "Closing the Gap"

- The Core Problem: A significant life expectancy gap exists between Aboriginal and Torres Strait Islander peoples and non-Indigenous Australians.
- "Closing the Gap": A government policy and national strategy aimed at reducing this disparity through improved health services, social determinants, etc. Understanding this context is key.

# II. Key Health Disparities & Sociocultural Factors:

- Social Determinants of Health (Major Contributors):
  - Overcrowding: Common due to strong family/kinship structures, leading to a higher risk of
    infectious diseases (Scabies, Rheumatic Fever precursors like strep throat, Otitis Media, other
    respiratory infections).
  - Socioeconomic Factors: Higher rates of domestic violence, child abuse/neglect, sexual abuse/STIs, hopelessness, drug/alcohol use, gambling, and financial hardship.
  - o **Access to Healthcare:** Often live in rural/remote areas with limited access to doctors, transport, and specialists.
  - o Mistrust of Western Medical System: Stems from historical trauma and injustices.
  - o **Language & Communication Barriers:** English may be a second or third language. Medical terminology can be poorly understood even by fluent speakers. Use simple, clear language.
  - **o** Lower Education & Employment Status.
- Cultural Considerations (Crucial for OSCEs):
  - "Men's Business" and "Women's Business":
    - Deeply ingrained cultural practice of gender-specific roles, ceremonies, and knowledge.
    - Clinical Application: Aboriginal men often strongly prefer to see male doctors, and Aboriginal women strongly prefer female doctors, especially for sensitive issues. In an OSCE, you MUST acknowledge this.
    - OSCE Statement (e.g., if you are a female candidate with a male Aboriginal patient): "Before we begin, I'd like to acknowledge that some Aboriginal men prefer to see a male doctor. I want to offer you the option to see a male GP if you would be more comfortable."
  - o **Attitudes to Death:** Talking about deceased persons or showing their images is often culturally inappropriate. Be sensitive.
  - Compliance: Can be challenging due to social factors. For example, for a 10-day course of oral
    antibiotics, consider if a single-dose injection (like IM Benzathine Penicillin for Strep throat)
    might be more practical and effective.

#### • Key Healthcare Roles:

- o **Aboriginal Health Worker/Practitioner:** Often an Aboriginal person themselves, they act as a crucial bridge between the patient and the healthcare system. They provide culturally safe care, help with communication, coordinate care, and provide health education. Involving them is best practice.
- o **Care Coordinators:** A government program for Aboriginal people with chronic diseases to help coordinate appointments, transport, and understanding of treatment plans.

#### **III. Higher Prevalence of Medical Conditions (Genetics & Environment):**

• Chronic Diseases (The "3 Cs" and more): Higher rates of Hypertension, Hypercholesterolemia, Diabetes, Chronic Kidney Disease (CKD), Heart Disease (IHD), Obesity, and Cancers.

#### Infections:

- o Acute Rheumatic Fever (ARF) & Rheumatic Heart Disease (RHD): Highest reported rate in the world. Stems from untreated Group A Strep throat infections.
- o Otitis Media: Very high rates, leading to chronic ear disease and hearing loss.
- o Tuberculosis (TB).
- o Scabies, STIs, **Trachoma** (chlamydial eye infection, rare in non-Indigenous population).
- Mental Health: Higher rates of depression and other mental health problems.
- Substance Use: Higher rates of alcohol and drug use.

# **IV. Key Differences in Screening & Prevention:**

- Screening Starts Earlier: Due to higher risk, screening for major chronic diseases begins at a much younger age.
  - o Cardiovascular Disease Risk Assessment (e.g., Aus CVD Risk Calculator):
    - General Population: Starts at age 45.
    - Aboriginal & Torres Strait Islander Peoples: Starts at age 30. (Risk factor screening starts even earlier, at 18).
  - **o** Type 2 Diabetes Screening:
    - General Population: Starts at 40 (using AUSDRISK tool).
    - Aboriginal & Torres Strait Islander Peoples: Starts at age 18 with an annual blood test (Fasting Glucose or HbA1c).
  - Chronic Kidney Disease (CKD) Screening:
    - General Population: Based on risk factors (e.g., DM, HTN).
    - Aboriginal & Torres Strait Islander Peoples: Starts at age 30 with annual screening (eGFR, ACR, BP check).
- Vaccinations (Key Differences on the NIP):
  - Influenza Vaccine: Free annually for all Aboriginal and Torres Strait Islander people from 6 months of age.
  - o **Shingles Vaccine (Shingrix®):** Eligible from **age 50**, compared to age 65 for the general non-Indigenous population.
  - o **Meningococcal B Vaccine (Bexsero®): Funded** for Aboriginal and Torres Strait Islander infants. (It is private for most other Australian children).
  - o (Also extra pneumococcal and hepatitis A doses on the childhood schedule).
- Closing the Gap (CTG) PBS Co-payment Scheme:
  - o Reduces the cost of PBS medications for eligible Aboriginal and Torres Strait Islander peoples to improve access.
  - o Eligibility is broad (self-identifies, enrolled in Medicare, likely to benefit from reduced cost).
  - o **How to prescribe:** The GP annotates the script with "CTG" and their initials/signature.

#### V. The Aboriginal Health Assessment (MBS Item 715) - The Most Critical Component for OSCEs:

- What is it? A comprehensive annual health check available to all Aboriginal and Torres Strait Islander peoples of any age.
- **Purpose:** Proactive and preventive health care, identifies health issues, facilitates care planning.
- What does it involve? (You must know the key components to explain in an OSCE).
  - History:

- Social & Emotional Wellbeing (home/family safety, mood, mental health).
- Lifestyle / "SNAP" + G: Smoking, Nutrition, Alcohol, Physical Activity, and Gambling.
- Sexual Health (STIs, contraception, screening).
- Immunisation status.
- Current health problems & medications.
- Examination:
  - Measurements: Height, Weight, BMI, Waist Circumference, BP.
  - Eye Health & Vision.
  - Ear Health & Hearing.
  - Oral & Dental Health.
- o **Investigations (as indicated by age/risk):** Blood sugar, kidney function (eGFR/ACR), lipids, STI screening, cervical screening.
- What does completing a 715 Health Assessment UNLOCK? (CRITICAL to know for management plans).
- 1. Follow-up with Nurse or Aboriginal Health Worker: Access to up to 10 Medicare-funded sessions per calendar year for follow-up, education, monitoring, and support.
  - 2. Access to Allied Health: Access to up to 5 Medicare-funded sessions per calendar year with specified allied health providers (e.g., Podiatrist, Dietitian, Exercise Physiologist, Psychologist, Audiologist).
  - 3. **This is IN ADDITION to other schemes:** A patient with a chronic disease can *also* have a GP Management Plan (GPMP) and Team Care Arrangement (TCA), which provides another 5 allied health sessions. This means an Aboriginal person with a chronic disease could access up to 10 allied health sessions per year.

#### VI. How to Apply this in an OSCE:

- At the start of ANY case with an Aboriginal or Torres Strait Islander patient:
  - o Acknowledge culture: "I will consider any cultural or language barriers."
  - o Address "Men's/Women's Business" if there is a gender mismatch between you and the patient.
  - Offer involvement of an **Aboriginal Health Worker**. (Be prepared for the panel to ask: "Do you have one in your clinic?" Your answer depends on the setting "In a metropolitan clinic, we may not have one on-site, but I would liaise with our local Aboriginal Community Controlled Health Organisation to arrange one. In a rural setting, it's more likely we would have one.")
- In the management plan of ANY case with an Aboriginal or Torres Strait Islander patient:
  - o Manage the acute/presenting condition as per standard guidelines (with slight modifications, e.g., lower threshold for antibiotics for strep throat).
  - Address the relevant screening differences (e.g., "In addition to managing your blood pressure, because you are 40 years old, I would also recommend we start your annual screening for diabetes and kidney disease.").
  - o **Crucial concluding statement:** "Finally, if you haven't had one in the last year, I would like to arrange a comprehensive **Aboriginal Health Assessment (a '715')** for you. This allows us to look at all aspects of your health and also provides access to extra support services like a dietitian or podiatrist if you need them."

This comprehensive understanding will allow you to handle any OSCE station involving an Aboriginal or Torres Strait Islander patient with the required knowledge, sensitivity, and competence.

# Travel Counseling (e.g., to Southeast Asia)

# I. Case 49: Young Man, Planning to Travel to Southeast Asia (e.g., Malaysia)

- Stem Summary (Telephone Appointment):
  - o Young man.
  - o Planning to travel to Southeast Asia (e.g., Malaysia).
- Tasks:
  - 1. Take a history.
  - 2. Counsel the patient regarding the travel.
  - 3. Suggest any a-priori-ments (vaccinations/medications) possibly needed.
- **Tutor's Note:** It's impossible to memorize guidelines for every country. Focusing on a common destination like Southeast Asia (Bali, Thailand, Malaysia) provides a good general framework. The key is to demonstrate a structured risk assessment and management plan. The best time for travel counseling is 6-8 weeks before the trip to allow time for vaccines to become effective.

## II. Key Principles & Risk Groups:

- Goal of Travel Counseling: Risk management and prevention.
- High-Risk Travelers (to identify in history):
  - o Children, pregnant women.
  - o People with chronic medical conditions.
  - o **Immunocompromised** individuals (e.g., on steroids, methotrexate, post-cancer).
  - o Patients on medications that increase risk (e.g., PPIs can increase risk of GI infections).
- **Risk Assessment is Individualized:** Advice depends on the destination (urban vs. rural), duration, activities, accommodation, and the traveler's health status.

# III. Structured History Taking (Using the "ABCDEGS" Mnemonic as a Guide):

- 1. Opening & Rapport Building:
  - o "Hello James, how can I help you today?" (Patient: "I'm travelling to Malaysia...").
  - o Build Rapport: "Wow, that sounds fun! I'd love to travel there someday. Is it okay if I ask you a few questions first to better understand your travel and your itinerary?"
- 2. Explore the Travel Plan (The "Complaint"):
  - o **Destination:** "Where exactly in Malaysia are you going? Which city?"
  - **Environment:** "Are you planning to stay in a metropolitan area or a resort, or are you planning to go to rural areas, like staying in the jungle?"
  - o Companions & Duration: "Who are you travelling with? How long are you staying?"
- 3. Risk Assessment (Using the "ABCDEGS" framework to prompt questions):
  - A Activities:
    - "What activities are you planning to do over there?" (e.g., watersports, bushwalking, visiting zoos, getting tattoos, medical procedures).
  - B Bush & Bites (Insects):

- "Are you planning on **bushwalking**?"
- "Do you think there will be any risk of **insect bites** (e.g., mosquitoes, ticks)?"

#### C - Contact:

- "Will you be having contact with any animals?"
- "Will you be in contact with any **sick people**?" (e.g., volunteering in a clinic/refugee camp).

#### o D - Drugs, Drinks, DVT:

- "Do you plan on using any recreational **drugs** there? Do you plan to drink **alcohol**?"
- "Are you taking any regular medications now?"
- (DVT is covered in counseling, but long flight is implied).

# E - Exposure to Blood/Body Fluids:

- "Do you have any plans on getting any tattoos or piercings?"
- "Any chance of having any **medical procedures** done there?"

## • E - Eating & Drinking:

- "Are you planning on eating street food?"
- "Is there any chance you'll be drinking unbottled water?"

#### **o G - GP Visit / Previous Travel:**

"Have you travelled to this region recently? Have you received any travel vaccinations recently?"

#### S - Sex:

"Is there any chance you might have sex overseas?"

#### 4. Review Patient's Health Status:

- o **Past Medical History:** "Any medical conditions I need to be aware of?" (Looking for immunocompromise, chronic diseases).
- o **Medications:** (Already asked especially steroids, PPIs).
- Vaccination History: "Have you received all your routine childhood vaccinations? Any recent travel vaccinations?"

# IV. Counseling & Management Plan (Following the "ABCDEGS" Mnemonic for Structure):

#### 1. A - Activities & Education (General Advice):

o "Thank you for that information. The purpose of this discussion is to help you **prevent infections** by avoiding some risky activities and taking some preventive measures, which is much easier than treating these infections if you get them."

# 2. B - Bush & Bites (Malaria & Insect-Borne Illness Prevention):

- General Advice (Non-pharmacological):
  - "Since you're planning on bushwalking, it's important to prevent insect bites. I want you to use an effective mosquito or insect repellent."
  - "Preferably cover your body with long, loose, light-colored clothing."
  - "Avoid using strong perfumes or aftershaves."
  - "Avoid outdoor activities between dusk and dawn when mosquitoes are most active."
  - (If staying in basic accommodation): Consider sleeping under a mosquito net.

# Malaria Prophylaxis (Pharmacological):

• "I will check the specific area you are travelling to on a website like **Smartraveller** to confirm the malaria risk. However, as you are planning on bushwalking, we will most likely need to consider malaria prophylaxis."

- Offer Options (Patient-Centered): "We have a few options, and we can decide together based on cost and the dosing schedule."
  - Option 1 (Daily): "We have a cheap option that you have to take daily, called Doxycycline (100mg daily). The only downside is you have to continue taking it for four weeks after you come back."
  - Option 2 (Weekly): "There is another option, a weekly tablet, called Mefloquine. It's a bit more expensive, but you only have to take it once a week. You would also need to continue this for four weeks after coming back."
  - (Let the patient decide).

# 3. C - Contact (Animals & People):

- o "Try to avoid contact with stray animals like dogs or monkeys."
- o "In the rare event of an **animal bite** overseas, you must seek medical advice immediately, as we worry about rabies."
- o "Also, try to avoid close contact with people who are obviously sick."

#### 4. **D - Drugs, Drinks, DVT:**

- o **Drugs/Alcohol:** Advise caution, avoid illicit drugs, and be aware of personal safety.
- o **DVT Prevention (for the flight):** "During your long flight, to prevent blood clots, I want you to walk around the cabin frequently, stretch your legs while seated, stay well-hydrated by drinking plenty of water, and consider wearing compression stockings."

# 5. E - Exposure to Blood/Body Fluids (Hepatitis B):

- o "Try to avoid getting tattoos, piercings, or any medical procedures overseas unless it's in a wellestablished, reputable facility."
- o "Because you mentioned [any risk activity, or as general advice], I would like to **check your Hepatitis B immunity** with a blood test. If your antibody levels are low, we can give you a booster vaccine."

#### 6. E - Eating & Drinking (Traveller's Diarrhoea Prevention):

- o "To prevent traveller's diarrhoea, which is very common, you should **avoid street food** as much as possible and **avoid drinking unbottled water** or using ice in drinks. Always choose sealed, bottled water."
- o **Red Flags & Standby Medication:** "I want you to look out for red flags like fever, severe diarrhoea, or blood in your diarrhoea. I will give you a script for some medications to take with you:"
  - "Some medication for nausea and vomiting (e.g., Ondansetron)."
  - "And a script for an antibiotic called Azithromycin. In case you get severe traveller's diarrhoea, you can start this antibiotic."
- o **Medical Kit:** "You can also purchase a **travel medical kit** from the pharmacy, which will have basic supplies like bandages, antiseptic wipes, and simple medications."

#### 7. **G - GP (Vaccinations):**

- o "I will check the specific recommendations for Malaysia on my computer using a resource like Smartraveller."
- o "However, for most travel to Southeast Asia, we recommend two key vaccines:"
  - Hepatitis A vaccine.
  - Typhoid vaccine.
- o "Both of these protect against food and water-borne infections. There is a combined vaccine available for this."

#### 8. **S - Sex:**

o "If there's any chance you might have sex overseas, it's important to practice **safe sex by using** condoms to prevent sexually transmitted infections."

# 9. Closing & Resources:

- o Provide reading material or refer to the **Smartraveller website**.
- o Final check for questions.

# V. Key Learning Points for Travel Counseling Case:

- **Structure is Key:** Using a mnemonic like "ABCDEGS" helps to structure both the history taking and the counseling, ensuring no key areas are missed.
- **Individualize Advice:** The advice must be tailored to the patient's destination, activities, and personal health.
- Patient-Centered Options: When discussing malaria prophylaxis, offer different options (daily vs. weekly) and discuss the pros and cons (cost, compliance) to facilitate a shared decision.
- **Malaria is a Key Topic:** Be prepared to discuss both non-pharmacological prevention and pharmacological prophylaxis.
- **Traveller's Diarrhoea:** This is extremely common. Provide preventive advice and a plan for management, including standby antibiotics.
- Vaccinations: Know the "routine" travel vaccines for common destinations like Southeast Asia (Hepatitis A, Typhoid) and the rationale for them.
- **Refer to Official Resources:** Mentioning that you will check official sources like "Smartraveller" shows safe and evidence-based practice.
- This case tests the ability to conduct a thorough risk assessment and deliver a large amount of structured, practical advice in a clear and logical manner.

#### **Post-Splenectomy Counseling**

This is a detailed walkthrough of the classic **Post-Splenectomy Counseling** case. The tutor emphasizes that while the initial scenario is an acute trauma (splenic laceration after a motor vehicle accident), the core of the OSCE station is counseling on the **long-term management and risks** associated with living without a spleen (asplenia).

#### I. Case 52: 24 y.o. Male, MVA, Grade II Splenic Laceration, Now Deteriorating, Mother is Present

#### • Stem Summary (Typical):

- o 24-year-old male.
- o Admitted after a Motor Vehicle Accident (MVA) a few hours ago.
- o Initial imaging (FAST scan or CT) showed a Grade II splenic laceration and rib fractures.
- o Initially managed conservatively.
- Now deteriorating: Complaining of chest and abdominal pain, obs chart shows a drop in blood pressure. Imaging shows minimal free fluid in the abdomen.
- o Mother is present to talk to.

#### Tasks:

- 1. Explain the condition to the mother.
- 2. Explain the immediate management (i.e., surgery/splenectomy).
- 3. Explain the long-term management.

• **Tutor's Note:** A Grade I/II laceration might initially be managed conservatively, but the dropping BP and free fluid indicate ongoing bleeding, making surgery necessary. The case is designed to lead to a **splenectomy** (removal of the spleen). The long-term management is the main part being tested.

## II. Background Knowledge on Asplenia (Life without a Spleen):

- The Spleen's Role: A key organ in the immune system, responsible for filtering blood and fighting off certain types of bacteria, particularly encapsulated organisms.
- The Risk of Asplenia: Without a spleen, patients are at a lifelong, significantly increased risk of developing Overwhelming Post-Splenectomy Infection (OPSI), a rapidly progressing and life-threatening sepsis caused by these encapsulated bacteria.
- The Key Organisms:
  - 1. Streptococcus pneumoniae (Pneumococcus).
  - 2. Neisseria meningitidis (Meningococcus).
  - 3. *Haemophilus influenzae* type b (Hib).
- The "4 Key Points" of Management: This is the core knowledge required to pass.
  - 1. Vaccinations: Against the key encapsulated organisms.
  - 2. **Prophylactic Antibiotics:** A long course of daily antibiotics.
  - 3. **Emergency (Standby) Antibiotics:** A high-dose course to be taken immediately at the first sign of fever.
  - 4. Education & Other Precautions: Patient awareness, travel advice (malaria), animal bites, medical alert bracelet.

# **III. Structured OSCE Counseling Approach (Talking to the Mother):**

- A. Opening, Consent, and Empathy:
  - 1. **Introduce & Consent:** "Hello Mrs. [Mother's Name], my name is Dr. [Your Name]. I'm one of the doctors looking after your son. Just before we start, can I confirm that you have your son's consent to talk about his condition?" (Yes).
  - 2. **Open-Ended Question:** "Can you tell me what has happened so far from your perspective?" (Allows her to express worry).
  - 3. Acknowledge & Reassure:
    - "How are you feeling right now?"
    - "I'm so sorry you're going through this. I understand this must be a very concerning and stressful time. I just want to reassure you that we will provide the best care for him, and he is in safe hands."
- B. Explaining the Condition & Immediate Management:
  - 1. Set the Scene (The Injury):
    - "As you know, your son has had a motor vehicle accident. Our main concern in such an accident is injury to the internal organs."
    - "A few hours after he arrived, he started complaining of more pain, and at the same time, we noticed a **drop in his blood pressure**."
    - "We did a scan which showed that in addition to some rib fractures, he has a **tear in his spleen** and we have also noticed some **fluid, which is likely blood, in his abdomen**."
  - 2. Explain what the Spleen is:

■ "The spleen is an organ located in the left upper part of the stomach (abdomen). It's an important part of the immune system and its main job is to protect the body from severe infections."

# 3. Explain the Need for Surgery (Immediate Management):

- "Because his blood pressure is dropping and we have seen fluid in his abdomen, this tells us the spleen is actively bleeding. To stop this bleeding, we **need to do a surgery**."
- "There is a high chance that during the surgery, we will **need to remove his spleen**. This procedure is called a splenectomy."

## 4. Reassure about Living without a Spleen:

• "While the spleen has an important role in the body, I want to reassure you that **people** are able to live normal lives without it."

## 5. (Briefly address other injuries):

• "For the rib fractures, we will just give him good painkillers and monitor his breathing. The ribs usually heal by themselves."

# • C. Explaining the Long-Term Management Plan (The 4 Key Points):

- o "Once we remove the spleen, your son will have a lifelong higher risk of developing some severe and specific infections."
- o "These are caused by bacteria like **Pneumococcus**, **Meningococcus**, and **Haemophilus** influenzae." (Mentioning the specific types is good for the examiner).
- o "Because of this risk, we have a very clear long-term plan to keep him safe."

# 4. Key Point 1: Vaccinations:

- "First, we need to vaccinate him against these specific infections. He will need vaccines for Pneumococcus, Meningococcus, and Haemophilus influenzae type b (Hib). He will also need his annual influenza (flu) vaccine."
- Timing: "Because this is an emergency surgery, we will give these vaccinations about 1 to 2 weeks after the surgery, once he is feeling better and ready for discharge."

# 5. Key Point 2: Prophylactic (Daily) Antibiotics:

- "Second, we will usually give him antibiotics to take every day for some time after the surgery to prevent infections."
- "The medication we often use is **Amoxicillin**, and he would take a low dose once daily."
- **Duration (be diplomatic, as it's controversial):** "He will most likely need to be on this for a long term, somewhere between **six months to two years**, and sometimes even longer. The surgical team will decide on the exact duration for him."

#### 6. Key Point 3: Emergency (Standby) Antibiotics:

- "This is a very important point. We will also give you a separate, high-dose script for emergency or standby antibiotics (e.g., a 3-gram dose of Amoxicillin) to keep at home at all times."
- "At the first sign of any fever or chills, he must take this emergency antibiotic dose immediately and then see his GP or come to the emergency department straight away. We don't want to take any chances with a fever."

# 7. Key Point 4: Education & Other Precautions:

- **Travel:** "If he is **travelling**, especially overseas, he will always need to talk to his doctor beforehand. He will be at a **higher risk of malaria**, so he will likely need malaria prophylaxis medication if travelling to a risk area."
- **Animal Bites:** "He needs to be very careful to **avoid animal bites**, especially from cats and dogs, and seek medical attention immediately if he is bitten."

- Medical Alert: "He should wear a Medical Alert bracelet or necklace and carry a vaccination card with him at all times. This is so that if he ever becomes unwell and can't speak for himself, doctors will know he doesn't have a spleen."
- Support & Resources: "I will refer you to a support organization called Spleen Australia. They can provide you with a lot of reading material and educational resources about living without a spleen."

# V. Key Learning Points for Splenectomy Counseling:

- **Focus on the Long-Term:** While the acute situation needs explaining, the majority of the counseling and marks are for the comprehensive long-term management plan.
- The 4 Key Points are Non-Negotiable: Vaccinations, Prophylactic Antibiotics, Emergency Antibiotics, and Education/Precautions. You must cover all four in detail.
- **Be Specific:** Name the types of vaccines (Pneumococcal, Meningococcal, Hib, Influenza). Name the antibiotic (Amoxicillin).
- Emphasize Urgency & Safety Netting: The "take emergency antibiotics immediately at first sign of fever" instruction is critical.
- Patient/Family Education is Paramount: The success of this long-term plan relies on the patient and family understanding the lifelong risks and what to do.
- **Structured Communication:** Follow a logical flow: explain the immediate problem, the immediate solution (surgery), and then the detailed, structured long-term plan.

#### **ISBAR Handover** case

AMC Recalls: ISBAR Handover (e.g., Diverticular Bleed, Ruptured AAA)

# I. Case Scenario (General): Urgent Patient Handover to a Specialist/Registrar

- Stem Summary (Typical):
  - o You are a doctor (e.g., GP, rural doctor, ED HMO) managing a patient with an urgent condition.
  - The patient needs to be transferred to a tertiary center or handed over to a specialist team (e.g., surgical registrar) for definitive management.
  - Examples of conditions: Diverticular bleed, leaking/ruptured Abdominal Aortic Aneurysm (AAA).
- Kev Task Feature:
  - Large volume of information: You are given a thick file (e.g., 8 pages) of patient notes, including presentation, progress notes (Day 1, Day 2), blood tests, imaging results, past medical history, etc.
  - o **Preparation Time:** You are given significant time to review these notes (e.g., 2 minutes outside the room, plus 4 minutes inside before the call).
  - The Task: "Pick up the phone at 4 minutes" and give an ISBAR handover to the registrar. You may also be asked for your "immediate management" as part of the recommendation.
- **Tutor's Core Insight:** This is a test of **clinical synthesis and communication**, not just reading. You must extract the *key, significant findings* from the notes and present them in a logical, structured manner. Reading the notes verbatim from page 1 to 8 will result in a fail.

# II. Understanding the ISBAR Framework:

- **ISBAR is a structured communication tool** used for clinical handovers between healthcare professionals (doctor-to-doctor, nurse-to-doctor, etc.). It ensures information is conveyed clearly, concisely, and completely.
- The Components:
  - o **I Introduction / Identification:** Who are you? Who are you calling about?
  - o **S Situation:** What is the immediate problem? Why are you calling *right now*?
  - o **B Background:** What is the relevant clinical context?
  - o A Assessment: What do you think is going on? (Your diagnosis/impression).
  - o **R Recommendation / Request:** What do you need the other person to do? What is your plan?

#### III. A Practical ISBAR Structure for the OSCE:

- I Introduction / Identification:
  - o **Identify Yourself:** "Hi, my name is Dr. [Your Name], I'm a medical officer calling from the AMC exam centre/[Your location]."
  - o Identify who you are speaking to: "Am I speaking with the surgical registrar on call?"
  - o **Identify the Patient:** "I'm calling to hand over a patient, Mr./Ms. [Patient's Name], a [Age]-year-old male/female."
- S Situation (The "Headline"):
  - Summarize the current presentation and problem. This is a summary of the most recent, significant events.
  - Example (Diverticular Bleed): "The patient, [Patient's Name], was admitted two days ago with rectal bleeding. He was initially stable, but his bleeding has continued, his hemoglobin has dropped despite transfusion, and the CT scan has now confirmed an active diverticular bleed. We feel he now requires your urgent assessment for further management."
- B Background (Relevant Clinical Context):
  - Select ONLY relevant information from the notes. This is where you demonstrate clinical judgment.
  - o **Past Medical History:** "His relevant past history includes [e.g., hypertension, IHD, previous bowel cancer]."
  - Medications: "He is currently on [mention key meds like blood thinners (aspirin), NSAIDs (diclofenac)]."
  - **Family History:** "There is a significant family history of [e.g., bowel cancer in his mother at age 54]."
  - o **Social History:** (Only if relevant, e.g., heavy smoker/drinker, no social supports).
  - o Allergies.
  - o **Important Progress Notes:** "On Day 1, his bleeding continued but vitals were stable. We gave him two units of packed red cells for a hemoglobin of 75."
- A Assessment (Your Diagnosis & Other Key Findings):
  - o **State the Diagnosis:** "My assessment is that he has a significant, ongoing diverticular bleed that has failed conservative management."
  - **Mention Key Investigation Results:** "The CT scan confirmed this. His most recent hemoglobin is [e.g., 72] despite transfusion. His blood group is A positive."

 Mention what you've ruled out (shows thoroughness): "We have considered other causes of rectal bleeding; examination showed no evidence of hemorrhoids or fissures, and there are no features to suggest mesenteric ischemia."

# • R - Recommendation / Request:

- o **State the Reason for Referral Clearly:** "We are referring him to your team for urgent assessment and consideration of further surgical or interventional treatment."
- o **Outline Potential Management Options (shows you've thought ahead):** "We were thinking he may need either **angioembolization** or possibly a **surgical resection** if the bleeding cannot be controlled."
- o Clarify Current Status & Ask for Instructions: "His blood group is A positive, so please prepare blood. We have him on IV fluids and have kept him nil by mouth. Is there anything else you would like me to do before we transfer him to you? Do you have any questions?"

# IV. Walkthrough of the Diverticular Bleed ISBAR Case:

- Patient: 73 y.o. male, ED, rectal bleeding 3 days ago (fresh blood mixed with stool), lower abdominal pain.
- Your 4 minutes of reading time:
  - o Page 1 (Presentation): Note vitals (stable), exam (pale, no tenderness).
  - o Page 2 (PMHx/Meds/Social):
    - Key points: Hypertension, Aspirin, Diclofenac, Family Hx of Bowel Cancer @ 54, blood group A+. (Smoking/alcohol less critical unless heavy).
  - Page 3 (Progress Day 1):
    - **Key points:** Bleeding ongoing, vitals stable, Hb 75 -> **given 2 units of blood**, CT scan requested.
  - o Page 4 (Progress Day 2):
    - **Key points:** Bleeding worse, abdominal pain starting, vitals still okay.
  - o Page 5 (CT Report):
    - **Key points:** Confirms diverticular bleed.
- The Handover (Putting it together):
  - o **I:** "Hi, I'm Dr. [Name], a medical officer. Am I speaking to the surgical registrar? I'm calling about a patient, Mr. John Smith, a 73-year-old male."
  - S: "Mr. Smith was admitted two days ago with a rectal bleed. He has continued to bleed, his hemoglobin dropped to 75, and despite a 2-unit transfusion, the bleeding is now getting worse. A CT scan has confirmed an active diverticular bleed, and we need to transfer him to you for definitive management."
  - **B:** "His relevant background is a history of hypertension and significant osteoarthritis. He's on long-term **Aspirin and Diclofenac**. Importantly, there is a **strong family history of bowel cancer** in his mother, diagnosed at age 54."
  - **A:** "My assessment is a significant **diverticular bleed**, which has failed conservative management. His blood group is **A positive**. We have ruled out other immediate causes."
  - **R:** "We are referring him to you for consideration of either **angioembolization or surgical resection**. We have him on IV fluids. Please prepare blood. Is there anything else you'd like me to do before transfer?"

# V. Key Learning Points for ISBAR Case:

- **Don't Panic about the Volume of Notes:** You are not expected to read or report everything. You are given time to find the important parts.
- **Practice Skimming for Keywords:** Look for diagnoses, key medications (blood thinners), significant family history, deteriorating vital signs, transfusion records, and definitive investigation results.
- **Structure is Everything:** Use the ISBAR framework rigidly. It provides a logical flow that is easy for the listener to follow.
- Clinical Reasoning is Being Tested: Your choice of what information to include in the "Background" and "Assessment" sections demonstrates your understanding of the case's key clinical issues.
- The Recommendation is Your Management Plan: Be clear about why you are referring and what you think needs to happen next (e.g., angioembolization vs. surgery).
- Even if you don't know ISBAR by name, a logical, structured handover will achieve the same goal. The framework just makes it easier.
- The high pass rate comes from the fact that it's a procedural communication skill, not a test of obscure knowledge. If you can stay calm and follow the structure, you should do well.