GUIDE TO CLINICAL EXAMINATIONS AND PROCEDURES

AUTHORS

Dr. Hassan Naveed
Resident Emergency Medicine, Lady Reading Hospital
MBBS, PLAB, FCPS-1

Dr. Ruqqash Naveed
SHO, Lewisham University Hospital
MBBS, PLAB

CONTENTS

Communication Tools	3
History Taking	5
Neurological Examination and Related Vignettes	9
Diabetic Foot	20
Alcoholic Foot	22
Thyroid Examination and Related Vignettes	23
Respiratory Examination	25
Breast Examination and Related Vignettes	26
Abdominal Examination and Related Vignettes	32
Antenatal Examination and Related Vignettes	41
Testicular Examination and Related Vignettes	44
Inguinal-Scrotal Examination	46
Orthopedics	47
Otoscopy	57
Fundoscopy	62
Speculum Examination	64
Catheterization	66
Venepuncture	68
IV Cannulation	70
Adult Basic Life Support	72
Pediatric Basic Life Support	74
Advanced Trauma Life Support	76
Acute Abdomen Vignettes	79
Approach to Acutely Ill Patient	85
Live Mannequin Vignettes	90

COMMUNICATION TOOLS

A. Initial Approach Protocol – GRIPS

G – Greet
R – Rapport
I – Introduction
P – Purpose of consultation
S – Smile

This approach has 3 types, at least one of which will be used in each PLAB 2 scenario:

1. Initial Approach – Type 1 – Normal Consultation

- **Greet** – Hello…. pause for a reply.
- **Introduce yourself** - I'm Dr. X
- **State your role** - One of the junior doctor in the Emergency Department of this hospital
- **Check the identity** - Can I have your name please? And pause for a response.
- **Name preference** - And what can I call you? What would you like me to call you?
- **Say** - Nice to meet you, Name, and smile.
- **Ask purpose of visit** - How can I help you? What brings you to the hospital?

2. Initial Approach – Type 2 – Follow up or admitted patient

- **Greet** – Hello…. And pause for a reply.
- **Introduce yourself** – I'm Dr. X
- **State your role** – I am one of the doctors in this department/surgery
- **Check the identity** – Are you, Mr. James Brown?
- **Name preference** – What would you like me to call you/
- **Say** – Nice to meet you Name preference
- **If talking to a relative** – What is your relationship to Mr. Patient Name?
- **Paraphrase the scenario** – I understand that you are here for follow up or you have been admitted to the hospital for a reason. I also understand you had some blood tests/investigations done?
- **Check prior understanding** – Has anyone explained those investigations to you? What have you been told about your condition?

3. Initial Approach - Type 3 – Anxious Patient

- **If the patient asks you a question before you could introduce yourself** – Apologies – I am sorry before we talk about your son, can I ask you a few questions? If the question is a concern then make sure you answer the concern in the best possible way e.g. I understand your anxiousness, you will be able to see your son but first, we need to check some details, please.
- **Proceed** with introduction without greeting but do it with urgency.
- **State your role**
- **Check identity** and what would you like me to call you?
- **If relative**, check the relationship to the patient.
- **If standing, invite them to sit** – is it okay if we sit down and talk about your son/daughter?

- **EVE protocol** – Use this every time the patient/relative shows any signs of emotions. An appropriate response to emotions is very important.
- **Paraphrase**
- **Check understanding**

B. EVE Protocol:

- **E** – Explore emotions – I can see that you are upset/worried/anxious/angry, it was an unexpected event/it came as a shock.
- **V** - Validate emotions – Anyone in your situation would react the same way, any parent would be disappointed in such circumstances, I understand what you are going through.
- **E** – Empathic response – I am sorry for what has happened
  These 3 can be used in any order as long as it is appropriate for the situation.

C. Effects of Symptoms on Patient's Life - Follow the biophysical model which states that psychological, biological, and social health constitutes the complete health of a person.

D. ICE - Address ideas, concerns, and emotions.

E. Sign Posting - Use for transitioning from one point in history to another. Do not take permission for anything. Instead, say – let's talk about your general health, let us discuss your sexual life a bit, moving on to your menstrual history.

F. Summarizing - At 2 points – End of both history and management.

G. Finishing the Consultation – Summarize, ask for questions (Do you have any other questions?) and expectations (Is there anything else I can do for you?)

HISTORY TAKING:

P3MAFTOSA

P – Presenting complaint (SOCRATES/ODPARA)
P – Past Medical History
P – Personal History
M – Medication History
A – Allergy History
F – Family History
T – Travel History
O – Occupational History
S – Social History
A – Anything else you would like to tell me?

1. Presenting Complaint:

SOCRATES (only for pain) and Differential diagnoses

S – Site: Where is the pain, can you show me with one finger?
O – Onset: How did it start? Suddenly or gradually?
C – Character: What type of pain is it? Dull ache/compressing/sharp?
R – Radiation: Does the pain go/move anywhere?
A – Associated: Differential diagnoses
T – Timing: Is there any specific time when you experience the pain or when is it worse? Is it always there or does it come and go?
E – Exacerbating and relieving factors: Is there anything that makes the pain worse? Is there anything that makes the pain better?
S – Severity/Score: On a scale of 1 – 10, 1 being the lowest and 10 being the worst, how would you score your pain?

OR ODPARA (for other symptoms)

O – Onset: How did it start? Suddenly or gradually?
D – Duration: When did it start? or How long have you had these symptoms?
P – Progression: Is it becoming worse, improving, or is it the same?
A – Aggravating factors: Anything which makes it worse or anything which brings it on (if intermittent symptoms)?
R – Relieving factors: Anything which makes it better?
A – Associated symptoms - Differential diagnoses

2. Past Medical history:

- Do you have any medical conditions?
- Have you ever been admitted to the hospital for any reason?
- Have you ever had any operations performed on you?
- Do you have any medical conditions like asthma, high blood sugar / high blood pressure/heart problems /epilepsy/stroke?

3. Personal History:

- **Sexual history -** (You should be nonjudgmental and comfortable with sexual history) **-** I need to ask you a few personal questions, if you find it a little bit a little too much, please let me know and I will stop.
- **Sexual practices -** Are you sexually active? Is your partner male or female? Do you practice safe sex? By this, I mean do you use condoms? What kind of sexual intercourse do you usually practice? Oral, vaginal, anal? When was your last sexual intercourse? Have you ever had sexual intercourse for casual purposes? How many sexual partners have you had in the 6 months? Have you traveled abroad? Did you have sexual intercourse with anyone when you while you were abroad?
- **Relationship -** Are you in a stable relationship? Are you married?
- **Previous infections and testing:** Have you ever had a sexually transmitted infection before? Have you ever been tested for STI such as HIV, chlamydia, or gonorrhea?
- **Symptoms -** Are you experiencing any discharge from your penis or vagina? Any burning sensation when passing urine? Any ulcers or lumps around your genital areas? Are running any temperature?
- **Partners -** Is there any chance you could have any other partner? How many partners did you have in the past 6 months?
- **Symptoms in partner -** Is your partner experiencing symptoms such as discharge from the private parts, pain or lumps anywhere?
- **Tracing contact -** (This is where there has been exposure) **-** Did you have sexual intercourse with your **partner** or your wife after that? What kind of sexual intercourse did you have with your partner? **oral, anal, or vaginal?** Did you have sexual intercourse with anyone else after that?

Menstrual History:

- When was your last menstrual period?
- Are your periods normally regular?
- How many days do you bleed?
- How many days is your menstrual cycle?
- Do you pass any clots?
- Are your periods painful?
- Are your periods heavy?
- When was your last cervical smear?
- What were the results of your last cervical smear? (Ask only if the patient had a previous cervical smear.)
- Do you use any type of contraception? (If yes, you need to ask further.
- Which contraception are you using?)

Drug Abuse History

- Use of recreational drugs:
- Is there any chance you use recreational drugs?
- **Type of drugs** - What kind of drugs do you use?
- **Route** - How do you take these drugs?
- **Duration** - For how long have you been taking them?
- **Other drugs** - Do you use any other drugs?
- **With whom?** Who do you do drugs with?
- **Withdrawal -** If you stop taking these drugs, do you develop any withdrawal
- symptoms? What kind of symptoms do you usually develop?
- **Previous attempts -** Have you ever attempted to stop using recreational drugs?

- **Needle -** Do you use needles? Do you share needles with other people?

Needle Exchange Program

- Do you know about the needle exchange program?
- Do you use the needle exchange program?
- Is there any particular reason you do not use the needle exchange program?

Safeguarding issues

- Who else is at home?
- Do you use drugs at home?
- Are there any children at home?
- Do you ever take drugs in front of your children?

Social services

- Have safeguarding issues ever been raised about your children?
- Have the child protection services ever been involved?

Social history:

- Where do you get drugs from?
- What do you do for your living?
- How to you get money to buy drugs?
- Have you ever been in problems with the law?
- Do you have any siblings?
- Are you parent around?
- Do they know you use recreational drugs?
- How does your family feel about you using drugs?
- Would your family or partner be supportive of you while trying to stop using
- recreational drugs?
- Does your partner use recreational drugs?

4. Medications History:

- Are you taking any regular medication?
- Are you taking any over the counter (OTC) medication?
- Are you on any type of contraception (for females of reproductive age only)?

5. Allergy History:

- Are you allergic to anything?
- Are you allergic to any medication?
- If yes: What happens when you take it?

6. Family History:

- Anyone in the family with similar conditions or problems?
- Anyone in the family with heart problems, high blood pressure, high blood

- sugar levels or asthma?

7. Travel History:

- Have you traveled abroad recently?
- If yes, where did you travel?

8. Occupational History:

- What do you do for a living?
- Are you retired? What did you use to do for a living?

9. Social History:

- Who do you live with?
- Do you live in a house or a bungalow?
- Do you walk independently? (For elderly patients or patients with disabilities)
- Is there anything that is causing you to stress in your life?
- Are you married? Do you have any children?
- Do you smoke? If the patient says no, ask if he/she has ever smoked.
- Do you drink alcohol?
- Has this affected you at home or work?

10. Anything else:

- Is there anything else you would like to tell me about your condition?
- NB: Ask these questions after taking a full history of the presenting complaint

NEUROLOGICAL EXAMINATIONS AND RELATED VIGNETTES

Cranial Nerves Examination - (TIA or Migraine) Vignette

You are a Junior Doctor in the Neurology Department. A 60 year old lady presented with visual loss for 5 minutes 2 hours ago. The registrar has taken a focused history from the patient. Please examine Cranial Nerves. The patient has headache and migraine.

Examination Steps:

Cranial Nerve 1 (Olfactory Nerve): Ask the patient if he has got any problems with smelling food. Ask the patient to smell a cup of coffee.

Cranial Nerve 2: What to say: To begin with, I will just be looking at your eyes.

1. **Inspection:**
   - Front: discharge, redness, swelling, scars, sinuses, excess lacrimation, lid retraction, ptosis, eyes at the same level.
   - Back: proptosis = exophthalmos (ask the patient to look up at the ceiling and then go be-hind to check for bulging of the eyes).
2. **Reflexes:**
   What to say: I need to shine some light into your eyes. It might be uncomfortable, please bear with me. Can you please look straight at that wall/window for me?
   - **Red reflex:** stand half a meter away and 15° from the centre.
   - **Light reflex:** direct and consensual light reflex (use a torch).
   - **Accommodation reflex:** ask the patient to look at a distant object and then at your finger. What to say: Look at the wall, please? And now at my finger? (Repeat twice)
3. **Visual acuity:**
   What to say: Now, I will need to check your vision. May I ask, do you wear glasses? Could you please close your right eye? How many fingers do you see? Could you now close the other eye? How many fingers do you see?
   - Finger counting
   - If cannot count fingers then wave hands
   - If cannot see hand movement then shine light into the eyes
   - If cannot see bright light then he/she is totally blind. Ideally, I would use an Ishihara chart for colour vision and a Snellen chart for visual acuity.
   Note: Ask the patient to take off glasses during inspection, red reflex, light reflex and accommodation reflex. Patient should have glasses on when checking for visual acuity.
4. **Peripheral visual field:** What to say: Can you see this white pin? I will be moving it from the outside to the inside like this (demonstrate). I would like you to tell me when you can see it.
   - Check one eye at a time.
   - The patient and the mentor should cover eyes that are located on one side.
   - Move the white pin slowly from the periphery towards the centre, until the patient can see it. In the exam always use a white pin, not your finger.

III, IV, VI Cranial Nerves:

- What to say: I will be moving my finger in front of your face, please follow it with your eyes only and do not move your head. Whenever you see double, let me know.

- Move your fingers to make an imaginary "H" in front of the patient's face as shown below: Look for nystagmus, ophthalmoplegia and diplopia.

V Cranial Nerve:

- **Sensory**: Mr. Jones, this is a wisp of cotton; I will be touching it on your face. This is how it feels (touch the sternum). Whenever you feel me touching you, just say 'yes'. (Ophthalmic, Maxillary, Mandibular divisions). Distribution of trigeminal nerve. V1=Ophthalmicus V2= Maxillary V3= Mandibular.
- **Motor**: Check for muscles of mastication (masseter and temporalis). Place your hands on the masseter and temporalis muscles (warn the patient before touching them) and ask the patient to clench his teeth. Deviation towards side of lesion. I need to place my hands on your face, please bear with me. Can you please clench your teeth?
- **Ideally**, I would test the corneal reflex and the jaw jerk reflex.

VII (Facial) Cranial Nerve:

- **Taste** (anterior 2/3 of tongue): Ask patient, "Do you have problems tasting food?"
- **Muscles of facial expression**:
  (a) Could you please frown at me?
  (b) Can you please squeeze your eyes tight for me and do not let me open them?
  (c) Can you please puff out your cheeks for me?
  (d) Can you please say eeee?

VIII (Vestibulocochlear) Nerve Examination:

- **Inspection of ears:** DRSSS, mastoid bruising, bleeding from ears.
- **Palpation around the ear:** pre-auricular, auricular and post-auricular areas for temperature and tenderness. Tragus test: pressure on the tragus causes tenderness. This is positive in otitis externa. Do not perform otoscopy in this case.
- **Otoscopy**: Perform otoscopy
- **Hearing test:** with the patient's eyes closed, ask the patient if they can hear the sound of your fingers gently rubbing together at a distance of about 3-4 inches from his ears.
- **Rinne's test** - Tuning fork place on the Mastoid bone (First part of Rinne's Test), Tuning Fork placed in front of the ear (Second Part of Rinne's Test),
- **Weber's Test** -Tuning Fork placed in the middle of head (Weber's Test).
- **Nystagmus**
- **Romberg's test**: Ask the patient to stand with his feet together and look straight ahead. Then ask him to close his eyes. If he loses balance after closing his eyes, Romberg's test is positive. A positive Rhomberg's test suggests either a posterior column lesion or an 8th cranial nerve lesion. Tuning fork placed on the mastoid bone. (First part of Rinne's test.) Tuning fork placed in front of the ear. (Second part of Rinne's test.) Tuning fork placed on the mid-dle of the head (Weber's test).
  Note: If Romberg's tests is positive, do not perform the marching test.
- **Marching test:** Ask the patient to stretch their hands straight in front of them, march on the spot and then close their eyes and continue marching. If the patient starts to turn while marching or loses balance, the test is positive.
- **Gait:** Ask the patient to walk freely and then to turn around and do the same. Tandem walking: Can you walk in a straight line with your heels touching your toes?
- Ideally I will do the Hallpike manoeuvre and the caloric test

If patient loses balance with eyes open, it is cerebellar ataxia. If patient loses balance with eyes closed, it is sensory ataxia.

IX & X. Glossopharyngeal & Vagus - Open your mouth, push the tongue down and say ahhh. Observe movement of uvula and palate. Palates movements indicate IX and uvula movements indicate X nerve. GAG reflex is for both these nerves (palate and uvula). Deviation of structure indicates damage to the relevant nerve. Also ask patient to cough to test for vagus nerve. Ask patient to swallow to test for glossopharyngeal nerve.

XI. Accessory
- Trapezius: Shrug your shoulders and do not let me push them down.
- Sternocleidomastoid: Can you turn your face against my resistance?

XII. Hypoglossal Nerve
- Stick your tongue out – check for fascilulations and wasting and deviation (to side of lesion)
- Move your tongue side to side
- Push my hand with your tongue through your cheecks

Motor examination of upper limb

Objectives: • Competent • Communicates well with clear instructions • Elicits signs • Fluency

Introduction: Wash or disinfect hands with hand gel.
1. Introduce yourself to the patient – greet and introduce.
2. Confirm patient details – name, DOB and hospital number – check the wrist band.
3. Explain examination/procedure – what you would like to do and gain consent to pro-ceed.
4. Position and exposure – patient lying on bed at 45 degrees, ask for exposure above the waist.
5. Ask if the patient is in pain or is comfortable.

Examination sequence: Patient lying on the bed at 45º
1. Inspection
2. Tone
3. Power
4. Reflex
5. Co-ordination

1. Inspection: Check for deformities
- Abnormal posturing
- Muscle wasting – hands, arms, shoulder girdles. Assess symmetry, size and shape. Measure arm circumference to assess asymmetry but you can say, "Ideally I would use a measuring tape but on gross inspection, there is no obvious muscle wasting."
- Abnormal movements – myoclonic jerks, fasciculation, tremor, dystonia.

2. Tone:
• Ask the patient to relax
• Ask and make sure the patient has no pain in the arms, "Are you in any pain?"
• Check for tone in the wrist, elbow and shoulder joint. Technique: Hold and support the patient's hand then pronate and supinate while flexing and extending the forearm at the same time. For suspected increase in tone, ask the patient to use reinforcement – let him clench his teeth and test again.

3. Power:

- **Shoulder:** assess muscle strength; shoulder abduction and adduction
- **Elbow:** flexion and extension
- **Wrist:** flexion and extension
- **Fingers**: flexion, extension, abduction and adduction
- **Thumb:** abduction and opposition
- **Check the nerves:** ulnar, radial and median.

NB: Assess by comparing strength on both sides then grade power using MRC scale.

4. Reflexes: Use a tendon hammer to test the following reflexes:
• Biceps (C5, C6)
• Supinator (C6)
• Triceps (C7)

NB: Compare both sides. Use reinforcement when unable to elicit reflexes. Ask the patient to clench teeth and test for reflex again.

5. Co-ordination: This tests for cerebellar lesions/signs. Thank the patient. Make sure the patient is comfortable
- Finger-to-nose- ask the patient to do the finger to nose test. It tests for intentional tremors and past pointing.
- Flip flop test – demonstrate to the patient then ask him to clap his hands, alternating the palm and the back of one hand as fast as possible. Then repeat the action with the other hand. This tests for dysdiadochokinesis. Summarise findings:

To complete my examination: I would carry out a full neurological examination. I would request a CT, MRI scan or other studies such as EMG or nerve conduction if relevant to my examination findings.

Motor Examination of Lower Limb

- **Introduction:** • Wash or disinfect hands with hand gel using the 6-step technique. Introduce yourself to the patient – greet and introduce. Confirm patient details – name, DOB and hospital number – check the wristband. Explain examination/procedure – what you would like to do and gain consent to proceed. Position and exposure – lying on the bed at 45 degrees, ask for exposure, below the waist but the patient can remain in their underwear. Ask if the patient is in pain or comfortable.
  NB: Patient lying on the bed at 45 degrees.

- **Examination sequence:**
  1. Inspection
  2. Tone
  3. Clonus
  4. Power
  5. Reflex
  6. Co-ordination
  7. Standing - Gait Romberg's test, Tandem walking Cerebellar ataxia

- **Inspection: Check for:** Deformities, Abnormal posturing, Muscle wasting - quadricep muscles; assess symmetry, size and shape. Measure quadriceps or calves circumference to assess asymmetry but you can say "Ideally I would use a measuring tape, but on gross inspection, there is no muscle wasting." Abnormal movements - myoclonic jerks, fasciculations, tremor, dystonia.

- **Tone:**
  • Ask the patient to relax
  • Ask and make sure the patient is not in pain
  • Check for tone in the hip, knee and ankle joint
  • Hip-roll the leg on the bed
  • Knee
  • Ankle

- **Clonus:** Flex the knee at 90 degrees then quickly dorsiflex the foot at the ankle to elicit a clonus (a rapid series of alternating involuntary muscle contractions and relaxations).

- **Power:**
  • **Hip:** assess muscle strength; flexion and extension, abduction and adduction
  • **Knee**: flexion and extension
  • **Ankle:** plantar flexion and dorsiflexion
  • **Great toe:** flexion (plantar flexion) and extension (dorsiflexion)
  • **Foot:** inversion and eversión (forefoot)

MRC scale - power grading:

0 - No movement or contraction
1 - Feeble or weak contractions
2 - Movement but not against gravity
3 - Movement against gravity but not against resistance
4 - Movement against resistance but not to full strength
5 - Full strength (normal) Relevant anatomy in neurological examination:

- **Reflexes:** Use a tendon hammer to test the following reflexes:
  • Plantar reflex (L5, S1, S2) – use an orange stick.
  • Ankle (S1, S2)
  • Knee (L3, L4) Extensor plantar reflex is also called Babinski sign or Up going Plantars. It is a sign of Upper Motor Neuron Lesion (UMNL).
  NB: Compare both sides. Use reinforcement when unable to elicit reflexes by asking the patient to clench teeth and test for reflex again.

- **Co-ordination:** This test is for cerebellar lesions/signs:
  • **Heel to shin:** ask the patient while lying on the bed to run the heel of one leg on to the shin of his other leg twice. Then ask him to perform the same action with the other leg.
- **Standing:**
  - **Gait**: Ask the patient to walk from one end of the examination room and turn 180 degrees then walk back. Assess the gait of the patient and report to the mentor.
  - **Cerebellar ataxia:** Ask the patient to stand with hands to his sides and feet together. The patient's eyes should remain open at all times. The test is positive when the patient loses balance with the eyes open.
  - **Romberg's Test:** Ask the patient to stand unsupported with arms resting besides him, feet together, and ask him to close his eyes. Stand close to the patient to support him if he starts to sway or lose balance. The test is positive when a patient sways from side to side or begins to lose balance. It is suggestive of posterior column disease or 8th nerve lesion.

- **Tandem walking:** Ask the patient to walk in a straight line with the heel touching the toe. Failure to perform this test suggests cerebellar problems.

- **On completing examination:** Thank the patient. Make sure the patient is comfortable
- **Summarise findings:**
  - State the differential diagnoses e.g. tumors/stroke, head injury, multiple sclerosis etc.
  - Then say: "To complete my examination, I would take a full history. Do a full neuro-logical examination (upper limbs and cranial nerves). Perform urine test and routine blood tests (FBC, U&E, clotting screen, glucose, lipid profile)."
  NB: Tests should be relevant to the findings.

Vignette - Visual Problems - Bitemporal hemianopsia

You are a Junior Doctor in family physician clinic. John Bradly aged 50 has presented with visual problems. Assess the patient and inform him of next management plan.

Patient Information: You came to check your eyes because your wife asked you to do so. This is because there have been few accidents in your car. Wife thinks you are getting blind. You have scratches on your car and broke the mirror while reversing. Accidents have been happening for last 2 months. He has been driving for 20 years.

Question: What's wrong with me?

- **GRIPS**
- **FODPARA** of visual problem – what why when
- **Driving History** – since when, how many accidents, things/signs/number plates on road
- **Other Accidents**, like at home/bumping into things/dropping things
- **Reading History/Glasses use** (optician visits)
- **D/Ds:** Refractory error, chronic glaucoma, TIA, stroke, Pituitary tumor, ARMD, cataract
- **MAFTOSA**
- **ICE + effects on life**
- **Summarise**
- **Examination:** Observation, Eye Exam (inspection, VA, PVF, CVF, 3 Reflexes, EMs),
- **Explain Diagnosis:** Bitemporal hemianopsia – explain that he can see things that are in front but not the things on your sides. This explains your accidents.
- **Management:** there are several causes for this. The cause in your case will be confirmed by investigations. But most probably it is caused by a mass/tumor in the front area of your brain. It is benign and does not spread. You do not need to go to the hospital. We will refer you to the Endocrinologist urgently who will see you within 2 weeks, examine you and order some investigations. I you ddvise you not to drive and to inform the DVLA immediatly. We will perform some blood investigations today. Wife can drive you/if not call her or someone/if no one involve insurance company who would get involved.
- **Referral:** Endocrinologist in 2 weeks
- **Leaflets:** about compressions signs

Vignette Whiplash Injury

You are a Junior Doctor in emergency department and your patient who just had a road traffic accident comes to you with neck pain. Someone hit him from behind. No one else was in the car.

Questions: Are you going to do an x-ray? Will you give me a neck collar?

- **GRIPS**
- **History of pain(SOCRATES)**
- **History of the accident-** (how, when, were you stationary or travelling, speed of car if travelling, passenger or driver, anybody else in car or anyone else seriously injured and did he go to the hospital?)
- **History of head injury (**Did you hit your head on anything, seizure, drowsiness, loss of consciousness, bleeding from ears etc)
- **MAFTOSA**
- **Examination:** Neck examinations, neurological (motor and dermatomal examination)
- **Further approach written below.**

How to start: Doctor: Hello, are you Mr. Williams? My name is Dr Mathews. I am one of the junior doctors in the department. I am here to ask you a few questions about your problem and then examine you. Is that alright?

History taking phase: May I know what brings you to the hospital today? When did it happen? When did the pain start? Where is the pain? Did it come immediately after the accident? What did you do immediately after the accident? What sort of car were you travelling in? How many miles per hour? Were you the driver or the passenger? If passenger, were you sitting in the front or the back of the car? What type of collision was it? Was it ahead-on collision? Did you have a seat belt on?

Questions about head injury: Did you bang your head on anything? Any vomiting/loss of consciousness/fits/drowsiness? Any tingling or numbness in your hands? Was anybody seriously hurt during the accident? Do you have a headache?

Examination:

- **Inspection of the spine –** Bruises, Swelling, Deformity
- **Palpation -** To check for tenderness, Spinal processes, Para spinal muscles
- **Candidate:** I would like to apply a neck collar, make the patient lie down and send the patient for a cervical spine X-ray. Mentor: A cervical spine X-ray has been done and is normal. Candidate: Thank you very much. OK, Mr. Williams, the good news is that the X-ray we have done is normal. I just need to perform some further examinations. Is it alright?
- **Neurological examination of the upper limb:**
  • Sensory–Check according to the dermatomes
  • Power: In the shoulders, elbows and wrists
  • Check for tenderness - Spinal processes and Para spinal muscles
  • Nerves: These must be checked on both sides.
  - **Ulnar nerve** - Can you please grip my fingers tightly and do not let them go?
  - **Radial nerve -** Can you please make a thumbs-up sign? I will try to push them down. Please do not let me push them down.
  - Median - Can you please make a perfect sign? I will try and break the ring. Please do not let me do it.
- **Movements of the neck:**
  - Left–right
  - Up–down
  - Side to side
- **Management:** Mr. Williams, from what you have told me and the examinations I have done, you most probably have what we call a whiplash injury, which means you overstretched the muscles of your neck during the accident. This is why you have a painful neck and restricted neck movements.

- **So what you need now is:**
  - Rest: you can get a sick leave from your Family Physician Clinic if you want
  - Physiotherapy • Move the neck as much as possible to avoid stiffness (no collar needed as it increases stiff-ness)
  - Painkillers such as ibuprofen
  - Avoid driving for the next two to four weeks, afterwards it depends on how you feel
  - What do you do for a living?
  Note: Patient can take a couple of days' rest and return to work as soon as possible. It also depends on the type of work the patient does.

Neck collars not advised as it would make the muscles stiffer and worsen pain

Vignette - Brachial Plexus Injury

You are a Junior Doctor in Family Physician Clinic. A 33 year old lady female presented who had an accident 1 year ago. Patient was diagnosed with brachial plexus injury. Assess the patient and in the last 2 minutes discuss your assessment and management with the mentor.

Patient Information: You are a 33 year old lady. You had an accident 1 year ago. You had fracture of both legs which was managed by plaster casts. You had sustained injury on right shoulder and after that you were unable to use right hand for few months but it got better over the past year. Now there is no pain and you can button your clothes and perform all tasks very well. There is no tingling, no numbness in hands or fingers. There was no fracture in arm, only there was compression on brachial plexus. No PMH, no allergies, no medication. Medically fit and well. Legs and everything is fine. During the past one year you have been off from work. You worked as an electrical engineer and you are right hand dominant. Today you have come because you went to your physiotherapist and they told you are ok and can start work. You have come to our clinic so that we can make sure you are fine to start work again. The physiotherapists have discharged you.

On Examination:
1. Sensations were normal
2. Power was 5/5 bilaterally
3. Radial, ulnar, median nerves were equal and okay in both hands
4. Reflexes elicitable

Mentors Questions: What is your assessment? What is your management? After these questions, candidate may ask to finish the examination. After the candidate has finished discussing management, prompt them to go and explain management to the patient.

- **GRIPS**
- **History phase:** What brought you to the clinic? I also understand that you have brachial plexus injury? What type of injury did you sustain? Did you sustain any in your other arm? Any other injury? How are you doing now? What do you do for a living? Have you been to the physiotherapist + occupational therapist? Are you happy yourself? Are the physiotherapist and occupational therapists happy for you to return to work? Are you right or left handed? Are you able to do your daily tasks without problem? PMHx, DHx. What job do you do? How long have you been off work?
- **Ask about symptoms of Brachial plexus injury(**pain, weakness, loss of function in arms)
- **Examination: (upper limb neurological examination)** - Exposure above the waist, Inspection , Tone, Power, Nerves (ulnar, median, radial nerve, Reflexes
- **Assess functions -** Pincer grip, Holding the finger

- **Sensory examinations - According to the dermatomes -** use a wisp of cotton. According to the ulnar, median and radial nerves.
- **Management:** I have examined the patient and the examination was normal. There was no muscle wasting or fasciculation. Ulnar, median and radial nerves were normal Dermatomal sensation was normal. You can go back to see the occupational department and get back to work.

Vignette - Cerebellar Ataxia
You are a Junior Doctor in the outpatient medical unit. A 45 year old man has been referred by the Family Physician Clinic with a letter. The letter says, this gentleman presented with clumsiness. He has past history of diabetes. I am suspecting cerebellar ataxia. Assess and discuss management with the patient.

Patient Information: You have clumsiness in your arms and hands. You like meeting but you have been having problems meeting due to clumsiness. Its been difficult to hold things like cups. You also drop stuff. You have DM2. All this started 2 months ago.

Questions: What's wrong with me? What you going to do? Is it serious?

- **GRIPS**
- **FODPARA** of presenting complaints (clumsiness – what do you mean by it)
- **Differential Diagnoses** (ask about tremors, diarrhea, wt loss), DM neuropath (ask about peripheral neuropathy, DM control, any tingling, numbness) Myasthenia Gravis (problems worse by end of day), neck injury, cerebellar stroke (dizziness, diplopia, balance issue), alcohol intake, arthritis, Parkinson's disease, brain tumor)
- **Systemic Review**
- **MAFTOSA**
- **ICE**
- **Effects of Symptoms on Life**
- **Summarize**
- **Examination:** limbs and cerebellar examination
- **Diagnosis** : the examinations are normal. The Family Physician Clinic referred you because he suspects problems regarding coordination with you. A part of your brain known as the cerebellum is affected. So we are going to perform some investigations in order to find out the issue.
- **Management:** We will be involving our seniors and refer you to the Neurology specialist for their review. Collectively, we will be able to hopefully find out what the underlying problem is. For now we will take your blood for some routine blood tests alright.

Examination steps:

Sitting:
• **Speech:** "Could you please say - British Constitution?" (Check for scanning speech)
• **Nystagmus:** "Could you follow my finger with your eyes without moving your head?"
• **Dysdiadochokinesia**: "Could you please copy my movements with your hands?" Flip Flop Test. Finger-to-nose test: "Using your index finger, could you please touch your nose and then touch the tip of my finger?" (check for past pointing)
NB: Make sure the patient stretches his arm fully when reaching for the tip of your finger. This tests for intentional tremors.
Neurological examination of the upper limb: Tone, Power, Reflexes.

Standing:
- Romberg's test: "Can you please stand with your feet together and arms by your side, and look straight ahead." Do this with the patient's eyes open first, then with the eyes closed. If the patient loses their

balance with their eyes open, this is cerebellar ataxia. If the patient loses balance with eyes closed this is a positive Romberg test, which is for sensory ataxia.
NB: If cerebellar ataxia is elicited, do not perform a Romberg's or Marching test.
- **Marching or Turning test:** "Could you please stretch your arms forward like this and march on the spot? Can you now close your eyes and continue marching with your eyes closed, please?"
- **Gait:** "Could you please walk a few steps for me"
- **Tandem walking:** "Could you walk in a straight line with your heels touching your toes?"

Lying down
- **Heel-to-shin test:** "Could you please take the heel of your left leg, place it on the right knee and slide it down your shin neatly?"
Neurological examination of upper and lower limb. ○ Tone ○ Reflexes (both upper and lower limbs) ○ Power ○ Plantar reflexes and pupillary reflexes ○ Muscle bulk – Ideally I would use a measuring tape for muscle bulk, but on inspection there is no obvious muscle wasting. Romberg's test: "Can you please stand with your feet together and arms by your side, and look straight ahead." Do this with the patient's eyes open first, then with the eyes closed. If the patient loses their balance with their eyes open, this is cerebellar ataxia. If the patient loses balance with eyes closed this is a positive Romberg test, which is for sensory ataxia.
Lower limb power testing: Power: Toes and Ankles. Knee. Hip.
Upper limb power testing: Power: Shoulders. Elbows. Wrists.

MRC scale for muscle power
0 No muscle contraction is visible
1 Muscle contraction is visible but there is no movement of the joint
2 Active joint movement is possible with gravity eliminated
3 Movement can overcome gravity but not resistance from the mentor
4 The muscle group can overcome gravity and move against some resistance from the mentor
5 Full and normal power against resistance

Vignette - Hearing Loss

You are Junior Doctor in the Family Physician Clinic and a 40 year old man has come to you complaining of some concerns. Take a focused history, perform relevant examination and discuss initial management with the patient.
Special notes: Perform otoscopy and inspection on the manikin. Tuning fork on the patient.

Patient Information: You have notice HL for past 4 months. You also have noticed dizziness and murmurs on your face. You have also noticed that when you close your eyes, you tend to fall. Your feet become unsteady (Romberg +).
{Finding: Weber lateralized to right. HL on left side. Dx is Acoustic Neuroma}

- **GRIPS**
- **FODPARA** of HL + ringing sensation + loss of balance + pain
- **Differential Diagnoses:** (fever, cough, aural fullness, swimming, fam hx, Meniere's, acoustic neuroma, presbycusis)
- **MAFTOSA**
- **Examination:** Otoscopy Normal. Hearing test: Normal. Weber lateralized to right. Romberg Test: eyes closed and hands on side and stand up – check imbalance, check CN 5, 7.
- **Diagnosis and Explanation:** Unfortunately you have reduced hearing on the left side. It seems like there is some problem with the nerve on the right side that connects the ear to the brain. The common

issue that causes this is an acoustic neuroma which is a growth on the nerve. This also causes imbalance. We will refer you urgently to the ENT specialist who will do an MRI test and audiometry tests. We will do some blood routine tests now to look for any inflammation.

- **Referral:** ENT urgent
- **Investigations:** MRI, Audiometry, Routine Bloods, ESR, CRP
- **Management:** ENT will discuss
- **Leaflet**

Examination steps:

- **Inspection of ears**: discharge, redness, swelling, scars, sinuses and mastoid bruising
- **Palpation:** temperature, tenderness and tragus to wall test
- **Hearing test:** finger rubbing
- **Rinne's and Weber's tests:** use tuning fork 512Hz or 256Hz.

Tuning fork place on the Mastoid bone (First part of Rinne's Test), Tuning Fork placed in front of the ear (Second Part of Rinne's Test), Tuning Fork placed in the middle of head (Weber's Test).

- Otoscope:
- Ideally I would perform the Hallpike manoeuver and the Caloric test.
- **Nystagmus**
- Romberg's test: Ask the patient to stand with his feet together and look straight ahead. Then ask him to close his eyes. If he loses balance after closing his eyes, Romberg's test is positive. A positive Rhomberg's test suggests either a posterior column lesion or an 8th cranial nerve lesion. Tuning fork placed on the mastoid bone. (First part of Rinne's test.) Tuning fork placed in front of the ear. (Second part of Rinne's test.) Tuning fork placed on the mid-dle of the head (Weber's test).

Note: If Romberg's tests is positive, do not perform the marching test.

- **Marching test:** Ask the patient to stretch their hands straight in front of them, march on the spot and then close their eyes and continue marching. If the patient starts to turn while marching or loses balance, the test is positive.
- **Gait:** Ask the patient to walk freely and then to turn around and do the same. Tandem walking: Can you walk in a straight line with your heels touching your toes?

DIABETIC FOOT

Diabetic Foot Examination

- Gait: look for high stepping gait. People with DM usually take high steps.
- Inspect the shoes inside and on the sole.
- Inspect the feet and look for ulcers/swelling/redness/loss of hair/shine.
- Check the webspaces and nails and look for any skin breaks.
- Look for bony deformities (charcot joints).
- Palpate for temperature (cold > atheroscleorisis, warm > DVT/cellulitis), tenderness in feet and calf, for distal pulses, capillary refill by pressing nailbed (Normal = <2 secs).
- Assess touch sensation from distal to proximal using wisp of cotton (touch, do not drag).
- Assess pin prick sensation from distal to proximal using neurofilament. Always demonstrate on chest before testing.
- Assess vibration sense using tuning fork distal to proximal on bony prominences.
- Assess position sense from distal to proximal.
- Check reflexes of ankle and knee only.

Diabetic Foot Follow-up with Retinopathy

You are a Junior Doctor in outpatient medical clinic. A 48YO man has come for review. Assess the patient and discuss management. Explain diabetic foot care to him. Refer to ophthalmoloists and dietieicna. Advise to start metformin. Advice to exercise. Advise to regularly check his blood sugar.

Patient Information –
Vignette A: He has diabetes for last 8 years and is on dietary control. 10 months ago he had HbA1c of 72mmol/l. Normal is 48mmol/l. His last review was 4 years ago. His diabetic friend had amputation, that is why he has come today. He has tingling in leg so he is worried he might also have to undergo an amputation. He does have a glucometer but does not use it. He takes simvastatin. He usually takes his dog for walks but not anymore due to tingling. He was referred to the ophthalmologist but he never went there. He has loss os fensation upto the shins on both legs.
Vignette B: Patient is on metformin. HbA1c is 53mmol/L. Tingling and numbness on legs. Target should be 48mmol/L. (So dose adjustment or change of medication needed).
Vignette C: Patient is on insulin. HbA1c is 53mmol/L. Examination fine. RBS control good. (Just manage complaints)

- **GRIPS**
- **History Taking**
  - Background – Type of diabetes, do you monitor glucose levels, treatment for diabetes, other medical conditions or medication.
  - Diabetes Control – What are the normal blood sugar levels? HbA1c? Do you know about this or check in note.
  - Admissions – For DKA or hypoglycemia or hyperglycemia.
  - Compliance – Taking medication regularly or not
  - Complcations – Macrovascular (stroke/TIA, MI, intermittent claudication) and Microvascular (Kidneys, eyes, feet, Diabetic retinopathy, nephropathy, neuropathy). Ask about each of these.
  - Cardiovascular Risk Factors – Smoking, Diet, High Cholesterol, Blood Pressure, Weight. In man, ask about sexual problems.

- **Examination –** BMI, Urinalysis (proteins, ketones, nitrates), CVS Examination (Pulse, BP, Heart Soundings, carotid), Examine eyes (Fundoscopy) and Examine Feet (Diabetic Foot Examination). Start with diabetic foot in this Vignette.
- **Explain the Findings –** Loss of sensation below the knees, below the mid shin or below the ankle. Explain he has got peripheral neuropathy – Damage to the nerves in legs as a result of diabetic complications.
- **Management**

  - Investigations – HbA1c, Lipid Profile, RFTs, Urine for Albumin Creatinine Ratio.
  - Treatment Plan

  1. Review medication (increase the dose or change them) (Target HbA1c 48 to 52). If someone is on metformin, then target is 48 but on insulin or hypoglycemia causing drugs it is 53.
  2. Referral – Consider 4 referral – Ophthalmologist, Dietician, Diabetic Foot Care Team, Diabetic Education Team.
  3. Explain Diabetic Foot Care – Do not walk bare foot (Avoid), inspect, wash and dry your feet daily, wear comfortable shoes. If there is any skin break or wound, you need to seek medical help. Explain that it is important to inspect feet because he has nerve damage and might not experience any pain.
  4. Statin – Assess the need of starting a statin. Type 1 – If patient is more than 40 YO and has diabetes for over 10 years, start on statin. Type 2 – If QRISK is more than 10, start on statin.
  5. Blood Pressure – 135/85 if no proteinuria. If there is proteinuria 125/75.
  6. Address Risk Factors – Smoking, Diet, Weight, Exercise.

ALCOHOLIC FOOT

You are Junior Doctor in Family Physician Clinic. A 50 year old man has presented with burning pain in the legs. 5 years ago he was in alcohol rehab. Assess and discuss management.

Patient information: You drink 1 – 2 bottles of vodka daily. You were reffered to the alcohol rehab 5 years ago but you stopped going there because you felt lonely. You stopped drinking for a while but as soon as you stopped going to the rehab you began drinking again. You have burning sensation in legs since 6 months.

Questions: What's wrong with me? What are you going to do for me?

Mentors prompt - Loss of sensation below mid shin B/L.

- **GRIPS**
- **FODPARA** of burning sensation – SOCRATES
- **Alcohol history:** How much? Where? With whom? How often? Increased amount? CAGE TW: Cutting Down? Annoyed when other ask? Do you intend to cut down? Do you use it as eye opener?
- **MAFTOSA**
- **Rehabilitation Questions –** I understand. How did that go? Do you go still? Why did you stop?
- **Effect of Symptoms on Life:** sleep, job, personal life
- **Examination:** Like a complete DM foot examination.
- **Investigation:** Routine bloods + Peripheral smear (macrocytosis)
- **Explain Diagnosis:** Peripheral neuropathy (neuro pain) because of Alcohol consumption.
- **Management:** Cut down alcohol. Offer Duloxetine for pain.
- **Referral:** Neurologist for pain management, Advise if he wants to stop he can go to open alcohol anonymous group meetings where you can take your family and friends. You can not take anyone to closed meetings. Also refer to foot care team and explain foot care (daily inspect, wash, dry, don't walk bare foot, wear comfortable shows)
- **Follow-up:** 1-month time.
- **Leaflet**

THYROID EXAMINATION AND RELATED VIGNETTES

Examination steps:

Check for radial pulse and fine tremors: place a piece of paper on the patient's out-stretched hands, with his fingers spread apart.

Inspection of the eyes:
• Inspection of the eye:
• From the front (DRSSS, lid retraction, ptosis, excessive lacrimation, lid lag etc)
• From behind (proptosis)

Check for eye movements: Check for eye movement by moving your finger in front of the patient in the form of a U

Check for diplopia, ophthalmoplegia, nystagmus and lid lag. What to say to the patient: I will be moving my finger in front of your eyes. Can you please follow my finger with your eyes but do not move your head.

How to give findings to the mentor: There is no lid lag, no ophthalmoplegia, no nystagmus or diplopia.

Neck
- Inspection: DRSSS! Deglutition test: Sit in front of the patient and then ask him to take a sip of water and hold the water in his mouth until you ask him to swallow. Check if there is any lump moving up on swallowing or masses while swallowing **! Tongue protrusion test:** "Can you please stick your tongue out?" (watch if there is any neck masses moving up)
- Palpation:
- What to say to the patient:
- **Deglutition:** Can you please take a sip of water and keep it in your mouth, and wait until I ask you to swallow
- **Tongue protrusion:** Can you please stick out your tongue?
- **Percussion:** Percuss on the sternum
- **Auscultation:** For thyroid bruit (Ask patient to hold breath while auscultating)
- **Check for pre-tibial myxedema and reflexes** (ankle).
- **Ankle reflexes:** Ask the patient to kneel on the chair while facing away from you and gently tap on the Achilles tendon - the foot should jerk.

Palpation of the thyroid
• Temperature
• Tenderness
• Trachea central
• Tongue protrusion (from behind)
• Deglutition (from behind)
• Thyroid gland (from behind)

To complete examination: Ideally I would like to complete my examination by checking the sleeping pulse rate, CVS, neurological examination and head and neck lymph node examination. NB: In normal people, during sleep the pulse slows down, but in people with hyperthyroidism the pulse does not slow down during sleep.

Vignette – Thyrotoxicosis Follow-up

You are a junior doctor in OPD medicine, 30 year old lady has come for follow up, she has had thyrotoxicosis and she is being treated with carbimazole, assess and discuss management with the patient.

Patient Information : You have overactive thyroid and been placed on carbimazole, you have been taking carbimazole for 1 day and you drink about a glass of vine every day, your husband had a vasectomy, so you are not on any contraception.

- **GRIPS (type 2)**
- **FODPARA** (What symptoms did you have when you were first diagnosed, when were you diagnosed, do you take medication, any changes? And check for hypothyroid symptoms)
- **Check for Carbimazole SE:** Fever, recent being unwell, sore throat, rashes, pruritis, nausea and muscle pain(As it causes agranulocytosis)
- **MAFTOSA**
- **Examination:** Wash hands/Sanitize. I need to examine your thyroid gland which will also involve checking your hands, eyes and shins. Could you please roll up your sleeves a bit and I will be rolling down your collar a little bit only (unnecessary exposure to be avoided to maintain dignity). I will try my best to make it quick and comfortable. If you feel any discomfort or any point please let me know immediately and I will stop the examination. Then proceed with the examination. Thank the patient and explain the findings to the mentor/patient whatever the Vignette demands.
- **Findings:** Examination was normal.
- **ICE**
- **Summarize:** Ask if she is under any thyroid specialist, he will answer your queries(if she wants to stop medication), advice not to stop medication and discuss it with her specialist. Ask if she is trying to have baby. If she had present to Family physician clinic you would refer back to Family Physician Clinic to stop medication.
- **Safety netting:** for side effects of carbamizole.

RESPIRATORY EXAMINATION

General Inspection:

- **Patient Wellbeing**: stable, alert, comfortable, breathless, cachexic (cancer or emphysema), Cushingoid (steroid use)
- **General breathing**: use of accessory muscles (COPD, Pleural effusion, pneumothorax, severe asthma), Puffing through pursed lips(prevents bronchial wall collapse by keeping lung pressure high in severe airway obstruction? emphysema)
- **Noises**: patients "speech normal?(obstruction, recurrent laryngeal nerve palsy), stridor(large airway obstruction eg mediastinal masses, bronchial carcinoma, retrosternal thyroid), wheeze, cough(dry/bovine/productive). Prolonged expiratory phase(asthma, COPD), clicks(bronchiectasis), gurgling(airway secretions)
- **Around the bed**: oxygen, medication(metered dose inhalers, nebulisers), sputum pots(look at sputum), cigarettes, chest drain.

Hands:

- **Fine tremor** (B2 agonists), flaming tremor (CO_2 retention in type 2 respiratory failure)
- **Perfusion**: peripheral cyanosis, capillary refill(>2 in hypoperfusion).
- **Built**: Sweaty/warm/clammy (CO_2 retention), small muscle wasting (Pancoast tumor)
- **Nail**: Clubbing (Idiopathic pulmonary fibrosis, lung cancer, CF, bronchiectasis, sarcoidosis, TB), tar stains (smoker).

Head and Neck

- **Face:** Cushingoid, plethoric (CO_2 retention), telangiectasia/macrosomia (systemic sclerosis, butterfly rash, lupus pernio (sarcoid), lupus vulgaris (TB)
- **Eyes**: Conjuctival pallor (anemia or chronic disease), Horner syndrome (lung tumour)
- **Mouth**: Central cyanosis under tongue (hypoxia)
- **Neck**: JVP height (increased in Cor pulmonale), tracheal tug, tracheal deviation (pneumothorax pushes to contralateral side: collapsed lung pulls to ipsilateral side, mass). Notch-cricoid distance (<3 fingers= lungs hyperinflation)

Chest

Front first:

Inspection

Chest wall: scars, skin changes, trauma, deformities (pectus carinatum e.g in child hood asthma or rickets. Pectus excavatum eg in Marfans syndrome , barrel shaped chest in emphysema or COPD), Kyphosis/scoliosis (restrict chest movements), radiotherapy tattoos.

BREAST EXAMINATION AND CLINICAL VIGNETTES

How to start:
Introduce yourself, greet the patient and check her identity.
Exposure: ask the patient to undress above the waist.

If the patient is already undressed when you go in say, "I appreciate that you are adequately exposed for the examination. Thank you for that."

Ensure her privacy and say, "I will ensure your privacy and ask the mentor to kindly be my chaperone."

Inspection: While the patient is sitting on the couch, ask her to adopt the following position:
- Hands on thighs – DRSSS, nipples on the same level, symmetrical breasts.
- Hands on waist and press.
- Lean forward – no masses
- Hands behind the head – no supraclavicular or axillary fullness.
- Lift the breast – no inframammary eczema.
- Ask the patient to squeeze the nipples – no discharge or bleeding

Palpation:

Patient lying at 45 degrees:

- Temperature, compare symmetrical quadrants.
- Superficial palpation – tenderness (ask if she has any pain before palpating).
- Deep palpation for masses – do it anti-clockwise.- Look for masses – there could be real masses in the exam (commonly in the right upper outer quadrant of the right breast, right peri-areolar region, left axillary tail).
- Peri-areolar palpation with the thumb. DO NOT TOUCH NIPPLES. Palpate for the axillary tail of Spence.

Palpate axillary lymph nodes in standing position:

- ✓ Swap right hands with the patient in standing position by putting her right on your right shoulder and your right on her right shoulder. Then use your left hand to palpate the anterior, central, medial and apical axillary lymph nodes of the right armpit.
- ✓ Then swap left hands with the patient in the same way and use your right hand to palpate the anterior, central, medial and apical axillary lymph nodes of the left armpit.
- ✓ Then stand behind the patient, put your right hand on the patient's left shoulder and palpate posterior and lateral groups of right armpit by using your left hand.
- ✓ Then put your left hand on the patient's right shoulder and palpate posterior and lateral groups of right armpit by using your right hand.

    - Anterior (palpate against pectoralis major).
    - Central (palpate against lateral chest wall).
    - Medial (palpate against humerus).
    - Apical (palpate against glenohumeral joint).
    - Lateral.
    - Posterior (palpate against latissimus dorsi).

Put your bra back on as now I will palpate only the armpits.

Check for Shoulder and Neck Lymph nodes
Ask the patient to sit on a chair, stand behind the patient and palpate supraclavicular, infraclavicular, upper, middle and lower cervical lymph nodes.

Thank the Patient and Ask her to Dress up

Diagnosis:
My most probable diagnosis is breast cancer. I will consult my seniors to confirm my findings

- Breast cancer
- Fibroadenosis
- Cyst
- Fibroadenoma
- Fat necrosis.

Describing a mass:

- Site (e.g. right upper quadrant of the right breast)
- Size (in cm)
- Shape
- Surface (irregular or smooth)
- Consistency (firm or hard)
- Attached to the underlying structure (or not)
- Attached to the overlying skin (or not)
- Tenderness.

Investigations:

- USS
- Mammography
- Biopsy (FNAC followed by core biopsy)

NOTE: This particular patient has a family history of breast cancer and a mass in the breast.

Approach For Breast Station

- **GRIPS**
- **History for Lump in Breasts**
  - Duration – Since when have you had this lump?
  - Number – How many lumps?
  - Location – Where did you feel the lump? Left or Right?
  - Size – How big is the lump?
  - Mobility – Does the lump move around?
  - Pain – Is it painful?
  - Surface – Does it feel smooth or rough?
  - Previous lumps – Have you developed any lumps in your breasts before?
- **Differential Diagnoses**
  - **Breast cancer** – Ask for any bleeding or nipple discharge, any changes in shape or skin of the

breast. Also, ask for symptoms of metastatic disease bone pain, back pain or fracture. Ask about Risk Factors of Breast Cancer – Previous breast cancer, family history, never given birth before or having a child after age 30, not having breastfed the child, use of contraception (COCPs, HRT), menstrual history, age of first menstruation, last menstruation or age of menopause, radiation to the breast (CT scan, X-ray).

- **Fibroadenoma** – Firm mobile, non-tender, well defined lump in young female (30 to 34).
- **Benign Breast Disease or Cyclical Mastalgia** – Lumpiness and pain in the breast which starts about 2 weeks before periods and improves when the period starts. The lumpiness increases during the period and the pain is usually dull or heavy pain. It is usually bilateral.
- **Breast Abscess** – Recent history of giving birth, localized breast swelling, redness, warm to touch and painful. Systemic symptoms include a fever.
- **Breast Cyst** – Tender or non-tender, old age (35 to 50), palpable lump.
- **Fat Necrosis** – History of trauma to the breast (mainly compression), bruise might be present.
- **Pregnancy** – Lumpiness and enlargement of breast. Maybe painful as well.

- **Systemic Review** – As in history proforma.
- **Complete PMAFTOSA**
- **ICE**
- **Effects of Symptoms**
- **Summarize**
- **Breast Examination –** Done above. Ask Mentor to act as the chaperone. Before you move to nodes examination, ask the patient to put the bra back on.
- **Management**

  1- Diagnosis: There are few causes of lumps in the breast - it could be benign swelling in the breast and yes sometimes it could be serious or cancer**.**

  2- Referrals:

  - **Urgent** – Within 2 weeks. Any woman above the age of 30 or above with a lump in the breast. Any woman having skin changes suggestive of breast cancer. 30 years or older with an unexplained axillary lump. 50 years or above having any discharge, retraction or concerning changes.
  - **Non-urgent** – Within 18 weeks. A woman with a lump in the breast or axilla less than 30 years of age. You need to be able to make a referral today.
  - **Information to the patient referred or Appointment Information** – You will be referred to a breast specialist who is also a cancer specialist. You are being referred to a cancer specialist. We assure you that not everyone being referred to a cancer service ends up with cancer. Always explain how long they need to wait according to their type of referral. Explain what will happen when they go for the appointment. So, the specialist will examine you again and conduct some investigations such as U/S of breast, mammography (Special X-ray of the breast), may take a biopsy from the breast. Explain that they can take somebody when they go for an appointment such as a family member or friend.
  - **Safety Netting –** If you do not get the appointment within 2 weeks, you need to come back (if urgent) and they should get their appointment date within the next 28 days (if non-urgent), you can come back or complain. Also, if your symptoms change, you need to come back (this, too, is for non-urgent).

Vignette – Breast Examination

You are working as a Junior doctor in Family physician clinic. Mrs. Joan White is a 32-year old lady who had made an urgent appointment to see the doctor Mrs. White had noticed a lump in the breast. The patient is very worried. Take a focused history, perform the relevant examination and discuss initial management with the patient.

Patient information: You noticed a lump in the morning today while taking a shower, and you made an urgent appointment. The lump is 2x2 cm. You think it is smooth and it is not moving. You are very worried. You have a 7-year-old child. No other symptoms. No family history of breast cancer. You do not smoke. No pain, not breastfeeding. You are normally fit and well and not on any medications. Your auntie had ovarian cancer.

Questions: What are going to do for me? Immediately the doctor finishes examining you, you ask him: was the examination fine? Do you think it can be cancer?

Set-Up: Sitting on the chair wearing a breast strap.

- **GRIPS** - **Type 3**
  - How can I help?
  - History of the lump - When did you notice the lump? - Is it on the left or the right breast? - Size - Site - Surface (does it feels smooth) - Pain - Smooth - How many lumps did you feel? - Have you ever had any lumps in the breast before? - Is it in the right or the left breast? - Nipple or skin changes? - Any other lumps or bumps anywhere else? - Discharge from the nipples? - Change in the shape of the breasts?
- **Menstrual history and children**
- **Risk factors:** Family history, smoking, COCP.
- **D/Ds** - Trauma (fat necrosis), (Is there any chance you could have been involved in a RTA?) - Fibroadenoma - Breast cancer - Breast abscess (Fever, breast feeding) - Mastitis - Cyclical mastalgia (Do you normally get lumpiness or pain in the breast?) - Usually in both breast.
- **Systemic Review**
- **PMAFTOSA**
- **ICE**
- **Summarize**
- **Examine your breast** - Observation - Breast - Lymph nodes **!** Axillary group of lymph nodes. **!** Clavicular group of lymph nodes (Infraclavicular and Supraclavicular)
- **Explain the findings:** mass
- **Management:**
  Diagnosis: There are few causes of lumps in the breast - it could be benign swelling in the breast and yes sometimes it could be serious or cancer
  EVE protocol: I can understand why you are concerned, any normal person in your position would be worried.
  Refer to the breast specialist
  - Urgent referral to the breast surgeon. They will see you within 2 weeks.
  - **I think we should see the breast specialist**. I will refer you to the breast specialist to-day. This is a cancer service but not everyone who is being referred to the cancer service ends up having breast cancer.
  - **The specialist will** examine, perform investigations like USS and Mammography (special X-ray of the breast) and they may as well take a biopsy of the breast (Insert a needle in the breast and get a sample from the lump and send it to the lab for further investigations).
  - **Treatment** depends on what they find in the investigations.
  - **The offer information on what will happen** when you go to the specialist. You can also take a friend or relative.
  - Safety Netting – If you do not get the appointment within 2 weeks, you need to come back (if urgent) and they should get their appointment date within the next 28 days (if non-urgent), you can come back or complain. Also, if your symptoms change, you need to come back (this, too, is for non-urgent).
- **Leaflet**
- **Address Concerns –** Anything else?

Vignette - Fibroadenoma

Junior doctor in Family Physician Clinic. 24 YO female has made an urgent appointment to see you. Talk to the patient and address her concerns.

Patient Information – Doctor, I need urgent referral. She went to the emergency apartment where they told her to go to the Family Physician Clinic who will refer you to breast surgeons. Her aunt died of breast cancer 6 months after diagnosis. She felt a lump in the breast. Her last menstrual period was 3 weeks ago. She is otherwise fit and well.

Questions – Will you give me an urgent referral? Do you think it is cancer? The patient is very anxious.

- **GRIPS Type 3** – Sometimes, an urgent referral is required but I need to examine you before I can't do that and also, know where to refer you.
- **History of Lump of Breast**
- **Differential Diagnoses**
- **Risk Factors**
- **Systemic Review**
- **PMAFTOSA**
- **ICE**
- **Summarize**
- **Examine the Breasts** – Mentor will give you the findings on a piece of paper. There is a lump 1 by 1 cm in diameter which is thin, mobile, smooth and well-defined in the upper outer quadrant of the left breast.
- **Explain the finding to the patient –** There is a lump in your breast. It is most likely a fibroadenoma, which is a benign tumor. Then explain fibroadenoma like the findings. This is unlikely to be cancer.
- **Referral to Breast Surgeon -** I will refer you to the breast surgeon but this is unlikely to be cancer. So, I will refer you non-urgently. They will see you within 18 weeks which is the max duration. You will know in 28 days about the date of your appointment. I will refer you today.
- **Safety Netting**

Vignette – Benign Breast Disease Or Cyclical Mastalgia

Junior doctor in Family Physician Clinic. 18 YO lady has made an urgent appointment to see you. Talk to the patient and address her concerns.

Patient Information – She has a pain that appears before periods and improves when they start. She also has lumpiness in the breasts. Her cousin was diagnosed with breast cancer 3 years ago.

Questions – Do you think it is cancer? What are you going to do for me?

- **GRIPS**
- **History of Lump**
- **Differential Diagnoses**
- **Risk Factors**
- **Systemic Review**
- **PMAFTOSA**
- **ICE**
- **Effects of Symptoms on Life**

- **Summarize**
- **Examine the Breasts –** Will be known. You will not find a lump.
- **Explain the Findings –** Explain Cyclical Mastalgia. Symptoms associated with the menstrual periods. This is a benign condition.
- **Management**
  - No referral Assure that there is no serious underlying problem that is, there is no concern. So, advise – Wear a better fitting bra during the day and a soft comforting bra at night. Do not wear a very tight bra, just a relaxing one.
  - Offer analgesia – Take paracetamol regularly when the pain starts.
  - Diary – Keep a pain and lumpiness diary so that you know the duration of the lump in relation to the menstrual period. Also, note the type and severity of pain at each day of the whole duration. Write down any analgesia that you take and how your pain responds to the analgesia.
  - Follow-up – 3 months' time. Then tell her we will see how you cope. If the measures do not help and the symptoms do not improve, we will refer you to the specialist. For now, it is not needed.
  - Safety Netting – Come back if symptoms change.

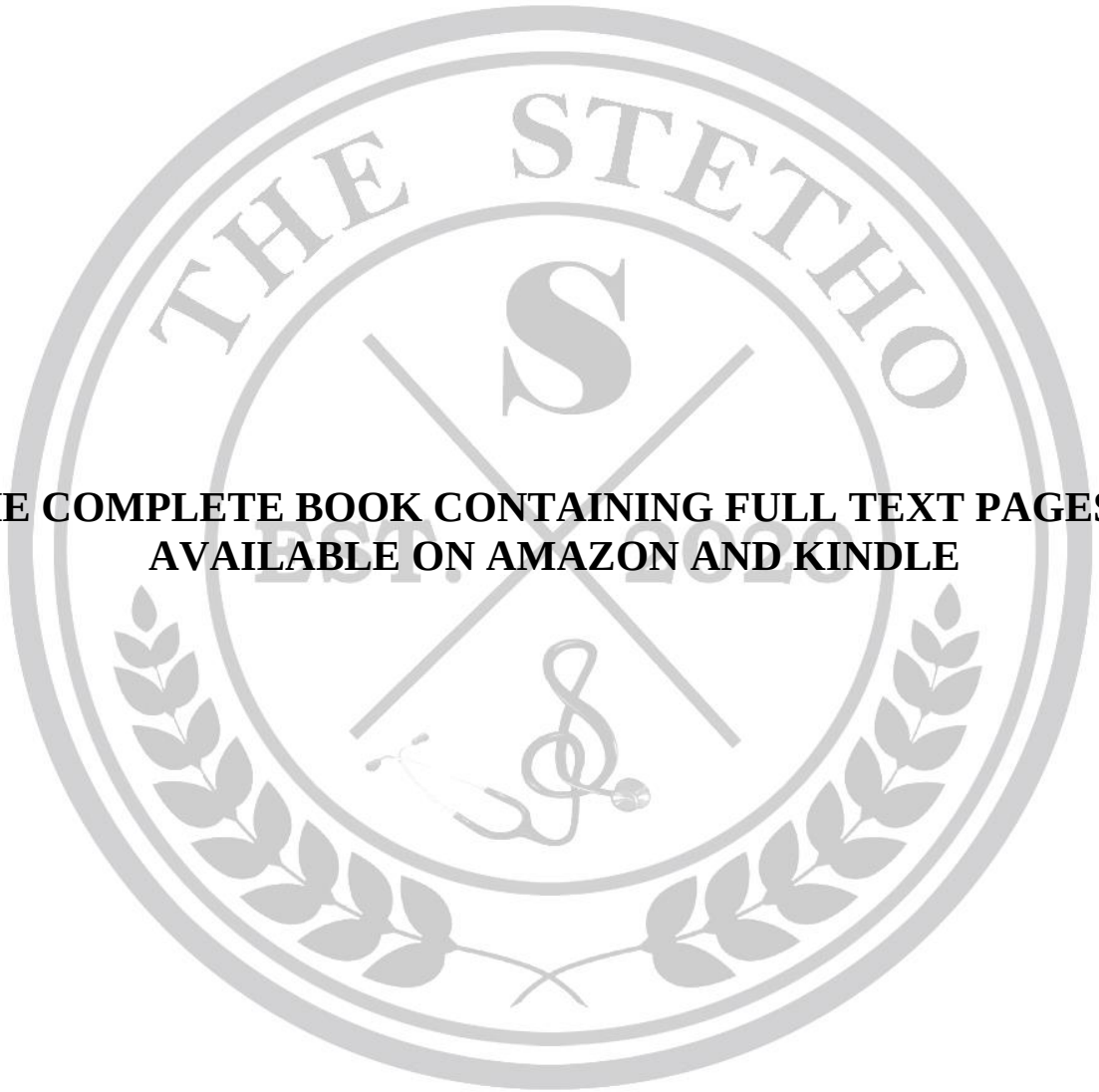
Vignette – Breast/Nipple Discharge

You are Junior doctor in Family Physician Clinic. 52 YO female has asked to see you urgently. Talk to the patient and address her concern.

Patient information – Nipple discharge from the last 2 months. It is getting worse. The colour is creamy, discharge looks like cheese. It stains the bra and is on the right breast. She has 2 children and her last menstrual period was 12 months ago.

Questions – Is it cancer? When will I see the surgeon?

- **GRIPS Type 3**
- **History of Discharge –** Duration, colour, smell, anything that makes it better, one or both breasts, bilateral or unilateral, any lump and pain in your breasts.
- **Differential Diagnoses** – Breast cancer, Duct Ectasia (Green yellow creamy), Intraductal Papilloma (clear discharge), Duct Papilloma (blood stained), Intraductal Carcinoma (clear discharge), Galactorrhea (milky discharge), Breast Abscess (purulent discharge), Paget's Disease (eczema like changes around nipples).
- **Risk Factors**
- **Systemic Review**
- **PMAFTOSA**
- **ICE**
- **Effect of symptoms on Life**
- **Summarize**
- **Examine the Breasts –** Will be normal with no findings.
- **Explain findings/Diagnosis –** Most likely she has Duct Ectasia. It is caused by dilation of mucus ducts causing this type of discharge. It is a benign condition, not cancer.
- **Management**
  - Refer urgently to a specialist – Explain the whole referral.
  - Treatment – They may perform surgery to remove the ducts if it is causing a lot of problems for you.
- **Leaflet –** About referral. (Only give leaflets about the disease if you are sure about the diagnosis)



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