

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

History Taking & OSCE Examination

Introductory Course for Fourth Year Medical Students

Edited by

Hanan Mansour

Reviewed by

Abdallah Beano

Abdallah Mansour

Rema Al-Jondi

Abeer Yassin

Eman Sadaqa

Suha Abu-Khalaf

Sahar Almustafa

Ala'a Azzouqa

Anas Al-Bawaliz

Doua'a Sallam

Fadwa Al-Qadi

Basma Al-Nashash

Shatha Dmour

Mohammad Zmaili

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Preface

OSCE is the abbreviation of “Objective Structured Clinical Examination”. This examination tests your clinical skills in gathering medical information from patients by history taking and physical examination. It is structured around a differential diagnosis of the presenting complaint; which is the systematic method of diagnosing a disorder (e.g., headache) that lacks unique symptoms or signs.

OSCE is made up of few stations; in each you spend few minutes (around 5 mins usually) to gather the medical information required. Questions are easy to answer if you had studied them and come in short statements. The exam is done on models usually (your colleagues) not true patients. You are obligated to comment on each step as you proceed along the examination. An examiner will be present in the room, but he’s not supposed to talk neither instruct you through those 5 minutes ... so don’t try to ask for his help, he’s is present to assign you a mark only. 5 minutes may seem short time, actually they are not! ... 5 mins will be enough Insha’a Allah to answer the provided question if you used them wisely. Don’t panic, Don’t hesitate making ‘mmmm’ or ‘ahhhh’, and be polite. Self-confidence and clear voice are essential to master this exam.

Preparing for OSCE requires daily practice. Don’t leave its study for the last week of the semester. Try to practice one new physical examination skill each day, because practice is the key to master any skill. Never be satisfied with your skills, try always to improve and fine tune them up to professionalism.

This dossier is intentionally made for daily-life clinical practice, to make your understanding of the provided topics more comprehensive. I’ve intension to make an exam night review version, asking Allah to give me good well and time to manage that. The dossier is the gather of practice and learning from residents and colleges plus reading OSCE books and websites, but in the core is based on Macleoad’s Clinical Examination Book 12th edition.

I highly recommend that you build a good relationship with Macleoad’s book; I think of it as the heart of clinical books.

For any suggestions to improve the contents or the design, please contact me on; <http://www.facebook.com/hananmnsr> or email me on; hanan.ju@gmail.com
Your suggestions are welcomed 😊 may Allah bless you

Acknowledgement

I am grateful to all those medical students who helped or contributed once in the past for making OSCE dossier; for ours being a continuation of theirs. I would like to thank MD. Mai Al-toos, my introductory course instructor, for her tolerance, encouragement, and dedication for teaching.

I greatly appreciate the work of the reviewers named, that was precise and of value to develop the content of this dossier. Finally, with a heart full of gratitude, I would like to thank our medical committee, named Saleh Roman, Anas Al-bawaliz, Abdallah Mansour, Belal Abu-hazem and Bara'a Al-sharqawi, for their giving and support through those hard years of medical school.

I am and all my work is the fruit of my parents, for whom I'm grateful to the end of my life, and for whom I dedicate this work.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
(فَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ خَيْرًا يَرَهُ ﴿٥٤﴾ وَمَنْ يَعْمَلْ مِثْقَالَ ذَرَّةٍ شَرًّا يَرَهُ)
سورة الزلزلة – الأيتان 7 و 8

اللهم تقبل أعمالنا خالصة لوجهك الكريم، واجعلها ثقيلة برحمتك في ميزان حسناتنا، وبارك اللهم في هذا العمل وانفع به الناس...
أمين

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1

History

Gathering Information

|| ___ Patient profile:

- Patient's name, age, sex, marital status, address and job
- Place of admission (floor, ICU, CCU, burn unit...etc)
- Source & time of referral (OPD, ER, other hospitals...etc)
- Source of history (patient himself, relative, healthcare worker...etc)
- History taken by who, time & date of history taking

|| ___ Presenting/ chief complaint:

- The major problem in the pt's own words with its duration.
Ex. cough of 3 days prior to admission, knee pain of 3 years duration ... etc
- Do **NOT** use medical terminology.
Ex. use shortness of breath instead of dyspnea, vomitting of blood or dark vomitus instead of hematemesis, abnormal shaking movements instead of tremor... etc
- Clarify what the patient means by any term he/ she uses; avoid jargons!
Ex. if the patient says he has a "funny feeling in his head", clarify by asking "What do you exactly mean by "Funny feeling in your head"?"
- The chief complaint must be precise and concise

|| ___ History of presenting illness:

- It's an analysis of the presenting complaint
- Involves active listening & reflection:

Let the patient tell his own story, summarize what you have understood and ask for further clarification.

– For any presenting complaint (typically pain but can be applied to ANY complaint with some modifications) describe 'SOCRATES':

1. Site; localized or generalized.
2. Onset; gradual, sudden, abrupt. Mention associated circumstances (ex. Playing football, watching TV, getting off bed...etc).
Always begin with asking "What were you doing when the problem started?" the answer will reveal many details about the onset and the accompanying circumstances.
3. Character; sharp, dull, burning, tingling, boring, stabbing, crushing, tugging...etc
It's preferred to use the pt's own description rather than offering suggestions.
4. Radiation
الألم يبيضرب/ بينتقل/ يبسمّع لمكان آخر في جسدك؟؟ أو يبقى مكانه؟؟
5. Associated symptoms
usually ask about nausea, vomiting, fever, chills (فتشعريرة)/ rigors (ارتجاج الجسم من البرد), weight loss, headache, sweating, cough or any other related symptoms and explain them briefly
6. Timing; duration, course, and pattern. Either episodic (give duration & frequency) or continuous (describe change in severity along a specified time coarse like a day or a week)
7. Exacerbating and relieving factors;
is it exacerbated by movement, light, sound ...etc
is it relieved by rest, darkened room, pain killers, ... etc
8. Severity; using a scale of 10 where (0) no pain and (10) maximum pain similar to toothache or pain of labor.
An alternative way to assess the severity is to ask if the pain woke the patient from sleep (very severe), did he come to the hospital driving and if he is capable of doing activities of daily living (not very severe), you can comment "the pain was severe enough to wake the patient from sleep"...etc

ask following SOCRATES, but write in history as follows; character, then site and radiation, then onset and timing, then severity, then exacerbating and relieving factors, finally associated symptoms with brief description for each... this way is more logically synchronous for listener to follow up with you

- Previous history of similar complaint. If present define change from current one.
 - Include review of the system of the presenting illness
i.e. if the pt has cough, you must mention review of respiratory system.
 - Include other parts of the history **if relevant**
ex) smoking status, family Hx, travel Hx,...etc
 - Write down investigations which were done for the presenting illness, and medications given before admission – as in the ER
 - Explain what happened to the pt from the time he sought medical advice to the current time
 - At the end of the conversation, summarize the main points mentioned by the patient back to him, giving him the chance to correct or add anything [active listening & reflection!!]
 - Effects on lifestyle ‘**FIFE**’
Feelings related to the illness
Ideas on what is happening to him
Functioning in the terms of impact on daily life
Expectations of the illness and you the doctor; modern medicine may be unable to cure the problem, and the important issue is what you can do to help a pt to function
- [[it's preferred to avoid this section of history (FIFE) at fourth-year level, because this will probably provoke patient's feelings you are not trained to deal with them]]
- Example (of SOCRATES modification);
whenever the patient says that he has feeling of hotness you have to ask him;
1- duration **2-** documented or not and if documented ask about the degree and the route by which it was measured (orally, rectally ...) **3-** onset (gradual or sudden and the rate of development **4-** continuous or intermittent or if it has a specific pattern **5-** associated symptoms (chills, rigor, sweating, night sweating...) **6-** exacerbating and relieving factors **7-** timing and diurnal variations

|| ____ Systematic enquiry (review of systems):

1. General:

- | | |
|--|-------------------------------|
| >well being whether good or poor | in size of clothing |
| > appetite whether good or poor | > energy whether good or poor |
| > weight change; whether recorded by measuring weight or perceived by change | > sleep whether good or poor |
| | > mood whether good or poor |

2. Cardiovascular system:

- > Chest pain; ask SOCRATES
- > breathlessness;
(a) on lying flat (orthopnea); ask for number of pillows, and what happens if he lay flat.
أول ما تنام على ظهرك تشعر نفسك مخنوق و كأنك عم تغرق؟!
(b) At night (PND); ask at which time wakes him up at night
بتصحى بالليل بتحس حالك مخنوق و بدك هو؟؟
(c) on minimal exertion; ask about type of exercise; walking to car or bathroom, dish washing...etc or determine distance in meters, stairs etc.

3. Respiratory system

- > SOB (exercise tolerance)
- > cough; ask about its sound, dry/productive, timing (daytime/ nocturnal), associated features, exacerbating & relieving factors
- > wheeze; on inspiration or expiration, persistent or not

4. Gastrointestinal system:

- > Mouth;
oral ulcers (painful/ painless, recurrent/not), dental hygiene or recent dental procedure
- > difficulty swallowing (dysphagia);
determine if for solids or liquids, and occurring at which level (ask the pt to point!)
- > Painful swallowing (odynophagia)
Make sure that the patient means either odynophagia or dysphagia as they may mix between them! Ask: Is it pain that stop you from swallowing or you just can't swallow??

- > Palpitation; ask pt to tap out with his fingers for rate and rhythm, onset & termination (abrupt/ gradual), precipitating factors (e.g. coffee, exercise, emotional stress), frequency and duration of episodes, whether they're exacerbated or relieved by exercise
بتحس برفة/ خفقان بقلبك؟؟ أوصفلي ايياها.
- > Pain in legs on walking (claudication), ask about distance that provoke pain, and if pain relieved on rest, unilateral or bilateral, and location
- > ankle swelling; ask if persistent or comes and goes

- > sputum production; ask about its type (serous/ mucous), amount, color (purulent/rusty), timing, smell, solid material.
- > hemoptysis; ask about its volume and nature, duration and frequency
- > chest pain due to inspiration or coughing

- > Nausea & vomiting;
describe vomitus in terms of color, amount, content (intact or digested food), projectile or not
- > hematemesis
- > indigestion (عسر هضم)
- > heartburn حرقة برأس المعدة؟؟
- > Abdominal pain; ask SOCRATES
- > change in bowel habits; increased or decreased frequency of passing stool.
Mention normal stool habit.
- > Change in color of stool; pale, dark, tarry black, fresh blood
- > change in stool consistency.

5. urinary system

- > pain passing urine (dysuria); state if at beginning or end or throughout urination
- > urgency & frequency (at night; nocturia)
- > hematuria

- > incontinence (stress/ urge)
- > libido; state if impaired
- > multiple sexual partners (unprotected intercourse)

6. Genital system:

[always begin with apologizing about the following questions but emphasize the importance of asking such question in reaching the specific diagnosis , usually patients won't mind answering these questions if you had a good approach.]

>for men 'if appropriate!!'

Prostatic symptoms; hesitancy, poor stream or flow (Is the urine stream weak that it spoils your clothes?), terminal dribbling, urethral discharge, erectile difficulties.

> For women

last menstrual period (consider pregnancy), timing & regularity of period, abnormal bleeding, vaginal discharge, contraception, if appropriate ask about pain during intercourse (dyspareunion)

7. Endocrine system:

> Heat or cold intolerance

- > Change in sweating
- > excessive thirst (polydipsia)

8. Musculoskeletal system:

- > Joint pain
- > stiffness
- > joint swelling
- > restricted mobility (limited range of

motion in a particular joint)
> falls (explain why the fall occurred, did it cause any medical problems/disabilities etc.)

9. Nervous system:

- > Headache
- > dizziness; vertigo (الدنيا بتلف فيك؟) or light-headedness (شعرت نفسك غير متزن)
- > faints (loss of consciousness) اغماء
- > fits (seizures, abnormal contractions) تشنجات
- > altered sensation; like tingling, pins and

- needles ...etc
- > weakness
- > visual disturbances; like double vision, loss of color vision ...etc
- > hearing problems; like tinnitus ... etc
- > memory & concentration change

10. Others for bleeding diathesis;

- > bleeding or bruising
- > skin rash

|| ____ Past Hx:

- Medical:
chronic illnesses (DEATH; Diabetes, Epilepsy, Asthma, Thyroid, Hypertension) and obstructive sleep apnea, or others as anemia and dyslipidemia ...etc
previous hospital admissions; when, where, why and length of stay
history of blood transfusion; when, where, why, frequency and complications
- Surgical:
when, where, why, complications and anesthesia type and complications
- Obstetrical (for females):
Last menstrual period, age of menarche and menopause, number of pregnancies & complications, type of delivery & complications, any abortion & if a defined cause were given and family planning method.

|| ____ Drug Hx:

- Ask about prescribed drugs, OTC and alternative remedies (herbs ...etc)
- For each medication know name (generic/ scientific), dose, dosage regimen, duration, indication and if any side effects were encountered upon use
- Assess patient compliance; by asking the pt to describe how and when they take their medications, their names, and indication of usage.
***give them permission to admit that they don't take all their remedies by saying 'that must be difficult to remember'*
- Ask about **allergy**, and clarify what the pt exactly means by it; is it simple rash or anaphylactic shock?

|| ____ Family Hx:

- Start questioning by 'are there any illnesses that run in your family'
- Document illness or age of death in first degree relatives (parents, sibling, children)
- If there is a suspicion of an inherited disease go back for three generations & obtain details of racial origin, consanguinity or adoption
- Inquire if any family member suffers similar complaints as the pt.
- ***Draw a pedigree chart***

|| ____ Social Hx:

Understand your patient's personal constraints and support. Patients may ask why these questions are being asked, so you have to explain how every question is related to the patient's case/ complain.

- **Lifestyle:**
exercise, diet, marriage, homing (owned/ rented, living at which floor & if living with others), hobbies, pets
- **Occupational Hx:**
current & previous occupation, exposure to hazards, unemployment (reason & duration), attitude to job
- **Travel Hx:**
when, where, observations after return, type of accommodation, activities undertaken
- **Sexual Hx (Only when relevant):**
casual relationship; regular sexual partner (male/ female), irregular (how many in the past year, whether male/ female)
- **Tobacco & hubble-bubble (water pipe):**
ever smoked; how long, what type, how much (use pack years = (no. of cigarettes smoked per day* years) / 20)... classify as current smoker vs. x-smoker
ask non-smoker about exposure to smoke at work or home (passive smoking)
- **Alcohol:**
amount and type of drink, daily/ weekly pattern of drinking, usual place of drinking, alone or accompanied, purpose, amount of money spent on alcohol, attitude to alcohol (CAGE; cut down, annoyed, guilty, eye opener)
state whether drinks or doesn't drink alcohol [**don't say not alcoholic**]

calculate units drunk per week;
1 unit = 25 ml of 40 % alcohol = 10 ml of ethanol
X % = X units of alcohol / L
- **Hx of vaccination**
ask if fully underwent national vaccination program at school. For travelers, ask about boosters taken before travel. For health care workers, ask about hepatitis B vaccine and influenza vaccine.
- **Religion**
- **Drug abuse**
- **Insurance system ***** very important to ask

History Taking Technique

(for medicine and surgery rounds)

1. Prerequisite:
Introduce yourself, ask for permission, and ensure conversation is private.
2. Take Patient profile.
3. Ask about chief complaint and its duration.
4. Define complaint and establish the cause using a mind-built list of differential diagnosis.
5. Inquire about the presence of previous similar complaints, if present compare to the current one.
6. Establish risk factors.

[[Any disease can be inquired about using the aforementioned steps. So, in your medicine and surgery rounds that will come try to build your studying of history taking using those step, you will find it very helpful and easier to remember enshallah]]

At the end of the dossier you will find a **History taking form**, my suggestion is to use it for a month so as to memorize it then to leave it and start taking history by your own

2

Physical Examination

The Settings of the Physical Examination and General Rules

|| ___ Settings at each station:

- Greeting (السلام عليكم ورحمة الله وبركاته)
- Introduce yourself (اسمي، طالب\ة طب سنة)
- Address patient by name, 'also if possible by date of birth and file number'
- Ask for permission and be specific (.... ممكن افحص بطنك، صدرك،)
- Wash your hands with water and soap or ask for sterillum
- Examination room should be;
 1. Private
 - Ask for chaperone if to examine female patients, tactfully ask all relatives to leave the place.
 - Parents should always be present when you examine children.
 2. Warm
 3. Well lit (prefer sunlight)Comment by saying (There is adequate privacy, warmth and illumination)
- Exposure;
 - o Seek permission before exposure and be specific.
 - o Expose the specified area only and **cover the rest of the pt's body** with a blanket to ensure the pt doesn't become cold!!
 - o Re-cover the pt's body before commenting on the examination
- Position of the pt
- Position of the examiner
- Thank pt when you finish examination (😊 شكراً جزيلاً ... جزاك الله خيراً)

|| ___ **Don't speak in English with your pt**, unless he can understand english

|| ___ **How to assess consciousness and orientation (in time, place, and person)**

[this is a simplified examination, as you go further in your neurology study Inshallah you would be given detailed examination of consciousness and orientation under cognition tests]

Conscious >> Spontaneous eye opening

Oriented in time >> في أي وقت نحن الآن من اليوم؟

Oriented in place >> أين أنت الآن؟

Oriented in person >> من أنا؟ أو هل الشخص الذي يجلس بجوارك قريبك؟

|| ___ **Rules of inspection:**

- Don't touch the pt
- Look from all angles to all sites (i.e. rotate your head around the pt's body)

|| ___ **Rules of palpation:**

- Ask for permission
- Ask for any site of pain and leave its examination to the end; if you provoke additional pain, pt will refuse completion of examination.
- Warm your hands very well by rubbing them to each other.
- Maintain eye-to-eye contact **throughout** palpation ***Students often miss this point!*

|| ___ **Rules of percussion:**

- Make sure to percuss using the correct maneuver

I.e. use the tip (not pad) of right middle finger to tap the dorsal surface of left middle phalanx of middle finger, swinging your hand at the wrist joint with elbow held still
- Assess symmetry: whenever you percuss a point, percuss the point opposite to it on the other side of the midline i.e. in a **zigzag pattern**.

|| ___ **Rules of auscultation:**

- **Warm head of stethoscope** before putting it on the pt's body
- Assess symmetry: whenever you auscultate a point, auscultate the point opposite to it on the other side of the midline i.e. in a **zigzag pattern**.

|| ___ Examination of System Vs Organ Vs examination for a disease:

- Examination of a system;
when you are asked to examine a specific system (as for example gastrointestinal system), first fulfill the settings, then do first impression and go through all parts of the specified system to be examined
- Examination of an organ;
here you examine a specified organ (as for example the abdomen), first fulfill the settings, then go directly to examine the specified organ without going through first impression, nor vitals, nor hands nor face
in the settings of an OSCE examination, you may be even asked to do part of an organ examination only (as for example to auscultate the abdomen)
- Examination for a disease;
if you were asked to examine a patient for a specified disease (as for example jaundice), you need to look for signs of this disease all over the patient's body taking in consideration any system affected by the disease, plus looking for clues of possible causative conditions (as in this example signs of chronic liver disease, liver failure, hemolytic anemia and obstructive causes)

|| ___ Whenever you are asked to examine a paired part in the body, compare it to the other side

Ex. If you were asked to examine a limb in one side, compare it to the other side limb.
If you were asked to examine right eye, compare to the left eye
If you were asked to examine right breast, compare to the left breast ... etc

[I.e. for symmetry vs. asymmetry]

|| ___ Make it a story, and build your own MINDMAP to memorize the examination sequence and details. Don't try to memories the examination in a similar way as a robot does, not making connections between points. Be smart by doing categorization and nested lists.

The general examination

||__ First impressions

[When u see a pt, u first look at his face, smile at him and shake his hand, then look to general body demeanor, clothing and skin complexion... pull a chair to sit on beside the pt and try to take a deep breath smelling him for any recognizable odor] كُنْ لِمَا حَاً ☺

- Describe the pt body position when you first saw him
 - Ex) the pt was sitting in a chair, lying flat on his bed, sitting at the edge of his bed, standing, leaning forward...etc
- Connections
 - Ex) connected to IV fluid line, has a cannula in his right hand, connected to a Foley's catheter, on an oxygen mask ...etc
- Handshake;
describe whether the hands upon handshaking were hot/cold, dry/sweaty, large and fleshy, delayed relaxation of grip, deformed hands/ fingers...
- Facial expression and general demeanor
mention whether the pt maintain eye-to-eye contact or not, anxious, apathetic, startled, agitated, lugubrious, comfortable, breathless, in pain, cachectic, obese...etc
- Clothing
 - Ex) dirty, baggy, tattoos, MedicAlert bracelet, necklace highlights...etc
- Unusual skin complexion
 - Ex) cyanosed, pale, yellowish, orangish, whitish albino...etc
- Body odors
 - Ex) mousy, fishy, sweet, fetid, tobacco, alcohol, marijuana, halitosis...etc
- Spot diagnoses of a specific disease

[[This skill –first impression- will improve by time, so be patient and DO PRACTICE!]]

||__ Assess this pt VITAL SIGNS

1. Pulse
 - For 1 min, from radial artery by 3 fingers against radius bone
 - Don't focus too much on the watch while counting; so as not to miss count
 - Record in bpm (beat per minutes)
2. Respiratory rate (RR)
 - Take for 1 min; record as breaths/min (1 breath = inspiration + expiration)
 - Ask pt to put his palm hand above his chest; for ease of examination
 - Act as if you're taking the pulse, so that the pt doesn't get anxious affecting the rate of breathing
3. Blood pressure (BP)
 - From brachial artery; bladder of the sphygmomanometer cuff over brachial artery, pump of the sphygmomanometer on radial side (thumb side)
 - Measure blood pressure bilateral, in supine and standing positions
 - If you can't take standing take it sitting with legs hanging out of examination couch
 - Record in mmHg, which arm were used, in which body position (supine/ standing)
4. Temperature (Temp)
 - Use a thermometer; oral, axillary, or rectal
 - For oral; put under tongue, ask pt to close on it by lips, leave for at least 3 min
 - Record in degree Celsius (°C)
5. Body mass index (BMI)
 - Weigh pt and take his height
 - Record in kg/m²

||__ Examine this pt's HANDS

[[Examine hands bilateral (right and left) unless specified in an exam situation]]

1. Settings Greet your patient, introduce yourself then ask for permission to examine his hands
Wash your hands. Ensure adequate privacy, warmth and illumination of the room.
Tactfully expose patient's hands up to the elbow, remove any jewelry.
Put a cushion under the pt's hands and then stand on the right side of the pt.

2. inspection	<p>Look for dorsal then palmer aspects of the hand then between fingers</p> <p>At the dorsum, look for:</p> <ol style="list-style-type: none"> 1. Swelling 2. Scars 3. Polydactylysm 4. Flexed hand deformity 5. Arachnodactyly 6. Tobacco (tar) staining 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. swelling 2. scar 3. polydactylysm 4. arachnodactyly 5. flexed hand deformity 6. Dupuytren's contracture 7. Single palmer crease 8. Palmer creases pigmentation 9. Tobacco (tar) staining 10. venipuncture marks 11. fungal spores 12. Palmar erythema
	<p>At the palm, look for:</p> <ol style="list-style-type: none"> 1. Swelling 2. Scar 3. Flexor surface of the wrist and forearm for venipuncture marks 4. Single palmer crease 5. Palmer creases pigmentation 6. Dupuytren's contracture 7. Palmar erythema 	
	<p>Ask pt to abduct fingers and look in between for fungal spores</p>	
	<p><u>Skin</u> normally hair is only present on the dorsum of the hand and the proximal phalanx</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Hair 2. Callosities
	<p><u>Nails</u> examination for finger clubbing requires doing 3 maneuvers</p> <ol style="list-style-type: none"> 1. look from lateral side of the finger for loss of normal angle between nail and nail bed, and increased nail curvature 2. fluctuation of nail bed 3. nails of opposite hands against each other, for clubbing there is loss of space 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. cyanosis 2. koilonychia 3. leukonychia 4. Beaus' lines 5. splinter hemorrhages 6. onycholysis 7. dilated capillaries in the proximal nail fold 8. Finger clubbing;

	<p><u>Soft tissues</u> *Wasting of both thenar and hypothenar eminencies present as flat palm. *Muscle wasting of intrinsic muscles of the hand present as dorsal guttering.</p>	<p>Comment on: Muscle wasting of thenar, hypothenar muscles, and intrinsic muscles of the hand</p>
<p>3. palpation</p>	<p><u>General rules of palpation:</u> Ask for permission to put your hands on the pt. Ask for any area of pain & examine it last Warm your hands up & maintain eye-to-eye contact throughout examination</p> <p><u>Assess temperature</u> Using the dorsum of your hands; as your palm is mostly sweaty and hot so will not give you a good perception of examined hand temperature. Always compare both hands and different levels of the same hand</p> <p><u>Tendons</u> Flexor and extensor tendons (as mentioned in MSS examination of the hand)</p> <p><u>Joints</u> MCPJs, PIPs, DIPs (as mentioned in MSS examination of the hand)</p>	<p>Comment on: 1) Tenderness, Masses, skin texture 2) temperature 3) tendons 4) joints</p>
<p>4. maneuvers</p>	<p><u>Tremor or any abnormal movements</u></p> <ul style="list-style-type: none"> – Fine tremor; arms extended, hands extended and pronated (you may put a sheet of paper above the dorsum of hand observe for shaking of the paper) you may not use the paper if the hands are obviously shaking – Flapping (coarse/ asterixis); hands extended and pronated at wrist, ask pt to dorsiflex hands and maintain, look for abnormal movements # you can also look for asterixis by asking the pt to squeeze your index and middle fingers and maintain this for 30-60 s. pt with a flapping tremor can't maintain this posture – Others; like resting tremor (pill rolling of Parkinson)...etc 	<p>Comment on: 1) Fine tremor 2) Flapping tremor 3) Resting tremor</p>

||__ Examine this pt's TONGUE

1. Settings Greet your patient, introduce yourself then ask for permission to examine his tongue.
 Wash your hands. Ensure adequate privacy, warmth and illumination of the room.
 Tactfully ask patient to open his mouth for you to see his tongue, use a pen-light torch for better view, and then stand opposite to the patient from front.

2. Inspection	<p>Ask the pt to open his mouth, look to his tongue while inside, then ask the pt to put out his tongue, move it right and left, and to touch his palate with the tip of his tongue.</p> <p>Tongue fasciculation is examined while the tongue is inside the mouth</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1) Tremor 2) Fasciculation 3) Macroglossia 4) Tongue furring 5) Geographic tongue 6) White patches 7) Glossitis 8) Central cyanosis
3. Sensory examination	<p>Facial and glossopharyngeal nerves are responsible for taste sensation of the tongue, examine by allowing pt to taste different types of food. It's of importance that pt can sense difference of food taste rather to exactly name it.</p> <p>Trigeminal nerve is responsible for touch sensation of anterior two-thirds of the tongue; ask the pt to open his mouth, close his eyes, and to make a sound each time he feels a thing touching his tongue. Do it twice at each tongue halves (once left, another right)</p>	<p>Comment on:</p> <p>Tongue sensation of touch and taste</p>
4. Motor examination	<p>Hypoglossal nerve examination; as mentioned in CN XII examination in nervous system.</p>	<p>Comment as in motor exam of CN XII</p>

||__ Examine the LYMPH NODES

1. Settings Greet your patient, introduce yourself then ask for permission to examine the specified lymph node area
 wash your hands. Ensure adequate privacy, warmth and illumination of the room.
 Tactfully expose the area of interest and its drainage territory
 Position of pt and examiner varies from LN to another

2. Inspection	Look for visible lymphadenopathy	Comment; no/visible enlargement at the site of the lymph nodes of examination
3. Palpation	<p><u>General rules of palpation:</u> Ask for permission to put your hands on the pt. ask for any area of pain & examine it last warm your hands up & maintain eye-to-eye contact throughout palpation</p> <p>Lymph node: Palpate one side at a time using the pad of your finger ,compare with the nodes on the contralateral side</p> <p>Assess; Site, size, consistency, tenderness</p> <p>Determine whether the nodes are fixed to;</p> <ul style="list-style-type: none"> • Surrounding and deep structures; by moving it along X and Y axis if overlying a muscle (ex sternomastoid) put the muscle into action and assess mobility thereafter, if still palpable then it's not fixed to the muscle. • Skin; by pinching a skin fold over it. 	<p>Comment;</p> <p>Enlarged LN; located at....., it's cm in diameter, hard/ soft/ rubbery/ matted in consistency, non/ tender, not fixed/ fixed to underlying tissue and/ or skin</p> <p>If no enlargement comment; no palpable LN and no tenderness</p>
	Drainage territory	Comment; no/a swelling/ wound/ inflamed area has been detected along drainage territory

Cervical LN:

- Pt sitting, using 3 fingers in a rotational movement
- Examiner position and LN group examined;
From behind;
 - submental, submandibular, pre-auricular; both sides can be palpated simultaneously.
 - tonsillar, deep cervical nodes in the anterior triangle, supraclavicular, and scalene; palpate each side at a time.

Scalene by placing index between the sternomastoid muscle and clavicle, ask pt to tilt head to the same side and press firmly downwards toward the first rib.

From front;

posterior auricular, occipital, deep cervical of posterior triangle; both sides can be palpated simultaneously.

Axillary LN:

- With the patient seated, position yourself in front of him or to his side, and abduct his arm and support it with your ipsilateral hand. Palpate with the finger tips of your contralateral hand. E.g. if the right was to be examined, your right hand will support the patient's arm and you'll palpate with your left.
- Apical, medial, anterior, posterior and then lateral groups;
Compress the LN of the anterior and posterior groups against the anterior and posterior axillary fold, respectively.

Epitrochlear LN:

- Pt sitting, elbow partially flexed, wrist supported with contralateral hand, use thumb of ipsilateral hand to palpate medial aspect of the elbow

Inguinal LN:

- Pt lying supine
- Palpate over the horizontal chain (just below and parallel to inguinal ligament) and vertical chain (along the saphenous vein)

Popliteal LN

- Pt lying supine
- Palpate under the knee in the popliteal fossa

||__ Examine this LUMP (or this SWELLING)

1. Settings

Greet your patient, introduce yourself then ask for permission to examine his lump
wash your hands. Ensure adequate privacy, warmth and illumination of the room.
Exposure and position depends on the lump location

2. Inspection [4S];

Describe **Site**, **Shape**, **Size** and **Skin** overlying the lump

3. Palpation [TT CS FAP light];

General rules of palpation:

Ask for permission to put your hands on the pt.

ask for any area of pain & examine it last

warm your hands up & maintain eye-to-eye contact throughout examination

1. **Tenderness**

2. **Temperature**; using the dorsum of your hand

3. **Consistency**; soft/hard

4. **Surface and edge**; whether surface is smooth/nodular. And whether the edge is; well delineated/ ill defined, regular/irregular, sharp/rounded

5. **Fluctuation**; in both axis.

Remember to fix the lump in place with your middle finger and thumb, while doing the maneuver with your index.

6. **Attachment**; to overlying skin or underlying tissues

7. **Pulsation**, thrills or bruits

8. **Transillumination**; using a torch

4. Examine draining lymph nodes

[[This method is of MD. Sameer jab3ete, I find it more logically synchronous than the one in Macleod's. You can follow either]]

||__ Measure this pt WEIGHT AND HEIGHT

1. Settings

Greet your patient, introduce yourself then ask for permission to measure his weight and height

wash your hands. Ensure adequate privacy, warmth and illumination of the room.

measure the pt weight in his in-door cloths barefooted

2. Inspection

1. abnormal stature or body proportions

2. Abnormal fat distribution. Ex) truncal obesity, back hump...etc

3. Evidence of malnutrition or specific vitamin deficiencies

3. Measure pt height in cm

4. Measure pt weight in kg

5. calculate and Record BMI in Kg/m^2

6. measure waist circumference;

1. Pt standing

2. Measure at a point equidistant between the costal margin and the iliac crest

3. Record maximum diameter over any abdominal fat not under it.

7. Calculate waist: hip ratio

Quick info:

We measure waist circumference and hip ratio as part of definition for **“Metabolic Disease”**.

||__ Assess this pt HYDRATION STATUS

1. Settings Greet your patient, introduce yourself then ask for permission to assess his hydration status
wash your hands. Ensure adequate privacy, warmth and illumination of the room.
Tactfully expose the area of interest.
Stand on the right side of the pt

2. First impression	<p>Check for :</p> <ul style="list-style-type: none"> • Consciousness • Orientation • Sunken eyes 	<p>Comment on general appearance of the pt with noting ;</p> <ol style="list-style-type: none"> 1. Consciousness 2. Orientation 3. Presence of sunken eyes
3. Vital signs	<ul style="list-style-type: none"> • Pulse in radial artery of both hands while supine then in one hand while standing. >>in dehydration it is elevated (by 30) unless the dehydration is severe then it's decreased • BP is measured while supine and while standing to check for postural hypotension which indicates vascular volume depletion. >>In dehydration blood pressure is decreased (by 20 systolic or 10 diastolic). • Respiratory rate is increased in dehydration. • Temp >> not measured • BMI not calculated but weight loss is useful in determining the amount of fluid lost if usual weight is known (1 L fluid loss = 1 kg weight loss) 	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Pulse & postural tachycardia 2. BP & Postural hypotension 3. RR 4. Weight loss if usual weight known
4. Hands	<p>We palpate for temperature and determine if they were dry/ sweaty.</p>	<p>Comment if hot/cool and dry/sweaty.</p>
5. Face	<p>Inspect for sunken eyes</p> <p>Inside the mouth for dry mucous membranes or dry tongue (but not very reliable since commonly caused by breathing through the mouth)</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Appearance of the eyes 2. Presence/ absence of dry mucous membranes in the mouth.

6. Neck

<p>Check skin turgor by gently pinching a fold of skin at the manubrium of sternum and holding it for a few seconds then letting it go. If normal it will return to its original state promptly, while in dehydration it's going to take longer time.</p> <p>!! This area is free of subcutaneous tissue, hence being used.</p>	<p>Comment if there is loss of skin turgor or not.</p>
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<p>JVP examination >> JVP is low in dehydration.</p>	<p>Comment on JVP</p>
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<p>Examine axilla for sweating and dryness.</p>	<p>Comment whether the axilla is dry or sweaty.</p>
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7. edema

<p>Examine for sacral edema (in bedridden patients) and ankle edema (in mobilized patients); by applying firm pressure with your thumb for 15 seconds or more. The pressure you apply should be enough to turn your pink nail-bed white.</p>	<p>Comment if there is sacral or ankle edema</p>
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Examination of the thyroid gland function

1. settings Greet your patient, introduce yourself then ask for permission to examine his neck
wash your hands. Ensure adequate privacy, warmth and illumination of the room.
Expose neck and upper chest.
Position the patient sitting upright on a chair and ask for a glass of water
Stand on the Rt side of pt for general assessment then move behind him (posterior
approach) to examine thyroid gland, but ensure to maintain eye contact as possible

<p>2. first impression</p>	<p>Assess consciousness and orientation; coma (acute hypothyroidism), loss of consciousness (severe hypothyroidism) Describe appearance and general demeanor (hyperactive/restless or slow, fat/thin, appropriateness of clothing to weather). Describe facial expression (apathy/startled) & abnormal ticks. Hand shake (temp and sweat; cold & dry in hypothyroidism, sweaty & warm in hyperthyroidism.) Ask the patient to speak and cough</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Consciousness and orientation 2. Facial expression and general demeanor 3. Activity. 4. Hand temperature and sweat. 5. Hoarseness of the voice 6. Bovine cough
<p>3. Vitals</p>	<p>Pulse; tachycardia and atrial fibrillation (hyperthyroidism), bradycardia and first degree heart block (hypothyroidism). <i>Test for collapsing pulse (for Graves).</i> Measure blood pressure, wide pulse pressure (hyperthyroidism) BMI; obese (hypothyroidism), cachexia (hyperthyroidism)</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Pulse Collapsing pulse. 2. RR 3. BP 4. Temperature 5. BMI
<p>4. Hands</p>	<p>Inspect both dorsal and palmar aspects. Test for fine tremors. Test for clubbing (thyroid acropachy). Palpate for temp and sweating.</p>	<p>Comment on :</p> <p>On palmer aspect;</p> <ol style="list-style-type: none"> 1. Muscle wasting which is evident in thenars due to carpal tunnel syndrome in hypothyroidism 2. Temp and sweat.

	<p>On dorsal aspect;</p> <ol style="list-style-type: none"> 3. Hand hair 4. Onycholysis. 5. Onychotillomania (hyper) 6. tremor 7. Digital acropachy (clubbing, digital soft tissue swelling, subperiosteal new bone formation)
<p>5. Face</p> <p>Inspect for:</p> <ul style="list-style-type: none"> • Texture of skin (dry-coarse in hypothyroidism and greasy-sweaty in hyperthyroidism) • Hair loss (occurs in both) or eyebrow thinning (outer 1/3 in hypothyroidism). <p>Assess for eyes manifestations:</p> <ol style="list-style-type: none"> 1. Proptosis by looking at the seated pt from behind and above. 2. Exophthalmos: inferior limbus appears larger than the superior limbus in the eye, measured using exophthalmometer. 3. Lid retraction: superior limbus is visible. 4. Lid lag (ophthalmoplegia) by asking pt to follow your finger as you move it quickly in a downward fashion from a point above the eye 5. Chemosis which is redness of the eye globe. 6. Periorbital edema 7. Corneal damage (ulcers) <p>[1-7 signs of hyperthyroidism]</p> <ol style="list-style-type: none"> 8. Bilateral ptosis (severe hypo) 9. Periorbital myxedema 10. Large tongue <p>[8-10 signs of hypothyroidism]</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Texture of skin. 2. Hair loss & eye brows 3. Proptosis 4. Exophthalmos 5. Lid retraction. 6. Lid lag (ophthalmoplegia). 7. Chemosis 8. Periorbital edema 9. Corneal damage 10. Ptosis 11. Periorbital myxedema. 12. macroglossia

6. Neck
 <<Examine
 thyroid
 gland>>

<p>Inspection [<i>neck hyperextended</i>]</p> <ul style="list-style-type: none"> • Ask pt to swallow water and then look from lateral side of the neck for any moving bulging mass • With the pt's jaw slightly open and ask him to protrude his tongue to note for thyroglossal duct cyst which moves on tongue protrusion (thyroid and goiters don't move with tongue protrusion.) • Use flash light to look at the back of the mouth for lingual goiter. • Do Pemberton's maneuver; ask the pt to abduct both his hands above his head to check for retrosternal extension of the thyroid goiter. if present, it would compress the SVC causing engorgement of the neck veins, a plethoric face, elevated JVP and sometimes even fainting (positive Pemberton' sign) 	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Wounds/ Scars (thyroidectomy scars are cosmetic and difficult to detect) 2. Swellings, nodules or cysts. 3. Redness 4. Any mass that moves with swallowing or protrusion of the tongue. 5. Presence of lingual goiter. 6. Positive or negative Pemberton' sign.
<p>Palpation [<i>neck slightly flexed</i>]:</p> <ul style="list-style-type: none"> • <u>General rules of palpation:</u> Ask for permission ask for any area of pain & examine it last warm your hands up & maintain eye-to-eye contact throughout examination • Rest your hands gently on each side of the lower aspect of the neck between the larynx/trachea and sternomastoid. You should be standing behind the pt. don't use both hands in palpation; use one to push towards the contralateral side and the other to palpate in circular fashion over the thyroid lobe. • While palpating, ask the pt to swallow and comment if any movements occur with swallowing. • Palpate suprasternal notch; if there is retrosternal goiter the suprasternal notch will not be palpable. • Palpate cervical lymph nodes. 	<p>Comment on :</p> <ol style="list-style-type: none"> 1. If thyroid is palpable or not (palpable in 25% of males); if palpable comment on : <ol style="list-style-type: none"> 1. Size and surface (symmetry, smooth or not , nodularity) 2. Consistency (hard or soft) 3. Tenderness. 4. Mobility (Movement with swallowing) 2. Hotness of overlying skin 3. Thrills 4. Non/ Palpable suprasternal notch 5. Cervical Lymphadenopathy

7. limbs	Percuss directly on the manubrium of sternum.	Normally resonant note, dull if goiter reached upper mediastinum.
	Auscultate with diaphragm for bruits over both thyroid lobes which is heard in hyperthyroidism.	Comment if bruits are heard.
	<p>Upper limbs for proximal myopathy; To examine, ask patient to abduct arms to 90 degrees and completely flex his elbows. Ask him to maintain this stature while you apply a downward force against his resistance. (I like to call it chicken position 😊)</p> <p>Lower limbs for;</p> <ol style="list-style-type: none"> 1. pretibial myxedema (non-thyrotoxic graves' disease); which is associated with skin changes of abnormal color, obvious creases and ulceration 2. non-pitting edema (hypothyroidism) 3. proximal myopathy; gower sign <p>Examine tendon reflexes which are exaggerated in hyperthyroidism. In hypothyroidism delayed relaxation is observed.</p>	<p>Comment on;</p> <ol style="list-style-type: none"> 1. proximal myopathy 2. pretibial myxedema 3. non-pitting edema 4. tendon reflexes

Cardiovascular system examination

1. settings Greet your patient, introduce yourself then ask for permission to examine him.
 Wash your hands. Ensure adequate privacy, warmth and illumination of the room.
 Exposure for anterior chest to the umbilicus
 Position the patient in semi recombant position (45° to the horizontal plane).
 Stand at the right side of the pt

2. First impression	Assess; -Consciousness and orientation (CAO×3) -abnormal facial colors -distress or anxiety (restless pt) - hoarseness of voice; suspect ascending aortic aneurysm -Horner’s syndrome occurs with carotid aneurysm	Comment on: 1. Consciousness 2. Orientation 3. Cyanosis 4. Jaundice 5. Pallor 6. Distress or anxiety 7. Horsiness of voice 8. Horner’s syndrome
3. Vitals	Take temperature, respiratory rate and calculate BMI. [leave pulse and BP examination to be examined with arterial pulses]	Comment on; 1. RR 2. Temp 3. BMI
4. Hands	-Inspect then palpate for temperature. -test all 3 maneuvers for clubbing -test for fine tremors by asking pt to hold hands outstretched. -test for flapping tremor; that occurs in the setting of heart failure due to CO ₂ retention.	Comment on: 1. Nails; Clubbing, Splinter hemorrhage, Peripheral cyanosis 2. Tar stain 3. Skin & tendon xanthomata 4. Osler's nodes (painful) & Janeway lesions (painless) 5. Skin temperature 6. Capillary refill* 7. Fine Tremors 8. Flapping tremor

5. Pulses

<p>Radial artery:</p> <p>[Found at the flexor surface of wrist, lateral to the tendon of flexor carpi radialis]</p> <ol style="list-style-type: none"> Count radial pulse for a whole minute on each arm using the pads of your 3 middle fingers of the same hand as the one examined. Comment on rate in beats per min (bpm), rhythm (regular/ irregular), vessel wall (elastic, gently striking my fingers...etc) Check for radio-radial asymmetry by palpating both radials simultaneously Test for radio-femoral delay by palpating radial and femoral arteries simultaneously Test for collapsing pulse by feeling pulse with the palm opposite to your metacarpal heads and slowly raising his arm passively up above his head; ask pt if he has pain in his shoulder. #aka Watson's water hammer pulse is the medical sign which describes a pulse that is bounding and forceful, rapidly increasing and subsequently collapsing, as if it were the hitting of a water hammer that was causing the pulse. It indicates aortic regurgitation Test for pulse deficit by auscultation of apex beat, calculate rate and subtract from radial pulse. # Large deference indicates atrial fibrillation 	<p>Comment on:</p> <ol style="list-style-type: none"> Rate Rhythm Compressibility Radio-radial asymmetry Radio-femoral delay Collapsing pulse Pulse deficit. For volume and character you've to examine large arteries like brachial or carotid.
<p>Brachial artery :</p> <p>[Found in the cubital fossa, medial to the biceps tendon]</p> <ol style="list-style-type: none"> While the patient's elbow is partially flexed, palpate the brachial artery with your thumb and cup the rest of your fingers around the elbow. Use your right hand to examine the right brachial, and vice versa. The pulse must be counted for 1 minute and on the other arm as well. <i>Check for brachio-brachial delay.</i> Pulsus alternans is a beat-to-beat variation in pulse volume, with regular rhythm. Occurs with left ventricular systolic impairment 	<p>Comment on :</p> <ol style="list-style-type: none"> Rate Rhythm Compressibility Volume, Pulsus alternans Character brachio-brachial delay Blood pressure Postural hypotension Pulsus paradoxus.

4. Measure Blood Pressure;
- >>Ask pt if he smoked, drank coffee or soda, or went up stairs just before examination; all those may artificially raise BP... remember that BP changes momentary
- Rest Pt for 5 min.
 - if one arm is known to record a higher pressure use it, otherwise use either arms
 - Center of the bladder should be over the brachial artery, use a proper size cuff (that surrounds 2/3 of arm circumflex)
 - The arm should be rested comfortable, elbow supported at the level of the heart and free of tight clothing
 - Take bilateral readings, in both the supine and standing positions (*sitting with legs hanging down if the patient couldn't stand*)
 - Palpate the brachial pulse as you inflate the cuff. The pressure at which the pulse becomes impalpable is a rough estimate of systolic pressure
 - Inflate cuff 30 mmHg above this value
 - Listen to brachial artery with the diaphragm; decrease pressure of cuff by 2-3 mmHg/s
- >>The systolic pressure is the value at which you start hearing a tapping sound
- >>Diastolic pressure is the pressure at which the sounds completely disappear. In elderly a muffled sounds persists, in which the point of muffling is the best guide to diastolic pressure
- # Postural hypotension is a drop of >20 mmHg systolic or >10 mmHg diastolic on standing, the pt must have been standing longer than 2 mins for it to be pathological
5. Measure BP in one arm while pt holds deep inspiration to test for pulsus paradoxus, a decrease in SBP > 15 mmHg is pathological

<p>Carotid artery: [Felt between the larynx and the anterior border of sternomastoid below the angle of the mandible]</p> <ol style="list-style-type: none"> 1. Measure carotid pulse on both sides using your <i>contralateral thumb</i> of the side examined. <i># Never assess both carotids simultaneously; as it may cause those with carotid sinus hypersensitivity to faint.</i> 2. Listen for carotid bruits using bell while pt holds his breath over the carotid bifurcation at level of superior border of the thyroid cartilage. 	<p>Comment :</p> <ol style="list-style-type: none"> 1. Rate 2. Rhythm 3. Compressibility 4. Volume 5. Character 6. Bruits.
<p><i>Examine lower limb pulses if asked to examine pulses alone</i></p> <p>Femoral artery: [Felt below the mid-inguinal point, half way between the anterior superior iliac spine and symphysis pubis; lateral to the femoral vein and medial to the femoral nerve. Use your middle and index fingers]</p> <ol style="list-style-type: none"> 1. Check for radio-femoral delay 2. Listen for bruit <p>Popliteal artery: [Deep in the popliteal fossa, thumbs pushing against tibial tuberosity, finger tips pushing deep behind knee]</p> <p>Posterior tibial artery: [2 cm below and posterior to medial malleolus, against calcaneus]</p> <p>Dorsalis pedis artery: [Lateral to tendon of extensor hallucis longus, against navicular bone]</p>	<p>Comment if palpable or not.</p>

6. Face	<p>General; look for pallor of the face, malar flush</p> <p>Eyes; look for</p> <ol style="list-style-type: none"> 1. Signs of hyperlipidemia; corneal arcus, xanthelasma. 2. Sign of anemia; conjunctival pallor 3. Signs of infective endocarditis; petechial hemorrhages in the conjunctiva, Roth spots (using ophthalmoscope - just mention) 4. Diabetic and hypertensive retinopathy (using ophthalmoscope - just mention) 5. Sign of jaundice; yellowish discoloration of sclera <p>Mouth; look for central cyanosis (lips and tongue), dental caries, angular stomatitis, glossitis</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. pallor 2. Malar flush 3. Corneal arcus 4. Periorbital xanthelasma 5. Conjunctival pallor 6. Petechial hemorrhages in the conjunctiva 7. yellowish discoloration of sclera 8. retinopathy & Roth spots 9. Central cyanosis 10. Dental caries. 11. Angular stomatitis 12. glossitis
7. Neck	inspection	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Visible masses 2. Visible veins 3. Scars
	Do thyroid examination including only inspection for extra-ocular manifestations (proptosis, lid lag...) only since other aspects of the examination are covered in the general examination of the hands, face...then palpate.	<p>Comment on thyroid examination.</p>

JVP examination:

Pt semi-recumbent (45°) put a pillow below his head to relax neck muscles, ask pt to slightly turn his head to the Lt side while you stand to his right.

Inspection (using a torch and look from a lateral angle):

- Visible pulses.
- Identify external jugular vein, to avoid it. Use internal jugular vein to calculate JVP
- Ask pt to hold his breath at deep inspiration, which decreases the JVP
#Kussmaul's sign: if the venous wave increased with inspiration instead of decreasing.
- JVP decreases if the patient sits up (it may even disappear), and increases if he lies down.

Palpation:

- Try to palpate the venous pulse. venous pulse is impalpable
- With neck obliteration, venous pulse disappears
- Ask if anything hurts the pt in the abdominal area prior to abdomino-jugular reflux test; apply pressure on the abdomen over the liver for 10s.

Measure:

- Place a ruler vertically at the sternal angle. Place any straight object horizontally to the ground at the highest point of the jugular venous wave. Record this height and add 5cm to it to obtain the length of JVP in cm. It's normally less than 9cm total.

Auscultation

- For Venous hum using diaphragm. They are heard throughout the cardiac cycle and may be confused with heart murmurs, but the hum is abolished with neck obliteration. The phenomenon is completely harmless

Comment:

By inspection 2 pulses were visible an outward single peaked arterial pulse and an inward double waved venous pulse. The venous pulse decreases on inspiration and disappears on sitting upright

By palpation the venous pulse is not palpable, disappears with neck obliteration and increases with abdomino-jugular reflex.

Measured as (normally <9cm)

No venous hum.

8. Precordium

<p>Inspection</p> <p>Start from foot of the bed then move to the Rt side of the pt. Make sure to lean forward looking at the axilla of left side of the pt</p> <p># use the light of your torch to look for visible pulsations.</p>	<p><i>Comment at foot of bed:</i></p> <ol style="list-style-type: none"> 1. Deformities; pectus excvatum, pectus carinatum 2. Body Hair distribution <p><i>Comment at Rt side of the pt:</i></p> <ol style="list-style-type: none"> 3. Scars or bulging masses 4. Visible pulsations 5. Dilated veins
<p>Palpation:</p> <p><u>General rules of palpation:</u> Ask for permission ask for any area of pain & examine it last warm your hands up & maintain eye-to-eye contact throughout exam</p> <ol style="list-style-type: none"> 1. assess for tenderness 2. Locate the apex beat. At first use your entire palm infra-mammary then try to locate it using 2 fingers, if not palpable then tilt pt to the left side. Try to localize it counting the ribs from second costal cartilage at level of sternal angle. >>Abnormalities of apical beat: <ol style="list-style-type: none"> 1. Generalized diffused; LV dilatation 2. Tapping apical beat; mitral stenosis 3. Double apical impulse; HOCM (hypertrophic obstructive cardiomyopathies) 4. Apical heaves; LV hypertrophy >>Location could be displace in ventricular dilatation or dextrocardia 3. Palpate for left and right ventricular heaves, using your palm, at the apex of the heart and left sternal margin, respectively. The patient must hold his breath at expiration after a deep inspiration. 4. Palpate for thrills using the pulps of your fingers at apex and both sides of sternum; Aortic stenosis (thrills on apex, lower sternum and neck) VSD (thrills on Rt and Lt sides of sternum). 	<p>Comment :</p> <ol style="list-style-type: none"> 1. tenderness 2. Apex beat normally is gently tapping (with no heave, not diffused, no double apical impulse, no palpable S1 “not tapping”) localized at the Lt 5th intercostal space on mid-clavicular line 3. Presence of heaves 4. Presence of thrills.

Auscultation:

1. use the diaphragm then the bell in 4 areas :
 1. At the apex
 2. Lower left parasternal area (Lt 4th intercostal)
 3. Left upper parasternal area (2nd or 3rd intercostals)
 4. Rt upper parasternal area.

[[palpate the carotid while auscultation to time any murmurs]]

The bell can identify low-pitched sounds; characteristically S3, S4, murmur of mitral stenosis, and carotid bruits.

2. Listen at the aortic area for **S2 splitting** while the patient holds his breath on inspiration and for **reverse splitting** while he holds on expiration.
3. Listen for murmurs radiation using the bell over the carotids with pt holding his breath.
4. To accentuate the mid-diastolic and presystolic murmurs of mitral stenosis, roll the patient to his left and listen over the left mid-axillary line along the level of apex beat
5. Test for aortic regurgitation murmur by asking the pt to sit up, lean forward and hold his breath in full expiration. Listen using diaphragm over upper Lt costal edge.(3rd Lt intercostal) **[RILE; right murmurs increase with inspiration, left murmurs increase with expiration]**
6. Auscultate the bases of the lungs posteriorly while the pt is sitting up for respiratory crackles.
7. Test for sacral edema while the pt is sitting upright as well by pressing over sacral area using the tips of your fingers or the side of your hand.

Comment on:

1. (quiet,normal,loud)S1
2. (quiet,normal,loud)S2
3. Splitting of S2
“could or couldn’t hear, as its always present ☺”
4. Added sounds
5. Murmurs; describe location , timing, duration, radiation, character and pitch
6. Crackles at bases of lung
7. Sacral edema.

9.Lower limb

[[Note exposure of both limbs up to the umbilicus, for cultural concerns up to the mid-thigh]]

<p>Inspection; Look to all leg aspects (anterior, posterior and lateral, you've to kneel down for better view of the leg. Make sure to check heels and in between toes) >> ulcers: – Arterial; distal points – Venous; gaiter areas – neurotrophic; pressure points >> Buerger's test: While the <i>pt is supine</i>, ask about back or hip pain then from the foot of the bed raise the pt's leg to 45° <i>gradually</i> and hold for 2-3 minutes. Note if it becomes pale at a lower angle then ask pt to sit up and hang his leg out of the bed. The test aims to assess Buerger's angle, or the angle at which the leg becomes pale. In a normal patient, the leg must not become pale even if angles as high as 90 are reached. In an ischemic leg, pallor and possibly venous guttering become evident at the lower angle of 20-30 (known as Buerger's critical angle). Reactive hyperemia is also notable on dependency.</p>	<p>Comment on: Signs of chronic LL ischemia: 1. Color usually white, with peripheral cyanosis 2. Skin texture (shiny and dry or not) 3. Hair loss (specially distal) 4. Hypertrophic nails 5. Clubbing of toes 6. Decreased muscle bulk 7. Any ulcers in toes and heels. 8. Buerger's test Signs of chronic venous insufficiency: 9. Visible veins 10. Scars 11. Obvious swelling 12. Redness or hyperpigmentation 13. Ulcers in gaiter's areas 14. Thickened, eczematous skin</p>
<p>Palpation:</p> <ul style="list-style-type: none"> ● Check for temperature bilaterally using the dorsum of your hand in 3 locations <i>[Don't forget calf muscle]</i> ● Superficial palpation and squeeze muscle bulk on posterior aspect of the thigh; for tenderness, palpable masses, coarse skin, and tenseness calf muscle. ● Test for capillary refill by compressing a toe nail, color should be restored maximally in 2 secs ● Do neurological examination for power and sense. ● Pulses; <ol style="list-style-type: none"> 1. Popliteal pulse. 2. Post. Tibial pulse. 3. Dorsalis pedis pulse. ● Check for edema of the leg by pressing using your thumb at the shin of the tibia. Check ankle 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Temperature difference 2. Superficial; tenderness, palpable masses, coarse skin, tense calf muscle. 3. Duration of capillary refill 4. Power and sensation of lower limb 5. Pulses if palpable or not. 6. edema of leg and ankle 7. Circumference measured and if swelling is present. 8. Trendelenburg test

<p>edema by pressing above medial malleolus for 15s with your thumb, you have to determine level of the edema >> if edema was found, measure JVP</p> <ul style="list-style-type: none"> • Measure circumference of both legs at the same point (10 cm below tibial tuberosity in the line from tibial tuberosity to medial malleolous) note which leg is dominant because enlargement of the dominant leg of up to 2 cm is normal while enlargement of the non-dominant one is always abnormal and indicates swelling. • Trendelenburg test; <ul style="list-style-type: none"> – Ask pt to sit on the edge of the examination couch – Elevate leg as far as comfortable to the pt [to milk the blood in it!] – with the pt’s leg still elevated, press with your thumb or a tourniquet over the saphenofemoral junction (2-3 cm below and 2-3 cm lateral to pubic tubercle) – ask pt to stand while you maintain pressure over the saphenofemoral junction – If saphenofemoral junction regurgitation is present, the pt’s varicose veins will not fill until your digital pressure is removed. If they do fill before you release the pressure, venous regurgitation through the perforators is indicated. 	
<p>Auscultation: Over femoral artery for bruit</p>	<p>Comment on: Femoral bruit</p>
<p>10.Abdomen</p> <p>Look for scars and visible pulsations Palpate for palpable aorta above umbilicus, hepatomegaly and splenomegaly. Test for ascites with transmitted thrills and shifting dullness Listen for aortic bruits above umbilicus and renal bruit 2cm above and lateral to umbilicus. (for abdominal examination, the pt must be lying <i>supine</i> and you <i>sitting</i> to his Rt)</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Scars 2. visible pulsations 3. If Aorta palpable, with bruit 4. If liver is Palpable or not and the liver span. 5. If spleen is palpable or not. 6. Presence of shifting dullness or transmitted thrills. 7. Renal bruit

Respiratory System Examination

1. Settings Greet your patient, introduce yourself then ask for permission to examine him.
 Wash your hands. Ensure adequate privacy, warmth and illumination of the room.
 Exposure for anterior chest to the umbilicus, for the posterior chest expose the back to the iliac crest.
 Position the patient
 In semi recombinant position (45° to the horizontal), hands apart >> anterior chest examination
 Sitting upright, scapula apart (arms crossed) >> posterior chest examination
 Stand at Rt side of the pt; examination of chest starts at the foot of the bed before you move to the Rt side of the pt.

2. First impression	<p>Consciousness; in CO₂ retention pt is drowsy while if hypoxic he would be agitated.</p> <p>Pt may not be able to lay flat if he has orthopnea, so you need to mention that.</p> <p>Ask pt to cough, and then take a deep breath with opened mouth; to comment on stridor.</p> <p>Look for signs of Horner's syndrome (ptosis, miosis, anhidrosis)</p>	<p>Comment on :</p> <p><i>Look >></i></p> <ol style="list-style-type: none"> 1. Consciousness & Orientation 2. Position of pt 3. Connected to ventilator or not. 4. In distress/ breathlessness/ in-pain 5. Use of accessory muscles for breathing 6. Cyanosis 7. Horner's syndrome <p><i>Smell >></i></p> <ol style="list-style-type: none"> 8. Breath smell (smoke/ alcohol) <p><i>Listen >></i></p> <ol style="list-style-type: none"> 9. Depth or any abnormal breathing patterns or audible sounds with breathing (wheeze/ stridor/ hoarseness).
3. Vitals	<p>Measure: temperature, respiratory rate, BP and pulse on one hand.</p> <p>Examine for pulsus paradoxus by measuring systolic BP in deep inspiration and normal breathing</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Pulse 2. BP & Pulsus paradoxus. 3. Temp. 4. RR 5. BMI

4. Hands	<p>First inspect then test for :</p> <ul style="list-style-type: none"> • Test for fine tremors by asking pt to out stretch his hands. • Test for flapping tremors by asking pt to outstretch his hands and hyperextend the wrist and maintain this position for a few seconds. • Palpate for temp. • Clubbing all 3 maneuvers. • Palpate for tenderness at the wrists, indicating hypertrophic pulmonary osteoarthropathy. 	<p>Comment on :</p> <p>On palmer aspect:</p> <ol style="list-style-type: none"> 1. Temp. 2. Muscle wasting <p>on dorsal aspect:</p> <ol style="list-style-type: none"> 3. Nail abnormalities 4. Yellow nail syndrome 5. Cyanosis 6. Clubbing 7. wrist tenderness 8. Tar stain. 9. Plethoric hand 10. Tremors (fine/ coarse)
5. Face	Look inside the mouth for cyanosis and at the eye for conjunctival pallor.	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Central cyanosis 2. Dental hygiene 3. Conjunctival pallor.
6. Neck	Inspection	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Dilated veins 2. Masses 3. Scars.
	Palpate for lymph nodes ; Cervical, scalene	Comment if palpable or not and if palpable comment on size, consistency, tenderness, and fixation.
	Examine for JVP elevation (page 43)	Comment on JVP examination
7. Anterior and lateral chest.	<p>Areas to test, on each side, for TVF, percussion and auscultation:</p> <ol style="list-style-type: none"> 1. Apex of the lung (fingers pointing posteriorly) in supraclavicular area. 2. 3 intercostal spaces starting from the 2nd, 4th, (5th or 6th) 3 cm away from midline. 3. And 3 intercostal areas on the lateral chest in the axilla <p>>> Whenever you examine any of the above locations, examine the point opposite to it on the other side before moving on, so as to compare findings.</p> <p>>> <i>Position the pt in a semi-recombinant position, hands by side</i></p>	

<p>Inspection:</p> <p>Start from foot of the bed, while standing there ask the pt to take a deep breath through his mouth, note chest expansion and pattern of breathing</p> <p>From Rt side of the pt make sure to check axillary area by asking the patient to slightly abduct his arms for you to have a look on his axilla.</p> <p>Ask the pt to cough and then take a deep breath to clarify any audible sounds of breathing (stridor)</p> <p>Comment on the nipples if being in-lined, or one is deviated from the other, or the presence of accessory nipple along milk line.</p>	<p>Comment from the foot of BED on :</p> <ol style="list-style-type: none"> Breathing. Abdomino-thoracic/ thoraco-abdominal, tachypnic/ Kussmaul/ Cheyne-Stokes Expansion; comment if the chest moves with respiration or not only (don't mention symmetry at this step) Deformities; you can say something similar to "The chest is symmetrical elliptical in cross section, no pectus excavatum, no pectus carinatum, no kyphosis, no scoliosis, no barrel chest" <p>From right side of the pt comment on:</p> <ol style="list-style-type: none"> Accessory muscle use. Scars Visible veins Visible masses Skin marks or spots Hair distribution Nipples Audible sounds of breathing (stridor, wheeze, hoarseness).
<p>Palpation:</p> <p><u>General rules of palpation:</u> Ask for permission ask for any area of pain & examine it last warm your hands up & maintain eye-to-eye contact throughout examination</p> <p>1. Superficial palpation: Move your hand across the chest wall with minimal pressure. It's important not to raise your hands from the chest wall and to cover the lateral chest in axillary areas as well as lung apex.</p>	<p>Comments:</p> <ol style="list-style-type: none"> Tenderness, subcutaneous/ superficial nodules and subcutaneous emphysema. Mediastinal deviation; >Trachea location, cricosternal distance and tracheal tug. Ex. "Trachea centrally located cricosternal distance 4 cm or 3 fingers and no tracheal tug." >Location of apex beat. Ex. "Apex beat in left 5th ICS in

comment on; tenderness, subcutaneous/ superficial nodules, subcutaneous emphysema [emphysema feels like a bubble sheet]

2. Mediastinal deviation:

Upper; by locating trachea.

- Warn pt that you're going to touch his neck, place your middle finger on trachea and the index and ring fingers on the heads of clavicles around.

It's normally central, or slightly deviated to the right

- Palpate with your middle 3 fingers vertically the trachea to the first prominence which is the cricoids cartilage to assess cricosternal distance.
- While finger pulps span the cricosternal distance test for tracheal tug by asking the pt to take a deep breath through the mouth and note the descent of the trachea

Lower; by locating apex beat.

3. **Chest expansion;** grab the lower part of the thorax with both of your hands so that your thumbs almost meet centrally and your fingers extend to encircle the sides of the thorax. Ask the patient to take a deep breath through the mouth and then note the distance between your thumbs. If your hands are small gently pinch a skin fold between your fingers and ask the pt to take a deep breath through the mouth and assess distance generated by chest expansion between the thumbs. It's important not to compress the chest actively using our hands.

MCL.”

3. Chest expansion symmetry and distance.Ex. “Symmetrical bilateral chest expansion with thumbs 5 cm apart.”
4. TVF comment if any differences noted between sides. “Ex. Symmetrical bilateral TVF all over the chest.”

<p>4. TVF; gently rest your hand on one of the locations stated above and ask the patient to say 44 in Arabic (or 99 in English). Repeat on the other side and for the other locations mentioned. Each side should have 9 points examined in total. Start on the normal side if any one side was known to be abnormal.</p>	
<p>Percussion:</p> <p>Tap in all locations mentioned above, you're allowed 2 taps. Again, whenever you percuss one point, percuss the point opposite to it on the other side before moving on. One additional location to percuss is the clavicle, on which you percuss directly.</p> <p>In percussion the fingers are placed horizontally on the chest in-line with the intercostals spaces, except at the lung apices, where they are oriented vertically so that the tips of the fingers are directed posteriorly rather than horizontally.</p> <p>Then percuss for the upper edge of the liver in midclavicular line (3 cm away from midline) starting from Rt 2nd intercostal while pt holds expiration after deep inspiration through mouth. A dull note indicates that you are percussing over the liver.</p>	<p>Comment: if any difference in percussion note was noted</p> <p><u>If normal, comment similarly to the following</u>: "symmetrical bilateral resonant percussion note all over the chest."</p> <p>And comment on the location of the liver dullness; <u>normally</u> "upper edge of liver dullness in Rt fifth intercostals, at MCL."</p>
<p>Auscultation</p> <p>we always use the diaphragm, each location compared to other side in a zigzag pattern, avoid listening at the midline, stay 3 cm away:</p>	<p>Comment on :</p> <ol style="list-style-type: none"> Breathing sounds (remember there is vesicular breathing and bronchial breathing) <u>Normally</u> "symmetrical bilateral vesicular breathing sound, good air entry bilaterally."

1. **Breathing:** instruct the pt to take a deep breath through the mouth each time we place the stethoscope on the chest.
2. **Vocal resonance:** instruct the pt to say 44 in Arabic each time you place the stethoscope on the chest.
3. **Aegophony:** instruct the pt to say “E” in English (check his pronunciation before you start this test) each time you place the stethoscope on the chest.
4. **Whispering pectoriloquy :** instruct the pt to whisper (1,2,3) to himself each time you place the stethoscope on his chest. Before beginning this test, listen to the patient whisper without wearing your stethoscope to make sure he’s using an adequate volume of voice.

- ## Comment on presence of wheezes and crackles and pleural friction rubs.
normally “NO wheeze, NO crackles, NO pleural friction rubs, No clicks.”
2. Vocal resonance
Normally “symmetrical bilateral vocal resonance”
 3. In Aegophony the E is heard A in areas with pathology
normally “No aegophony”
 4. Whispering pectoriloquy is normally not heard except in pathological areas
normally “No whispering pectoriloquy.”

8. Posterior and lateral chest.

For examination of the posterior chest we assess TVF, percuss and auscultate in the following locations:

1. Lung apices
2. 2 locations medial to scapula; above level of the spine and opposite medial border
 2 locations below the scapula
 (note that the more downward we go the more laterally we try to go)
3. 3 locations in the axillary area for examination of the lateral chest.

>> Whenever you examine any of the above locations, examine the point opposite to it on the other side before moving on, so as to compare your findings

>>Position the **pt sitting upright** with hands crossed anteriorly to pull away the scapulas from the midline.

<p>Inspection:</p> <p>From Rt side of the pt while standing there ask the pt to take a deep breath through the mouth and make sure to check axillary area by asking the patient to move his arms away from his sides.</p> <p>Ask the pt to cough and take a deep breath from mouth to test for any audible sounds of breathing (stridor)</p>	<p>From foot of BED Comment on :</p> <ol style="list-style-type: none"> 1. Expansion; Symmetry of Movement with respiration. 2. Deformities Ex of what you can say in normal cases “Symmetrical elliptical in cross section, no deformities, and chest moves with respiration.” <p>From right side of the pt comment on:</p> <ol style="list-style-type: none"> 3. Scars 4. Hair distribution 5. Visible veins 6. Visible masses 7. Skin marks or spots 8. Audible sounds of breathing.
<p>Palpation is the same as anterior chest but don’t perform mediastinal shifts</p> <p>Palpate for tenderness over the spine</p>	<p>Comments:</p> <ol style="list-style-type: none"> 1. Tenderness, subcutaneous/ superficial nodules and subcutaneous emphysema. 2. Chest expansion symmetry and distance. Ex. “Symmetrical bilateral chest expansion with thumbs 5 cm apart.” 3. TVF comment if any differences were noted between sides. Ex. “Symmetrical bilateral TVF all over the chest.”

<p>Percuss each location. Remember, whenever you percuss one point, percuss the point opposite to it on the opposite side.</p> <p>Instead of liver dullness check diaphragmatic excursion. While the patient holds at inspiration, percuss downwards starting from the lower border of the scapula until a dull note is heard. After asking the patient's permission, draw a line at the point of dullness. Now with the patient holding at expiration, percuss downwards starting from the mark until a dull note is heard again. Draw another line at this point, and measure the distance between the 2 lines. Repeat for the other side.</p>	<p>Comment if any difference in percussion was noted <u>normally</u> "symmetrical bilateral resonant percussion note all over the chest."</p> <p>comment on distance of diaphragmatic excursion <i>on each side</i> <u>normally</u> 5-8 cm (reduced in paralysis of the diaphragm)</p>
<p>Auscultation is the same maneuvers as anterior chest but in the locations mentioned for posterior chest exam</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Breathing sounds <u>normally</u> "symmetrical bilateral vesicular breathing sound, good air entry bilaterally. NO wheeze, NO crackles, NO pleural friction rubs, No click." 2. Vocal resonance <u>normally</u> "symmetrical bilateral vocal resonance" 3. Aegophony <u>normally</u> "NO aegophony" 4. whispering pectoriloquy <u>normally</u> "NO whispering pectoriloquy"
<p>Finish by saying; "I'd like to run an ENT examination for the upper airways, plus examine the abdomen for hepatosplenomegally".</p>	

Gastrointestinal & Renal Systems Examination

1. Settings Greet your patient, introduce yourself then ask for permission to examine him.
 Wash your hands. Ensure adequate privacy, warmth and illumination of the room.
 exposure ideally is from the nipples to the knees but for cultural constrains exposure from the xyphoid process to the symphysis pubis.
 Position: lying in flat position with head rested on one pillow (15°-20° above horizontal)
 To relax the abdominal muscles so as to ease examination, ask pt to put hands by side, flex hip joint 45°, and flex knee joint 90°.
 Stand at the Rt side of the bed; for abdominal examination start while standing at the foot of the bed then **SITTING** (**students often forget this!) at the Rt side of the pt.

2. First impression	From the Rt side of the pt	Comment on : <ol style="list-style-type: none"> 1. Consciousness 2. Orientation 3. Position. 4. In pain or not 5. Pallor 6. Jaundice 7. Any specific odor or smells (fedor hepaticas) 8. Obvious muscle wasting
3. Vitals	Measure BP bilateral, in supine and standing positions Measure waist circumference	Comment on : <ol style="list-style-type: none"> 1. Pulse 2. RR 3. BP 4. Temp. 5. BMI, distribution of weight (truncal/ generalized), waist circumference
4. Hands	<ul style="list-style-type: none"> • leukonychia, koilonychias, palmar erythema (chronic liver disease, normal in preg.) • finger clubbing (liver cirrhosis, IBS, malabsorption, celiac disease) • asterixis (flapping tremor: liver failure, also in cardiac, respiratory & renal failure) • Dupuytren's contracture (alcoholism, liver disease). 	Comment : On palmer aspect; <ol style="list-style-type: none"> 1. Temperature 2. Muscle wasting 3. Palmar erythema 4. Dupuytren's contracture on dorsal aspect; <ol style="list-style-type: none"> 5. Koilonychia, Leukonychia, or any other nail abnormalities. 6. Loss of lunula

		<p>7. Clubbing</p> <p>8. Arms; Look for needle marks, tattoo, and Axillary hair</p> <p>9. Flapping tremors</p>
5. Face	<p>Look in the eyes, ask pt to look up and down while you retract the eyelids to have a better view of the conjunctiva.</p> <p>Look inside mouth.</p> <p>Inspect for Parotid swelling</p>	<p>Comment:</p> <p>In the eye;</p> <ol style="list-style-type: none"> 1. Conjunctival pallor 2. yellowish sclera 3. Kayser-Fleischer rings <p>In the ears;</p> <ol style="list-style-type: none"> 4. tophi <p>In the mouth;</p> <ol style="list-style-type: none"> 5. Caries & loss of teeth 6. cyanosis 7. Glossitis 8. Angular stomatitis 9. Mouth ulcers 10. Ulcers on the tongue. <p>Salivary glands;</p> <ol style="list-style-type: none"> 11. Parotid swelling.
6. neck	Examine the thyroid gland.	Comment on the thyroid gland .
7. Lymph nodes	<p>Palpate for;</p> <ul style="list-style-type: none"> ○ supraclavicular lymph nodes (Virchow is the left one if palpable then positive Troisier's sign) ○ axillary lymph nodes while sitting up ○ Inguinal lymph nodes while supine. 	Comment if any lymph nodes were palpable and describe palpable ones.
8. Anterior chest	<p>Expose chest then cover it after inspection.</p> <p>Spider nevi (> 5 in distribution of SVC → chronic liver disease)</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Spider nevi 2. Gynaecomastia in males 3. Breast atrophy in females 4. Body hair distribution & paucity of axillary hair

9. Abdomen

Inspection

(1-4) from foot of the bed

(5-12) from the Rt side of the pt

(13) ask the pt to cough

(14) Test for divarication of rectus abdominis muscle by asking the pt to raise his head and try to sit up, without actually sitting up all the way through. You should be supporting his shoulder.

Comment from the foot of the bed:

1. symmetry
2. movement with respiration
3. shape of abdomen (scaphoid / distended/ flat/ protuberant/ localized bulge/ flank fullness)
4. Site & shape of umbilicus.

Ex. "By inspection from the foot of the bed, the abdomen is symmetrical, flat and thoracoabdominal movement with respiration. Umbilicus is inverted, centrally located midway between xiphisternum and symphysis pubis."

Comment from right side of the pt:

5. Scars & stomas
6. Hair distribution
7. Lesions or scratch marks
8. Skin coloration & Bruises
9. Visible masses
- 10. Striae**
11. Visible pulsations or peristalsis
12. Visible dilated veins or caput medusa
13. Visible cough impulse and intact hernial orifices
[describe reaction of pt to cough. i.e. lie still in bed or rolled on bed]
14. Divarication of recti.

Palpation

(ask for a chair, u must be sitting)

General rules of palpation:

Ask for permission

ask for any area of pain & examine it last
warm your hands up & maintain eye-to-eye
contact throughout examination

1. **Superficial palpation** by passing your hand on all 9 regions of the abdomen with very minimal pressure.
2. **Deep palpation** using palms and fingers with semicircular fashion on all 9 regions. If abdomen is tense due to guarding or peritonitis, ask the pt to flex his knees bilaterally or distract him by asking him to count from 100 down to 0.

3. Special organ palpation

Liver:

Start from RIF. Press using the side of your index with fingers directed diagonally toward the umbilicus then ask the pt to take deep breath through his mouth. While the pt is in expiration move your hand upwards in the same position for no more than 1 inch and instruct the pt to take another deep breath through the mouth every time you move your hand all the way up to the costal margin, sense liver edge with your index & middle fingers

Now for percussion of the liver start from 2nd intercostal space in midclavicular line while the pt holds expiration for upper edge of liver dullness, mark it. Then percuss from RIF in MCL up to liver dullness or costal edge. Make marks on the body after taking permission then measure liver span, normally 6-12 cm

Gall bladder:

Comment on :

Superficial palpation:

1. Superficial masses
2. Superficial tenderness
3. muscle tone of abdominal wall (rigid or not)
ex) "soft lax abdomen with no superficial tenderness or masses"

Deep palpation:

1. Deep tenderness
2. Deep masses

Special organ palpation:

1. Liver edge if palpable or not and the liver span and murphy's sign.
2. Spleen if palpable or not and don't comment on its percussion unless abnormal.
3. Comment if kidneys palpable or not. And if costal angle tenderness was found.

Never use the terms splenomegaly or hepatomegaly

4. Sacral edema
5. Pulsatile or expansile mass

Note:

Pulsating mass: pulse wave felt anteriorly only. Ex. Pancreatic pseudocyst resting on abdominal aorta.

Expansile mass: pulse wave felt anterior and lateral. Ex. AAA

Do murphy's sign;
using your left hand, lay index on the pt's right costal margin, press with your thumb on the gall bladder fundus (opposite 9th rib) then ask the pt to take a deep breath using his mouth.
A positive test is indicated by a sudden cessation of breathing.

Spleen:

Do as in liver palpation but start from RIF then move diagonally towards the spleen in the left subcostal area and try to press your hand below subcostal margin.

Then ask the pt to flex his knees and roll to his Rt side. Place your left hand on the patient's back on the area opposite to the left hypochondrium and gently apply pressure towards the patient's anterior. Now palpate the spleen with your right hand.

percuss while the pt is in that position starting from the umbilicus all the way to the lateral axillary area between ribs 9,10,11.

Kidneys:

Place your Rt hand superiorly in the flank area lateral to lateral rectus muscle and your left in the loin. **Ask the pt to take a deep breath** through the mouth.

First palpate bimanually then test for ballottement. Repeat for the other kidney using same positions for your hands.

Check for costal angle tenderness by asking the pt to sit up and gently palpate the costovertebral angle for tenderness. If not tender, gently percuss the angle with a closed fist and ask if were painful.

Asses sacral edema

<p><u>Aortic pulsation</u> Press down deeply in the midline above the umbilicus; it might be palpable in most individuals. A pulsatile mass greater than 3 cm suggests AAA (abdominal aortic aneurism)</p>	
<p>Percussion: General percussion over all 9 regions.</p> <p>Percuss the midline from Xiphisternum to suprapubic area for bladder dullness. [exclude pregnancy in females]</p> <p>Ascites tests:</p> <ol style="list-style-type: none"> 1. Shifting dullness: percuss in midline for most tympanic area (usually supraumbilical) then percuss laterally to the left side until the furthest area of dullness is reached, maintain your finger at that position, roll pt to his Rt side, wait 10 s, then percuss the same site again. Positive test if dullness changed to tympanic again. 2. Transmitted thrills: place the pt's hand vertically in the midline of the abdomen. Rest your hand on one side of the patient's abdomen and gently tap on the other side using your other hand. Feeling a thrill after tapping indicates massive (tense) ascitis. <p>[normal peritoneal fluid volume is 50-100 ml, positive for shifting dullness if > 1.5-2 L, positive for transmitted thrills if > 5-6 L]</p>	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Percussion note (normally tympanic) 2. suprapubic dullness (don't say bladder dullness) 3. Negative or positive shifting dullness or transmitted thrills.

<p>Auscultate 7 areas all using the diaphragm:</p> <ol style="list-style-type: none"> 1. For bowel sound on the right side of the umbilicus or RIF over ileocecal valve and count for one minute. You cannot conclude an absence of bowel sounds unless you listen for 3 min. 2. For aortic bruits in the midline in epigastric area. 3. For renal bruit 2 cm above and 2cm lateral to the umbilicus on both sides. 4. For liver friction rubs and liver bruits on the Rt lower costal area. 5. For spleen friction rubs on the Lt Lower costal area. 6. If dilated veins were found listen over them for venous hum. 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. (Active, hypoactive, hyperactive) bowel sounds and their rate. Describe them as gurgling which is normal, or tinkling which is pathological. 2. Presence of aortic bruits. 3. Presence of renal bruits 4. Presence of liver friction rubs and bruits. 5. Presence of spleen friction rubs. 6. Venous hum.
<p>succession splash ;</p> <p>First tell the pt what you are going to do, ask him about the last time he had a meal or a drink (normally absent 4 hours after the last meal). Shake the pt's pelvis while your ear is near epigastric area to listen for a splash.</p>	<p>Comment if succession splash is present or not.</p>
<p>10. finalizing</p> <p>As part of the abdominal examination you should say that you want to:</p> <ol style="list-style-type: none"> 1. palpate the hernial orifices at rest and when the pt coughs 2. feel the femoral pulses 3. examine the Genitalia 4. Examine the Back. 5. Do Digital rectal examination (DRE). 6. Examine lower limbs for; clubbing, edema, hair loss, pyoderma gangrenosum and erythema nodosum. <p>As part of GI system examination you should say that you want to perform urine analysis to the patient</p>	

Musculoskeletal system

[[Even if were asked to examine one side of the body, do maneuvers only for the one to be examined and comment on the need to repeat the examination on the other side for comparison]], this is according to the rule of two; **COMPARE ONE LIMB WITH THE OPPOSITE SIDE.**

For any abnormality specify the site (right or left, medial or lateral, dorsal or palmar), the specific joint involved, and look for multiplicity and symmetry.

Examination of the hand & wrist:

Settings	<p>Greet your patient, introduce yourself then ask for permission to examine him.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Position the Pt seated upright facing you with both arms exposed up to elbow, hands rested on a pillow.</p> <p>Ask for any site of pain so as to avoid touching or moving it.</p>	
Look	<p>[[Look to the palmar then dorsal aspect of the hand, ask pt to abduct fingers to look in-between, ask pt to make a fist looking to hill-valley-hill-valley aspect, ask to flex fingers pointing toward wrist]]</p> <p>Look for color changes like erythema (redness) suggesting acute inflammation, bruising, scars, and palmar erythema</p> <p>Obvious swelling of;</p> <ul style="list-style-type: none"> • MCPJ, ask the pt to make a fist and comment on loss of interdigital indentation on the dorsum of the hand i.e. loss of hill-valley-hill-valley appearance. • IPJs with a spindling appearance <p>Deformity;</p> <ul style="list-style-type: none"> • Arachnodactyly (long and thin fingers), ulner deviation at MCPJ, duputren’s contracture (fixed flexion), displacement at the wrist joint. • rotational deformity by asking the pt to flex fingers together pointing to scaphoid tubercle • Ask pt to show you lateral side of his fingers; look for mallet, boutonniere, swan neck deformities, and Z-thumb. <p>Others;</p> <ul style="list-style-type: none"> • muscle wasting; thenar, hypothenar, small muscles of the hand • nail changes specially psoriasis, onycholysis and vasculitis at the nail folds 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. color changes 2. swelling at MCPJ and IPJ 3. deformities 4. muscle wasting 5. nail changes

Feel	<ol style="list-style-type: none"> 1. Strike dorsum of the pt with your dorsum to assess temperature. compare bilaterally , focus on joint areas & on swellings if they exist 2. Muscle bulk of thenar and hypothenar eminences 3. Feel for consistency of any detected swelling 4. Squeeze with your thumb and index each IPJ separately to detect sponginess 5. Squeeze with your thumb and index across all MCPJ together to detect sponginess, ask pt to move his fingers while you maintain this position to detect for crepitation 6. Palpate the flexor tendon sheath for each finger separately with your thumb and index for swelling or tenderness. <p>**If you find swelling asses triggering by asking the pt to fully extend a previously flexed finger</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. temperature 2. muscle bulk 3. consistency of swelling (hard/ soft) 4. sponginess, crepitation or tenderness at joints 5. Flexor sheath tenderness or swelling, and triggering**
Move	<p>[active then passive if pt was unable to move actively]</p> <ol style="list-style-type: none"> 1. At fingers: ask pt to make a fist then extend his fingers fully 2. At wrist: flexion, extension, adduction and abduction <ul style="list-style-type: none"> – Extension by Prayer’s sign; palms together, and extend wrist fully, with elbow of both hands at same level – Flexion by Reverse prayer’s sign; dorsum opposing each other, flex wrist fully, elbow of both hands at same level. – Adduction by ulner deviation and abduction by radial deviation 3. To test grip, ask pt to squeeze your index and middle fingers. 4. Passively move all joints (wrist, MCPJs, IPs) separately, with fixation of other joints to detect triggering. 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Range of motion of hand joints and wrist joint 2. Grip strength 3. Triggering or locking

Special tests

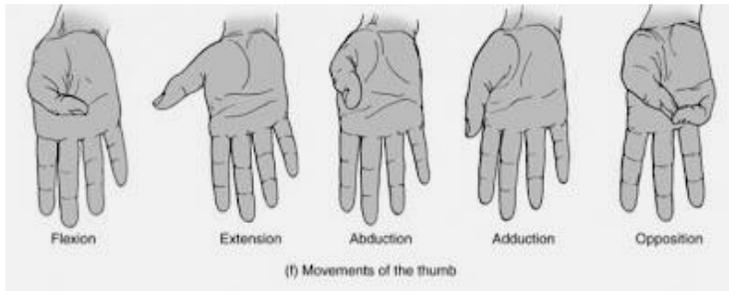
Thumb movements:

Around IPJ:

- Flexion and extension

Around MCPJ:

- At the level of the palm;
 - > flexion; to the ulnar side
 - > extension; to the radial side
- Vertical on the level of the palm;
 - > adduction; downwards touching the hand side
 - > abduction; upwards towards the ceiling
- Opposition; by touching the tip of little finger with the tip of the thumb making a circle



Comment on thumb range of motion around MCPJ and IPJ

Muscles and tendons:

1. Flexor digitorum profundus; hold the PIPs still, then ask pt to move DIPs
2. Flexor digitorum superficialis; hold other fingers fully extended and then ask pt to flex one finger at a time
3. Extensor digitorum; ask pt to extend fingers with the wrist in the neutral position with applying resistance. Support pt hand at the wrist
4. Flexor and extensor pollicis longus; ask pt to flex and extend his thumb while you hold his MCPJ
5. Ask pt to extend thumb at MCPJ like a hitch-hiker against resistance

Comment:
Intact (name muscle) tendon

<p>Nerves (motor and sensory function)</p> <ol style="list-style-type: none"> 1. Median nerve: <ul style="list-style-type: none"> – Abduction of the thumb against resistance – Opposition of the thumb, try to open the formed circle with your index (OK sign) – test for carpal tunnel syndrome (CTS); <ol style="list-style-type: none"> a. tinel’s sign; by percussion with tip of your index over median nerve close to wrist. ask pt for any shooting tingling sensation elicited upon percussion b. phalen’s sign; ask pt to do reverse prayer’s sign, ask whether he felt any pain elicited c. thenar muscle wasting – Test for sensation over the lateral 3 and half fingers on palmer aspect with the nails on dorsal aspect, plus sensation over thenar muscles. 2. Ulnar nerve: <ul style="list-style-type: none"> – Inspect for hypothenar wasting, and claw hand. – Palmar Interossei; put a sheet of paper with the fingers fully extended between index and middle fingers, ask pt to hold still as you try to pull the sheet – Dorsal interossei; ask pt to abduct index and little fingers against resistance – Adductor pollicis; ask pt to grip a card btw palm and adducted thumb; ask him to hold the card in this position while u try to pull it. If he held it with thumb flexion this is called (forment’s sign) – Test sensations over palmer aspect of medial one and a half finger, medial third of palm and dorsum, and over hypothenar eminence. 3. Radial nerve: <ul style="list-style-type: none"> – Ask pt to flex elbow to 90° and pronate the wrist – Ask pt to extend fingers, thumb then wrist against resistance – Test sensation over lateral 2/3 of the dorsum 	<p>Comment:</p> <p>Intact (name of nerve) nerve motor and sensory functions</p>

Examination of the Elbow:

setting	<p>Greet your patient, introduce yourself then ask for permission to examine him.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Pt seated upright facing the examiner with both arms exposed.</p> <p>Ask for pain at the elbow, so as to avoid touching or moving it.</p>	
Look	<ul style="list-style-type: none"> - While elbow fully extended inspect the joint from anterior and posterior aspects. - Look from anterior with full extension for carrying angle; normally valgus angle of 11°-13° - Look from side for fixed flexion deformity 	<p>comment on :</p> <ol style="list-style-type: none"> 1. Redness 2. Swellings 3. Scars 4. bruises 5. Rheumatoid nodules or gouty tophi or psoriatic plaques 6. Muscle atrophy 7. Deformity 8. Carrying angle
Feel	<ul style="list-style-type: none"> - Feel bony prominences at the elbow: <ol style="list-style-type: none"> 1. Medial epicondyle (origin of flexors) 2. Lateral epicondyle (origin of extensors) 3. Olecranon - Check for symmetry of the dorsal triangle formed by the bony prominences of the joint. - Feel for temperature bilateral 	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Tenderness over bony prominences 2. Symmetry of bony triangle, say; bony prominences aligned in full extension 3. Nodules or Swellings; describe soft, firm, or spongy. 4. temperature
Move	<p>[active then move passively if active is impaired]</p> <p>Demonstrate for the pt :</p> <ul style="list-style-type: none"> - Flexion :touch the shoulder - Extension: straighten the arm - For supination and pronation ask the pt to <u>hold his elbow in 90 degrees</u> flexion adjacent to the trunk and then to supinate and pronate. 	<p>Comment on :</p> <ol style="list-style-type: none"> 1. Extension and Flexion active range of movement (normally 0-145°) 2. Supination active range of movement (normally 0-90°) 3. Pronation active range of movement (normally 0-85°)
Special tests	<ul style="list-style-type: none"> - Two tests both while elbow is 90° flexed adjacent to the trunk. <ol style="list-style-type: none"> 1. Tennis elbow (lateral epicondyle, arm pronated, ask to extend wrist against resistance) 2. Golfer's elbow (medial epicondyle , arm supinated, ask to flex wrist against resistance) - Test for elbow crepitation while passive flexion. 	<p>Comment :</p> <ol style="list-style-type: none"> 1. Negative or positive tennis elbow and golfer's elbow tests. 2. Presence or absence of the crepitus.

Examination of the Shoulder:

settings	<p>Greet your patient, introduce yourself then ask for permission to examine him. Wash your hands. Ensure adequate privacy, warmth and illumination of the room. Pt seated upright facing the examiner with both arms exposed down to waist Ask for pain at the shoulder, so as to avoid touching or moving it.</p>	
Look	<p>Inspect from :</p> <ul style="list-style-type: none"> - Front - Behind - Axilla - Stand above the seated patient and look down on the shoulder <p>>>Swelling and redness are not very reliable since the joint is deep and those may not be obvious even if there is inflammation.</p> <p>Test for winging of the scapula by asking the pt to stand at a little more than an arm-distance, then to push the wall using his hands while you watch him from behind</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Symmetry and contour of the shoulders for deformity 2. Position of scapula (elevated, depressed or winged or no abnormality) 3. Swelling, redness. 4. Scars, bruises 5. Muscle wasting 6. Winging of the scapula
Feel	<p>Palpate along a path that starts from :</p> <ul style="list-style-type: none"> - Sternoclavicular joint - To Clavicle - To Acromioclavicular joint - To Scapular spine <p>Then anterior below the lateral end of the clavicle palpate :</p> <ul style="list-style-type: none"> - Cricoids; this might be uncomfortable for the pt so warn him. <p>Then palpate for :</p> <ul style="list-style-type: none"> - Glenohumeral head - Bicipital tendon in bicipital groove on anterior upper aspect of the arm, do internal rotation at shoulder 15° = turn the groove from anteriolateral to anterior position. - Supraspinatus tendon by extending the shoulder and palpate anterior - Muscle for tenderness. <p>>>Note that temp and swellings are not palpated for since the shoulder joint is deep.</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Tenderness 2. Swelling 3. masses

<p>Move</p>	<p>(active if impaired do passive)</p> <p>First for rough assessment, stand behind the pt and ask him to :</p> <ul style="list-style-type: none"> – Put hands behind head (abduction, flexion, external rotation)...تكتف وراء رقبته – Put hands behind back (adduction, extension, internal rotation)...تكتف وراء ظهرك <p>Demonstrate for the pt, while putting your hand on the patient's shoulder to feel for crepitus:</p> <ul style="list-style-type: none"> – Flexion – Extension – Abduction – Elevation, hold the lower pole of scapula between your thumb & index – For external and internal rotation either arm 90 flexed at elbow and adjacent to trunk or 90 flexion at elbow and 90 abduction at shoulder, in mid prone position – Circumduction. 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. range of motion around the shoulder joint <p>NL;</p> <p>Flexion (180) extension (60-70) abduction (180) adduction (60-70) internal rotation (120) external rotation (60-70) and symmetrical</p> <ol style="list-style-type: none"> 2. crepitation
<p>Special tests</p>	<p>For bicipital tendonitis 2 tests:</p> <ol style="list-style-type: none"> 1. Ask the pt to flex the fully extended elbow with a supinated hand against resistance. Feel the tendon simultaneously at elbow and the shoulder. 2. The patient's elbow is flexed 90° while their forearm is fully pronated. The examiner holds their arm at the wrist. Ask the patient to supinate his arm against resistance. <p>Teres minor and infraspinatus:</p> <p>The pt is asked to hold his hand in 30° flexion against his anterior trunk side, with his palm facing inward pointing to the trunk. Ask the patient to try moving his arm away from the body against resistance (external rotation!).</p>	<p>Comment:</p> <ol style="list-style-type: none"> 1. Intact (muscle name) functions 2. Tenderness over a muscle tendon 3. Pain on movement

Subscapularis (lift-off test):

The patient is asked to hold his hand behind his back at waist level with 90° flexion at elbow and the palm facing out. Ask the patient to move his arm away from his body without applying resistance (internal rotation!).

Supraspinatus:

1. Ask the pt to abduct his arm from 0° against resistance.
2. Empty bottle test: is performed while the patient elevates the arm to 90° at the shoulder and the arm should be in the scapular plane (scapular plane is a plane between the sagittal plane and the frontal plane). The examiner then exerts downward pressure at the patient's elbow or wrist against the patient's resistance.
This maneuver isolates the supraspinatus tendon. Pain indicates a positive test, and weakness may indicate a tear.
3. Painful arc test (impingement): passively abduct the arm fully, and then ask the patient to lower it down from that position slowly.
If there is tendonitis then pain occurs at 60°-120° of passive abduction, if there is a tear of tendons then arm will fall down during active adduction.

For deltoid:

Ask the pt to abduct his arm from 30° against resistance.

Examination of the Cervical Spine:

Settings	<p>Greet your patient, introduce yourself then ask for permission to examine him.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Pt seated upright on a chair facing the examiner with neck and upper thorax exposed.</p> <p>Ask for any site of pain at the neck to avoid.</p>	
Look	<p>Face the patient, to observe any abnormal posture of the head or neck. Then turn around the patient to look for;</p> <ol style="list-style-type: none"> 1. deformities (loss/ increased lordosis, torticollis, lateral flexion) 2. skin over the spine; colour, scars, rash, and hair patches 3. swelling over the back of the neck 4. muscle wasting in the neck 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Head & Neck posture 2. Neck deformity 3. Skin colour, scars, rash, hair patches 4. Swelling 5. Muscle wasting
Feel	<p>Palpate;</p> <ol style="list-style-type: none"> 1. Midline spinous processes from occiput to T1 2. Paraspinal soft tissue 3. Supraclavicular fossa; for cervical rib 4. Anterior neck structures (thyroid gland) 5. Cervical lymph nodes 	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Tenderness 2. Thyroid gland 3. Cervical lymph nodes enlargement
Move	<p>[active, then passive if active is restricted]</p> <ol style="list-style-type: none"> 1. Flexion; ask pt to put his chin on his chest (NL 80°) 2. Extension; ask pt to look at the ceiling as far back as possible (NL 50°) 3. Lateral flexion; ask the pt to put his ear on to his shoulder on right then on left sides (NL 45°) 4. Rotation; ask the pt to look over his right then left shoulder (NL 80°) <p>Move the neck passively, if range of active motion is reduced. Observe for sudden/ gradual resistance at the end of motion by stiffness or pain. Ask the pt if he felt any abnormal sensations shooting down his arms while you are moving his neck.</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Range of active motion 2. Resistance by pain or stiffness at the end of passive motion 3. Shooting paraesthesia or pain on neck movements
Special tests	<p>Neurological assessment of the upper and lower limbs</p>	

Examination of the Thoracic Spine:

Settings	<p>Greet your patient, introduce yourself then ask for permission to examine him.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Pt standing upright facing the examiner with his neck, chest, and back exposed.</p> <p>Ask for any site of pain at the back to avoid.</p>	
Look	<p>Inspect the patient posture from front, side and back while the patient is standing; comment if any abnormal posture or deformity was detected.</p> <p>inspect the skin overlying the thoracic spines; in terms of colour, scars, hairy patch, swelling, mass (lipoma may overlay congenital abnormality)</p> <p>Look for muscle wasting of the back.</p>	<p>Comment on;</p> <ol style="list-style-type: none"> 1. Abnormal posture 2. Deformity 3. Skin; colour, scars, hairy patch, swelling, mass 4. Muscle wasting
Feel	<p>Palpate spine of the thoracic vertebrae noting any prominent spinous process</p> <p>Palpate paraspinal soft tissue for tenderness</p>	<p>Comment on;</p> <ol style="list-style-type: none"> 1. Alignment of spinous processes 2. Increased prominence of one or more vertebrae 3. Paraspinal tenderness
Move	<p>While the patient is sitting at the edge of a couch, ask him to cross his arms and then twist around both ways, right then left, maintaining forward gaze to test for rotation at the level of the thoracic vertebrae.</p>	<p>Comment on restricted movement by pain or stiffness</p>

Examination of the Lumbar Spine:

Settings	<p>Greet your patient, introduce yourself then ask for permission to examine him.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Pt standing upright facing the examiner with his neck, chest, and back exposed.</p> <p>Ask for any site of pain at the back to avoid.</p>	
Look	<p>Inspect from front, side, and back for abnormal body posture or deformity.</p> <p>look for skin colour, scars, hairy patches, mass, muscle wasting</p>	<p>Comment on;</p> <ol style="list-style-type: none"> 1. Abnormal posture 2. Deformity 3. Skin; colour, scars, hairy patch, swelling, mass 4. Muscle wasting
Feel	<p>Palpate midline spinous processes noting any abnormal alignment of the spine. Palpate paraspinal soft tissue for any focal area of tenderness. After warning the pt, gently percuss the lumbar spine with a closed fist. Ask the pt if he felt any shooting pain or paraesthesia that radiated down the legs upon percussion.</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Alignment of spinous processes 2. Tenderness 3. Shooting leg pain or paraesthesia upon percussion on lumbar spine.
Move	<p>[active movement]</p> <ul style="list-style-type: none"> – Flexion: ask the pt to touch his toes with the tip of his fingers, while keeping the legs straight (المس الأرض وركبتك مستقيمة). The lumbar spine must turn kyphotic – Extension: ask the pt to lean back as far possible (خلي جسمك مستقيم واحني ظهرك للخلف قدر استطاعتك) NL 10°-20° – Lateral flexion: ask the pt to slide his hand down his leg while keeping the leg straight (مشي إيدك على جانب جسمك بدون ما ترفعها) – Rotation: ask the pt to twist around both ways 	<p>Comment on range of motion</p>
Special tests	<p>Schober's test:</p> <ul style="list-style-type: none"> – Request a permission from the pt to draw 3 lines on his back. – Identify dimples of venus (at level of posterior superior iliac spine), at its level make a midline mark – Mark a line 5 cm below and another 10 cm above the aforementioned line – Ask the pt to bend forward as far as he can, measure the distance between the lowest and upper lines (NL > 20 cm, reduced in Ankylosing Spondylitis) 	<p>Comment on restriction of forward flexion of the lumbar spine.</p>

Root Compression Tests:

1. Straight leg raise test:

[test L4, L5, S1 nerves root]

- With the pt lying supine, passively flex the hip keeping the knee straight.
- Stop if any limitation of motion by stiffness or pain occurred.
- Measure the angle formed between the leg & the horizon. (NL 80°-90°)

>> Bragard’s test:

while the pt’s leg is left up, lower it down slightly then dorsiflex the foot to confirm nerve root tension.

>> root tension shall be relieved by flexion at the knee

2. Tibial nerve stretch test:

[test L4-5, S1-3]

- Flex the hip to 90°, and extend the knee.
- Press over hamstring tendons once and over popliteal fossa another. Note if pain occurred
- >> Positive test is pain when pressing across popliteal fossa.
- >> Pressure over center of popliteal fossa bears on the posterior tibial nerve which is bowstringing across it, causing pain locally or radiating to the back.

3. Femoral nerve stretch test:

[test L2-4]

- With the pt prone, flex the knee backwards.
- >> positive test is pain felt in the thigh
- >> If pain didn’t occur, you might extend the hip as well.

4. Flip test (اختبار الكذب):

- Ask the pt to sit on the end of the couch with the hips and knees flexed to 90°
 - Examine the knee reflex
 - Extend the knee, as if to examine the ankle reflex.
- The pt with a prolapsed disc will not bear the tension on the nerve and will lie back to relieve it.

Comment on:

1. Straight leg raise test angle
2. Bragard’s test
3. Relieve by knee flexion

Comment Positive/negative tibial nerve stretch test

Comment Positive/negative Femoral nerve stretch test

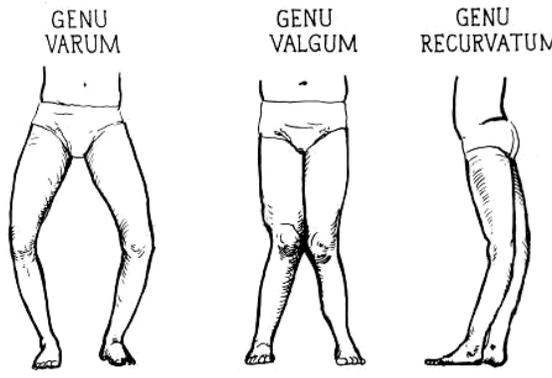
Comment Positive/negative flip test

Examination of the Hip joint:

settings	<p>Greet your patient, introduce yourself then ask for permission to examine him. Wash your hands. Ensure adequate privacy, warmth and illumination of the room. Pt exposed from toes up to iliac crests. Ask for any site of pain at the hip to avoid.</p>	
look	<ul style="list-style-type: none"> – Assess the gait by asking the pt to walk a straight path head and forth; normally smooth, symmetrical, ergonomically economical, with each leg 50% out of phase with the other (fancy ha! 😊) – while the pt is standing inspect from: <ul style="list-style-type: none"> ○ Front: stance straight or not, deformity, pelvic tilt, shoulder levels with ground, pelvic muscle wasting. ○ Sides: lumbar lordosis. (increased or decreased) ○ Behind: spinal deformity and gluteal atrophy ○ Around the hips: scars, sinuses, dressings, or any other skin changes. <p>[[Compare limbs bilaterally!!]]</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. gait 2. Stance 3. Shoulders parallel to the ground and symmetrically placed over pelvis or not 4. Pelvic tilt present or not 5. Deformity 6. Muscle wasting 7. Presence of stoop or increase in lumbar lordosis 8. Spine straight or there is deformity (ex. scoliosis) 9. Gluteal atrophy 10. Scars, sinuses or any skin changes.
Feel	<p>Palpate greater trochanter, lesser trochanter, and ischial tuberosity. Note any tenderness suggesting bursitis or muscle strains.</p>	<p>Comment on tenderness</p>
Move	<p>Flexion: While the pt is supine facing up. Move the leg of the pt with your Rt hand to flex the hip and the knee. place Lt hand below the pt back on lumbar spine; to detect masking of movement with lumbar spine flexion</p>	<p>Comment on range of passive hip flexion [NL 0-120°]</p>
	<p>Adduction and abduction: Stabilize the pelvis with your Lt hand placed on the opposite iliac crest, then move the leg with your Rt hand laterally and then medially crossing to opposite leg.</p>	<p>Comment on range of passive hip abduction [NL 45°] and adduction [NL 25°]</p>

	>> You can assess both limbs together from foot of the bed, by adducting and abducting at the level of the hip bilaterally.	
	External and internal rotation: Roll the extended leg over the couch OR with the knee flexed at 90° move foot medially for external rotation and laterally for internal rotation.	Comment on range of passive hip external and internal rotation [NL 45° each]
	Extension: While the pt is facing downwards (prone), stabilize the pelvis with your Lt hand, then assess hip extension bilaterally.	Comment on range of passive hip extension [NL 0- 20°]
Special tests	Shortening: While the pt is supine facing upwards and legs maximally stretched measure each limb from umbilicus to medial malleolus (apparent length) and from anterior superior iliac spine ASIS to medial malleolus (true length) >> confirm leg length discrepancy by Block test: ask the pt to stand with bare feet on the ground, raise the shorter leg using a series of blocks until the pelvis is leveled. Assess by palpating both ASIS.	Comment if there is true or apparent length discrepancy or shortening.
	Thomas test: With your left hand placed below the pt's back, passively flex both legs (hips & knees) with your Rt hand as far as possible. Then ask the pt to extend the tested hip actively while you hold non-tested hip flexed. Incomplete extension of the tested leg indicated fixed flexion deformity. [make sure the pt didn't undergone hip replacement before performing this test!!!]	comment on presence or absence of fixed flexion deformities in the hip joint.
	Trendelenberg's sign. Ask the pt to stand on one leg for 30 s, pt trunk will lean to the affected side and contralateral pelvis will drop. يرفع قدمه عن الأرض ويرجعها الى الورااء لمدة 30 ثانية	Comment if present or absent Trendelenberg's sign.

Examination of the knee joint:

settings	<p>Greet your patient, introduce yourself then ask for permission to examine him. Wash your hands. Ensure adequate privacy, warmth and illumination of the room. Pt exposed from toes up to iliac crests. Ask for any site of pain at or close to the knee to avoid.</p>	
look	<ul style="list-style-type: none"> – First assess the gait by asking the pt to walk a straight path head and forth. – Inspection while the pt is standing from: anterior; posture & deformities (genu valgus or varus), patellar hollow, muscle wasting, housemaide’s knee the sides; Baker’s cyst and posterior. >> For patellar hollow; ask the pt to pull the muscles actively around his knee <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> – Ask the pt to lie in supine position; look for Scars, sinuses, redness, rash, and flexion deformity. 	<p>Comment on ;</p> <ol style="list-style-type: none"> 1. Gait 2. Deformity 3. Patellar hollow 4. Muscle wasting 5. Housemaide’s knee 6. Baker’s cyst 7. Scars, sinuses, redness, rash 8. flexion deformity 9. lower limb length discrepancy**
Feel	<p>Temperature on both medial and lateral aspects of the knee bilaterally.</p>	
	<p>Palpate while knee in flexed position:</p> <ol style="list-style-type: none"> 1. Joint lines (depression between femur and tibia on sides of patella) 2. Condyles of tibia 3. Epicondyles of femur 4. Patella 5. Tibial tuberosity <p>With the knee extended, palpate patellar & quadriceps tendons. For bursitis, the knee should be extended and relaxed. Feel suprapatellat pouch above patella for sponginess.</p>	<p>Comment on;</p> <ol style="list-style-type: none"> 1. Tenderness. 2. Sponginess.

Move

<p>For effusion first inspect for the obliteration of the parapatellar grooves then do;</p> <ul style="list-style-type: none">- Mild effusion >> Ripple test milk above patella 5 cm then milk medial side = accumulation of fluid on lateral side of the knee. and then push laterally and view a bulge medially.- Moderate effusion >>Patellar tap ## absent in massive effusion- Massive effusion>> Fluctuation hold patella in between your hands, press upwards once and wait, press downwards once and wait.	<p>Comment;</p> <ol style="list-style-type: none">1. Obliteration of parapatellar grooves.2. Positive or negative ripple test, fluctuation and patellar tap.
<p>Actively :</p> <ul style="list-style-type: none">- Ask the pt to flex his knees as far as he can and then to extend it fully, while you place your palm over his knee joint to feel any crepitation.- Ask the pt to rise his lower limb at the hip keeping the knee extended to check for extension and flexion deformity. <p>If the pt was unable to rise his limb unless with a flexed knee, passively extend the leg; If can be extended passively then it's an extensor lag, if not then it's a flexion deformity which is due to a mechanical obstruction.</p>	<p>Comment on:</p> <p>Range of active movement of extension and flexion [NL 140°, symmetrical] and presence of crepitation.</p> <p>And comment on presence or absence of extensor lag or flexion deformity.</p>
<p>Passively ;</p> <ul style="list-style-type: none">- Passively flex the knee- For extension raise both legs together and observe laterally for hyperextension (genu recurvatum > 10°).	<p>Comment on ;</p> <p>Range of Passive movement and presence of hyperextension of the knee.</p>

Special tests

<p>Tests of knee stability:</p> <p>1. Collateral ligaments stability: apply first while leg fully extended 0° then at 30° flexion of the knee (to omit effect of cruciate ligaments and capsule), put pt's knee between your elbow and side, feel with your thumbs the joint lines</p> <ul style="list-style-type: none"> ○ Medial collateral ligament >> valgus stress ○ Lateral collateral ligament >> varus stress <p>>> major opening of the joint lines indicate a tear</p> <p>2. Cruciate ligaments stability: Put legs of the pt flexed together then inspect from the side for posterior sag sign. warn the pt that you are going to sit on his foot, perform:</p> <ul style="list-style-type: none"> – Anterior drawer test >> for anterior cruciate lig # false positive if posterior sag is present – Posterior drawer test >> for posterior cruciate lig 	<p>Comment if negative or positive valgus and varus stress tests.</p> <p>Comment from inspection on presence of posterior sag sign and then comment positive or negative anterior and posterior drawer tests.</p>
<p>Mcmurray tests for meniscal tear:</p> <ol style="list-style-type: none"> 1. Flex the knee to its full extent. 2. Hold from pt sole of foot. Medial meniscus >> <u>external</u> rotation at the hip and <u>varus</u> stress at the knee Lateral >> <u>internal</u> rotation at the hip and <u>valgus</u> stress at the knee 3. Extend the knee smoothly. Hear for a click or clunk accompanied by discomfort. 	<p>Comment positive or negative medial and lateral McMurray tests</p>
<p>Patellar apprehension test: With the pt's knee fully extended, push the patella laterally with your thumb, and then flex the knee slowly. If the pt actively resists flexion, this suggest previous patellar dislocation or instability</p>	<p>Comment if positive or negative Patellar apprehension test.</p>
<p>Squat test: Ask the pt to squat, keeping the feet and heels flat on the ground. if pt can't perform this test; this indicates incomplete knee flexion on the affected side which is caused by a tear of the posterior horn of the menisci</p>	<p>Comment if pt was able to perform squat test.</p>

Move	<p>1. Ask the pt to flex his foot up, then down, then inside, then outside.</p> <p>2. Move the pt's foot passively to assess range of motion; at ankle; dorsiflexion [NL 15°] & planter flexion [NL 45°] at subtalar joint (while foot is dorsiflexed); inversion [NL 20°] & eversion [NL 10°]</p> <p>>> If range of passive dorsiflexion is restricted, assess the contribution of gastrocnemius by applying dorsiflexion of the ankle once while knee is flexed, another when the knee is extended.</p> <p>If the movement is harder while knee is extended, this suggests gastrocnemius contracture.</p>	Comment on range of motion
Special tests	<p>Achilles tendon: Ask the pt to kneel with both knees on a chair, and then palpate gastrocnemius and Achilles tendon</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Tenderness 2. Soft tissue swelling 3. Gap in the Achilles tendon
	<p>Thomson's (Simmond's) test: Ask the pt to kneel with both knees on a chair, and then squeeze the calf just distal to the level of maximum circumference. If the Achilles tendon is intact, plantar flexion of the foot will occur</p>	<p>Comment if plantar flexion occurred or not.</p>

Nervous system

Examine conscious level of the patient (glaswa comma scale):

Glasgow Coma Scale		
BEHAVIOR	RESPONSE	SCORE
Eye opening response	Spontaneously	4
	To speech	3
	To pain	2
	No response	1
Best verbal response	Oriented to time, place, and person	5
	Confused	4
	Inappropriate words	3
	Incomprehensible sounds	2
	No response	1
Best motor response	Obeys commands	6
	Moves to localized pain	5
	Flexion withdrawal from pain	4
	Abnormal flexion (decorticate)	3
	Abnormal extension (decerebrate)	2
	No response	1
Total score:	<i>Best response</i>	15
	<i>Comatose client</i>	8 or less
	<i>Totally unresponsive</i>	3

Eye opening:
four-eye guy
Verbal response:
Jackson 5
motor response:
6 wheeled vehicle

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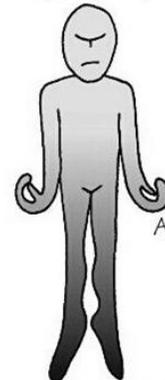
DECORTICATE
(Flexor)



Arms are like
"C's"
Moves in toward
the "Cord"

Problems With Cervical
Spinal Tract or
Cerebral Hemisphere.

DECEREBRATE
(Extensor)



Arms are like
"e's"

Problems Within
Midbrain or Pons.

Examination of Stance and Gate:

Settings	<p>Greet your patient and introduce yourself to him.</p> <p>Explain the examination and ask for his consent to carry it out.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Ask if the pt is currently experiencing any pain.</p>	
Stance	<p>Ask the pt to stand upright with feet close together, eyes open, shoes off, and hands by side.</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. Swaying with opened eyes. 2. swaying with closed eyes (sensory ataxia) = positive Romberg's test
	<p>Observe for abnormal posture from front and side.</p> <p>Perform Romberg's test; ask the pt to stand with closed eyes and observe for body swaying (truncal ataxia).</p> <p>Be ready to support the pt in case he lost his balance.</p> <p># Positive Romberg's test indicates posterior column disease.</p>	
Gait	<p>Ask the pt to move a measured straight 10 meters path back and forth</p>	<p>Comment on:</p> <ol style="list-style-type: none"> 1. time needed to complete the walk 2. stride length 3. arm swing 4. steadiness during turning 5. limping 6. ability to perform tandem gait
	<p>Perform Tandem gait; ask the pt to walk the same distance heel to toe in a straight line.</p> <p># Ataxia on a narrow-based gait suggests a cerebellar or vestibular lesion.</p>	

Forms of gait abnormalities:

hemiplegic gait >> semi-circular foot motion.

Bilateral UMNL >> scissor-like gait.

Cerebellar dysfunction >> broad-based, unsteadiness.

Parkinson gait >> delayed initiation, short steps, loss of arm swing, festinating gait.

Proximal myopathy >> waddling gait.

Huntington's gait >> bizarre gait "dancing-like".

Examination of the Cerebellum (Co-ordination):

Settings	<p>Greet your patient and introduce yourself to him.</p> <p>Explain the examination and ask for his consent to carry it out.</p> <p>Wash your hands. Ensure adequate privacy, warmth and illumination of the room.</p> <p>Ask if the pt is currently experiencing any pain.</p>	
General	Listen to the pt speech when he welcomes you back.	Comment if the pt has dysarthria, staccato or slurred speech
Inspection	<p>Look for resting tremor and intention tremor</p> <p># resting tremor is a sign of Parkinson's, while intention tremor is a sign of cerebellar disease.</p>	Comment if resting tremors present or not
Tests from up to down	<p>Test for Nystagmus:</p> <p>with both eyes opened, ask the pt to hold head still, and follow the tip of your finger. Draw an H shape in front of him. observe for Nystagmus on lateral gaze specially</p>	Comment if horizontal Nystagmus present or not
	<p>Examine the pt speech by asking him to explain to you how he get down to the hospital or say his long name.</p> <p>Note any slurring in speech, slowness in rhythm or dysarthria.</p>	Comment on dysarthria, staccato or slurred speech
	<p>Finger-nose test:</p> <p>Place your index finger at about half a meter from the pt's face. Ask him to touch the tip of his nose then the tip of your finger with the tip of his index. Once he is able to do this, ask him to do it as fast as he can. Ask him to repeat the test with his other hand.</p> <p>Dysmetria (past-pointing) and intention tremor at the end of the movement are cerebellar signs.</p>	Comment on dysmetria and intention tremor
	<p>Rapid alternating movement:</p> <p>Ask the pt to clap with alternating the dorsal then palmar surfaces of one hand. Once he is able to do this, ask him to do it as fast as he can.</p> <p>Ask him to repeat the test with his other hand.</p>	Comment on Dysdiadochokinesis

Finishing	<p>Rebound phenomenon: ask the pt to stretch his arms out in front and maintain this position, then push the pt's wrist quickly downwards and observe the returning movement if became pendular.</p>	Comment on positive rebound phenomenon
	<p>Heel-to-shin test: lie the pt on a couch. Ask him to run the heel of one leg down the shin of the other, and then to bring the heel back up to the knee and to start again. Ask him to repeat the test with his other leg.</p>	Comment on dysmetria and intention tremor in the lower limbs
	<p>Stance & gait: Ask the pt to stand upright with feet close together, eyes open, shoes off, and hands by side. Observe for body swaying from front and side >>> truncal ataxia is a cerebellar sign. ask the pt to perform tandem gait by walking a straight path heel to toe >> inability to perform tandem gait is a cerebellar sign</p>	Comment on truncal ataxia and ability to perform tandem gait
	Examine muscle tone in the upper limbs and lower limbs, comparing both sides.	Comment if normal or reduced muscle tone
	Examine deep tendon reflexes in the upper and lower limbs	Comment if normal or exaggerated reflexes. And if pendular

If you were asked to list cerebellar signs, simply remember the acronym **D₂ANISH₂**:

- Dysdiadochokinesis and **D**ysmetria
- A**taxia
- N**ystagmus
- I**ntention tremor
- S**lurred/ staccato speech
- H**ypotonia and **h**yporeflexia

Examination of the Cranial Nerves:

Settings

Greet your patient and introduce yourself to him.
Explain the examination and ask for his consent to carry it out.
Wash your hands. Ensure adequate privacy, warmth and illumination of the room.
Ask if the pt is currently experiencing any pain.

I (olfactory nerve)

1. Check nasal passages patency; by asking the pt directly to report any feeling of nasal blockage, then close one nostril and ask pt to breathe in while you listen to sound of breathing, and then repeat for the other side.
 2. Look for septal deviation
 3. Ask the pt to close his eyes, then present to him commonly available odors and ask pt to identify it.
** test each nasal passage alone
- >anosmia (Absence of the sense of smell): in head injury and basal ganglia disease
>parosmia (disorder in the sense of smell): in head trauma, past sinusitis, S/E of drugs
>olfactory hallucination: in Alzheimer's and focal epilepsy

II (Optic nerve)

1. Look for pupils symmetry, regularity, shape and size (NL 3-5 mm in light, 4-9 mm in dark)
2. Examine visual acuity by snellen/logMar chart
3. Examine colour vision by ishihara series
4. Fundoscopy to examine posterior retina by fundoscope
5. Examine visual field;
sit directly facing the pt at an eye level about 1 meter away (**confrontation**), ask pt to fix his eyes on your nose and not move his head. Examine:
a- homonymous defect with *both eyes open* at 2, 4, 8, 10 o'clock
b- sensory inattention with *both eyes open*
c- peripheral visual fields for *each eye at a time* at 2, 4, 8, 10 o'clock
d- central visual field for *each eye at a time*, using red hatpin.
by asking pt to identify its colour, then test if can see the same at four quadrants of vision.
e- Size of blind spot: located 15° to temporal side of point of visual fixation.
6. Pupillary examination; light reflex and accommodation reflex

III (oculomotor nerve),
IV (Trochlear nerve),
VI (Abducens nerve)

- Inspect for:
 1. Head & eyelid position:
head tilt, strabismus, proptosis (exophthalmos) from above and behind, ptosis, lid-lag by asking pt to follow your finger from 45° above horizon
 2. pupils symmetry
 3. periorbital edema, lacrimal apparatus, eye lid margin, conjunctiva, sclera, cornea with dye
- Test movements of extra-ocular muscles;
sit in confrontation, move your finger in H or + motion.
Look for nystagmus, ask pt to report double vision
comment: smooth pursuit, no divergence of gaze, no nystagmus
- Do cover test (for strabismus if present)
- Do Pupillary examination; light reflex and accommodation reflex

V (trigeminal nerve)

Motor:

- 1- Inspect for muscle wasting
- 2- Ask pt to clench his teeth, then feel for muscle bulk of masseter and temporalis
- 3- Ask pt to open his jaw while you apply upward resistance, note weakness or deviation of the jaw.

Sensory:

Ask the pt to close his eyes, test sensations at dermatomes of 3 branches (ophthalmic, maxillary, mandibular) **bilaterally** of the following sensory modalities;

- 1- light touch using cotton wool
 - 2- pain using neurotip
- examine touch sensation of anterior 2/3 of tongue using orange stick

Reflexes:

- 1- Corneal reflex.(Afferent: CN 5 ,, Efferent : CN 7)
- 2- Jaw reflex (Afferent : CN 5 ,, Efferent :CN 5)

VII (facial nerve)

- **Inspect** for:
Facial asymmetry, difference in blinking, involuntary movements, presence of nasolabial folds, deviation of the angle of the mouth
- **Motor:**
 - 1- Ask pt to look up, inspect for forehead wrinkles
 - 2- Ask pt to close his eyes tightly against resistance, examine power
 - 3- Ask pt to blow out his cheeks against resistance, examine power
 - 4- Ask pt to whistle (or purse his lips)
 - 5- Ask pt to smile widely (show me your teeth smile :D), examine deviation of the angle of the mouth
- Test **taste** sensation of anterior 2/3 of the tongue by present commonly available food.
- Schirmer's **tear** test
- Corneal **reflex**
- Hyperacusis (increased auditory volume in an affected ear) may be produced by damage to the VII cranial nerve as it innervates the stapedius muscle. Examine it by noting pt reaction when noise produced near his ear.

VIII (Vestibulo-cochlear nerve)

- Hearing part (cochlear branch):**
- 1- Whispered voice test from 15cm away, ask pt to repeat what he hears while closing other ear (mask hearing in contralateral side by pushing tragus)
 - 2- Weber's test: NL symmetrical at midline
 - 3- Rinne's test: NL air conduction better than bone conduction 'positive test'
- Vestibular branch:**
- 1- Dix-Hallpike maneuver
 - 2- Vestibular reflex that includes caloric reflex and oculocephalic reflex

IX (glosso-pharyngeal), X (vagus nerve)

- 1- Examine pt **speech**
comment on dysarthria & dysphonia
note the quality and sound of the patient's voice. Is it hoarse or nasal?
- 2- Ask pt to **cough**; comment if bovine
- 3- Ask pt to say 'aah' while you look at the back of his mouth using the light of your torch for **deviation of uvula** of contraction of pharyngeal muscles
(in the unilateral weakness it will deviate to the normal side)
- 4- Examine **gag reflex** by water swallow test in a conscious pt
- 5- Ask pt to puff out to examine for **nasal escape**

XI (accessory nerve)

- **Inspect** for:
Muscle atrophy, involuntary movements, symmetry of shoulder contour
- **Palpate** muscle bulk
- Examine **power**
 - 1- Ask pt to shrug his shoulders while you apply downward pressure to examine trapezius
 - 2- Ask pt to turn his head to one side against resistance to examine sternomastoid (this examine contralateral side)

XII (hypoglossal nerve)

- **Inspect** for:
wasting of the tongue, tremor, fasciculation, involuntary movements
- Ask pt to protrude his tongue. Look for deviation of tip of the mouth
Note for deviations of the tongue from midline, a complete lack of ability to protrude the tongue or any involuntary movement.
Tongue will deviate towards the side of a peripheral lesion, and to the opposite side of a central lesion.
- Ask pt to move his tongue from side to side
- Examine power; press tongue against cheek with resistance
- Examine lingual speech by asking pt to say 'lah lah lah'
- Examine swallowing by water swallow test

Examination of the Motor System:

Motor examination of the *UPPER* limbs

Inspection & palpation	<ol style="list-style-type: none"> 1. Inspect: asymmetry (proximally & distally), deformities (clawing of hand), wasting or hypertrophy, fasciculation (flick skin), involuntary movement 2. Palpation: bulk (hypertrophy or wasting), tenderness
Tone	<ul style="list-style-type: none"> - Hold the rested pt arm as if shaking hands and support the elbow. - Passively move the joint through full range of motion. Once slowly, other fast. Flex and extend the wrist, elbow, and shoulder. Rotate the forearm. Compare bilaterally. [results: NL, hypotonia, hypertonia: spasticity, rigidity]
Reflexes	<ul style="list-style-type: none"> - May ask pt to clench teeth (reinforcement), compare bilaterally. - Deep tendon reflexes: biceps (C5, C6) Supinator (brachioradialis) reflex (C5, C6) Triceps tendon (C6, C7) Finger jerk (UMNL) Hoffman's reflex (UMNL) - Primitive reflexes: Grasp reflex, palmomental reflex. [results: NL, hyperreflexia, brisk, diminished, absent]
Power	<p>{try to know each muscle group, and its nerve supply}</p> <ul style="list-style-type: none"> - Assess power against gravity then against resistance. Compare bilaterally. - Shoulder abduction, adduction (chicken) (shoulder flexion, extension) - Elbow flexion, extension - Wrist flexion & extension - Finger abduction (dorsal interossei, abd dig minimi), (adduction of fingers), (finger flexion & extension) - thumb extension & opposition - Grip strength (using index & middle fingers inserted from thumb side) - Pronator drift (pyramidal drift) (eyes closed)
Coordination	<ul style="list-style-type: none"> - Rebound phenomenon - Finger nose test (no past-pointing or intention tremor) - Rapid alternating movement: DDK

Motor examination of the LOWER limbs

Inspection & palpation	<ul style="list-style-type: none"> - Inspection: asymmetry (proximally & distally), deformities, wasting or hypertrophy, fasciculation (flick skin), involuntary movement - Palpation: bulk, tenderness
Tone	<ul style="list-style-type: none"> - While pt is supine, roll his LL (rotate) from side to side - briskly lift knee to a flexed position (hypotonia, hypertonia: spasticity, rigidity) - Clonus: Knee Ankle
Reflexes	<ul style="list-style-type: none"> - DTR: Knee jerk (L3, L4) (Jendrassik's maneuver) Ankle jerk (S1, S2) - Superficial reflex: Plantar reflex (absent Babinski sign) (S1,S2) Abdominal reflex (T8-T12) Mention (cremasteric reflex) (L1,L2)
Power	<p>{try to know each muscle group, and its nerve supply}</p> <ul style="list-style-type: none"> - Lift leg (hip flexion & knee extension) (repeat against resistance: hip flexors + try to stop me from bending your knee: knee extensors) - (hip extension, adduction & abduction of hips) - Bend knee (knee flexors against resistance) (pt: heel to "bottom") - Ankle dorsiflexion & toe extensors, plantarflexion & toe flexors (against resistance)
Coordination	Heel-shin test (cerebellar ataxia)

Examination of the Sensory System:

Sensory examination of the *UPPER* limbs

(pt palms upward, look at ceiling)

1. **Light touch** (with cotton), compare bilaterally:
C5 (deltoid area)
C6 (biceps area, lateral forearm, thumb)
C7: middle finger
C8: little finger
T1: medial forearm
2. **Superficial pain** (use neurological pen):
(same as above):
3. **Deep pain:**
Squeeze biceps, or apply pressure to fingernail beds
4. **Temperature** (use tuning fork: cold)
5. **Vibration sense** (128Hz, sternum):
DIP (proximally if absent → radial styloid, olecranon, acromion), (tell me when it stops vibrating)
6. **Proprioception** (joint position sense)
(DIP of middle finger, move proximal if sensation is impaired)
7. **2-point discrimination** (middle & thumb) (2-4 mm on finger pads)
8. **Stereognosis:**
palce familiar objects in the pt palm, ask to identify.
9. **Graphesthesia:**
using blunt tip, trace letters or digits on the pt palm, ask to identify.
10. **Point localization** (which finger am I touching) (finger agnosia), (which side am I toughing you on: Rt, Lt, both)
11. **Sensory inattention**

Sensory examination of the LOWER limbs

(look at ceiling)

1. **Light touch** (with cotton/finger):
L2: (lateral thigh)
L3: (medial knee)
L4: (medial leg)
L5: (lateral leg, dorsum of foot)
S1: little toe/lat side of foot, lateral side of dorsum of foot
2. **Superficial pain:** (same as above)
3. **Deep pain:**
Squeeze calf, or apply pressure to toe nail beds
4. **Temperature** (use tuning fork: cold)
5. **Vibration sense** (128 Hz, sternum):
DIP (proximally if absent) (tell me when it stops vibrating)
6. **Proprioception** (joint position sense) (DIP of great toe, move proximal if sensation is impaired)
7. **2-point discrimination**
8. **Stereognosis**
9. **Graphesthesia**
10. **Point localization** (which toe am I touching), (which side am I touching you on: Rt, Lt, both)
11. **Sensory inattention**

For examination of **Speech examination and Signs of Meningeal irritation** please refer to *Macleod's book*

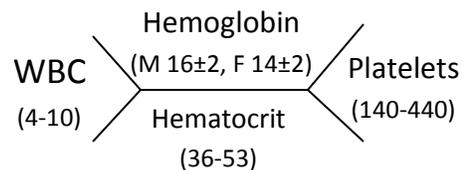
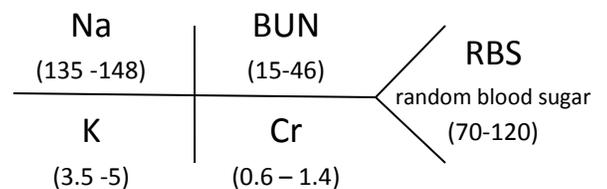
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Appendix

Abbreviations

Pt = patient
 Hx = history
 Px = physical examination
 Dx = diagnosis
 DDx = deferential diagnosis
 y/o = year old
 ICU = intensive care unit
 CCU = cardiac care unit
 OPD = out-patient department
 ER = emergency room
 PTP = prior to presentation
 PTA = prior to admission
 CC = chief complaint
 HPI = history of presenting illness
 ROS = review of system
 Wt = weight
 PND = paroxysmal nocturnal dyspnea
 SOB = shortness of breath
 LMP = last menstrual period
 OCP = oral contraceptive
 NKDA = no known drug allergy
 CAO3 = conscious and oriented in time, place and person
 LOC = loss/level of consciousness
 GAEB = good air entry bilateral
 Bx = biopsy
 Rx = treatment regimen
 MTX = methotrixate
 CTX = chemotherapy
 RTX = radiotherapy
 ttt = treatment
 △ = diagnosed with, or trimester in pregnancy
 ABG = arterial blood gases or air bone gap in ENT
 e = electrolytes
 AAA = abdominal aortic aneurysm

ARDS = acute respiratory distress syndrome
 COPD = chronic obstructive pulmonary disease
 ASA= acetyl salicylic acid (aspirin)
 CXR = chest x-ray
 AXR = abdominal x-ray
 CBC = complete blood count (lab test)
 c/o = complains of
 EUA = examination under anesthesia
 FNA = fine needle aspiration (lab test)
 NGT = nasogastric tube
 NPO = nothing per os
 POD = post operative day
 RTC = return to clinic
 RTA = road traffic accident
 RTA = renal tubular acidosis
 S /P = status post (Ex. s/p hernia repair)
 Lap choly = laparoscopic cholecystectomy
 Op = operation
 DM = diabetes mellitus
 CKD = chronic kidney disease
 lab results symbol with normal ranges ;



Past years OSCE stations

Summer 2014

Summer 2013

'this is the first time when introductory exam get history taking stations!'

Stations of the first day group:

1. take a history from a patient complaining of cough and ask him the questions that help you to differentiate asthma from COPD
2. take a history from patient with MI
3. take a history from patient with jaundice (points mentioned in figure 8.25 page 196 of Macleod's should be asked)
4. examine the patient's knee doing only the passive and active movements
5. do inspection and palpation of the abdomen
6. do motor examination of the lower limb

Stations of the second day group:

1. examination of cerebellum
2. inspection and percussion of the abdomen
3. physical examination for knee effusion
4. history of chest pain asking the questions that help you differentiate stable from unstable angina
5. (Oral station) the instructor asked about the signs and symptoms of iron deficiency, low WBCs count and low platelets count.
6. take a history from patient complaining of cough and ask him the questions that help you differentiate asthma from COPD

Summer 2012

1. examine stability of the right knee
2. do inspection of the abdomen
3. do percussion and auscultation of the anterior chest
4. do palpation and auscultation of the precordium
5. examine the patient radial pulse
6. examine facial nerve

II ___ ROS:

General:

- Well being; _____
- Appetite; _____
- Energy; _____
- Sleep; _____
- Mood; _____
- Wt change; _____

Cardiovascular system:

- Chest pain
- Palpitation; _____
- Breathlessness;
 - o on lying flat, relived by ___ pillows
 - o at night around ___ o'clock
 - o on minimal exertion like _____
- Claudication; at _____ distance
- Ankle swelling

Respiratory system:

- SOB
- Sputum; that is _____ (timing),
in _____ color, in _____ amount,
with _____ smell, _____ contain solid
materials.
- Cough; dry/productive, sound (_____),
timing (_____), associated with _____
_____, exacerbated by _____
relieved by _____
- Hemoptysis; _____
- Wheeze on _____
- Chest pain on inspiration or coughing

Gastrointestinal system:

- Oral ulcers; if painful
- Indigestion
- Dental hygiene; _____
- Heartburn
- Dysphagia; to solids or liquids,
at _____ level.
- abdominal pain
- Odynophagia
- Change in bowel habits. Normally pass feces
_____ times a day, this has increased /
decreased to _____ a day.
- Nausea
- Vomiting; the vomitus is _____
- change in color of stool; _____
- Hematemesis

urinary system:

- pain passing urine (dysuria); _____
- incontinence (stress/ urge)
- frequency; if at night (nocturia)
- libido; normal or changed
- hematuria
- unprotected intercourse
(multiple sexual partners)

Genital system:

for men:

- hesitancy
- poor stream
- terminal dribbling
- urethral discharge
- erectile difficulties

For women:

- LMP _____
- Period is _____
- Heavy bleeding; state if contain clots
- vaginal discharge
- OCP
- dyspareunia

Endocrine system:

- Heat or cold intolerance
- change in sweating
- excessive thirst

Musculoskeletal system:

- Joint pain
- Stiffness
- joint swelling
- restricted mobility
- falls

Nervous system:

- Headache
- Dizziness
- Faints
- fits
- altered sensation
- Weakness
- visual disturbances
- hearing problems
- memory & concentration changes

Others:

- bleeding or bruising
- Skin rash

II ___ Past Hx:

Medical:

chronic illnesses; (D / E / A / T / H), OSA, _____
previous hospital admissions (when, where, why, length of stay);

history of blood transfusion (when, where, why, how many, complications);

Surgical (when, where, why, complications, anesthesia) :

Obstetrical:

LMP _____, age of menarche _____ and menopause _____,
number of pregnancies _____ & complications _____,
type of delivery _____ & complications _____,
abortion _____ & cause _____,
family planning method _____.

Question: Examine the thyroid gland of this patient

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Expose the neck and upper chest	<input type="checkbox"/>
Position the patient sitting upright on a chair and ask for a glass of water	<input type="checkbox"/>
Stand at the Rt side of the pt	<input type="checkbox"/>
On inspection ask the pt to hyperextend his neck, and comment on scars and swelling	<input type="checkbox"/> hyperextension of the neck <input type="checkbox"/> neck scars <input type="checkbox"/> swelling
On inspection ask the pt to swallow, and comment on any mass that moves with swallowing	<input type="checkbox"/> ask to swallow <input type="checkbox"/> Mass movement with swallowing
on inspection ask the pt to protrude his tongue, then look for any mass in the neck moving on protrusion	<input type="checkbox"/> Protrude tongue <input type="checkbox"/> Comment on mass
Comment on looking at the back of the mouth for lingual goiter	<input type="checkbox"/>
Ask for any site of pain on the neck before palpation	<input type="checkbox"/>
Warm his hands before palpation	<input type="checkbox"/>
Maintain eye-to-eye contact throughout palpation	<input type="checkbox"/>
Palpate the neck while slightly flexed	<input type="checkbox"/>
While palpation, comment on palpable thyroid, hotness, thrills	<input type="checkbox"/> palpable thyroid <input type="checkbox"/> hotness <input type="checkbox"/> thrills
Ask the pt to swallow while palpating the neck	<input type="checkbox"/>
Comment on the need to palpate cervical LN	<input type="checkbox"/>
Percuss directly on the manubrium of sternum.	<input type="checkbox"/>
Auscultate with diaphragm for bruits over both thyroid lobes	<input type="checkbox"/>
Thank the pt when finished	<input type="checkbox"/>

Question: Examine JVP

Steps (total 26)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Position the Pt in semi-recumbant (45°)	<input type="checkbox"/>
ask pt to slightly turn his head to the Lt side	<input type="checkbox"/>
Stand at the right side of the pt	<input type="checkbox"/>
Inspect the neck for visible pulsation	<input type="checkbox"/>
Comment on the visible pulse; 2 pulses were visible an outward single peaked arterial pulse and an inward double waved venous pulse.	<input type="checkbox"/>
Ask pt to hold his breath at deep inspiration	<input type="checkbox"/>
Comment that JVP decreases on inspiration	<input type="checkbox"/>
Ask the pt to sit up, while he observe the effect on the pulse	<input type="checkbox"/>
Comment that JVP disappears on sitting upright	<input type="checkbox"/>
Ask for any site of pain in the neck before palpation	<input type="checkbox"/>
Warm his hands before palpation	<input type="checkbox"/>
Palpate the visible pulse	<input type="checkbox"/>
Comment that JVP pulse is impalpable	<input type="checkbox"/>
Do neck obliteration test	<input type="checkbox"/>
Comment that JVP disappears on neck obliteration	<input type="checkbox"/>
Warn the pt that he's going to push his abdomen and ask if the abdomen is tender	<input type="checkbox"/>
Perform abdomino-jagular reflex	<input type="checkbox"/>
Comment that JVP increases with abdomino-jagular reflex	<input type="checkbox"/>
Comment on the need to measure JVP	<input type="checkbox"/>
Auscultate the neck for venous hum	<input type="checkbox"/>

Question: Do inspection then palpation of the Precordium

Steps (total 28)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Position the Pt in semi-recumbent (45°)	<input type="checkbox"/>
Exposure of anterior chest to the umbilicus	<input type="checkbox"/>
Stand at the foot of the bed	<input type="checkbox"/>
At the foot of the bed comment on chest deformities and body hair distribution	<input type="checkbox"/> chest deformities <input type="checkbox"/> body hair distribution
Stand at the right side of the pt	<input type="checkbox"/>
At the right side of the pt inspect for scars	<input type="checkbox"/>
Look at the axilla at the left of the pt for scars	<input type="checkbox"/>
At the right side comment on visible pulsation (location)	<input type="checkbox"/>
Warm his hands	<input type="checkbox"/>
Ask for any tender area on the chest	<input type="checkbox"/>
Maintain eye-to-eye contact throughout palpation	<input type="checkbox"/>
Comment on chest tenderness	<input type="checkbox"/>
Locate the apex beat	<input type="checkbox"/>
Comment on the apex beat;	<input type="checkbox"/> gently tapping <input type="checkbox"/> location
Ask the pt to hold his breath at expiration after a deep inspiration for palpation of heaves	<input type="checkbox"/>
Palpate for left ventricular heave at the apex using palm	<input type="checkbox"/>
Palpate for right ventricular heaves at the left sternal margin	<input type="checkbox"/>
Palpate for thrills using the pulps of your fingers at apex and both sides of sternum	<input type="checkbox"/> at apex <input type="checkbox"/> at right side of sternum <input type="checkbox"/> at left side of sternum

Question: Do percussion & auscultation of the posterior chest

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Expose the back to the iliac crest.	<input type="checkbox"/>
Position the patient Sitting upright, scapula apart (arms crossed)	<input type="checkbox"/>
Stand at the right side of the pt	<input type="checkbox"/>
Percuss the following locations	<input type="checkbox"/> Lung apices <input type="checkbox"/> 2 locations medial to scapula <input type="checkbox"/> 2 locations below the scapula <input type="checkbox"/> 3 locations in the axillary area
Comment on percussion note	<input type="checkbox"/> symmetrical bilateral resonant percussion note all over the chest
Comment on the need to check diaphragmatic excursion	<input type="checkbox"/>
Auscultate using the diaphragm of the stethoscope	<input type="checkbox"/>
Ask the pt to take a deep breath using his mouth when placing the stethoscope on his chest then Listen for breath sounds over the following locations;	<input type="checkbox"/> Lung apices <input type="checkbox"/> 2 locations medial to scapula <input type="checkbox"/> 2 locations below the scapula <input type="checkbox"/> 3 locations in the axillary area
Comment on breath sounds	<input type="checkbox"/> vesicular breathing sound <input type="checkbox"/> wheeze <input type="checkbox"/> crackles <input type="checkbox"/> pleural friction rubs <input type="checkbox"/> clicks
Comment on vocal resonance	<input type="checkbox"/>
Comment on Aegophony	<input type="checkbox"/>
Comment on Whispering pectoriloquy	<input type="checkbox"/>
Thank the pt	<input type="checkbox"/>

Question: Do inspection then palpate the liver & spleen

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
exposure from the nipples to the knees	<input type="checkbox"/>
Position the pt lying in flat position with head rested on one pillow (15°-20° above horizontal)	<input type="checkbox"/>
Inspect the abdomen from foot of the bed, comment on the following	<input type="checkbox"/> symmetry <input type="checkbox"/> movement with respiration <input type="checkbox"/> shape of abdomen <input type="checkbox"/> Site & shape of umbilicus
Inspect from the right side of the patient, and comment on	<input type="checkbox"/> Scars <input type="checkbox"/> scratch marks <input type="checkbox"/> Striae <input type="checkbox"/> Visible masses
Ask the pt to cough, comment on cough impulse	<input type="checkbox"/>
Comment on hernial orifices	<input type="checkbox"/>
Test for Divarication of recti	<input type="checkbox"/>
Sit at the right side of the patient	<input type="checkbox"/>
Ask for any area of tenderness on the abdomen	<input type="checkbox"/>
Warm his hands	<input type="checkbox"/>
maintain eye-to-eye contact throughout examination	<input type="checkbox"/>
Palpate for the liver starting from RIF	<input type="checkbox"/>
Do murphy's sign	<input type="checkbox"/>
Palpate for the spleen starting from RIF	<input type="checkbox"/>
ask the pt to flex his knees and roll to his Rt side, and palpate the spleen while in that position	<input type="checkbox"/>
Using correct maneuver for palpation of liver & spleen	<input type="checkbox"/>
Thank the pt	<input type="checkbox"/>

Question: Test rotator cuff muscles of the shoulder joint

Steps (total 25)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Pt seated upright facing the examiner	<input type="checkbox"/>
both arms exposed	<input type="checkbox"/>
Ask for pain at the shoulder	<input type="checkbox"/>
Teres minor and infraspinatus: The pt is asked to hold his hand in 30° flexion against his anterior trunk side, with his palm facing inward pointing to the trunk. Ask the patient to try moving his arm away from the body against resistance (external rotation!).	<input type="checkbox"/> Do test <input type="checkbox"/> Mention name of muscle examined <input type="checkbox"/> Pain on movement
Subscapularis: The patient is asked to hold his hand behind his back at waist level with 90° flexion at elbow and the palm facing out. Ask the patient to move his arm away from his body against resistance from the examiner (internal rotation!).	<input type="checkbox"/> Do test <input type="checkbox"/> Mention name of muscle examined <input type="checkbox"/> Pain on movement
Supraspinatus: Ask the pt to abduct his arm from 0° against resistance.	<input type="checkbox"/> Do test <input type="checkbox"/> Mention name of muscle examined <input type="checkbox"/> Pain on movement
Supraspinatus: Empty can test	<input type="checkbox"/> Do test <input type="checkbox"/> Mention name of muscle examined <input type="checkbox"/> Pain on movement
Supraspinatus: Painful arc test (impingement)	<input type="checkbox"/> Do test <input type="checkbox"/> Mention name of muscle examined <input type="checkbox"/> Pain on movement
Thank the patient	<input type="checkbox"/>

Question: test for cerebellar signs

Steps (total 22)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Listen to the pt speech, comment on dysarthria, staccato or slurred speech	<input type="checkbox"/>
Comment on resting tremor	<input type="checkbox"/>
Test for horizontal Nystagmus	<input type="checkbox"/>
Finger-nose test for both hands	<input type="checkbox"/>
Comment on Dysmetria of UL	<input type="checkbox"/>
Comment on intention tremor of UL	<input type="checkbox"/>
Perform Rapid alternating movement for both hands	<input type="checkbox"/>
Comment on Dysdiadochokinesis	<input type="checkbox"/>
Test for Rebound phenomenon	<input type="checkbox"/>
Perform Heel-to-shin test on both legs	<input type="checkbox"/>
Comment on dysmetria and intention tremor in the lower limbs	<input type="checkbox"/>
Comment on stance; truncal ataxia in cerebellar disease	<input type="checkbox"/>
Ask the pt to do tandem gait	<input type="checkbox"/>
Comment on muscle tone; hypotonia	<input type="checkbox"/>
Comment on deep tendon reflexes; hyperreflexia and pendular	<input type="checkbox"/>
Thank the pt	<input type="checkbox"/>

History taking station:

A 23 year old young female has arrived to the ER complaining of Feeling of hotness, talk to her in regards to her complaint.

Steps (total 25)	Check if done
Introduce him/her self, ask for permission, and ensure conversation is private	<input type="checkbox"/>
skip taking patient profile	
Specify what patient mean by feeling of hotness	<input type="checkbox"/>
duration	<input type="checkbox"/>
If measured body temperature at home or not	<input type="checkbox"/>
Onset; acute vs chronic	<input type="checkbox"/>
Progression; fluctuating or constant	<input type="checkbox"/>
Associated; rigors or chills	<input type="checkbox"/>
Associated pain; in the ears, head, neck, teeth, chest, abdomen, flank, rectum, muscles, joints	<input type="checkbox"/>
Associated nasal congestion or discharge	<input type="checkbox"/>
Associated sore throat, or dysphagia	
Associated cough	<input type="checkbox"/>
Associated diarrhea	<input type="checkbox"/>
Associated urinary symptoms; frequency, urgency, dysurea	<input type="checkbox"/>
Presence of rash; including location, onset in relation to fever	<input type="checkbox"/>
Associated lumps; lymphadenopathy	<input type="checkbox"/>
B symptoms; night sweats, weight loss	<input type="checkbox"/>
Previous history of recurrent fever	<input type="checkbox"/>
Contact to sick people at home or school	<input type="checkbox"/>
Eating outside home or under cooked food	
Past history of recent surgery	<input type="checkbox"/>
Past medical history of diabetes, rheumatological diseases, sickle cell, hepatitis, HIV	<input type="checkbox"/>
Recent travel	<input type="checkbox"/>
Drug history; cocaine, amphetamine, phenytoin, carbamazepine, corticosteroids ...etc	<input type="checkbox"/>
vaccination	<input type="checkbox"/>
Thank the patient	<input type="checkbox"/>

History taking station:

a 65 year old male has visited your clinic complaining of Lower limb swelling, ask him relevant questions to reach a diagnosis

Steps (total 28 points)	Check if done
Introduce him/her self, ask for permission, and ensure conversation is private	<input type="checkbox"/>
skip taking patient profile	
Specify what patient mean by LL swelling	<input type="checkbox"/>
duration	<input type="checkbox"/>
Site; unilateral or bilateral	<input type="checkbox"/>
Extent; up to what level	<input type="checkbox"/>
Onset; acute vs chronic	<input type="checkbox"/>
Progression; Throughout the day , with activity, Lying or standing	<input type="checkbox"/>
Associated symptoms; Pain , itching	<input type="checkbox"/>
Other site; Periorbital, Abdomen, Genitalia, Back, Hands, ... etc	<input type="checkbox"/>
Inquire about local causes;	<input type="checkbox"/>
1) Trauma	<input type="checkbox"/>
2) DVT; calf tenderness, previous Hx of DVT, immobilization, recent surgery	<input type="checkbox"/>
3) Cellulites: fever,redness,hotness,tenderness,shiny skin,site of entry	<input type="checkbox"/>
4) Joint disease: swelling, pain, hotness, redness, ↓ROM, skin rash	<input type="checkbox"/>
5) Venous obstruction; pelvic tumor, IVC obstruction , AV fistula	<input type="checkbox"/>
6) Lymphedema	<input type="checkbox"/>
Inquire about systemic causes;	<input type="checkbox"/>
1) CHF: SOB, PND, chest pain	<input type="checkbox"/>
2) Liver disease: jaundice, itchiness , abdominal distention , anorexia, GI bleeding, dilated veins, vomiting , diarrhea, easily bruising	<input type="checkbox"/>
3) Renal disease; polyurea, frequency, dysurea, Hx of HTN or DM	<input type="checkbox"/>
4) Malnutrition	<input type="checkbox"/>
5) Hypothyroidism: weight gain , decreased appetitie, cold intolerance	<input type="checkbox"/>
6) Drugs & Allergy: cortisol , NSAIDs, CCB, ... etc	<input type="checkbox"/>
Previous history of leg swelling	<input type="checkbox"/>
past medical history of DM	<input type="checkbox"/>
past medical history of HTN	<input type="checkbox"/>
Smoking status	<input type="checkbox"/>
Alcohol intake status	<input type="checkbox"/>
Drugs	<input type="checkbox"/>
Thank the patient	<input type="checkbox"/>

Cranial nerves clinical examination

CN I: Olfactory nerve

- 1- Check the nasal passages for clearance.
- 2- Ask the patient to close his eyes.
- 3- Close one nostril at a time.
- 4- Use 'scratch and sniff' test cards, e.g. the University of Pennsylvania Smell Identification Test (UPSIT).

Assess cranial nerves II, III, IV and VI together

CN II : optic nerve.

Inspection

- 1- Head position.
- 2- position of eyelids when looking straight ahead and on eye movement.
- 3- proptosis (should be examined from behind and above the pt)
- 4- lid lag:
 - Examine the seated patient from the right.
 - Hold your finger from a point 45° above the horizontal to a point below this plane.
 - Watch how the upper eyelid moves with the downward movement of the eye. (In lid lag the sclera can be seen above the iris).
- 5- perorbital appearance.
- 5- lacrimal apparatus.
- 6- eyelid margin.
- 7- conjunctiva:
 - Look for redness or chemosis (oedema) of the white of the eye.
 - Evert the eyelid to examine the upper subtarsal conjunctiva.

■ Ask the patient to look down, hold the upper lid lashes, press gently on the upper border of the tarsal plate with a cotton bud and gently pull the eyelashes up.

■ Look for the giant papillae of allergic eye disease or a hidden foreign body.

7- sclera

8- cornea: (test for corneal ulceration with a fluorescein strip.

9- Resting appearance of the pupils.

Visual acuity



1- Ask patients to put on their distance glasses, if they use them.

*Only use reading glasses when testing near vision.

2- Ensure good ambient lighting.

3- Place **Snellen** chart 6 meters from the patient.

4- Cover one of the patient's eyes with a card and ask him to read from the top down until he can no longer distinguish the letters.

5- If the patient cannot read down to line 6 (6/6 vision), place a **pinhole** directly in front of his glasses to correct refractive errors.

6- If patients cannot see the top line of the chart at 6 meters, bring them forward till they can and record that vision, e.g. 1/60 – can see top letter at **1 meter**.

7- If patients still cannot see the top letter at 1 metre, check whether they can **count fingers**, see **hand movements** or just see **light**.

*For children who can't yet read, use different-sized objects instead of letters.

8- Repeat with the other eye.

9- Repeat the process above for near vision, with the patient wearing any reading glasses. Use a test card, held at a comfortable reading distance, to assess near vision.

Macular function



1- Use an Amsler grid.

2- Ask the patient:

- to cover one eye
- to hold the grid at a comfortable reading distance
- to fix on the central black spot with the eye being tested
- to keep the eye still and look at the grid using the 'sides of his vision'
- to outline with a finger the areas where the lines are broken, distorted or missing.

Visual fields

1- Sit directly facing the patient, about 1 meter away.

2- Ask the patient to keep looking at your eyes.

3- Homonymous defects

- Keep your eyes open and ask the patient to do the same.
- Hold your hands out to their full extent.
- Wiggle a fingertip and ask the patient to point to it as soon as he sees it move.
- Do this at 10 and 2 o'clock, and then 8 and 4 o'clock (to screen the four outer quadrants of the patient's visual field).

4- Sensory inattention

- Test both eyes together.
- Both you and the patient should keep your eyes open.
- Test both left and right fields at the same time.
- Note whether the patient reports seeing only one side move and which quadrant or side is affected.

5- Peripheral visual fields

- Test each eye separately.
- Ask the patient to cover one eye and look directly into your opposite eye.
- Shut your eye that is opposite the patient's covered eye.

- Test each quadrant separately with a wiggling finger or white-tipped hatpin.
- Hold the target equidistant between you and the patient. Start peripherally and move the target along the diagonal towards the centre of vision until the patient detects it.
- Repeat for the other quadrants.
- Compare your visual field with the patient's.

6- Central visual field

- Test each eye separately using a red hatpin.
- Shut your eye that is opposite the patient's covered eye.
- Ask the patient to cover one eye and look directly at your open eye.
- Hold the hatpin in the center of the visual field, as close to fixation as possible.
- Ask the patient what colour the hatpin is. A 'pale' or 'pink' response implies colour desaturation
- Compare the four quadrants of the visual field centrally; each time ask about colour desaturation. Note that the visual field for red may be smaller than for white.

7- Blind spot

- Test one eye at a time
- Ask the patient to cover one eye and look directly at you.
- Shut your eye that is opposite the patient's covered eye.
- Hold the hatpin at the fixation point; you and the patient focus on each other's eye.
- Move the hatpin temporally and horizontally until it disappears from your visual field. Maintaining the same temporal horizontal position, move it anteriorly or posteriorly until it also disappears from the patient's visual field.
- Compare the size of the patient's blind spot to yours.

8-Tubular visual fields Test visual fields by confrontation at 1 metre and 2 metres from the patient.

Pupils

Pupillary reflex

- Assess the pupils' shape and symmetry, taking account of ambient lighting.
- Ask the patient to fix his eyes on a distant point straight ahead.
- Bring a bright torchlight from the side to shine on the pupil.
- Look for constriction of that pupil (direct light reflex).
- Repeat and look for constriction of the opposite pupil (consensual light reflex).
- With his vision still fixed on a distant point, present an object about 15 cm in front of the eyes and ask the patient to focus on it (convergence). Look for pupil constriction (accommodation reflex).

Colour vision

- Assess red-green colour vision using Ishihara test plates.

Ophthalmoscopy & fundal examination just mention

CN III, IV and VI

- 1- With both of the patient eyes open.
- 2- Ask the patient to fix his head and follow your finger.
- 3- Draw an H shape with your moving finger.
- 4- Ask the patient to mention seeing double or blurred vision.

CN V Trigeminal nerve

Sensation

- 1- Ask the patient to close his eyes and say 'yes' each time he feels you lightly touch them using a cotton wool tip.
- 2- Do this in the areas of V1, V2 and V3.
- 3- Repeat using a fresh neurological pin, e.g. Neurotip, to test superficial pain & Compare both sides.
- 4- If you identify an area of reduced sensation, mark it out.

- 5- 'Nasal tickle' test: use a wisp of cotton wool to 'tickle' the inside of each nostril and ask the patient to compare.
- 6- Use an orange stick to test Common sensation from the anterior two thirds of the tongue.

Motor

- 1- Inspect for wasting of the muscles of mastication (most apparent in temporalis).
- 2- Ask the patient to clench his teeth; feel the masseters, estimating their bulk.
- 3- Place your hand under the jaw to provide resistance; ask the patient to open his jaw. Note any deviation.

Corneal reflex

- 1- Explain to the patient what you are going to do, and ask him to remove contact lenses, if relevant.
- 2- Gently depress the lower eyelid while the patient looks upwards.
- 3- Lightly touch the lateral edge of the cornea with a wisp of damp cotton wool.
- 4- Look for both direct and consensual blinking.

Jaw jerk

- 1- Ask the patient to let his mouth hang loosely open.
- 2- Place your forefinger in the midline between lower lip and chin.
- 3- Percuss your finger gently with the tendon hammer in a downwards direction, noting any reflex closing of the jaw. An absent, or just present, reflex is normal.

CN VII Facial nerve

Motor function

- 1- Inspect the face for asymmetry or differences in blinking or eye closure on one side.

- 2- Watch for spontaneous or involuntary movement.
- 3- Ask the patient to raise the eyebrows and observe for symmetrical wrinkling of the forehead.
- 4- Demonstrate baring your teeth and ask the patient to mimic you. Look for asymmetry.
- 5- Ask the patient to open his mouth to assess the function of the *platysma*.
- 6- Test power by saying: 'Screw your eyes tightly shut and stop me from opening them,' then 'Blow out your cheeks with your mouth closed'.

Corneal reflex

Taste sensation From the anterior two thirds of the tongue.

CN VIII Vestibulocochlear nerve.

Whispered voice test

- ☒ Stand behind the patient.
- ☒ Start with your mouth about 15 cm from the ear you are testing.
- ☒ Mask hearing in the other ear by rubbing the tragus.
- ☒ Ask the patient to repeat your words. Use a combination of multisyllable numbers and words. Start with a normal speaking voice to confirm that the patient understands the test. Lower your voice intensity to a clear whisper.
- ☒ Repeat, but this time at arm's length from the patient's ear. People with normal hearing can repeat words whispered at 60 cm.

Tuning fork tests

Use a 512 Hz or 256 Hz tuning fork to help differentiate between conductive and sensorineural hearing loss.

Weber's test

- Hit the prongs of the fork against a padded surface to make it vibrate.

- Place the base of the vibrating tuning fork in the middle of the patient's forehead.

- Ask: 'Where do you hear the sound?'

- Record which side Weber's test lateralizes to if not central

Rinne's test

- Place the vibrating prongs at the patient's mastoid process then ask if he can hear it.

- when the patient is no longer hearing the tuning fork place the base on the external auditory meatus;. Ask if he can hear it.

Normally he could because air conduction is better than bone conduction.

The glossopharyngeal (IX) and vagus (X) nerves

- 1- Assess the patient's speech for dysarthria or dysphonia.
- 2- Ask him to say 'Ah'; look at the movements of the palate and uvula using a torch.
- 3- Ask the patient to puff out his cheeks with the lips tightly closed. Listen for air escaping from the nose.
- 4- Ask the patient to cough; assess the strength of the cough
- 5- Testing pharyngeal sensation and the gag reflex is unpleasant and has poor predictive value for aspiration. Instead, and in fully conscious patients only, use the swallow test. Administer 3 teaspoons of water and observe for absent swallow, cough or delayed cough, or change in voice quality after each teaspoon. If there are no problems, watch for the same reactions while the patient swallows a glass of water.
- 6- Use an orange stick to test Common sensation from the posterior one third of the tongue.
- 7- Test for Taste sensation From the posterior one third of the tongue

The accessory (XI) nerve

- 1- Face the patient and inspect the sternocleidomastoid muscles for wasting or hypertrophy.
- 2- palpate the sternocleidomastoid muscles to assess their bulk.
- 4- Stand behind the patient to inspect the trapezius muscle for wasting or asymmetry.
- 5- Ask the patient to shrug the shoulders, then apply downward pressure with your hands to assess the power.
- 6- Test power in the left sternocleidomastoid by asking the patient to turn the head to the right while you provide resistance with your hand placed on the right side of the patient's chin.
- 7- Reverse the procedure to check the right sternocleidomastoid.

The hypoglossal (XII) nerve

- 1- Ask the patient to open his mouth.
- 2- Look at the tongue at rest for wasting, fasciculation or involuntary movement.
- 3- Ask the patient to put out his tongue. Look for deviation or involuntary movement.
- 4- Ask the patient to move the tongue quickly from side to side.
- 5- Test power by asking the patient to press the tongue against the inside of each cheek in turn while you press from the outside with your finger.
- 6- Assess speech by asking the patient to say 'yellow lorry' or "lalala".
- 7- Asses swallowing with a water swallow test.

Motor system Examination

1. Inspection

- a) asymmetry
- b) deformity
- c) abnormal movement
 - fasciculations,
 - tremors,
 - myoclonic jerks,
 - and other abnormal movements.

2. Palpation

- a) Bulk
 - hypertrophy
 - wasting
- b) tenderness

3. Tone

- a) patient is relaxed and supine
- b) warm your hands
- c) passively move the joint through full range of motion both slowly and quickly
 - **upper limb:**
hold as if shaking hand & support the elbow
flex and extend the hand, forearm, and the shoulder, and rotate the forearm
 - **lower limb:**
rotate the leg from one side to the other
then briskly lift the knee in flexed position
 - **don't forget:**
 - knee clonus
 - ankle clonus

4. Power

- a) Ask about pain
- b) First assess power against gravity
- c) Then apply resistance

d) compare both sides

- **Upper limb:**
 - Shoulder--> abduction
 - Elbow--> flexion & extension
 - Wrist-->extension
 - Fingers--> flexion and extension
 - Thumb --> abduction
- **pronator drift**
- **lower limb:**
 - Hip--> flexion & extension
 - Knee--> flexion & extension
 - Ankle--> dorsiflexion & plantar flexion & eversion & inversion
 - Great toe--> extension

5. Reflexes

- a) deep tendon reflexes
1. keep patient as relaxed as possible
 2. Compare each reflex with the other side
 3. use reinforcement if necessary
 4. Record as:
 - increased, normal, diminished, present only with reinforcement, or absent
 - biceps jerk C5, C6
 - Supinator jerk C5, C6
 - Triceps jerk C6, C7
 - knee jerk L3, L4
 - Ankle jerk S1
- upper limb:** Hoffmann's reflex and finger Jerk both indicate UMN lesions
- b) superficial reflexes
1. abdominal reflexes T8-T12
 - Normal response:** deviation of umbilicus toward the side stroked
 - Abnormal finding:** no deviation
 2. cremasteric reflex (only in males) L1, L2
 3. plantar reflex S1, S2
 - Normal:** flexion of the big toe
 - Abnormal:** extension of big toe and contraction of other leg flexor muscles
- c) primitive reflexes
- Snout, Grasp, Palmomental, Glabellar tap

6. Coordination (cerebellar function)

1. Stance and gait
2. Speech: dysarthria and staccato speech
3. Eye movement: horizontal nystagmus
4. Limb coordination
 - a) Upper Limb
 - Tone: hypotonia
 - Reflexes: pendular reflexes
 - Finger-to-nose test
 - Dysmetria or past pointing
 - intention tremor
 - dyssynergia (slow and clumsy movement)
 - Rapid alternating movement
 - dysdiadokinesia
 - Rebound phenomenon
 - b) Lower Limb
 - Tone: hypotonia
 - Reflexes: pendular reflexes
 - Heel-to-shin test

Sensory Exam

1. Light touch

- Patient should look away or close his eyes
 - Use a touch pen
 - Dabbing rather than stroking
 - Compare but dab irregularly

2. Superficial pain

- Patient should look away or close his eyes
 - Use special sharp neurologic pen
 - Map out the boundaries of any area of abnormal sensation
 - Move from reduced to higher sensibility

3. Temperature

- Use tuning fork for cold sensation

4. Vibration

- first demonstrate on sternum

Upper limb:

- DIP joint of forefinger, if impaired progress proximally to radial styloid, olecranon, and acromion

Lower limb:

- Start at tip of great toe, if impaired progress proximally to interphalangeal, medial malleolus, tibial tuberosity, ASIC

5. Joint position sensation

- demonstrate on great toe or middle finger with eyes opened then ask the patient to close eyes
 - start examination with the big toe middle finger and proceed proximally if impaired

6. Stereogenesis and graphesthesia

- Ask the patient to close his eyes
 - **Stereognosis**
 - Place a familiar object in his hand and ask him to identify it.
 - **Graphaesthesia:**
 - Use the blunt end of a pencil trace letters or digits on the patient's palm and ask him to identify it

7. Point localization and sensory inattention

- Ask the patient to close his eyes
 - **point localization**
 - Touch his arms/legs in turn and ask which side has been touched.
 - Touch different fingers and ask the patient which is touched
 - **sensory inattention**
 - Touch both sides simultaneously and ask whether the left, right or both sides were touched.

Motor system Examination

1. Inspection

- a) asymmetry
- b) deformity
- c) abnormal movement
 - fasciculations,
 - tremors,
 - myoclonic jerks,
 - and other abnormal movements.

2. Palpation

- a) Bulk
 - hypertrophy
 - wasting
- b) tenderness

3. Tone

- a) patient is relaxed and supine
- b) warm your hands
- c) passively move the joint through full range of motion both slowly and quickly
 - **upper limb:**
hold as if shaking hand & support the elbow
flex and extend the hand, forearm, and the shoulder, and rotate the forearm
 - **lower limb:**
rotate the leg from one side to the other
then briskly lift the knee in flexed position
 - **don't forget:**
 - knee clonus
 - ankle clonus

4. Power

- a) Ask about pain
- b) First assess power against gravity
- c) Then apply resistance

d) compare both sides

- **Upper limb:**

Shoulder--> abduction

Elbow--> flexion & extension

Wrist-->extension

Fingers--> flexion and extension

Thumb --> abduction

- **pronator drift**

- **lower limb:**

Hip--> flexion & extension

Knee--> flexion & extension

Ankle--> dorsiflexion & plantar flexion & eversion & inversion

Great toe--> extension

5. Reflexes

a) deep tendon reflexes

1. keep patient as relaxed as possible
2. Compare each reflex with the other side
3. use reinforcement if necessary
4. Record as:

increased, normal, diminished, present only with reinforcement, or absent

- biceps jerk C5, C6
- Supinator jerk C5, C6
- Triceps jerk C6, C7
- knee jerk L3, L4
- Ankle jerk S1

upper limb: Hoffmann's reflex and finger Jerk both indicate UMN lesions

b) superficial reflexes

1. abdominal reflexes T8-T12

Normal response: deviation of umbilicus toward the side stroked

Abnormal finding: no deviation

2. cremasteric reflex (only in males) L1, L2
3. plantar reflex S1, S2

Normal: flexion of the big toe

Abnormal: extension of big toe and contraction of other leg flexor muscles

c) primitive reflexes

Snout, Grasp, Palmomental, Glabellar tap

6. Coordination (cerebellar function)

1. Stance and gait
2. Speech: dysarthria and staccato speech
3. Eye movement: horizontal nystagmus
4. Limb coordination

a) Upper Limb

- Tone: hypotonia
- Reflexes: pendular reflexes
- Finger-to-nose test
 - Dysmetria or past pointing
 - intention tremor
 - dyssynergia (slow and clumsy movement)
- Rapid alternating movement
 - dysdiadokinesia
- Rebound phenomenon

b) Lower Limb

- Tone: hypotonia
- Reflexes: pendular reflexes
- Heel-to-shin test

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Question: Examine JVP

Steps (total 26)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Position the Pt in semi-recumbant (45°)	<input type="checkbox"/>
ask pt to slightly turn his head to the Lt side	<input type="checkbox"/>
Stand at the right side of the pt	<input type="checkbox"/>
Inspect the neck for visible pulsation	<input type="checkbox"/>
Comment on the visible pulse; 2 pulses were visible an outward single peaked arterial pulse and an inward double waved venous pulse.	<input type="checkbox"/>
Ask pt to hold his breath at deep inspiration	<input type="checkbox"/>
Comment that JVP decreases on inspiration	<input type="checkbox"/>
Ask the pt to sit up, while he observe the effect on the pulse	<input type="checkbox"/>
Comment that JVP disappears on sitting upright	<input type="checkbox"/>
Ask for any site of pain in the neck before palpation	<input type="checkbox"/>
Warm his hands before palpation	<input type="checkbox"/>
Palpate the visible pulse	<input type="checkbox"/>
Comment that JVP pulse is impalpable	<input type="checkbox"/>
Do neck obliteration test	<input type="checkbox"/>
Comment that JVP disappears on neck obliteration	<input type="checkbox"/>
Warn the pt that he's going to push his abdomen and ask if the abdomen is tender	<input type="checkbox"/>
Perform abdomino-jagular reflex	<input type="checkbox"/>
Comment that JVP increases with abdomino-jagular reflex	<input type="checkbox"/>
Comment on the need to measure JVP	<input type="checkbox"/>
Auscultate the neck for venous hum	<input type="checkbox"/>

Question: Do percussion & auscultation of the posterior chest

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Expose the back to the iliac crest.	<input type="checkbox"/>
Position the patient Sitting upright, scapula apart (arms crossed)	<input type="checkbox"/>
Stand at the right side of the pt	<input type="checkbox"/>
Percuss the following locations	<input type="checkbox"/> Lung apices <input type="checkbox"/> 2 locations medial to scapula <input type="checkbox"/> 2 locations below the scapula <input type="checkbox"/> 3 locations in the axillary area
Comment on percussion note	<input type="checkbox"/> symmetrical bilateral resonant percussion note all over the chest
Comment on the need to check diaphragmatic excursion	<input type="checkbox"/>
Auscultate using the diaphragm of the stethoscope	<input type="checkbox"/>
Ask the pt to take a deep breath using his mouth when placing the stethoscope on his chest then Listen for breath sounds over the following locations;	<input type="checkbox"/> Lung apices <input type="checkbox"/> 2 locations medial to scapula <input type="checkbox"/> 2 locations below the scapula <input type="checkbox"/> 3 locations in the axillary area
Comment on breath sounds	<input type="checkbox"/> vesicular breathing sound <input type="checkbox"/> wheeze <input type="checkbox"/> crackles <input type="checkbox"/> pleural friction rubs <input type="checkbox"/> clicks
Comment on vocal resonance	<input type="checkbox"/>
Comment on Aegophony	<input type="checkbox"/>
Comment on Whispering pectoriloquy	<input type="checkbox"/>
Thank the pt	<input type="checkbox"/>

Question: Do inspection then palpate the abdomen

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy, warmth, adequate light
Comment on hand hygiene	<input type="checkbox"/>
exposure from the nipples to the knees	<input type="checkbox"/>
Position the pt lying in flat position with head rested on one pillow (15°-20° above horizontal)	<input type="checkbox"/>
Inspect the abdomen from foot of the bed, comment on the following	<input type="checkbox"/> symmetry <input type="checkbox"/> movement with respiration <input type="checkbox"/> shape of abdomen <input type="checkbox"/> Site & shape of umbilicus
Inspect from the right side of the patient, and comment on	<input type="checkbox"/> Scars <input type="checkbox"/> scratch marks <input type="checkbox"/> Striae <input type="checkbox"/> Visible masses
Ask the pt to cough, comment on cough impulse	<input type="checkbox"/>
Comment on hernial orifices	<input type="checkbox"/>
Test for Divarication of recti	<input type="checkbox"/>
Sit at the right side of the patient	<input type="checkbox"/>
Ask for any area of tenderness on the abdomen	<input type="checkbox"/>
Warm his hands	<input type="checkbox"/>
maintain eye-to-eye contact throughout examination	<input type="checkbox"/>
Palpate for the liver starting from RIF	<input type="checkbox"/>
Do murphy's sign	<input type="checkbox"/>
Palpate for the spleen starting from RIF	<input type="checkbox"/>
ask the pt to flex his knees and roll to his Rt side, and palpate the spleen while in that position	<input type="checkbox"/>
Using correct maneuver for palpation of liver & spleen	<input type="checkbox"/>
Do kidney bimanual exam	<input type="checkbox"/>
Do kidney ballotement test	<input type="checkbox"/>
Check for costophrenic angle tenderness	

Question: Examine the trigeminal and facial nerves

Steps	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy, warmth, adequate light
Trigeminal	
Inspect for muscle wasting on the temporal region	<input type="checkbox"/>
Palpate the bulk of masseter and temporalis (ask the pt. to clinch his teeth)	<input type="checkbox"/>
Ask the patient to open his jaw while you apply upward resistance	<input type="checkbox"/>
Test for sensation	<input type="checkbox"/> Ask the patient to close his eyes <input type="checkbox"/> Test sensations at dermatomes of (ophthalmic, maxillary, mandibular) bilaterally <input type="checkbox"/> Light touch using cotton wool <input type="checkbox"/> Pain using neurotip <input type="checkbox"/> Sensation of anterior 2/3 of tongue using orange stick
Test reflexes	<input type="checkbox"/> Corneal reflex (Afferent CN5 Efferent CN7) <input type="checkbox"/> Jaw reflex (Afferent CN5 efferent CN5)
Facial nerve	
Inspect for	<input type="checkbox"/> Facial asymmetry <input type="checkbox"/> Presence of nasolabial folds <input type="checkbox"/> Deviation of the angle of the mouth
Motor:	<input type="checkbox"/> Ask pt to look up to inspect for forehead wrinkles ... Frontalis <input type="checkbox"/> Ask the patient to close his eyes tightly against resistance, examine power... Orbicularis oculi <input type="checkbox"/> Ask the patient to blow out his cheeks against resistance, examine power ... Buccinator <input type="checkbox"/> Ask patient to show his teeth <input type="checkbox"/> (optional) Ask pt to whistle ... Orbicularis oris <input type="checkbox"/> (optional) Ask pt to cringe ... Platysma
Comment on taste test of anterior 2/3 of the tongue	<input type="checkbox"/>
Comment on Schirmer's test	<input type="checkbox"/>
Do corneal reflex	<input type="checkbox"/>
Test for hyperacusis (Facial nerve innervates the stapedius muscle)	<input type="checkbox"/>

Question: Examine upper limb for deep reflexes (the examiner should focus on the technique used by student)

Steps	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
All reflexes should be done bilaterally and compared	<input type="checkbox"/>
Reinforcement should be done: clench his teeth or make a fist with the contralateral hand (Examiner should inquire about it)	<input type="checkbox"/>
Right technique of holding and using hammer	<input type="checkbox"/>
Do biceps reflex	<input type="checkbox"/> Done <input type="checkbox"/> Good technique <input type="checkbox"/> Examiner asks about the roots c5
Do triceps reflex	<input type="checkbox"/> Done <input type="checkbox"/> Good technique <input type="checkbox"/> Examiner asks about the roots c7
Do supinator reflex (brachioradialis reflex)	<input type="checkbox"/> Done <input type="checkbox"/> Good technique <input type="checkbox"/> Examiner asks about the roots c6
Thank the pt when finished	<input type="checkbox"/>

Question: Examine for knee stability then for effusion (usually two separate questions)

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy, warmth, adequate light
Comment on hand hygiene	<input type="checkbox"/>
Collateral ligament stability	<input type="checkbox"/>
Apply first while leg is fully extended 0° then at 30° flexion of the knee (to omit effect of cruciate ligaments and capsule)	<input type="checkbox"/>
Put the patients knee between your elbow and side, feel with your thumbs the joint lines	<input type="checkbox"/>
Do valgus stress for medial collateral ligament	<input type="checkbox"/>
Do varus stress for lateral collateral ligament	<input type="checkbox"/>
Do supinator reflex (brachioradialis reflex)	<input type="checkbox"/> Done
Cruciate ligament stability	<input type="checkbox"/>
Inspect for posterior sag sign	<input type="checkbox"/>
Sit on patients foot	<input type="checkbox"/>
Do anterior drawer test for ACL	<input type="checkbox"/>
Do posterior drawer test for PCL	<input type="checkbox"/>
Mcmurray test for meniscal tear	<input type="checkbox"/>
Flex the knee to its full extent	<input type="checkbox"/>
Hold from patient sole of foot	<input type="checkbox"/>
Do external rotation at the hip and varus stress at the knee for medial meniscus. Then extend the knee smoothly and hear for a click	<input type="checkbox"/>
Do internal rotation at the hip and valgus stress at the knee for lateral meniscus. Then extend the knee smoothly and hear for a click	<input type="checkbox"/>
Patellar apprehension test	<input type="checkbox"/>
With the pt's knee fully extended, push the patella laterally with your thumb, and then flex the knee slowly. Resistance suggest previous patellar dislocation or instability	<input type="checkbox"/>
Effusion tests (separate question)	<input type="checkbox"/>
Comment on absence of obliteration of parapatellar grooves (gutter)	<input type="checkbox"/>
Do ripple test	<input type="checkbox"/>
Do patellar tap	<input type="checkbox"/>
Do fluctuation test	<input type="checkbox"/>

Question: Examine the thyroid gland of this patient

Steps (total 29)	Check if done
Introduce himself/herself	<input type="checkbox"/>
Ask for permission to do examination	<input type="checkbox"/>
Comment on the room settings	<input type="checkbox"/> privacy <input type="checkbox"/> warmth <input type="checkbox"/> adequate light
Comment on hand hygiene	<input type="checkbox"/>
Expose the neck and upper chest	<input type="checkbox"/>
Position the patient sitting upright on a chair and ask for a glass of water	<input type="checkbox"/>
Stand at the Rt side of the pt	<input type="checkbox"/>
On inspection ask the pt to hyperextend his neck, and comment on scars and swelling	<input type="checkbox"/> hyperextension of the neck <input type="checkbox"/> neck scars <input type="checkbox"/> swelling
On inspection ask the pt to swallow, and comment on any mass that moves with swallowing	<input type="checkbox"/> ask to swallow <input type="checkbox"/> Mass movement with swallowing
on inspection ask the pt to protrude his tongue, then look for any mass in the neck moving on protrusion	<input type="checkbox"/> Protrude tongue <input type="checkbox"/> Comment on mass
Comment on looking at the back of the mouth for lingual goiter	<input type="checkbox"/>
Ask for any site of pain on the neck before palpation	<input type="checkbox"/>
Warm his hands before palpation	<input type="checkbox"/>
Maintain eye-to-eye contact throughout palpation	<input type="checkbox"/>
Palpate the neck while slightly flexed	<input type="checkbox"/>
While palpation, comment on palpable thyroid, hotness, thrills	<input type="checkbox"/> palpable thyroid <input type="checkbox"/> hotness <input type="checkbox"/> thrills
Ask the pt to swallow while palpating the neck	<input type="checkbox"/>
Comment on the need to palpate cervical LN	<input type="checkbox"/>
Percuss directly on the manubrium of sternum.	<input type="checkbox"/>
Auscultate with diaphragm for bruits over both thyroid lobes	<input type="checkbox"/>
Thank the pt when finished	<input type="checkbox"/>

***Quizes &
PastPapers***



- 1- Wrong statement about history taking:
Sympathy should be shown to build a good doctor-patient relationship.
- 2- Wrong statement about chief complaint:
Only one chief complaint should be recorded.
- 3- Wrong statement about history of presenting illness:
Negative symptoms that are related to C/P should not be included.
- 4- Wrong statement about hand washing in hospitals:
 - a) Hand washing is the single most effective way of preventing cross-infection.
 - b) A lot of patients are admitted due to healthcare infections.
 - c) MRSA can be effectively removed by soap and water.
 - d) Clostridium defficile can be effectively removed by alcohol based gel.answer: d
- 5- Which of the following is not autosomal dominant?
 - a) Polycystic kidney of the adult
 - b) Cystic fibrosis
 - c) Huntington's disease
 - d) Neurofibromatosisanswer: b
- 6- Which of the following is NOT characteristic of Marfan's syndrome?
 - a) Tall stature
 - b) Arm span is larger than standing length
 - c) Aortic regurgitation
 - d) Mitral prolapse
 - e) Down dislocation of the eye lensanswer: e
- 7- Wrong about cyanosis:
 - a) Anemic people can develop central cyanosis at normal levels of Hb saturation
 - b) Best place to assess central cyanosis is under the tongue
 - c) Peripheral cyanosis can occur alone or with central cyanosis
 - d) Bluish discoloration of skin and mucus membranes
 - e) Can be caused by teratology of Fallotanswer: a
- 8- Wrong about high carotene:
 - a) Can be caused by eating too much carrots and tomatoes
 - b) Can cause bluish discoloration of the hand
 - c) Can cause bluish discoloration of the scleraeanswer: c



- 9- One of the following is not a complication of smoking:
- a) IHD
 - b) HTN
 - c) Peripheral vascular diseases
 - d) Oral cancer
 - e) Large baby size for the pregnant
- answer: e
- 10- Wrong about vitamin deficiency:
- a) Vitamin C deficiency causes easy bruising and bleeding gums
 - b) Furry tongue can be a result of B2 deficiency
 - c) Thiamin deficiency might be caused by excessive alcohol consumption
- answer: b
- 11- Not a cause of nail clubbing:
- a) COPD
 - b) Transposition of great vessels
 - c) Crohn's disease
 - d) Lung fibrosis
 - e) Empyema
- answer: a
- 12- One of the following may not cause generalized lymphadenopathy:
- a) SLE
 - b) Lymphoma
 - c) Celiac disease
 - d) Mumps
- answer: d
- 13- Wrong about nails abnormalities:
- a) Beau's lines can be caused by SLE
 - b) Koilonychia can be associated with malnutrition
 - c) Slit hemorrhages can be seen in manual workers
 - d) Brown discoloration in candidiasis
 - e) Onycholysis can be associated with psoriasis
- answer: a
- 14- True statement about lymph node examination:
- a) Non-Hodgkin lymphoma is characteristically rubbry on examination
 - b) In metastatic diseases the lymph nodes are stony hard
 - c) Immobile lymph nodes always indicate malignancies
 - d) Lymph nodes can never be palpated in normal individuals
- answer: b
- 15- A 66 year old patient with 10 years history of smoking comes to your clinic complaining of continuous cough, he has lost 10 Kg of his weight, he works as a shopkeeper and has a history of working in building ships 20 years before, x-ray showed plaques and fluids in one side of the thorax, the condition which should be on top of your differential



diagnosis is:

- a) Asthma
- b) Sillicosis
- c) Mesothelioma
- d) COPD

answer: c

16- About edema and dehydration, one statement is wrong:

- a) Unilateral leg edema can be caused by deep vein thrombosis
- b) Edema can be caused by lymphatic obstruction
- c) Dry mouth is reliable sign of dehydration

answer: c

17- A 60 year old patient smokes 30 cigarette per day and has been smoking for 40 years, he smokes:

- a) 45 pack years
- b) 50 pack years
- c) 55 pack years
- d) 60 pack years
- e) 90 pack years

answer: d

18- A patient says he drinks 350ml of whisky on daily basis, if you know that ethanol concentration is 40%, how many units does the patient take daily?

- a) 3.5 units
- b) 14 units
- c) 16 units
- d) 7 units

answer: b

19- A patient is 110 Kg and 170 cm long, the best description to him is:

- a) Underweight
- b) Normal weight
- c) Overweight
- d) Obese
- e) Morbidity obese

answer: d

1st Quiz-4th year- Summer, Introductory course ---- 5/7/2012

all of the following cause hyperpigmentation with a mechanism of increase melanin production except:

- a- Addison's disease
- b- Cushing's syndrome
- c- Nelson's syndrome
- d- pregnancy
- e- erythema ab igne

which of the following is miss-matched:

>>> vitamin K deficiency : thrombosis

a patient ... kg weight and ... cm long, calculate his BMI:

>>> 27.7 kg/m² overweight

which of the following is true about lymph nodes:

>>> examination of the liver and spleen is essential if lymphadenopathy was discovered.

the most common cause of deformity in the hand is:

>>> trauma

all of the following is seen in a patient of Turner's syndrome except:

>>> single palmar crease

koilonychia can be seen with which of the following:

a- coeliac disease

b- bronzed diabetes

....

all of the following is associated with chronic iron deficiency anemia except:

a- pallor

b- tachycardia

c- stomatitis

d- glossitis

e-...

which of the following is a correct chief complain:

Palpitations

if a man drinks more than 3 units of alcohol per days... this drinking pattern is called:

>>> hazardous drinking

if a patient smoke 30 cigarettes per day for the past 6 years... calculate pack years

>>> 9 pack years

which of the following occupations can cause mesothelioma:

>>> boilermen

which of the following is not an autosomal dominant inherited disorder:

>>> cystic fibrosis

all of the following decrease pain threshold except:

>>> exercise

which of the following is true regarding the types of pathology:

>>> progression of infection symptoms is usually rapid over hours or days

good communication skills are the most important part of being a good doctor. it includes are the following except:

a- maintaining good eye contact

b- encouraging verbal and non-verbal communication

c- going at a pace that is comfortable for the patient

d- it helps to decrease medico-legal litigation

e- always be complacent about ur communicationskills .

which of the following is true about hand washing:

a- transmission of microorganisms from the hands of healthcare workers is not the main source of cross-infection

b- healthcare-acquired infection don't cause serious illnesses

c- hand washing is the single most effective way to prevent the spread of infections

d- alcohol-based rub gel is better than water to clean the hands

e-....

Respiratory system - 4th year- Summer, Introductory course ---- 2012

Dull percussion note somewhere on the right hemisphere with decreased TVF, with fever and tachypnea and tachycardia, which is not found ?

- deviation of the trachea to the left
- bronchial breathing sounds on the upper edge of the middle (sth?) on the right side
- whispering pectoriloquy
- diminished vesicular breathing sounds over the right middle (sth?)
- decreased chest expansion on the right side

all of the following are true about empyema except:

>>> increased TVF

clinical case with SOB, cough, history of chronic cough of her brother cavitation of the lung upper lobes... what's the most likely diagnosis:

>>> activation of TB

all of the following has decreased or absent TVF except:

>>> pulmonary hemorrhage

all of the following can be seen in idiopathic pulmonary fibrosis except:

>>> coarse late expiratory crackles

a COPD pt, smoker with 40 pack years, which of the following support the development of lung cancer:

>>> clubbing with bilateral wrist joint swelling

a question about superior vena cava obstruction

- a- most commonly cause by a compressing lung tumor
- b- cervical and scalene lymph nodes should be examined
- C. flapping tremor is common
- D. abdomino-jugular reflux is absent

all of the following support the diagnosis of pneumonia except:

>>> flapping tremor is a common finding

all of the following support the diagnosis of severe community acquired pneumonia except:

>>> systolic pressure more than 90 mmHg

clubbing can be seen in all of the following conditions except:

>>> COPD

which of the following is true:

- a- cheyne-stokes respiration is not always pathological
- b- periodic breathing indicate intact respiratory centers
- c- hyperventilation caused by acute anxiety is a deep, rapid breathing pattern
- d- hyperventilation result in tetany and grand mal seizure
- e- kussmal respiration occurs in response to metabolic alkalosis

all of the following are correctly matched to the lung disease caused by except:

>>> mesothelioma silica

all of the following are correct combination of drug and the respiratory condition caused by except:

>>> B2 agonist bronchoconstriction

all of the following are true except:

>>> wheeze is a reliable indicator for the severity of asthma

all of the following sounds can be heard by auscultation of the chest wall except:

>>> stridor

all of the following are presented with acute breathlessness except:

>>> anemia

all of the following cause sharp, localized chest pain except:

a- rib metastasis <<

b- rib fracture

c- pneumothorax

d- pneumonia

e- pulmonary embolism

all of the following are red flags if associated with cough except:

>>> wheeze

**4th Quiz - GI & Renal- 4th year- Summer, Introductory course ----
12/7/2012**

patient who is smoker , has dilated veins around umbilicus in which blood drain toward the umbilicus, which of the following is most likely to be associated:

- clubbing
- pulsatile JVP
- ascites
- palmar erythema
- koilonychia

a lady who had presented with early HTN , ... , her brother or father had ESRF , his father or brother has died from....

all the following can be associated with her case except :

- poor hearing
- nodular surface of the kidney
- valve disease
- bilateral kidney enlargement

a patient presented with diarrhoea , dr asked him to fast , the diarrhoea has dissappeared , which of the following is less likely to be affecting the patient :

- ulcerative cholitis

all of the following are true except:

>>> smoking... increase risk of ulcerative colitis

all of the following are found in obstructive jaundice except:

- urinary unconjugated bilirubin increased
- fecal stercobilinogen decreased
- primary biliary cholangitis is an example
- urinary urobilinogen decreased
- serum urobilinogen decreased

pt with acute pancreatitis ... which of the following can be found:

- relieved pain by sitting up
- fever

patient with uncontrolled hypertension, presented with sudden onset of severe abdominal pain and with dilated veins around umbilicus in which blood drains toward the umbilicus, which of the following is most likely to be found:

- asymmetrical lower limb pulses
- pulsatile JVP
- ascites

all are causes of haematuria except:

UTI

APKD

hypertension

renal cancer

hemolysis

all causes red urine except :

ectopic kidney

TB

Schistosomiasis

hemolytic anemia

all the following signs are wrong except :

kocher's sign >>> cholecystitis

grey-turner's sign >>> rupture of ectopic pregnancy

regarding the anatomy of the GIT which of the following is true :

- the upper border of the liver is on the 5th right intercostal space on full expiration
- the migrating motor complex in the intestine works every 1-2 hrs to propel food forward during meals

orthostatic proteinuria , all are true except :

non renal cause of proteinuria

can be found in healthy adults

> 1g/l proteinuria

not detected in first urine passed after sleeping , but is present during day

differs when patient is lying flat or in recumbent position

regarding the anatomy of the renal system , all are true except :

- 1- external sphincter surrounds prostatic urethra in males
- 2- T10-12 / L1 innervates the renal capsule
- 3- external sphincter is innervated by pudendal nerves

patient having bloody diarrhoea , atrial fibrillation , absent bowel sounds :

acute mesenteric ischemia

a question about the differentiation between palpable spleen & left kidney, all are true except :

spleen moves deeply & vertically

all of the following are causes of hepatosplenomegaly except :

malaria

amyloidosis

glycogen storage disease

cirrhosis with hypertension

all of the following are used in child- pugh classification for the severity & prognosis in cirrhosis except :

1- bilirubin

2- albumin

3- ascites

4- encephalopathy

5- nutritional status

all of the following is true about irritable bowel syndrome except :

diagnosis is based on history

large volume diarrhoea

....

all the following are causes of ascites except :

hepatic cirrhosis

peritonitis

hypoproteinaemia

left side heart failure

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**5th Quiz -MSS & Thyroid- 4th year- Summer, Introductory course —
2/8/2012**

- 1. which of the following indicate isolated tear of lateral collateral ligament of knee joint:**
 - a- with the knee fully extended, applying a varus will make a cleft laterally
 - b- with the knee 30 flexed, applying a varus will make a cleft laterally

- 2. all of the following support your diagnosis of carpal tunnel syndrome except:**
 - a- thenar muscle atrophy
 - b- tinel's sign
 - c- reproduction of symptoms by reverse prayer sign
 - d- loss of opposition of thumb
 - e- forment's sign>>>the answer

- 3. a wife house cut her wrist parallel to wrist crease and proximal to it... all of the following can be found except:**
 - a- partial cut of FDS tendon as the pt can't flex her DIP of middle finger
 - b- complete cut of FDS tendon as the pt can't flex her ring finger to her palm
 - c- cut of FDS and FDP as the pt can't flex her index finger at all
 - d- ulner nerve cut as the pt lost sensation on ulner side of the hand
 - e- median nerve cut as the pt lost sensation on radial side of index

- 4. all true except:**

pain disproportionately greater than expected is benign joint arthritis

- 5. all true except:**

chronic charcot joint... painful joints

6. ankylosing spondylitis , all are true except :

familial tendency
asymmetrical distribution of affected joints
seronegative
loss of neck lordosis

7. all are causes of true lower limb shortening except :

adductor contractures
following septic arthritis
fractures
following total hip arthroplasty
congenital

8. regarding the innervation of the hand , the wrong statement :

adductor muscles of the thumb are supplied by radial nerve

9. all are seronegative for RF except :

rheumatoid arthritis
psoriatic arthritis
reactive arthritis
ankylosing spondylosis
enteropathic arthritis

10. all are associated with reactive arthritis except :

otitis media
conjunctivitis
mouth ulcers
balanitis
rt knee effusion

11. all are red flags for lower back pain except :

a duration of more than 2 weeks
age > 55
urinary incontinence
fractures

12. patient presented with hip pain ? with normal x-ray of the hip , taking steroid since 2 months , negative family history of rheumatoid arthritis , whats the most likely diagnosis ?

avascular necrosis of the hip

13. the mismatched drug with its side effect :

steroids >> positive antinuclear antibody

14. the true statement about rheumatoid nodules :

can occur in the lung

they're tender ...

they're hard

located at the flexor surface of the forearm

seronegative RF

15. all of the following are mismatched except :

graves disease >> digital acropachy

16. all of the following produces diffuse goiter except :

malignancy

puberty

graves

بسم الله الرحمن الرحيم

6th Quiz –CNS & Vision – 4th year– Summer, Introductory course -----

10/8/2012

1. ramsay hunt syndrome is:
>>> severe lower motor neuronal lesion involving 7th cranial nerve

2. which of the following is true:
>>> bilateral upper motor neuronal lesion above the level of the pons cause brisk jaw reflex

3. pt with rt homonymous hemianopia, non mentioned motor loss..... where is the lesion:
>>> left temporoparietal lobe

4. pt with Lt visual field inattention, Lt side paralysis, Lt side negligence {Rt non-dominant hemisphere lesion}, all present except:
>>> dressing apraxia

5. all of the following support the diagnosis of epileptic seizure over syncope except
>>> upright posture

6. all of the following can be seen in a patient with carpal tunnel syndrome except
>>> loss of sensation over thenar muscles

7. which of the following can result in this lesion (oculomotor nerve injury)
>>> rupture of posterior communicating artery aneurysm

8. all of the following can be seen in a pt with acute presentation of an UMNL except:
>>> muscle atrophy

9. which of the following can be seen in a pt with brown sequard syndrome
>>> ipsilateral extensor plantar reflex

10. all of the following is true except:

>>> loss of meningism always exclude meningitis

11. pt after knee replacement surgery (injury to common peroneal nerve) all of the following are found except:

>>> loss of sensation on the inner aspect of the leg

12. all of the following are seen in subacute combined degeneration of the cord except

>>> dyssynergia

13. air conduction is better than bone conduction on both ears, webbers's test refers to right ear

>>> left sensorineural loss

14. non-febrile symptoms, neck stiffness and positive kernig's sign

>>> subarachnoid heamorrhage (SAH)

15. a patient, non vocalized, opens eye to pain, abnormal flexion to pain... what is his glasgow coma scale score >>> 6

16. all of the following can be seen in a Parkinson patient except

>>> symmetrical hand rest tremor

17. a patient of hypertension with proximal myopathy, which of the following drugs is the cause

>> statin

18. pt presented with ipsilateral loss of sensation on face, contralateral loss of sensation on body, deviation of tongue on protrusion,... which of the following cause this pattern of lesion

>>> left medullary infarction

19. ankle dorsiflexion intact, but loss of ankle tendon reflex, which of the following prolapse cause this pattern of lesion:

>> L5/S1

Lejan 2009/2010

20. a pt with convulsions, loss of consciousness, confusion, no prodromal phase,
>>> secondary generalized seizure

which of the following is true about ankle brachial pressure index:

a- ABPI < .8 is a significant indicator of PAD

b- don't indicate the severity of atherosclerosis

C- ABIP >1.2 indicates severe ischemia

which of the following is true about pain of esophageal spasm

a- always relieved by GTN

b- radiate to the back

c- duration 2-3 mins

d- rapidly relieved by rest

all of the following are seen in a pt with sarcoidosis except:

a- clubbing

b- cranial nerve palsy

c- erythema nodosum

d- Arrhythmia

all of the following are indicators of lower limb amputation except:

a- paralysis

b- fixed mottling

c- muscle rigidity

d- anesthesia

e- blistering and liquefaction

all are true abt splenomegally except :

a-unable to be felt deep to the mass
b-if the mass crosses the mid line, this rules out kidney

all of the following is true except:

>>> in life threatening condition, we most care about whole person medicine

all of the following are characters of good communication except:

>>> always use closed questions

which of the following is the most important for a pt with depression:

>>> non-verbal communication clues

all of the following is true about pt centered medicine except:

>>> don't emphasis on pt autonomy

اي من القوانين التالية اباح ممارسة مهنة الطب

1- قانون العقوبات

2- قانون الصحة العامة

3- قانون نقابة الأطباء الاردنيين

4- قانون المجلس الطبي الأردني

5= جميع ما ذكر

:اي من التالي يعتبر احدى واجبات المجلس الصحي العالي

all of the following are normal of thumb except:

>>> froment's sign

all of the following is true about diaphragmatic excursion except:

>>> it's done unilaterally

all of the following is true about AAA except:

>>> physical examination is reliable indicator to the severity of AAA

all of the following is true about subclavian steal syndrome except:

>>> stenosis present distal to origin of the vertebral artery

all of the following favor thrombosis over embolic cause of acute limb ischaemia except:

>>> more severe ischemia

which of the following is resist varus stress at knee:

a- LCL only at 30 flexion

b- LCL only at full extension

c- LCL only at 90 flexion

d- MCL only at 30 flexion

e- MCL only at 90 flexion

case... vascular RF, severe central abdominal pain, anorexia,...

>>> acute mesenteric ischemia

which of the following is associated with pericardial calcification:

a- pulsus paradoxus

all of the following are true about neurogenic rest pain except:

>>> pain changes with posture

the right choice about pulsus paradoxus:

>>> is an exaggeration of the normal variability of the pulse volume with the respiratory cycle

pulsus paradoxus can be seen with:

cardiac tamponade

all of the following can be seen in female pt taking OCP except

a- stridor

b-....

all of the following is true about palpitation except:

>>> palpitation that disappears with exercise is malignant

a pt with aphasia, rt side of the body symptoms of UMNL, which is the cause:

>>> obstruction of the left middle cerebral artery

which of the following is true about cerebellum lesions:

a- finger nose test can be negative in tumors involving the vermis

b- rt hemisphere lesion cause abnormality of the contralesional side of the body

c- result in hyper-reflexia

a female pt, diagnosed with HTN and given enapril to control it, after a week of use she started to complain of dry cough, which of the following is true about her case

>>> her dry cough has no diurnal variation

case... loin pain radiating to groin:

>>> obstructive urethral stone

a male pt presented with dysuria, frequency, perineal pain, what's the cause:

prostitis

a case with double apical beat, what is the cause?

hypertrophic obstructive cardiomyopathy

pt fixed splitting (with crescendo decendo systolic murmurs)) : ASD

one of the following isnt a red flag for the cough :

breathlessness

haemoptysis

weight loss

nasal congestion

all are associated with isolated peripheral cyanosis except :

methaemoglobinaemia

all of the following can cause a swelling to be found at the inguinal area except:

1- lipoma

2- *varicocele*

3- lymphadenopathy

4- indirect inguinal hernia

5-....

all are true except :

heart rate increases with inspiration

systolic BP falls up to 10 mmHg with inspiration

JVP falls with inspiration

pulse volume increases with inspiration

all are associated with tricuspid regurge except :

pulsatile liver

raised JVP

giant a wave

all are associated with obstructive sleep apnea except :

dyspepsia

snoring

tinnitus

morning headache

nocturia

mitral stenosis is associated with all of the following except :

ejection click

the least likely to cause massive haemoptysis:

tumor

bronchiectasis

tuberculosis

mitral valve disease

wegner's granulomatosis

pt presented with breathlessness for minutes , all can be the cause except :

- exacerbation of asthma

inhaled foreign body

pneumothorax

pulmonary fibrosis

pulmonary embolism

what finding doesn't indicate investigation for secondary hematuria?

a- hematuria

b- renal bruit

c- bilateral kidney enlargement

d- buffalo hump

e- a choice about atrial fibrillation

all can cause clubbing except :

wegners granulomatosis

bronchiectasis

chron's disease

a 14-year old boy , with rash , abdominal pain , arthritis and hematuria:
Henoch-Schönlein purpura

pt with uncorrected congenital hip dysplasia , which is found :

- her gait is normal after correcting the height of one shoe

- pain is unlikely

- weakness in abductors

- sth about trendelberg's sign...

all can be present in healthy individuals except :

xanthomata

corneal arcus

clubbing

all can cause transudative pleural effusion except :

pneumonia

pt presented with diminished vesicular breathing ,all can be associated except :

- obesity

- pneumothorax

- pleural effusion

- answer ?

pt presented with yellowish discoloration of skin & sclera , has pale stool & Urine test is positive for urobilinogen and bilirubin & has abdominal pain , the most likely diagnosis is :

- cholangiocarcinoma

- cancer of the pancreas

- common bile duct obstruction

- autoimmune hepatitis

- hemolytic anemia

a question abt bladder outlet obstruction ... associated with all of the following except

poor flow

hesitancy

frequency

Polyuria

Dribbling

a lady who presented with iliac fossa pain , periumbulical bruising , pune juice like vaginal discharge , the most likely diagnosis is :

- ruptured ectopic pregnancy

- pelvic inflammatory disease

- acute appendicitis

pt came with rt iliac fossa pain , upon physical examination , palpation of the left iliac fossa produced pain in the right iliac fossa , this sign is called :

rovsing's sign

a 14 year old pt presented with hematuria , frothy urine , and have deafness

her brother also have the same symptoms , which of the following is the most likely diagnosis :

alport's syndrome

cystinosis

medullary spongy kidney

prune -belly syndrome

all are wrong statments except :

bladder cancer causes painless macroscopic hematuria

all of the following are risk factors for kidney stones except :

hyperparathyroidism

high calcium diet

low fluid intake

all are true except :

expressive dysphasia patients have fluent speech

smoking isnt a risk factor for :

ulcerative cholitis

which of the following is not associated with HLA B27 :

reactive arthritis

ankylosing spondylitis

chron's disease

rheumatoid arthritis

psoriatic arthritis

the most common cause of low back pain is :

disc prolapse

degenerative change

tumors

all of the following medications worsen the case of a patient with heart failure except:

a- steroid

b- b2 blocker

c- NSAIDS

d- COX-2 inhibitor

e- statin

all supplied by the median nerve except:

>>> abductor digiti minimi

which of the following can be seen in a pt with congenital hip dysplasia

a- shoe can efficiently correct problem

b- worsen of the condition is very rare

c- hip tilt to supported side

d- positive trendelenburg's sign

e-....

all of the following is true about a Parkinson's patient except:

>>> tremor present on hand movement

all of the following are common to be found at the hip joint except:

>>> redness and warmth

case... decrease TVF, dullness, decrease vesicular breathing, most probable differentiation is

a- pleural effusion

b- emphysematous blouse

c- consolidation

....

all of the following diseases can be associated with rash except:

>>> hypertrophic pulmonary osteoarthropathy

loss of consciousness in generalized seizure occurs at which phase:

>>> tonic phase

anatalgic gait is caused by:

>>> lower limb pain

which of the following disease causes deviation of the trachea away from the side of the lesion:

>>> pleural effusion

all of the following can be seen in a pt with cor pulmonale except:

>>> pulmonary edema

a female tried to comet suicide with heroine, which of the following patterns of breathing she have:

>>> hypoventilation

all of the following red flags with cough except

>>> nasal congestion

all of the following can be seen in a pt with aortic dissection except:

a- tachycardia

b- bradycardia

....

a pt with carpal tunnel syndrome, after having a surgery to remove the pressure over the median nerve, will have all of the following back to normal except:

>>> wasting of the thenar muscles

all of the following are normal to be found in a football player except:

a- thumb extend to touch forearm

b- recurvatum of the knee > 90

c- extend MCP joint > 90

d- touch the floor with the palms of the hand and the knee straight

e- extend the elbow > 10

case... rheumatoid arthritis+ enlargement of the spleen+ lymphadenopathy... what u expect to see also:

>>> neutropenia (as it's felty's syndrome)

all of the following are true of musculoskeletal system except:

>>> deltoid muscle initiate abduction of the shoulder joint

which of the following is not a member of rotatory cuff muscles:

>>> teres major

(loss of pin prick + touch + stereognosis) at right side, and mouth deviation to left side indicate lesion at which level:

a- right parietal lobe

b- right thalamus

c- cervical spine

...

weber's test in the middle, both ear bone conduction better than air conduction:

>>> bilateral conductive deafness

case... anterior spinal syndrome, all found except:

>>> positive romberg's test

all of the following is true about gout and pseudogout except:

1- pseudogout mimic septic arthritis

2- gout is caused due to deposition of monosodium urate crystals

3- pseudogout can occur at helix of ear

4- gout worsen with renal diseases

5- when it involves first toe it's known as podagra

case...male, heavy alcoholic, manifestation of alcoholic liver disease, all of the following are present in him except:

>>> breast atrophy

which of the following define colicky pain:

>>> pain free interval

all of the following matches are true except:

>>> abductor pollicis brevis : radial nerve

all of the following are true about pleural friction rub, except:

>>> increase in intensity as pleural effusion fluid increases

case... decreased vesicular breathing, except:

>> pulmonary fibrosis

case...proximal muscle weakness and hypotonia, caused by all of the following except:

>>> poliomyelitis

all can be caused by a lesion in the temporal lobe except:

>>> apraxia

in the comparison btw balbar and pseudobalbar palsy, all true except:

>> in balbar palsy their is emotional lability

OSCE exam

8 stations, 6 questions, 2 rests, 5 min for each station

- 1- examine movement and stability of knee joint
- 2- do inspection and palpation of the abdomen
- 3- do percussion and auscultation of anterior chest
- 4- do auscultation of precordium
- 5- examine optic nerve
- 6- examine radial artery pulse

OSCE
Revision

The General Examination

1- The Setting of Physical examination:

- Introduction & permission (including handshake for the same gender)
- Privacy
- Warm and well lit room
- Suitable examination couch
- Adequate Exposure
- Chaperone for intimate exam
- Examination Equipments
- Hand Hygiene

2- General look of the patient:

- Patient is lying on bed in (his position), describe IV fluids, Oxygen therapy, sutints, special dressings, drains or amputations if found.
- Patient is conscious, oriented, not tachypnic, not cyanosed, not in distress

3- First impression

- Gait & posture
- Facial expression
- Clothing
- Facial color (complexion)
- Odors
- Sounds
- Muscle wasting

4- Vital signs:

- Blood pressure (in both hahds, supine and standing)
- Heart rate (over a complete 1 minute)
- Respiratory rate
- Temperature
- Body mass index

5- Hand:

- Deformity
- Color
- Temperature
- Wasting
- Clubbing
- Nail changes
- Tar staining

*erythema nodosum → sarcoidosis, TB

Face:

- Hair
- Eyebrow
- Pallor
- Mouth lesions
- Tongue

7- Neck: (Inspection, palpation & Auscultation)

- For scars, masses, visible veins, abnormal posture
- Lymph node examination
- Thyroid
- JVP

8- Lymph Nodes:

- General principles
 - Inspect for visible lymphadenopathy.
 - Palpate one side at a time using the fingers of each hand in turn.
 - Compare with the nodes on the contralateral side.
- Assess: Site, Size. Determine whether the node is fixed to: surrounding and deep structures skin. Check consistency. Check for tenderness.
 - Cervical nodes and axillary LN: the patient sitting.
 - From behind, examine the submental, submandibular, preauricular, tonsillar, supraclavicular and deep cervical nodes in the anterior triangle of the neck. Palpate for the scalene nodes by placing your index finger between the sternocleidomastoid muscle and clavicle. Ask the patient to tilt his head to the same side and press firmly down towards the first rib.
 - From the front of the patient, palpate the posterior triangles, up the back of the neck and the posterior auricular and occipital nodes. Gently place your fingertips into the apex of the axilla and then draw them downwards, feeling the medial, anterior and posterior axillary walls in turn., lateral .
 - Epitrochlear nodes: Support the patient's right wrist with your left hand, hold his partially flexed elbow with your right hand and use your thumb to feel for the epitrochlear node. Examine the left epitrochlear node with your left thumb.
 - Inguinal nodes: Examine for the inguinal and popliteal nodes **with** the patient lying down. Palpate over the horizontal chain, which lies just below the inguinal ligament, and then over the vertical chain along the line of the saphenous vein.

9- Lumps or masses:

- Size
- Site (position)
- Attachments
- Consistency
- Edge
- Surface and shape
- Pulsations, thrills and bruits
- Inflammation (redness, tenderness, warmth)
- Transillumination



10- Assessment of hydration:

- Signs of dehydration (Tachycardia, loss of turgor; low BP, dry mucous membranes, decreased urine output).
- Edema (generalized and localized)
- JVP

✓

The Respiratory System

General examination:

- conscious, oriented
- laying flat, or sitting
- looks in distress, in pain, or comfortable
- not cyanosed
- not using accessory muscles
- any audible sounds (wheeze, hoarseness of voice, stridor*)

*for stridor, ask the patient to cough then to take deep breath

Vital signs: BP, RR (NL: 12-20), PR, Temp, BMI.

Hand:

- hot, sweaty, palmar erythema
- tar stain
- peripheral cyanosis
- hands tremor, flapping tremor
- clubbing
- hypertrophic pulmonary osteoarthropathy (tenderness)

Head and neck:

- Dental hygiene
- central cyanosis
- ptosis
- lymph nodes examination
- JVP

Chest:

Inspection:

- ✓ From foot of the bed: symmetry, pattern of breathing, chest deformity
- ✓ from right side of the patient: scars, skin lesions, swellings, dilated veins

Palpation: maintain eye contact, warm your hands, and avoid areas of pain

- ✓ Superficial palpation: tenderness, subcutaneous emphysema, subcutaneous masses. Move your hand continuously without gaps
- ✓ position of the mediastinum.
 - ✓ upper mediastinum:
 - tracheal deviation
 - cricosternal distance: 3-4 finger breadth= 5 cm, if less means hyperinflation
 - tracheal tug
 - ✓ lower mediastinum: Apex beat
- ✓ tactile vocal fremitus: Ask the patient to say (44) and put your hands on both sides of the chest alternatively on areas of percussion
- ✓ chest expansion: hold the chest with both hands, and ask the patient to take deep breath. Normally each hemithorax moves 2.5 cm from midline with the total of 5 cm. If one side is pathological, it will not move.

Percussion: Don't percuss near midline

- Lung apices: across anterior border of trapezius (do this in anterior chest and posterior chest exam)
- Clavicle: direct percussion
- Anterior chest:
 - from clavicle to 6th rib, laterally from axilla to 8th rib
 - liver edge, normally at the 5th intercostals space, midclavicular line
- Posterior chest:
 - down to 11th rib and laterally as above
 - Diaphragmatic excursion: percuss posteriorly during normal breathing until you reach dullness, then ask the patient to take deep breathing and hold it (max. inspiration) and percuss at same level and downward. Normally the area of resonance will increase by 5-8 cm, do the test on both sides.

Auscultation: By diaphragm, on same areas of percussion

- comment on breath sounds: symmetrical bilateral vesicular breathing
- Added sounds: wheeze, crepitations, pleural rub
- Vocal resonance: ask the patient to say (44) and hear it by stethoscope
- Whispering pectoriloquy: ask the patient to whisper and auscultate
- Egophony

And finally comment on hepatomegally, ascites, and lower limb edema.

Cardiovascular system examination

1. ^{*wash hand, light, venter} Ensure privacy) adequate exposure and illumination. Explain to the patient what you are going to examine and take his/her permission.
2. From the right side of the patient, comment on the pt position, level of consciousness; look for facial clues of cardiovascular disease (central cyanosis, corneal arcus, xanthelesma, malar flush...), breathlessness, etc.
3. Hands: clubbing, splinter hemorrhage, tar stain, tremor..
4. Pulses: Rate, rhythm, volume, character and compressibility
 - a. Radial:
 - i. examine using 3 fingers, count for 1 minute
 - ii. right side then both sides simultaneously
 - iii. collapsing pulse: using base of fingers, elevate hand above pt's head, ask about shoulder pain first
 - iv. look for radiofemoral delay
 - v. calculate pulse deficit
 - b. brachial:
 - i. using your thumb, medial to biceps tendon, RT hand of examiner measures RT brachial pulse of the pt and vice versa
 - ii. measure BP
 - c. carotid:
 - i. Using your thumb, never both sides together, RT hand of examiner measures LT carotid pulse of the pt and vice versa, anterior to sternocleidomastoid border.
 - ii. auscultate for carotid bruit with the patient holding breath
5. JVP:
 - a. Position the patient starting at 45°
 - b. Rest the patient head on a pillow
 - c. Head slightly tilted to the left, look tangentially, you may use a torch

d. Identify the wavy pulsations:

a. by inspection:

- i. Diffuse inward movement
- ii. Two waves per pulse (wavy)

b. By palpation:

- i. Impalpable
- ii. Disappears with compression at root of neck

c. Special maneuvers:

- i. Varies with respiration
- ii. Varies with patient position
- iii. Rises with abdominal pressure

e. Measure height of JVP: *the JVP is the vertical height in centimeters between the top of venous pulsation and the sternal angle (+5cm water)*

6. Precordium:

a. Inspection: from foot of the bed then from the right side

- ✓ Scars: midline sternotomy scar, 1st submammary scar, infraclavicular scar
- ✓ Chest deformities
- ✓ Apex-beat pulsations, most lateral and most inferior pulsations, you may use torch

b. Palpation:

- ✓ eye contact; ask about tender areas
- ✓ Allocate apex beat with 2 fingers
- ✓ Feel for heave- with your hand heel
- 1. RVH; 1st parasternal area, holding breath on expiration
- 2. LVH; at the apex
- ✓ Feel for thrills- with the palmer base of fingers, at the apex and both sides of sternum



c. Auscultation:

You should keep your thumb on carotid, S1 barely precedes carotid upstroke

- i. Using the diaphragm over :
 - ✓ All 4 valve areas
 - ✓ Carotid while holding breath
 - ✓ Axilla for murmur of mitral regurge
- ii. Using the bell over the apex and lower left sternal border
- ii. special maneuvers:
 - ✓ Roll the pt to left side, listen by the bell over the apex for murmur of mitral stenosis
 - ✓ ask the pt to sit and lean forward, holding his breath on expiration on the left lower sternal border for murmur of aortic regurge
+ 2nd ICS (left)

The candidate should comment on:

- S1, S2, Splitting of S2
 - S3, S4, Opening snap, Ejection click, friction rub
 - Murmur, if any should mention location, radiation, timing, duration, character and pitch
7. Lung bases: crackles
 8. Abdomen: hepatomegaly, ascites, sacral edema
 9. Lower limbs: edema, ulcer, pulses

Gastrointestinal system

Position of the patient

Either you keep the back rest of the bed 15-20% or you put one or two pillows under the head and both arms are by side and not behind. you may flex the hip 45% and the knee 90 to get more relaxation of the abdominal wall if pt. still not relaxed

Exposure

Ideally from nipples to the mid thigh but in respect to the pt. sensitivity **expose the abdomen from the xiphisternum to the symphysis pubis, leaving the chest and legs covered.**

(Examination of the gastrointestinal system)

General Examination

Conscious , oriented (impaired in hepatic encephalopathy), cachectic or obese. Not in pain , looks well (in acute abd. Pt. lies very still)(in renal colic pt. rolls around with each bout) , vital signs and BMI.

Hands

Clubbing, koilonychia (IDA),leukonychia (hypoalbuminemia), Dupuytren's contracture (contracture of the palmar fascia),tar stain , palmer erythema (centrally spared),muscle wasting and flapping tremor(Asterixis).

Face

Examine for jaundice and pallor

If jaundice is not obvious, ask the patient to look down and retract the upper eyelid to expose the sclera; look to see if it is yellow in natural light and look for jaundice under the tongue.

angular cheilitis, atrophic glossitis, The tongue has a beefy, raw appearance in folate and vitamin B₁₂ deficiency, aphthous ulcers, dental hygiene.

Bilateral parotid swelling

Fetor hepaticus (mousy smell) in liver failure, alcohol smell

Lymph nodes

Cervical , axillary and inguinal L.N

(Lt. supraclavicular LN –virchow’s lymph node- gastric and pancreatic cancer) which called (Troisier’s sign)

Chest :

Spider naevi

Gynaecomastia

Breast atrophy in female

Hair distribution according to the gender(ex. Normal hair distribution according to the male pattern)(loss of hair in chronic liver disease)

scratch marks

Abdominal Examination:

1- Inspection

Start from the foot of the bed

- Note any abdominal distension (remember the 5Fs – flatus, faeces, foetus, fat, fluid), flat or scaphoid abd.
- abdominal respiration(in peritonitis no abd. movement)
- umbilicus in the midline and inverted

From the rt. Side of the patient

bruising, scars, striae, stoma, dilated veins (spider naevi and caput medusa)(and direction of blood is outward in portal HTN or upward in IVC)

obstruction or downward in SVC obstruction) herniae, and any visible peristalsis.

- A mass may be apparent. To exaggerate the presence of a mass, inspect with the head raised from the bed to tense the abdominal muscles

Two questions :1- ask the pt . to cough (and looking for hernia orifices. And cough may increase pain in case of peritonitis)

2-ask pt. to raise his head looking for divercation of recti

2-Palpation and percussion

•Ensure your hands are warm. Ask patient if they have any pain or tenderness.

• Begin with light palpation of the nine segments. If patient has complained of pain begin at opposite side. Observe patient's face throughout palpation to ensure that you are not causing pain.

• **Light palpation** is used to assess:

- 1- tenderness and guarding (a sign of irritation of the peritoneum).
- 2- Superficial masses
- 3- Gain patient confidence

• **deep palpation** of the same nine segments. Deep palpation is used to assess for masses and tenderness

• If appropriate, test for rebound tenderness (a sign of intra-abdominal pathology)

Murphy's sign (deep palpation at ninth costal margin during deep inspiration will cease inspiration with tenderness indicate acute cholecystitis)

Palpation for enlarged organs

- **Liver palpation:**
- Place your hand flat on the skin of the right iliac fossa.

- Ask the patient to breathe in deeply through the mouth.
- Feel for the liver edge as it descends on inspiration.
- Move your hand progressively up the abdomen, 1 cm at a time, between each breath the patient takes, until you reach the costal margin or detect the liver edge.

Liver percussion

- Ask the patient to hold his breath in full expiration.
- Percuss downwards from the right fifth intercostal space in the mid-clavicular line, listening for the dullness that indicates the upper border of the liver.
- Measure the distance in cm below the costal margin in the mid-clavicular line or from the upper border of dullness to the palpable liver edge.

Palpation of the spleen

- Starting from RIF Move your hand diagonally upwards towards the left hypochondrium 1 cm at a time between each breath the patient takes. roll on to his right side and repeat the above. Palpate with your right hand, placing your left hand behind the patient's left lower ribs, pulling the ribcage forward.

Percussion for spleen for dullness from abdomen upward (same direction of palpation)and from mid axillary line on ribs and down.

Palpate for kidneys (bimanual examination)

Renal angle tenderness~

Percuss for urinary bladder (dull)

Examine for ascites

shifting dullness

-transmitted thrill in massive ascites

3-Auscultation :

- place your stethoscope diaphragm to the right of the umbilicus and do not move it.
 - Listen for up to 2 minutes before concluding that bowel sounds are absent.
 - Listen above the umbilicus over the aorta for arterial bruits.
 - Now listen 2–3 cm above and lateral to the umbilicus for bruits from renal artery stenosis.
 - Listen over the liver and spleen for bruits and friction rub
- 4-succussion splash** like a half-filled water bottle being shaken. Explain the procedure to the patient, then shake the patient's abdomen by lifting him with both hands under his pelvis (normally within 4 hours from meal)
- 5-don't forget to mention that you have to examine**

1-digital rectal examination

2-genitalia

3-back

4-virchow's LN

5-lower limbs: (edema, loss of hair, pyoderma gangrenosum and auscult for bruit above femoral art.)

Cranial nerves clinical examination

CN I: Olfactory nerve

- 1- Check the nasal passages for clearance.
- 2- Ask the patient to close his eyes.
- 3- Close one nostril at a time.
- 4- Use 'scratch and sniff' test cards, e.g. the University of Pennsylvania Smell Identification Test (UPSIT).

Assess cranial nerves II, III, IV and VI together:

CN II: optic nerve.

Inspection:

- 1- Head position.
- 2- position of eyelids when looking straight ahead and on eye movement.
- 3- proptosis (should be examined from behind and above the pt)
- 4- lid lag:
 - Examine the seated patient from the right.
 - Hold your finger from a point 45° above the horizontal to a point below this plane.
 - Watch how the upper eyelid moves with the downward movement of the eye. (In lid lag the sclera can be seen above the iris).
- 5- periorbital appearance.
- 5- lacrimal apparatus.
- 6- eyelid margin.
- 7- conjunctiva:
 - Look for redness or chemosis (oedema) of the white of the eye.
 - Evert the eyelid to examine the upper subtarsal conjunctiva.

- Ask the patient to look down, hold the upper lid lashes, press gently on the upper border of the tarsal plate with a cotton bud and gently pull the eyelashes up.
 - Look for the giant papillae of allergic eye disease or a hidden foreign body.
- 7- sclera
 - 8- cornea: (test for corneal ulceration with a fluorescein strip.
 - 9- Resting appearance of the pupils.

Visual acuity

- 1- Ask patients to put on their distance glasses, if they use them.
*Only use reading glasses when testing near vision.
- 2- Ensure good ambient lighting.
- 3- Place Snellen chart 6 meters from the patient.
- 4- Cover one of the patient's eyes with a card and ask him to read from the top down until he can no longer distinguish the letters.
- 5- If the patient cannot read down to line 6 (6/6 vision), place a pinhole directly in front of his glasses to correct refractive errors.
- 6- If patients cannot see the top line of the chart at 6 meters, bring them forward till they can and record that vision, e.g. 1/60 – can see top letter at 1 meter.
- 7- If patients still cannot see the top letter at 1 metre, check whether they can count fingers, see hand movements or just see light.
*For children who can't yet read, use different-sized objects instead of letters.
- 8- Repeat with the other eye.
- 9- Repeat the process above for near vision, with the patient wearing any reading glasses. Use a test card, held at a comfortable reading distance, to assess near vision.

Macular function

- 1- Use an Amsler grid.

2- Ask the patient:

- to cover one eye
- to hold the grid at a comfortable reading distance
- to fix on the central black spot with the eye being tested
- to keep the eye still and look at the grid using the 'sides of his vision'
- to outline with a finger the areas where the lines are broken, distorted or missing.

Visual fields

- 1- Sit directly facing the patient, about 1 meter away.
- 2- Ask the patient to keep looking at your eyes.

3- **Homonymous defects**

- Keep your eyes open and ask the patient to do the same.
- Hold your hands out to their full extent.
- Wiggle a fingertip and ask the patient to point to it as soon as he sees it move.
- Do this at 10 and 2 o'clock, and then 8 and 4 o'clock (to screen the four outer quadrants of the patient's visual field).

4- **Sensory inattention**

- Test both eyes together.
- Both you and the patient should keep your eyes open.
- Test both left and right fields at the same time.
- Note whether the patient reports seeing only one side move and which quadrant or side is affected.

5- **Peripheral visual fields**

- Test each eye separately.
- Ask the patient to cover one eye and look directly into your opposite eye.
- Shut your eye that is opposite the patient's covered eye.

- Test each quadrant separately with a wiggling finger or white-tipped hatpin.
- Hold the target equidistant between you and the patient. Start peripherally and move the target along the diagonal towards the centre of vision until the patient detects it.
- Repeat for the other quadrants.
- Compare your visual field with the patient's.

6- Central visual field

- Test each eye separately using a red hatpin.
- Shut your eye that is opposite the patient's covered eye.
- Ask the patient to cover one eye and look directly at your open eye.
- Hold the hatpin in the center of the visual field, as close to fixation as possible.
- Ask the patient what colour the hatpin is. A 'pale' or 'pink' response implies colour desaturation
- Compare the four quadrants of the visual field centrally; each time ask about colour desaturation. Note that the visual field for red may be smaller than for white.

7- Blind spot

- Test one eye at a time
- Ask the patient to cover one eye and look directly at you.
- Shut your eye that is opposite the patient's covered eye.
- Hold the hatpin at the fixation point; you and the patient focus on each other's eye.
- Move the hatpin temporally and horizontally until it disappears from your visual field. Maintaining the same temporal horizontal position, move it anteriorly or posteriorly until it also disappears from the patient's visual field.
- Compare the size of the patient's blind spot to yours.

8-Tubular visual fields Test visual fields by confrontation at 1 metre and 2 metres from the patient.

Pupils

Pupillary reflex

- Assess the pupils' shape and symmetry, taking account of ambient lighting.
- Ask the patient to fix his eyes on a distant point straight ahead.
- Bring a bright torchlight from the side to shine on the pupil.
- Look for constriction of that pupil (direct light reflex).
- Repeat and look for constriction of the opposite pupil (consensual light reflex).
- With his vision still fixed on a distant point, present an object about 15 cm in front of the eyes and ask the patient to focus on it (convergence). Look for pupil constriction (accommodation reflex).

Colour vision

- Assess red-green colour vision using Ishihara test plates.

Ophthalmoscopy & Fundal examination just mention

CN III, IV and VI

- 1- With both of the patient eyes open.
- 2- Ask the patient to fix his head and follow your finger.
- 3- Draw an **H** shape with your moving finger.
- 4- Ask the patient to mention seeing double or blurred vision.

CN V Trigeminal nerve

Sensory

- 1- Ask the patient to close his eyes and say 'yes' each time he feels you lightly touch them using a cotton wool tip.
- 2- Do this in the areas of V1, V2 and V3.
- 3- Repeat using a fresh neurological pin, e.g. Neurotip, to test superficial pain & Compare both sides.
- 4- If you identify an area of reduced sensation, map it out.

- 5- 'Nasal tickle' test: use a wisp of cotton wool to 'tickle' the inside of each nostril and ask the patient to compare.
- 6- Use an orange stick to test Common sensation from the anterior two thirds of the tongue.

Motor

- 1- Inspect for wasting of the muscles of mastication (most apparent in temporalis).
- 2- Ask the patient to clench his teeth; feel the masseters, estimating their bulk.
- 3- Place your hand under the jaw to provide resistance; ask the patient to open his jaw. Note any deviation.

corneal reflex

- 1- Explain to the patient what you are going to do, and ask him to remove contact lenses, if relevant.
- 2- Gently depress the lower eyelid while the patient looks upwards.
- 3- Lightly touch the lateral edge of the cornea with a wisp of damp cotton wool.
- 4- Look for both direct and consensual blinking.

jaw jerk

- 1- Ask the patient to let his mouth hang loosely open.
- 2- Place your forefinger in the midline between lower lip and chin.
- 3- Percuss your finger gently with the tendon hammer in a downwards direction, noting any reflex closing of the jaw. An absent, or just present, reflex is normal.

CN VII Facial nerve

Motor function

- 1- Inspect the face for asymmetry or differences in blinking or eye closure on one side.

- 2- Watch for spontaneous or involuntary movement.
- 3- Ask the patient to raise the eyebrows and observe for symmetrical wrinkling of the forehead.
- 4- Demonstrate baring your teeth and ask the patient to mimic you. Look for asymmetry.
- 5- Ask the patient to open his mouth to assess the function of the *Platysma*
- 6- Test power by saying: 'Screw your eyes tightly shut and stop me from opening them,' then 'Blow out your cheeks with your mouth closed'.

7. Hyperacusis, Extrinsic
Corneal reflex

Taste sensation From the anterior two thirds of the tongue.

CN VIII Vestibulocochlear nerve.

Whispered voice test

- Stand behind the patient.
- Start with your mouth about 15 cm from the ear you are testing.
- Mask hearing in the other ear by rubbing the tragus.
- Ask the patient to repeat your words. Use a combination of multisyllable numbers and words. Start with a normal speaking voice to confirm that the patient understands the test. Lower your voice intensity to a clear whisper.
- Repeat, but this time at arm's length from the patient's ear. People with normal hearing can repeat words whispered at 60 cm.

Tuning fork tests

Use a 512 Hz or 256 Hz tuning fork to help differentiate between conductive and sensorineural hearing loss.

Weber's test

■ Hit the prongs of the fork against a padded surface to make it vibrate.

■ Place the base of the vibrating tuning fork in the middle of the patient's forehead.

■ Ask: 'Where do you hear the sound?'

■ Record which side Weber's test lateralizes to if not central

Rinne's test

■ Place the vibrating prongs at the patient's mastoid process then ask if he can hear it.

■ when the patient is no longer hearing the tuning fork place the base on the external auditory meatus. Ask if he can hear it.

Normally he could because air conduction is better than bone conduction.

The glossopharyngeal (IX) and vagus (X) nerves

- 1- Assess the patient's speech for dysarthria or dysphonia.
- 2- Ask him to say 'Ah'; look at the movements of the palate and uvula using a torch.
- 3- Ask the patient to puff out his cheeks with the lips tightly closed. Listen for air escaping from the nose.
- 4- Ask the patient to cough; assess the strength of the cough
- 5- Testing pharyngeal sensation and the gag reflex is unpleasant and has poor predictive value for aspiration. Instead, and in fully conscious patients only, use the swallow test. Administer 3 teaspoons of water and observe for absent swallow, cough or delayed cough, or change in voice quality after each teaspoon. If there are no problems, watch for the same reactions while the patient swallows a glass of water.
- 6- Use an orange stick to test Common sensation from the posterior one third of the tongue.
- 7- Test for Taste sensation From the posterior one third of the tongue

The accessory (XI) nerve

- 1- Face the patient and inspect the sternocleidomastoid muscles for wasting or hypertrophy.
- 2- palpate the sternocleidomastoid muscles to assess their bulk.
- 4- Stand behind the patient to inspect the trapezius muscle for wasting or asymmetry.
- 5- Ask the patient to shrug the shoulders, then apply downward pressure with your hands to assess the power.
- 6- Test power in the left sternocleidomastoid by asking the patient to turn the head to the right while you provide resistance with your hand placed on the right side of the patient's chin.
- 7- Reverse the procedure to check the right sternocleidomastoid.

The hypoglossal (XII) nerve

- 1- Ask the patient to open his mouth.
- 2- Look at the tongue at rest for wasting, fasciculation or involuntary movement.
- 3- Ask the patient to put out his tongue. Look for deviation or involuntary movement.
- 4- Ask the patient to move the tongue quickly from side to side.
- 5- Test power by asking the patient to press the tongue against the inside of each cheek in turn while you press from the outside with your finger.
- 6- Assess speech by asking the patient to say 'yellow lorry' or "lalala".
- 7- Assess swallowing with a water swallow test.

Motor system Examination

1. Inspection

- a) asymmetry
- b) deformity
- c) abnormal movement
 - fasciculations,
 - tremors,
 - myoclonic jerks,
 - and other abnormal movements.

2. Palpation

- a) Bulk
 - hypertrophy
 - wasting
- b) tenderness

3. Tone

- a) patient is relaxed and supine
- b) warm your hands
- c) passively move the joint through full range of motion both slowly and quickly
 - upper limb:
 - hold as if shaking hand & support the elbow
 - flex and extend the hand, forearm, and the shoulder, and rotate the forearm
 - lower limb:
 - ~~move the leg from side to side~~
 - ~~move the leg from flexed to extended position~~
 - don't forget:
 - knee clonus
 - ankle clonus → *knee Ankle Flex.*

4. Power

- a) Ask about pain
- b) First assess power against gravity
- c) Then apply resistance

d) compare both sides

- **Upper limb:**

Shoulder→ abduction

Elbow→ flexion & extension

Wrist→ extension

Fingers→ flexion and extension

Thumb → abduction

- **pronator drift**

- **lower limb:**

Hip→ flexion & extension

Knee→ flexion & extension

Ankle→ dorsiflexion & plantar flexion & eversion & inversion

Great toe→ extension

5. Reflexes

a) deep tendon reflexes

1. keep patient as relaxed as possible
2. Compare each reflex with the other side
3. use reinforcement if necessary
4. Record as:

increased, normal, diminished, present only with reinforcement, or absent

- biceps jerk C5, C6
- Supinator jerk C5, C6
- Triceps jerk C6, C7
- knee jerk L3, L4
- Ankle jerk S1

upper limb: Hoffmann's reflex and finger Jerk both indicate UMN lesions

b) superficial reflexes

1. abdominal reflexes T8-T12

Normal response: deviation of umbilicus toward the side stroked

Abnormal finding: no deviation

2. cremasteric reflex (only in males) L1, L2

3. plantar reflex S1, S2

Normal: flexion of the big toe

Abnormal: extension of big toe and contraction of other leg flexor muscles

c) primitive reflexes

Snout, Grasp, Palmomental, Glabellar tap

6. Coordination (cerebellar function) .

1. Stance and gait

2. Speech: dysarthria and staccato speech

3. Eye movement: horizontal nystagmus

4. Limb coordination

a) Upper Limb

- **Tone: hypotonia**
- **Reflexes: pendular reflexes**
- **Finger-to-nose test**
 - **Dysmetria or past pointing**
 - **intention tremor**
 - **dyssynergia (slow and clumsy movement)**
- **Rapid alternating movement**
 - **dysdiadokinesia**
- **Rebound phenomenon**

b) Lower Limb

- **Tone: hypotonia**
- **Reflexes: pendular reflexes**
- **Heel-to-shin test**

Sensory Exam

1. Light touch

- Patient should look away or close his eyes
 - Use a touch pen
 - Dabbing rather than stroking
 - Compare but dab irregularly

2. Superficial pain

- Patient should look away or close his eyes
 - Use special sharp neurologic pen
 - Map out the boundaries of any area of abnormal sensation
 - Move from reduced to higher sensibility

3. Temperature

- Use tuning fork for cold sensation

4. Vibration

- first demonstrate on sternum

Upper limb:

- DIP joint of forefinger, if impaired progress proximally to radial styloid, olecranon, and acromion

Lower limb:

- Start at tip of great toe, if impaired progress proximally to interphalangeal, medial malleolus, tibial tuberosity, ASIC

5. Joint position sensation

- demonstrate on great toe or middle finger with eyes opened then ask the patient to close eyes
 - start examination with the big toe middle finger and proceed proximally if impaired

6. Stereogenesis and graphesthesia

- **Ask the patient to close his eyes**
 - **Stereognosis**
 - **Place a familiar object in his hand and ask him to identify it.**
 - **Graphaesthesia:**
 - **Use the blunt end of a pencil trace letters or digits on the patient's palm and ask him to identify it**

7. Point localization and sensory inattention

- **Ask the patient to close his eyes**
 - **point localization**
 - **Touch his arms/legs in turn and ask which side has been touched.**
 - **Touch different fingers and ask the patient which is touched**
 - **sensory inattention**
 - **Touch both sides simultaneously and ask whether the left, right or both sides were touched.**

Section

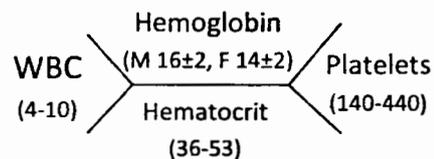
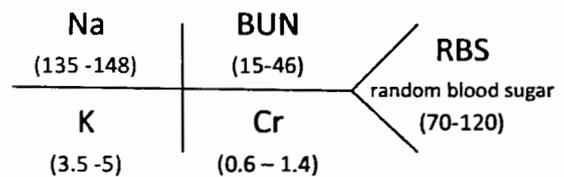
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Appendix

Abbreviations

Pt = patient
 Hx = history
 Px = physical examination
 Dx = diagnosis
 DDx = deferential diagnosis
 y/o = year old
 ICU = intensive care unit
 CCU = cardiac care unit
 OPD = out-patient department
 ER = emergency room
 PTP = prior to presentation
 PTA = prior to admission
 CC = chief complaint
 HPI = history of presenting illness
 ROS = review of system
 Wt = weight
 PND = paroxysmal nocturnal dyspnea
 SOB = shortness of breath
 LMP = last menstrual period
 OCP = oral contraceptive
 NKDA = no known drug allergy
 CAOX3 = conscious and oriented in time, place and person
 LOC = loss/level of consciousness
 GAEB = good air entry bilateral
 Bx = biopsy
 Rx = treatment regimen
 MTX = methotrixate
 CTX = chemotherapy
 RTX = radiotherapy
 ttt = treatment
 △ = diagnosed with, or trimester in pregnancy
 ABG = arterial blood gases or air bone gap in ENT
 e = electrolytes
 AAA = abdominal aortic aneurysm

ARDS = acute respiratory distress syndrome
 COPD = chronic obstructive pulmonary disease
 ASA= acetyl salicylic acid (aspirin)
 CXR = chest x-ray
 AXR = abdominal x-ray
 CBC = complete blood count (lab test)
 c/o = complains of
 EUA = examination under anesthesia
 FNA = fine needle aspiration (lab test)
 NGT = nasogastric tube
 NPO = nothing per os
 POD = post operative day
 RTC = return to clinic
 RTA = road traffic accident
 RTA = renal tubular acidosis
 S/P = status post (Ex. s/p hernia repair)
 Lap choly = laparoscopic cholecystectomy
 Op = operation
 DM = diabetes mellitus
 CKD = chronic kidney disease
 lab results symbol with normal ranges ;



II ___ ROS:

General:

- | | |
|--|---|
| <input type="checkbox"/> Well being; _____ | <input type="checkbox"/> Sleep; _____ |
| <input type="checkbox"/> Appetite; _____ | <input type="checkbox"/> Mood; _____ |
| <input type="checkbox"/> Energy; _____ | <input type="checkbox"/> Wt change; _____ |

Cardiovascular system:

- | | |
|--|--|
| <input type="checkbox"/> Chest pain | <input type="checkbox"/> Palpitation; _____ |
| <input type="checkbox"/> Breathlessness; <ul style="list-style-type: none"> o on lying flat, relieved by _____ pillows o at night around _____ o'clock o on minimal exertion like _____ | <input type="checkbox"/> Claudication; at _____ distance |
| | <input type="checkbox"/> Ankle swelling |

Respiratory system:

- | | |
|---|--|
| <input type="checkbox"/> SOB | <input type="checkbox"/> Sputum; that is _____ (timing), |
| <input type="checkbox"/> Cough; dry/productive, sound (_____),
timing (_____), associated with _____
_____, exacerbated by _____
relieved by _____ | <input type="checkbox"/> in _____ color, in _____ amount,
with _____ smell, _____ contain solid
materials. |
| <input type="checkbox"/> Wheeze on _____ | <input type="checkbox"/> Hemoptysis; _____ |
| | <input type="checkbox"/> Chest pain on inspiration or coughing |

Gastrointestinal system:

- | | |
|--|--|
| <input type="checkbox"/> Oral ulcers; if painful | <input type="checkbox"/> Indigestion |
| <input type="checkbox"/> Dental hygiene; _____ | <input type="checkbox"/> Heartburn |
| <input type="checkbox"/> Dysphagia; to solids or liquids,
at _____ level. | <input type="checkbox"/> abdominal pain |
| <input type="checkbox"/> Odynophagia | <input type="checkbox"/> Change in bowel habits. Normally pass feces
_____ times a day, this has increased /
decreased to _____ a day. |
| <input type="checkbox"/> Nausea | <input type="checkbox"/> change in color of stool; _____ |
| <input type="checkbox"/> Vomiting; the vomitus is _____ | |
| <input type="checkbox"/> Hematemesis | |

urinary system:

- | | |
|--|--|
| <input type="checkbox"/> pain passing urine (dysuria); _____ | <input type="checkbox"/> incontinence (stress/ urge) |
| <input type="checkbox"/> frequency; if at night (nocturia) | <input type="checkbox"/> libido; normal or changed |
| <input type="checkbox"/> hematuria | <input type="checkbox"/> unprotected intercourse
(multiple sexual partners) |

Genital system:

for men:

- hesitancy
- poor stream
- terminal dribbling
- urethral discharge
- erectile difficulties

For women:

- LMP _____
- Period is _____
- Heavy bleeding; state if contain clots
- vaginal discharge
- OCP
- dyspareunia

Endocrine system:

- Heat or cold intolerance
- change in sweating
- excessive thirst

Musculoskeletal system:

- Joint pain
- Stiffness
- joint swelling
- restricted mobility
- falls

Nervous system:

- Headache
- Dizziness
- Faints
- fits
- altered sensation
- Weakness
- visual disturbances
- hearing problems
- memory & concentration changes

Others:

- bleeding or bruising
- Skin rash

II ___ Past Hx:

Medical:

chronic illnesses; (D / E / A / T / H), OSA, _____
previous hospital admissions (when, where, why, length of stay);

history of blood transfusion (when, where, why, how many, complications);

Surgical (when, where, why, complications, anesthesia) :

Obstetrical:

LMP _____, age of menarche _____ and menopause _____,
number of pregnancies _____ & complications _____,
type of delivery _____ & complications _____,
abortion _____ & cause _____,
family planning method _____.

II ___ Drug Hx:

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.....

Allergy;

II ___ Family Hx (draw a pedigree chart):

II ___ Social Hx:

Lifestyle:

exercise, diet,
marriage, homing,
hobbies, pets

Occupational Hx:

previous occupation,
unemployment (reason,
duration),
attitude to job

Travel Hx:

.....
.....

Sexual Hx:

regular sexual partner, M/ F
 irregular (how many per year, M/ F)

Tobacco & water pipe:

smoker; pack years
 X-smoker; stopped from years
 passive smoking at work or home

Alcohol:

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Hx of vaccination

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Religion

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.....

Drug abuse

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.....

Insurance system

.....
.....

Thank You

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A NAME THAT YOU CAN TRUST