General Examination

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General concepts.

General physical examination is eessential for

- Assessment the likely diagnosis and symptoms severity
- Arrangement of appropriate management plan including , investigations and treatment.
- Avoidance of unnecessary investigations- cost effective.
- Assess individual risk for certain diseases or conditions, e.i,. CV disease .

General concepts.

- Physical examination is the process of evaluating objective anatomic findings through the use of observation, palpation, percussion, and auscultation.
- The information obtained must be thoughtfully integrated with the patient's history.
- Both patient and physician should understand that the interaction is intended to be diagnostic and therapeutic.
- Thoughtfully performed physical examination; should yield 20% of the data necessary for patient diagnosis and management.

The context

- Mostly, medical history is available at the time of the physical examination, rarely not available.

Information related to the physical examination can be learned from

- observation of speech, gestures, habits, gait and extremities.
- Interactions with relatives and staff.
- Pigmentary changes such as cyanosis, jaundice, and pallor may be noted.
- Diaphoresis, pallor, and flushing may provide clues about vasomotor tone related to mood or physiologic abnormalities.
- Aspects of patient habits, interests, and relationships can be ascertained from pictures, books, magazines, and personal objects at the bedside.

The Physician–Patient Interaction

- Settings for PE- privacy and quietness - although difficult to achieve in a Hospital room.
- **Communicate respect and a genuine interest in the patient's welfare**.
- The patient should be addressed politely and asked politely to perform the required manoeuvres
- " Patients should be prepared for unpleasant portions of the examination.
- Aside from explanations and reassurance, it is necessary to avoid side conversation.

- Avoid embarrassing the patient.
- Be certain that personal areas are not subjected to undue exposure.
- At the end the examination give a brief summary of relevant findings and reassure your patient.
- Finally, thank your patient and help to dress- welfare.

- The Materials required for physical examination

The most useful devices for optimal physical examination are

- **A sensitive mind** (devote your attention to patient and think about findings, associations, severity and DDx)
- Mastery of the PE techniques – general examination, observation, palpation, percussion, and auscultation.

Tools required for the examination

Cotton swap	Sphygmomanometer
Flashlight	Green stick
Stethoscope	Tape measure
Pocket eye chart	Thermometer
Oto-ophthalmoscope	pulse oximeter
Tuning fork (128 Hz)	
Neuro pin	
Tongue depressors	Rectal gloves
Reflex hammer	Lubricating jelly

The physician must be able to :

- Perform the full **examination steps** appropriately
- Master a right technique of examination
- Detect the signs.
- **Detect the integrity of the various organ systems from regional examinations.**

For instance, ,,,,,

- It would be tedious, by contrast, to examine the vascular system in its entirety, followed by a complete neurologic examination and the other organ systems each in turn.
- Any abnormality detected, think about associated abnormalities and vitally think about its clinical significance.

The examination

- Comfort for the patient and examiner is essential.
- Ensure privacy and comfortability.
- Steps should be done in a strict order. (in order fashion)
- Minimize the patient manipulation.
- Right position
- Right exposure
- Right doctor position

The positions of patient

Anatomical area or activity	Patient	Examiner
Vital signs, general inspection	Sitting or reclining	Standing before patient or at bedside
Head and neck	Sitting	Standing before patient
Anterior torso	Sitting	Standing before patient initially, later behind the patient
Posterior torso	Sitting	At patient's side
Anterior chest and abdomen	Supine	Before the patient
Male genitalia	Standing	Before the patient
Gait, station, coordination	Variable positions	Behind the patient
Female genitalia	Reclining on examining table, draped, knees flexed, legs adducted, feet in stirrups	Sitting on stool at times or standing

- The sequence of physical examination

steps

1. Great your patient, make sure about his/her identity
2. Introduce your self clearly, stating your short name and yoyr position in the medical team.
3. Take permission- clearly and in short sentence.
4. Ensure privacy and comfort- ask for chaperon,
5. Wash your hands or rub with alcohol- safety
6. Position your patient appropriately – according to system being examined.
7. Exposure- expose patient appropriately – according to system being examined,, avoid undue exposure
8. Comfortability- ask about
9. Take your position- to the tail of bed

- 10- have a General look from the tail of the bed to 3 areas
- A- general
- B- Environment
- C- the local inspection of specified area- chest, precordium, abdomen etc

Make sure that

Patient is in a relaxed position, properly gowned or draped.

The environment is optimal
The examination surface height is appropriate for you.

Light sources and curtains should be optimally arranged.

Television sets, radios, and other noisy distractions should be eliminated.

Vital signs and general inspection
Evaluate the radial pulse for rate and rhythm. Measure brachial blood pressure. Inspect nails, skin, and hair. Note the general appearance, body habitus, hair distribution, muscle mass, movement coordination, odors, and breathing pattern.

General look

Face and Head

Eyes: Examine the periorbital area, eye fissures, cornea, pupils for irregularity and light reflex,

conjunctiva, sclera for jaundice and pallor

Ophthalmoscopy: dark the room

Particular emphasis should be placed on the retina, optic disc, vessels, and macula.

Nose: Connect the nasal speculum to the otoscope and examine the nares, noting the condition of the mucosa, septum and turbinates.

Mouth: Examine the oral cavity mucosa and the tongue.

Identify the salivary duct papillae.

Assess the dentition for decay, repair.

Special colours- jaundice or central cyanosis.

conclusion

- The physical examination is a key part of a field that extends from the history to the therapeutic outcome.
- If the history and physical examination are linked properly by the physician's reasoning capabilities, laboratory tests should in large measure be confirmatory.
- The physical examination, however, can be the weak link in this chain if it is performed in a superficial manner.
- Understanding the physical abnormality is essential for correct diagnosis and management. For instance, carotid bruits / murmur.

Evaluation of the physical examination in terms of sensitivity and specificity

- Is difficult.
- Interpretation of isolated physical findings is often influenced by the presence or absence of historical information and coexisting physical findings.
- A number of studies have attempted to look at the validity of the physical exam as a diagnostic tool.
- The concept of interobserver and intra-observer variability has been introduced when looking at specific isolated findings.

- For example, judging the presence or absence of râles is more likely to be agreed upon by several observers and on repeated exams by a single blinded observer, than is the graded intensity of breath sounds.
- The presence or absence of ascites in patients with known liver disease has been shown to be difficult to determine when using physical exam techniques alone.
- The bedside measurement of forced expiratory time by auscultation however, has been shown to have a small interobserver variability in trained observers and to have clinical value in following the degree of airway obstruction.

Recommendations

Because of the large degree of variability in reporting and interpreting physical findings, emphasis should be placed on :

- The presence or absence of sign rather than on graded variables (i,e., rales intensity i.e., intensity of breath sounds).
- Emphasis on the extremes findings rather than the "borderline" findings.
- The findings with high degree of interobserver variability should be deemphasized in favour of findings with better reproducibility. i.e., moderate or small ascites , diaphragmatic movement by percussion.

- It is beneficial to use the body's "symmetry" to advantage. Differences in breath sounds between similar area of the right and left lung are far more clinically important than an overall decrease in breath sounds.
- If these points are kept in mind, the physical exam will fill its proper role in the care of the patient. That is as an adjunct to a thorough history and as a way for the physician to interact physically with the patient.

presentation

- Presentation skill is as important as examination skills
- You should be able to put your examination findings in a fluent, professional , structured and informative presentation with the possible DDx and most likely diagnosis, and suggest a management plan which includes the next step investigation and the suitable treatment.
- 2 ways of presentation : Dx first or last.

Practice, practice practice
practice

practice

practice

practice