Respiratory System:

1- Introduce urself to the patient, then take permission.
2- Explain to the pt.
3- Take privacy.
4- Ur hands should be warm, also ur stethoscope.
5- Stand on the Rt. Side of the bed.
6- Position of the pt.: the pt should be centralized in the bed lying on 45 degree.

General RS exam:

Start general examination (stand on the foot of the bed and describing the pt.)
Looks well\ill, conscious? oriented? (time, place, persons). distressed? out of his/her breath? cachectic? use accessory muscles, Use mouth or nose in respiration? ((pursed lip?))
Body built of the pt., complexion (cyanosed? pale? jaundiced?).
Describe the associated and surroundings (canula, IV line, O2 mask, sputum pot, nebulizers, inhalers, urine cath) if u find sputum pot, see the sputum amount & color.

1. Vital signs (BP, Pulse, RR, Tm).

RR: **Tachypnea > 20:**
- In CURB-65 it is > 30
- fever, asthma, COPD, pneumonia, pulmonary edema

Bradypnea < 12:
opioids, hypothyroid, raised ICP, hypercapnia

2. The hand:
- Clubbing, Nicotine stain, Yellow nail syndrome: ((lymphedema, exudative pleural effusion)), Palmar erythema, Dupuytren's contracture, Peripheral cyanosis, Fine tremor ((theophylline use)), Flapping tremor, EN ((TB, sarcoidosis))

3. The eyes:
- Pale, Jaundice, Iritis ((TB, sarcoidosis)), Conjunctivitis, Chemosis,
- I should examine for papilledema, Ipsilat. Partial ptosis, Ipsilat. Miosis , Ipsilat. Enophthalmos ,Tall eye lashes in TB

Ptosis in horner syndrome is partial and evolves the both upper and lower eye lids, there is miosis >>> ptosis in III CN palsy is complete and there is dilated pupil.

4. Nose: lupus pernio in sarcoidosis, nasal polyps.

5. Mouth: hygiene (تسوس), central cyanosis (causes??).

6. Neck:

- Elevated JVP:

COPD (cor pulmonale), tension pneumothorax, severe acute asthma, CHF, major PE, SCV obstruction.

- LN (particularly scalene) comment on:

Site, Number, Size, Consistency, Tenderness, Fixation ,Overlying skin

Examination of the local chest:

The posterior chest:

The patient is in sitting position

Exposed to the waist

Your position is in the midline posterior to the patient.

Inspection:

1. The shape of the chest

- Scoliosis, Kyphosis, List, **Kyphoscoliosis**

(causes of kyphoscoliosis are : idiopathic, childhood poliomyelitis, soine TB)

- Barrel chest normal in infancy and occurs in COPD).

2. Scars, skin discoloration, spider nevi, localized masses.

3. Ask the pt to take a deep breath to note the symmetry.

Palpation:

Ask If there is any pain

- **Superficial palpation** for dr ayman but not dr mahmoud.
- **Chest expansion**
- **tactile fremitus:**
  Palpable vibrations transmitted through the bronchopulmonary tree to the chest wall when the patient speaks. (مهمة جدا للدكتور ايمن ابو العوف)
  increased in consolidation
  decreased in COPD, fibrosis, pleural effusion, FB obstruction, pneumothorax, thick chest wall

Percussion:

- **resonant:** normal
- **hyperresonant:** COPD, Exacerbated asthma, pneumothorax
- **Dull:** consolidation, collapse, fibrosis.
- **Stony dull:** pleural effusion, hemothorax.

Do Not forget to percuss the lung apex and the axilla.

خلي المرض يحضن اكتافه ... و للابط اجعله يضع يديه على خاصرتيه

Auscultation:

Avoid auscultation within 3 cm of the midline anteriorly or posteriorly.

- **Breath sounds: if u find bronchial or bronchoalveolar u should listen for the followings:**
  - Bronchophony
  - Egophony
  - Whispered pectoriloquy
  - Added sounds (crackles, wheeze, friction rub)

If u hear crackles, do not forget to ask the pt to cough.

The anterior chest:
- The pt is in 45-degree position
- Exposed to the waist
- **You are standing first on the foot of the bed.**

Inspection:
- Shape of the chest: (pectus carinatum, pectus excavatum, barrel chest)
- Localized masses
- Type of respiration
- Use accessory muscles
- Indrawing of intercostals mm., supraclvicular, subcostal areas

By inspection, there is symmetrical chest movement, with normal chest shape, No pectus carinatum, No pectus excavatum, and the anteroposterior diameter is related to the transverse diameter, so NO barrel chest. The type of respiration is … he/she does not use accessory muscles and there is no indrawing of intercostal, supraclvicular or subcostal muscles.

NOW stand on the Rt. Side and describe if there is:
- Scars (CABG, chest tube)
- Dilated neck veins
- Visible pulsatios (apex beat, epigastric pulsation)
- Scratch marks
- Spider nevi
- Gynecomastia (male).
- Hair distribution
- Rash

Palpation:
- Take special permission to palpate the trachea position and the tug and cricosternal distance
- Superficial palpation (surgical emphysema, tenderness rib #, costochondritis).
- Apex beat ((impalpable in ??))
- Chest expansion (two levels or dr ayman, 3 levels for dr mahmoud)
- TVF (only for dr ayman)

Percussion
(apex, axilla > do not miss) also perform tidal percussion to determine the upper border of the liver.
Don't forget to percuss the apecis, clavicles, axillae from anterior

Auscultation.
When u examine a female, displace her breast (gently) slightly laterally for TVF, Percussion and auscultation.

To complete my examination i should do spirometry for the pt

Signs of consolidation (Pneumonia)

1- Tachpnea
2- Decreased chest expansion in the affected side
3- Increased TVF
4- Dullness
5- Bronchial breath
6- Increased VR + increased whispered pectoriloquy.
7- You can hear crackle If the pt is in the resolution stage (due to liquefaction of the lung infiltrations)

In fibrosis:

1- Decreased chest expansion
2- Trachea deviated to the same side in upper lobe fibrosis.
3- Decreased TVF
4- Dullness
5- Diminished breath sounds
6- Bronchial breathing
7- Fine late crackles
8- Hand manifestations in RA:
Boutonniere deformity, Swan neck deformity, Z-shaped deformity, Ulnar deviation, Swelling at MCP joints, Dorsal subluxation of the ulnar head, Carpel tunnel syndrome, Palmer erythema, small muscle wasting, tissue paper skin, spindling of the fingers and don't forget to expose the elbow looking for rheumatoid nodules.

In pleural effusion:

1- May be tachpnic in massive
2- Decreased chest expansion
3- Trachea deviated to the oppsite side in massive effusion.
4- Apex beat is displaced in left effusions
5- Decreased TVF
6- Stony dull percussion note.
7- Diminished breath sounds and VR.
8- Egophony at the upper border of effusion