History

Hand Higen

Introduce yourself , take permission

Patient profile (name , age , occupation , marital status , address)

How did you come to the hospital?
By Car, Ambulance, Walking

Chief complaint

'How can I help you today?' What bothers you most?
'What has brought you along to see me today?'

Duration

When did you first feel unwell ?

History of presenting illness (Analysis of the Chief Complaint)

May be systemic wise or by the broad categories of disease

IF PAIN → SOCRATES

Site: Can you point your finger at where the pain is?
Onset (sudden or gradual, progression, first time) How did it start sudden or gradual? dose it get worse or better?
Character Describe the pain is it burning? is it stabbing? is it throbbing? is it heaviness? is it dull?
Radiation Dose it transfer to another area?
Associated symptoms (~~finish the CC analysis then ask about them ↓~~) Do you have any other symptoms?
Timing (Time of each episode)
~~a) Duration~~ When did the pain starts? (at night/ morning ..etc,.)
~~b) course~~
c) Pattern Is it contnous or episodic? if episodic how many for how long?
Exacerbating and Relieving factors : Dose any thing make the pain better? worse?
Severity On the scale from 1 to 10 assume that 1 is the lowest while 10 is the worst pain, can you grade your pain?

Past medical and surgical history

- What illnesses have you seen a doctor about in the past?
- Have you been in hospital before or attended a clinic?
- Have you had any operations? If yes (What, When, Where, Why)? & Are there any complications?
- Do you take any medicines regularly?

Drug Hx and allergy history Do you have any known allergies for (drugs, food ..etc,.)?

What drugs are you taking? what is the dose ? why does you take it (indication) ?Are you compliance ?
Do you take any over the counter drug ?vitamins ? or herbal remedies ?

Family Hx Are your parents/ brothers/ sisters alive?

If there is Family Hx of heart disease (according to the presenting symptoms).
'Are there any illnesses that run in your family?"

Social Hx: Smoking history (# of pack years), alcohol, travel history

System enquiry "Review of systems"

CHEST PAIN

Introduce yourself , take permission

Patient profile (name , age , occupation , marital status)

Chief complaint + duration

Analysis of the Chief Complaint

Site:

a) Retrosternal → ACS, Angina, Pericarditis

b) Lateral → PE, Pneumonia, Shingles

Onset

a) Sudden → ACS, PE

b) Gradual → Angina, Pneumonia

Character

a) Heaviness → ACS, Angina

b) Stabbing → PE, Pneumonia, Pericarditis

c) Tearing → Aortic dissection

Radiation

a) Left shoulder, neck and teeth → ACS, Angina

b) Back → Aortic dissection

(DDX: ACS, Angina, PE, Pneumonia, Pericarditis, Shingles, Trauma, GERD)

****Investigations:**

1. ACS + Angina → ECG and cardiac enzymes

2. Pneumonia → CXR, ESR, CRP

3. PE → CT-angiogram, D-dimer

4.GERD → 24-hour monitoring.

Associated symptoms (finish the CC analysis then ask about them ↓)

Timing (Course and pattern)

a) Intermittent or episodic, how much it lasts →ACS, Angina

b) Persistent for more than 30 minutes → MI

Exacerbating:

a) Exertion, Emotion, Cold, After meals→ ACS, Angina

b) Movement, respiration and cough, lying supine → PE, Pneumonia, Pericarditis

Relieving:

a) Rest AND NTG → Angina b) eating → GERD, ACS.

b) **Leaning forward,** Sitting up, Analgesics, NSAIDS → Pericarditis

Severity 1. Very severe (ACS, Aortic dissection) 2. Mild (esophageal).

Associated symptoms

I. CVS: Sweating, Nausea, vomiting and impending death → MI

a) SOB b) Orthopnea c) PND d) Ankle swelling, Palpitation, Syncope.

II. RS: Fever & chills, contact with sick patient → Pneumonia

a) Cough and sputum → Pneumonia

b) Hemoptysis, leg pain and swelling → PE

c) Cyanosis → PE

III. GI

Heart burn, regurgitation, Hematemesis and melena → GERD, Esophagitis

IV. MSS

a) Skin rash → Shingles

b) Joint pain → SLE

V. Depression: Mood and loss of interest .

Risk Factors (always ask about smoking and alcohol)

I. ACS → HTN, DM, Hyperlipidemia, Family history, Smoking

II. Viral etiologies may be preceded by flu-like respiratory or GI symptoms → Percardiaitis

III. Trauma → Pneumothorax

IV. PE (DVT) → Recent travel, Surgery, Immobility, Pregnancy, OCP, Previous DVTs

Review of systems

Past medical and surgical HTN, hyperlipidemia, DM, previous caths and stents, recent infections, previous heart surgeries

Drug Hx NSAIDs, B-blockers, Thyroxine, Cocaine AND **Vaccine Hx** if Pneumonia **Allergies:** Drug ..etc

Family Hx Family Hx of heart disease or premature CAD (♂<55 , ♀<65)

Social Hx: Smoking history (# of pack years), alcohol, travel history

Chest Pain

1- Intermittent (Angina Vs. Esophageal spasm)

2- Acute

1. **Acute coronary syndrome**
2. **Aortic dissection**
3. **Pericarditis**
4. **Esophageal Spasm**
5. **Pneumothorax**
6. **Musculoskeletal pain**

Premature CAD

- **In the patient**

CAD < 55 years in female, < 45 years in male

- **In the family**

First degree relative

CAD < 65 years in female, < 55 years in male

4.3 Cardiovascular causes of chest pain and their characteristics

	Angina	Myocardial infarction	Aortic dissection	Pericardial pain	Oesophageal pain
Site	Retrosternal	Retrosternal	Interscapular/retrosternal	Retrosternal or left-sided	Retrosternal or epigastric
Onset	Progressive increase in intensity over 1–2 minutes	Rapid over a few minutes	Very sudden	Gradual; postural change may suddenly aggravate	Over 1–2 minutes; can be sudden (spasm)
Character	Constricting, heavy	Constricting, heavy	Tearing or ripping	Sharp, 'stabbing', pleuritic	Gripping, tight or burning
Radiation	Sometimes arm(s), neck, epigastrium	Often to arm(s), neck, jaw, sometimes epigastrium	Back, between shoulders	Left shoulder or back	Often to back, sometimes to arms
Associated features	Breathlessness	Sweating, nausea, vomiting, breathlessness, feeling of impending death (angor animi)	Sweating, syncope, focal neurological signs, signs of limb ischaemia, mesenteric ischaemia	Flu-like prodrome, breathlessness, fever	Heartburn, acid reflux
Timing	Intermittent, with episodes lasting 2–10 minutes	Acute presentation; prolonged duration	Acute presentation; prolonged duration	Acute presentation; variable duration	Intermittent, often at night-time; variable duration
Exacerbating/ relieving factors	Triggered by emotion, exertion, especially if cold, windy Relieved by rest, nitrates	'Stress' and exercise rare triggers, usually spontaneous Not relieved by rest or nitrates	Spontaneous No manoeuvres relieve pain	Sitting up/lying down may affect intensity NSAIDs help	Lying flat/some foods may trigger Not relieved by rest; nitrates sometimes relieve
Severity	Mild to moderate	Usually severe	Very severe	Can be severe	Usually mild but oesophageal spasm can mimic myocardial infarction
Cause	Coronary atherosclerosis, aortic stenosis, hypertrophic cardiomyopathy	Plaque rupture and coronary artery occlusion	Thoracic aortic dissection rupture	Pericarditis (usually viral, also post myocardial infarction)	Oesophageal spasm, reflux, hiatus hernia

NSAIDs, *non-steroidal anti-inflammatory drugs.*

Palpitation

Introduce yourself , take permission
Patient profile (name, age, occupation, marital status)
Chief complaint + duration
Analysis of the Chief Complaint (OPCERATS)
Onset (sudden or gradual) **Progression get worse or better with time** **Character: (regular or irregular) (tachycardia or bradycardia).** **Exacerbating, Relieving:** -Stress, Exercise, caffeine, alcohol, smoking **Timing (Course/ pattern)** IF Lasts for a few minutes or Constant **Severity (loss of consciousness, dizziness)**
Associated symptoms **I. CVS:** (HF OR IHD) Chest pain, Orthopnea, PND, lower limb edema, SOB, Palpitation, intermittent claudication. **II. SVT, Afib:** Polyuria, light headedness, chest tightness. **III. Ventricular arrhythmia:** Presyncope, and syncope. **IV. Hyperthyroidism:** heat intolerance, weight loss, diarrhea **V. Infection and sepsis** → Fever. **VI. Anemia:** Fatigue, Pallor or Jaundice, Weakness. **VII. Psychological:** Anxiety (nervousness, insomnia, tachypnea). **VIII. Pheochromocytoma** (episodic headache + sweating).
Review of systems
Past medical and surgical -IHD (Previous MI) -Valvular heart disease (Mitral stenosis) → Atrial fibrillation Previous admission. Previous surgeries.
Drug Hx (Thyroxine, B-agonists , Decongestants , Anti-depressants)
Family Hx Family hx of heart disease or sudden death
Social Hx: Smoking history (# of pack years), alcohol, travel history, diet (caffeine .. etc.).

(DDX: Atrial fibrillation, Hyperthyroidism, Phechromocytoma, Anxiety, Anemia)

****Investigations:**

1. **CBC.**
2. **ECG.**
3. Echocardiogram.
4. Thyroid function test.
5. Urine metanephrins.

4.6 Descriptions of arrhythmias

	Extrasystoles	Sinus tachycardia	Supraventricular tachycardia	Atrial fibrillation	Ventricular tachycardia
Site	–	–	–	–	–
Onset	Sudden	Gradual	Sudden, with 'jump'	Sudden	Sudden
Character	'Jump', missed beat or flutter	Regular, fast, 'pounding'	Regular, fast	Irregular, usually fast; slower in elderly	Regular, fast
Radiation	–	–	–	–	–
Associated features	Nil	Anxiety	Polyuria, lightheadedness, chest tightness	Polyuria, breathlessness Syncope uncommon	Presyncope, syncope, chest tightness
Timing	Brief	A few minutes	Minutes to hours	Variable	Variable
Exacerbating/ relieving factors	Fatigue, caffeine, alcohol may trigger Often relieved by walking (increases sinus rate)	Exercise or anxiety may trigger	Usually at rest, trivial movements, e.g. bending, may trigger Vagal manœuvres may relieve	Exercise or alcohol may trigger; often spontaneous	Exercise may trigger; often spontaneous
Severity	Mild (usually)	Mild to moderate	Moderate to severe	Very variable, may be asymptomatic	Often severe

SHORTNESS OF BREATH

Introduce yourself , take permission
Patient profile (name , age , occupation , marital status, adress)
Chief complaint + duration
HOPI: Analysis of the Chief Complaint (OPERATS)
Onset (Sudden or gradual) **Instantaneous, hours, insidious.** **Previous Episodes** **Exacerbating, Relieving:** **a) Rest over night?? (COPD, HF, Asthma).** **b) Exercise and the relation if it is present? (Limit exercise or at end of it)** **c) Cough sputum** **d) Cold air** **Timing (course, pattern):** **Episodic with free interval (asthma)/Constant** **Get worse or better with time?** **Severity effect on life: How can you walk? And the things that makes you SOB.**
Associated symptoms **I. Constitutional** Fever, weight loss, night sweat, loss of appetite. **II. CVS:** Chest pain, Orthopnea, PND, Ankle swelling, SOB, Palpitation, intermittent claudication. **III. RS:** a) Cough and sputum → Pneumonia b) Hemoptysis → Pneumonia, PE c) Cyanosis → PE d) Wheeze IV. GI: Nausea, vomiting, Heart burn, regurgitation, Abdominal pain, Jaundice. V. MSS: Skin rash, Joint pain, Muscle wasting, lymphadenopathy. VI. **Psychological:** anxiety, perioral and digital paresthesia, light headedness, can't get enough air in. VII. **Anemia:** Pallor, dizziness , fatigue.
Past medical and surgical: Hx of respiratory and cardiac disease (HTN/ HF/ Hyperlipidemia/ Arrhythmias), DM, Stroke, previous DVT, **Hx of blood transfusion . Any surgeries or trauma or any source of immobility.**
Drug Hx what he is taking (**Aspirin , B-Blocker, CCB, inhaler**) , any recent change , adherence to medications)
Family Hx asthma , atopy , hay fever , eczema, Lung cancer , IHD
Social Hx: Smoking history (# of pack years), alcohol**, travel history (Recently), recreational drugs, contact with sick patient, house ventilation, pets.**
Review of systems: (**GU**, search for **malignancies** ….etc.).

(DDX: All respiratory and cardiac diseases, Anemia, Psychogenic) + (MSS chest trauma and costocondritis, neurogenic myasthenia gravis GBS, GIT liver ds and pancreatitis).
But most common cases in hospital are (Decompensated HF (Acute pulmonary edema), Acute exacerbation or asthma or COPD, PE, Pneumonia, Anemia).

****Investigations:**
1. CXR → Pneumonia, Pulmonary edema, Asthma, COPD
2. Spirometry → Asthma, COPD, RLD
3. CT-angiography and D-dimer → PE
4. CBC → Anemia

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7.6 Breathlessness: modes of onset, duration and progression

Minutes

- Pulmonary thromboembolism
- Pneumothorax
- Asthma
- Inhaled foreign body
- Acute left ventricular failure

Hours to days

- Pneumonia
- Asthma
- Exacerbation of COPD

Weeks to months

- Anaemia
- Pleural effusion
- Respiratory neuromuscular disorders

Months to years

- COPD
- Pulmonary fibrosis
- Pulmonary tuberculosis

Grade	Degree of breathlessness related to activities
1	Not troubled by breathlessness except on strenuous exercise
2	Shortness of breath when hurrying on the level or walking up a slight hill
3	Walks slower than most people on the level, stops after a mile or so, or stops after 15 minutes walking at own pace
4	Stops for breath after walking about 100 yds or after a few minutes on level ground
5	Too breathless to leave the house, or breathless when undressing

7.5 Causes of breathlessness

Non-cardiorespiratory

- Anaemia
- Metabolic acidosis
- Obesity
- Psychogenic
- Neurogenic

Cardiac

- Left ventricular failure
- Mitral valve disease
- Cardiomyopathy
- Constrictive pericarditis
- Pericardial effusion

Respiratory

Airways
- Laryngeal tumour
- Foreign body
- Asthma
- COPD
- Bronchiectasis
- Lung cancer
- Bronchiolitis
- Cystic fibrosis

Parenchyma
- Pulmonary fibrosis
- Alveolitis
- Sarcoidosis
- Tuberculosis
- Pneumonia
- Diffuse infections, e.g. *Pneumocystis jiroveci* pneumonia
- Tumour (metastatic, lymphangitis)

Pulmonary circulation
- Pulmonary thromboembolism
- Pulmonary vasculitis
- Primary pulmonary hypertension

Pleural
- Pneumothorax
- Effusion
- Diffuse pleural fibrosis

Chest wall
- Kyphoscoliosis
- Ankylosing spondylitis

Neuromuscular
- Myasthenia gravis
- Neuropathies
- Muscular dystrophies
- Guillain–Barré syndrome

COUGH / HEMOPTYSIS / SPUTUM

Introduce yourself , take permission

Patient profile (name , age , occupation , marital status, address)

Chief complaint + duration (acute < 3 weeks , chronic > 8 weeks)

HOPI: Analysis of the Chief Complaint (FCBCA + OPERATS)

Frequency
Content (dry or productive)
Bloody (hematemesis ?!!)
Color/Consistency of sputum
Amount (in cups)
Onset (sudden or gradual)
Previous Episodes (first time)
Exacerbating, Relieving:

a) Rest over night
b) Exercise/ Cold air
c) Swallowing
d) Pollens, Dust, fumes.

Associated symptoms (finish the CC analysis then ask about them ↓)
Timing (course, pattern):
Get worse or better with time?
Constant/ Episodic with free interval (asthma)
Severity

Associated symptoms

I. Constitutional
Fever, weight loss, night sweat, loss of appetite.
II. CVS: Chest pain, Orthopnea, PND, Ankle swelling, SOB, Palpitation, intermittent claudication.
III. RS:

A) Nasal congestion/ Sore throat.
B) Change in voice/ swallowing.
C) Cyanosis → PE.
D) Wheeze → asthma or Foreign body aspiration.

IV. GI
Nausea, vomiting, Heart burn, regurgitation, Abdominal pain → (GERD).

Past medical and surgical: Hx of respiratory and cardiac disease or other diseases, history of previous admission, history of blood transfusion, previous surgeries and trauma.

Drug Hx (what he is taking (ACEI, Aspirin , B blocker, inhaler), any recent change , adherence to medications)

Family Hx asthma , atopy , hay fever , eczema ,TB, Lung cancer , CHF

Social Hx: Smoking history (# of pack years), Pets, ventilated house, alcohol, travel history, contact with sick people nor elderly people/ prisoners.

Review of systems

(DDX: All respiratory (OLD, RLD) and cardiac diseases, GERD, Side effect of drug)

****Investigations:**
1. CXR → Pneumonia, Pulmonary edema, Asthma, COPD
2. Spirometry → Asthma, COPD, RLD
3. CT-angiography And D-dimer → PE
4. CBC → Pneumonia
5. 24 Hour esophageal PH monitoring → GERD**.**

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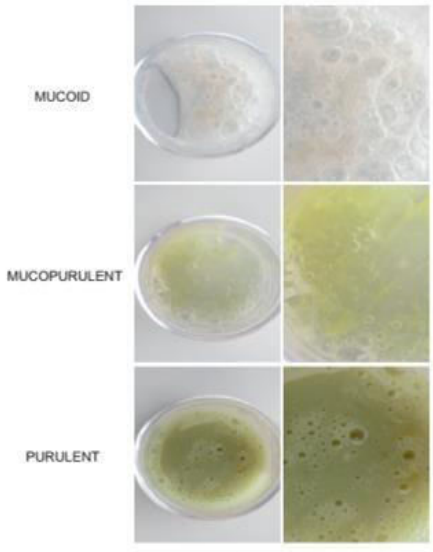
	Normal chest X-ray	Abnormal chest X-ray
Acute cough (<3 weeks)	Viral respiratory tract infection Bacterial infection (acute bronchitis) Inhaled foreign body Inhalation of irritant dusts/fumes	Pneumonia Inhaled foreign body Acute hypersensitivity pneumonitis
Chronic cough (>8 weeks)	Gastro-oesophageal reflux disease Asthma Postviral bronchial hyperreactivity Rhinitis/sinusitis Cigarette smoking Drugs, especially angiotensin-converting enzyme inhibitors Irritant dusts/fumes	Lung tumour Tuberculosis Interstitial lung disease Bronchiectasis

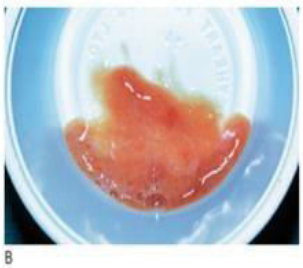
1-Acute cough:
URTIs, Allergic Rhinitis, Pneumonia
2- Chronic cough:
Chronic bronchitis, Asthma, Postnasal drip

Color

- Clear (mucoid): COPD/bronchiectasis without current infection/rhinitis.
- Yellow (mucopurulent): acute lower respiratory tract infection/asthma.
- Green (purulent): current infection – acute disease or exacerbation of chronic disease, such as COPD.
- Red/brown (rusty): pneumococcal pneumonia.
  Try to distinguish between rusty and frank red blood.
- Pink (serous/frothy): acute pulmonary edema.

In bronchiectasis, the color of sputum may be used to guide the need for antibiotic treatment.





Color of sputum :
1-Rusty → S.pneumonia
2 – Red Current jelly → Klebsiella
3- frothy pink → P.edema
4- Greenish → Pneumonia

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7.4 Causes of haemoptysis

Tumour	
Malignant	**Benign**
• Lung cancer • Endobronchial metastases	• Bronchial carcinoid
Infection	
• Bronchiectasis • Tuberculosis • Lung abscess	• Mycetoma • Cystic fibrosis
Vascular	
• Pulmonary infarction • Vasculitis • Polyangiitis • Trauma • Inhaled foreign body • Chest trauma • Cardiac • Mitral valve disease • Haematological • Blood dyscrasias	• Arteriovenous malformation • Goodpasture's syndrome • Iatrogenic • Bronchoscopic biopsy • Transthoracic lung biopsy • Bronchoscopic diathermy • Acute left ventricular failure • Anticoagulation

Massive Haemoptysis:

more than 20ml/one time, OR more than 200ml/24hrs.

hemoptysis (Frank blood / blood stained) → Pneumonia/ CA/ TB / PE

Larger volumes of hemoptysis suggest:

- lung cancer eroding a pulmonary vessel
- bronchiectasis (such as in cystic fibrosis)
- Cavitatory disease (such as bleeding into an aspergilloma).
- Pulmonary vasculitis
- Pulmonary arteriovenous malformation.

Intermittent Claudication

Introduce yourself , take permission
Patient profile (name , age , occupation , marital status, address)
Chief complaint + duration
HOPI
Site (Unilateral or Bilateral) **Onset** (sudden or gradual) **Character** - Cramps – Numbness/ tingling – Bursting. **Radiation** **Associated symptoms:** - Color of leg (Normal/ Pale/ Cyanosed). - Temperature (Normal/ cool/ increased). - Edema (Absent/ present). **Timing** (Course/ Pattern) **Exacerbating Factors** (Walking/ Rest) **Relieving Factors** (Rest/ Bending forwards/ Leg elevations) **Severity** (from 0-10) (How it affects your life? How many steps do you walk before pain is reproduce?).
Review of systems
Past medical and surgical • Chronic illnesses (DM/ HTN/ Hyperlipidemia/ Stroke/ Angina ..etc.) • Previous admission. • Blood transfusion. • Previous surgery/ Cathetarization. • Trauma history.
Drug HX: Antiplatelet, Anticoagulant, Anti-hyperlipidemia.
Family HX: Ask about relevant conditions related to the history (HTN/ DM/ Stroke/ MI), Premature coronary artery diseases (♂<55, ♀<65).
Social HX: Smoking history (# of pack years), alcohol, travel history, Diet, Home environment.

4.23 The clinical features of arterial, neurogenic and venous claudication

	Arterial	Neurogenic	Venous
Pathology	Stenosis or occlusion of major lower limb arteries	Lumbar nerve root or cauda equina compression (spinal stenosis)	Obstruction to the venous outflow of the leg due to iliofemoral venous occlusion
Site of pain	Muscles, usually the calf but may involve thigh and buttocks	Ill-defined Whole leg May be associated with numbness and tingling	Whole leg 'Bursting' in nature
Laterality	Unilateral or bilateral	Often bilateral	Nearly always unilateral
Onset	Gradual after walking the 'claudication distance'	Often immediate on walking or standing up	Gradual, from the moment walking starts
Relieving features	On stopping walking, the pain disappears completely in 1–2 minutes	Bending forwards and stopping walking Patient may sit down for full relief	Leg elevation
Colour	Normal or pale	Normal	Cyanosed Often visible varicose veins
Temperature	Normal or cool	Normal	Normal or increased
Oedema	Absent	Absent	Always present
Pulses	Reduced or absent	Normal	Present but may be difficult to feel owing to oedema
Straight-leg raising	Normal	May be limited	Normal

DYSPHAGIA

Introduce yourself , take permission
Patient profile (name , age , occupation , marital status, address)
Chief complaint + duration (odynophagia?!!!)
Analysis of the Chief Complaint
Site: At what level does the food stick **Onset:** (sudden or gradual) **Character** Fluids, Solids or both (at the same time!), Stage the dysphagia occurs: initiating swallowing, after initiation swallowing? **Associated symptoms (finish the CC analysis then ask about them ↓)** **Timing** (Progression, episodic (intermittent) or continuous) **Severity** (Is there complete obstruction , regurgitation?)
Associated symptoms **Constitutional:** - Weight loss - Loss of appetite - Night sweat. - fever **URTI:** Cough, nasal congestion, sore throat. **Neurological:** vision problem, tremor, Recurrent choking (previous strokes). **GI:** Nausea/vomiting, Regurgitation, heart burn, Bloating/abdominal swelling, Early satiety, Jaundice/ RUQP/ Steatorrhea, Bowel habit, Melena and Hematochezia. **Scleroderma:** Skin tightness and discoloration (Raynaud Phenomenon). **Myasthenia gravis:** Ptosis, diplopia, fatigue **Pharyngeal pouch** (zenker diverticulum) Neck bulge , gurgle on drinking or halitosis ?
Review of systems
Past medical +Blood transfusion and surgical +Trauma. • Stroke • Thyroid problems (Goiter) • PUD and GERD •Scleroderma •Iron deficiency. • Previous admission. • Previous surgeries.
Drug HX: → • NSAIDs • Bisphosphonates/Doxycycline •Use of antacids (related to GERD and PUD).
Family HX: Esophageal cancer, neuromuscular diseases , any chronic illnesses
Social HX: • Alcohol (peptic ulcer disease, gastritis) • Smoking • Illicit drug use • Diet: spicy foods (peptic ulcer disease)

(DDX: URTI, Esophageal cancer, Achalasia, Scleroderma, Neurological, GERD, PUD)

Investigations:

1. Manometry, Barium swallow
2. Upper endoscopy
3. 24 PH monitoring
4. Anti Ach antibodies

Epigastric pain

Introduce yourself , take permission

Patient profile (name , age , occupation , address , marital status)

Chief complaint + duration

Analysis of the Chief Complaint **(SOCRATES)**

Site

Onset (sudden or gradual, progression, first time)

Character

- Squeezing - Sharp/stabbing - Burning/pricking - Dull

Radiation

- To back
- To Right shoulder, scapula
- Up to chest
- Diffuse

Associated symptoms (finish the CC analysis then ask about them ↓)

Timing (episodic or continuous)

Exacerbating:

- Eating or fasting.
- increased by swallowing.
- fatty foods.
- acidic/spicy foods/coffee.
- Does it increase by movement or breathing?

Relieving:

- Eating or fating
- Certain position (lying on one side, or leaning forward)
- Bowel motion.
- Drugs

Severity (from 0-10).

Associated symptoms

- **GI symptoms**:
- Dysphagia, Regurgitation, heart burn, hoarseness of voice.
- Dyspepsia , N+V
- Bloating/abdominal swelling (generalized/localized)
- Early satiety
- Jaundice/ RUQP/ Steatorrhea, urine & stool changes, itching
- Bowel habit, diarrhea/constipation • Flatulence
- Melena and Hematochezia

•**Heart symptoms:** Chest pain, sweating, SOB, PND, orthopnea, ankle swelling,.

• **Respiratory symptoms:** Cough, SOB, wheeze.

General
• Fever, weight loss, loss of appetite, night sweat.

Risk Factors (always ask about smoking and alcohol)
I. PUD ⟶ Smoking, NSAIDS, Alcohol
II. Hepatitis ⟶ Alcohol, blood Transfusion, HBV infection, DM, contact with patient having Hepatitis
III. MI ⟶ Smoking, HTN, DM, Hyperlipidemia, Family Hx
IV. Cholecystitis⟶ Family Hx of gall bladder stones

Review of systems

Past medical and surgical
• Previous surgeries.
• Hepatitis, or history of blood transfusions, sexual intercourse, contact with jaundiced patient.

Drug Hx: NSAIDs, Steroids ,antacids, anticoagulant.

Family Hx: Ask about relevant conditions related to the history (Gastric cancer, PUD ... etc.), and any chronic diseases.

Social Hx: Smoking history (# of pack years), alcohol, travel history

Abdominal pain

Introduce yourself , take permission

Patient profile (name , age , occupation , address , marital status)

Chief complaint + duration

Analysis of the Chief Complaint **(SOCRATES)**

Site

Ulcer, Gallstone colic, Mittelschmerz, Diverticulitis

Onset (sudden or gradual, progression, first time)

sudden: Ischemia + ruptured viscus (ulcer , aneurysm)
rapid accelerating: inflammatory cause (appendicitis, cholecystitis)

Character

- Colicky — Renal or biliary
- Sharp/stabbing — peritonitis
- Burning/pricking — Ulcer
- Tearing — Dissecting aneurysm
- Dull — Inflammation

Radiation

- To back (abdominal aortic aneurysm, ruptured duodenal ulcer)

-To testicles/groin (hernia)

- To shoulders — Rt: Gall bladder / Lt: spleen

- Loin to groin (renal stone)

Associated symptoms (finish the CC analysis then ask about them ↓)

Timing (episodic or continuous)

Exacerbating:

- Eating or fasting. (Appendicitis VS Mesenteric adenitis)
- increased by swallowing.
- fatty foods. Gall bladder
- acidic/spicy foods/coffee. Ulcer
- Does it increase by movement or breathing? Movement >> Peritonitis; Writhing around >> colic

Relieving:

- Eating or fating — Lying as quietly as possible >> peritonitis
- Certain position (lying on one side, or leaning forward)
- Bowel motion.
- Drugs — Prednisone may inhibit the inflammatory response to perforation or peritonitis

Severity (from 0-10). Mesenteric ischemia >> out of proportion to PE

Associated symptoms

- **GI symptoms**:
- Dysphagia, Regurgitation, heart burn, hoarseness of voice.
- Dyspepsia , N+V Vomiting >> pain >> diarrhea = GE
  Pain >> vomiting = Appendicitis
- Bloating/abdominal swelling (generalized/localized) Intestinal obstruction
- Early satiety
- Jaundice/ RUQP/ Steatorrhea, urine & stool changes, itching (Liver)
- Bowel habit, diarrhea/constipation • Flatulence
- Melena and Hematochezia

IBD symptoms: arthralgia, eye symptoms, skin, oral ulcers, bloody diarrhea.

Renal symptoms:

- Loin to groin + flank + colicky: renal stones
- Suprapubic + dysuria: UTI
- Pruritus
- Ankle swelling

❖ **Gynecological + Obstetric symptoms** :

Correlation with menstrual periods • Menorrhagia • Possibility of patient being pregnant • Last Menstrual P.

General

- Fever, weight loss, loss of appetite, night sweat.

Risk Factors (always ask about smoking and alcohol)

Previous abdominal surgery >> intestinal obstruction
Atherosclerosis >> Mesenteric ischemia , AAA , MI.

Red Flags of acute abdominal pain: Bleeding (upper GI bleed or lowerGI bleed), Severe pain, Signs of shock, Signs of peritonitis.

Review of systems

Past medical and surgical

- Previous surgeries.
- Hepatitis, or history of blood transfusions, sexual intercourse, contact with jaundiced patient.

Drug Hx: NSAIDs, antacids, use of laxatives..

Family Hx: Ask about relevant conditions related to the history (IBD, PUD ... etc.), andany chronic diseases.

Social Hx: Smoking history (# of pack years), alcohol, travel history

Investigations:

1. CBC, Urinalysis
2. Stool analysis
3. Colonscopy and biopsy
4. Flat and plain Abdominal X-ray (perforation or obstruction)
5. U/S: biliary tract, EP, appendicitis
6. Non-contrast CT: renal stones
7. Beta-HCG for all women in childbearing age

Acute abdominal pain so severe that the patient seeks medical attention (Note: Not the same as a “ surgical abdomen,” because most cases of acute abdominal pain do not require surgical treatment)

Visceral pain >> dull, diffuse, not well-localized, autonomic nerves (fibers) so bilateral
only in 3 areas:
foregut >> epigastric pain
midgut >> periumbilical
hindgut >> suprapubic area
Causes: inflammation, ischemia.

Parietal pain >> sharp, well-localized, somatic nerves
causes: irritation or distention
in 9 areas or 4 areas
Causes: irritation or distention

Hematemesis

Introduce yourself , take permission

Patient profile (name , age , occupation , address, marital status)

Chief complaint + duration

Analysis of the Chief Complaint

Onset: - Sudden acute - chronic
- insidious onset of vomiting
Progression (Getting worse or better)
Previous episodes

Character:
smell
Color (Fresh bright red, Dark color "coffee grounds").
Amount (In cups).

Associated bleeding from other sites

Time: Constant or episodic.

Exacerbating and relieving factors:
- NSAIDs ⟶ PUD
- Food ⟶ GU
- Trauma to abdomen ⟶ Esophageal perforation
- Alcohol, Vomiting/retching ⟶ Mallory-Weiss tear

Severity:

Associated symptoms
I. GI:
a) Heartburn and regurgitation
B) Dysphagia and odynophagia.
C) Dyspepsia
D) Abdominal Pain ⟶ Epigastric ⟶ PUD
E) Abdominal Distention
f) Jaundice / change in urine & stool color / itching/ limb swelling⟶ Cirrhosis
g) Diarrhea or constipation
h) Hematochezia/ anal pain or anal lump.
II. Blood disorders: Bleeding from other site, ecchymosis, purpura, petechial, hematuria.
III. Constitutional symptoms: Fever, Weight loss, Anorexia, Night sweat.

Risk Factors (always ask about smoking and alcohol) **I. PUD** → Smoking, NSAIDS, Alcohol **II. Bleeding disorders** → Drugs {Anti-coagulants (Heparin or Warfarin) / NSAIDS (Aspirin). **III. Cirrhosis** → Alcohol, Blood transfusion, HBV infection, sexual intercourse, easy bruising, leg swelling. **III. Mallory –Weiss >>** binge drinking
Review of systems
Past medical and surgical: GERD, PUD, liver problems, coagulopathy, IBD, Colorectal cancer, previous GI surgery, AAA repair (Aorto-enteric fistula).
Drug Hx: NSAIDs, steroid, aspirin, warfarin
Family Hx: Ask about relevant conditions related to the history (Gastric cancer, PUD, colon cancer ... etc.), and any chronic diseases.

Jaundice

Introduce yourself , take permission

Patient profile (name , age , occupation , marital status)

Chief complaint + duration

Analysis of the Chief Complaint

I.Site
a) Eyes (Sclera)
b) Skin
II. Onset (sudden or gradual, progression, first time) OPP

III. Associated symptoms (finish the CC analysis then ask about them ↓)

IV. Exacerbating and relieving factors (Drugs, exercise, fasting, certain foods like fava beans).

V. Time: Intermittent (e.g. Gilbert's syndrome), continuous.

Associated symptoms

I.Prehepatic : Hemolytic Anemia → Fatigue, Dizziness, Pallor, SOB.

II. Hepatic :
a) Hepatitis → Fever, RUQ pain, Nausea & Vomiting
Autoimmune →Arthralgia, vitiligo, skin rashes
b) Cirrhosis → Ascites, Limb swelling, Bleeding tendency , Hematemesis , Anal lump

III. Post hepatic : - Obstructive Jaundice→ Itching , Dark urine and pale stool
- Constitutional (Periampullary tumor):
- Weight Loss - Anorexia - nigh sweat - steatorrhea – DM

IV. GI Sx : from above to below.

Risk factors: (always ask about smoking and alcohol)

1-Pre-hepatic: Hx of blood diseases (Thalassemia / G6PD)**, Drugs** → PAINS (Primiqune , Aspirin , Isonizid ,Nitrofurantoin, Sulfa drugs)

2- Hepatic: , Hx of hepatitis , Hx of bloodTransfusion, or contact w/ jaundiced patient

3- Post-hepatic: Hx of gallstones, Hx of cholecystitis**, Hx of** IBD **(Crohn's)**

Past medical and surgical
- Previous surgeries
- Chronic illnesses (DM, HTN, Hyperlipidemia)

Drug Hx: → PAINS (Primiqune , Aspirin , Isonizid ,Nitrofurantoin, Sulfa drugs) , OCPs

Family Hx: Hx of blood diseases (Thalassemia / G6PD) , Hepatitis and liver failure . and any chronic diseases.
Social Hx: Smoking history (# of pack years), alcohol , Drug abuse ,travel history , Sexual history

Constipation

Introduce yourself , take permission

Patient profile (name , age , occupation , address, marital status)

Chief complaint + duration

Analysis of the Chief Complaint

Onset (sudden or gradual, progression, first time) = **OPP**

Frequency: Times per day

Consistency: (Sausage shape, separate hard lumps like nuts)

Blood:

Caliber: large caliber, narrow or pencil thin stools

Amount (small/large)

Mucous

Pain

Melena

Associated symptoms (finish the CC analysis then ask about them ↓)

Associated symptoms

Constitutional:
- Weight Loss
- Anorexia
- fever
- night sweat

GI: From above to down
a) Mouth ulcers ⟶ IBD
b) Nausea & Vomiting ⟶ Intestinal obstruction
c) Abdominal pain >> Intestinal obstruction, IBD
d) Abdominal distention → IBS, Intestinal obstruction
e) Alternating diarrhea ⟶ IBS
f) Anal pain or itching ⟶ Hemorrhoid, Perianal fissure

MSS
Skin rash, Joint Pain, Eye Symptoms

Hypothyroidism : Cold intolerance, Weight Gain , fatigue.

DM : Polyuria, Polydipsia, Polyphagia

Hypercalcemia : Renal stones , bone pain , polyuria , abdominal pain.

Dehydration : feeling thirst , dark urine , oliguria

Risk factors
I. IBD → Family hx
II. Colon CA → Low fiber diet, family hx
III. Intestinal obstruction (Adhesions) → Previous surgeries

Review of systems

Past medical and surgical
- Previous attacks
- Previous surgeries ⟶ Intestinal obstruction (Adhesions)
- Chronic illness
- (DM, HTN, Hyperlipidemia) , Hx of trauma (spinal cord)

Drug Hx: ⟶Iron and Ca supplement , opioids , thiazides , Antacids

Family Hx: Ask about relevant conditions related (IBD , Colon CA) and any chronic diseases.

Social Hx: Smoking history (# of pack years), alcohol , travel history , Diet and water intake

Bleeding per rectum

Introduce yourself , take permission

Patient profile (name , age , occupation , address, marital status)

Chief complaint + duration

Analysis of the Chief Complaint

Onset: - Sudden acute - chronic
Previous episodes

Character:
- **Color:** Mixed with stool, Streak, at the toilet paper
- **Amount** (In cups).

Associated bleeding from other sites

Time: Constant or episodic. / **Progression** (Getting worse or better)

Exacerbating and relieving factors:
- NSAIDs ⟶ PUD
- Food ⟶ GU
- Trauma to abdomen ⟶ Hematoma

Severity:
- **Anemia symptoms** (Fatigue/ SOB/ Palpitations/ Dizziness).
- Assess the **dehydration symptoms** (Feeling thirst/ dry mucous membrane/ oliguria/ altered mental status)

Associated symptoms

I. GI:

A) Dysphagia and odynophagia.
B) Heartburn and regurgitation
C) Dyspepsia
D) Jaundice / change in urine & stool color / itching/ limb swelling⟶ Cirrhosis
E) Abdominal Pain ⟶ Epigastric ⟶ PUD
F) Abdominal Distention
H) Diarrhea or constipation
G) Hematochezia/ anal **pain or anal lump**.

II. Blood disorders:

Bleeding from other site, ecchymosis, purpura, petechial, hematuria.

III. Constitutional symptoms: Fever, Weight loss, Anorexia, Night sweat.

Risk Factors (always ask about smoking and alcohol) **I. PUD** → Smoking, NSAIDS, Alcohol **II. Bleeding disorders** → Drugs {Anti-coagulants (Heparin or Warfarin) / NSAIDS(Aspirin). **III. Chronic constipation** → Straining (diverticulosis), hemorrhoids. **IIII. Family hx of IBD** or colorectal cancer
Review of systems
Past medical and surgical: GERD, PUD, liver problems, coagulopathy, IBD, Colorectal cancer,previous GI surgery.
Drug Hx: NSAIDs, steroid, aspirin, warfarin
Family Hx: Ask about relevant conditions related to the history (IBD, PUD, colon cancer ... etc.), and any chronic diseases.
Social Hx: Smoking history (# of pack years), alcohol, travel history, drug abuse, **Type of diet**

Leg Swelling

Introduce yourself , take permission

Patient profile (name , age , occupation , marital status, address)

Chief complaint + duration

Analysis of the Chief Complaint

Site
a) Extent of swelling
b) Unilateral or bilateral, Other sites: Periorbital? Abdomen? Genitalia? Back? Hands?
Onset (sudden or gradual)
Do they progress with activity or throughout the day? Or with lying down?
Character (with)
a) Redness
b) Hotness
c) Tenderness
d) itching
Associated symptoms (finish the CC analysis then ask about them ↓)
Exacerbating, Relieving.
Severity: loss of the limb function.

Associated symptoms

I. Unilateral Swelling

a) **DVT**:
Limb → Redness, Hotness, Tenderness
PE Symptoms → Chest pain, SOB, Hemoptysis.
Risk factors → recent travel, surgery, immobility, pregnancy, OCP, previous DVTs.
b) **Cellulitis** → Fever & Chills, Brown areas, Rapid progression, Ulcers.
c) **Venous Obstruction:** HX of pelvic tumor, AV fistula.
d) **Trauma**.
e) **Joint disease:** Pain, hotness, redness, skin rash, decreased range of movement.

II. Bilateral Swelling

a) **HF** → Cough, Orthopnea, PND.
b) **Liver cirrhosis** → Bleeding tendency, Abdominal distention.
c) **Renal failure** → Frequency, Nocturia, Urine (color/smell/ amount)
d) **Hypoproteinemia** → Nutrition, Malabsorption
e) **Hypothyroidism** → Weight gain, Cold intolerance, Lethargy and Fatigue

Review of systems

Past medical and surgical
Chronic illnesses (DM, HTN, Hyperlipidemia) , Allergy
Past surgeries and admissions.

Drug Hx NSAIDs, steroids, Ca+2 Ch. Blockers (Nifedipine, Amlodipine)

Family Hx Ask about relevant conditions related to the history (thrombophilia , cancers)

Social Hx: Smoking history (# of pack years), alcohol, travel history

****Investigations:**

1. **Doppler U/S and D-dimer → DVT**
2. **Liver function test (LFT) → Liver cirrhosis**
3. **Kidney function test (KFT) → Renal failure**
4. **Thyroid function test (TFT) → Hypothyroidism**
5. **CBC → Cellulitis**

(Flank/ Suprapubic) Pain

QMA Team

UTI

- It is a very common urinary tract problem, more common in **females** (**shorter 5cm and wider urethra**).
- The etiology explained by: **Ascending infection**, instrumentation, coitus in females, Hematogenous.
- The most common microorganism is:**E.Coli (90%)/ Proteus/ Klibsiella/ SA**.
- Predisposing factors: **Stones**, **obstruction**, **reflux**, **DM**, **pregnancy**, indwelling **catheter**/ **stent**.
- Clinical picture:

1. **Lower UTI:** Frequency, urgency, dysuria, nocturia, **suprapubic pain**, hematuria.
2. **Upper UTI** (Pyelonephritis): Back/ flank pain, **fever, chills, rigors, nausea, vomiting**, hematuria, **costovertebral angle tenderness**.

UTI

- **Diagnosis:**

1. **Cystitis**: made by clinical picture + urinalysis (>10 WBC'S/ HPF> 105 CFU).
2. **Pyelonephritis**: clinical picture + CBC + KFT + U.A + Urine culture.

- **Complications of pyelonephritis:**

1. Renal / perinephric abscess.
2. Recurrent infections (chronic pyelonephritis).
3. Sepsis.

UTI types

- **Complicated VS. Uncomplicated.**
- **Uncomplicated**: Infection in healthy patient with **structurally and functionally normal** urinary tract.
- **Complicated**: **abnormal** structure or function, and **may have factors** that increase the risk to acquire an infection and decrease the efficacy of management.
- **Factors that suggest complicated UTI:**

1. Male gender.
2. Pregnancy.
3. Elderly patient.
4. DM.
5. Immune suppression.
6. Childhood UTI.
7. Recent ABX use.
8. Indwelling catheter.
9. Hospital acquired infections.
10. Symptoms for more than 10 Days.

Treatment:

- **Lower**:

1. Uncomplicated: 3 days of antibiotics orally in women (TMP-SMX/ Nitrofurantin 5 days and Single dose Fosfomycin), in men 7 days therapy.

2. Complicated: 10-14 days either oral ciprofloxacin or IV.

- **Upper**: 7 days of antibiotics ciprofloxacin orally or give IM 1g Ceftriaxone followed by oral for 7 days.

Indication of hospitalization

- In **uncomplicated**: High fever, high WBCS, vomiting, dehydration, evidence of sepsis.
- **In complicated pyelonephritis.**
- **Failure to improve on ABX initially** so you should admit and do CT-Scan (obstruction/ complications).

History

- **Introduces self , takes permission and brief patient profile.**
- **HOPI : SOCRATES**

1. **Site.**
2. **Onset.**
3. **Character.**
4. **Radiation.**
5. **Exacerbating factors.**
6. **Relieving factors.**
7. **Severity.**

Associated symptoms: 2 marks each (Constitutional/ UTI/ LUTS+ Stones/ Urethritis)

- Fever, Chills, Rigor
- Weight change, Appetite.
- Fatigue.
- Nausea, Vomiting.
- Frequency.
- Urgency.
- Incontinence.
- Nocturia.
- Dysuria.
- Hesitancy.
- Poor stream.
- Intermittency.
- Incomplete voiding
- Urine color.
- Urine odor.
- Back / pelvic pain.
- Sexual activity normal

- **Medication**: Rifampin, NSAID, Warfarin, Aspirin, Heparin
- **Type of food:** beetroot ,black berry, food coloring
- **Systematic Review:**

1. CVS
2. RS
3. MSS
4. CNS
5. ES
6. GIT -->Anorexia (appendicitis) , change in stool (Diverticulitis), with fatty food (cholecystitis).

- **Past Medical History: ½ mark each /6.5**

1. History of **UTI** 2. Previous episode 3. **Trauma** 4. **Previous surgery** recent folly's cath insertion ? 5. **Chronic diseases** (HTN, DM).

- **Family History: ½ mark each /3**

Stone, Cancers (Bladder/ Kidney), UTI.

- **Social History: 1 mark each /3**

Smoking , **Alcohol use, recent travel, menstrual cycle in women**.

- **Patient concerns, ideas, what suspected to do.**

UTI

30 year old male complaining of flank pain, take a relevant history	Mark
Introduces self and takes permission	/2
HOPI	/16
Details about CC: each ½ mark 1. Onset 1 week ago 2. Character Tearing in nature 3. Radiation No Radiation 4. Exacerbating factors No 5. Relieving factors No 6. Severity increase gradually, Very severe	/4
Associated symptoms: 2 marks each Fever yes Chills yes Rigor yes Weight change no Appetite no Fatigue yes Nausea yes Vomiting yes Frequency yes Urgency yes Incontinence no Nocturia no Dysuria no Hesitancy yes, minimal Poor stream no Intermittency no Incomplete voiding no Urine color normal Urine odor normal Sexual activity normal	/12

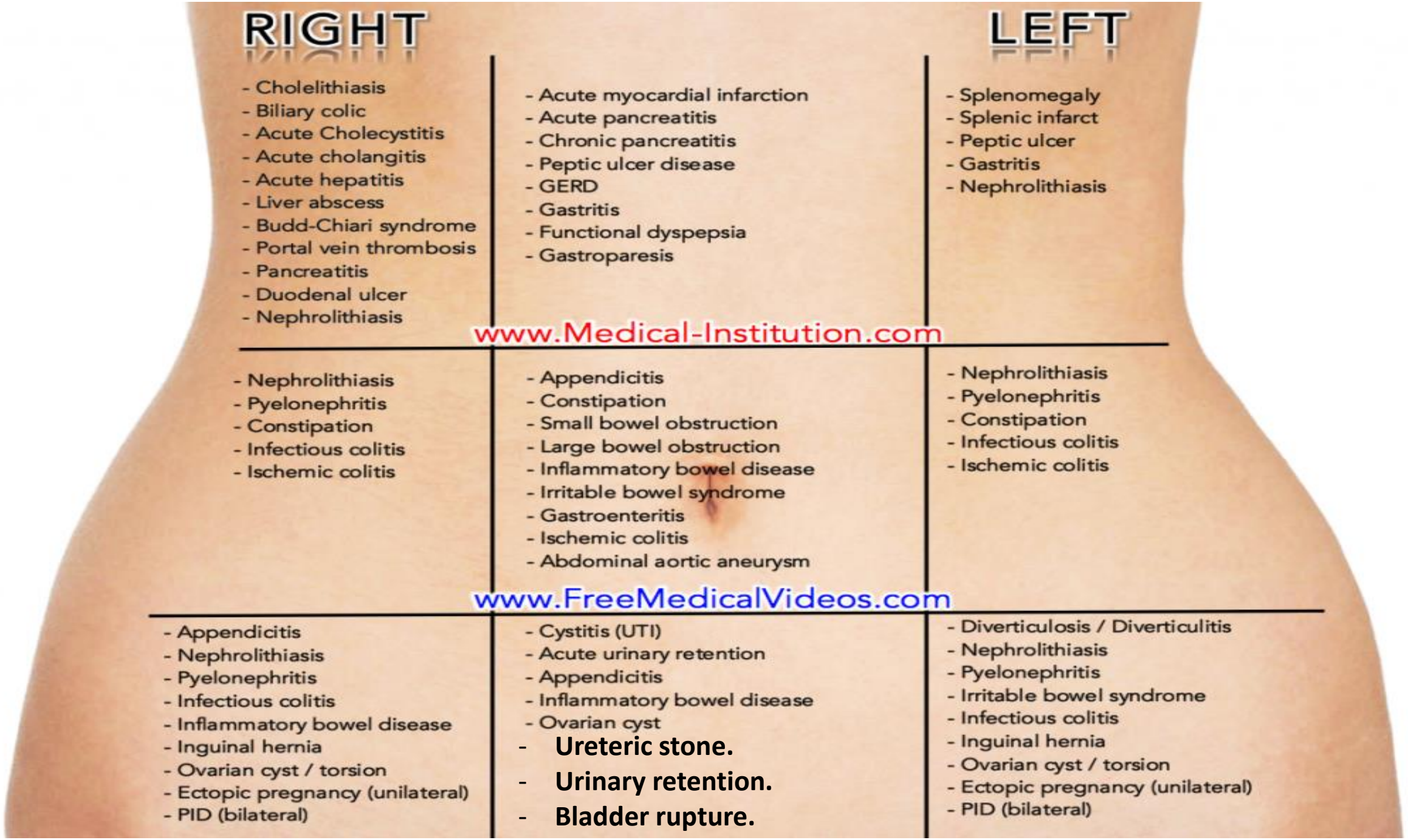
Systematic Review:- **CVS** **RS** **MSS** **CNS** **ES** **GIT** -->Anorexia (appendicitis) , change in stool (Diverticulitis), with fatty food (cholecystitis)	
Past Medical History: ½ mark each	/6.5
1. History of UTI no 2. Previous episode no 3. Trauma 4. Previous surgery	

3. Trauma 4. Previous surgery 5. Chronic diseases (HTN, DM)	
Family History: ½ mark each	/3
Stone yes UTI yes	
Social History: 1 mark each	/3
Smoking - no Alcohol use no	

What is your DDX ?

Urinary cayuses: 1. UTI. 2. Stone 3. Trauma. 4. Tumor.
Non-Urinary: Appendicitis, cholecystitis, bowel obstruction, muscle spasm.

Flank Pain Differential	
Pathophysiology	**Differential**
Renal	Nephrolithiasis, urolithiasis, retroperitoneal hematoma, ruptured renal cyst, ureteral stricture
Infectious	Pyelonephritis, perinephric abscess, psoas abscess, pneumonia, discitis, vertebral osteomyelitis, epidural abscess
Vascular	Ruptured AAA, renal infarct, renal vein thrombosis, PE
GI	Biliary dz
Other	PCKD (ruptured cyst), renal malignancy, varicella-zoster
Trauma	Lumbar spasm, radiculopathy


RIGHT
LEFT
- Cholelithiasis
- Biliary colic
- Acute Cholecystitis
- Acute cholangitis
- Acute hepatitis
- Liver abscess
- Budd-Chiari syndrome
- Portal vein thrombosis
- Pancreatitis
- Duodenal ulcer
- Nephrolithiasis
- Acute myocardial infarction
- Acute pancreatitis
- Chronic pancreatitis
- Peptic ulcer disease
- GERD
- Gastritis
- Functional dyspepsia
- Gastroparesis
- Splenomegaly
- Splenic infarct
- Peptic ulcer
- Gastritis
- Nephrolithiasis
www.Medical-Institution.com
- Nephrolithiasis
- Pyelonephritis
- Constipation
- Infectious colitis
- Ischemic colitis
- Appendicitis
- Constipation
- Small bowel obstruction
- Large bowel obstruction
- Inflammatory bowel disease
- Irritable bowel syndrome
- Gastroenteritis
- Ischemic colitis
- Abdominal aortic aneurysm
- Nephrolithiasis
- Pyelonephritis
- Constipation
- Infectious colitis
- Ischemic colitis
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- Appendicitis
- Nephrolithiasis
- Pyelonephritis
- Infectious colitis
- Inflammatory bowel disease
- Inguinal hernia
- Ovarian cyst / torsion
- Ectopic pregnancy (unilateral)
- PID (bilateral)
- Cystitis (UTI)
- Acute urinary retention
- Appendicitis
- Inflammatory bowel disease
- Ovarian cyst
- Ureteric stone.
- Urinary retention.
- Bladder rupture.
- Diverticulosis / Diverticulitis
- Nephrolithiasis
- Pyelonephritis
- Irritable bowel syndrome
- Infectious colitis
- Inguinal hernia
- Ovarian cyst / torsion
- Ectopic pregnancy (unilateral)
- PID (bilateral)

Thank You