Case 1, Patient Name: Jerry Tylor

Situation:

A 56-year-old male with a history of presents to the emergency department with sudden onset of severe chest pain.

Background:

PMHX: hypertension and type 2 diabetes.
Medication : metformin 1000 mg twice daily, lisinopril 20 mg once daily.

Events: While In the gym 2 hours ago, he developed sudden onset central chest pain, heavy in nature , Radiating to his left arm. It was relieved by rest and GTN given to him by the ambulance crew.
This was associated with SOB and sweating.

Assessment:

His vital signs are BP 180/110, HR 110, RR 24, SpO2 95% on room air, and Temp 36.6C.
Physical exam reveals diaphoresis, cool extremities, and distant heart sounds.
Chest examination was clear.
Cardiac: Normal heart sounds with no lower limb edema, and his JVP was Normal.
Abdomen : soft lax.
ECG: showed ST elevation on the inferior lead II, III aVF

Differential diagnosis: Acute Myocardial Infarction (AMI).

Recommendation:

1. FBC clotting UE, LFT , Troponin.
2. Two nitro-glycerine sublingual puffs+aspirin 300 mg.
3. Contact cardiology team for PCI(Percutaneous Coronary Intervention).

Case 2, Patient Name: Sophia Johnson

Situation:

A 25-year-old female presents with Right lower quadrant (RLQ) abdominal pain.

Background:

The patient has no significant past medical history
No regular medication
No Allergies
Events: 8 hours ago while on her desk developed central abdominal pain which later shifted to her RLQ. Associated with nausea and vomiting.
Denies any urinary symptoms as frequency , dysuria, fever or chills and rigors. He bowels are open with no diarrhea. This is the first time she has this pain.

Upon assessment, her vital signs are BP 110/70, HR 95, RR 18, SpO2 99% on room air, and Temp 100.4°F. Physical exam reveals guarding and rebound tenderness in the right lower quadrant.

Assessment:

Vital signs are BP 110/70, HR 95, RR 18, SpO2 99% on room air, Temp 37.8 C.
Physical exam Showed, normal tonsils,
Chest: clear
Abdomen :guarding and rebound tenderness in the right lower quadrant. Positive rovsing sign.
No Masses or hernia and organomegaly
Her urine dip showed +1 ketones , no leucocytes or blood\Negative pregnancy test
Differential diagnosis : Acute appendicitis.

Recommendation:

1. FBC, UE, CRP, amylase.
2. Abdominal ultrasound.
3. Refer to surgeon to consider appendicectomy.

Case 3, Patient Name: David Moore

Situation:

73 male patient who presented with sudden onset of weakness and numbness on the right side of his body.

Background:

PHX(past medical History): Hypertension, Hyperlipidemia, and type 2 diabetes. Smoker.
Family History if ischemic heart disease (IHD)
Medication ;lisinopril 10mg daily, atorvastatin 40mg daily, and metformin 1000mg twice daily.
Social history: retired and live alone, independent

Events: The patient reports he suddenly noticed weakness and numbness in his right arm and leg while watching TV at home 2 hours ago. His wife reported his speech was abnormal.

Assessment:

Blood pressure 165/95 mmHg (High), heart rate 75 beats per minute and regular.
Respiration 18 and oxygen saturations 97% air T.
The patient is alert .He has a left-sided facial droop, Slurred speech with left arm weakness , and left leg weakness. The power in both upper and lower limbs were 2/5.Rest of the body was 5/5. He had normal muscle tone.
The National Institutes of Health Stroke Scale (NIHSS) score is 12.
Differential diagnosis: Acute Cerebral Stroke.

Recommendation:

1. FBC, clotting, UE lft lipids, CRP
2. Urgent CT+CTA
3. Inform stroke team urgently for thrombolysis or thrombectomy

Case 4, Patient Name: Isabella Brown

Situation:

A 25 female presents to the emergency department with severe SOB(Shortness of breath)

Background:

PMHX: Brittle Asthma with ITU admissions.
Medication: salbutamol inhaler PRN.
Events: The patient has a recent upper respiratory tract infection and has been using her inhalers more frequently. And gradually becoming worse and now no improvement with them.

Assessment:

Her vital signs are BP 100/55, HR 120, RR 35, SpO2 82% on room air, and Temp 36 C. Physical exam showed the patient is tired, central cyanosis, clammy and sweaty, using accessory respiratory muscle, unable to speak more than 2 words. She was unable to do Peak flow rate test
She had a Silent chest with poor respiratory effort

Arterial blood gas showed
pH: 7.21
PaCO2: 74 mmHg
PaO2: 47 mmHg
HCO3-: 30 mEq/L
SaO2: 86%
Differential diagnosis : life threatening asthma

Recommendation:

1. FBC ue CRP
2. arterial line for sequal ABG.
3. Administer high-flow oxygen via a non-rebreather mask to increase the patient's SpO2 to at least 94%
4. Obtain an IV access and administer back to back nebulized salbutamol with ipratropium every 20 minutes as needed to relieve bronchospasm
5. Hydrocortisone 200 mg IV.
6. Administer magnesium sulfate IV to further relax the bronchial smooth muscle
7. if no imporovement then Administer aminophylline 5 mg/kg IV to improve bronchodilation and oxygenation.
8. Monitor the patient's response to treatment, including vital signs, SpO2, and ABG levels.

9. refer to ITU as patient need close monitor and high chance of intubation of no improvement despite treatment.

Case 5, Patient Name: Benjamin Martinez

Situation:

A 65-year-old male presents with acute confusion, fever, and productive cough.

Background:

PMHX: COPD and takes
Smoker , 30-pack-year smoking history.
Meds: tiotropium 18 mcg daily.
Social He lives in a nursing home and has a Upon assessment, his vital signs are BP 100/60, HR 115, RR 28, SpO2 82% on room air, and Temp 101.8°F. Physical exam reveals crackles in lower lung fields bilaterally and altered mental status.

Assessment:

Community-acquired pneumonia.

Recommendation:

1. Fbc ue crp
2. CXR
3. ABG(arterial blood gas)
4. Admission under medics for IV antibiotcs.

Case 6, Patient Name: Olivia Thomas

Subjective:

A 32-year-old female presents to the emergency department with a 3-day history of dysuria, urinary frequency, and lower abdominal pain. No fever chills or rigors. She denies any drug or alcohol abuse.

Objective:

Upon assessment, her vital signs are BP 120/75, HR 80, RR 16, SpO2 98% on room air, and Temp 38 C. Physical exam reveals suprapubic tenderness. Soft lax abdomen and no flank pain.

Assessment:

A a urinary tract infection (UTI).

Plan:

Urinalysis and culture. Empiric antibiotics per guidelines (e.g., nitrofurantoin) and recommend over-the-counter analgesics for pain relief.Patient to review he GP/Family physician.

Case 7, Patient Name: Jackson Lee

Subjective:

An 18-year-old male presents to the emergency department with a swollen, painful, and erythematous left knee after a fall during a basketball game.

Objective:

Upon assessment, his vital signs are BP 130/85, HR 90, RR 16, SpO2 99% on room air, and Temp 36C. Physical exam reveals left knee effusion, limited range of motion, and point tenderness along the joint line. Difficult to fo full examination due to pain. The patient can walk but limbing.

Assessment:

Suspicion of a left knee injury with possible ligament or meniscus tear.

Plan:

X-ray to rule out fractures.
Immobilize the knee with a cricket splint or brace and provide analgesics for pain relief.
Referral to the orthopedics/Knee clinic for further management and reassessment , which might include MRI or surgery.

Case 8, Patient Name: William Anderson

Subjective:

A 42-year-old male presents to the emergency department with a 2-day history of nausea, vomiting, and abdominal pain. He has a history of alcohol abuse and admits to binge drinking before the symptoms started. Bowels are open, no melena or haematemesis.

Objective:

Upon assessment, his vital signs are BP 140/90, HR 110, RR 20, SpO2 97% on room air, and Temp 36 C. Physical exam shows Jaundice (yellow discoloration of sclera) diffuse abdominal tenderness and hepatosplenomegaly.

Assessment:

The doctor suspects alcoholic hepatitis.

Plan:

1. Fbc, clotting ue lft crp
2. CT scan, to evaluate the liver and other abdominal organs. T
3. IVI for fluid and electrolyte replacement, thiamine supplementation
4. management of withdrawal symptoms.
5. Referral to alcohol support group

Case 9, Patient Name: Mason Jones

Subjective:

The patient is a 50-year-old male who presented to the emergency department with complaints of severe lower back pain, bilateral leg weakness, and difficulty with urination and bowel movements. The patient reports that the symptoms started suddenly and have been progressively worsening over the past 24 hours. He denies any recent trauma, fever, or chills.

Objective:

On physical examination, the patient appears uncomfortable and is lying flat on his back. Vital signs are stable. Neurological examination reveals bilateral lower extremity weakness, decreased sensation to light touch, and absent ankle reflexes. PR examination showed altered anal sensation and loss of anal tone.Examination of the lumbar spine reveals tenderness to palpation and a positive straight-leg raise test. There is no evidence of skin lesions, joint swelling, or deformities.

Assessment:

Based on the patient's symptoms and examination findings, the patient is suspected to have cauda equina syndrom. Other potential differential diagnoses include spinal stenosis, herniated disc, spinal cord injury, and infectious or inflammatory disorders.

Plan:

1. Immediate transfer to a neurosurgical center for urgent evaluation and management.
2. Magnetic resonance imaging (MRI) of the lumbar spine to assess for spinal cord compression and identify the underlying cause of the cauda equina syndrome.
3. Administration of intravenous methylprednisolone to reduce inflammation and prevent further neurological damage.
4. Initiation of bladder and bowel management program to prevent urinary retention and fecal incontinence.
5. Pain management with intravenous opioids and non-steroidal anti-inflammatory drugs (NSAIDs) as needed.
6. Consultation with Spine specialist and physical therapist, to provide comprehensive care and rehabilitation services.

Case 10, Patient Name: Samual Harris

Subjective:

A 17-year-old male presents to the emergency department with a 2-day history of fever, sore throat, and swollen lymph nodes in the neck. He denies any recent travel or sick contacts.

Objective:

Upon assessment, his vital signs are BP 110/70, HR 80, RR 18, SpO2 98% on room air, and Temp 38.1 C. Physical exam reveals erythematous tonsils with exudate and tender anterior cervical lymphadenopathy.
Abdomen is soft lax with no organomegaly.

Assessment:

Bacterial pharyngitis, such as strep throat.

Plan:

1. Arapid strep test and a throat culture to confirm the diagnosis.
2. Antibiotics, penicillin ,if the rapid test is positive or the culture results are pending.
3. Over-the-counter analgesics and fluids, for symptom relief.