You are on call at the emergency department (ED) of a rural hospital. The nurse tells you a very anxious woman is on the phone. The woman wants to speak to you about her 2-year-old daughter. The daughter has ingested some poison. She is asymptomatic and appears well.

## **Question 1**

Other than demographic information, what important initial pieces of information must you elicit from the woman over the phone? List FIVE.

Child's weight
Child's past medical history
Time of ingestion
Type of exposure / Name of the product ingested
Amount of exposure

## Question 2

You decide to have the daughter transported to the hospital immediately for further evaluation. As you await her arrival, you ponder your approach. You might want to reduce the amount of poison absorbed. What technique is available for reducing poison absorption? List ONE.

Charcoal administration / Administration of activated charcoal

## **Question 3**

You might want to enhance excretion of the poison. What techniques are available to enhance poison excretion? List TWO.

Forced diuresis Hemodialysis Hemoperfusion (over activated charcoal or resin) Acidification of the urine / Alkalinization of the urine

## Question 4

Upon the daughter's arrival at the ED, you secure life support and her condition is stable. After further questioning of the caller and laboratory testing, you conclude that she has absorbed an undetermined amount of acetaminophen in the past 12 hours. What complication are you most concerned about with this type of poisoning? State ONE.

Hepatotoxicity / Liver failure

## Question 5

What is the minimum time you have to wait after the ingestion before you will be able to assess the severity of her poisoning adequately? Give ONE answer.

Four hours or longer after the ingestion

## **Question 6**

Other than measurement of the acetaminophen plasma level, what laboratory tests are important for determining whether antidote treatment is effective? List THREE.

Serum glutamic oxaloacetictransaminase (SGOT) testing / Aspartate transaminase (AST) testing Serum glutamic pyruvic transaminase (SGPT) testing / Alanine transaminase (ALT) testing Bilirubin testing

Measurement of prothrombin time (PT) / International Normalized Ratio (INR)

## Question 7

Using the Rumack-Matthew nomogram, you determine that the patient requires administration of an antidote. What antidote would you use? Give ONE answer.

N-acetylcysteine (Mucomyst)

A previously healthy 69-year-old female widow comes to you complaining of fatigue of four months duration. She previously had an active social life however over the past month she has shunned social contact because she has lost interest in being with other people. She has also ceased cooking meals for herself, but attributes this change to her deciding to cease eating meat in attempt to lose some of the weight that she has put on recently. A systems review reveals that her legs have been cramping at night time more often, her feet have started to tingle, and her skin and hair have become dryer. Her past medical history is notable only for removal of a Meckel's diverticulum. She also had a benign essential tremor for which she takes metoprolol 75 mg bid.

On physical examination you find her blood pressure is normal at 118/72 and her heart rate is 50 beats per minute and regular. You note that her tongue is smooth and shiny, her complexion is pale, and she's had a 5 kg weight gain since her last weight check six months ago. Mental status exam reveals a flattened affect and psychomotor retardation.

# **Question 1**

List other symptoms, not mentioned above, that you should specifically enquire about to help rule out sinister medical causes for her fatigue. List TWO.

Fevers
Chills
Night sweats
Constipation / altered bowel habits

## Question 2

Given the constellation of history and physical findings provided in the stem, list the FIVE most likely causes for her fatigue.

Depression
Medication side effect (i.e. Betablocker)
B12 deficiency (with/without anemia)
Iron deficiency (with/without anemia)
Hypothyroidism

A 17-year-old female dancer visits your office because she has had amenorrhea for three months. She is sexually active with one partner. On further questioning, she states that she has been dissatisfied with her appearance and she has lost quite a bit of weight in the past year. Although she looks cachectic, she feels she is still overweight. Her sleep has been somewhat disturbed, and she has withdrawn from all her activities at school. Her amenorrhea is now really concerning her. You suspect an eating disorder.

## **Question 1**

Apart from an eating disorder, what are the most likely causes of her amenorrhea? List THREE.

Pregnancy
Anxiety (stress)
Excessive exercise / cachetic state / loss of weight

#### Question 2

What psychiatric disorders can be associated with her eating disorder? List THREE.

Depression Anxiety Personality disorder / Obsessive compulsive disorder Substance abuse

## **Question 3**

She is significantly underweight for her height. She admits to binge eating and purging with laxatives to prevent herself from gaining weight. Her parents are quite concerned about an eating disorder, as are you. What type of eating disorder does she have? State ONE.

Anorexia nervosa / Anorexia nervosa: binge-eating/purging type

Do NOT accept "bulimia"; the patient is underweight

# **Question 4**

What is the most important blood test to order for this patient? List ONE.

Potassium testing

## **Question 5**

What possible complications of her eating disorder would you be concerned about? List FOUR.

Osteoporosis Do NOT accept "amenorrhea"; the real concern is osteoporosis, a complication of amenorrhea Cardiac arrhythmias
Dental erosions
Gastroesophageal reflux disease (GERD)

A Mallory-Weiss tear

Suicide

A two-week-old female is brought to the emergency department by her parents. For the past 12 hours she has not seemed like herself. She has been fussy, crying differently, and refusing to nurse any longer than a few minutes at a time. Her parents think that she has a temperature, but they haven't measured it.

## **Question 1**

What pieces of information regarding the mother's pregnancy and delivery would you inquire about to assess the newborn's risk of infection? (Do not use abbreviations). List FOUR.

Gestational age / Prematurity

Whether the mother had a fever at delivery / antibiotic use during labor

The mother's group B Streptococcus status

The mother's history of sexually transmitted diseases (STDs) (infection with herpes simplex virus, gonorrhea, or Chlamydia)

Prolonged rupture of membranes / preterm premature rupture of membranes / premature rupture of membranes

# **Question 2**

On examination, the newborn's temperature is 38.5°C. Your examination does not localize any source of infection. What investigations should you order for her? List FIVE.

White blood cell count (WBC)
Urine culture testing / Urine culture and sensitivity (C & S) testing
Lumbar puncture / Cerebrospinal (CBS) fluid culture testing
Blood culture testing
Chest X-ray examination

A 27-year-old male comes in with his 26-year-old wife. They are concerned because she stopped taking the birth control pill when they decided they wanted to have a child, but she has not become pregnant. They are also worried because her older sister needed fertility treatments in order to become pregnant. They ask whether they might require fertility treatments, too.

They both take no medications, are both non-smokers and avoid alcohol. However, she recently started taking prenatal vitamins.

## Question 1

How long should a couple of their ages attempt to conceive before they are advised there may be infertility issues that warrant further investigation/referral? Give ONE answer.

12 months

# **Question 2**

If she was 37 years old, what would your answer to question 1 be? Give ONE answer. Six months

## **Question 3**

You learn that she has been experiencing irregular menstrual cycles. You suspect that she is experiencing anovulatory cycles. What lifestyle factors could cause primary hypothalamic-pituitary dysfunction and subsequent anovulation? State TWO.

Excessive stress
Excessive exercise
Excessive dieting / an eating disorder

#### Question 4

What hormonal diseases/conditions could be responsible for her anovulatory cycles? State TWO.

Polycystic ovary syndrome (PCOS) Thyroid disease Cushing's syndrome Prolactinemia / hyperprolactinemia

## **Question 5**

The couple requests advice about optimizing their lifestyle to maximize their chances of conceiving naturally. What pieces of advice do you give them? List THREE.

Reduce excessive caffeine intake

Optimize the frequency and timing of coitus (two to three times a week / every 72 hours)

Optimize body mass index (BMI)

Avoid overheating the testicles (e.g., avoid placing a laptop computer on one's lap)

You are nearing the end of a busy day in your office when you see the next patient, a 28-year-old woman. She was diagnosed with epilepsy at age 10 and has been on anticonvulsant medication since then. She is taking phenytoin 100 mg tid and is concerned because she has had three generalized tonic-clonic seizures in the past two weeks. Her last previous seizure was five years ago, and epilepsy has not significantly interfered with her lifestyle during that time. She states that she has been taking her phenytoin regularly but has been feeling a bit more fatigued lately. She denies any infectious symptoms. Her physical examination is normal.

# **Question 1**

What investigations would you order to clarify the cause of her seizures? State TWO.

Serum phenytoin level B-HCG (serum or urine)

# **Question 2**

What lifestyle changes could trigger an exacerbation of the patient's epilepsy? State THREE.

Alcohol intake Recreational drug use Stress Sleep deprivation

## **Question 3**

What activity must you inquire about? State ONE.

Driving

A male offshore oil worker, age 46, presents at your office with the results of some blood tests performed as part of an annual physical examination by his company's nurse. He is single and works overseas for monthlong shifts. You have not seen him before.

He feels well, but he is concerned because he was told that his "liver tests are off." His lab report shows that his aspartate aminotransferase level is 76 and his alanine transaminase level is 92, both of which are approximately twice the normal level. His alkaline phosphatase and bilirubin levels are normal. He says that he's had the same blood tests annually since he joined his company eight years ago, and his test results have always been normal in the past.

## Question 1

What pattern of liver disease do these results suggest? Give ONE answer.

Hepatocellular / Hepatic / intrahepatic

Do not accept obstructive / cholestatic

#### Question 2

You inquire about his history. He tells you that while he was on shore leave six months ago, he and some colleagues visited Thailand "for some rest and relaxation." He asks whether he "might have caught something" there. What historical elements should you inquire about to ascertain his risk of having contracted viral hepatitis? State FOUR.

Illicit intravenous (IV) drug use / Illicit nasal drug use
Unprotected sexual activity
Piercings / Tattoos / Use of contaminated sharps / Use of contaminated needles
Blood transfusions
Exposure to jaundiced individuals

### **Question 3**

You conclude that during his travels overseas, he did not subject himself to any particular risk factors for contracting viral hepatitis infection. Apart from viral causes, what are other common causes for his elevated transaminase levels? State THREE.

## Alcohol

Drugs / Medications / Over-the-counter (OTC) drugs / Supplements Fatty liver / Non-alcoholic steatorrheic hepatosis (NASH)

## **Question 4**

Other than laboratory investigations, what investigation would help confirm your suspicion? State ONE.

Liver ultrasonography / abdominal ultrasound

<sup>\*</sup> Do NOT accept hepatitis A risk factors because exposure was six months ago

A 55-year-old woman comes to your office to discuss menopause issues. She tells you that she has not had a period for about 15 years, and she has had no significant menopausal symptoms. She has chronic hypertension and has been taking antihypertensive agents for five years. Recently she was diagnosed with diabetes, which is controlled with diet. Her 77-year-old mother recently broke her hip and has osteoporosis. Her father had a myocardial infarction at age 55. She is 1.6 m tall and weighs 89 kg. Her body mass index is 35. She enjoys skating and has had a couple of falls in the past year and wants to discuss her risks and options with you.

## **Question 1**

What risk factors does she have for osteoporosis? State TWO.

Early menopause Family history of osteoporosis

Do not accept ethnicity

## **Question 2**

What lifestyle issues related to osteoporosis risk would you inquire about? List THREE.

Smoking history Calcium / Vitamin D intake Alcohol intake Weight-bearing exercise

## **Question 3**

You conduct a baseline bone mineral density which reveals she has a moderate risk for fracture. After reviewing her bone density results and making lifestyle suggestions, you discuss drug therapy with her. She has always refused to take hormone replacement therapy. She is already taking a calcium and vitamin D supplement. At this time, what first line medications other than bisphosphonates could you suggest to her for osteoporosis prevention? State TWO.

Teriparatide / Forteo / recombinant parathyroid hormone Raloxifene / SERM / Evista Denosumab / Prolia / Rank ligand inhibitor

A five-year-old boy presents at your urgent care centre after falling off his bike one hour ago. His only injury is a cut on his upper lip. He was wearing a helmet and suffered no other injuries. He is otherwise healthy, takes no medications, and has no allergies. When you examine the laceration, you observe that it is approximately 1 cm long and involves the left upper outer lip and the vermilion border. You explain to him and his father that the laceration will need to be repaired. The boy is quite anxious about the repair.

## **Question 1**

How would you proceed to provide anesthesia for this child? List TWO options.

Topical anesthetic administration before/instead of a local anesthetic injection Regional block Conscious sedation/ketamine

## **Question 2**

After taking appropriate anesthetic measures, you proceed to close the wound with a non-absorbable 6-0 monofilament suture. Where would you begin your repair? Give ONE answer.

At the vermilion border

## Question 3

The father wants to know when is the soonest they should return to have the sutures removed. What do you tell him? Give ONE answer.

In three to five days

Do Not accept less than three or more than five days

## **Question 4**

What wound care instruction is the most important to discuss? State ONE.

Watch for signs of infection (""signs of infection"" MUST be mentioned)

# **Question 5**

What key component of the boy's past medical history will be important in deciding whether any other interventions are required during this visit? State ONE.

Tetanus immunization date/status

A 45-year-old female presents at your office. She is worried that she might be depressed. She describes a three-month history of low mood, irritability, fatigue, indecisiveness, difficulty sleeping, and feeling distant from her husband and teenage daughter. In addition to experiencing these symptoms, for the past two weeks she has also had feelings of worthlessness most of the day nearly every day.

### **Question 1**

In terms of safety issues, what are your priorities in assessing the patient at this time? List TWO.

The risk of suicide Homicidal risk

## Question 2

Apart from a major depressive episode or disorder, what other psychiatric conditions should you consider? List TWO.

Bipolar disorder Schizoaffective disorder Substance abuse (Accept alcohol abuse, drug abuse, narcotic abuse, etc.)

Do not accept anxiety disorder, personality disorder, grief or adjustment disorder

## **Question 3**

A diagnosis of a major depressive disorder is made and you feel that outpatient management is safe. Apart from pharmacotherapy, what are the components of an appropriate management plan? List THREE.

Appropriate follow-up management / monitoring response to therapy Psychotherapy / counselling Contract for safety / seeking help if suicidal

# **Question 4**

Although she is compliant with her medication and adheres to the management plan for two months, her depression fails to improve. Other than referring to a psychiatrist, what are your next steps in management? State FOUR.

Consider an alternative diagnosis
Look for co-morbid conditions
Augment medication with second drug
Increase / adjust dosage of present medication / switch to alternate medication / antidepressant

A 69-year-old male smoker comes in to see you occasionally for lower-back pain usually related to lifting or twisting. All periodic screening tests for preventable or chronic diseases have been normal, with the exception of his body mass index (BMI) measurement; over the past 24 months his BMI has crept above 30. Today he visits you complaining of pain in both calves and feet, brought on by long walks. The pain has developed slowly over the past six months. Occasionally there is bilateral numbness associated with the pain. The pain resolves with rest, particularly when he is sitting. Other aspects of his examination, including vital signs, are normal.

# **Question 1**

What are the MOST likely diagnoses? Name TWO.

Claudication / Peripheral vascular disease (PVD) Lumbar spinal stenosis / Neurogenic claudication

#### Question 2

What recommended tests or investigations would you perform in order to rule out each diagnosis? Name TWO.

Ankle-brachial index (ABI) / arterial dopplers Angiography or stroke volume (VS) Magnetic resonance imaging (MRI) / CT L-spine

## **Question 3**

What lifestyle changes would likely improve his symptoms, regardless of the diagnosis? Name TWO.

Lose weight Stop smoking

\*Do Not accept Exercise

A 57-year-old female patient visits you because she has found a lump in her right breast. She is quite concerned because her mother was diagnosed with breast cancer at age 57. She noticed the painless lump while she was in the shower two weeks ago. She cannot remember any trauma to her breast area, and she has not noticed any discharge.

A review of her gynecological history reveals that she experienced menarche at age 15, has never had hormone therapy, has never been pregnant, and experienced menopause two years ago. She is married, does not smoke and drinks two glasses of wine a night.

During a focused physical examination, you examine her breasts. On inspection they are symmetrical without any dimpling, retractions, or irregularities of the nipples. There are no visible areas of discolouration or infection. Palpating the breasts, you find a 2-cm by 3-cm mass in her right breast at the three o'clock position. She has no axillary lymphadenopathy. Her vital signs are normal. She has lost weight and her body mass index has been reduced from 35 to 32 kg/m2.

### Question 1

Other than her age and sex, what are her risk factors for breast cancer? List FIVE.

History of breast cancer in her mother

Nulliparity / Never Breastfed

Obesity / Body mass index (BMI) >30

Increased alcohol consumption / Drinking two glasses of wine each day

Menopause after age 45 / Menopause at age 55

#### Question 2

What features of the palpable mass would be more characteristic of an ominous lesion? List THREE.

Hardness Immobility / Being fixed to surrounding tissues / skin Poorly defined margins / Irregular margins

# **Question 3**

What imaging study would you order to classify the lesion as cystic or solid? State ONE.

Ultrasonography (Ultrasonography effectively distinguishes between cystic and solid masses)

## Question 4

The imaging study indicates the lesion is probably cystic. What is the NEXT step in her management? State ONE.

Fine-needle aspiration

A 65-year-old male with hypertension and diabetes presents to the emergency department with light-headedness. It started this morning when he first awoke and got out of bed. He denies any vertigo and states he feels fine as he lies on the stretcher. He has had no syncopal episodes and denies any fever, headache, weakness, or auditory or visual symptoms. He has, however, had intermittent chest pressure and tightness in the past two days.

He was diagnosed with deep vein thrombosis five months ago, after knee surgery. He is taking warfarin (Coumadin), metoprolol, ramipril, metformin, and glyburide.

On examination, he looks comfortable as he lies on the stretcher. His temperature is 36.7°C, his blood pressure measurement is 110/70 mm Hg, his heart rate is 45 bpm, and oxygen saturation is 99% on room air. His heart sounds and results of respiratory, abdominal, and neurological exams are normal. He has no nystagmus.

#### Question 1

What ADDITIONAL physical examination maneuver could you perform in an attempt to reproduce his lightheadedness? State ONE.

Postural blood pressure (BP) measurement / Orthostatic BP measurement / Measurement of orthostatic vital signs / Measurement of orthostatic change in the pulse / Heart rate (HR) measurement

## **Question 2**

Given his history, what blood tests and investigations are MOST important to order immediately to determine the cause of his dizziness? List FIVE.

Blood sugar measurement Troponin test Electrocardiography (ECG) Hemoglobin testing International Normalized Ratio (INR) testing

# **Question 3**

Which medication is the most likely cause for his dizziness? State ONE.

Metoprolol

## **Question 4**

If he had described a recent fall, what further investigation would you consider? State ONE.

Computed tomography (CT) of the head

A car salesman, age 58, comes to see you because of some abdominal pain. He describes aching, cramping, non-radiating pain localized to his left lower abdomen for the past three days. The pain has gradually been building in intensity. Today he is feeling nauseated but has not vomited. He has no appetite, and the pain is keeping him awake at night. He denies any urinary symptoms.

He has a past history of hypertension, an appendectomy at age 16, an open cholecystectomy at age 35, and 40 pack-years of smoking.

## **Question 1**

In an attempt to narrow the differential diagnoses, what OTHER elements of the history of the current illness should you ask about? List THREE.

Fever / Chills
Bowel habit changes / Constipation / Diarrhea / Change in stools / Mucous in stools
Rectal (PR) bleeding
Passage of flatus
Weight loss

## **Question 2**

Other than diverticulitis, cancer, genitourinary causes, and various types of colitis, what OTHER diagnoses should you consider? List THREE.

Bowel obstruction / adhesions Hernia Aortic aneurysm / Iliac aneurysm / Aortic dissection Ischemic gut

## **Question 3**

Excluding findings from the rectal exam and peritoneal signs, what physical signs should you look for during an abdominal exam, which, if present, would be consistent with a surgical cause for his symptoms? List THREE.

Abdominal distension / Tympanic percussion
Tinkly or abnormal bowel sounds / High pitched bowel sounds / Absent bowel sounds
Mass / Hernia
Pulsatile mass (i.e., an abdominal aortic aneurysm [AAA])

A woman, age 55, presents after suffering her third upper respiratory infection this year. She has smoked a pack of cigarettes a day for the past 25 years, and during previous visits you have repeatedly discussed smoking cessation. Ever since you told her you suspect she has chronic obstructive pulmonary disease (COPD), she has refused testing to confirm the diagnosis. After enduring her last chest infection, she is now willing to undergo testing.

## **Question 1**

What SPECIFIC measurement from her pulmonary function test would allow you to confirm the diagnosis of COPD?

(Forced expiratory volume in 1 second (FEV1) / forced vital capacity (FVC)) FEV1

## **Question 2**

Once you have confirmed a diagnosis of COPD, what is the MOST important intervention you would suggest to her at this time? State ONE.

Smoking cessation

## **Question 3**

The patient returns to complain that, in the past three months, she has noticed shortness of breath when she is trying to hurry on level ground or up a slight hill. She denies orthopnea or paroxysmal nocturnal dyspnea. Last month, her chest X-ray examination was normal. What OTHER investigation would you consider at this time to evaluate these symptoms? State ONE.

Cardiac exercise treadmill testing / MIBI scanning

#### **Question 4**

Further investigations indicate that her primary symptoms are due to her COPD. Having classified her lung function impairment as mild (MRC2), what CLASS of medication would you offer INITIALLY? State ONE.

Short-acting beta-agonist / Short-acting anticholinergic agent / Short-acting bronchodilator

## **Question 5**

If her symptoms persist, what OTHER class of medication would you add to the treatment regimen? State ONE.

Long-acting beta-agonist / Long-acting anticholinergic agent / Long-acting bronchodilator

### **Question 6**

Aside from her medical therapy, what NON-PHARMACOLOGIC therapy would help with her symptoms? State ONE.

Pulmonary rehabilitation

## **Question 7**

Apart from smoking cessation, what ADDITIONAL recommendations would you make to help her avoid future exacerbations of COPD? State TWO.

Receive pneumococcal vaccination Receive influenza vaccination

A male patient, age 57, visits your office. He wants a "complete checkup" as he is about to turn 58. Because you have not seen the patient for the past year, you take a history and find that he smokes half a pack of cigarettes a day, drinks three beers a day, and takes ibuprofen daily for a shoulder injury that bothers him during his work as a heavy-duty mechanic. His admits he does not exercise, and his diet is poor. His father died of a myocardial infarction several years ago.

The initial examination reveals that his blood pressure (BP) measurement is 160/105 mm Hg, his heart rate is 95 bpm, his respiratory rate is 20/min, he is afebrile, and his body mass index is 28. His heart sounds are normal, and his chest is clear. He has no abdominal masses or peripheral edema.

#### **Question 1**

What approaches would you take to exclude "white coat syndrome" as a cause for his elevated BP reading? State TWO.

Take multiple readings at the same visit / Use the BpTRU measurement device Perform ambulatory BP monitoring / Home BP monitoring

#### Question 2

After several visits, you confirm that the patient's BP is consistently elevated above 160/105 mm Hg. What INITIAL investigations should you request at this time to assess the patient for end-organ damage? List THREE.

Urinalysis / Albumin-to-creatinine ratio (ACR) Creatinine testing / Estimated glomerular filtration rate (eGFR) Electrocardiography (ECG)

Do NOT accept "echocardiography."

## **Question 3**

Other than examining the heart, what ADDITIONAL physical examination manoeuvres should you perform to assess the patient for end-organ damage? State TWO.

Fundoscopic examination Assessment for bruits Peripheral pulse examination

## Question 4

You start an antihypertensive medication. Apart from weight loss, stress reduction, salt restriction, dietary changes, and increased exercise, what recommendations should you give the patient to manage his high BP? List THREE.

Smoking cessation
Limiting alcohol consumption
Discontinuing use of nonsteroidal anti-inflammatory drugs (NSAIDs)

A male patient, age 73, visits you. He is frail and has a 25-year history of type 2 diabetes with renal and retinal complications. He also has a history of coronary artery disease, with stenting after a myocardial infarction five years ago. He is accompanied by his son, age 45, who is also his caregiver. The son asks whether his father should have prostate-specific antigen (PSA) testing. He says his father's 61-year-old brother was recently diagnosed with cancer after he had a PSA test.

## **Question 1**

Should you advise his father to have the PSA test for screening? Give ONE answer.

No

## **Question 2**

Apart from frequency, urgency, and nocturia, what symptoms might the patient complain about if he had an enlarged or cancerous prostate? State TWO.

Hesitancy Post-void dribbling Weak stream

#### Question 3

The son tells you that for the past week he himself has been experiencing some of the above symptoms. He adds that he has experienced general malaise and a fever for the past several days. He denies any testicular complaints or flank pain. What is the son's MOST likely diagnosis? State ONE.

Prostatitis / Acute bacterial prostatitis

#### **Question 4**

What investigations / examinations should you do next to support the diagnosis? State TWO.

Midstream urine culture testing / Urinalysis Digital rectal examination (DRE)

# **Question 5**

Excluding cancer, what OTHER causes could explain an elevated PSA test result? List THREE.

Benign prostatic hypertrophy (BPH)
Urethral instrumentation / Urethral trauma
Infection / Prostatitis
Digital rectal examination (DRE) / Prostatic massage
Ejaculation

Your patient, age 45, presents at your office for renewal of his prescription for pantoprazole, which he has been using intermittently to manage his gastroesophageal reflux disease (GERD). He states that in the past month he has been under a great deal of stress and is taking the medication more often.

When you ask about his symptoms, he says he has episodes of epigastric pain that radiates up into his chest. He often feels bloated and belches frequently. He notices his symptoms are worse after he consumes a big meal, but he has had no nausea or vomiting. He has gained 5 kg over the past year and has resumed smoking about five cigarettes a day. He has a glass of wine with dinner and occasionally has a few beers on the weekend. He has not been sleeping well and guit playing soccer because of fatigue.

Except for GERD, his past medical history is unremarkable. His family history includes hypertension in his father and older brother. His maternal grandfather recently suffered a stroke at age 86.

On examination, his blood pressure measurement is 136/92 mm Hg, and his heart rate is 84 bpm and regular. His body mass index is 29 and his waist circumference is 110 cm. Results of cardiovascular and respiratory exams are normal. He has some mild epigastric tenderness, but the abdominal exam is otherwise normal.

#### Question 1

Other than GERD and cancer, what are the important differential diagnoses for this patient's epigastric pain? List THREE.

Cardiovascular disease (CVD) / Coronary artery disease (CAD) / Angina Peptic ulcer disease (PUD) / Ulcer / Gastritis / Esophagitis Cholelithiasis Pancreatitis

#### Question 2

In addition to blood tests, what investigations should you order at this time? List THREE.

Electrocardiography (ECG) / Stress testing
Urea breath test / Fecal occult blood testing / Fecal immunochemical testing (FIT)
Abdominal ultrasonography

## Question 3

The patient is worried about gastric cancer. Excluding constitutional symptoms and the history already provided, what ADDITIONAL symptoms would you ask about? State TWO.

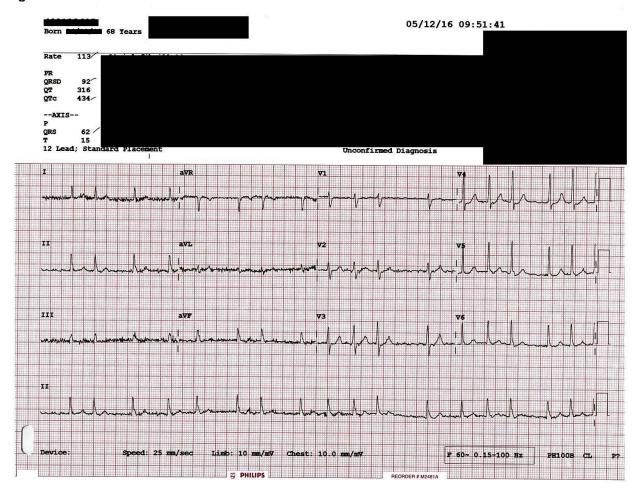
Dysphagia
Early satiety / Indigestion / Postprandial fullness
Melena

Do NOT accept "hematemesis." (The patient is not vomiting.)

A 68-year-old male presents to your office after he noticed a rapid heartbeat when waking up this morning. He is not known to you, but he states that he has no significant past medical history and is currently taking no medications.

On examination his vital signs are: HR 113, irreg irreg. BP 120/80.

Figure 1



# Question 1 Based on the ECG in figure 1, what is the most likely rhythm abnormality? List ONE.

Atrial fibrillation

# Question 2

Apart from underlying cardiac disease, what diagnoses should you consider as the possible causes of his condition? List THREE.

Alcohol ingestion Pulmonary embolus Hyperthyroidism

# **Question 3**

The same patient a few weeks later, presents to the emergency room, not feeling well, worse than last time. His vital signs are HR irreg at 150/min, BP 90/60. What should you look for or enquire about to determine the treatment priority for this patient at this time? List TWO.

Angina CHF

Perfusion status: decreased LOC, skin

# **Question 4**

His BP is now 60/not measurable, and heart rate is still 150 irreg irreg. What should be your priority treatment at this time? List ONE.

Cardioversion / synchronous cardioversion