Question 1
1 / 1 pts

As the nurse practitioner working in a primary care clinic, you have been notified from a hospitalist that your long-term patient with a history of HFrEF (heart failure with reduced ejection fraction) with an ejection fraction of 40% two years ago who is also not on optimal medical therapy has been diagnosed with a myocardial infarction this admission and received emergent placement of a drug-eluting stent to the left anterior descending artery. As the patient's medical home who will manage this patient after discharge, which of the following would you expect to be a priority in the patient's care for their heart failure after an acute MI?

Ordering a new transthoracic echocardiogram and order a Lifevest if EF is less than 45%

Ordering aspirin and clopidogrel for 3 months at discharge

Ordering a Holter monitor for 7 days post-discharge

Correct Answer

Ordering a new transthoracic echocardiogram and order a Lifevest if EF is less than 35%

Question 2
1 / 1 pts

What is the key long-term benefit of using carvedilol for patients with coronary artery disease and heart failure with reduced ejection fraction (HFrEF)?
Correct!

Potential increase in ejection fraction

EF increase is a key reason for using carvedilol over metoprolol for patients with low EF states. Libido unfortunately can be negatively impacted by any beta blocker. Cardiac output should only improve with long term use, not decrease, and beta blockers may reduce blood pressure slightly, but that is not their key long-term benefit. In fact, they are not even considered for routine anti-hypertensive management per JNC-8 guidelines.

Increase in libido

Reduction in cardiac output

Baseline reduction of blood pressure

Question 3
1 / 1 pts
Your patient presents with pale, waxy legs, weak peripheral pulses, and states he is having difficulty walking great distances due to the pain in his calves. The most appropriate non-invasive test to evaluate his leg vascular flow quality is which of the following exams?

Bilateral popliteal blood pressures

Exercise stress test

Angiogram of the leg with runoff

Correct!

Ankle Brachial Index (ABI)

ABI is the most effective way to evaluate vascular flow in a non-invasive way, and the angiogram of the leg with runoff is the best invasive way. Bilateral popliteal blood pressures would not show discretion between upper and lower body if both equally low, and exercise stress tests are not used as a diagnostic tool for claudication or PAD.

Question 4
1 / 1 pts
Which of the following medication classes is the foundation of the care of heart failure and has been shown to reduce mortality?

Statins

Correct!

Beta blockers

Calcium channel blockers

Antiarrythmics

Heart failure management is aimed at reducing oxygen consumption as well as reducing workload. Beta blockers have been proven (particularly carvedilol (Coreg) to reduce heart rate AND afterload and improve ejection fraction in patients with heart failure with reduced ejection fraction (HFrEF) and has been proven to reduce mortality. Antiarrhythmics are useful in managing cardiac dysrhythmias which may worsen cardiac states, and statins are useful in managing elevated lipid levels. Calcium channel blockers are specifically contraindicated in patients with heart failure due to the risk of edema and loss of cardiac contractility they cause.

Question 5
1 / 1 pts
A grade III/VI, low-pitched, diastolic, rumbling murmur heard at the apex, and best heard in the left lateral decubitus position, is most indicative of which of the following types of valve problem?
Correct!

Mitral stenosis

Aortic stenosis

Aortic regurgitation

Mitral regurgitation

Question 6
1 / 1 pts
A 55 year-old female patient with no previous cardiac history and no family history of hyperlipidemia with an acute myocardial infarction is treated successfully with a drug-eluting stent during a recent hospitalization. As

their long-term care provider, you anticipate they were most likely to be also started on which of the following lipid-lowering agents at discharge?
Correct!

High intensity statin therapy

Patients with proven cardiac disease should be on high intensity statin therapy. PCSK9 therapy is only indicated for homozygous familial hyperlipidemia or proven cardiac disease with proven failure to tolerate multiple attempts at statin therapy.

Moderate intensity statin therapy

Ezetimibe prior to initiating statin therapy

PCSK9 inhibitor therapy

Question 7
1 / 1 pts
As the nurse practitioner on call on at a long term care facility, a nurse calls you to notify you that your patient who was in normal sinus rhythm has started to have extra premature beats noted on bedside telemetry. The nurse states these extra beats occur approximately every 6 normal beats and has an inverted p wave located after the narrow QRS complex which appears otherwise identical to the normal sinus rhythm QRS complex. What is this nurse likely describing?
Correct!

Premature Junctional Contractions

Sinus exit block does have a pause, but no change in P wave morphology. PACs will maintain an early but otherwise normal P wave/QRS. PJCs will have absent, inverted or retrograde P waves(after the QRS) and be otherwise narrow complex QRS. PVCs will be absent of any P wave and have a wide complex QRS.

Premature Atrial Contractions

Premature Ventricular Contractions

Sinus Exit Block

Question 8
1 / 1 pts
A nurse practitioner places a 76-year-old patient on nifedipine (Procardia) 10 mg t.i.d. for angina. The patient is unable to remember to take the medication at the scheduled times. The practitioner should:

reinforce the importance of taking the medication.

Correct!

change the dose to extended release 30 mg daily.

discontinue the issue with the patient's daughter.

increase the dosage to 20 mg b.i.d.

Question 9
1 / 1 pts
Which of the following medications does not cause beta 1 stimulation?
Correct!

phenylephrine

Phenylephrine only stimulates alpha 1 receptors. The remaining three all have beta receptor activity.

dopamine

epinephrine

dobutamine

Question 10
1 / 1 pts
Your 50 year-old male African American (AA) patient was found to have a blood pressure of 160/96 upon arrival to your clinic. He does not have any other medical conditions. For the following 24 hours of self-reported vital signs, it remained between 160-170 systolic and 90-100 diastolic without

treatment. After finding all basic metabolic panel (BMP) lab values to be within normal limits, your first choice of antihypertensive is most likely which of the following agents?

metoprolol

Correct!

amlodipine

Although lisinopril remains an ideal choice for this patient scenario in general, since they are African American, JNC-8 guidelines encourage use of a calcium channel blocker as first line therapy. Amlodipine is the only calcium channel blocker listed. Beta blockers such as metoprolol and carvedilol are not indicated for first line anti-hypertensive therapy.

carvedilol

lisinopril

Question 11
1 / 1 pts
An adult male who has managed type 2 diabetes mellitus well for many years presents for a 6-month follow up. His Hgb A1c has risen from 7% to 9% over the interval. All other laboratory values are normal and his BMI is still 25. His psychiatrist recently added olanzapine (Zypreza) to the medical regimen. The nurse practitioner will most likely:

Encourage the patient to cut back on dietary intake

Correct!

Begin to increase the patient's diabetes medications incrementally

Discontinue the olanzapine until the patient's psychiatrist has been consulted

Encourage the patient to start walking for 30 min every other day

A common side effect of initiation of onanzapine (Zyprexa) is increased appetite and it is evidenced by this by the patient having their A1c increase from 7 to 9%. The patient should have their diabetic mediation dose

increased to help counteract this phemonemon, however a long-term strategy may include consult the psychiatrist about decreasing the dose or altering the medication as this represents a considerable health risk to the patient. As that specifically was not an option, the best option would be to augment the anti-diabetic medication regimen. Stopping the olanzapine without discussing it with the psychiatrist would potentially cause the patient to experience discontinuation syndrome.

Question 12
1 / 1 pts
All the following are factors associated with a development of type II diabetes EXCEPT:

weight greater than 20% of ideal body weight

positive family history

Correct!

peripheral vascular disease

delivering an infant greater than 9 lbs.

Having peripheral vascular disease does not have correlation to development of DM2, whereas all the other options do.

Question 13
1 / 1 pts
A 50-year-old man presents with fatigue, muscle weakness, and hyperpigmentation of the skin. Laboratory tests show low sodium, high potassium, and low cortisol levels. What is the most likely diagnosis?
Correct!

Addison's disease

Pheochromocytoma

Primary hyperaldosteronism

Cushing's syndrome

The clinical traid of hypocortisolism, also known as Addisonian crisis presents with hypotension, hypothermia, and oliguria. Not all patients who exhibit adrenal insufficiency will have this in a severe state, but it is common to look for these findings to support the diagnosis. The patient may also have a recent history of steroid supplementation that was abruptly stopped or a recent stressor which caused an increase in their cortisol levels which their adrenal glands could not support such as surgery, hospitalization, infection, etc.

Question 14
1 / 1 pts
A 39-year-old male with type 1 DM is seen in the urgent care after a recent hospitalization for DKA. Treated with IV fluids, IV insulin, and potassium correction, His BS decreases to 120 mg/dL and is transitioned from IV insulin to Sub Q. After 6 hours he begins vomiting and ABG is done: pH 7.19, CO2 13, K+ 5.5, glucose 180. Which of the following is the most likely reason for persistent acidosis?

Lack of absorption of Sub Q insulin

Correct!

Premature discontinuation of insulin drip

Failure to give bicarbonate

Failure to correct hyperkalemia

Glucose is only one of the parameters that needs to be followed in DKA. It takes longer for ketones to clear than glucose to normalize. Insulin drip should be continued until ketonemia has resolved and the anion gap has closed. If IV insulin is discontinued prematurely the patient may have rebound acidosis. Bicarbonate replacement has been controversial in DKA.

Question 15
1 / 1 pts
An adult female who recently returned from a business trip to Japan presents for a recheck appointment. The only remarkable laboratory result is for thyroid-stimulating hormone (TSH), at 0.3 microunits/mL (normal = 0.4–6 microunits/mL). The patient reports that her neck hurts; examination reveals thyroid tenderness. Which of the following laboratory tests should the nurse practitioner order now?

Triiodothyronine (T3) resin uptake assay

Triiodothyronine (T3) only

Correct!

Triiodothyronine (T3) and free thyroxine (FT4)

Triiodothyronine (T3) and free triiodothyronine (FT3)

The patient has a low TSH which when paired with elevated T3 and T4, suggest hyperthyroidism. The next steps for this patient are to check the T3 and T4 levels which would presumably be high and clinically correlate the findings for a diagnosis of hyperthyroidism.

Question 16
1 / 1 pts
A 48-year-old female presents with a history of hypothyroidism controlled with levothyroxine (Synthroid). She reports that she has been taking excessive amounts of the drug over the past year, to control her weight. This behavior can cause or aggravate which of the following conditions?

Migraine headaches

Bradycardia

Correct!

Osteoporosis

Thyroid malignancy

Overuse of levothyroxine is not associated with thyroid malignancy or migraine headaches, it is more likely to cause tachycardia rather than bradycardia. Osteoporosis is associated with overuse of levothyroxine.

Question 17
1 / 1 pts
A patient with diabetes mellitus who is taking insulin presents for a follow up. The patient's blood glucose log reveals wide variations in readings, as well as numerous episodes of hyperglycemia and hypoglycemia. Which is the nurse practitioner's best therapeutic intervention?

Instruct the patient to start daily exercise

Decrease the overall insulin dose

Correct!

Refer the patient for diet teaching

Increase the overall insulin dose

This represents a common issue with diabetics who are coined as "brittle". When the patient is exhibiting both low and high readings, there is no safe answer for what to do with the dosing. Therefore, increasing and decreasing the overall insulin dose is not the right answer. Increasing activity with exercise would consume more glucose and put the patient at increased risk if hypogylcemic. Therefore, the only appropriate answer would be to refer to diabetic education to see what their baseline comprehension is about their management and diet and insulin treatment.

Question 18
1 / 1 pts
Pheochromocytoma is best diagnosed by which of the following tests:
Correct!

24-hour urine for catecholamines/metanephrines and plasma metanephrines

Adrenal CT/MRI

Blood pressure values and adrenal CT/MRI

Plasma metanephrines with blood pressure values

Pheochromocytoma is catecholamine producing tumor. Must have diagnostics that reveal increased levels of catecholamines. A negative test virtually excludes pheochromocytoma.

Question 19
1 / 1 pts
Patients on levothyroxine should be monitored for signs of:

Memory deficits and hyperreflexia

Increased nausea and constipation

Ankle edema and discomfort

Correct!

Angina pectoris and dysrhythmias

The risk of any supplementation is OVER-supplementation and of the potential options, angina pectoris and dysrhythmias are clinical symptoms associated with hyperthyroidism, or in this case over-treated hypothyroidism causing extrinsic hyperthyroid symptoms.

Question 20
1 / 1 pts
A starting dose for a elderly adult patient with a BMI of 20 needing levothryoxine

125 mcg

75 mcg

100 mcg

Correct!

25 mcg

The widely considered best practice for treatment of hypothyroidism in the elderly is to "go slow and start low". 25 mcg is the most appropriate low dose to start with of these options. It is possible that over time the dose will be increased until therapeutic levels are obtained, but the risk of over-dosing the patient outweighs the desire to quickly achieve this state.

Question 21
1 / 1 pts
An elderly patient is being admitted to the skilled nursing facility and is being screened for the risk of falling. Which of the following information would trigger a complete falls assessment?

Living alone and having mild dementia

Correct!

A history of two or more falls in the prior year

Osteoarthritis in the hips and knees

Medication regimen including acetaminophen for pain and a calcium channel blocker

Of these options, the only two that have any clinical bearing on falls are a patient who has a demonstrated incident of two or more falls in a year and a patient who has a altered cognition, such as the patient who is living alone and has mild dementia. Of the two options, the clear winner is the patient who has already demonstrated to fall in the last year and they should certainly be a valuated more thoroughly with a complete fall assessment.

Question 22
1 / 1 pts
An elderly patient diagnosed with end-stage lung cancer has been refusing meals, opting instead for ice cream only. The family is concerned about the patient not getting enough nutrition. The NP:

screens the patient for depression

prescribe methylphenidate for appetite stimulation

order a U/A and CBC

Correct!

explains loss of appetite is common at the end of life

Death is an uncomfortable topic, and must be handled tactfully. Factual re-orientation to the terminal state of a patient's condition may be appropriate when unrealistic expectations for their longevity have been voiced. The reasonable choice in this case is to describe the normalcy of what the patient is experiencing with their loss of appetite and their terminal state. Testing the patient for depression has really no clinical bearing on this particular time nor does prescribing methylphenidate. Ordering a UA and CBC would suggest a concern of a urinary tract infection, and that is not a likely scenario to describe the patient's existing condition. Support the

patient as his advocate by helping the man enjoy the ice cream he requested.

Question 23
1 / 1 pts
Which of the following gastrointestinal changes is associated with normal aging?

Increased salivation

Decreased incidence of gallstones

Increased esophageal emptying

Correct!

Decreased production of gastric acid

Evidence of the normal aging process includes decreased production of gastric acid, increased incident of gallstones, decrease salvation, and decreased esophageal emptying.

Question 24
1 / 1 pts
A frail elderly patient presents with constipation. Which of the following normal physiologic changes seen with aging is the most likely cause?
Correct!

Decreased bowel muscle tone

Increased absorption of calcium

Decreased pancreatic secretions

Increased bile secretion

The frail, elderly patient will typically have their GI track decrease bile secretion and decrease absorption of calcium. A decrease in pancreas secretions is not related to presence of constipation, however, decreased bowel muscle tone certainly does reduce the GI motility and increase the

transit time, thereby increasing the drying of stool in the large intestine which leads to constipation

Question 25
1 / 1 pts
The management of COPD in the elderly is best guided by:

arterial blood gases.

radiologic imaging.

spirometry.

Correct Answer

symptomatology.

Symptomatology is what guides COPD management since the severity and frequency of symptoms will warrant changes and additions to medications as exacerbations present.
Although very useful tool for chronic management and baseline status, spirometry does not typically dictate therapy, rather diagnose the disease state itself. Our blood gases may be used for clinically correlate severity during an exacerbation, and radiologic imaging may showcase severity of stable chronic finding such as somatic, lung tissue or bullae.

Question 26
1 / 1 pts
Which sphincter tends to be involved with the symptoms associated with patients who have GERD?

Pyloric sphincter

Internal anal sphincter

Ileocecal sphincter

Correct!

Lower esophageal sphincter

The lower esophageal sphincter located between the connection of the esophagus and stomach is the primary sphincter involved with inability to properly close allowing gastric content to regurgitate and cause GERD symptoms.

Question 27
1 / 1 pts
A 70-year-old patient presents to the clinic with dyspnea, palpitations, and fatigue. The patient reports a 2-week history of blackened stools, which the patient attributes to drinking berry juice. Assessment reveals vital signs of BP = 110/60, P = 100, R = 24; Hgb = 4.5 g/dL; Hct = 16%. What is the most appropriate immediate intervention?

Refer to a gastroenterologist.

Order serum iron, total iron-binding capacity (TIBC), and ferritin.

Correct!

Send to the emergency room.

Order a complete blood count (CBC) with differential.

This patient is experiencing a GI bleed and is in need of emergency treatment due to their considerably low hemoglobin.

Question 28
1 / 1 pts
A 38-year-old male presents to the clinic with complaints of abdominal pain, intermittent diarrhea, and has a positive occult blood. A stool culture is done which does not show any organism growth. Which labs could be performed to provide further diagnostic information?
Correct!

CRP and Fecal calprotectin

CMP

Sed rate

CEA

CRP and fecal calprotectin, are typically performed, if elevation is seen in these two levels, then an ileocolonoscopic is warranted for further workup and biopsy

Question 29
1 / 1 pts
The most specific indicator of the presence of ascites is:

A liver scratch test

Correct!

A prominent fluid wave

Costovertebral angle tenderness

A positive Murphy test

During assessment for ascites, a fluid wave test should produce a prominent fluid wave if the patient is experiencing ascites.

Question 30
1 / 1 pts
A geriatric female presents with complaints of dyspnea and fatigue. All blood work is normal except for Hgb of 9.0 g/dL, Hct of 33%, and guaiac positive stool. The patient also reports a bowel pattern of alternating constipation and diarrhea, and frequent laxative use. Which diagnostic tests should be ordered?
Correct!

Colonoscopy

MRI scan of abdomen

CT scan of abdomen

Upper GI series

This patient is in need of a colonoscopy to evaluate for the cause of occult bleeding.