

NURS6501N_Midterm

1. A patient receiving chemotherapy for breast cancer develops nausea, vomiting, and jaundice. The nurse practitioner suspects that the chemotherapy drugs might be causing liver toxicity. This is an example of cell injury due to which of the following mechanisms?

Group of answer choices

Aging

Immune response

Hypoxia

Chemical injury

2. An elder adult female patient with a history of diabetes, hypertension, and recent hip replacement surgery presents with a swollen, painful left calf. Which of the following risk factors is most likely to have contributed to the development of deep venous thrombosis in this patient?

Group of answer choices

Diabetes

Female sex

Hip replacement surgery

3. A middle-aged female patient presents to the clinic with sudden onset shortness of breath and chest pain. She has a history of recent surgery for a broken leg and has been on bed rest for several days. On physical examination, her heart rate is elevated, and she appears anxious. A D-dimer test is ordered and returns significantly elevated. The patient is transferred to the nearby hospital and the report of a CT pulmonary angiogram reveals the presence of a pulmonary embolism. What is the clinical significance of the elevated D-dimer levels in this case?

Group of answer choices

The elevated D-dimer levels are indicative of a recent coincidental myocardial infarction.

The elevated D-dimer levels suggest a clotting disorder unrelated to pulmonary embolism.

The elevated D-dimer levels indicate ongoing fibrinolysis.

Elevated D-dimer levels are a normal response to physical inactivity and bed rest.

4. Which organelle within a plasma cell is primarily responsible for the synthesis of immunoglobulins?

Group of answer

choices Peroxisome

Mitochondria

Rough endoplasmic reticulum

Lysosome

5. Which of the following is a hallmark of metabolic acidosis commonly seen in Type 1 diabetes?

Group of answer choices

High concentration of red blood cells

Decreased levels of urea and creatinine

The presence of ketone bodies in the urine and blood

Elevated levels of sodium in the bloodstream

6. Which of the following is the underlying cause of type 2 diabetes mellitus?

Group of answer choices

Excessive production of insulin by the pancreas

Autoimmune destruction of pancreatic beta cells

Sudden onset of hyperglycemia in childhood

Resistance to insulin

7. During an assessment of coronary artery disease severity using cardiac catheterization, a patient is found to have a significant stenosis in the proximal left anterior descending artery. At what percentage of luminal narrowing is the stenosis typically considered to be critical?

Group of answer choices

80% luminal stenosis

50% luminal stenosis

60% luminal stenosis

70% luminal stenosis

8. A child presents to the clinic with sudden onset of red, itchy, raised welts on her skin that appeared after eating a meal containing shellfish. She is not having any difficulty breathing or swallowing, and her vitals are stable. What is the most likely diagnosis in this case?

Group of answer choices

Angioedema

Urticaria

Anaphylaxis

Contact dermatitis

9. Central sleep apnea (CSA) differs from obstructive sleep apnea (OSA) in that:

Group of answer choices

It is fundamentally related to heart failure.

There is no respiratory effort.

It involves excessive parapharyngeal tissue.

It primarily affects children with adenotonsillar hypertrophy.

10. Which of the following infections is associated with an increased risk for gastric cancer?

Group of answer choices

Hepatitis C virus

Helicobacter pylori

Clostridioides difficile

Cytomegalovirus

11. What is a direct consequence of the decreased number of nephrons in chronic kidney disease (CKD)?

Group of answer choices

Increased urine output

Reduction in blood glucose levels

Decreased blood pressure

Activation of vasoactive mediators and cytokines

12. Which of the following statements accurately describes the pathophysiology of chronic kidney disease (CKD)?

Group of answer choices

The progression of chronic kidney disease is only minimally related to blood pressure control and does not typically involve any shared pathological pathways.

Irrespective of the initial cause or disease, the final common pathway leading to progressive CKD involves a shared mechanism.

Chronic kidney disease primarily results from a single, specific cause that is consistent across all patients.

Dietary factors are the main determinants in the progression and severity of chronic kidney disease.

13. Where is antidiuretic hormone (ADH) produced?

Group of answer choices

Posterior pituitary gland

Anterior pituitary gland

Adrenal gland

The midportion of the pituitary gland

14. A middle-aged adult patient with a history of recurrent respiratory infections presents with chronic cough, excessive sputum production, and hemoptysis. Physical examination reveals coarse crackles on auscultation, and a chest CT scan shows dilated bronchi with thickened walls and mucous plugging. Which of the following best describes the likely diagnosis?

Group of answer choices

Pneumothorax

Bronchiectasis

Chronic obstructive pulmonary disease (COPD)

Bronchiolitis obliterans

15. An adult patient arrives at the emergency department with widespread hives, difficulty breathing, and a sensation of throat tightening minutes after eating a shrimp cocktail. Vital signs show a blood pressure of 80/60 mmHg, heart rate of 128 beats per minute, and respiratory rate of 25 breaths per minute. Which immunoglobulin is most likely mediating this patient's condition?

Group of answer choices

IgE

IgA

IgG

IgM

16. What is the predominant type of T cell implicated in the pathogenesis of Crohn disease?
- Group of answer choices

Regulatory T cells (Treg)

Helper T cells (Th2)

Cytotoxic T cells (Tc)

Helper T cells (Th1)

17. What is a cardiac adaptation in response to hypertension?
- Group of answer choices

Reduced electrical conductivity

Slowed heart rate

Increased ATP production

Enhanced lipid absorption

18. A middle-aged female patient with a history of systemic sclerosis presents to her cardiologist's office with complaints of increasing fatigue, shortness of breath, and chest discomfort during physical activity. The physician suspects pulmonary hypertension and needs to accurately measure the pulmonary arterial pressure. What is the most appropriate diagnostic method for assessing pulmonary arterial pressure in this patient?

Group of answer choices

Right heart catheterization

Pulmonary function tests

Magnetic resonance imaging (MRI)

Echocardiography

19. The mucosal damage observed in celiac disease is primarily the result of:

Group of answer choices

IgE-mediated allergic reaction to gluten

Direct toxicity of gluten peptides to enterocytes

Cell-mediated immune response to deamidated gliadin peptides

Complement system activation secondary to gluten deposition

20. In immune checkpoint myocarditis, a rare but serious complication of cancer immunotherapy, the use of drugs that inhibit CTLA-4 and PD-1 pathways can lead to unintended cardiac effects. What is the primary mechanism by which these drugs contribute to the development of myocarditis?

Group of answer choices

They directly induce cytotoxic effects on cardiomyocytes, leading to necrosis.

They decrease myocardial blood flow by inducing coronary artery vasoconstriction.

They promote an uncontrolled autoimmune response against myocardial antigens.

They stimulate excessive sympathetic nervous system activity, leading to cardiomyocyte apoptosis.

21. In the context of type 1 diabetes, what does a low level of C-peptide in the blood typically indicate?