

Human pathophysiology notes assignment



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Are reactions that are mediated by antigen-specific IgE and the products of tissue mast cells. They are also the most common hypersensitivity reactions.

They are usually referred to in medicine as allergic reactions. IgE binds to FcεR1 receptors on mast cells. Further exposure to the antigen results in a degranulation of the mast cell and it releases all of its products into the body.

Type 2- Tissue-specific reactions Are reactions generally against a specific tissue or cell (as it says in the name). The symptoms are determined by which tissue or organ has the particular antigen.

The antibodies form a membrane attack complex and eventually lead to cell

lysis. Type 3- Immune complex mediated reactions Are caused by antigen-antibody complexes formed in the circulation and deposited in vessel walls or other tissues. They are not organ specific, so can happen anywhere. They

harm the body by generating inflammatory factors for interruption. Type 4-

Cell-mediated reactions (Does not use antibodies) These reactions are mediated by T lymphocytes. T cells attack and destroy cellular targets directly instead of an antibody. T cells produce cytokines that recruit and activate phagocyte cells, especially macrophages. . Know what Luminosity, autoimmunity are and examples, problems involving both types.

Autoimmunity- a disturbance in the immunologic tolerance of self-antigens.

Essentially, when your cells start attacking your own body instead of what they're supposed to be attacking. Luminosity- when the immune system of one individual produces an immunologic reaction against tissues of another individual. You see this in blood transfusions. Your body has a reaction to blood if you receive the wrong blood type because it has developed antibodies against those antigens. Know what nonphysical is and what type

of hypersensitivity reaction it represents. Nonphysical is the most rapid and severe immediate hypersensitivity reaction. Usually occurs within minutes after exposure to the antigen. This is classified as a type 1 reaction. 5. Know the different classes of antibodies and what their role is in each of the hypersensitivity reactions. Igg- Ige- (Type I-Ige mediated reactions) Iga- Igd- (Type 2- Tissue Specific reactions, and Type 3- Immune Complex mediated reactions) IgM-(Type 2- Tissue Specific reactions) 1 1 . Know the stages involved in the infectious process.

Infection Incubation Symptoms Shedding of the microorganism 12. Know the different lines of defense and what is involved in each line, what parts are specific, what are nonspecific, etc. First line of defense is the barriers (skin, mucus membranes, saliva, tears). Second line of defense is the inflammatory system(phagocyte Web's, antimicrobial proteins, and the inflammatory response). Third line of defense is adaptive/acquired/specific immunity. This includes lymphocytes and antibodies. It is more commonly just known as your immune system. 13. Know the targets of natural killer cells. Cancer cells, intracellular pathogens 14.

Know what exfoliations are and antitoxins are and what microorganism makes each. Exfoliations, found on the cell membrane of gram positive bacteria, released when the cell is growing. Endotoxin, the cell wall of gram negative bacteria, released when the cells are dying. 15. Know the characteristics of fungal infections, where they occur primarily, signs/symptoms of fungal disease, etc. Most fungal infections are surface infections. Mucocutaneous. Symptoms include rashes, or if becomes systemic 21 .

Know the different types of viruses. DNA viruses and RNA(retro viruses) 22.

Know what reverse transcript is.

Process that makes DNA from RNA. HIV is retro virus that uses reverse transcript. 23. Know the secretions that transmit HIV.

Tears/saliva/blood/etc... 24. Know how long the window period is between infection and the appearance of antibodies following infection. In HIV, it can take 6 to 14 months for antibodies to show up. The period between infection and the appearance of antibodies is known as the window period. 25. Know what toxicity's, ineffective, pathogenic, virulence all mean. Toxicity's- the ability to produce soluble toxins or antitoxins, factors influence the pathogens degree of virulence.

Ineffective- the ability of the pathogen to invade and multiply in the host.

Pathogenic- the ability of an agent to produce a disease. This depends on the communicability, ineffective, extent of tissue damage, and virulence.

Virulence- the capacity of a pathogen to cause severe disease 31 . Know the stages involved that a cell must go through in transforming from a normal to a cancer cell. Cancer cells are cells gone wrong ?? in other words, they no longer respond to many of the signals that control cellular growth and death. Cancer cells originate within tissues and, as they grow and divide, they diverge ever further from normalcy.

Over time, these cells become increasingly resistant to the controls that maintain normal tissue ?? and as a result, they divide more rapidly than their progenitors and become less dependent on signals from other cells. Cancer cells even evade programmed cell death, despite the fact that their multiple

abnormalities would normally make them prime targets for potatoes. In the late stages of cancer, cells break through normal tissue boundaries and metastasis (spread) to new sites in the body. 32. Know what autocracy stimulation is. The ability of some cancer cells to secrete growth factors that stimulate their own growth (dicks). 3. Know what potatoes is. Potatoes is programmed cell death. Cells have a mechanism that causes them to self destruct when growth is excessive and cell cycle checkpoints have been ignored. 34. Know what the RASA gene is. 35. Know what nosecones, tumor suppressor genes, proto nosecones are. Nosecones- mutant genes that in their normal non-mutant state direct synthesis of proteins that positively regulate (accelerate) proliferation Tumor Suppressor Genes- encode proteins that in their normal state negatively regulate (halt, or “ put the brakes on”) proliferation Proto Nosecones- an nosecone in its normal, Montanan state 41 .

Know the major virus involved in cervical cancer. HOP or Human voluptuaries 42. Know what the Pap smear is. It’s a screening test for cervical cancer. Cells scraped from the opening of the cervix are examined under a microscope to detect for cancer. 43. Know what viruses are monogenic DNA viruses. Human voluptuaries (HOP), Epstein-Barr virus (EBB), HUB and HCl (hepatitis), Kapok’s sarcoma heiresses (HAVE) 44. Know what cancers are associated with chronic inflammation.

Also know how inflammation makes a tissue more likely to develop into a cancer. Colon carcinoma, ?????? 45. Know what genes are affected by inherited mutations. Caretaker genes, DNA, tumor suppressor genes 51 . Know what caretaker genes, polymorphic, mean. Caretaker genes- genes <https://assignbuster.com/human-pathophysiology-notes-assignment/>

that are responsible for the maintenance of genomic integrity. They encode proteins that are involved in repairing damaged DNA. The loss of function of the caretaker genes leads to increased mutation rates. Polymorphic- cells that are of variable size and shape Mean-