ONS/ONCC Chemotherapy Immunotherapy Certification Exam Review (2023/ 2024 Update) Guide with Verified Answers|100% Correct

Q: Pluripotent Stem Cell

Answer:
-The cells of the immune system are created in the bome marrow from what is know as a ___

-A stem cell that can differentiate into any cell type except for extraembryotic tissue, does not yet have a function

Q: Myeolid Precursor Cells

Answer:
Mature into:
-RBCS
-Plts
-WBCs (Granulocytes)

Q: Lymphoid Precursor Cells

Answer:
Mature into:
-Specialized WBCs called lymphocytes (Agranulocytes)

Q: Lines of Defense: The Immune System's Response to Attack

Answer:

Consists of 2 types of immunity:

1: Innate
2: Adaptive

Q: Innate Immunity

Answer:
-First line of defense against a pathogen

-Does not retain memory of the entity

-Involves the following:
(skin, mucous membranes, and normal flora of the skin and gut)
(Cellular components such as phagocytes, natural killer cells, granulocytes, and macrophages)

Q: 1. Phagocytes
2. Natural Killer Cells
3. Granulocytes
4. Macrophages

Answer:
1.Cells that engulf and destroy invader

2. Cells that sense receptors on self and non-self to determine if they should kill or not

3. Type of WBC that have granules (Neutrophils
Eosinophils - parasites
Basophils - release histamine to stimulate immune response)

4. Large phagocytic cells stimulated by infection

Q: Adaptive Immunity

Answer:
-Stimulated if innate immunity is insufficient

-leads to immune system memory

-Humoral immunity

-Cell-mediated immunity

-Regulatory T-cells

Q: Humoral Immunity

Answer:
-B-Cells
-Memory B-Cells
-Plasma act to produce immunoglobulins (Igs) or antibodies

Q: B-Cell

Answer:
-each one is programmed to make one specific antibody

-Can recognize antigens whether they are freely circulating in the blood or attached to surface of a microbe

-When dividing, can become plasma cells which will then begin secreting antibodies that are unique to that antigen

Q: Plasma Cells

Answer:
-some plasma cells will undergo apoptosis

-Some will go to the BM where they will continue to secrete antibodies sometimes for years

Q: Cell-Mediated Immunity

Answer:
Depends upon cytotoxic T cells and helper T cells and their cyokinds

-more effective against antigens within cells

Q: Regulatory T-cells AKA suppressor T-Cells

Answer:
regulate the immune response to prevent autoimmune reactions and limit inflammatory responses

Q: T-Cell

Answer:
-Can only recognize antigens when they are presented to them by "presenting cells"

-Recognize phagocytized fragments of an antigen that are put on the surface of antigen-presenting cells

Q: Helper T-Cells (CD4+)

Answer:
-help other T-Cells by secreting chemicals

-Help B Cells to respond

-rapidly divide, in an effort to stay ahead of the antigen dividsion

-some will turn into effector cells, which secrete different kinds of cytokines

-respond similarly to B-Cells