

## Written pharma MSK 3

1. Mention MOA and side effect of methotrexate?
2. Mention MOA and side effects of cyclosporin?
3. Mention 4 side effects of TNF blocker?
4. Mention 4 contraindication of TNF alpha blocker?

## MCQ pharma MSK 3

<p>1. Doctor prescribed methotrexate. Which of the following best describes the mechanism of action of this drug?</p> <p>a) increases adenosine levels.</p> <p>b) inhibits dihydrofolate reductase</p> <p>c) inhibits IL-6 signal transduction</p> <p>d) small molecule kinase inhibitor</p> <p>e) TNF-alpha receptor antagonist</p>	<b>B</b>
<p>2. Which one of the following drugs is NOT used in the treatment of rheumatoid arthritis?</p> <p>a) Methotrexate</p> <p>b) Sulfasalazine</p> <p>c) Leflunomide</p> <p>d) Prednisolone</p> <p>e) Colchicine</p>	<b>E</b>
<p>3. Which one of following drugs acts by blocking soluble receptors of TNF-<math>\alpha</math>?</p> <p>a) Anakinra</p> <p>b) Sulfasalazine</p> <p>c) Gold saults.</p> <p>d) Methotrexate</p> <p>e) Etanercept</p>	<b>E</b>

<p><b>4. Which agent for Rheumatoid Arthritis competes with CD28 to prevent full T cell activation?</b></p> <p>a) Abatacept  b) Adalimumab  c) Certolizumab  d) Golimumab  e) Sarilumab</p>	<b>A</b>
<p><b>5. The first drug of choice among disease modifying anti-rheumatic drugs (DMARDs) for rheumatoid arthritis is:</b></p> <p>a. Hydroxychloroquine.  b. Gold salts.  c. Methotrexate.  d. Leflunomide.  e. Salsphasalazine.</p>	<b>C</b>
<p><b>6. Leflunomide is an immunosuppressive disease modifying anti-rheumatic drugs that inhibits de novo synthesis of pyrimidines by inhibiting:</b></p> <p>a. orotidylate decarboxylase.  b. dihydroorotate dehydrogenase.  c. orotate phosphoribosyl transferase.  d. carbamoyl phosphate synthetase.  e. aspartate trans-carbamylase.</p>	<b>B</b>
<p><b>7. Which statement is the mechanism of action of tofacitinib that used for treatment of rheumatoid arthritis?</b></p> <p>a) Inhibitor of TNF<math>\alpha</math>.  b) New JAK inhibitor.  c) Inhibitor of IL-6.  d) Inhibitor of IL-1.  e) CD80/86 inhibitor.</p>	<b>B</b>

<p><b>8. Rheumatoid arthritis is a relatively common autoimmune disease, with multiple treatment options. Which of following is an example of a drug class that has been shown to halt or reverse progression of dse in most patients?</b></p> <p>a) aspirin b) azathioprine c) everolimus d) methotrexate e) prednisone</p>	<p><b>D</b></p>
<p><b>9. Which component of sulfasalazine is responsible for the therapeutic effect in rheumatoid arthritis?</b></p> <p>a) Sulfapyridine b) 5-aminosalicylic acid c) Both (a) and (b) d) Intact sulfasalazine molecule</p>	<p><b>A</b></p>
<p><b>10. While TNF-alpha inhibitors are the most commonly used biologic DMARDs, an IL-6 receptor antagonist has also been found to be effective in treating arthritis. An example of this drug class is:</b></p> <p>a) abatacept b) ankinra c) leflunomide d) rituximab e) tocilizumab</p>	<p><b>E</b></p>
<p><b>11. Which statement correctly represents the mechanism of action of Tofacitinib in treatment of RA?</b></p> <p>A. Dihydrofolate reductase inhibitor B. Janus kinase inhibitor C. IL-6 receptors blocker D. TNF-<math>\alpha</math> inhibitor E. IL-1 receptors blocker</p>	<p><b>B</b></p>

<p><b>12. A 48-year-old woman with 2-year history of rheumatoid arthritis had not sufficient relief with methotrexate alone. Her physician prescribes a biologic TNF-<math>\alpha</math> inhibitor that consists of a fusion protein against TNF-<math>\alpha</math>. Which of the following is this drug?</b></p> <p>a) Adalimumab b) Certolizumab c) Etanercept d) Golimumab e) Infliximab</p>	<p><b>C</b></p>
<p><b>13. In a follow-up visit, JQ is still exhibiting significant signs of RA, and has not achieved her therapeutic goal. After some discussion about treatment options, adalimumab (s.c. every 2 weeks) is added to her treatment regimen. Major side effects with this class of medication include:</b></p> <p>a) infections &amp; malignancy b) mucosal ulcers c) osteoporosis d) renal impairment</p>	<p><b>A</b></p>
<p><b>14. Sulfasalazine is used in the following disease(s):</b></p> <p>a) Bacillary dysentery b) Ulcerative colitis c) Rheumatoid arthritis d) Bacillary dysentery and Ulcerative colitis e) Rheumatoid arthritis and Ulcerative colitis</p>	<p><b>E</b></p>
<p><b>15. Which of following drugs is a recombinant endogenous IL-1 antagonist?</b></p> <p>a. Abatacept b. Anakinra c. Methotrexate d. Hydroxychloroquine e. Rituximab</p>	<p><b>B</b></p>

<p><b>16. A 24-year-old man is admitted to the hospital after a kidney transplant. He is placed on appropriate immunosuppression to prevent rejection. About 48 hours after starting the new treatment regimen, the patient complains of a headache and tremors. His blood pressure is 140/82 mm Hg. What medication most likely caused this patient presentation?</b></p> <p>a. Mycophenolate mofetil  b. Azithromycin  c. Sirolimus  d. Leflunomide  e. Cyclosporine</p>	<b>E</b>
<p><b>17. Which of the following is a reserve drug but not a disease modifying drug in rheumatoid arthritis:</b></p> <p>a) Chloroquine  b) Sulfasalazine  c) Prednisolone  d) Methotrexate</p>	<b>C</b>
<p><b>18. The most common adverse effect of methotrexate is:</b></p> <p>a. Arrhythmia  b. Hepatotoxicity  c. Renal failure  d. Convulsions  e. Hair loss.</p>	<b>B</b>
<p><b>19. Which of the following is disease modifying drug for rheumatoid arthritis?</b></p> <p>a) Indomethacin  b) Celecoxib  c) Ibuprofen  d) Diclofenac  e) Etanercept</p>	<b>E</b>

<p><b>20. Which of the following is JAK inhibitor:</b></p> <ul style="list-style-type: none"> <li>a) Abatacept</li> <li>b) Tofacitinib</li> <li>c) Tocilizomab</li> <li>d) Anakinera</li> <li>e) Infliximab</li> </ul>	<b>B</b>
<p><b>21. Which one of the following drugs acts by blocking soluble receptors of TNF-<math>\alpha</math>?</b></p> <ul style="list-style-type: none"> <li>a. Anakinra</li> <li>b. Sulfasalazine</li> <li>c. Methotrexate</li> <li>d. Etanercept</li> <li>e. Leflunomide.</li> </ul>	<b>D</b>
<p><b>22. Which of the following regarding Infliximab is WRONG:</b></p> <ul style="list-style-type: none"> <li>a. An important drug in treatment of rheumatoid arthritis</li> <li>b. Contraindicated in acute and chronic infections</li> <li>c. A recombinant protein that interferes with TNF-<math>\alpha</math></li> <li>d. Contraindicated in recent malignancies</li> <li>e. Monoclonal antibody</li> </ul>	<b>C</b>
<p><b>23. Which of the following drug is used in bridging therapy in patient with arthritis?</b></p> <ul style="list-style-type: none"> <li>a) Leflunomide.</li> <li>b) Corticosteroids.</li> <li>c) Sulfasalazine</li> <li>d) Celecoxib.</li> <li>e) Anakinra</li> </ul>	<b>B</b>

<p><b>24. Which one of the following drugs acts as monoclonal antibodies for TNF-<math>\alpha</math>?</b></p> <p>a) Anakinra.  b) Sulfasalazine.  c) Infliximab.  d) Methotrexate.  e) Etanercept.</p>	<b>C</b>
<p><b>25. Which of the following is disease modifying drug for rheumatoid arthritis?</b></p> <p>a) Indomethacin  b) Celecoxib  c) Ibuprofen  d) Diclofenac  e) Etanercept</p>	<b>E</b>
<p><b>26. Which one of the following anti-inflammatory drugs used in rheumatoid arthritis can bind directly tumor necrosis factor?</b></p> <p>A. Etanercept  B. Sulfasalazine  C. Prednisone  D. Celecoxib  E. Penicillamine</p>	<b>A</b>
<p><b>27. Which of the following patient characteristics is the most compelling reason for avoiding celecoxib in the treatment of rheumatoid arthritis?</b></p> <p>(A) History of alcohol abuse  (B) History of gout  (C) History of myocardial infarction  (D) History of osteoporosis  (E) History of peptic ulcer disease</p>	<b>C</b>

<p><b>28. Which of the following is a reserve drug but not a disease modifying drug in rheumatoid arthritis:</b></p> <p>A. Chloroquine  B. Sulfasalazine  C. Prednisolone  D. Methotrexate</p>	<b>C</b>
<p><b>29. Which of the following inhibit phagocytic function and stabilize lysosomes:</b></p> <p>a) Abatacept  b) Anakinra  c) Leflunamide  d) cloroquine  e) methotrexate</p>	<b>D</b>
<p><b>30. Which of following agents is used to reverse toxic effects of methotrexate?</b></p> <p>A. Hydrocortisone  B. Aspirin  C. Hydroxychloroquine  D. Leucovorin  E. Papaverine</p>	<b>D</b>
<p><b>31. Which of the following statements is correct about sulfasalazine?</b></p> <p>A. It is a calcineurin inhibitor  B. It is a biological DMARD  C. A prodrug cleaved by gut bacteria into 5-aminosalicylic acid &amp; sulphapyridine.  D. It is a folate antagonist  E. Its main side effect is retinopathy</p>	<b>C</b>

<p><b>32. Which of the following DMARDs is responsible for retinopathy?</b></p> <p>A. Sulfasalazine  B. Leflunomide  C. Hydroxychloroquine  D. Cyclosporine  E. Etanercept</p>	<b>C</b>
<p><b>33. Which of the following is the main role of anakinra in controlling rheumatoid activity?</b></p> <p>A. It inhibits calcineurin  B. It inhibits IL-1  C. It inhibits IL-6  D. It inhibits TNF  E. CD80/86 inhibitor</p>	<b>B</b>
<p><b>34. Which of the following sentences best explain immunosuppressant effect of leflunomide?</b></p> <p>A. Inhibits phospholipase A2  B. Inhibits binding of TNF <math>\alpha</math> to its receptor  C. Inhibits topoisomerase enzyme  D. Inhibits calcineurin activity  E. Inhibits pyrimidine base synthesis and suppresses T cell and B cell proliferation &amp; activation</p>	<b>E</b>
<p><b>35. What is the rational of tapering prednisone therapy over 2 months?</b></p> <p>A. Better control of blood glucose  B. Gradual <math>\downarrow\downarrow</math> of blood pressure  C. Avoid Addisonian crises  D. Gradual <math>\downarrow\downarrow</math> of body weight  E. Avoid proteinuria</p>	<b>C</b>

<p><b>36. Which of the following statements is correct about rituximab?</b></p> <p>A. It is a chimeric antibody directed against CD20  B. It inhibits IL-1  C. It is a humanized antibody of IL-6 receptors.  D. It inhibits TNF<math>\alpha</math>  E. It is a CD80/86 inhibitor</p>	<b>A</b>
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