

OCN Prep Course
Major Chemotherapy Drugs

Anti-Metabolite (affects DNA phase)

1. Floxuridine:
 - a. Uses: adenocarcinoma of GI tracts, mets to liver, gallbladder, and bile duct
 - b. Side effects: mucositis, alopecia, N/V/D
 - c. Important: can use hepatic artery pump
2. Mercaptopurine:
 - a. Uses: ALL, CML, AML, non-Hodgkin's
 - b. SE: myelosuppression, N/V, hyperuricemia
 - c. Important: must take on empty stomach
3. Methotrexate:
 - a. Uses: Hodgkin's, leukemia's, lung, and breast- can be taken PO, IV, IT
 - b. SE: mucositis and photosensitivity
 - c. Important: hydrate with leukovorin
 - d. Toxicity: renal
4. Thioguanine:
 - a. Uses: AML, CML, ALL
 - b. SE: myelosuppression and hyperuricemia
 - c. Toxicity: hepatic
5. Fludarabine:
 - a. Uses: CLL, low grade lymphoma, BMT
 - b. SE: myelosuppression
 - c. Toxicity: neuro
6. 5-Fluorouracil:
 - a. Uses: colon, breast, liver, ovary, pancreatic, stomach, rectum
 - b. SE: metallic tastes, dec appetite, photosensitivity, myelosuppression, alopecia
 - c. Toxicities: cardio
 - d. Important: use plastic forks to eat, sunscreen
7. Capecitabine:
 - a. Uses: breast, colon
 - b. SE: diarrhea, "hand and foot syndrome" (blistering, edema, peeling)
 - c. "PO version of 5-FU"
8. Gemcitabine:
 - a. Uses: pancreatic, breast, ovarian
 - b. SE: anemia, and N/V
 - c. Toxicity: give with NS only, infuse over 30 minutes, the longer infusing time inc toxicity
9. Cytarabine:
 - a. Uses: AML, CML, meningeal, leukemia
 - b. SE: myelosuppression, N/V/D, mucositis, paraplegia, blindness
 - c. Toxicities: cerebellar, renal toxicities, conjunctivitis
 - d. Route: IV, subq, IT

Vinca Alkaloids (cell cycle specific in the 'g' phase)

10. Vinorelbine:
 - a. Uses: ALL, Hodgkin's, lymphoma
 - b. SE: myelosuppression, N/V, peripheral neuropathy, 7-10 days numbness
 - c. Toxicity: neuro
11. Vincristine:
 - a. Uses: ALL, Hodgkin's, CML, lymphoma
 - b. SE: peripheral neuropathy, alopecia, CONSTIPATION
 - c. Important: if given IT is lethal!, also a vesicant
 - d. Toxicity: neuro
12. Vinblastine:
 - a. Uses: testes, head and neck, Hodgkin's
 - b. SE: peripheral neuropathy, paralytic ileus
 - c. Important: monitor for SIADH
 - d. Toxicity: increased with doses

Epipodophyltoxin (works in DNA 'g' and 's' phases)

13. Etoposide:
 - a. Uses: ALL, Breast, small cell lung cancer, testes
 - b. SE: myelosuppression
 - c. Important: 60-90 minutes post infusion monitor for HYPOTENSION
14. Teniposide:
 - a. Uses: childhood ALL
 - b. SE: irritant 30-60 minutes post IV infusion
 - c. Toxicity: pulmonary and anaphylactic

Alkaloid

15. Ifosfamide:
 - a. Uses: lung, testes, non-Hodgkin's
 - b. SE: hemorrhagic cystitis- MESNA
 - c. Toxicity: neuro
16. Mechlorethamine:
 - a. Uses: Hodgkin, CLL, CML
 - b. SE: N/V, alopecia, myelosuppression
 - c. Vesicant
 - d. MOPP for Hodgkin's
17. Decarbazine:
 - a. Uses: multiple myeloma, soft tissue sarcoma, Hodgkin's, neuroblast
 - b. SE: severe N/V
 - c. Irritant
18. Cyclophosphamide:

- a. Uses: breast, ovary, multiple myeloma, lymphoma
 - b. SE: hemorrhagic, N/V, myelosuppression
 - c. Important: HYDRATE
19. Cisplatin:
- a. Uses: ovary, testis, bladder, cervix
 - b. SE: NV, hypo magnesium
 - c. Toxicity: ototoxicity, nephrotoxicity
 - d. Important: "heavy metal"
20. Carboplatin:
- a. Uses: ovary, testis, headache, nausea, solid tumors
 - b. SE: thrombocytopenia, neutropenia, NV
 - c. Toxicity: renal
21. Melphalan:
- a. SE: NV, myelosuppression
 - b. Important: hypersensitivity reaction, vesicant, can give PO, IV
22. Busulfan:
- a. Uses: CML, BMT prep
 - b. SE: hyperuricemia, hyper pigmentation
 - c. Important: secondary malignancies

Anti-tumor

23. Mitoxantrone:
- a. Uses: breast, lymphoma
 - b. SE: arrhythmias, color makes sclera blue, urine lime blue
 - c. Important: blue in color
 - d. Toxicity: cardio
24. Mitomycin-C:
- a. Uses: pancreatic, stomach, colon, breast, lung, bladder
 - b. SE: alopecia
 - c. Important: purple
 - d. Toxicity: renal
25. Idarubicin:
- a. SE: myelo, NV, cardiomyopathy
 - b. Important: vesicant
26. Dactinomycin:
- a. Uses: Ewings, Wilms Tumor, choriocarcinoma
 - b. SE: myelosuppression, NV, alopecia, mucositis
 - c. Important: vesicant, yellow
27. Daunorubicin:
- a. Uses: ALL, leukemia

- b. SE: myelosuppression, NV, alopecia
 - c. Toxicity: cardio
 - d. Important: vesicant
28. Doxorubicin:
- a. Uses: Hodgkin's, lymphoma, ALL, AML, breast, ovary, prostate, stomach, thyroid, SCL
 - b. SE: myelosuppression, alopecia, mucositis
 - c. Important: give xinecard for protectant
 - d. Toxicity: cardio

Anti-tumor Antibiotic:

29. Bleomycin:
- a. Uses: pleural effusions, SC H/N, vulva, lymphoma
 - b. SE: pulmonary fibrosis
 - c. Important: can be given subQ
 - d. Toxicity: renal and hepatic

Nitrosoureas

30. Carmustine:
- a. Uses: Hodgkin's, lymphoma, CNS
 - b. SE: NV, myelosuppression, pulmonary fibrosis- steroids cannot be given with
 - c. Important: crosses blood brain barrier
 - d. Toxicity: hepatic and renal
31. Lomustine:
- a. Uses: PO- pancreatic, liver, CNS
 - b. SE: myelosuppression, NV, alopecia, mucositis
 - c. Important: crosses blood brain barrier
 - d. Toxicity: renal and hepatic

Hormonal

32. Lupron:
- a. Uses: prostate, breast
 - b. SE: gynecomastia, hot flashes, impotence
 - c. Important: gets worse before gets better

Camptothecins

33. Topotecan:
- a. Uses: ALL, solid tumors
 - b. SE: DIARRHEA
 - c. Important: IV- dilute over 30 minutes
34. Irinotecan:
- a. Uses: mets to colon/rectum

- b. SE: DIARRHEA either early or late
- c. Important: IV- 90 minutes

Inhibits Protein Synthesis

35. Asparaginase:

- a. Uses: ALL
- b. SE: NV, hyperglycemia, hypersensitivity
- c. Important: intradermal test 1st dose
- d. Toxicity: hepatic

Taxanes

36. Docetaxel:

- a. Uses: breast, NSCLC, head and neck, ovary
- b. SE: hypersensitivity reaction and involuntary tearing
- c. Important: no PVC tubing, start slow, give dexamethasone 24 hr before, during, after

37. Paclitaxel:

- a. Uses: mets breast cancer, NSCLC, head and neck, Kaposi
- b. SE: hypersensitivity and facial flushing
- c. Important: pre med with cimetidine, Benadryl, and decadron
- d. Toxicity: anaphylactic, peripheral neuropathy

Various Drugs

38. Epoetin alfa:

- a. Uses: hemopoietic growth factors
- b. Important: watch for bone pain

39. Imatinib:

- a. Uses: CML in blast crisis
- b. SE: edema, GI irritation, fluid retention
- c. Important: weight patient daily!
- d. Toxicity: hepatic

40. Procarbazine:

- a. Uses: brain and Hodgkin's (inhibits protein DNA RNA)
- b. SE: NV, myelosuppression
- c. Important: avoid foods with increased tyramine (cream, yogurt, bananas, white cheese)

41. Hydrourea

- a. Uses: CML, multiple myeloma, head and neck
- b. SE: myelosuppression
- c. Important: CBC weekly