Post-test questions

1. Which medication class is commonly associated with the development treatment-related osteoporosis in post-menopausal cancer patients?

A. Selective Estrogen Receptor Modulators (SERMs), such as tamoxifen
B. Aromatase Inhibitors, such as anastrozole
C. Poly(ADP-ribose) Polymerase Inhibitor (PARP-I), such as olaparib
D. BCR-ABL Tyrosine Kinase Inhibitors, such as dasatinib

Correct Answer:
B. Aromatase Inhibitors, such as anastrozole is the best answer as it is commonly associated with osteoporosis in at least 10% of patients

Incorrect answers:
A. Selective Estrogen Receptor Modulators (SERMs), such as tamoxifen. Is not the best answer because tamoxifen may actually increase bone density in post menopausal women.
C. Poly(ADP-ribose) Polymerase Inhibitor (PARP-I), such as olaparib. Is not the best answer because osteoporosis has not been commonly associated with olaparib
D. BCR-ABL Tyrosine Kinase Inhibitors, such as dasatinib. Is not the best answer because osteopenia has rarely been reported in pediatric patients treated with dasatinib. Similar adverse events are not commonly reported in post-menopausal cancer patients.

2. AB is a 49 yo female with recurrent, metastatic breast cancer. She was treated 4 cycles of doxorubicin (total dose 240 mg/m2) and cyclophosphamide during curative intent treatment. Unfortunately, the patient's disease relapsed with widely metastatic disease and she required additional treatment. AB has also received 260 mg/m2 doxorubicin liposome. Based on the patient's cumulative dose of doxorubicin what is the patient's approximate risk of developing congestive heart failure?

A. 0%
B. 1%
C. 5%
D. 25%

Correct answer:
Letter C. 5% is the best answer. The patient has received a total of 500 mg/m2 of doxorubicin in cumulative dose which is roughly 5% as noted by Von Hoff et al. referenced on slide number 9.

Incorrect answers:
A. 0%, B. 1%, D. 25%. Slide 9 also illustrates that these answers are not correct.

3. HF is a 67 yo female with metastatic NSCLC lung cancer being treated with pembrolizumab 200 mg IV every three months. The patient's most recent pre-treatment lab results revealed an abnormal alanine aminotransferase (ALT) 457 U/L (normal range 7-56 U/L). The labs indicate grade 3 toxicity. What is the treatment of choice for first-line therapy?

A. Mycophenolate 500 mg by mouth twice daily
B. Infliximab 5 mg/kg IV x 1 dose
C. Intravenous Immune Globulin 1 gm/kg IV x 1 dose
D. Prednisone 1 mg/kg by mouth daily

Correct answer:
D. Prednisone 1 mg/kg by mouth daily is the best answer. As noted on slide 41. This is a recommendation provided within the Keytruda prescribing information and the NCCN guidelines on ICI AEs

Incorrect answers:
A. Mycophenolate 500 mg by mouth twice daily is not the best answer because mycophenolate is a second-line treatment option, but is not the initial treatment choice.
B. Infliximab 5 mg/kg IV x 1 dose is not the best answer because infliximab is contraindicated in patients with immune hepatitis.
C. Intravenous Immune Globulin 1 gm/kg IV x 1 dose is not the best answer because IVIG is generally not a recommended management option for immune hepatitis by the Keytruda prescribing information or NCCN guidelines on ICI AEs

4. DB is 78 yo male with metastatic prostate cancer who is currently being treated with leuprolide 45 mg IM q6 months and abiraterone 1000 mg by mouth daily. During a follow-up visit with the oncologist today the patient noted that he is experiencing bothersome night sweats that are preventing him from obtaining a restful night of sleep x 2 months. The physician requests your input for a recommendation. Which of the following may help manage the patient's hot flashes?

A. Venlafaxine 37.5 mg po daily x 7 days, then increase to 75 mg po daily.
B. Metoprolol 25 mg po bid
C. Black Cohosh 40 mg po bid
D. Vitamin E 400 IU po daily

Correct answer:
A. Venlafaxine 37.5 mg po daily x 7 days, then increase to 75 mg po daily is the best answer as recommended by the NCCN Survivorship guidelines referenced on slide 25

Incorrect answers:
B. Metoprolol 25 mg po bid is incorrect because beta-blockers have not shown a consistent therapeutic benefit with hot flashes
C. Black Cohosh 40 mg po bid-studies have not consistently shown a benefit in the management of hot flashes and may contribute to toxicity.
D. Vitamin E 400 IU po daily-studies have not consistently shown a benefit in the management of hot flashes