

Course Test Answers and Discussion

1. In the past 25 years, the survival rate from breast cancer in BC has done which one of the following? **The answer was C) Improved by 20%. This is due to a combination of both early detection via screening and systemic therapy.**
2. A woman has a 3 cm invasive breast cancer. Her axilla is clinically negative. She has a palpable supraclavicular node that is positive for cancer on FNA. Her clinical staging would be which one of the following? **The answer was B) T2N3MX. Positive supraclavicular nodes are no longer classified as metastatic disease but rather as N3. Tumours between 2 and 5 cm are T2.**
3. What percentage of women are under 50 years of age at the diagnosis of breast cancer? **The answer was E) 25%.**
4. What percentage of breast cancers are found by women themselves? **The answer was E) 50%.**
5. If a patient is managed appropriately with breast conserving surgery for invasive breast cancer, including adjuvant therapy, the expected rate of local recurrence per year is which one of the following? **The answer was B) 1%.**
6. A close margin is defined as which one of the following? **The answer was E) None of the above. A close margin is defined as one that is less than 2 mm.**
7. Regarding patients with close margins, boost radiation therapy to the tumour bed has which one of the following effects on local recurrence rate? **The answer was B) Results in a recurrence rate which is not as good as that obtained by clear surgical margins. Though boost radiation improves the local recurrence rate, re-excision for clear margins is preferred, if feasible.**
8. Which one of the following is **not** associated with an increased risk of local recurrence after breast conserving surgery? **The answer was C) Older patient age. It is the younger patients that are more likely to recur locally.**
9. Which of the following is not a useful screening test for breast cancer in a BRCA positive patient? **The answer was E) PET scanning. PET is not useful as a screening tool.**
10. Beneficial procedures in BRCA positive patients include which of the following? **The answer was D) D only. While transvaginal ultrasound and Ca 125 testing are offered, they have not been shown to be of benefit in early detection of ovarian cancer. Tamoxifen therapy has not been proven to decrease the risk of breast cancer in mutation carriers.**
11. PET scanning is useful for all of the following except which one? **The answer was E) Assessment of microscopic metastases in the axilla. PET is not sensitive enough to detect microscopic disease.**

12. All of the following are considered contraindications to Sentinel Lymph Node Biopsy except which one? **The answer was D) Previously excised tumour. SLNBx can be performed after excisional biopsy provided that the colloid and dye are injected around, and not into the cavity.**
13. Which one of the following best defines the axillary sentinel node(s)? **The answer was G) All of the radioactive nodes with counts >10% of the most radioactive node and any blue nodes in the axilla.**
14. The correct technique for Sentinel Lymph Node Biopsy may involve all of the following except which one? **The answer was C) Injection of radiotracer and blue dye into a biopsy cavity. This is associated with failure of uptake in the nodes. All other techniques, peritumoral, around a cavity, in the dermis over the mass and periareolar are effective.**
15. Indications for breast MRI include all of the following except which one? **The answer was D) As a screening test for breast cancer. MRI is not considered a standard tool for breast screening in the general population.**
16. A 46 year old premenopausal woman has a 4 cm, grade 2, ER positive, invasive lobular cancer, with a 1 mm posterior margin, 15 of 15 nodes positive (largest 1.7 cm, extranodal extension), a positive right supraclavicular node, negative CXR, negative abdominal ultrasound and negative bone scan. An indurated site in breast lateral to the surgical scar is positive for cancer on FNA. Which of the following statements is/are true regarding this patient? **The answer was C) A, B, and C. The supraclavicular node is no longer classified as metastatic and therefore she is not incurable. She has a 25-30% 10 year survival chance following multimodality therapy, which would also include further surgery because of her positive margins.**
17. Which of the following statements are true regarding aromatase inhibitors in the adjuvant therapy of ER positive breast cancer? **The answer was A) A and C. Adjuvant therapy with aromatase inhibitors improves disease free, but not overall survival. There is an associated decrease in bone density with their use but no increase in thromboembolic events.**
18. Important prognostic factors in breast cancer include which of the following? **The answer was E) A, B, C, D and E.**
19. All of the following are contraindications to intra-operative radiation therapy, except which one? **The answer was D) Large breast size. The other factors listed are contraindications because of the increased likelihood of positive margins, local recurrence or the need for axillary radiation.**
20. A woman undergoes an image guided core biopsy for indeterminate calcifications seen on mammogram. She has mildly nodular breasts. The pathology report states, 'extensive fibrocystic change with epithelial hyperplasia and sclerosing adenosis and lobular carcinoma in situ (LCIS)'. The most appropriate management of this patient would be which one of the following? **The answer was B) Repeat biopsy. This is required because of the lack of concordance**

between the imaging abnormality (calcifications) and the pathology report, which does not describe the presence of calcifications. LCIS is a marker for high risk and unlike DCIS does not need to be excised with clear margins. Follow-up alone is inappropriate because of the lack of concordance.

21. A woman with a mammogram showing a 1 cm cluster of indeterminate calcifications is best managed by which one of the following? **The answer was A) Image guided core biopsy. This is a cost effective procedure, which avoids surgery for patients with benign disease and allows patients with malignancy to have a single operative procedure for definitive management of their cancer.**
22. With regards to Sentinel Lymph Node Biopsy, the false negative rate is defined as which one of the following (FN= false negative, TN= true negative, TP= true positive, FP=false positive)? **The answer was C) $\frac{FN}{FN + TP}$. This issue is important because many papers on SLNBx underestimate the FN rate by not calculating it correctly.**
23. Which of the following is a benefit of a standard axillary node dissection? **The answer was D) A, B, C and D. In a patient with positive axillary nodes, the dissection improves survival by allowing appropriate staging and treatment. This is an indirect effect but important to remember if axillary staging is not done.**