CME examination

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Directions for questions 1-4: Choose the single best response.

A 48-year-old man presents with a biopsy-proven lentigo maligna melanoma on his left cheek. At this visit, you are focusing on developing an appropriate treatment plan for this lesion.

1. Which of these imaging modalities will help in presurgical mapping of tumor margins in this patient?
   a. Optical coherence tomography
   b. Reflectance confocal microscopy
   c. Ultrasound
   d. Electrical impedance spectroscopy
   e. Sequential digital dermoscopic imaging

2. Which of the following techniques has category I Current Procedural Terminology codes for reimbursement?
   a. Dermoscopy
   b. Reflectance confocal microscopy
   c. Optical coherence tomography
   d. Nevisense
   e. Artificial intelligence

A 32-year-old woman with a family history of melanoma in her father presents for a routine total body skin examination. She mentions that she has seen news headlines announcing that computers have now surpassed dermatologists in skin cancer detection and is curious to hear your thoughts on the matter.

3. Which of the following would be an appropriate response to the patient's question?
   a. There have been no studies demonstrating that artificial intelligence performance is comparable to that of a dermatologist; she should continue regular follow-up with a dermatologist
   b. The studies often have flawed study designs and inconclusive results; she should continue regular follow-up with a dermatologist
   c. Artificial intelligence technology has shown superior performance to all dermatologists in melanoma detection tasks; she should discontinue regular follow-up with a dermatologist
   d. In those studies, performance of artificial intelligence systems was comparable to some but not all dermatologists; however, she should continue regular follow-up with a dermatologist
   e. In those studies, performance of artificial intelligence systems was inferior to most but not all dermatologists; she should continue regular follow-up with a dermatologist

The patient mentions that her father, who lives in a different state and does not regularly see his dermatologist, has a spot on his thigh that he is concerned about. He recently downloaded a "mole detection" app onto his smartphone that analyzed a photograph of the lesion as "benign." The patient asks about the role of mobile apps and whether they are sufficient for diagnosis.

4. Which of the following would be an appropriate response to the patient's question?

   a. Mobile apps may replace clinic equipment within the next 3 to 5 years

   b. Mobile apps are practical platforms currently used to monitor suspicious pigmented lesions between dermatologist visits

   c. The patient's father should check that the mobile app has high ratings to ensure higher-quality app performance

   d. Mobile apps have no current or future role in melanoma management

   e. Few of these mobile apps have been assessed for clinical efficacy, and those that have are often unreliable and inaccurate