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## CME examination

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Geisler AN, Austin E, Nguyen J, Hamzavi I, Jagdeo J, Lim HW. *J Am Acad Dermatol* 2021;84:1233-44.

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

A 45-year-old African American man with a history of pseudofolliculitis barbae presents to the dermatology department with postinflammatory hyperpigmentation. The hyperpigmentation has been present for 4 weeks on his jawline and neck, with underlying papules. He denies any pruritus or pain.

1. The product containing which of the following would confer the greatest protection against visible light-induced postinflammatory hyperpigmentation?
  - a. Oxybenzone
  - b. Ecamsule
  - c. Octinoxate
  - d. Zinc oxide (nanosized)
  - e. Iron oxide
2. What is the mechanism of action of photoprotection by inorganic filters?
  - a. Repair DNA damage
  - b. Increase cellular melanin production
  - c. Quench reactive oxygen species
  - d. Upregulate heat-shock proteins
  - e. Absorb, scatter, and reflect light
3. If the patient is concerned about using a light filter during pregnancy, which of the following would you advise her?
  - a. Photoallergic reactions to light filters are common, and she should receive patch testing before using a light filter
  - b. Both animal and human studies have demonstrated considerable endocrine-disrupting activity of light filters, and she should avoid them altogether
  - c. Light filters may affect vitamin D synthesis, and, during pregnancy, she must avoid them
  - d. Advise her to use a light filter although it will cause frontal fibrosing alopecia
  - e. Advise her to use a light filter as the benefits greatly outweigh the limited data regarding its risks
4. In addition to using a light filter, you advise her to employ other photoprotective modalities, including sun avoidance, seeking shade, and the use of photoprotective clothing. Which one of these represents excellent photoprotection from clothing?
  - a. Sun protection factor 15
  - b. Sun protection factor 30
  - c. UV protection factor 40-50
  - d. UV protection factor 25-39
  - e. UV protection factor 15-24

A 32-year-old pregnant woman presents to the dermatology department upon exacerbation of her melasma. She noticed worsening of her melasma approximately 1 month into her pregnancy. Hyperpigmented patches are present over the nasolabial folds and cheeks. Sun protection with light filters is a vital part of the treatment plan for melasma.