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## CME examination

Identification No. JA0521

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Austin E, Geisler AN, Nguyen J, Kohli I, Hamzavi I, Lim HW, Jagdeo J. *J Am Acad Dermatol* 2021;84:1219-31.

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

A 32-year-old woman presents with deep-seated burning pain on her cheeks, forearms, and the dorsal aspect of her hands after brief sun exposure. Within a few hours, erythema and edema develop in the patient. This condition started when she was 2 years old. Genetic testing reveals a mutation in the gene for the enzyme ferrochelatase. This patient is diagnosed with erythropoietic protoporphyria.

1. Which of the following management options will be the most effective in adult patients?
  - a. Acyclovir
  - b. Afamelanotide
  - c. Antihistamines
  - d. Broad-spectrum sunscreens
  - e. Methotrexate
2. What is the mechanism of action of this therapy?
  - a. Antiviral
  - b. Increase in the production of melanin
  - c. Histamine receptor antagonism
  - d. Absorption and reflection of ultraviolet radiation
  - e. Immunosuppression

A 23-year old man presents to a dermatologist for worsening acne. Upon physical examination, the dermatologist notices moderately inflamed papules and pustules but no open or closed comedones, nodules, cysts, or scarring. The patient wants to explore phototherapy because his topical regimen of benzoyl peroxide and clindamycin led to significant xerosis.

3. Which of the following visible light phototherapies may be used at home for the management of acne?
  - a. Blue light-emitting diodes
  - b. Nonfractionated carbon dioxide laser
  - c. Photodynamic therapy
  - d. Q-switched ruby laser
  - e. Type B ultraviolet from an Arc lamp
4. Which of the following chromophores is produced by *Cutibacterium acnes*?
  - a. Bilirubin
  - b. Cytochrome c oxidase
  - c. Melanin
  - d. Porphyrins
  - e. Rhodopsin