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COLUMN

Ace Your Certification Exam

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Abstract Dr Jayesh Shah authors this quarterly column, consisting of 5 questions with explanations, to help you practice for your exam.

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1. Which one of the following spectral bands of ultraviolet light has been demonstrated to be bactericidal and has shown no adverse reactions with use?
 - a. UVA
 - b. UVB
 - c. UVC
 - d. UVD
2. Low-frequency ultrasound helps wound healing by microstreaming. Microstreaming will do all of the following except which one?
 - a. Increase fluid movement
 - b. Increase circulation in close proximity to the cellular membranes
 - c. Increase granulation tissue formation
 - d. Have antibacterial effects at the cellular level
3. Whirlpool treatment is no longer a preferred wound care modality because of all of the reasons listed below except which one?
 - a. Increases incidence of infections of wounds
 - b. Impedes venous blood flow to legs
 - c. Causes maceration of periwound skin
 - d. Decreases circulation to wound bed
4. What is the recommended irrigation pressure during pulsatile lavage with suction?
 - a. 0–4 psi
 - b. 4–15 psi
 - c. 15–30 psi
 - d. 30–60 psi

5. Which of the following is the most commonly used electrical stimulation current in wound care?
 - a. Low-voltage microcurrent
 - b. Direct current
 - c. High-voltage pulsed current
 - d. Interferential

Answers

1, c; 2, d; 3, d; 4, b; 5, c

Question 1: Answer c

Ultraviolet light is a component of sunlight that in the early 1900s was discovered to be bactericidal. It encompasses nonvisible wavelengths between 180 and 400 nm of the electromagnetic spectrum and consists of 3 spectral bands. UVC is ionizing, bactericidal, and virucidal and has shown no adverse reactions when used in wound care.

Question 2: Answer d

Microstreaming helps wound healing by increasing fluid movement, increasing circulation in close proximity to the cellular membranes, and increasing granulation tissue formation, but it does not have any antibacterial effects.

Question 3: Answer d

The use of whirlpool therapy is gradually declining because of issues of public water quality and risk of cross contamination, which requires cytotoxic additives. Whirlpool also causes maceration of periwound skin and impedes venous

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blood flow to legs. Whirlpool, if appropriately used, will help in improving circulation and debriding necrotic tissue.

Question 4: Answer b

Recommended irrigation pressures are between 4 and 15 psi. Pressure less than 4 psi is not effective in removing bacteria. Pressure greater than 15 psi is traumatic to tissues and may also drive bacteria into the tissues.

Question 5: Answer c

Electrical stimulation is therapy in which there is transfer of electric current, or energy, to a wound through application of an electrode pad. Currently, high-voltage pulsed current is most commonly used in wound care.

Recommended Reading

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