

NARROW BAND ULTRAVIOLET B (NB-UVB) “PHOTOTHERAPY” Review Of Literature Part 1 MCQs

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(From 1 to 9 choose the correct answers, one or more may be correct)

- 1- Cutaneous Photobiology is
 - a. The study of the effects of ultraviolet (UV) alone on skin
 - b. The study of the effects of visible radiation alone on skin
 - c. The study of the effects of ultraviolet (UV) and visible radiation on skin
 - d. The study of the effects of ionizing radiation on skin
- 2- Electromagnetic radiation is energy released during
 - a. The transition of a molecular electron from a higher energy, outer molecular orbital to a less energetic, inner one.
 - b. The transition of a molecular electron from a lower energy, inner molecular orbital to a more energetic, outer one.
 - c. The transition of a molecular electron from a higher energy, inner molecular orbital to a less energetic, outer one.
 - d. The transition of a molecular electron from a lower energy, outer molecular orbital to a less energetic, inner one.
- 3- The solar radiation reaching the earth is a continuous spectrum consisting of wavelengths of electromagnetic energy equal, above and not more than :
 - a. 200 nm
 - b. 290 nm
 - c. 320 nm
 - d. 360 nm
 - e. 400 nm
- 4- UVA
 - a. Causes immediate and delayed tanning and contributes little to erythema and burning.
 - b. It is constant throughout the day.
 - c. The longer wavelengths of UVA can penetrate more deeply, reaching the dermis and subcutaneous fat.
 - d. Augments the carcinogenic effects of UVB.
 - e. Penetrates window glass and interacts with topical and systemic chemicals and medication.
- 5- UVB:
 - a. Delivers a high amount of energy to the stratum corneum and superficial layers of the epidermis and is primarily responsible for sunburn, suntan, and skin cancers.
 - b. Produces tanning more efficiently than UVA.
 - c. Is most intense when the sun is directly overhead between 10 a.m. and 2 p.m.
 - d. Is not absorbed by window glass.
 - e. Prior exposure to UVA decreases the sunburn reaction from UVB.
- 6- Eliminating UV Wavelengths
 - a. Below 311 nm permits higher intensities and longer exposure times so you can derive the maximum benefit from phototherapy.
 - b. Above 311 nm permits higher intensities and longer exposure times so you can derive the maximum benefit from phototherapy.
 - c. Below 311 nm permits lower intensities and shorter exposure times so you can derive the maximum benefit from phototherapy.
 - d. Below 311 nm permits lower intensities and longer exposure times so you can derive the minimum benefit from phototherapy.
- 7- Narrow-band UVB phototherapy
 - a. Has a higher ratio of erythemogenic to therapeutic activity, resulting in increased efficacy, reduced incidence of burning, and longer remissions.

- II. Has a higher ratio of therapeutic to erythemogenic activity, resulting in decreased efficacy, reduced incidence of burning, and longer remissions.
 - III. Has a higher ratio of therapeutic to erythemogenic activity, resulting in increased efficacy, reduced incidence of burning, and longer remissions.
 - IV. Has a higher ratio of therapeutic to erythemogenic activity, resulting in increased efficacy, reduced incidence of burning, but shorter remissions.
 - V. Has a lower ratio of therapeutic to erythemogenic activity, resulting in increased efficacy, reduced incidence of burning, and longer remissions.
- 8- Apoptosis was induced in T cells exposed
- a. To 5-9 mJ/cm² of 312-nm UVB in vitro
 - b. To 10-24 mJ/cm² of 312-nm UVB in vitro
 - c. To 25-49 mJ/cm² of 312-nm UVB in vitro
 - d. To 50-100 mJ/cm² of 312-nm UVB in vitro
- 9- The advantages of NB-UVB are:
- a. No psoralens and other photosensitizers are required as supplemental drugs
 - b. Reduced Risk Of Severe Burn
 - c. More Therapeutic, Less Erythemogenic Activity
 - d. Remission periods are similar to those of PUVA therapy and markedly superior to broadband UVB treatment
 - e. NB UVB Has An Antimicrobial Effect
 - f. NB UVB Increases The Effects Of Other Topical And Systemic Anti Psoriatic Therapies such as Calcipotriol, Anthralin and Psoralins

(From 10 to 20 True or False)

- 10- Exposure of normal skin to NB-UVB 311 nm induces a drastic reduction of CD1a+ cells.
- 11- Exposure of normal skin to NB-UVB 311 nm Induces moderate increase of HLA-DR+ dendritic cells in the epidermis without infiltration by CD11b macrophages.
- 12- NB-UVB can not be used effectively in the treatment of childhood nor adulthood atopic dermatitis.
- 13- Bath-PUVA is markedly superior to NB-UVB in the treatment of severe chronic atopic dermatitis.
- 14- Narrow-band UVB therapy is effective and safe in childhood vitiligo.
- 15- Narrowband UV-B therapy is an effective short-term treatment modality for clearing small plaque parapsoriasis and early-stage mycosis fungoides. however, the treatment response does not sustain long-term remission.
- 16- Narrow-band UVB therapy could not improve the management of prurigo nodularis inspite of the Sequential combined therapy with thalidomide
- 17- The use of narrowband (TL-01) ultraviolet B phototherapy in the treatment of Pruritic folliculitis of pregnancy is contraindicated.
- 18- Photosensitizing drugs may lower the narrow-band ultraviolet b (TL-01) minimal erythema dose.
- 19- Nurrow band lesional blistering were different from those that develop during PUVA therapy after minor trauma because they lacked erythema, resolved spontaneously, and occurred only on treated psoriatic plaques rather than on normal skin.
- 20- NB-UVB phototherapy even in low-dose induces systemic immunosuppression.

Answers:
I-C 2-A 3-B 4-A,B,C,D,E 5-A,B,C 6-A
7-C 8-D 9-A,B,C,D,E,F 10-T 11-T
12-F 13-F 14-T 15-T 16-F 17-F
18-T 19-T 20-F