INSTRUCTIONS
1. Read the article.
2. Take the test, record your answers in the test answer section (Section B) on CE Registration Form.
3. Complete the CE Registration information (Section A) and Course Evaluation (Section C).
4. Mail completed CE Registration Form and fee to: PCI Journal, 484 Spring Avenue, Ridgewood, NJ 07450-4624.
5. This CE activity is approved through June 1, 2017.

PROVIDER ACCREDITATION
Paramedical Consultants, Inc., publishers of the PCI Journal and WWU have been approved by the NCEA COA. This educational activity has been approved for 1.0 CE – COA#PCIA0609

GENERAL PURPOSE STATEMENT
To provide the skin care professional with a review of Treating Acne In Skin of Color.

LEARNING OBJECTIVES
After reading this article and taking this test, the skin care professional will be able to:
1. Describe the treatment modalities used to treat ethnic skin.
2. Outline and understand the treatment options for acne and PIH.
Acne vulgaris is an inflammatory disease that usually affects people between the ages of twelve to seventeen; affects men and woman equally, but there are other differences. Men are more likely than woman to have more severe, longer lasting forms of acne and seems they are far less likely to visit their dermatologist. Although acne lesions are most common on the face, they can also occur on the neck, chest, back, shoulders, scalp, upper arms and legs. Acne vulgaris is the most common dermatologic disease, regardless of skin type, its pathophysiology is the same in light and ethnic skin.

Acne lesions range in severity from comedones to nodules and cysts. The sebaceous follicle gets plugged with sebum and dead cells, tiny hairs and bacteria. Left untreated, can become more infected causing inflammation and nodular cystic acne.

An eruption of the follicle can occur when the patient picks or "squeezes" their own skin, further exacerbating the bacterial component with possible *staphlococci* or *streptococci* and other skin bacteria. When tissue suffers injury, it rushes white blood cells and an array of inflammatory molecules to repair the tissue and fight the bacterial infection. Although not completely understood, acne in skin of color causes post inflammatory pigmentation (PIH). A histological study conducted by Rebat Halder, M.D., discovered that comedonal acne in blacks may be inflammatory. Caused by excessive melanin production, this darkening of the skin is a normal reaction when dark skin becomes inflamed. While PIH tends to gradually fade over time, it is the number one complaint among dark-skinned patients with acne vulgaris. It can also diminish their self-esteem and affect the persons' ability to function confidently in society.

Taking a careful patient history to identify exacerbating factors, along with early aggressive treatment based on a combination approach, are important for the successful management of acne in patients of color. The role of cosmetic grooming aids in the development of acne-like lesions and folliculitis are a prominent issue for skin of color. A recent survey of acne patients with skin of color found that 46.2% use a pomade (oil or ointment for hair) to improve the style or manageability. Acne then develops on the forehead and places where the pomade comes into contact with the skin. Pomade acne usually consists of comedones, with a few papules and pustules.

Treatment options include the use of topical skin-lightening agents such as hydroquinone, kojic and lactic acids, and some other natural ingredients are showing promise in skin lightening such as Arbutin, Paper Mulberry root extract, and Glabridin.

Sunscreen may help. Although there are no clinical studies to confirm this, some dermatologists find that repeated sun exposure leads to longer treatment time and that daily use of sunscreen (SPF of 15 or higher) helps resolve PIH more quickly.

Isotretinoin is most powerful oral medication that can shrink the sebaceous follicle. This can be followed by antibiotics such as erythromycin or tetracycline and its derivatives. Acne treatments designed to dry the skin should be used with caution. Topical acne medications that have a drying effect on the skin are benzoyl peroxide and topical retinoids. These medications may irritate the skin and prolong post-inflammatory hyperpigmentation in some cases, and should be used in combination with a topical antibiotic in the short term. Benzoyl peroxide can also decolorize skin. Some clinical studies show that retinoids, safely and effectively treat acne in skin of color without the drying effects when used properly. Topical retinoids, which are only available by prescription, include adapalene, tazarotene and tretinoin. Heavy moisturizers relieve the dry or "ashy skin" appearance that is common among dark-skinned people, however making sure the product does not make the acne worse should be a priority. Moisturizer formulations vary, and finding the right product can be guided by the esthetician or dermatologist.

Keloid formation and/or scarring occurs in a person with skin of color. There is a greater tendency for a keloid (large raised scar that spreads beyond the size of the original wound) to form. While uncommon in acne patients with skin of color, keloids have been seen on the chest, back and jaw line. Early and aggressive acne treatment is needed to prevent scarring because keloids, unfortunately, tend to return even when treated.

Treatment for keloids are provided by a physician and depending on the location, treatment may require injections of triamcinolone acetonide, pressure dressings, silicone gels, surgery, laser treatment or radiation therapy.

The key to successful treatment of acne in skin of color is to control the outbreaks and find a treatment protocol that effectively minimizes acne formation and PIH.

References:
1. Special Considerations. Exacerbating factors mandate acne treatments for ethnic skin. Callender, V *Dermatology Times November 2008*
CE TEST TREATING ACNE IN SKIN OF COLOR

1. Acne vulgaris is a cutaneous:
   a. immune deficiency disease
   b. autoimmune disease
   c. infectious disease
   d. inflammatory disease

2. Which of the following is not a contributing factor of acne in ethnic skin:
   a. oil-based creams
   b. dehydration
   c. pomades
   d. thick makeup

3. It has been reported that a number of ethnic patients who have acne are more concerned about:
   a. post-inflammatory hyperpigmentation (PIH)
   b. erythematous patches
   c. allergic contact dermatitis
   d. pustules and nodules

4. The best acne treatment option for ethnic skin is a:
   a. combination approach
   b. wait and see approach
   c. single approach
   d. light therapy approach

5. Which of the following are least effective in treating acne:
   a. gels
   b. ointments
   c. creams
   d. pledgets

6. Keloids and hypertrophic scarring can be treated with:
   a. isotretinoin
   b. hydroquinone
   c. triamcinolone acetonide
   d. cetyl alcohol

7. Skin pigmentation is determined by the number of:
   a. cykotines
   b. melanocytes
   c. corneocytes
   d. lipocytes

8. Product irritation in an ethnic skin is likely to result in:
   a. peeling and flaking
   b. hyperpigmentation
   c. erythema and scaling
   d. cutaneous infections

9. Hydroquinone is prescribed to patients to reduce the incidence of:
   a. erythema
   b. *P. acnes*
   c. pigmentation
   d. *Staphylococci*

10. Topical lightening agents do not include:
    a. hydroquinone
    b. kojic acid
    c. glycolic acid
    d. arbutin

11. Review of home care should include a discussion of:
    a. nutrition
    b. birth control
    c. cosmetic practices
    d. vitamins & minerals

12. Keloids are a side effect of:
    a. non-inflammatory acne
    b. hyperpigmentation
    c. hypopigmentation
    d. inflammatory cysts

13. Regardless of ethnicity, the most common form of acne is:
    a. acne cosmetica
    b. acne vulgaris
    c. acne conglobata
    d. acne rosacea

14. Which oral medication shrinks the sebaceous follicle:
    a. minocyline
    b. isotretinoin
    c. erythromycin
    d. tetracycline

15. Which of the following is not a retinoid:
    a. tazarotene
    b. tretinoin
    c. adapalene
    d. clindamycin

16. Melanocytes are located in the:
    a. stratum corneum
    b. dermis
    c. stratum germinativum
    d. subcutaneous layer

17. Which of the following is not a treatment for acne vulgaris?
    a. clindamycin
    b. benzoyl peroxide
    c. retinoids
    d. minerals

18. Pressure dressing, injections, silicone gels are used to treat:
    a. acne
    b. rosacea
    c. keloids
    d. comedones
CE REGISTRATION FORM

Section A

TREATING ACNE IN SKIN OF COLOR  COA# PCIA0609

PRINT CLEARLY (Illegible forms will not be processed)

Name: _____________________________________________________________________
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Other Certification ____________________________

Type of License:
Esthetician ___ Cosmetologist ___ Medical Professional ___ Other ____
License # __________________________ State of Issue _______________________

Section B

Test Answers:
Darken one for your answer to each question

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Section C

Course Evaluation:

1. Did this CE activity's learning objective relate to its general purpose? ___Yes ___No
2. Was the eLearning format an effective way to present this material? ___Yes ___No
3. Was the content relevant to your skin care practice? ___Yes ___No
4. How long in minutes did it take you to read the article_______, study the material_______, and take the test_______?
5. Suggestions for future topics __________________________________________________________

Section D

Payments and Discounts:
The registration fee for this test is $24.95. (Check or money order payable to PCI Journal)

*We offer special discounts for as few as six tests and institutional bulk discounts for multiple tests. Call (201) 670-4100 Ext 5, for more information.