

CORE TUTORIALS IN DERMATOLOGY FOR PRIMARY CARE

# PDP SELF-TEST QUESTIONNAIRE

## ACNE

PICTURE SHOWING SUBMARINE  
EXTENT OF ICEBERG



UPDATED PDP SELF-TEST QUESTIONNAIRE  
MARCH 2023

**Inspect the skin to establish the extent  
of 'submarine' comedones**

## CORE TUTORIALS IN DERMATOLOGY FOR PRIMARY CARE

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## PDP SELF-TEST QUESTIONNAIRE



### INTRODUCTION

This 'self-test questionnaire' has been written by Dr Brian Malcolm, based on the updated (2022) Chapter 6 "Acne" of the Core Tutorials in Dermatology for Primary Care. This revised Chapter can be ordered from Dermal at the address below. Alternatively, the Chapter is available to download from the Dermal website [www.dermal.co.uk](http://www.dermal.co.uk) within the Healthcare Professionals Core Tutorials in Dermatology section.

### DERMAL RESOURCES



For 60 years Dermal has focused on researching and developing innovative dermatological treatments. In addition, Dermal has developed an extensive range of educational resources to assist healthcare professionals and patients. These can be found on the Dermal website - [www.dermal.co.uk](http://www.dermal.co.uk). Our Healthcare Professionals section of the website contains a variety of information and educational materials, such as information about our range of products, resources for healthcare professionals and patients, the Core Tutorials in Dermatology series and links to useful external websites.

The Core Tutorials in Dermatology series are also available as engaging webinars, to complement the written Chapters. These can also be found on the Dermal website.

The webinar on Acne provides a useful overview of the topic including assessment, differential diagnosis, treatment options and referral criteria.



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## QUESTIONS

1. The presence of which type of lesions are a prerequisite for a diagnosis of acne?

2. What type of drugs are most directed against comedonal acne?



3. What levels of resistance are shown by *C. acnes* to erythromycin?

4. Why do the classes of antibiotics used to treat acne still show efficacy even when bacterial resistance can be demonstrated?

5. Name 3 patterns of scarring associated with acne.

## QUESTIONS

6. What are the most common side-effects of systemic isotretinoin?

7. What is the current advice for the duration of any single course of antibiotics in the treatment of acne?



8. What is the peak age of severity of acne for males?

9. What is the principle mode of action of benzoyl peroxide?

10. From what natural resource is nicotinamide used in the treatment of inflammatory acne derived from?

## REFLECTIVE LEARNING

11. What did I find useful about the learning module on 'acne'?

12. Having reflected on this module, how might my practice change in managing acne?



## ANSWERS (PLEASE TURN UPSIDE DOWN)

- QUESTION 5.** Answer: Any 3 of these 4 options  
Hypertrophic Scarring, Keloid Scarring, Ice Pick Scarring, Atrophic Macular Scarring.
- Ref page 1* "HYPERTRPHIC/KELOID SCARS  
Keloid Scars – Elevated, surface smooth and pink with irregular shape.  
ATROPHIC MACULAR SCARS  
Atrophic Macular Scars – Depressed 5-20mm diameter, typically red or violaceous.  
ICE-PICK SCARS  
Ice Pick Scars – Small, superficial to deep with well defined edge."
- QUESTION 6.** Answer: • Dry skin  
• Chelitis  
• Myalgia  
• Conjunctivitis
- Ref page 11* "Common side effects are chelitis, which is almost invariable, dry skin, mild conjunctivitis and myalgia. More rarely, paronychia, hyperhidrosis, headaches and disordered liver function and lipid profile can occur."
- QUESTION 7.** Answer: 3-6 months.
- Ref page 8* "Systemic antibiotics should be used for moderate to severe acne in combination with non antibiotic topical treatments, or when topical treatments alone are not sufficient, or for more severe acne whilst awaiting specialist opinion. Courses must be at adequate dosage as illustrated above and be carried on for 12 weeks before review. Full dosage can be continued thereafter for a further 12 weeks if required."
- Ref page 9* "Best practice" guidelines to reduce antibiotic resistance
- Do not continue treatment for longer than six months at any one time
  - If further treatment is required, reuse the same drug; short intervening courses of a topical antibacterial such as benzoyl peroxide may help eradicate resistant organisms"
- QUESTION 8.** Answer: Age 16-19
- Ref page 1* "Acne, unarguably, is 'core' clinical material in dermatology for primary care physician and specialist alike. It affects to some degree 85% of adolescent females and 95% of males', although it is only considered 'clinically significant' in approximately 15%. The age of onset is approximately 12 years with peak severity at 14-17 in females and 16-19 in males."
- QUESTION 9.** Answer: It works as an antimicrobial active against *C. acnes*
- Ref page 5* "Works predominantly as an antimicrobial by virtue of oxidation of anaerobic *C. acnes*, therefore most useful for inflammatory acne with the presence of papules/pustules; can produce a profound reduction in surface bacteria counts (x 100 fold)."
- QUESTION 10.** Answer: Vitamin B<sub>3</sub>
- Ref page 6* "Nicotinamide  
• Vitamin B<sub>3</sub> derivative  
• Active against inflammatory acne  
• Similar in efficacy to topical antibiotics but with no risk of resistance"

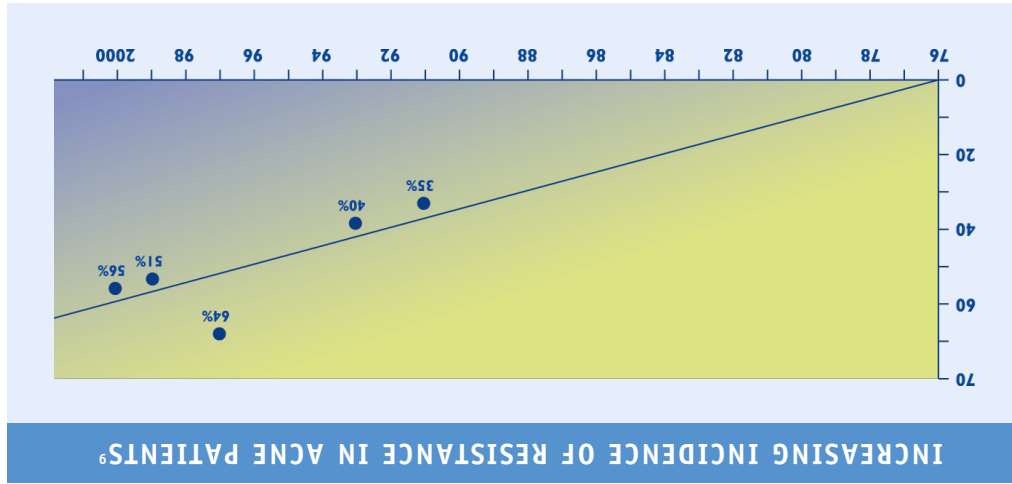
**QUESTION 1.** Answer: Comedones (can be both open and closed)  
*Ref page 1* "The diagnosis of acne rarely poses problems to the physician. However, one should be able to demonstrate the presence of both comedones and papules/pustules. The earliest expression of the disease process is the microcomedone; mid-facial comedones may pre-date inflammatory acne by several years. Subsequent lesions which must be confidently differentiated by the physician are both closed and open comedones (white and blackheads), papules, pustules, nodules and a variety of scars, atrophic, ice-pick and hypertrophic/keloid. It is the recognition of the 'lesion mix' that determines both the potential severity of the acne and the rationale for individually tailored treatment regimens."

**QUESTION 2.** Answer: Retinoids (synthetic Vitamin A derivatives)

*Ref page 6* "Indicated for treatment of comedonal acne. Most effective against open comedones, but regular treatment may prevent progression of the microcomedone and consequently decrease subsequent acne severity."

**QUESTION 3.** Answer: 60-70%

*Ref page 8* "In vitro studies demonstrate alarming rates of resistance of *C. acnes* to antibiotics in common usage. Resistance to erythromycin has been recorded as high as 60%-70%. A UK systematic review suggests current rates of 50% resistance to topical macrolide antibiotics<sup>8</sup> and a study in 1996 demonstrated 25% of all community *C. acnes* was resistant to one or more of the commonly used drugs."



**QUESTION 4.** Answer: These classes of antibiotics possess anti-inflammatory action

in addition to being anti-bacterial.

*Ref page 6* "Topical Antibiotics

• Antimicrobial and ? anti-inflammatory as can still be effective in the presence of

proven bacterial resistance"

*Ref page 8* "There is clear evidence that the presence of resistance reduces efficacy,

especially in the case of erythromycin but this, however, does not completely negate the clinical benefit of both topical and oral antibiotics. These preparations are also

working in other ways and indeed the tetracycline class of antibiotics has established anti-inflammatory action, and is used in a wide range of dermatological conditions for

this very reason. Antibiotic resistance patterns of *C. acnes* are not routinely available so a clinical judgement about lack of response must be made. It is important to note

that most tetracycline resistant strains demonstrate cross resistance to doxycycline, and the same is true of erythromycin and clindamycin."