بسم الله الرحمن الرحيم



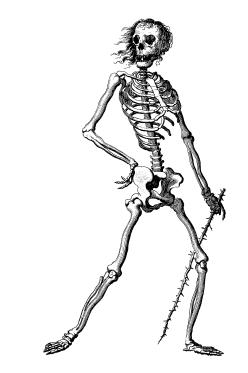


# LOGY **MICROBIOI**

### Final | Lectures (5-7) +lab **Past Papers**

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﴿ وَإِن تَتَوَلَّوْا يَسْتَبْدِلْ قَوْمًا غَيْرَكُمْ ثُمَّ لَا يَكُونُوا أَمْسَلَكُمُ ﴾

اللهم استعملنا ولا تستبدلنا

# Lecture 5

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### **Activities Questions**

Bismillah, let's go!

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# What is the most common bacterial cause of hot tub folliculitis?

- A) Staphylococcus epidermidis
- B) Propionibacterium acnes
- C) Pseudomonas aeruginosa
- D) Streptococcus pyogenes
- E) E. coli
- F) Serratia



## Which one of the following statements is true regarding acne vulgaris?

a) Several different types of acne lesions exist and include inflammatory papules

and pustules

- b) Laboratory diagnosis of acne vulgaris is necessary
- c) Treatment includes the use of topical antifungals

d) The causative agent is a gram-negative bacteria that is a major part of the skin

microbiome



# Why do acne vulgaris lesions predominantly affect the face, chest, and back?

a) These areas are colonized by Candida albicans

b) These sites are rich in apocrine glands

c) These regions have the densest number of sebaceous

glands

d) The skin is thinner in these areas

e) These areas have lower pH



A culture from a pustule reveals Staphylococcus aureus. The lesion began as a folliculitis and progressed to multiple interconnected draining sinuses. What is the diagnosis?

a) Furuncle
b) Carbuncle
c) Cellulitis
d) Impetigo
e)Ecthyma



#### Why does HSV-1 cause lifelong mucocutaneous infections?

a) The virus integrates into host DNA

- b) They evade humoral immunity
- C) They establish latency in sensory ganglia
- d) They undergo rapid antigenic shift
- e) They infect immune-privileged sites



A child presents with fever and lesions on the tongue, palms, and soles. Which virus is the likely cause? a) VZV b) HSV-1

- c) HSV-2
- d) Coxsackievirus A16



Which virus most commonly causes fever blisters? a) HSV-2 b)HSV-1 c) VZV d) Enterovirus 71 e)Coxsackievirus A16 f) Coxsackievirus A6





What is the gold standard stain for observing multinucleated giant cells in HSV lesions? a) Gram stain b) Ziehl-Neelsen stain c) Tzanck smear d) India ink f) PAS stain

Which virus causes reactivation along dermatomes leading to postherpetic neuralgia? a) HSV-1 b) HSV-2 c) VZV d) Enterovirus 71

e) Coxsackievirus A



Which one of the following statements is false regarding cutaneous infections that manifest in purulent lesions?

a) Carbuncle is a painful infection involving an aggregate of contiguous hair follicles, with multiple drainage points often occurring at the back of the neck
b) Folliculitis is a superficial pustule located at the orifice of the hair follicle
c) Furuncles are deeper purulent lesions of hair follicles involving the skin and subcutaneous tissue

d) Staphylococcus aureus is the most common cause folliculitis, furuncles, and carbuncles

e) Treatment of carbuncle lesions by systemic antibiotics is sufficient .

Which one of the following statements is TRUE regarding cutaneous infections that manifest in vesicles, bullae, and purulent lesions?



a) Tzanck smear can distinguish between HSV-1 and VZV infections
b) Disseminated gonococcemia typically presents with coalescing vesicles on the trunk

c)HSV-1 lesions are often described as grouped vesicles on an erythematous base

d) Hand-foot-mouth disease caused by Enterovirus 71 never involves vesicles
 e) Bullae from Staphylococcus aureus infections contain multinucleated giant cells



Which dermatologic condition manifest in the skin as dewdrops on rose petals?

- a) Hand foot and mouth disease
- b) Gonococcemia
- c) Varicella
- d) Zoster
- e) Herpangina
- f) Acne vulgaris
- g) Boils

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Which of the following is the most common cause of genital herpes?
 A) HSV-1
 B) HSV-2
 C) VZV
 D) Coxsackievirus A16



2. The Tzanck smear in herpes simplex virus infections reveals:A) Gram-negative rods

- B) Multinucleated giant cells with intranuclear inclusions
- C) Acid-fast bacilli
- D) Pustular skin lesions



- 3. Which disease is characterized by "dew drops on rose petals"?
- A) Zoster
- B) Acne vulgaris
- C) Varicella
- D) Herpetic whitlow



4. What is the most common causative agent of hot-tub folliculitis?

- A) S. aureus
- B) P. acnes
- C) Candida
- D) Pseudomonas aeruginosa



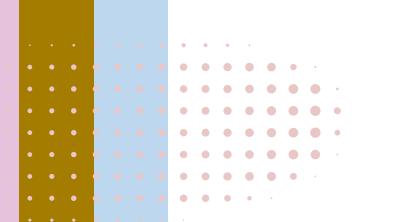
5. What age group is primarily affected by hand, foot, and mouth disease?

- A) Elderly adults
- B) Teenagers
- C) Infants and young children
- D) Middle-aged adults

### **Lecture 6** (الَّذِينَ ءَامَنُواْ وَعَمِلُواْ ٱلصَّلِحُتِ طُوبَىٰ لَهُمَ وَحُسَنُ مَاب)

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### **Activities Questions**





Janeway lesions are painful due to immune complex deposition in the dermis





Impetigo causes deeper tissue necrosis, resulting in ulceration and scarring





Ecthyma heals slowly and often results in scarring due to dermal involvement





Viridans streptococci are commonly isolated in infective endocarditis among IV drug users due to poor aseptic technique





Pseudomonas aeruginosa is most commonly associated with green, foul-smelling discharge and necrotic tissue in burn wound infections





Staphylococcus aureus is common in both IV drug users and prosthetic valve endocarditis





Splinter hemorrhages are due to trauma and unrelated to endocarditis





Osler nodes typically present as linear streaks under the nails





Topical mupirocin is appropriate topical treatment for a patient with a limited area of impetigo involving only a few lesions





Pseudomonas aeruginosa is the leading cause of infective endocarditis in patients with native valves





Candida albicans is the predominant pathogen in HACEK-related infective endocarditis





Janeway lesions are painless vascular lesions caused by septic emboli





Osler nodes are painless macules on the palms caused by septic emboli

True False

Ans:false



Bullous impetigo leaves deep ulcers that require surgical debridement

True False

Ans:false



Coagulase-negative staphylococci are rarely involved in prosthetic valve infections

True False



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- 1. Which of the following organisms is a common cause of ecthyma gangrenosum in immunocompromised patients?
- A) Streptococcus pyogenesB) Staphylococcus aureusC) Neisseria meningitidisD) Pseudomonas aeruginosa





### 2. Janeway lesions are:

- A) Painful nodules on fingers and toes
- B) Painless, erythematous macules on palms and soles
- C) Vesicular lesions on the lips
- D) Necrotic lesions over pressure areas



3. Which of the following conditions is associated with a characteristic "chancre"?

A) EcthymaB) Herpes simplexC) Primary syphilisD) Gas gangrene



4. Which bacteria are most commonly associated with Impetigo contagiosa?

- A) Pseudomonas and Clostridium
- B) Streptococcus pyogenes and Staphylococcus aureus
- C) Neisseria and Corynebacterium
- D) E. coli and Klebsiella



- 5. Which of the following skin signs is most associated with infective endocarditis?
- A) Hutchinson teethB) Koplik spotsC) Osler nodesD) Bullous lesions

# وَعَدَ اللَّهُ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ <sup>ل</sup>لَهُم مَّغْفِرَةٌ وَأَجْرٌ عَظِيمٌ

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5. Which of the following is correct: (OM = Osteomyelitis)

A)Pseudomonas is becoming increasingly more sensitive to antimicrobials in the OM setting

B)Viruses almost never infect bone

C)S. pyogenes is most associated with implants or foreign material

D)K. pneumoniae may be resistant to antimicrobials before or after therapy, but not during

E)The most common and most aggressive pathogen is S. aureus



5. Regarding hematogenous osteomyelitis, which of the following is correct:

### Answer: Hematogenous osteomyelitis is the most common form in children



5. Regarding hematogenous osteomyelitis, which of the following is correct:

### Answer: Hematogenous osteomyelitis is the most common form in children



5. Which of the following is true about osteomyelitis:

A)It is the inflammation of joints
B)Only presents as acute
C)Hematogenous osteomyelitis is more common in infants and children
D)Homogenous osteomyelitis is more common in infants and children
E)None of the above



#### 5. True about diabetic foot infections:

A)Presence of neuropathy, peripheral vascular disease, or poor glycemic control are not predisposing to diabetic foot infections.
B)Most diabetic foot infections are monomicrobial.
C)Samples should not be obtained in cases with low clinical suspicion.

## Lab Lecture

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### Test bank

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The catalase test differentiates staphylococci from:

A) StreptococciB) NeisseriaC) PseudomonasD) Candida



#### Which media is selective for the isolation of *Staphylococcus aureus*?

A) Chocolate agarB) Mannitol salt agarC) Sabouraud dextrose agarD) CLED agar



Streptococcus pyogenes can be identified by:

- A) Positive catalase test
- B) Negative catalase test and bacitracin sensitivity
- C) Positive coagulase test
- D) Green pigment production



The Monospot test is used for the diagnosis of:

A) SyphilisB) Infectious mononucleosisC) GonococcemiaD) Candidiasis



Pseudomonas aeruginosa is characterized by:

A) Fruity odor and pigment productionB) Alpha hemolysis on blood agarC) Coagulase productionD) Fermentation of lactose

اللهم صلِ وسلم على نبينا وحبيبنا محمد



Which culture media is used to isolate dermatophytes like *Microsporum gypseum*?

- A) CHROMagar B) Sabouraud doxtros
- B) Sabouraud dextrose agar (SDA)
- C) Chocolate agar
- D) CLED agar



The first test to differentiate staphylococci from other Gram-positive cocci is:

- A) Coagulase test
- B) Catalase test
- C) Bacitracin sensitivity test
- D) Oxidase test



### Wet mount with 10% KOH is used to diagnose cutaneous candidiasis. (True/False)





#### *Neisseria gonorrhoeae* grows on mannitol salt agar. (True/False)



### For any feedback, scan the code or click on it.

#### Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			

رسالة من الفريق العلمى:

#### نسأل الله الصبر والتوفيق والسداد في أمور الدين والدنيا والآخرة.



### Additional Resources: