

Past Papers

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



MID – Lectures 9 to 14

Bacteriology

﴿ وَإِن تَتَوَلَّوْا يَسْتَبَدِلْ قَوْمًا غَيْرَكُمْ ثُمَّ لَا يَكُونُوا أَمْثَلَكُمْ ﴾

اللهم استعملنا ولا تستبدلنا

- Mazen Alnashash
- Muthanna Khalil



The coming Qs are based on lectures:

L9: Bacterial Genetics 9 [Dr. Alaa]

L10: Microbiota

L11: Bacterial Pathogenesis

Slides 3 to 19

L12: Biorisk management

L13: Staphylococci

L14: Streptococci & Enterococci

Slides 20 to __

Q1: Which of the following will most likely cause a skin infection?

- a) Staphylococcus
- b) Treponemas
- c) Nocardia
- d) Borrelia

Answer: a

Q2: An effective treatment of Clostridium difficile infection (CDI) is:

- a) Fecal matter transplant
- b) Avoiding caesarean section delivery
- c) DNA based approaches
- d) Antibiotics

Answer: a

Q3: Distribution of skin normal flora is affected by:

- a) Secretions
- b) Habits of clothes wearing
- c) Proximity to mucous membranes
- d) All of the above

Answer: d

Q4: Which of the following is false regarding specialized transduction?

- a) It is carried out by temperate bacteriophages
- b) It always leads to direct lysis of host bacterial cell
- c) 'Lysogeny' and co-existing can be observed
- d) *None of the above is false*

Answer: b

Q5: Conjugation is best described as:

- a) Plasmid movement by cell-cell contact
- b) Uptake of naked DNA
- c) Using bacteriophages as vectors
- d) Jumping genes

Answer: a

Q6: One of the following is part of vaginal normal flora:

- a) E. Coli
- b) Neisseria
- c) Lactobacilli
- d) Yeast

Answer: c

Q7: Which of the following abilities could limit the transmission of a pathogen?

- a) Ability to form biofilms
- b) Ability to cause no or very few symptoms
- c) Ability to survive in a wide range of environments
- d) Ability to kill the host in a short time period
- e) Ability to synthesize motility appendages.

Answer: d

Q8: Which of the following regarding human microbiota is correct?

- a) Human microbiota is made of bacterial species only.
- b) Microbiota of the skin is very similar to microbiota of the gastrointestinal tract.
- c) Antibiotics do not harm human microbiota.
- d) Microbiota of healthy individuals in the community is expected to be different from microbiota of hospitalized individuals.
- e) Microbiota of the skin appears around 2 years of age.

Answer: d

Q9: Transposons, one is false?

- a) Contain insertion sequences for cutting and resealing DNA
- b) Occur between chromosomes and plasmids
- c) Segments of DNA that can move from one region of DNA to another
- d) Cause antibiotic resistance genes
- e) Chemical mutagen

Answer : e

Q10: The sex pilus in bacteria is primarily used for

- a) Transporting nutrients
- b) conjugation
- c) Protecting the bacterium from environmental stress
- d) Locomotion through liquid environments
- e) Absorbing dissolved oxygen from the surroundings

Answer: b

Q11: One of the following is true regarding microbiota:

- a) exclusively found in the GI tract
- b) a change in its composition may lead to diseases
- c) oncogenic species
- d) a + c

Answer: b

Q12: A primary function of plasmid is:

- a) Virulence factors transfer
- b) Genome replication
- c) Essential protein synthesis
- d) Cell wall synthesis
- e) None of the above

Answer: a

Q13 : A bacterium containing prophage is called as

- a) Lytic
- b) Lysogen
- c) temperate
- d) None of these

Answer: b

Q14: Bacteriophage that only kills the cells by lysis and cannot survive normally inside viable bacteria are referred to as _____ phages.

- a) Temperate
- b) Avirulent
- c) Virulent
- d) Lytic
- e) lysogenic

Answer: d

Q15: Recombination process occurring through the mediation of phages is:

- a) Conjunction
- b) Transduction
- c) Transformation
- d) Transfection

Answer: b

Q16: Genetic constitution of the cell is

- a) Phenotype
- b) Genotype
- c) Cryptotype
- d) Histotype

Answer: b

Q17: What is the 3rd step of generalized transduction?

Answer:

A bacteriophage head or capsid assembles around a fragment of donor bacterium's nucleoid instead of a phage genome by mistake.

See slide 41 in L9

Answer :

Lectures 12, 13 and 14

Remember to check Dr. Anas's Qs at the end of each lecture, Good luck!

Q1: *Staph. aureus* is known for all of the following **except**:

- a) Golden colonies
- b) Skin infections
- c) Fibrin clotting
- d) Part of the microbiota of the gut
- e) MRSA first showed in hospitalized environment

Answer: d

Q2: After a messy night at the lab, you and your supervisor go home without cleaning up only to return the next morning to find a left over Petry dish at the counter with a beta hemolytic obvious activity in it, which of the following bacterium do you expect did this and on what medium?

- a) hemophilus influenza chocolate agar
- b) staph aureus blood agar
- c) shigella bacterium ... XLD medium
- d) vibriion bacterium ... TCBS medium

Answer: b

Q3: Which of the following grows on nutrients agar?

- a) Chlamydia
- b) Treponema
- c) Mycobacterium leprae
- d) Staphylococcus aureus

Answer: d

Q4: Coagulase test differentiates between:

- a) Staphylococci – Streptococci
- b) Streptococci – Enterococci
- c) Staph aureus – Staph epidermidis
- d) Staph epidermidis – Staph saprophyticus

Answer: c

Q5: Bacteria which produces coagulase is:

- a) *S epidermidis*
- b) *S saprophyticus*
- c) *S aureus*
- d) *S hominis*

Answer: c

Q6: Identify the bacteria which is coagulase-positive and catalase-positive:

- a) Staphylococcus aureus
- b) Streptococcus pyogenes
- c) Neisseria
- d) Pseudomonas

Answer: a

Q7: A man was moved to the hospital after a car accident and a catheter was used to drain the urine from his bladder. This patient developed cystitis, and signs of septicaemia were observed on the next day. The lab tests showed that a gram-positive coccus was responsible for the illness. what is this bacterium?

- a) *Neisseria meningitidis*
- b) *Staphylococcus epidermidis*
- c) *Streptococcus pyogenes*
- d) *Mycoplasma*

Answer: b

Q8: Enterotoxin responsible for food poisoning is secreted by:

- a) Enterococci
- b) Entamoeba histolytica
- c) Enterobacteriaceae
- d) Staphylococci

Answer: d

Q9: Which of the following is a characteristic of staphylococcus aureus?

- a) Catalase negative
- b) Model for Enterobacteriaceae
- c) Nasal carriage with a higher incidence for hospitalized patients and medical personnel
- d) Causative agent for traveler's diarrhea

Answer: c

Q10: Toxic shock syndrome is caused by...?

- a) Staph. Albus
- b) Staph. aureus
- c) Strep. Viridans
- d) None of these

Answer: b

Q11: Streptococcus pyogenes classification is based on

- a) Protein M
- b) Protein T
- c) Protein R
- d) Polysaccharide C

Answer: a

Q12: α -haemolytic streptococci are also known as

- a) Str. Pyogenes
- b) Virulence group
- c) Viridans group
- d) None of these

Answer: c

Q13: Causative agent of Scarlet fever:

- a) Staphylococcus aureus
- b) Streptococcus viridans
- c) Streptococcus pyogenes
- d) None of these

Answer: c

Q14: A patient suffered from pharyngitis caused by group A streptococci. After two weeks, he is present with rheumatoid fever. What may have caused this?

- a) Molecular mimicry
- b) Biofilm formation
- c) Microbiotic dysbiosis

Answer: a

Q15: Streptokinase is produced by

- a) Staphylococcus aureus
- b) Streptococcus pneumoniae
- c) Str. faecalis
- d) Str. Pyogenes

Answer: d

Q16: Partial hemolysis is done by which species of bacteria?

- a) Viridans streptococcus & Staphylococcus aureus
- b) Streptococcus pyogenes & Streptococcus pneumoniae
- c) Viridans streptococcus & Streptococcus pneumoniae
- d) Enterococci

Answer: c

Q17: Containment principles, technologies and practices that are implemented to prevent the unintentional exposure to the biological agents and toxins, or their accidental release:

- a) **Biosecurity**
- b) **Biosafety**
- c) **Biorisk**

Answer: b

Q18: Which laboratories are used to study dangerous, exotic microbes that cause aerosol transmitted infections, which are fatal without treatment?

- a) BSL-1
- b) BSL-2
- c) BSL-3
- d) BSL-4

Answer: d

من ابتلي بالتوتر والخوف فليكثر من قول:

﴿حسبنا الله ونعم الوكيل﴾

فالله تعالى يقول بعدها:

﴿فانقلبوا بنعمة من الله وفضل لم يمسسهم سوء﴾

ومن ابتلي بالغم الذي لا يعرف سببه فليكثر من قول:

﴿لا إله إلا أنت سبحانك إني كنت من الظالمين﴾،

فالله يقول بعدها:

﴿فاستجبنا له ونجيناه من الغم﴾

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



Corrections from previous versions:

Versions	Question #	Before Correction	After Correction
V1 → V2			
V2 → V3			