

## Past Papers !

1. Which of the following is most commonly associated with uncomplicated cystitis?

- A) *Staphylococcus aureus*
- B) *Escherichia coli*
- C) *Streptococcus pyogenes*
- D) *Klebsiella pneumoniae*

Answer: B) *Escherichia coli*

2. Which of the following best describes *Neisseria* species?

- A) Gram-positive cocci
- B) Gram-negative cocci
- C) Gram-positive bacilli
- D) Gram-negative bacilli

Answer: B) Gram-negative cocci

3. Which statement is true regarding urinary tract infections (UTIs)?

- A) Having one UTI decreases the risk of another UTI
- B) Requiring a UTI increases the risk for requiring another UTI
- C) UTIs are not recurrent
- D) UTIs only occur once in a lifetime

Answer: B) Requiring a UTI increases the risk for requiring another UTI

4. Which test is used for the screening of syphilis?

- A) ELISA
- B) VDRL
- C) Western blot

D) PCR

Answer: B) VDRL

5. Which virus is most commonly associated with genital herpes?

A) HSV-1

B) HSV-2

C) HPV

D) CMV

Answer: B) HSV-2

6. Bacterial vaginosis (BV) is characterized by which of the following?

A) Increase in lactobacilli

B) Decrease in lactobacilli

C) Increase in E. coli

D) Increase in Candida

Answer: B) Decrease in lactobacilli

7. Which microbial strategy is important for survival in the host by limiting host access to iron?

A) Producing exotoxins

B) Sequestering iron

C) Producing endotoxins

D) Forming spores

Answer: B) Sequestering iron

8. In which scenario is it recommended to treat asymptomatic bacteriuria (ASB)?

- A) All adults
- B) Children
- C) Pregnant women
- D) Men over 70 years old undergoing prostate resection

Answer: D) Men over 70 years old undergoing prostate resection

1) A 16-year-old female patient suffers from dysuria, urinary frequency, and vaginal discharge. No history of sexual activity, what is the probable pathogens:

Ans: Bacterial Vaginosis.

2) A mechanism of defense against infection in urine is:

- a) Lactobacilli
- b) Uromodulin
- c) IgD

Ans: B

3) Which of the following tests is correct regarding negative gram bacteria:

- a) Positive leukocyte esterase enzyme.
- b) Positive nitrite.

Ans: B

4) Which of the following tests is used to follow up the patient in syphilis cases:

- a) Venereal disease research laboratory (VDRL).

- b) Treponema pallidum particle agglutination (TP-PA) test.
- c) Nucleic acid amplification tests (NAATs).

Ans: A

5) Which of the following is correct regarding STDs:

- a) Higher prevalence among men.
- b) Prevalence & incidence vary between regions.

Ans: B

6) A 35-year-old male presents to the clinic complaining of a genital vesicular rash that appeared a few days before the visit, with some vesicles starting to ulcerate, his history revealed unprotected intercourse with 3 different sexual partners in the last 2 months. The Pathogen causing this lesion is most likely:

- a) dsDNA
- b) RNA
- c) Gram negative bacteria
- d) Yeast

Ans: A

7) Which of the following is true regarding complicated and uncomplicated UTIs?

- a) Management is the same for both.
- b) The most common pathogen is the same for both.
- c) Bacteria lacking adhesions usually cause uncomplicated UTIs, while bacteria expressing adhesions cause complicated UTIs.

- d) Risk factors are the same for both.
- e) Dysuria and frequency are found only in complicated UTIs.

Ans: B

8) A patient complains from dysuria and vaginal discharge. The physician notices vaginal cervix tenderness. What is the diagnosis?

- a) Pelvic Inflammatory Disease
- b) Polynephritis
- c) Endometriosis

Ans: A

9) Which of the following is true regarding diagnosis UTIs?

Ans: urine specimen with 1 bacterial specie isolated in a quantitative count  $>10^5$  cfu/mL identifies bacteriuria in men.

### Micro1

1. Which of the following is the most common pathogen responsible for urinary tract infections (UTIs) in women?

- a) Escherichia coli
- b) Klebsiella pneumoniae
- c) Staphylococcus aureus
- d) Streptococcus pyogenes

Answer: a) Escherichia coli

2. What is the main defense mechanism that helps prevent bacterial colonization in the urinary tract?

- a) High glucose concentration in urine
- b) Bulk flow of urine and micturition
- c) Presence of bile salts

d) Low oxygen tension

Answer: b) Bulk flow of urine and micturition

3. Which of the following is NOT considered a predisposing factor for UTIs?

a) Outflow obstruction

b) Neurogenic bladder

c) High fluid intake

d) Catheterization

Answer: c) High fluid intake

4. Which clinical entity is defined as the presence of bacteria in urine without symptoms?

a) Cystitis

b) Pyelonephritis

c) Asymptomatic bacteriuria

d) Prostatitis

Answer: c) Asymptomatic bacteriuria

5. Which of the following best describes a complicated UTI?

a) Infection in a healthy, non-pregnant woman

b) Infection associated with urinary tract obstruction or foreign body

c) Infection limited to the urethra

d) Infection that resolves without treatment

Answer: b) Infection associated with urinary tract obstruction or foreign body

6. Which bacterial feature enables uropathogenic E. coli (UPEC) to adhere to the urothelium?

a) Siderophores

b) Adhesive fimbriae

c) Urease

d) Exotoxins

Answer: b) Adhesive fimbriae

7. What is the most common source of microorganisms causing catheter-associated urinary tract infections (CAUTI) in hospitals?

- a) Airborne transmission
- b) Contaminated food
- c) Endogenous colonization (meatal, rectal, or vaginal)
- d) Insect vectors

Answer: c) Endogenous colonization (meatal, rectal, or vaginal)

8. Which of the following is a characteristic feature of *Proteus mirabilis* relevant to urinary tract infections?

- a) Production of coagulase
- b) Urease activity and swarming motility
- c) Capsule formation only
- d) Lack of antibiotic resistance

Answer: b) Urease activity and swarming motility

9. Which acronym includes the most important multidrug-resistant pathogens in UTIs?

- a) MRSA
- b) ESKAPE
- c) VRE
- d) CRE

Answer: b) ESKAPE

10. Which of the following statements about asymptomatic bacteriuria is correct?

- a) It always requires antibiotic treatment
- b) It occurs only in pregnant women
- c) It can occur in all age groups and does not necessarily result in clinical infection
- d) It is a sign of severe kidney infection

Answer: c) It can occur in all age groups and does not necessarily result in clinical infection

## Micro2

1. Which of the following is NOT considered a clinical entity under the term urinary tract infection (UTI)?

- A) Asymptomatic bacteriuria
- B) Cystitis
- C) Pyelonephritis
- D) Glomerulonephritis

Answer: D) Glomerulonephritis

2. The most typical symptoms of cystitis include all of the following EXCEPT:

- A) Dysuria
- B) Urinary frequency
- C) Flank pain
- D) Urgency

Answer: C) Flank pain

3. Murphy's percussion test is used to detect:

- A) Suprapubic tenderness
- B) Costovertebral angle tenderness
- C) Prostate enlargement
- D) Abdominal rigidity

Answer: B) Costovertebral angle tenderness

4. In women with at least one symptom of UTI and no complicating factors, the probability of acute cystitis or pyelonephritis is approximately:

- A) 10%
- B) 25%
- C) 50%
- D) 90%

Answer: C) 50%



5. Which organism is responsible for the majority of urinary tract infections?

- A) Staphylococcus aureus
- B) Escherichia coli
- C) Klebsiella sp.
- D) Proteus sp.

Answer: B) Escherichia coli

6. Which of the following statements about the nitrite dipstick test is TRUE?

- A) All bacteria convert nitrate to nitrite
- B) Only Enterobacteriaceae convert nitrate to nitrite
- C) The test is always positive in UTI
- D) It is highly sensitive in pregnant women

Answer: B) Only Enterobacteriaceae convert nitrate to nitrite

7. What is considered the “gold standard” for the diagnosis of UTI?

- A) Dipstick test
- B) Urinalysis
- C) Urine culture
- D) Ultrasound

Answer: C) Urine culture

8. For diagnosing acute cystitis in women, a urine colony count threshold of greater than \_\_\_\_\_ bacteria/mL is most sensitive and specific.

- A) 10
- B) 100
- C)  $10^2$
- D)  $10^5$

Answer: C)  $10^2$

9. Which antibiotic was found to be the most effective against all isolated bacteria strains in UTI according to the lecture?

- A) Amoxicillin
- B) Ciprofloxacin
- C) Oxacillin
- D) Tetracycline

Answer: B) Ciprofloxacin

10. Which of the following is a potentially fatal complication of pyelonephritis with a high mortality rate?

- A) Xanthogranulomatous pyelonephritis
- B) Emphysematous pyelonephritis
- C) Cystitis
- D) Asymptomatic bacteriuria

Answer: B) Emphysematous pyelonephritis

11. Xanthogranulomatous pyelonephritis is characterized by:

- A) Gas in the renal substance
- B) Mass of yellow tissue with lipid-laden macrophages
- C) Formation of bladder stones
- D) Acute onset with high fever

Answer: B) Mass of yellow tissue with lipid-laden macrophages

12. Which of the following is TRUE regarding prostatitis?

- A) Most cases are due to bacterial infection
- B) Digital rectal exam is not useful
- C) Up to 50% of men will experience symptoms at some point
- D) It never causes fever or chills

Answer: C) Up to 50% of men will experience symptoms at some point

13. The most common pathogens in acute bacterial prostatitis are:

- A) Gram-positive cocci

- B) Gram-negative Enterobacterales
- C) Anaerobic bacteria
- D) Fungi

Answer: B) Gram-negative Enterobacterales

14. Which of the following is NOT a risk factor for chronic/recurrent bacterial prostatitis?

- A) Diabetes
- B) Smoking
- C) Previous acute prostatitis
- D) Female gender

Answer: D) Female gender

15. The mainstay of treatment for symptomatic UTI is:

- A) Supportive care only
- B) Antimicrobial therapy
- C) Surgery
- D) Observation only

Answer: B) Antimicrobial therapy

### **Micro3**

1. Which of the following is NOT a clinical entity included under the term “urinary tract infection (UTI)”?

- A) Asymptomatic bacteriuria (ASB)
- B) Cystitis
- C) Pyelonephritis
- D) Glomerulonephritis

Answer: D) Glomerulonephritis

2. What is the correct definition of asymptomatic bacteriuria (ASB) in women?

- A) One urine specimen with  $\geq 10^3$  CFU/mL and symptoms
- B) Two consecutive voided urine specimens with the same bacterial strain in counts  $\geq 10^5$  CFU/mL and no symptoms
- C) One urine specimen with  $\geq 10^5$  CFU/mL and symptoms
- D) Two urine specimens with any bacteria and symptoms

Answer: B) Two consecutive voided urine specimens with the same bacterial strain in counts  $\geq 10^5$  CFU/mL and no symptoms

3. Which organism is the most common cause of bacteriuria in women?

- A) *Klebsiella pneumoniae*
- B) *Escherichia coli*
- C) *Staphylococcus saprophyticus*
- D) *Proteus mirabilis*

Answer: B) *Escherichia coli*

4. Screening for asymptomatic bacteriuria (ASB) is recommended in which of the following situations?

- A) All adults over 65
- B) Pregnant women in early pregnancy
- C) All patients with diabetes
- D) All patients with catheters

Answer: B) Pregnant women in early pregnancy

5. What is the main risk associated with untreated asymptomatic bacteriuria in pregnancy?

- A) Hypertension
- B) Pyelonephritis and preterm labor
- C) Diabetes
- D) Renal cell carcinoma

Answer: B) Pyelonephritis and preterm labor

6. Which of the following should NOT be screened or treated for ASB or funguria?

- A) Pregnant women
- B) Patients with indwelling urethral catheters
- C) Patients before traumatic genitourinary procedures
- D) Patients undergoing transurethral resection of the prostate

Answer: B) Patients with indwelling urethral catheters

7. What is the most common cause of healthcare-associated urinary tract infections (UTIs)?

- A) Poor hydration
- B) Instrumentation, especially urinary catheters
- C) Sexual activity
- D) Diabetes mellitus

Answer: B) Instrumentation, especially urinary catheters

8. Which of the following is NOT a route of bacterial entry in catheter-associated urinary tract infection (CAUTI)?

- A) Extraluminal (outside the catheter)
- B) Intraluminal (inside the catheter)
- C) Hematogenous spread from the lungs
- D) Contamination from healthcare workers' hands

Answer: C) Hematogenous spread from the lungs

9. A 23-year-old pregnant woman is found to have >100,000 CFU/mL of gram-negative rods in her urine but is asymptomatic. What is the best next step?

- A) Reassure and repeat urine culture in 1 month
- B) Start empiric antibiotics (e.g., nitrofurantoin or trimethoprim)
- C) No treatment needed
- D) Refer for imaging studies

Answer: B) Start empiric antibiotics (e.g., nitrofurantoin or trimethoprim)

10. A 25-year-old woman presents with dysuria and urinary frequency. Urinalysis is positive for leukocyte esterase and nitrites. What is the most likely causative organism?

- A) *Staphylococcus aureus*
- B) *Escherichia coli*
- C) *Pseudomonas aeruginosa*
- D) *Enterococcus faecalis*

Answer: B) *Escherichia coli*

11. In a patient with a Foley catheter and signs of urosepsis, what is the next best step in management?

- A) Wait for urine culture results before acting
- B) Remove the Foley catheter and start empiric antibiotics
- C) Increase fluid intake only
- D) Prescribe oral antibiotics and keep the catheter

Answer: B) Remove the Foley catheter and start empiric antibiotics

12. Which of the following is the most appropriate initial treatment for uncomplicated UTI in a healthy adult woman?

- A) Intravenous vancomycin
- B) Oral trimethoprim-sulfamethoxazole (TMP-SMX)
- C) No treatment needed
- D) High-dose steroids

Answer: B) Oral trimethoprim-sulfamethoxazole (TMP-SMX)

13. Recurrent UTIs and a urinary pH >8 should raise suspicion for which of the following?

- A) Diabetes mellitus
- B) Struvite (triple phosphate) kidney stones
- C) Bladder cancer
- D) Viral infection

Answer: B) Struvite (triple phosphate) kidney stones

## Micro4

1. Which of the following is NOT considered a sexually transmitted infection (STI)?

- A) Gonorrhoea
- B) Bacterial Vaginosis
- C) Chlamydia
- D) Syphilis

Answer: B) Bacterial Vaginosis

(BV is due to vaginal flora imbalance, not strictly an STI)

2. What is the best predictor for diagnosing bacterial vaginosis on a wet mount?

- A) Motile trichomonads
- B) Clue cells
- C) Yeast hyphae
- D) Pus cells

Answer: B) Clue cells

3. Which organism causes trichomoniasis?

- A) Candida albicans
- B) Trichomonas vaginalis
- C) Neisseria gonorrhoeae
- D) Treponema pallidum

Answer: B) Trichomonas vaginalis

4. Which of the following is a common symptom of vulvovaginal candidiasis?

- A) Frothy yellow discharge
- B) Fishy odor discharge
- C) Thick white “cottage cheese” discharge

D) Painless genital ulcer

Answer: C) Thick white “cottage cheese” discharge

5. Which test is used to detect bacterial vaginosis by producing a fishy odor?

A) Amine (Whiff) test

B) Gram stain

C) VDRL test

D) KOH mount

Answer: A) Amine (Whiff) test

6. What is the typical vaginal pH in bacterial vaginosis?

A) <4.5

B) >4.5

C) 3.5

D) Normal (4.0)

Answer: B) >4.5

7. Which treatment is first-line for bacterial vaginosis?

A) Fluconazole

B) Metronidazole

C) Acyclovir

D) Penicillin

Answer: B) Metronidazole

8. Which of the following is true regarding trichomoniasis?

A) It is caused by a bacterium

B) It is often asymptomatic in men

C) It presents with thick white discharge

D) It is not sexually transmitted

Answer: B) It is often asymptomatic in men



9. Which of the following is the most common cause of vulvovaginal candidiasis?

- A) *Candida glabrata*
- B) *Candida albicans*
- C) *Trichomonas vaginalis*
- D) *Gardnerella vaginalis*

Answer: B) *Candida albicans*

10. What is the recommended treatment for uncomplicated vulvovaginal candidiasis in non-pregnant women?

- A) Oral metronidazole
- B) Oral or topical azoles
- C) Penicillin
- D) Acyclovir

Answer: B) Oral or topical azoles

11. Which of the following is NOT a risk factor for bacterial vaginosis?

- A) Smoking
- B) New or multiple sexual partners
- C) Use of barrier contraception
- D) Vaginal douching

Answer: C) Use of barrier contraception

12. Which sign is characteristic but uncommon in trichomoniasis?

- A) Clue cells
- B) Strawberry cervix
- C) Painless chancre
- D) Cottage cheese discharge

Answer: B) Strawberry cervix

## Micro5

1. Which organism is the causative agent of syphilis?

- A) *Neisseria gonorrhoeae*
- B) *Treponema pallidum*
- C) *Chlamydia trachomatis*
- D) *Mycoplasma genitalium*

Answer: B) *Treponema pallidum*

2. What is the most important tool for the diagnosis of syphilis?

- A) Gram stain
- B) Serology
- C) Culture
- D) Antigen detection

Answer: B) Serology

3. What is the drug of choice for treating syphilis?

- A) Ceftriaxone
- B) Azithromycin
- C) Doxycycline
- D) Penicillin G

Answer: D) Penicillin G

4. Which of the following is TRUE about *Neisseria gonorrhoeae*?

- A) It is a gram-positive coccus
- B) It is always considered significant when found in clinical specimens
- C) It can colonize the nasopharynx without causing disease
- D) It grows on blood agar

Answer: B) It is always considered significant when found in clinical specimens

5. What is the first-line therapy for gonorrhoea?

- A) Doxycycline
- B) Penicillin
- C) Ceftriaxone + Azithromycin
- D) Gentamicin

Answer: C) Ceftriaxone + Azithromycin

6. Which of the following statements about *Chlamydia trachomatis* is CORRECT?

- A) It is a free-living bacterium
- B) It has a unique life cycle with elementary and reticulate bodies
- C) It infects only the genital tract
- D) It is the least common bacterial STD

Answer: B) It has a unique life cycle with elementary and reticulate bodies

7. What is the diagnostic test of choice for *Chlamydia trachomatis*?

- A) Gram stain
- B) Culture
- C) Nucleic acid amplification tests (NAATs)
- D) Serology

Answer: C) Nucleic acid amplification tests (NAATs)

8. Which of the following is NOT a typical symptom of urethritis in males?

- A) Dysuria
- B) Pruritus
- C) Urethral discharge
- D) Hematuria

Answer: D) Hematuria

9. Which organism is associated with nongonococcal urethritis and is resistant to antibiotics that interfere with cell wall synthesis?

- A) *Neisseria gonorrhoeae*

- B) Chlamydia trachomatis
- C) Mycoplasma genitalium
- D) Treponema pallidum

Answer: C) Mycoplasma genitalium

10. What is the preferred treatment for nongonococcal urethritis caused by Mycoplasma genitalium?

- A) Penicillin
- B) Doxycycline
- C) Azithromycin
- D) Ceftriaxone

Answer: C) Azithromycin

11. Which of the following antibiotics remains effective against the test pathogen in the context of rising antimicrobial resistance?

- A) Ampicillin
- B) Ceftriaxone
- C) Gentamicin
- D) Ciprofloxacin

Answer: C) Gentamicin

12. Which age group is most commonly affected by gonorrhoea in the UK?

- A) Children under 10
- B) Males aged 20–24 and females aged 16–19
- C) Adults over 50
- D) Elderly over 70

Answer: B) Males aged 20–24 and females aged 16–19

13. What is the main complaint in males with urethritis?

- A) Fever
- B) Dysuria

- C) Headache
- D) Abdominal pain

Answer: B) Dysuria

14. Which of the following is NOT a route of transmission for syphilis?

- A) Direct sexual contact
- B) Contact with toilet seats
- C) Congenital transmission
- D) Blood transfusion

Answer: B) Contact with toilet seats

15. What is the main reason for using NAATs in the diagnosis of gonorrhoea and chlamydia?

- A) They are less expensive
- B) They are highly sensitive
- C) They are specific for viral infections
- D) They are the only available method

Answer: B) They are highly sensitive

## Micro6

1. Which virus is the most common cause of genital ulcers worldwide?

- a) Treponema pallidum
- b) Herpes simplex virus (HSV)
- c) Haemophilus ducreyi
- d) Human papillomavirus (HPV)

Answer: b) Herpes simplex virus (HSV)

2. What is the primary treatment for genital herpes?

- a) Oral antibiotics

- b) Systemic antivirals like acyclovir
- c) Topical antifungals
- d) Surgical removal

Answer: b) Systemic antivirals like acyclovir

3. Which organism causes chancroid?

- a) *Treponema pallidum*
- b) *Haemophilus ducreyi*
- c) *Neisseria gonorrhoeae*
- d) *Candida albicans*

Answer: b) *Haemophilus ducreyi*

4. Which HPV types are mainly responsible for genital warts?

- a) 16 and 18
- b) 6 and 11
- c) 1 and 2
- d) 31 and 33

Answer: b) 6 and 11

5. What is the main complication of untreated pelvic inflammatory disease (PID)?

- a) Genital warts
- b) Infertility due to tubal scarring
- c) Genital herpes
- d) Syphilitic chancre

Answer: b) Infertility due to tubal scarring

6. Which diagnostic test is commonly used for detecting syphilis?

- a) PCR
- b) VDRL test
- c) Viral culture

d) Gram stain

Answer: b) VDRL test

7. Which of the following is a fungal genital infection?

a) Trichomoniasis

b) Candidiasis

c) Gonorrhoea

d) Chancroid

Answer: b) Candidiasis

8. What is the typical presentation of genital herpes during the primary infection?

a) Painless chancre

b) Painful vesicles and ulcers on genitalia

c) Genital warts

d) White cottage cheese-like discharge

Answer: b) Painful vesicles and ulcers on genitalia

9. Which infection is characterized by painful, necrotizing genital ulcers?

a) Syphilis

b) Chancroid

c) Genital herpes

d) Genital warts

Answer: b) Chancroid

10. What is the primary mode of transmission for most genital infections discussed?

a) Respiratory droplets

b) Sexual contact

c) Contaminated food

d) Vector-borne

Answer: b) Sexual contact

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