

Selective Pressure

Welcome back!



Round 1

Question

Strawberry tongue suggests which bacterial illness?

Answer

Scarlet fever

Question

Pseudomonas OprD loss affects which drug?

Answer

Imipenem

Question

Acid-fast organisms resist which staining step?

Answer

Decolorization

Question

What fungus produces glucuronoxylomannan (GXM)?

Answer

Cryptococcus

Question

In innate immunity, TLR4 recognizes which bacterial component?

Answer

LPS

Question

Surgical masks best reduce which transmission mode?

Answer

Droplet

Question

Rituximab depletes primarily which lymphocyte subset?

Answer

B cells

Question

Linezolid belongs to which antibiotic drug class?

Answer

Oxazolidinone

Question

What is the first-line treatment for *Cryptosporidium*?

Answer

Nitazoxanide

Question

Intention-to-treat preserves what analytic principle of an RCT?

Answer

Randomisation

Question

Live-attenuated vaccines risk level during pregnancy?

Answer

Contraindicated

Question

Dengue's early nickname by Benjamin Rush?

Answer

Breakbone fever

Question

The causative species and subspecies of Yaws?

Answer

T. (pallidum) pertenue

Question

D-test detects which clindamycin resistance phenotype?

Answer

Inducible (MLS-B)

Question

16S Sanger sequencing targets which gene region?

Answer

rRNA

Question

What pathogenic fungus reproduces by fission?

Answer

Talaromyces marneffe

Question

Superantigens bridge MHC II with which cell?

Answer

T-cell

Question

Which isolation precaution is indicated for influenza patients on a hospital ward?

Answer

Droplet

Question

Primary cause of post-transplant lymphoproliferative disorder

Answer

EBV

Question

Dalbavancin is dosed at what interval after 1st dose?

Answer

One week

Question

Leishmania amastigotes reside in which cells?

Answer

Macrophages

Question

PICO stands for:

Population, Intervention, Comparator, and...?

Answer

Outcome

Question

Cold chain failure primarily threatens which products?

Answer

Vaccines

Question

CMV UL97 mutations mainly resist which antiviral drug?

Answer

Ganciclovir

Question

Legionnaires' disease was first recognised in which city?

Answer

Philadelphia

Question

Cefoxitin acts as inducer for which enzyme?

Answer

AmpC

Question

cgMLST typing compares isolates using what units?

Answer

Alleles

Question

What fungus forms cells up to 150 μm in diameter in tissues?

Answer

Coccidioides

Question

Most common type of healthcare-associated infection?

Answer

UTI

Question

Asplenia prophylaxis targets which organism class?

Answer

Encapsulated

Question

Daptomycin is inactivated by which pulmonary substance?

Answer

Surfactant

Question

Malaria species showing tertian periodicity?

Answer

Plasmodium vivax & ovale

Question

Forest plots typically summarise which analysis type?

Answer

Meta-analysis

Question

Which parasite causing blindness is targeted by mass drug administration programs?

Answer

Onchocerca

Question

Pathognomonic oral lesions in measles are called what?

Answer

Koplik spots

Question

Lemierre syndrome typically involves which anaerobe?

Answer

Fusobacterium (necrophorum)

Question

What is the most dominant globally spread *E. coli* ESBL genetic lineage?

Answer

ST131

Question

Recommended adult blood culture volume per set?

Answer

20+ mL

Question

Which *Paracoccidioides* species isn't detected by standard gp43 antigen testing?

Answer

Paracoccidioides lutzii

Question

Teichoic acids occur in which type of bacteria?

Answer

Gram-positive

Question

What is the minimal water temperature to kill *Legionella*?

Answer

60°C

Question

Most common donor-derived infection

Answer

CMV

Question

Oritavancin is typically given at what interval?

Answer

Single dose

Question

Schistosoma haematobium predisposes to which carcinoma type?

Answer

Squamous cell (of bladder)

Question

CONSORT guideline applies to which study type?

Answer

Randomised trials

Question

Conjugate vaccines typically link polysaccharide to what carrier?

Answer

Protein

Question

Which virus causes German measles?

Answer

Rubella

Question

Ecthyma gangrenosum usually signals which pathogen?

Answer

Pseudomonas (aeruginosa)

Question

To which glycopeptide do VanB enterococci remain susceptible?

Answer

Teicoplanin

Question

Latex agglutination detects which MRSA protein?

Answer

PBP2a

Question

What fungus forms asteroid bodies in tissue?

Answer

Sporothrix

Question

Quellung reaction is a tests that demonstrates swelling of what?

Answer

Bacterial capsule

Question

Most common Gram-negative cause of ventilator-associated pneumonia

Answer

Pseudomonas aeruginosa

Question

Most common protozoan cause of chronic diarrhea in
HIV/AIDS

Answer

Cryptosporidium

Question

Rifampin induces which hepatic enzyme family?

Answer

CYP450

Question

Which pinworm species causes nocturnal pruritus?

Answer

Enterobius vermicularis

Question

Kaplan–Meier plots estimate what function?

Answer

Survival

Question

Phase IV pharmaco-vigilance primarily monitors which outcomes?

Answer

Safety

Question

Which oncovirus causes Burkitt lymphoma?

Answer

EBV

Question

The vector transmitting *Borrelia recurrentis*?

Answer

Lice (pediculosis)

Question

Plasmid-mediated colistin resistance gene?

Answer

mcr-1

Question

Ziehl–Neelsen stains which cell-wall component?

Answer

Mycolic acids

Question

What fungal infection forms pigmented macroscopic
""grains"" in tissue?

Answer

Mycetoma

Question

Cross-presentation loads antigen onto which class of MHC?

Answer

Class I

Question

Leading bacterial cause of post-neurosurgical meningitis

Answer

Staphylococcus

Question

Cause of progressive multifocal leukoencephalopathy

Answer

JC virus (human polyomavirus 2)

Question

Beta-lactamase inhibitor that restores meropenem activity
in CRE

Answer

Vaborbactam

Question

Entamoeba histolytica trophozoite ingests what cells?

Answer

Erythrocytes

Question

Open peer review reveals which element?

Answer

Reviewer names

Question

Cocooning strategy protects which group?

Answer

Newborns

Question

Which virus causes Roseola infantum?

Answer

HHV-6

Question

Trench fever's aetiologic agent?

Answer

Bartonella quintana

Question

Mutations in which genetic locus primarily cause daptomycin resistance in *Enterococcus faecium*?

Answer

LiaFSR regulatory system (alter cell membrane)

Question

Catalase test bubbles indicate which gas?

Answer

Oxygen

Question

What highly drug-resistant dermatophyte was previously classified as *T. mentagrophytes*?

Answer

Trichophyton indotineae

Question

In bacterial transformation, which material is transferred?

Answer

DNA

Question

Usual chemical used in sterilisation method to inactivate prions

Answer

Sodium hydroxide (or hypochlorite)

Question

Cause of up to 10% of progressive kidney injuries in renal transplants

Answer

BK virus (human polyomavirus 1)

Question

Cefiderocol uptake uses which bacterial system?

Answer

Siderophore/iron transport system

Question

Name a filaria that causes lymphoedema.

Answer

Wuchereria bancrofti or (*Brugia malayi*)

Question

Pre-prints are posted before what process?

Answer

Peer review

Question

‘Basic reproduction number’ is symbolised by which letter?

Answer

R0

Question

JC virus classically causes which demyelinating disease?

Answer

PML

Question

Charcoal-yeast extract agar grows which pathogen?

Answer

Legionella

Question

The *Van* operon variant intrinsically present in *Enterococcus casseliflavus*?

Answer

VanC

Question

TCBS agar is selective for which bacterial genus?

Answer

Vibrio

Question

What fungal genus is most frequently associated with pulmonary infarction?

Answer

Aspergillus

Question

Bacterial conjugation requires which surface structure?

Answer

Pilus

Question

Most common pathogen associated with cell saver blood?

Answer

Coagulase negative staphylococci

Question

Aspergillus species intrinsically resistant to amphotericin B

Answer

Aspergillus terreus

Question

Fluorocycline that treats MDR Gram negatives

Answer

Eravacycline

Question

Babesia microti hallmark finding within erythrocytes?

Answer

Maltese cross

Question

PRISMA guidelines standardise which reports?

Answer

Systematic reviews (or meta-analyses)

Question

Hepatitis B first vaccine dose should be given when?

Answer

At birth

Question

BK virus predominantly threatens which organ transplant?

Answer

Kidney

Question

Weil disease is severe form of what?

Answer

Leptospirosis

Question

What yeast makes characteristic "ship's wheel" and "Mickey Mouse" forms?

Answer

Paracoccidioides brasiliensis

Question

Minimal time for injectable typhoid vaccine prior to travel

Answer

Two weeks

Question

What virus means "that which bends up" (Makonde word)

Answer

Chikungunya

Question

Zoonotic Gram-positive rod intrinsically resistant to vancomycin

Answer

Erysipelothrix rhusiopathiae

Question

Oral antimicrobial that still retains activity against many uropathogens

Answer

Nitrofurantoin, fosfomicin

Question

How long should *Candida albicans* be incubated per EUCAST AST method?

Answer

24 hours

Question

Causes cystic brain lesions resulting in seizures

Answer

Taenia solium (or neurocystercercosis)

Question

How many serotypes of dengue virus are there?

Answer

Four

Question

Photochromic, slow-growing *Mycobacterium* uniformly susceptible to rifampin

Answer

Mycobacterium kansasii

Question

How long should dermatophytes be minimally incubated per EUCAST AST method?

Answer

120 hours (or 5 days)

Selective Pressure: Semi-finals

Per the ANAEuROBE study, what were the top 8 anaerobic bacteria in Europe for the years 2020-2023?

<i>Bacterioides fragilis</i> group (25.9%)	14	<i>Parvimonas micra</i> (formerly <i>Micromonas micros</i> , 3.4%)	9
<i>Cutibacterium acnes</i> (formerly <i>Propionibacterium acnes</i> , 18.7%)	13	<i>Eggerthella lenta</i> (1.7%)	8
<i>Clostridium perfringens</i> (5.3%)	12	<i>Phocaeicola vulgatus</i> (formerly <i>Bacterioides vulgatus</i> , 1.5%)	7
<i>Fusobacterium nucleatum</i> (3.5%)	11	<i>Staphylococcus saccharolyticus</i> (formerly <i>Peptococcus</i> <i>saccharolyticus</i> , 1.4%)	6

According to a 2024 WHO report, name the top 8 countries with the most reported cases of Measles

Democratic Republic of Congo (311 500 cases)	14	Romania (25 505 cases)	9
Iraq (32 494 cases)	13	Pakistan (24 709 cases)	8
Ethiopia (31 044 cases)	12	Russia (22 455 cases)	7
Kazakhstan (28 147 cases)	11	Uzbekistan (20 940 cases)	6

What are the eight most common symptoms of leptospirosis?

Fever/Chills (96-100%)

14

Arthralgia (45%)

9

Headache (66-75%)

13

**Conjunctival suffusion /
conjunctivitis (28-52%)**

8

Myalgia (55-66%)

12

Jaundice (31-39%)

7

**Nausea/vomiting/diarrhoea
(39-56%)**

11

Hematuria (31%)

6

Per 2024 WHO data, what are the most important antibiotic-resistant bacteria (antibiotic (class)- resistance and species)

Carbapenem-resistant *Klebsiella pneumoniae* 14

3rd generation cephalosporin-resistant *Escherichia coli* 13

Carbapenem-resistant *Acinetobacter baumannii* 12

Rifampicin-resistant *Mycobacterium tuberculosis* 11

Carbapenem-resistant *Escherichia coli* 9

3rd generation cephalosporin-resistant *Klebsiella pneumoniae* 8

Fluoroquinolone-resistant *Salmonella typhi* 7

Fluoroquinolone-resistant *Shigella species* 6



See you in Stockholm
9 – 13 April 2027

