

# Work Smart Session - MRCP Part 1

Question: 1 of 10

Time taken: 00:22

A 45-year-old male intravenous drug user (IVDU) presents to hospital with fever and a productive cough.

On examination, a pansystolic murmur is heard at the left sternal edge. CXR reveals multiple cavitary lesions.

What is the likeliest explanation?

(Please select 1 option)

<input type="checkbox"/>	Aortic valve endocarditis with embolisation
<input type="checkbox"/>	Aspiration pneumonia
<input type="checkbox"/>	Mitral valve endocarditis with embolisation
<input type="checkbox"/>	Pulmonary TB
<input type="checkbox"/>	Tricuspid valve endocarditis with embolisation

## Session Analysis

CorrectIncorrectPartially Correct

Score: 69.7%

Total Answered: 33

[Tag Question](#)



# Work Smart Session - MRCP Part 1

Question: 1 of 10

Time taken: 01:24

A 45-year-old male intravenous drug user (IVDU) presents to hospital with fever and a productive cough.

On examination, a pansystolic murmur is heard at the left sternal edge. CXR reveals multiple cavitary lesions.

What is the likeliest explanation?

(Please select 1 option)

	Aortic valve endocarditis with embolisation
	Aspiration pneumonia
	Mitral valve endocarditis with embolisation
	Pulmonary TB
	Tricuspid valve endocarditis with embolisation <div>?</div> Correct

IVDUs are susceptible to *S. aureus* tricuspid valve endocarditis due to auto-inoculation of *S. aureus* during injection.

In IVDUs, pulmonary TB and aspiration pneumonia are less likely causes of multiple pulmonary cavitary lesions.

## Related Articles (BMJ)

Tricuspid valvectomy following tricuspid valve endocarditis on an intravenous drug addict --  
NIHOYANNOPOULOS 86 (2): 144 -- Heart

[Read article](#)

Staphylococcus lugdunensis endocarditis -- Farrag et al. 77 (906): 259 -- Postgraduate Medical Journal

[Read article](#)

Septic arthritis in a native joint due to Anaerococcus prevotii -- Jain et al. 61 (6): 775 -- Journal of Clinical Pathology

[Read article](#)

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 70.59%

Total Answered: 34

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Web (4)

Tricuspid Valve Endocarditis in an Intravenous Drug Abuser ...

www.ncbi.nlm.nih.gov  
www.ncbi.nlm.nih.gov/pmc/articl  
es/PMC3089828/  
Tricuspid Valve Endocarditis in an  
Intravenous Drug Abuser ...

There was a grade 3/6 pansystolic  
murmur over the left sternal border,  
bilateral .... Clinical manifestations  
and outcome in Staphylococcus  
aureus endocarditis ...

www.ncbi.nlm.nih.gov  
www.ncbi.nlm.nih.gov/pmc/articles/P  
MC3089828/  
clipped from Google - 8/2012  
Infective endocarditis caused

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# Work Smart Session - MRCP Part 1

Question: 2 of 10

Time taken: 01:26

A 15 week pregnant woman is exposed to a family member with an erythematous rash. She has previously been immunised with MMR twice.

What is the most appropriate next test?

(Please select 1 option)

<input type="checkbox"/>	CMV IgG
<input type="checkbox"/>	<i>Erythrovirus</i> B19 IgG
<input type="checkbox"/>	Measles IgG
<input type="checkbox"/>	Rubella IgG
<input type="checkbox"/>	<i>Toxoplasma</i> IgG

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 70.59%

Total Answered: 34

+

Tag Question



# Work Smart Session - MRCP Part 1

Question: 2 of 10

Time taken: 02:38

A 15 week pregnant woman is exposed to a family member with an erythematous rash. She has previously been immunised with MMR twice.

What is the most appropriate next test?

(Please select 1 option)

	CMV IgG
	<i>Erythrovirus</i> B19 IgG <div>?</div> This is the correct answer
	Measles IgG
	Rubella IgG <div>?</div> Incorrect answer selected
	<i>Toxoplasma</i> IgG

As she has had two MMR immunisations the patient will be immune against measles and rubella.

If further serological testing demonstrates seroconversion to *Erythrovirus* B19, the mother should be followed up with serial ultrasound scans.

If hydrops fetalis is detected, intrauterine blood transfusions should be considered.

## Related Articles (BMJ)

Hydrops fetalis due to ABO incompatibility -- McDonnell et al. 78 (3): F220 -- ADC - Fetal and Neonatal Edition  
[Read article](#)

Syphilis in pregnancy -- GenÃ§ and Ledger 76 (2): 73 -- Sexually Transmitted Infections  
[Read article](#)

Acute severe anaemia in an elderly patient with hereditary sphaerocytosis -- 79 (930): 246 -- Postgraduate Medical Journal  
[Read article](#)

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CorrectIncorrectPartially Correct

Score: 68.57%

Total Answered: 35

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Web (4)

Hydrops fetalis - Wikipedia, the free encyclopedia

en.wikipedia.org

en.wikipedia.org/wiki/Hydrops\_fetalis

Hydrops fetalis - Wikipedia, the free encyclopedia

en.wikipedia.org

en.wikipedia.org/wiki/Hydrops\_fetalis

Hydrops fetalis is a condition in the fetus characterized by an accumulation of fluid, ... Rh disease can be prevented by administration of anti-D IgG (Rho(D) ...

en.wikipedia.org

en.wikipedia.org/wiki/Hydrops\_fetalis

clipped from Google - 8/2012

Hydrops Fetalis

www.lpch.org

www.lpch.org/DiseaseHealthInf

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# Work Smart Session - MRCP Part 1

Question: 3 of 10

Time taken: 02:51

A 43-year-old Nigerian presents with an eight month history of weight loss, fever and night sweats.

On examination she had left axillary lymphadenopathy.

What is the likeliest cause of her illness?

(Please select 1 option)

<input type="checkbox"/>	Carcinoma of the breast
<input type="checkbox"/>	HIV infection
<input type="checkbox"/>	Lymphoma
<input type="checkbox"/>	SLE
<input type="checkbox"/>	Tuberculosis (TB)

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 68.57%

Total Answered: 35

+

Tag Question



# Work Smart Session - MRCP Part 1

**Question: 4 of 10**

**Time taken: 05:05**

A patient with multiple drug resistant (MDR) TB is receiving prolonged treatment with moxifloxacin.

Which side effect is likely to occur as a result of prolonged administration?

(Please select 1 option)

	<b>A</b> Achilles tendinitis
	<b>B</b> Hepatotoxicity
	<b>C</b> Nephrotoxicity
	<b>D</b> Peripheral neuropathy
	<b>E</b> Retinopathy

## ▼ Session Analysis

CorrectIncorrectPartially  
CorrectCorrect: 25 question(s)

**Score: 69.44%**

**Total Answered: 36**



 Tag Question







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# Work Smart Session - MRCP Part 1

Question: 5 of 10

Time taken: 05:43

Gentamicin, 7 mg/kg once daily, is administered to an elderly patient with severe urosepsis.

Twenty-four hours post administration gentamicin levels are more than 2 mg/l.

Which of the following complications would you expect?

(Please select 1 option)

<input type="radio"/>	A Hepatotoxicity
<input type="radio"/>	B Nephrotoxicity
<input type="radio"/>	C Ototoxicity
<input type="radio"/>	D Peripheral neuropathy
<input type="radio"/>	E Retinopathy

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 70.27%

Total Answered: 37

+

Tag Question



# Work Smart Session - MRCP Part 1

**Question: 5 of 10**

**Time taken: 06:36**

Gentamicin, 7 mg/kg once daily, is administered to an elderly patient with severe urosepsis.

Twenty-four hours post administration gentamicin levels are more than 2 mg/l.

Which of the following complications would you expect?

(Please select 1 option)

	A Hepatotoxicity
	B Nephrotoxicity  Correct
	C Ototoxicity
	D Peripheral neuropathy
	E Retinopathy

Prolonged exposure to gentamicin is likely to cause nephrotoxicity, particularly in elderly patients with renal impairment.

Therefore the next dose of gentamicin should not be given if the gentamicin trough exceeds 2 mg/l.

### Related Articles (BMJ)

A concealed cause of recurrent renal failure in a patient with juvenile chronic arthritis -- Hamilton et al.  
58 (7): 396 -- *Annals of the Rheumatic Diseases*

[Read article](#) 

Fulminant progression of hyperammonaemic encephalopathy after treatment with valproate in a patient with ureterosigmoidostomy -- Schwarz et al. 73 (1): 90 -- Journal of Neurology, Neurosurgery Psychiatry

[Read article](#) 

Diagnostic value of specific T cell reactivity to drugs in 95 cases of drug induced liver injury -- Maria and Victorino 41 (4): 534 -- Gut

[Read article](#) 

### ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 71.05%**

**Total Answered: 38**

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## Rate this question



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### Answer statistics

Rank	Percentage
1	2%
2	63%
3	33%
4	1%
5	1%

**Times answered** 2925

Web  
(0)Book  
(4)

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# Work Smart Session - MRCP Part 1

Question: 6 of 10

Time taken: 06:53

What is the mechanism of action of ciprofloxacin?

(Please select 1 option)

	A Cell wall inhibition
	B Inhibition of protein synthesis (translation)
	C Inhibition of protein synthesis (transcription)
	D Inhibition of folic acid metabolism
	E Interference with DNA replication

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 71.05%

Total Answered: 38

Tag Question





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# Work Smart Session - MRCP Part 1

Question: 7 of 10

Time taken: 07:37

What is the mechanism of action of trimethoprim?

(Please select 1 option)

	A Cell wall inhibition
	B Inhibition of protein synthesis (translation)
	C Inhibition of protein synthesis (transcription)
	D Inhibition of folic acid metabolism
	E Interference with DNA replication

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 71.79%

Total Answered: 39

Tag Question



# Work Smart Session - MRCP Part 1

Question: 7 of 10

Time taken: 07:53

What is the mechanism of action of trimethoprim?

(Please select 1 option)

	A Cell wall inhibition
	B Inhibition of protein synthesis (translation)
	C Inhibition of protein synthesis (transcription)
	D Inhibition of folic acid metabolism <div>?</div> Correct
	E Interference with DNA replication

Trimethoprim interferes with the action of dihydrofolic reductase (DHFR), which is an enzyme that converts dihydrofolic to tetrahydrofolic acid, an essential stage in bacterial purine and, ultimately DNA synthesis.

## Related Articles (BMJ)

- Will pharmacogenetics allow better prediction of methotrexate toxicity and efficacy in patients with rheumatoid arthritis? -- Ranganathan et al. 62 (1): 4 -- Annals of the Rheumatic Diseases

[Read article](#)
- Rubinsteinâ€Taybi syndrome with humoral and cellular defects: a case report -- Villella et al. 83 (4): 360 -- Archives of Disease in Childhood

[Read article](#)
- Acute severe ulcerative colitis: timing is everything -- Gulliford and Limdi 87 (1025): 215 -- Postgraduate Medical Journal

[Read article](#)

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CorrectIncorrectPartially Correct

Score: 72.5%

Total Answered: 40

Tag Question

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Answer statistics

1

10%

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59%

5

12%

Times answered 2899

Web  
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Book  
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(FACEBOOK) <https://www.facebook.com/groups/mymrcp1/> [saqibraza@doctor.com](mailto:saqibraza@doctor.com)

[http://localhost/onexamination%208%202012/Microbiology/7a.aspx\[6/8/2013 12:38:32 PM\]](http://localhost/onexamination%208%202012/Microbiology/7a.aspx[6/8/2013 12:38:32 PM])



# Work Smart Session - MRCP Part 1

Question: 8 of 10

Time taken: 08:18

What is the mechanism of action of glycopeptides (for example, vancomycin)?

(Please select 1 option)

	A Cell wall inhibition	<div>?</div> Correct
	B Inhibition of protein synthesis (translation)	
	C Inhibition of protein synthesis (transcription)	
	D Inhibition of folic acid metabolism	
	E Interference with DNA replication	

Glycopeptides inhibit cell wall synthesis through steric hindrance of peptidoglycans, components of the bacterial cell wall.

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CorrectIncorrectPartially Correct

Score: 73.17%

Total Answered: 41

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Answer statistics

1

47%

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3%

5

12%

Times answered 2917

Web  
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Book  
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# Work Smart Session - MRCP Part 1

Question: 9 of 10

Time taken: 09:04

What is the mechanism of action of gentamicin, when used synergistically with benzylpenicillin to treat an infective endocarditis caused by *Streptococcus viridans*?

(Please select 1 option)

	A Cell wall inhibition	
	B Inhibition of protein synthesis (translation)	<div>?</div> This is the correct answer
	C Inhibition of protein synthesis (transcription)	<div>?</div> Incorrect answer selected
	D Inhibition of folic acid metabolism	
	E Interference with DNA replication	

Gentamicin is synergistic to the action of benzylpenicillin.

Benzylpenicillin is bactericidal, inhibiting cell wall synthesis, enabling gentamicin to enter the bacterial cell.

It acts at the level of the ribosome, inhibiting protein synthesis.

## Related Articles (BMJ)

- Antibiotic treatment of streptococcal, enterococcal, and staphylococcal endocarditis -- 79 (2): 207 -- Heart  
[Read article](#)
- Management of infective endocarditis -- 40 (4): 26 -- DTB - Drug and Therapeutics Bulletin  
[Read article](#)
- Gonococcal endocarditis: a rare complication of a common disease -- Shetty et al. 57 (7): 780 -- Journal of Clinical Pathology  
[Read article](#)

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CorrectIncorrectPartially Correct

Score: 71.43%

Total Answered: 42

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Answer statistics

1

23%

2

32%

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29%

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4%

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12%

Times answered 2893

Web  
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Book  
(4)

# Work Smart Session - MRCP Part 1

**Question: 10 of 10**

**Time taken: 09:20**

A patient is found to have an acquired syndrome associated with defective breakdown and disposal of intracellular fatty acids.

Which intracellular organelle is concerned with the breakdown of fatty acids?

(Please select 1 option)

	Golgi apparatus
	Lysosomes
	Mitochondria
	Peroxisomes
	Smooth endoplasmic reticulum

## ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 71.43%**

**Total Answered: 42**



 Tag Question



# Work Smart Session - MRCP Part 1

Question: 10 of 10

Time taken: 10:06

A patient is found to have an acquired syndrome associated with defective breakdown and disposal of intracellular fatty acids.

Which intracellular organelle is concerned with the breakdown of fatty acids?

(Please select 1 option)

	Golgi appartus
	Lysosomes <div>?</div> Incorrect answer selected
	Mitochondria
	Peroxisomes <div>?</div> This is the correct answer
	Smooth endoplasmic reticulum

Mitochondria are concerned with aerobic cell respiration and Golgi bodies are likely to be responsible for transporting products synthesised in the smooth endoplasmic reticulum.

Smooth endoplasmic reticulum is a site of lipid synthesis within the cell.

Lysosomes (lysis- breakage, soma- body) contain digestive enzymes which break down expendable cell organelles, engulfed viruses and other intracellular detritus.

Peroxisomes are responsible for the metabolism of fatty acids within cells.

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 69.77%

Total Answered: 43

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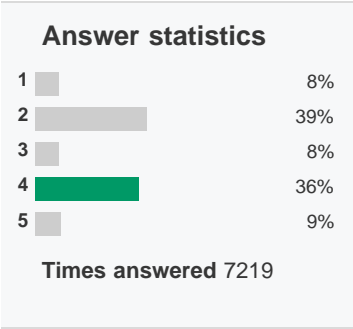
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[Lysosome - Wikipedia, the free encyclopedia](#)  
en.wikipedia.org/wiki/Lysosome  
[Lysosome - Wikipedia, the free](#)

# Work Smart Session - MRCP Part 1

Question: 1 of 10

**Time taken: 00:10**

A 59-year-old woman presents with a two week history of back pain.

On admission, WCC is  $24 \times 10^9/\text{L}$  (4-11). MR scan reveals a thoracic spine discitis associated with an epidural abscess.

What is the likeliest cause?

(Please select 1 option)

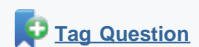
	<i>Brucella melitensis</i>
	<i>Escherichia coli</i>
	<i>M. tuberculosis</i>
	Methicillin-resistant <i>S. aureus</i> (MRSA)
	Methicillin-sensitive <i>S. aureus</i> (MSSA)

## ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 69.77%**

**Total Answered: 43**



# Work Smart Session - MRCP Part 1

Question: 1 of 10

Time taken: 00:46

A 59-year-old woman presents with a two week history of back pain.

On admission, WCC is  $24 \times 10^9/L$  (4-11). MR scan reveals a thoracic spine discitis associated with an epidural abscess.

What is the likeliest cause?

(Please select 1 option)

	<i>Brucella melitensis</i>	
	<i>Escherichia coli</i>	
	<i>M. tuberculosis</i>	
	Methicillin-resistant <i>S. aureus</i> (MRSA)	
	Methicillin-sensitive <i>S. aureus</i> (MSSA)	? Correct

In the United Kingdom, MSSA is a more common cause of severe community-acquired infections than MRSA.

*Brucella* and TB can cause osteomyelitis in patients from countries where these infections are endemic but do not cause a raised white cell count.

*Escherichia coli* is an unlikely cause of vertebral osteomyelitis.

## Related Articles (BMJ)

- Spontaneous spondylodiscitis caused by Klebsiella oxytoca -- Sabio et al. 61 (8): 758 -- Annals of the Rheumatic Diseases

[Read article](#)
- Spinal epidural abscess: the importance of early diagnosis and treatment -- Mackenzie et al. 65 (2): 209 -- Journal of Neurology, Neurosurgery Psychiatry

[Read article](#)
- Lumbar spondylodiscitis secondary to Enterobacter cloacae septicaemia after extracorporeal shock wave lithotripsy -- KAMANLI et al. 60 (10): 989 -- Annals of the Rheumatic Diseases

[Read article](#)

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CorrectIncorrectPartially Correct

Score: 70.45%

Total Answered: 44

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Answer statistics

1

10%

2

8%

3

26%

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14%

5

41%

Times answered 1622

Web (4)

[Spondylodiscitis: update on diagnosis and management](#)  
jac.oxfordjournals.org  
jac.oxfordjournals.org/content/65/suppl\_3/iii11.full

# Work Smart Session - MRCP Part 1

Question: 2 of 10

Time taken: 00:57

An 80-year-old man is admitted to hospital with a CVA.

Due to incontinence secondary to immobility, a urinary catheter is inserted. Five days later the patient becomes severely septic.

What is the likeliest cause of his sepsis?

(Please select 1 option)

<input type="checkbox"/>	Aspiration pneumonia
<input type="checkbox"/>	<i>Clostridium difficile</i> diarrhoea
<input type="checkbox"/>	Infected intravascular catheter
<input type="checkbox"/>	Infected pressure sores
<input type="checkbox"/>	Urinary tract infection, catheter associated

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 70.45%

Total Answered: 44

+

Tag Question



# Work Smart Session - MRCP Part 1

**Question: 2 of 10**


**Time taken: 01:51**

An 80-year-old man is admitted to hospital with a CVA.

Due to incontinence secondary to immobility, a urinary catheter is inserted. Five days later the patient becomes severely septic.

What is the likeliest cause of his sepsis?

(Please select 1 option)

	Aspiration pneumonia
	<i>Clostridium difficile</i> diarrhoea
	Infected intravascular catheter
	Infected pressure sores
	Urinary tract infection, catheter associated  Correct

Urinary catheters are a risk to patients and should only be inserted in patients to relieve obstruction or when monitoring of urine output is required for medical reasons.

### Related Articles (BMJ)

Bovine immunoglobulin concentrate-Clostridium difficile retains C difficile toxin neutralising activity after passage through the human stomach and small intestine -- Warny et al. 44 (2): 212 -- Gut

[Read article](#) 

C. difficile outside hospital -- 47 (12): 133 -- DTB - Drug and Therapeutics Bulletin

[Read article](#) 

A probiotic drink prevented diarrhoea and *Clostridium difficile* infection in older patients taking antibiotics -- 13 (2): 46 -- Evidence-Based Medicine

[Read article](#) 

### ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 71.11%**

**Total Answered: 45**

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## Rate this question



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### Answer statistics

Rank	Percentage
1	21%
2	2%
3	5%
4	3%
5	69%

**Times answered** 1594

Web  
(4)

[Clostridium difficile - Wikipedia, the free encyclopedia](https://en.wikipedia.org/wiki/Clostridium_difficile)  
en.wikipedia.org  
en.wikipedia.org/wiki/Clostridiu









# Work Smart Session - MRCP Part 1

**Question: 4 of 10**

**Time taken: 06:16**

A 59-year-old female presents with dizziness, malaise and a fluctuating Glasgow coma score (GCS). CT scan of the head is normal.


CSF examination reveals the following:

<b>WCC</b>	4480 (99% neutrophils)	< 1
<b>RCC</b>	700	<1
<b>Protein</b>	2.02g/L	<0.4
<b>Glucose</b>	1.4 mmol/L (plasma glucose 5.6 mmol/L)	

Blood cultures reveal Gram positive cocci in pairs.

What is the likeliest cause of this patient's meningitis?

(Please select 1 option)

	<i>L. monocytogenes</i>
	<i>N. meningitidis</i>
	<i>S. agalactiae</i>
	<i>S. aureus</i>
	<div> <div><i>Streptococcus pneumoniae</i></div> <div>  <div>Correct</div> </div> </div>

*N. meningitides* is a clinical possibility but these would appear as Gram negative diplococci in blood cultures.

*L. monocytogenes* are Gram positive rods and a rare cause of meningitis in the elderly or immunocompromised.

*S.agalactiae* is the commonest cause of late onset neonatal disease and rarely causes meningitis in adults.

### Related Articles (BMJ)

Use of the diagnostic bacteriology laboratory: a practical review for the clinician -- Steinbach and Shetty 77 (905): 148 -- Postgraduate Medical Journal

[Read article](#) 

What role for  $\hat{\alpha}$ -tigecycline in infections? -- 46 (8): 62 -- DTB - Drug and Therapeutics Bulletin

[Read article](#) 

Gemella bacteraemia characterised by 16S ribosomal RNA gene sequencing -- Woo et al. 56 (9): 690  
-- Journal of Clinical Pathology

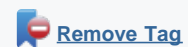
[Read article](#) 

### ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 72.34%**

**Total Answered: 47**

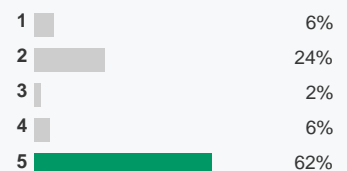


## Rate this question



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### Answer statistics



**Times answered** 1478

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# Work Smart Session - MRCP Part 1

Question: 5 of 10

Time taken: 06:35

A 43-year-old female presents with fever, headache and confusion. CT scan reveals a space occupying lesion.

In theatre, pus is aspirated from the lesion and a Gram stain reveals a large number of polymorphs, and gram positive cocci in chains.

What is the likeliest cause of this brain abscess?

(Please select 1 option)

<input type="checkbox"/>	<i>Enterococcus faecalis</i>
<input type="checkbox"/>	Group A <i>Streptococci</i>
<input type="checkbox"/>	Group B <i>Streptococci</i>
<input type="checkbox"/>	<i>S. milleri</i>
<input type="checkbox"/>	<i>Streptococcus pneumoniae</i>

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 72.34%

Total Answered: 47

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Tag Question





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# Work Smart Session - MRCP Part 1

Question: 6 of 10

Time taken: 07:37

A 15 week pregnant woman is exposed to a family member with chickenpox.

What is the most appropriate next step?

(Please select 1 option)

<input type="checkbox"/>	Advise serial ultrasound scans
<input type="checkbox"/>	Check varicella zoster IgG status
<input type="checkbox"/>	Counsel high risk of congenital varicella syndrome
<input type="checkbox"/>	Give varicella zoster immunoglobulin (VZIg)
<input type="checkbox"/>	Reassure

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 70.83%

Total Answered: 48

Tag Question

# Work Smart Session - MRCP Part 1

Question: 6 of 10

Time taken: 08:18

A 15 week pregnant woman is exposed to a family member with chickenpox.

What is the most appropriate next step?

(Please select 1 option)

	Advise serial ultrasound scans
	Check varicella zoster IgG status <div>?</div> Correct
	Counsel high risk of congenital varicella syndrome
	Give varicella zoster immunoglobulin (VZIg)
	Reassure

Despite exposure in the first trimester, the risk of congenital varicella syndrome remains low.

Unlike exposure to *Erythrovirus* B19, serial ultrasound scans are not recommended.

It is important to elucidate the varicella zoster serostatus of the mother as only if seronegative should varicella zoster IgG be administered. This is provided it is given within 10 days of exposure, the minimum incubation period of chickenpox.

## Related Articles (BMJ)

Microbial infections in eight genomic subtypes of chronic fatigue syndrome/myalgic encephalomyelitis -- Zhang et al. 63 (2): 156 -- Journal of Clinical Pathology

[Read article](#)

Type specific seroprevalence of HSV-1 and HSV-2 in four geographical regions of Poland -- Smith et al. 82 (2): 159 -- Sexually Transmitted Infections

[Read article](#)

High prevalence of potentially virulent strains ofHelicobacter pylori in the general male British population -- Danesh et al. 47 (1): 23 -- Gut

[Read article](#)

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CorrectIncorrectPartially  
CorrectCorrect: 35 question(s)

Score: 71.43%

Total Answered: 49

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Answer statistics

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Times answered 1584

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# Work Smart Session - MRCP Part 1

Question: 7 of 10

Time taken: 08:39

A patient with TB is receiving the following drugs as induction phase during treatment; rifampicin, isoniazid, pyrazinamide, ethambutol and pyridoxine.

Which drug is most likely to cause peripheral neuropathy?

(Please select 1 option)

<input type="radio"/>	A. Ethambutol
<input type="radio"/>	B. Isoniazid
<input type="radio"/>	C. Pyrazinamide
<input type="radio"/>	D. Pyridoxine
<input type="radio"/>	E. Rifampicin

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 71.43%

Total Answered: 49

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# Work Smart Session - MRCP Part 1

Question: 7 of 10

Time taken: 09:43

A patient with TB is receiving the following drugs as induction phase during treatment; rifampicin, isoniazid, pyrazinamide, ethambutol and pyridoxine.

Which drug is most likely to cause peripheral neuropathy?

(Please select 1 option)

<input type="radio"/>	A. Ethambutol
<input checked="" type="radio"/>	B. Isoniazid <div>Correct</div>
<input type="radio"/>	C. Pyrazinamide
<input type="radio"/>	D. Pyridoxine
<input type="radio"/>	E. Rifampicin

Supplementation with pyridoxine, vitamin B6, reduces the risk.

## ▼ Session Analysis

CorrectIncorrectPartially Correct

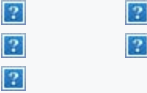
Score: 72%

Total Answered: 50

Tag Question

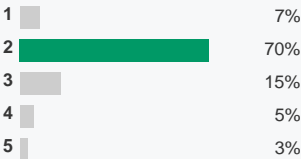


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### Answer statistics



Times answered 2917

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(4)

[Determinants of Rifampin, Isoniazid, Pyrazinamide, and Ethambutol ...](#)  
www.ncbi.nlm.nih.gov  
www.ncbi.nlm.nih.gov/pmc/articles/PMC1426981/  
[Determinants of Rifampin, Isoniazid, Pyrazinamide, and Ethambutol ...](#)  
Our objective was to describe the pharmacokinetics of rifampin, isoniazid, pyrazinamide, and

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# Work Smart Session - MRCP Part 1

Question: 8 of 10

Time taken: 09:56

What is the mechanism of resistance for rifampicin resistant *Mycobacterium tuberculosis*?

(Please select 1 option)

	A Alteration in cell wall permeability
	B Alteration of the DNA dependent RNA transcriptase
	C Alteration of penicillin binding proteins (PBPs)
	D Efflux mechanism
	E Production of the inactivating enzyme, penicillinase

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 72%

Total Answered: 50

Tag Question



# Work Smart Session - MRCP Part 1

Question: 8 of 10

Time taken: 10:19

What is the mechanism of resistance for rifampicin resistant *Mycobacterium tuberculosis*?

(Please select 1 option)

	A Alteration in cell wall permeability
	B Alteration of the DNA dependent RNA transcriptase <div>?</div> Correct
	C Alteration of penicillin binding proteins (PBPs)
	D Efflux mechanism
	E Production of the inactivating enzyme, penicillinase

Rifampicin is a bacteriostatic antibiotic which acts by inhibiting protein synthesis.

Mutations in *rpoB* gene cause alterations in the bacterial DNA dependent RNA transcriptase which prevents the binding of rifampicin.

## Related Articles (BMJ)

- Diagnosis and treatment of bacterial meningitis -- El Bashir et al. 88 (7): 615 -- Archives of Disease in Childhood

[Read article](#)
- Fusidic acid resistance in Staphylococcus aureus -- Dobie and Gray 89 (1): 74 -- Archives of Disease in Childhood

[Read article](#)
- Management of community-associated MRSA -- 48 (2): 14 -- DTB - Drug and Therapeutics Bulletin

[Read article](#)

▼ Session Analysis

CorrectIncorrectPartially  
CorrectCorrect: 37 question(s)

Score: 72.55%

Total Answered: 51

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Times answered 2902

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memorize.com/fa-antibiotics/wo

**Question: 9 of 10**

## ▼ Session Analysis

CorrectIncorrectPartially Correct

	<b>A</b> Alteration in cell wall permeability
	<b>B</b> Alteration of the DNA dependent RNA transcriptase
	<b>C</b> Alteration of penicillin binding proteins (PBPs)
	<b>D</b> Efflux
	<b>E</b> Production of the inactivating enzyme, penicillinase

**Total Answered: 51**





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# Work Smart Session - MRCP Part 1

Question: 10 of 10

Time taken: 11:07

A patient is diagnosed with an abnormality of oligopeptide disposal.

Which intracellular organelle is associated with the metabolism of oligopeptides?

(Please select 1 option)

	Golgi apparatus
	Lysosomes
	Peroxisomes
	Ribosomes
	Smooth endoplasmic reticulum

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 71.15%

Total Answered: 52

Tag Question



# Work Smart Session - MRCP Part 1

Question: 10 of 10

Time taken: 11:30

A patient is diagnosed with an abnormality of oligopeptide disposal.

Which intracellular organelle is associated with the metabolism of oligopeptides?

(Please select 1 option)

	Golgi apparatus
	Lysosomes <div>?</div> Correct
	Peroxisomes
	Ribosomes
	Smooth endoplasmic reticulum

Lysosomes (lysis- breakage, soma- body), carry hydrolases that degrade

- Nucleotides
- Proteins
- Lipids
- Phospholipids.

They also remove carbohydrate, sulfate, or phosphate groups from molecules.

Ribosomes are intimately associated with the rough endoplasmic reticulum and are responsible for protein translation.

Peroxisomes are responsible for the metabolism of fatty acids within cells.

▼ Session Analysis

CorrectIncorrectPartially  
CorrectCorrect: 38 question(s)

Score: 71.7%

Total Answered: 53

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Related Articles (BMJ)

Food for thought: autophagic vacuolar myopathies -- Strehle 94 (8): 567 -- Archives of Disease in Childhood

[Read article](#)

Clinical and morphological features including expression of Î²ig-h3 and keratan sulphate proteoglycans in Maroteaux-Lamy syndrome type B and in normal cornea -- Akhtar et al. 86 (2): 147 - British Journal of Ophthalmology

[Read article](#)

Phenotype and genotype in mucopolidoses II and III alpha/beta: a study of 61 probands -- Cathey et al. 47 (1): 38 -- Journal of Medical Genetics

[Read article](#)

Answer statistics

1

17%

2

36%

3

15%

4

18%

5

14%

Times answered 6854

Web  
(0)

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(4)



# Work Smart Session - MRCP Part 1

Question: 1 of 4

**Time taken: 00:15**

A 45-year-old Ghanaian man presents to hospital with a right sided middle lobe pneumonia.

*Streptococcus pneumoniae* is isolated from blood cultures.

What is the likeliest underlying association?

(Please select 1 option)

	Common variable immunodeficiency (CVID)
	HIV
	HTLV-1
	IgA deficiency
	Terminal complement deficiency

## ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 71.7%**

**Total Answered: 53**



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# Work Smart Session - MRCP Part 1

Question: 2 of 4

Time taken: 01:00

A 45-year-old Indian man is seen by his GP with oropharyngeal candidiasis and treated with fluconazole. One month later he developed a dry cough, night sweats and shortness of breath (SOB) on exertion.

On admission to hospital CXR revealed bilateral ground glass shadowing.

What is the likeliest diagnosis?

(Please select 1 option)

<input type="checkbox"/>	Late onset asthma
<input type="checkbox"/>	Pneumococcal pneumonia
<input type="checkbox"/>	<i>Pneumocystis carinii</i> pneumonia (PCP)
<input type="checkbox"/>	Tuberculosis (TB)
<input type="checkbox"/>	Viral pneumonitis (H1N1)

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 70.37%

Total Answered: 54

+

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# Work Smart Session - MRCP Part 1

**Question: 2 of 4**


**Time taken: 02:53**

A 45-year-old Indian man is seen by his GP with oropharyngeal candidiasis and treated with fluconazole. One month later he developed a dry cough, night sweats and shortness of breath (SOB) on exertion.

On admission to hospital CXR revealed bilateral ground glass shadowing.

What is the likeliest diagnosis?

(Please select 1 option)

	Late onset asthma
	Pneumococcal pneumonia
	<i>Pneumocystis carinii</i> pneumonia (PCP)  <span style="color: green;">Correct</span>
	Tuberculosis (TB)
	Viral pneumonitis (H1N1)

HIV diagnoses are often delayed in groups of patients other than sub-Saharan Africans and men who have sex with men.

Guidance in 2008 aimed to reduce barriers to HIV testing but there is still reluctance to offer HIV testing to patients, despite unusual clinical presentations, outside traditional risk groups.

### Related Articles (BMJ)

Antimicrobial prophylaxis -- Smith and Finn 80 (4): 388 -- Archives of Disease in Childhood

[Read article](#) 

Neonatal pneumonia in developing countries -- Duke 90 (3): F211 -- ADC - Fetal and Neonatal Edition

[Read article](#) 

AIDS and the lung in a changing world -- MAYAUD and CADRANEL 56 (6): 423 -- Thorax

[Read article](#) 

## ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 70.91%**

**Total Answered: 55**



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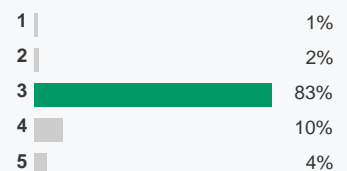


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### Answer statistics



**Times answered** 1712

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# Work Smart Session - MRCP Part 1

**Question: 3 of 4**

**Time taken: 03:04**

An 85-year-old woman was admitted to hospital complaining of a swollen right leg.

On examination she had extensive right leg erythema with blisters. Subsequently she became confused and hypotensive and was transferred to ITU for ventilation and inotropic support.

What is the likeliest cause of her condition?

(Please select 1 option)

	Group C <i>Streptococcus</i>
	Group G <i>Streptococcus</i>
	MRSA
	<i>S. aureus</i>
	<i>S. pyogenes</i> (Group A <i>Streptococcus</i> )

## ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 70.91%**

**Total Answered: 55**



 Tag Question



# Work Smart Session - MRCP Part 1

**Question: 3 of 4**


**Time taken: 04:01**

An 85-year-old woman was admitted to hospital complaining of a swollen right leg.

On examination she had extensive right leg erythema with blisters. Subsequently she became confused and hypotensive and was transferred to ITU for ventilation and inotropic support.

What is the likeliest cause of her condition?

(Please select 1 option)

	Group C <i>Streptococcus</i>
	Group G <i>Streptococcus</i>
	MRSA
	<i>S. aureus</i>
	<i>S. pyogenes</i> (Group A <i>Streptococcus</i> )  <span>Correct</span>

Groups C and G *Streptococci* are less virulent than Group A *Streptococci* and rarely cause severe disease.

Occasionally, *S. aureus* may cause severe disease but rarely an extensive community-acquired cellulitis.

### Related Articles (BMJ)

Preseptal cellulitis caused by community acquired methicillin resistant *Staphylococcus aureus* (CAMRSA) -- Charalampidou et al. 91 (12): 1723 -- British Journal of Ophthalmology

[Read article](#) 

The many faces of cellulitis -- Lio 94 (2): 50 -- ADC - Education and Practice

[Read article](#) 

Dilemmas when managing cellulitis -- 41 (6): 43 -- DTB - Drug and Therapeutics Bulletin

[Read article](#) 

### ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 71.43%**

**Total Answered: 56**

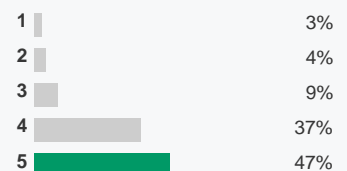
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**Times answered** 1669

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# Work Smart Session - MRCP Part 1

Question: 4 of 4

Time taken: 06:00

A multiple drug resistant *Escherichia coli* was isolated from the urine of a patient with severe sepsis.

What is the likely mechanism of resistance?

(Please select 1 option)

	A Alteration of drug target
	B Drug efflux
	C Drug impermeability
	D Extended spectrum beta-lactamase (ESBL) production
	E Penicillinase production

▼ Session Analysis

CorrectIncorrectPartially Correct

Score: 71.43%

Total Answered: 56

Tag Question



# Work Smart Session - MRCP Part 1



Question: 4 of 4

**Time taken: 06:58**

A multiple drug resistant *Escherichia coli* was isolated from the urine of a patient with severe sepsis.

What is the likely mechanism of resistance?

(Please select 1 option)

	A Alteration of drug target	
	B Drug efflux  Incorrect answer selected	
	C Drug impermeability	
	D Extended spectrum beta-lactamase (ESBL) production  This is the correct answer	
	E Penicillinase production	

Some *Escherichia coli* isolates produce an ESBL that inactivate second and third generation cephalosporins.

The class of drugs that will most reliably treat these infections are the carbapenems.

### Related Articles (BMJ)

Risks of extended-spectrum beta-lactamases -- 46 (3): 21 -- DTB - Drug and Therapeutics Bulletin

[Read article](#) 

## Recent developments in $\beta$ lactamases and extended spectrum $\beta$ lactamases -- Samaha-

Kfoury and Araj 327 (7425): 1209 -- BMJ

[Read article](#) 

Unnatural selection: reducing antibiotic resistance in neonatal units -- Isaacs 91 (1): F72 -- ADC -

Fetal and Neonatal Edition

[Read article](#) 

### ▼ Session Analysis

CorrectIncorrectPartially Correct

**Score: 70.18%**

**Total Answered: 57**



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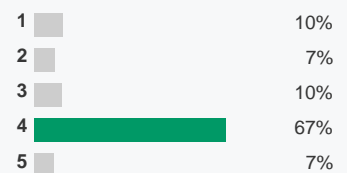


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**Times answered** 2956

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