



MICROBIOLOGY EXTERNAL QUALITY ASSURANCE SCHEME

Under the aegis of Indian Association of Medical Microbiology

IAMM EQAS New Delhi

Department of Clinical Microbiology and Immunology
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Result (Code No: DLH1058 / SHUKAN PATHLAB)

Batch Name	35th QC, March	Batch Marks	90
Start By Date	23-Mar-2024	Submit By Date	02-May-2024

Q.1. Smear :

1.1 : A 65-year-old man with uncontrolled diabetes mellitus presented with fever and loss of appetite. Pus aspirated from liver abscess. Do Gram stain of the smear prepared from aspirated pus & give your report. (Marks: 5)

Expected Result (Cells):--Many PMN cells seen. (Marks :2)

Participant's Answer (Cells):--Plenty PMNs cells seen. (Marks :2)

Expected Result (Organism):--Few thick gram negative bacilli seen. (Marks :2)

Participant's Answer (Organism):--Plenty gram negative capsulated bacilli seen. (Marks :2)

Expected Result (Interpretation):--Liver abscess due to gram negative bacilli. (Marks :1)

Participant's Answer (Interpretation):--Liver abscess aspirated pus morphologically suggestive of gram negative bacilli (*Klebsiella* spp.) infection. (Marks :1)

Marks Obtained :- 5

1.2 : A 62 year old man suffering from exacerbation of COPD, presented with lower respiratory tract infection. Smear prepared from sputum sample is provided. Do Gram stain and report on it. (Marks: 5)

Expected Result (Cells):--Moderate number of PMN cells (1) and no squamous epithelial cells (1) seen. (Marks :2)

Participant's Answer (Cells):--Pus cells >25/hpf, Epithelial cells <10/hpf & few mucus threads seen, Bartlett's Grade 3+ (Marks :2)

Expected Result (Organism):--Moderate number of pleomorphic (1) gram negative bacilli (1) seen. (Marks :2)

Participant's Answer (Organism):--Few gram-negative coccobacilli & few gram-positive cocci in pair are seen. (Marks :2)

Expected Result (Interpretation):--*Haemophilus influenzae* Pneumonia. (Marks :1)

Participant's Answer (Interpretation):--Exacerbation of COPD morphologically suggestive of gram negative coccobacilli (*H. Influenza*) infection. (Marks :1)

Marks Obtained :- 5

1.3 : A 45 year old HIV positive man, presented with intermittent episodes of loose stools, abdominal pain, and bloating. Smear prepared from stool sample is provided. Do modified Kinyoun stain and give your diagnosis. (Marks: 5)

Expected Result (Findings):--Few acid fast (1) spindle shaped oocysts (1) of *Cystoisospora* seen. (Marks :2)

Participant's Answer (Findings):--The long & oval shaped oocysts seen by modified acid fast stain. (Marks :2)

Expected Result (Interpretation):--Infection due to *Cystoisospora belli*. (Marks :3)

Participant's Answer (Interpretation):--Loose stool in immunocompromised patient due to *Cystoisospora belli* infection. (Marks :3)

Marks Obtained :- 5

Q.2. Culture/Sensitivity :

2.1 Three freeze dried (lyophilized) cultures of bacteria are provided. Identify and perform the antibiotic sensitivity testing. Use current CLSI guidelines wherever applicable for interpretation of antimicrobial sensitivity. EUCAST guideline can be used wherever CLSI guidelines are not available. A= Automated/M= Manual; select whichever applicable. Attempt only one: Either "A" or "M". Kindly do not report both, even if done. Organism Isolated From Blood: (Marks: 13)

	Genus	Species	Serotype (if applicable)	
Expected Result (Identification of given organism)	<i>Salmonella</i> (Marks: 3)	<i>serotype Typhi</i> (Marks: 2)		
Participant's Answer	<i>Salmonella</i> (Marks: 3)	<i>Typhimurium</i> (Marks: 0)		
Antibiotics	Ampicillin	Chloramphenicol	Ceftriaxone	Co-trimoxazole
Expected Result	R(Marks: 2)	S(Marks: 2)	R(Marks: 2)	R(Marks: 2)
Participant's Answer	R (Marks: 2)	R (Marks: 0)	S (Marks: -1)	R (Marks: 2)
Participant's Test Method	BD Phoenix	BD Phoenix	Disc diffusion	BD Phoenix
Participant's Zone Size (mm) or MIC (ug/ml)	>16	>4 ↔	28mm	>2/38
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)				
Participant's Comments: ESBL producers.				
Marks Obtained: 6				

2.2 Organism Isolated From Bronchoalveolar Lavage (BAL): (Marks: 15)

	Genus	Species	Serotype (if applicable)		
Expected Result (Identification of given organism)	<i>Klebsiella</i> (Marks: 3)	<i>pneumoniae</i> (Marks: 2)			
Participant's Answer	<i>Klebsiella</i> (Marks: 3)	<i>ozaenae</i> (Marks: 0)			
Antibiotics	Piperacillin/ Tazobactam	Cefepime	Meropenem	Ciprofloxacin	Co-trimoxazole
Expected Result	R(Marks: 2)	R(Marks: 2)	R(Marks: 2)	R(Marks: 2)	S(Marks: 2)
Participant's Answer	R (Marks: 2)	R (Marks: 2)	R (Marks: 2)	R (Marks: 2)	S (Marks: 2)
Participant's Test Method	BD Phoenix	BD Phoenix	BD Phoenix	BD Phoenix	BD Phoenix
Participant's Zone Size (mm) or MIC (ug/ml)	>64/4	>16	>32	>2	<=0.5/9.5
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Participant's Comments: Class B carbapenems producer					
Marks Obtained: 13					

2.3 Organism Isolated From Urine: (Marks: 15)

	Genus	Species	Serotype (if applicable)		
Expected Result (Identification of given organism)	<i>Enterococcus</i> (Marks: 3)	<i>faecium</i> (Marks: 2)			
Participant's Answer	<i>Enterococcus</i> (Marks: 3)	<i>faecium</i> (Marks: 2)			
Antibiotics	Benzylpenicillin/ Ampicillin	Ciprofloxacin	Nitrofurantoin	Tetracycline	Vancomycin
Expected Result	R(Marks: 2)	R(Marks: 2)	R(Marks: 2)	R(Marks: 2)	R(Marks: 2)
Participant's Answer	R (Marks: 2)	R (Marks: 2)	R (Marks: 2)	R (Marks: 2)	R (Marks: 2)
Participant's Test Method	BD Phoenix	Disc diffusion	BD Phoenix	BD Phoenix	BD Phoenix
Participant's Zone Size (mm) or MIC (ug/ml)	>8	6mm	>64	>8	>2
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Participant's Comments: VRE- Vancomycin Resistant enterococcus					
Marks obtained :- 15					

Marks Obtained: 15

Q.3.: Serology:

3.1 : Please carry out following serological tests on the given samples (Marks: 16)

Q.No.	3.1.1	3.1.2	3.1.3	3.1.4
Test	Hepatitis A serology IgM	Anti-HBs	Rubella IgM antibody	CRP
Expected Result	Negative (Marks: 4)	Positive (Marks: 4)	Negative (Marks: 4)	Positive (Marks: 4)
Participant's Answer	Negative (Marks: 4)	Not Attempted (Not evaluated.)	Not Attempted (Not evaluated.)	Positive (Marks: 4)
Participant's Value	0.02	Not Attempted	Not Attempted	63mg/l
Method	CLIA	Not Attempted	Not Attempted	Immunoturbidimetric assay
Name of Kit	Ortho	Not Attempted	Not Attempted	Ortho

Center Comments

Hepatitis A - Negative & CRP - Positive.

Marks Obtained :- 8

3.2 : Perform the Blood Borne Viral (BBV) serology: HBsAg, HCV and HIV antibody on the given samples (Sample nos. 3.2.1, 3.2.2, 3.2.3 & 3.2.4) (Marks: 24)

Sample		HIV Antibody	HBsAg	HCV Antibody
3.2.1	Expected Result	Non-Reactive (Marks: 2)	Reactive (Marks: 2)	Non-Reactive (Marks: 2)
	Participant's Answer	Non-Reactive (Marks: 2)	Positive (Marks: 2)	Non-Reactive (Marks: 2)
	Method	CLIA	CLIA	CLIA
	Name of kit	Ortho	Ortho	Ortho
3.2.2	Expected Result	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)	Reactive (Marks: 2)
	Participant's Answer	Non-Reactive (Marks: 2)	Negative (Marks: 2)	Reactive (Marks: 2)
	Method	CLIA	CLIA	CLIA
	Name of kit	Ortho	Ortho	Ortho
3.2.3	Expected Result	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)
	Participant's Answer	Non-Reactive (Marks: 2)	Negative (Marks: 2)	Non-Reactive (Marks: 2)
	Method	CLIA	CLIA	CLIA
	Name of kit	Ortho	Ortho	Ortho
3.2.4	Expected Result	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)
	Participant's Answer	Non-Reactive (Marks: 2)	Negative (Marks: 2)	Non-Reactive (Marks: 2)

Method	CLIA	CLIA	CLIA
Name of kit	Ortho	Ortho	Ortho

Center Comments	3.2.1- HBsAg - Positive & 3.2.2 - HCV - Reactive, All other are Negative.
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Marks Obtained :- 24

Grand Total Marks : 90
Marks Obtained: 81

Note : This is computer generated report, does not require signature of the EQAS provider.

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