



MICROBIOLOGY EXTERNAL QUALITY ASSURANCE SCHEME

Under the aegis of Indian Association of Medical Microbiology

IAMM EQAS New Delhi

Department of Clinical Microbiology and Immunology
Sir Ganga Ram Hospital, Rajinder Nagar, New Delhi-110060



Dr. Chand Wattal
Chairman - EQAS

Dr. Jaswinder K. Oberoi
PT Coordinator - EQAS

Dr. Neeraj Goel
PT Coordinator - EQAS

Dr. Sanghamitra Datta
PT Quality Manager - EQAS

Dr. Reena Raveendran
PT Technical Manager - EQAS

Result (Code No: DLH308 / CHRISTIAN INSTITUTE OF HEALTH SCIENCES AND RESEARCH)

Batch Name	20th QC(March)	Batch Marks	59
Start By Date	30-Mar-2019	Submit By Date	08-May-2019

Q 1. Smear :

1.1 : BAL sample. A 65 year old male patient presents with a history of fever & persistent cough since 3 days. Chest X-ray shows left lower consolidation. A smear from BAL sample is provided. Perform Gram Stain & interpret as below. (Marks: 5)

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

Participant's Answer (Cells):--NA (Not evaluated.)

Expected Result (Organism):--Many gram positive diplococci seen. (Marks :2)

Participant's Answer (Organism):--NA (Not evaluated.)

Expected Result (Interpretation):--Suggestive of pneumonia due to Streptococcus pneumoniae. (Marks :1)

Participant's Answer (Interpretation):--NA (Not evaluated.)

Marks Obtained :-- (Not evaluated.)

1.2 : Sputum sample. A 4 year old child presents with history of fever and breathlessness since 5 days. A smear from sputum sample is provided. Perform Gram stain & interpret as below. (Marks: 5)

Expected Result (Cells):--Many PMNs, scanty squamous epithelial cells seen. (Marks :2)

Participant's Answer (Cells):--NA (Not evaluated.)

Expected Result (Organism):--Many pleomorphic gram negative cocco bacilli seen. (Marks :2)

Participant's Answer (Organism):--NA (Not evaluated.)

Expected Result (Interpretation):--Suggestive of pneumonia due to H.influenzae. (Marks :1)

Participant's Answer (Interpretation):--NA (Not evaluated.)

Marks Obtained :-- (Not evaluated.)

1.3 : CSF sample. A newborn male presents with fever, lethargy & poor feeding since 1 day. A smear from CSF specimen is provided. Perform Gram stain & interpret as below. (Marks: 5)

Expected Result (Cells):--Many PMNs. (Marks :2)

Participant's Answer (Cells):--NA (Not evaluated.)

Expected Result (Organism):--Many gram positive cocci in pairs & chains seen. (Marks :2)

Participant's Answer (Organism):--NA (Not evaluated.)

Expected Result (Interpretation):--Suggestive of meningitis due to group B Streptococcus. (Marks :1)

Participant's Answer (Interpretation):--NA (Not evaluated.)

Marks Obtained :-- (Not evaluated.)

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. A= Automated/M= Manual; tick whichever applicable. Attempt only one: Either "A" or "M". Kindly do not report Both, even if done. Organism Isolated From Blood: (Marks: 15)

	Genus	Species
Expected Result (Identification of given organism)	<i>Enterobacter</i> (Marks: 3)	<i>cloacae</i> (Marks: 2)
Participant's Answer	<i>Enterobacter</i> (Marks: 3)	<i>cloacae</i> (Marks: 2)

Antibiotics	Ceftriaxone	Piperacillin/ Tazobactam	Imipenem	Gentamicin	Levofloxacin
Expected Result	R(Marks: 2)	R(Marks: 2)	R(Marks: 2)	S(Marks: 2)	R(Marks: 2)
Participant's Answer	R (Marks: 2)	R (Marks: 2)	R (Marks: 2)	S (Marks: 2)	R (Marks: 2)
Participant's Test Method	Vitek -2	Vitek -2	Vitek -2	Vitek -2	Disc diffusion
Participant's Zone Size (mm) or MIC (ug/ml)	=64	=128	8	=1	0

Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)

Marks Obtained: 15

2.2 Organism Isolated From Urine: (Marks: 15)

	Genus	Species
Expected Result (Identification of given organism)	<i>Escherichia</i> (Marks: 3)	<i>coli</i> (Marks: 2)
Participant's Answer	<i>Escherichia</i> (Marks: 3)	<i>coli</i> (Marks: 2)

Antibiotics	Ceftriaxone	Piperacillin/ Tazobactam	Amikacin	Co-trimoxazole	Nitrofurantoin
Expected Result	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	R(Marks: 2)	S(Marks: 2)
Participant's Answer	S (Marks: 2)	S (Marks: 2)	S (Marks: 2)	R (Marks: 0)	S (Marks: 2)
Participant's Test Method	Vitek -2	Vitek -2	Vitek -2	Vitek -2	Vitek -2
Participant's Zone Size (mm) or MIC (ug/ml)	=1	=4	=2	=320	=16

Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)

Examiner Comments: AST for Co-trimoxazole has not been evaluated. This is due to the varied response of >30% of the participating centers.

Marks Obtained: 13

2.3 Organism Isolated From Pus: (Marks: 15)

	Genus	Species
Expected Result (Identification of given organism)	<i>Staphylococcus</i> (Marks: 3)	<i>aureus</i> (Marks: 2)
Participant's Answer	<i>Staphylococcus</i> (Marks: 3)	<i>aureus</i> (Marks: 2)

Antibiotics	Cefoxitin	Erythromycin	Clindamycin	Co-trimoxazole	Vancomycin
Expected Result	S(Marks: 2)	R(Marks: 2)	R(Marks: 2)	S(Marks: 2)	S(Marks: 2)
Participant's Answer	Not Done (Marks: 2)	R (Marks: 2)	S (Marks: -1)	S (Marks: 2)	S (Marks: 2)
Participant's Test Method	Vitek -2	Vitek -2	Vitek -2	Vitek -2	Vitek -2
Participant's Zone Size (mm) or MIC (ug/ml)	NEGATIVE	=8	0.25	=10	=0.5

Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)

Examiner Comments: As per the CLSI antibiotic susceptibility interpretation for vancomycin is based on MIC result only. Disc diffusion is not a valid method.

Marks Obtained: 12

Q 3.: Serology:

3.1 : Please carry out following serological tests on the given samples. (Marks: 8)

Q.No.	3.1.1	3.1.2
Test	RA factor	Rubella IgG antibody
Expected Result	Negative (Marks: 4)	Positive (Marks: 4)
Participant's Answer	Negative (Marks: 4)	Not Attempted (Not evaluated.)

Marks Obtained :-- 4

3.2 : Perform the Blood Borne Viral (BBV) serology: HBsAg, HCV and HIV antibody on both the samples(Sample nos. 3.2.1 & 3.2.2) (Marks: 12)

Sample		HIV Antibody	HBsAg	HCV Antibody
3.2.1	Expected Result	Negative (Marks: 2)	Positive (Marks: 2)	Negative (Marks: 2)
	Participant's Answer	Negative (Marks: 2)	Reactive (Marks: 2)	Negative (Marks: 2)
3.2.2	Expected Result	Negative (Marks: 2)	Negative (Marks: 2)	Negative (Marks: 2)
	Participant's Answer	Negative (Marks: 2)	Negative (Marks: 2)	Negative (Marks: 2)

Marks Obtained :-- 12

Grand Total Marks : 59

Marks Obtained: 56

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

-----End of Report-----

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; tick whichever applicable. Attempt only one: Either "A" or "M". Kindly do not report both, even if done. Organism Isolated From Blood: (Marks: 15)

		Genus	Species
Expected Result (Identification of given organism)		<i>Serratia</i> (Marks: 3)	<i>marcescens</i> (Marks: 2)
Participant's Answer		<i>Serratia</i> (Marks: 3)	<i>marcescens</i> (Marks: 2)

Antibiotics	Piperacillin/ Tazobactam	Ceftriaxone	Imipenem	Amikacin	Levofloxacin
Expected Result	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)
Participant's Answer	S (Marks: 2)	S (Marks: 2)	S (Marks: 2)	S (Marks: 2)	S (Marks: 2)
Participant's Test Method	Disc diffusion	Disc diffusion	Disc diffusion	Vitek -2	Vitek -2
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Marks Obtained: 15					

2.2 Organism Isolated From Stool: (Marks: 15)

		Genus	Species
Expected Result (Identification of given organism)		<i>Shigella</i> (Marks: 3)	<i>sonnei</i> (Marks: 2)
Participant's Answer		<i>Shigella</i> (Marks: 3)	<i>sonnei</i> (Marks: 2)

Antibiotics	Ampicillin	Ceftriaxone	Ciprofloxacin	Azithromycin	Co-trimoxazole
Expected Result	S(Marks: 2)	S(Marks: 2)	R(Marks: 2)	wild-type(Marks: 2)	R(Marks: 2)
Participant's Answer	R (Marks: 0)	S (Marks: 2)	R (Marks: 2)	R (Marks: 0)	R (Marks: 2)
Participant's Test Method	Disc diffusion	Disc diffusion	Vitek -2	Disc diffusion	Vitek -2
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Marks Obtained: 11					

2.3 Organism Isolated from Blood: (Marks: 15)

		Genus	Species
Expected Result (Identification of given organism)		<i>Streptococcus</i> (Marks: 3)	<i>agalactiae</i> (Group B Streptococci) (Marks: 2)
Participant's Answer		<i>Serratia</i> (Marks: 0)	<i>marcescens</i> (Marks: 0)

Antibiotics	Ampicillin	Cefotaxime	Levofloxacin	Clindamycin	Tetracycline
Expected Result	S(Marks: 2)	S(Marks: 2)	R(Marks: 2)	S(Marks: 2)	R(Marks: 2)
Participant's Answer	R (Marks: 0)	S (Marks: 0)	S (Marks: 0)	R (Marks: 0)	R (Marks: 0)
Participant's Test Method	Disc diffusion	Disc diffusion	Vitek -2	Disc diffusion	Disc diffusion
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Marks Obtained: 0					

Q 3.: Serology:

3.1 : Please carry out following serological tests on the given samples. (Marks: 8)

Q.No.	3.1.1	3.1.2
Test	CMV- IgG	ASO
Expected Result	Positive (Marks: 4)	Negative (Marks: 4)
Participant's Answer	Not Attempted (Not evaluated.)	Negative (Marks: 4)

Marks Obtained :- 4

		Genus	Species		
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	Gentamicin High Level	Linezolid	Vancomycin	Tigecycline
Expected Result	R(Marks: 2)	R(Marks: 2)	S(Marks: 2)	R(Marks: 2)	S(Marks: 2)
Participant's Answer	R (Marks: 2)	R (Marks: 2)	S (Marks: 2)	R (Marks: 2)	S (Marks: 2)
Participant's Test Method	Vitek -2	Vitek -2	Vitek -2	Vitek -2	Vitek -2
Participant's Zone Size (mm) or MIC (ug/ml)	64		2	32	0.12
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Participant's Comments: VRE					
Marks Obtained: 15					

2.2 Organism Isolated From ET Secretions: (Marks: 15)

		Genus	Species		
Expected Result (Identification of given organism)		<i>Acinetobacter</i> (Marks: 3)	<i>baumannii complex</i> (Marks: 2)		
Participant's Answer		<i>Acinetobacter</i> (Marks: 3)	<i>baumannii complex</i> (Marks: 2)		
Antibiotics	Piperacillin/ Tazobactam	Meropenem	Amikacin	Levofloxacin	Co-trimoxazole
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	Vitek -2	Vitek -2	Vitek -2	Vitek -2	Vitek -2
Participant's Zone Size (mm) or MIC (ug/ml)	128	16	64	8	320
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Marks Obtained: 15					

2.3 Organism Isolated from Blood culture: (Marks: 15)

		Genus	Species		
Expected Result (Identification of given organism)		<i>Salmonella</i> (Marks: 3)	<i>serotype Typhi</i> (Marks: 2)		
Participant's Answer		<i>Salmonella enterica</i> (Marks: 3)	<i>serotype Typhi</i> (Marks: 2)		
Antibiotics	Ampicillin	Ceftriaxone	Ciprofloxacin	Co-trimoxazole	Azithromycin
Expected Result	S(Marks: 2)	S(Marks: 2)	R(Marks: 2)	S(Marks: 2)	S(Marks: 2)
Participant's Answer	R (Marks: 0)	S (Marks: 2)	R (Marks: 2)	S (Marks: 2)	R (Marks: 0)
Participant's Test Method	Disc diffusion	Disc diffusion	Vitek -2	Vitek -2	Disc diffusion
Participant's Zone Size (mm) or MIC (ug/ml)	12	22	4	20	11
Correct:-- 2 Minor Error:-- 1 Major Error:-- 0 Very Major Error:-- (-1)					
Marks Obtained: 11					

Q 3.: Serology:

3.1 : Please carry out following serological tests on the given samples. (Marks: 8)

Q.No.	3.1.1	3.1.2
Test	CRP	Dengue NS1
Expected Result	Positive (Marks: 4)	Negative (Marks: 4)
Participant's Answer	Positive (Marks: 4)	Negative (Marks: 4)