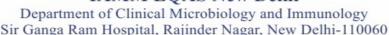


# MICROBIOLOGY EXTERNAL QUALITY ASSURANCE SCHEME

Under the aegis of Indian Association of Medical Microbiology







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Result ( Code No: DLH114 / MAYOM HOSPITAL )

Batch Name	24th QC, July	Batch Marks	76
Start By Date	26-Sep-2020	Submit By Date	06-Nov-2020

### **Q1.** Smear :

1.1 : ET Sample: A 75 year old man admitted in ICU with ventilatory support. Smear prepared from ET aspirate is provided. Perform Gram stain & report as below. (Marks: 5)

Expected Result (Cells):--Moderate (1) number of PMN (1) cells seen (Marks :2)

Participant's Answer (Cells):--2-4 polymorphonuclear cells seen per oil immersion field. (Marks :2)

Expected Result (Organism):--Many (1) GNCBs (1) seen. (Marks :2)

Participant's Answer (Organism):--Gram Negative Cocco bacilli with a halo around them (depicting the capsular halo) seen lying singly and in pairs. (Marks :2)

Expected Result (Interpretation):--VAP due to Acinetobacter baumannii. (Marks :1)

Participant's Answer (Interpretation):--It seems to be a case of pneumonia caused by gram negative bacteria (cocco-bacilli), most likely klebsiella species. (Marks:1)

Marks Obtained :-- 5

1.2: Peritoneal Fluid: A 63 year old patient diagnosed as ovarian carcinoma on chemotherapy, admitted with abdominal distension. Smear prepared from peritoneal fluid is provided. Perform Gram stain & report as below. (Marks: 5)

Expected Result (Cells):--Few number of PMN cells & scanty lymphocytes seen. (Marks :1)

Participant's Answer (Cells):-0-1 polymorphonuclear cells seen per oil immersion field. (Marks :1)

Expected Result (Organism):--Many Budding yeast cells with pseudohyphae seen. (Marks :3)

Participant's Answer (Organism):--Gram positive budding yeast like cells seen. (Marks :3)

Expected Result (Interpretation):--Suggestive of Candida peritonitis. (Marks :1)

Participant's Answer (Interpretation):--It seems to be a fungal (most likely Candida species) infection of the peritoneum in an immunocompramised patient of ovarian carcinoma. (Marks:1)

Marks Obtained :-- 5

1.3 : Stool Sample: A 55 year old male, HIV positive presented with loose stools. Smear prepared from stool specimen is provided. Perform Kinyoun stain & report as below. (Marks: 5)

Expected Result (Findings):--Many acid fast (1) oocysts seen (1). (Marks :2)

Participant's Answer (Findings):--Round, well circumscribed, pink Acid Fast structures depicting Oocysts of Cryptosporidium species were seen. (Marks :2)

Expected Result (Interpretation):--Suggestive of diarrhoea due to Cryptosporidium. (Marks :3)

Participant's Answer (Interpretation):--It seems to be a case of gastroenteritis caused by Cryptosporidium parvum which is a common finding in HIV positive individuals. (Marks :3)

Marks Obtained :-- 5

Q 2. 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 Pus:

## 2.1 (Marks: 15)

	Genus	Species
Γ		

Expected Result (Identification of given organism)	Staphylococcus (Marks: 3)	aureus (Marks: 2)
Participant's Answer	Staphylococcus (Marks: 3)	aureus (Marks: 2)

Antibiotics	Cefoxitin	Erythromycin	Clindamycin	Vancomycin	Co- trimoxazole
Expected Result	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)
Participant's Answer	S (Marks: 2)	I (Marks: 1)	S (Marks: 2)	S (Marks: 0)	S (Marks: 2)
Participant's Test Method	Disc diffusion	Disc diffusion	Disc diffusion	Disc diffusion	Disc diffusion
Correct: 2 Minor Error:-	- 1 Major Error: 0	Very Major Error: (-1	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					

### (Marks: 15)

		Genus		Species			
Expected Result (Identification of given organism)		Streptococcus (Marks: 3)		pneumoniae (Marks: 2)			
Participant's Answer		Streptococcus (	Marks: 3)	pne	umoniae (Marks: 2)		
Antibiotics	Penicillin	Ceftriax	one	Levofloxacin		Erythromycin	Vancomycin

Expected Result	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	
Participant's Answer	S (Marks: 1)	S (Marks: 0)	S (Marks: 2)	I (Marks: 1)	S (Marks: 2)	
Participant's Test Method	Disc diffusion	Disc diffusion	Disc diffusion	Disc diffusion	Disc diffusion	
Correct: 2 Minor Error:	1 Major Error: 0	Very Major Error: (	-1)			
Ceftriaxone susceptibility for S. pneumoniae is recommended by MIC method only as per CLSI guidelines.Penicillin susceptibility for S. pneumoniae is recommended by MIC method only as per						

CLSI guidelines. However Oxacillin disc diffusion testing can be used as a surrogate marker to predict penicillin susceptibility.

Marks Obtained: 11

#### 2.3 (Marks: 15)

	Genus	Species
Expected Result (Identification of given organism)	Vibrio (Marks: 3)	cholerae (Marks: 2)
Participant's Answer	Vibrio (Marks: 3)	cholerae (Marks: 2)

Antibiotics	Cefotaxime	Ampicillin	Tetracycline	Ciprofloxacin	Co- trimoxazole
Expected Result	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	S(Marks: 2)	R(Marks: 2)
Participant's Answer	I (Marks: 1)	R (Marks: 0)	S (Marks: 2)	S (Marks: 2)	R (Marks: 2)
Participant's Test Method	Disc diffusion	Disc diffusion	Disc diffusion	Disc diffusion	Disc diffusion
Correct: 2 Minor Error: 1 Major Error: 0 Very Major Error: (-1)					
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	RPR	RA factor
<b>Expected Result</b>	Positive (Marks: 4)	Negative (Marks: 4)
Participant's Answer	Positive (Not evaluated.)	Negative (Marks: 4)

**Examiner Comments** 

RPR results have not been evaluated. This is due to the varied response of >30% of the

participating centers.

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
321	Expected Result	Non-Reactive (Marks: 2)	Reactive (Marks: 2)	Non-Reactive (Marks: 2)
3.2.1	Participant's Answer	Non-Reactive ( Marks: 2)	Reactive ( Marks: 2)	Non-Reactive ( Marks: 2)
222	Expected Result	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)	Non-Reactive (Marks: 2)
3.2.2	Participant's Answer	Non-Reactive ( Marks: 2)	Non-Reactive ( Marks: 2)	Non-Reactive ( Marks: 2)

Marks Obtained :-- 12

**Grand Total Marks: 76** 

Marks Obtained: 66

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

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