104th IAMM EQAS Microbiology: Bacteriology/ Serology
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MARCH 2020

104th EQAS EVALUATION REPORT

MEMBER ID: M 0 8 5 6

Marks Obtained: 67.5/71 (95.1%)

MARCH 2020 / BACTERIOLOGY SMEARS:

Question: Carry out the appropriate staining procedure and document the relevant observation.
Provide the Impression or probable organism seen (AS ASKED)
Please refer the attached evaluation format/answer template for details on the criteria for evaluation.

PLEASE NOTE: The inaccuracies in the participant report resulting in deduction of marks has been underlined in the expected report.

Exercise Number	Question	Expected Report	Evaluation		
SM1	Please carry out a Gram stain on the given fixed smear prepared from a voided URINE specimen of a 63-year old diabetic lady with a history of mild dysuria and increased frequency for 2 days.	**Presence of host cells & debris** (1 mark): Occasional pus cells, Many epithelial cells. **Description of Organism/s** (2marks): Many Gram positive spherical cocci in pairs, chains, groups. Many Gram negative bacilli (slender and thick). Many Gram positive bacilli, Moderate oval budding yeast like organisms. **Impression/comment** (1 mark): Improperly collected specimen. Suggest repeat appropriately collected mid-stream clean catch specimen for culture.	0	0.5	1
			1.5	2	2.5
			3	3.5	(4)
SM2	Please carry out a Gram stain on the given fixed smear prepared from an EXUDATE specimen of a 23-year old man presenting with an exudative lesion on the right leg associated with high grade fever, chills and myalgia for 2 days.	**Presence of host cells & debris** (1mark): Many pus cells. **Description of Organism/s** (2 marks): Many Gram positive spherical cocci in pairs and chains. **Possible organism** (1 mark): Streptococcus species (*Probably S. pyogenes*)	0	0.5	1
			1.5	2	2.5
			3	3.5	(4)

SM3	Please carry out a Gram stain on the given fixed smear prepared from an ENDOTRACHEAL ASPIRATE specimen of a 69-year old gentleman admitted in the ICU with worsening saturation.	**Presence of host cells & debris** (1mark): Many pus cells. **Description of Organism/s** (2 marks): Many Gram negative cocco-bacilli **Possible organism** (1 mark): Probable NFGNB- *Acinetobacter* spp	**0** **1.5** **3**	**0.5** **2** **3.5**	**1** **2.5** **(4)**

MARCH 2020 / BACTERIOLOGY CULTURE:

Question: A freeze-dried (lyophilized) culture of an organism isolated from a clinical specimen is given. Carry out the appropriate techniques for each exercise and identify the pathogen. Carry out the antimicrobial susceptibility testing according to the panel given below.

Please refer the attached evaluation format for details on the criteria for evaluation.

A 'partially correct' or 'incorrect' component of the participant report which has resulted in a deduction of marks has been in indicated in the evaluation report below.

CU1: Isolated from a FECES specimen of a 26year old gentleman with a 2-day history of diarrhea and vomiting associated with abdominal pain.

FINAL INDENTIFICATION: ***Non-agglutinating Vibrio cholerae*** **(Non O1- Non O139)**

Identification details	Reported	Not reported	Evaluation (7 marks)
Microscopy (Gram stain + Motility)	✓		**0 0.5 (1)**
Salient culture and biochemical findings enabling final identification (Minimum 3 key characteristics)	✓		**1 2 3 (4)**
Final identification	✓		**0 0.5 1 1.5 (2)**

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation	Correct	Incorrect	10 marks	Error
Ampicillin	≥17	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Tetracycline	≥15	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole	≥16	≤ 2 - 38	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Cefotaxmine	≥26	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Ciprofloxacin	≥21	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

CU2: Isolated from a URINE specimen of a 35year old gentleman with hemiplegia on a long-term urinary catheter

FINAL IDENTIFICATION: *Serratia marcescens*

Identification details	Reported	Not reported	Evaluation (7 marks)
Microscopy (Gram stain + Motility)	✓		0 0.5 (1)
Salient culture and biochemical findings enabling final identification (Minimum 3 key characteristics)	✓		1 2 3 (4)
Final identification	✓		0 0.5 1 1.5 (2)

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)		Correct	Incorrect	8 marks	Error
Cefpodoxime	18-20	4	Caution use	NOT EVALUATED			
Co-trimoxazole	≥16	≤2-38	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Amoxicillin-clavulanate	6	>32	Intrinsic resistance		✓	(-1) 0 1 2	mE/ ME/ (VME)
Levofloxacin	≥21	≤0.5	Susceptible	NOT DONE			
Meropenem	≥23	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

CU3: Isolated from an EXUDATE specimen from a 22year old lady with a history of extensive burns to her right forearm.

FINAL IDENTIFICATION: *Staphylococcus aureus* (MRSA)

Identification details	Reported	Not reported	Evaluation (7 marks)
Microscopy (Gram stain + Motility)	✓		0 0.5 (1)
Salient culture and biochemical findings enabling final Identification (Minimum 3 key characteristics)	✓		1 2 3 (4)
Final identification	✓		0 0.5 1 1.5 (2)

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation	Correct	Incorrect	10 marks	Error
Cefoxitin	≤21	≥8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Erythromycin	≥23	≤0.5	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole	≥16	≤2-38	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Clindamycin	≥21	≤0.5	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Linezolid	≥21	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

MARCH 2020 / SEROLOGY

Test method employed for detection C-reactive protein (CRP) at your lab: Turbidimetry
Peer group (n) = 320
Please refer the attached evaluation format for details on the criteria for evaluation

	Parameter	Your Result	Your Value (mg/L)	Intended Result	Robust Mean	Robust SD	Range (mg/L)	Z & Z' score	Max Marks	Your Score
SE1	CRP	Positive	42.68	Positive	36.7014	8.8178	1 to 312	0.7	2	2
SE2	CRP	Negative	2.12	Negative	2.1770	1.4239	0.0 to 39.65	0.0	2	2
SE3	CRP	Positive	11.55	Positive	10.8659	2.9648	0.22 to 241.8	0.2	2	2

MARCH 2020 / SEROLOGY

Test method employed for detection Rheumatoid Factor (RF) at your lab: Turbidimetry
Peer group (n) = 237
Please refer the attached evaluation format for details on the criteria for evaluation

	Parameter	Your Result	Your Value (IU/mL)	Intended Result	Robust Mean	Robust SD	Range (IU/mL)	Z & Z' score	Max Marks	Your Score
SE1	RF	Negative	<20.0	Negative	11.5177	5.3985	0.0 to 230	1.6	2	2
SE2	RF	Negative	<20.0	Negative	6.8716	4.9366	-2.70 to 389.96	2.7	2	1.5
SE3	RF	Positive	51.6	Positive	45.2702	10.2638	0.0 to 268.8	0.6	2	2

Disclaimer:

This is a confidential document and subject to the rules of confidentiality as described by the ISO 17043:2010 standard.

MEMBER ID: M 0 8 5 6

SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
4	4	4	17	10	17	4	3.5	4	67.5	95.1%
4	4	4	17	13	17	4	4	4	Maximum marks = 71	

Dr. Rani Diana Sahni
Scientific Co-ordinator

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Quality Manager

Dr. V. Balaji
PT Co-ordinator

Report Dispatch Date: 15.09.2020

********** End of Report **********

EROLOGY

thod employed for detection C - reactive protein at your lab: Turbidimetry

eer group (n) = 339

Please refer the attached evaluation format for details on the criteria for evaluation

	Parameter	Your Result	Your Value (mg/L)	Intended Result	Robust Mean	Robust SD	Range (mg/L)	Z /Z' score	Max Marks	Your Score
SE1	CRP	Negative	2.8	Negative	2.9013	1.2276	0.0 – 43.92	-0.1	2	2
SE2	CRP	Negative	2.4	Negative	2.3069	1.2641	0.0 – 50.65	0.1	2	2
SE3	CRP	Positive	66	Positive	62.1031	14.8079	0.76 - 145	0.3	2	2

Test method employed for detection Antistreptolysin O (ASO) your lab: Turbidimetry

Peer group (n) = 177

Please refer the attached evaluation format for details on the criteria for evaluation

	Parameter	Your Result	Your Value (IU/mL)	Intended Result	Robust Mean	Robust SD	Range (IU/mL)	Z / Z' score	Max Marks	Your Score
SE1	ASO	Negative	86.8	Negative	94.8569	32.0891	3.87 – 236.9	-0.2	2	2
SE2	ASO	Negative	91.8	Negative	87.4985	29.2287	0.32 – 254.3	0.1	2	2
SE3	ASO	Negative	107.4	Negative	138.059	45.1067	33 – 374.2	-0.7	2	2