109th IAMM EQAS Microbiology: Bacteriology/ Serology

CMC MICRO EQAS
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PC-1033

OCTOBER 2021

109th EQAS EVALUATION REPORT

MEMBER ID: M 0 4 3 3

Marks Obtained: 71/71 (100%)

OCTOBER 2021 / 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 smear report.

Exercise Number	Question	Expected Report	Evaluation		
SM1	**Please carry out a Gram stain on the given fixed smear prepared from a BLOOD culture specimen obtained from a 74-year-old gentleman presenting with high grade fever and chills following prostrate surgery (TURP).**	Description of Organism/s (2marks): **Many Gram-positive spherical/oval cocci (1) arranged in pairs, long and short chains (1)** Probable organism (1 mark): ***Streptococcus* spp/ Enterococcus spp (1)** Where can the blood culture specimen be stored if there is a delay in transport? (1 mark): **Ideally Incubator / room-temperature (1)** What is the upper limit of storing the specimen outside of these conditions? (No marks allotted): **As mentioned by the manufacturer**	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 isolate from a THROAT swab received from a 2-year-old girl who has not received her routine vaccinations in the last 2 years. She presented with fever, sore throat, bilateral facial swelling with stridor.**	Description of Organism/s (2marks): **Many Gram-positive bacilli (1) club-shaped in X and V / cuneiform arrangements (1)** Probable organism (1 mark): ***Corynebacterium diphtheriae***	**0**	**0.5**	**1***
		What precaution are to be taken in the lab while handling the specimen (1mark) [a] Specimen handling following standard precautions in a BSC Type 2 A2 [b] Personnel should be adequately vaccinated and have a minimal of diphtheria antibody level of at least 0.1 IU/ml.	**1.5**	**2**	**2.5**
		[c] If unvaccinated and exposed should begin antimicrobial prophylaxis if specimen is culture or PCR positive	**3**	**3.5**	**4**
SM3	**Please carry out a Gram stain on the given fixed smear prepared from a URINE specimen of a 22-year-old pregnant patient in her third trimester with a history of increased frequency of micturition for 2 days.**	**Please shade all the boxes that are relevant to your findings:** Pus cells: ☐ Many ☐ Moderate ☐ Few ✓ **Occasional** ✓ **None** **(0.5 mark)** Epithelial cells: ✓ **Many** ✓ **Moderate** ☐ Few ☐ Occasional ☐ None **(0.5 mark)**	**0**	**0.5**	**1**
		Organism burden: ✓ **Many** ☐ Moderate ☐ Few ☐ Occasional ✓ **Gram positive cocci in pairs, chains and clusters (0.25)** ✓ **Gram positive bacilli (0.5)** ✓ **Gram negative bacilli (0.25)** ✓ **Gram negative coccobacilli (0.5)** ✓ **Gram positive budding yeast like organisms (0.5)**	**1.5**	**2**	**2.5**
		Impression/ Comments regarding the specimen: **Improperly collected specimen (0.5 mark)** What recommendation may be advised by the lab? : **Suggest repeat appropriately collected mid-stream clean catch specimen (0.5 mark)**	**3**	**3.5**	**4**

OCTOBER 2021 / 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.

"REMOVED FROM EVALUATION" refers to a test that has not been evaluated for ALL participants. The explanation can be found in the EQAS statistics and the EQAS explained documents.

CU 1: Isolated from a LUNG BIOPSY of a 24-year-old woman with fever, breathlessness and bilateral pleural effusions.

FINAL INDENTIFICATION: *Staphylococcus aureus*

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	✓		0.5 1 1.5 (2)

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation CLSI	Correct	Incorrect	10 marks	Error
Cefoxitin 30µg	≥ 22	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Chloramphenicol 30µg	≥18	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole 1.25/23.75µg	≥ 16	≤2/38	Susceptible	REMOVED FROM EVALUATION			
Linezolid 30µg	≥21	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Erythromycin 15µg	≤13	≥8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Clindamycin 2µg	D-test POSITIVE		Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

CU2: Isolated from a TISSUE BIOPSY specimen taken from a 21-year-old man with hemophilia and an infected hematoma of his right knee.

FINAL IDENTIFICATION: *Providencia rettgeri*

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	✓		0.5 1 1.5 (2)

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation CLSI	Correct	Incorrect	10 marks	Error
Ceftazidime 30µg	≤17	≥16	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Ceftriaxone 30µg	≤19	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole 1.25/23.75µg	≤10	≥4/76	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Levofloxacin 5µg	≤16	≥2	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Gentamicin 10µg	≤12	≥16	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

CU3: Isolated from a FAECES specimen of a 6-year-old boy with a 2-day history of abdominal pain and frequent passage of scanty stools with mucous and blood.

FINAL IDENTIFICATION: *Shigella flexneri* serotype 2

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	✓		0.5 1 1.5 (2)

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation CLSI	Correct	Incorrect	12 marks	Error
Ampicillin 10µg	≤13	≥32	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Cefotaxime 30µg	≤22	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole 1.25/23.75µg	≥16	≤2/38	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Ciprofloxacin 5µg	≤21	≥1	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Azithromycin 15µg	≥16	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem 10µg	≥23	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

OCTOBER 2021 / SEROLOGY

Please refer the attached evaluation format/answer template for details on the criteria for evaluation.

Parameter		Your Interpretation		Intended Result			Max Marks	Your Score
		Correct	Incorrect	STO	STH	Interpretation		
SE1	Widal*	✓		Negative	Negative	Not Suggestive of Enteric Fever / Typhoid Fever	2	2

*Expected value is determined by the Proficiency Testing Provider (PTP).

	Parameter	Your Result	Your Value	Intended Result	Method	Robust Mean	Robust SD	Range	Z & Z' score	Max Marks	Your Score
SE2	ASO	Negative	Not Reported	Negative	Latex Agglutination (n-450)	Not Applicable				2	2
SE3	CRP	Positive	68.23 mg/L	Positive	Turbidimetry (n-415)	76.8130	13.8291	0.043 to 987	-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 4 3 3

SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
4	4	4	17	17	19	2	2	2	71	100%
4	4	4	17	17	19	2	2	2	Maximum marks = 71	

Dr. Rani Diana Sahni
Scientific Co-ordinator

Dr. John A Jude Prakash
Quality Manager

Dr. V. Balaji
PT Co-ordinator

Report Dispatch Date: 15.03.2022

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

108th TAMM EQAS Microbiology: Bacteriology/ Serology
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NABL ACCREDITED ISO / IEC 17043:2010, PC-1033 / 27.12.2018

JUNE 2021

108th EQAS EVALUATION REPORT

MEMBER ID: M 0 4 3 3

Marks Obtained: 69.5/71 (97.9%)

JUNE 2021 / 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 CSF specimen obtained from a 3-year old child presenting at a rural hospital facility with high grade fever and altered sensorium. Mother has defaulted on child's vaccinations.	Presence of host cells & debris (1mark): **Many pus cells** Description of Organism/s (2marks): **Many (0.5) pleomorphic (0.5) Gram negative bacilli (1)** Probable organism (1 mark): ***Hemophilus* spp**	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 endotracheal aspirate of a 43-year old man admitted in ICU for 5 days with SARS-CoV2.	Presence of host cells & debris (1mark): **Moderate pus cells** Description of Organism/s (2marks): **Many (0.5) Gram negative (1) cocco-bacilli (0.5)** Probable organism (1 mark): ***Acinetobacter* spp**	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 a sputum specimen of an 82-year old COVID-negative gentleman seen in casualty with fever and breathlessness.**	Pus cells: **Occasional** Epithelial cells: **Many** ✓ **Gram positive cocci in clusters** ✓ **Gram positive cocci in pairs and chains** ✓ **Gram positive bacilli in palisade arrangement** × Gram positive bacilli in cuneiform arrangement ✓ **Gram negative cocci in pairs and clusters** ✓ **Gram negative bacilli** × Gram positive yeast like organisms Impression/ Comments (1 mark): **Excessive salivary contamination. Improperly collected sputum specimen.** Name the grading system you used to grade the sputum specimen: **not graded**	**0**	**0.5**	**1**
			1.5	**2**	**2.5**
			3	**3.5**	**4**

JUNE 2021 / 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.
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CU 1: Isolated from a URINE specimen of a 63-year-old patient with recurrent urinary tract infections.

FINAL INDENTIFICATION: ***Enterococcus faecalis***

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)	✓	Culture descriptions partially correct	1 2 (3) 4
Final identification	✓		0.5 1 1.5 (2)

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation CLSI	Correct	Incorrect	12 marks	Error
Ampicillin 10µg	≥17	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
High Level gentamicin 120µg	=6	>500	RESISTANT	✓		-1 0 1 (2)	mE/ ME/ VME
Nitrofurantoin 300µg	≥17	≤32	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Vancomycin 30µg	≥17	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Teicoplanin 30µg	≥14	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Linezolid 30µg	≥23	≤2	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

CU2: Isolated from a SPUTUM specimen of a 45-year man admitted in ICU with Ventilator associated pneumonia.

FINAL IDENTIFICATION: *Pseudomonas aeruginosa*

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 CLSI	Correct	Incorrect	10 marks	Error
Ceftazidime 30µg	≥18	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Levofloxacin 5µg	≤14	≥4	RESISTANT	✓		-1 0 1 (2)	mE/ ME/ VME
Amikacin 30µg	≥17	≤16	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin-Tazobactam 100/10µg	≥21	≤16/4	Susceptible	REMOVED FROM EVALUATION			
Imipenem10µg	≤15	≥8	RESISTANT	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem 10µg	≤15	≥8	RESISTANT	✓		-1 0 1 (2)	mE/ ME/ VME

CU3: Isolated from a BLOOD culture specimen of a 72-year old gentleman in renal failure with urosepsis.

FINAL IDENTIFICATION: *Escherichia coli*

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 CLSI	Correct	Incorrect	10 marks	Error
Cefotaxime 30µg	≤22	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Ceftazidime 30µg	≤17	≥16	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Amikacin 30µg	≤14	≥64	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin-Tazobactam 100/10µg	≤17	≥128/4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Minocycline 30µg	≥16	≤4	SUSCEPTIBLE	REMOVED FROM EVALUATION			
Meropenem 10µg	≤19	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

JUNE 2021 / SEROLOGY

Please refer the attached evaluation format/answer template for details on the criteria for evaluation.

	Parameter	Your Result	Your Value	Intended Result	Method	Robust Mean	Robust SD	Range	Z & Z' score	Max Marks	Your Score
SE1	RA	Negative	12.61 IU/ml	Negative	Turbidimetry (n-271)	10.7787	4.3006	0.09 to 133	0.4	2	2
SE2	CRP	Positive	66.01 mg/L	Positive	Turbidimetry (n-406)	70.5501	12.1574	0.76 to 822	-0.4	2	2

NA: Not Applicable

	Parameter	Your Result	Intended result	correct	Incorrect	Max Marks	Your Score
SE3	RPR/VDRL	Negative	Non-Reactive	✓		2	2
	TPHA	NOT DONE					
	Syphilis ELISA						

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MEMBER ID: M 0 4 3 3

SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
4	4	3.5	18	17	17	2	2	2	69.5	97.9%
4	4	4	19	17	17	2	2	2	Maximum marks = 71	

Dr. Rani Diana Sahni
Scientific Co-ordinator
Report Dispatch Date:30.10.2021

Dr. John A Jude Prakash
Quality Manager

Dr. V. Balaji
PT Co-ordinator

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

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NABL ACCREDITED ISO / IEC 17043:2010, PC-1033 / 27.12.2018

DECEMBER 2020

106th EQAS EVALUATION REPORT

MEMBER ID: M 0 4 3 3

Marks Obtained:67/67(100%)

DECEMBER 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 CSF specimen of a 72-year-old gentleman presenting with high grade fever, headache and vomiting for one day.**	Presence of host cells & debris (1mark): **Few pus cells** Description of Organism/s (2marks): **Many (0.5) Gram positive (0.5) lanceolate shaped diplococci (1)** Probable organism (1 mark): ***Streptococcus pneumoniae***	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 a THROAT specimen of a 6-year old child presenting with a sore throat and fever and malaise for 2 days.**	Presence of host cells & debris (1mark): **No pus cells** Description of Organism/s (2 marks): **Many (0.5) Gram positive (0.5) slender club bacilli arranged Chinese letter pattern (1) along with few Gram positive bacilli in palisade arrangement.** Possible organism (1 mark): ***Corynebacterium spp***	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 a voided URINE specimen of a 66-year-old lady, presenting with frequency and urgency for 2 days.**	Presence of host cells & debris (1mark): **Few pus cells, Few epithelial cells** Description of Organism/s (2 marks): **Many (0.5) Gram positive (0.5) oval yeast like organisms with pseudohyphae (1)** Possible organism (1 mark): **Candida spp**	**0** **1.5** **3**	**0.5** **2** **3.5**	**1** **2.5** **4**

DECEMBER 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.

CU 1: Isolated from a BLOOD culture of a 58-year-old diabetic admitted with fever and chills for 2 days following a lower urinary tract infection.

FINAL INDENTIFICATION: ***Klebsiella aerogenes***

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	NOT EVALUATED		

Susceptibility report	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation	Correct	Incorrect	10 marks	Error
Ceftriaxone	≤19	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Gentamicin	≥15	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Amikacin	≥17	≤16	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin-Tazobactam	≤17	≥128/4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem	≥23	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

CU2: Isolated from a URINE specimen of a 36-year old gentleman with renal calculi

FINAL IDENTIFICATION: ***Morganella morganiii***

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
Cefpodoxime*	-	≥8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Ciprofloxacin	≤21	≥1	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Amikacin	≤14	≥64	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin-Tazobactam	≤17	≥128/4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem	≤19	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

*cefpodoxime Disk Diffusion testing not to be done for *Morganella morganiii*

CU3: Isolated as the predominant organism from an EXUDATE specimen of a left lower limb ulcer from a 63-year-old diabetic woman.
FINAL IDENTIFICATION: *Proteus mirabilis*

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
Co-trimoxazole	≥16	≤2/38	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Levofloxacin	≥21	≤0.5	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin-Tazobactam	≥21	≤16	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Ertapenem	≥22	≤0.5	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem	≥23	≤1.0	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

DECEMBER 2020 / SEROLOGY

Please refer the attached evaluation format/answer template for details on the criteria for evaluation.

	Parameter	Your Result	Your Value	Intended Result			Method	Robust Mean	Robust SD	Range (mg/L)	Z & Z' score	Max Marks	Your Score
SE1	RA	Negative	12.20 IU/mL	Negative			Turbidimetry (n-245)	8.5538	4.1086	0.0 to 31.260	0.9	2	2
SE2	WIDAL*	Correct	Correct	STO Negative	STH Negative	Interpretation Negative	Slide agglutination	Not Applicable				2	2
SE3	CRP	Positive	67.13 mg/L	Positive			Turbidimetry (n-330)	60.0593	10.4966	0.08 to 199.9	0.7	2	2

RA: Rheumatoid Factor, CRP: C-reactive Protein. NA: Not Applicable. *Expected value is determined by the Proficiency Testing Provider (PTP).

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MEMBER ID: M 0 4 3 3

SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
4	4	4	15	17	17	2	2	2	67	100%
4	4	4	15	17	17	2	2	2	Maximum marks = 67	

Dr. Rani Diana Sahni
Scientific Co-ordinator

Dr. John A Jude Prakash
Quality Manager

for **Dr. V. Balaji**
PT Co-ordinator

Report Dispatch Date: 28.02.2021

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

105th IAMM EQAS Microbiology: Bacteriology/ Serology
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NABL ACCREDITED ISO / IEC 17043:2010, PC-1033 / 27.12.2018

AUGUST 2020

105th EQAS EVALUATION REPORT

MEMBER ID: M 0 4 3 3

Marks Obtained:62.5/63(99.2%)

AUGUST 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 CSF specimen of a 3-year-old child presenting with irritability, high grade fever and vomiting for one day.**	Presence of host cells & debris (1mark): **Many pus cells.** Description of Organism/s (2marks): **Many pleomorphic Gram negative bacilli.** **(Predominantly cocco-bacilli along with short/ long slender bacilli)** Probable organism (1 mark): ***Hemophilus* spp**	**NOT EVALUATED**
SM2	**Please carry out a Gram stain on the given fixed smear prepared from a voided URINE specimen of a 72-year old man post-TURP, with a history of dysuria and increased frequency for 2 days.**	Presence of host cells & debris (1mark): **Many pus cells.** Description of Organism/s (2 marks): **Many Gram positive oval cocci arranged in pairs and short chains along with few spherical cocci arranged in chains.** Possible organism (1 mark): ***Enterococcus* spp**	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 EXUDATE specimen of a 22-year-old lady, post-LSCS, presenting with a gaping wound and fever for 2 days.**	Presence of host cells & debris (1mark): **Many pus cells.** Description of Organism/s (2 marks): **Many long slender GNB, Many spherical GPC in groups and scattered forms.** Comment/Impression (1 mark): **Case of Surgical site infection (SSI)**	**0**	**0.5**	**1**
			1.5	**2**	**2.5**
			3	**3.5**	**(4)**

AUGUST 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 URINE specimen of a 63-year-old diabetic lady with pyelonephritis.

FINAL INDENTIFICATION: *Enterococcus faecium* (VRE)

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	≤16	≥16	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
High-level gentamicin	6	Any growth	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Vancomycin	≤14	≥32	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Teicoplanin	≤10	≥32	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Linezolid	≥23	≤2	SUSCEPTIBLE	✓		-1 0 1 (2)	mE/ ME/ VME

CU2: Isolated from a BLOOD culture of a 23 yr old gentleman with fever and chills accompanied with abdominal pain and diarrhoea

FINAL IDENTIFICATION: *Salmonella Enterica* subspp *enterica* serovar Paratyphi A

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	8 marks	Error
Ampicillin	≥17	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Chloramphenicol	≥18	≤8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole	≥16	≤2	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Ciprofloxacin	21-30	0.12-0.25	Resistant (Pefloxacin-Resistant)	NOT EVALUATED			
Ceftriaxone	≥26	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

CU3: Isolated from an endotracheal aspirate specimen of a 74-year old patient admitted in the ICU with a traumatic brain injury.

FINAL IDENTIFICATION: *Pseudomonas aeruginosa*

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
Ceftazidime	≤14	≥32	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Levofloxacin	≤14	≥4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Amikacin	≤14	≥64	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin/ tazobactam	≤14	≥128	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem	≤15	≥8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

AUGUST 2020 / SEROLOGY

Test method employed for detection C-reactive protein (CRP) at your lab: Turbidimetry
Peer group (n) = 377
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	1.71	Negative	4.1159	1.4897	0.0 to 79.50	-1.6	2	2
SE2	CRP	Positive	43.16	Positive	43.4923	10.8779	1 to 507	0.0	2	2
SE3	CRP	Positive	26.1	Positive	27.4525	6.0402	3.2 to 273	-0.2	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 4 3 3

SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
Not Evaluated	3.5	4	17	15	17	2	2	2	62.5	99.2%
	4	4	17	15	17	2	2	2	Maximum marks = 63	

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PT Co-ordinator

Report Dispatch Date: 30.11.2020

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