



PC-1033

**116<sup>th</sup> IAMM EQAS Microbiology: Bacteriology/ Serology**  
**CMC MICRO EQAS**  
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FEBRUARY 2024

### 116<sup>th</sup> EQAS EVALUATION REPORT

MEMBER ID:

M	1	4	8	6
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**Marks Obtained: 72/72 (100%)**

FEBRUARY 2024 / 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		
SMI	Please carry out a Gram stain on the given fixed smear prepared from a URINE specimen obtained from a 58-year-old lady presenting with fever and dysuria.	<p><b>Presence and grading of Host cells (1 mark):</b> Many pus cells</p> <p><b>Description of Organism/s (2 mark):</b> Many (0.5) Gram negative (0.5) long, thick and short, slender bacilli (1)</p> <p><b>* Interpretation (1 mark):</b> Probable case of urinary tract infection.</p>	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 BLOOD culture specimen obtained from 2-day-old baby with fever and rapid breathing with cyanosis.	Description of Organism/s (2 mark):		
		Gram positive spherical cocci arranged in pairs & chains. (Few oval Gram positive pairs & chains). Scattered forms and few groups.		
		<b>* Probable organism (1 mark):</b> <i>Streptococcus</i> species probably Group B Streptococcus ( <i>Streptococcus agalactiae</i> )		
		0	0.5	1
		1.5	2	2.5
		<b>3</b>		
SM3	Please carry out a Gram stain on the given fixed smear prepared from an EXUDATE specimen collected from a 69-year-old diabetic man with osteomyelitis.	Presence and grading of Host cells (1 mark): Many pus cells		
		Description of Organism/s (2marks):		
		Many(0.5) Gram positive (0.5) spherical cocci arrange in pairs, scattered, groups (1)		
		<b>* Probable organism (1 mark):</b> <i>Staphylococcus</i> species.		
		0	0.5	1
		1.5	2	2.5
		3	3.5	4

**FEBRUARY 2024 / 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 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 an EXUDATE specimen of a 66-year-old gentleman, post-RTA, presenting with an infected skin graft.

**FINAL IDENTIFICATION:** *Pseudomonas aeruginosa*

Identification details	Reported	Not reported	Evaluation (7 marks)
Microscopy (Gram stain)	✓		0 0.5 (1)
Salient culture and biochemical findings enabling final identification (Minimum 3 key characteristics)	✓		1 2 3 (4)
Final identification : <i>Pseudomonas aeruginosa</i>	✓		0.5 1 1.5 (2)

Susceptibility report Confirmed Manual, Vitek, BD, Etest, BMD	EXPECTED REPORT		PARTICIPANT REPORT		MARK 10 marks	TYPE OF ERROR Error
	Zone size (mm)	MIC (µg/ml)	Interpretation CLSI	Correct		
Ceftazidime 30µg	≥18	≤8	Susceptible	✓		-1 0 1 (2) mE/ ME/ VME
Levofloxacin 5µg	≥22	≤1	Susceptible	✓		-1 0 1 (2) mE/ ME/ VME
Amikacin 30 µg*	≥17	≤16	Susceptible	✓		-1 0 1 (2) mE/ ME/ VME
Piperacillin-tazobactam 100/10 µg	≥22	≤16/4	Susceptible	✓		-1 0 1 (2) mE/ ME/ VME
Meropenem 10µg	≥19	≤2	Susceptible	✓		-1 0 1 (2) mE/ ME/ VME

\*Not to be reported for samples other than urine.  
Refer CLSI M-100 Ed 33 guidelines page no 78

CU 2: Isolated from an EXUDATE specimen collected from a 69-year-old diabetic man with osteomyelitis.

**FINAL IDENTIFICATION:** *Staphylococcus haemolyticus*

Identification details	Reported	Not reported	MARK	Evaluation (7 marks)
Microscopy (Gram stain + Motility)	✓		10 marks	0 0.5 (1)
Salient culture and biochemical findings enabling final identification (Minimum 3 key characteristics)	✓			1 2 3 (4)
Final identification: <i>Staphylococcus haemolyticus</i>	✓			0.5 1 1.5 (2)

Susceptibility Report Confirmed Manual, Vitek, BD, Etest, BMD	EXPECTED REPORT		Interpretation CLSI	PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)		Correct	Incorrect		
Cefoxitin 30µg	≥ 22 (cefoxitin)	≤ 0.5 (oxacillin)	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Clindamycin 2µg	≥ 21	≤ 0.5	D zone – Negative Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Erythromycin 15µg	≤ 13	≥ 8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Linezolid 30µg	≥ 26	≤ 4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Vancomycin 30µg	NOT APPLICABLE	≤ 4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME

**Comments:**

Only oxacillin MIC recommended for *S.haemolyticus*.

Vancomycin MIC recommended for testing.

Isolates that are erythromycin resistant but clindamycin sensitive or intermediate are to be reported based on D-test.  
Refer CLSI M-100 Ed 34 guidelines page no 98 to 104

CU 3: Isolated from a BLOOD culture of a 58-year-old lady with fever and dysuria for 2 days with renal angle tenderness.

**FINAL IDENTIFICATION:** *Escherichia coli*

Identification details	Reported	Not reported	MARK	Evaluation (7 marks)
Microscopy (Gram stain + Motility)	✓		-1 0 1 (2)	0 0.5 (1)
Salient culture and biochemical findings enabling final identification (Minimum 3 key characteristics)	✓		-1 0 1 (2)	1 2 3 (4)
Final identification: <i>Escherichia coli</i>	✓		-1 0 1 (2)	0.5 1 1.5 (2)

Susceptibility report Confirmed Manual, Vitek, BD, Etest, BMD	EXPECTED REPORT			PARTICIPANT REPORT		MARK	TYPE OF ERROR
	Zone size (mm)	MIC (µg/ml)	Interpretation CLSI	Correct	Incorrect		
Levofloxacin 5µg	≥21	≤0.5	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VMIE
Cefotaxime 30µg	≥26	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VMIE
Cefepime 30µg	≥25	≤2	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VMIE
Piperacillin-tazobactam 100/10µg	≥25	≤8/4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VMIE
Amikacin 30µg	≥20	≤4	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VMIE
Meropenem 10µg	≥23	≤1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VMIE

**FEBRUARY 2024 / SEROLOGY**

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

Parameter	Your Result	Intended result	Correct	Incorrect	Max Marks	Your Score
	RPR	Non-Reactive	Non-Reactive	✓		2
TPHA	NOT DONE					

Parameter	Your Interpretation		Intended Result		Max Marks	Your Score
	Correct	Incorrect	STO	STH		
SE2	Widal	✓		Negative	2	2
			STO	STH		
			Negative	Negative		
			Not Suggestive of Enteric Fever / Typhoid Fever		2	2
					2	2
					2	2

SE3: Test method employed for detection C-reactive protein (CRP) at your lab: Turbidimetry  
Peer group (n) = 526

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

Parameter	Your Value (mg/L)	Robust Mean	Robust SD	Range (mg/L)	Uncertainty of Assigned value	Z & Z'	Max Marks	Your Score
SE3	CRP	34.8	44.69	8.72	0.20 to 545.8	0.47	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 1 4 8 6

	SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
	4	3	4	17	17	19	2	4	2	72	100%
	4	3	4	17	17	19	2	4	2	Maximum marks = 72	



Dr. Rani Diana Sahni  
Scientific Co-ordinator



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PT Co-ordinator

Report Dispatch Date: 31.05.2024

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