



114th IAMM EQAS Microbiology: Bacteriology/ Serology
 CMC MICRO EQAS
 Department of Clinical Microbiology, Christian Medical College, Vellore-632004, Tamil Nadu
 Email: egans@cmcvellore.ac.in, Twitter: @microegas, Phone: +91-416-2282588



JULY 2023

114th EQAS EVALUATION REPORT

MEMBER ID:

M	0	8	0	2
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Marks Obtained: 76/76 (100%)

JULY 2023 / 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 FLUID culture specimen obtained from a 70-year-old lady presenting with increasing fever and right knee joint pain and swelling for 1 week. She had a right knee replacement 18 months ago.	Presence and grading of Host cells (1 mark): Moderate pus cells Description of Organism/s (1 mark): Many (0.5) Gram-negative bacilli (0.5) [short, long, slender bacilli]	<table border="1"> <tr> <td>0</td> <td>0.5</td> <td>1</td> </tr> <tr> <td>1.5</td> <td>2</td> <td>2.5</td> </tr> <tr> <td colspan="3" style="text-align: center;">3</td> </tr> </table>	0	0.5	1	1.5	2	2.5	3		
0	0.5	1										
1.5	2	2.5										
3												

* Clinical impression (1 mark): Septic arthritis

JULY 2023 / SEROLOGY

Test method employed for detection C-reactive protein (CRP) at your lab: Latex Agglutination
Peer group (n) = 248

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

Parameter	Your Result	Your Value (mg/L)	Intended Result	Robust Mean	Robust SD	Range (mg/L)	Uncertainty of Assigned value	Z & Z'	Max Marks	Your Score
SE1	CRP	Negative	Negative	28.6615	17.1608	6 to 480	1.4629	-1.0	2	2
SE2	CRP	Negative	Negative							
SE3	CRP	Positive	Positive							
Not Applicable										

Note: CRP (Latex Agglutination) peer group results of SE1 & SE2 evaluation based on interpretation because the Robust Analysis result is cannot be calculated

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 0 2

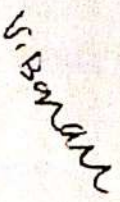
SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained
3	4	4	19	19	21	2	2	2	76
3	4	4	19	19	21	2	2	2	Maximum marks = 76



Dr. Rani Diana Sahni
Scientific Co-ordinator



Dr. John A Jude Prakash
Quality Manager



Dr. V. Balaji
PT Co-ordinator

Report Dispatch Date: 15.10.23

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



114th IAMM EQAS Microbiology: Bacteriology/ Serology
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Evaluation criteria and score interpretation for the 114th EQAS package

The 114th EQAS package carries a maximum of **76 marks**

Marks are awarded when the reporting form has been **completed** and returned in a **timely manner**.
 (i.e. As per the date mentioned as the last date – which is 30 days after dispatch of the specimens)

The distribution of marks is as follows:

S.No	Exercise evaluated	No of PT Specimens	Marks per specimen	Total Marks
1	Specimens smears for staining & interpretation	3	SM1 – 3 MARKS SM2 – 4 MARKS SM3 – 4 MARKS	11
2	Culture - Identification and susceptibility testing	3	7 for identification + 2 marks for each anti-microbial tested	
			Culture 1	19
			Culture 2	21
			Culture 3	6
3	Sera for serology exercises	3	SE1 – 2 MARKS SE2 – 2 MARKS SE3 – 2 MARKS	6
Total				76

Evaluation format for each exercise

A) BACTERIOLOGY SMEARS:

Aim: To improve the quality and uniformity of reporting diagnostic specimen smears across labs.

- Presence of host cell: Pus cells-many/moderate/few/no (*and/or*) epithelial cells –many/ moderate/few/no (1 mark).
- Presence of organism/s and gram stain finding, morphology (shape), arrangement and any other special characteristics observed and grading (2marks)
- Probable organism / Impression **as asked in the question paper** (1mark)

B) BACTERIOLOGY CULTURE:

Aim: To achieve accurate identification of organism using microscopy, culture and biochemical characteristics. To continuously update information on susceptibility testing methodology, interpretation criteria and the important resistance mechanisms.

- Microscopy: Gram stain / Hanging drop (1 mark),
- Culture finding + key biochemical characteristics -**minimum 3 characteristics*** (4 marks), Final identification (2 marks)

***PLEASE NOTE:** The **most important** biochemical tests performed to identify the given organisms is required to be reported with a minimum of 3 important characteristics.
 If automated identification has been performed, the culture findings and the automated reports need to be provided.
Susceptibility (2 marks / drug)

NOTE 1: Only **ONE FINAL** susceptibility report for each drug tested is to be reported as would be reported for a diagnostic specimen. If two reports with discrepant interpretations are reported, they are marked as an incorrect answer.

NOTE 2: VITEK/E-test MIC are awarded the complete mark if the interpretation is consistent with the expected report.
NOTE 3: Automated susceptibility reports will be accepted and evaluated, if, the participating laboratory has included the report in their reporting form as their final susceptibility report.

Susceptibility interpretation errors:

- Minor error (mE): Susceptible / resistant isolate reported as intermediate susceptible (1 mark deducted)
- Major error (ME): Susceptible isolate reported as resistant (2 marks deducted)
- Very major error (VME): Resistant isolate reported as susceptible (3 marks deducted)

C) SEROLOGY:

a. Qualitative (2 marks for each serum)

- Result have to be given as Positive or Negative only
- Correct interpretation: Full marks (2 marks)
- Wrong Interpretation: Zero mark (0 mark)

b. Semi Quantitative / Quantitative (2 marks for each serum)

As per ISO: 13528:2015, we assess participants results for different peer groups (Nephelometry, Turbidimetry, etc.,) by robust analysis and the marking format is based on Z & Z' score, as given below.

Z & Z' score system for Values

Z & Z' Score	Category	Marks for values
≤ 2	Correct	2 marks
>2 but < 3	Partially correct	1 mark
≥ 3	Incorrect	0 mark

Note: CRP (Latex Agglutination) peer group results of SE1 & SE2 evaluation based on interpretation because the Robust Analysis result is cannot be calculated

Performance / Score interpretation

A) Acceptable mark for inclusion of a parameter in the evaluation:

The proficiency test (PT) parameter marks will be included in the final scoring if $>70\%$ of participants get acceptable scores for that parameter.

B) Acceptable individual parameter score:

The acceptable score for each individual parameter is $\geq 50\%$.

C) Acceptable overall participant performance:

The overall performance will be considered acceptable if the PT participant scores $\geq 50\%$ of the total marks.



PC-1033

113th IAMM EQAS Microbiology: Bacteriology/ Serology

CMC MICRO EQAS

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FEBRUARY 2023

113th EQAS EVALUATION REPORT

MEMBER ID:

M 0 8 0 2

FEBRUARY 2023 / BACTERIOLOGY SMEARS

Marks Obtained: 66/66 (100%)

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									
SMI1	Please carry out a Gram stain on the given fixed smear prepared from a BLOOD culture specimen obtained from a 68-year-old gentleman presenting with high grade fever with fatigue, night sweats and joint pains for 10 days.	<p>Description of Organism/s (2marks):</p> <p>Gram-positive (1) spherical cocci arranged in groups (1), (pairs, scattered forms are also seen)</p> <p>Probable organism (1 mark): <i>Staphylococcus</i> spp (1) (<i>Staphylococcus aureus</i>)</p>	<table border="1"> <tr> <td>0</td> <td>0.5</td> <td>1</td> </tr> <tr> <td>1.5</td> <td>2</td> <td>2.5</td> </tr> <tr> <td colspan="3" style="text-align: center;">3</td> </tr> </table>	0	0.5	1	1.5	2	2.5	3		
0	0.5	1										
1.5	2	2.5										
3												

FEBRUARY 2023 / SEROLOGY

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

SE1: Test method employed for detection C-reactive protein (CRP) at your lab: Latex Agglutination
Peer group (n) = 266

Parameter	Your Result	Your Value (mg/L)	Intended Result	Robust Mean	Robust SD	Range (mg/L)	Uncertainty of Assigned value	Z & Z'	Max Marks	Your Score
SE1 CRP	Negative	<6	Negative						2	2

SE2: Test method employed for detection Antistreptolysin O (ASO) at your lab: Latex Agglutination
Peer group (n) = 507

Parameter	Your Result	Your Value (IU/mL)	Intended Result	Robust Mean	Robust SD	Range (IU/mL)	Uncertainty of Assigned value	Z & Z'	Max Marks	Your Score
SE2 ASO	Negative	<200	Negative						2	2

SE3: Test method employed for detection C-reactive protein (CRP) at your lab: Latex Agglutination
Peer group (n) = 261

Parameter	Your Result	Your Value (mg/L)	Intended Result	Robust Mean	Robust SD	Range (mg/L)	Uncertainty of Assigned value	Z & Z'	Max Marks	Your Score
SE3 CRP	Positive	12	Positive	25.7046	15.4690	6 to 384	1.2778	-0.9	2	2

Marks Obtained: 73/77 (94.8%)

Score for overall performance will

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MEMBER ID:

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SMI	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
3	4	4	15	15	19	2	2	2	66	100%
3	4	4	15	15	19	2	2	2	Maximum marks = 66	

Dr. Rani Diana Sahni
Scientific Co-ordinator

Report Dispatch Date: 15.6.23

Dr. John A Jude Prakash
Quality Manager

Dr. V. Balaji
PT Co-ordinator

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



PC-1033

112th IAMM EQAS Microbiology: Bacteriology/ Serology

CMC MICRO EQAS

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NOVEMBER 2022

112th EQAS EVALUATION REPORT

MEMBER ID:

M 0 8 0 2

NOVEMBER 2022 / BACTERIOLOGY SMEARS

Marks Obtained: 73/77 (94.8%)

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			
S11	Please carry out a Gram stain on the given fixed smear prepared from a SPUTUM culture specimen obtained from a 74-year-old gentleman presenting with high-grade fever, cough with rusty sputum for 2 days.	<p>Presence and grading of Host cells (1 mark): Occasional pus cells (0.5). Many epithelial cells (0.5)</p> <p>Description of Organisms/ (2marks):</p> <p><u>ANY 4 MENTIONED</u> (0.5 marks each)</p> <p>Many GNB, GPC pairs, chains, groups, oval budding yeast like organisms with pseudo hyphae, slender non-palsading GPB, moderate GNC groups</p> <p>Interpretation and advice (1 mark):</p> <p>Bartlett criteria or any other accepted criteria applied- (0.5)</p> <p>Improperly collected specimen. (0.25)</p> <p>Suggest repeat appropriately collected specimen for culture (0.25)</p>	0	0.5	1	
			1.5	2	2.5	
			3	3.5	4	

NOVEMBER 2022 / 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	STO	STH		
SE1 Widal*	✓		Negative	Negative	Not Suggestive of Enteric Fever / Typhoid Fever	2	2	4	

*Negative at 1:20 dilution

Parameter	Your Result	Intended result	correct	Incorrect	Max Marks	Your Score
RPR/VDRL	Non-Reactive	Non-Reactive	✓		2	2
TPHA	Non-Reactive	Non-Reactive	✓		2	2
SE2 Syphilis ELISA	NOT DONE					

SE3: Test method employed for detection C-reactive protein (CRP) at your lab: Latex Agglutination
Peer group (n) = 207

Parameter	Your Result	Your Value (mg/L)	Intended Result	Robust Mean	Robust SD	Range (mg/L)	Uncertainty of Assigned value	Z & Z'	Max Marks	Your Score
SE3 CRP	Positive	>6	Positive	31.6832	20.2228	5 to 240	1.7570	-1.3	2	2

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MEMBER ID:

M 0 8 0 2

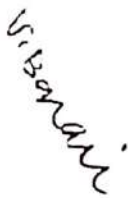
SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
4	4	1	17	18	19	4	4	2	73	94.8%
4	4	4	17	19	19	4	4	2	Maximum marks = 77	



Dr. Rani Diana Sahni
Scientific Co-ordinator



Dr. John A Jude Prakash
Quality Manager



Dr. V. Balaji
PT Co-ordinator

Report Dispatch Date: 15.02.23

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



Evaluation criteria and score interpretation for the 112th EQAS package

The 112th EQAS package carries a maximum of **77 marks**.

Marks are awarded when the reporting form has been **completed** and returned in a **timely manner**.
 (i.e. As per the date mentioned as the last date – which is 30 days after dispatch of the specimens)

The distribution of marks is as follows:

S.No	Exercise evaluated	No of PT Specimens	Marks per specimen	Total Marks
1	Specimens smears for staining & interpretation	3	SM1 – 4 MARKS SM2 – 4 MARKS SM3 – 4 MARKS	12
2	Culture - Identification and susceptibility testing	3	7 for identification + 2 marks for each anti-microbial tested	
			Culture 1	17
			Culture 2	19
			Culture 3	19
3	Sera for serology exercises	3	SE1 – 4 MARKS SE2 – 4 MARKS SE3 – 2 MARKS	10
Total				77

Evaluation format for each exercise

A] BACTERIOLOGY SMEARS:

Aim: To improve the quality and uniformity of reporting diagnostic specimen smears across labs.

Presence of host cell: Pus cells-many/moderate/few/no (*and/or*) epithelial cells –many/ moderate/few/no (1 mark).
 Presence of organism/s and gram stain finding, morphology (shape), arrangement and any other special characteristics observed and grading (2marks)
 Probable organism / Impression (*as asked in the question paper*) (1mark)

B] BACTERIOLOGY CULTURE:

Aim: To achieve accurate identification of organism using microscopy, culture and biochemical characteristics. To continuously update information on susceptibility testing methodology, interpretation criteria and the important resistance mechanisms.

Microscopy: Gram stain / Hanging drop (1 mark),
 Culture finding + key biochemical characteristics -minimum 3 characteristics* (4 marks), Final identification (2 marks)

***PLEASE NOTE:** The most important biochemical tests performed to identify the given organisms is required to be reported with a minimum of 3 important characteristics.
 If automated identification has been performed, the culture findings and the automated reports need to be provided.
 Susceptibility (2 marks / drug)

NOTE 1: Only **ONE FINAL** susceptibility report for each drug tested is to be reported as would be reported for a diagnostic specimen. If two reports with discrepant interpretations are reported, they are marked as an incorrect answer.

NOTE 2: VITEK/ E-test MIC are awarded the complete mark if the interpretation is consistent with the expected report.

NOTE 3: Automated susceptibility reports will be accepted and evaluated, if, the participating laboratory has included the report in their reporting form as their final susceptibility report.

Susceptibility interpretation errors:

Minor error (mE): Susceptible / resistant isolate reported as intermediate susceptible (1 mark deducted)

Major error (ME): Susceptible isolate reported as resistant (2 marks deducted)

Very major error (VME): Resistant isolate reported as susceptible (3 marks deducted)

C) SEROLOGY:

Qualitative (2 marks for each serum) Correct interpretation: Full marks (2 marks) Wrong Interpretation: Zero mark (0 mark)	Semi quantitative / Quantitative (2 marks for each serum) interpretation (1 mark) Correct interpretation: One mark (1 mark) Wrong Interpretation: Zero mark (0 mark) Values (1 mark)
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As per ISO: 13528:2015, we assess participants results for different peer groups (Nephelometry, Turbidimetry, etc..) by robust analysis and the marking format is based on Z & Z' score, as given below.

Z & Z' score system for Values

Z & Z' Score	Category	Marks for values
≤ 2	Correct	1 mark
>2 but < 3	Partially correct	0.5 mark
≥ 3	Incorrect	0 mark

Note:

1. For WIDAL, RPR, TPHA: Expected value is determined by the Proficiency Testing Provider (PTP).
2. For Syphils ELISA: As variable results are obtained by different assays, it has been excluded from the final evaluation.

Performance / Score interpretation

A) Acceptable mark for inclusion of a parameter in the evaluation:

The proficiency test (PT) parameter marks will be included in the final scoring if >70% of participants get acceptable scores for that parameter.

B) Acceptable individual parameter score:

The acceptable score for each individual parameter is ≥50%.

C) Acceptable overall participant performance:

The overall performance will be considered acceptable if the PT participant scores ≥50% of the total marks.



Indian Association of Medical Microbiologists
Virology External Quality Assessment Scheme
CMCVIROEQAS, Proficiency Testing Unit, Department of Clinical Virology
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21st SEROLOGY CMCVIROEQAS EVALUATION FINAL REPORT

PC - 1034

PANEL: HBV SEROLOGY

CMCVIROEQAS ID.: **V3534**

Opening Date: 18-09-2023

Closing Date: 09-10-2023

Distribution No: **S323**

Result Receiving Date: 28.09.2023

Specimen #	Intended Result					Your Result				
	HBsAg	HBeAg	*Anti-HBsAg Median mIU/mL	Anti-HBcAg Total	Anti-HBeAg	HBsAg	HBeAg	*Anti-HBsAg mIU/ml	Anti-HBcAg Total	Anti-HBeAg
S03323033	NEG	NEG	120.9	NEG	NEG	NEG	NEG	>250	NEG	NEG
S03323034	NEG	NEG	0.0	NEG	NEG	NEG	NEG	1.427	NEG	NEG
S03323035	NEG	NEG	0.2	NEG	NEG	NEG	NEG	0.68	NEG	NEG
S03323036	POS	POS	0.2	POS	NEG	POS	POS	0.612	POS	NEG
Your Score						8/8	8/8	8/8	8/8	8/8
						100%	100%	100%	100%	100%
Performance grading						E	E	E	E	E

*>10mIU/ml is considered positive for Anti-HBsAg

ND - Not Done; NEG - Negative; POS - Positive; IND - Indeterminate; MIN-Minimum

Page 1 of 8

PT Unit, Department of Clinical Virology
CHRISTIAN MEDICAL COLLEGE, VELLORE

The data in this CMCVIROEQAS report is confidential



PC - 1034

Indian Association of Medical Microbiologists
Virology External Quality Assessment Scheme
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21st SEROLOGY CMCVIROEQAS EVALUATION FINAL REPORT

PANEL: BBVS

CMCVIROEQAS ID. **V3534**

Opening Date: 18-09-2023

Closing Date: 09-10-2023

Distribution No: **S323**

Result receiving Date: 28.09.2023

Specimen #	Intended Result			Your Result		
	HIV	HBsAg	HCV	HIV	HBsAg	HCV
S01323009	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE
S01323010	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE	NEGATIVE
S01323011	POSITIVE	NEGATIVE	POSITIVE	POSITIVE	NEGATIVE	POSITIVE
S01323012	NEGATIVE	POSITIVE	NEGATIVE	NEGATIVE	POSITIVE	NEGATIVE
Your Score				8/8 (100%)	8/8 (100%)	8/8 (100%)
Performance grading				E	E	E

Scoring System

Qualitative Results	Score
Concordant Result	2
Indeterminate/Equivocal	1
Discordant Result	0

Page 1 of 6

PT Unit, Department of Clinical Virology
CHRISTIAN MEDICAL COLLEGE, VELLORE

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