

CU2: Isolated from a BLOOD CULTURE specimen received from a 43-year-old gentleman admitted in the ICU following a road traffic accident.

**FINAL IDENTIFICATION:** *Acinetobacter baumannii*

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	≤ 14	≥ 32	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Cefepime 30µg	≤ 14	≥ 32	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Levofloxacin 5µg	≤ 13	≥ 8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Piperacillin-tazobactam 100/10 µg	≤ 17	≥ 128/4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem 10µg	≤ 14	≥ 8	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

CU 3: Isolated from a BLOOD culture specimen of a 16-year-old boy with a 4-day history of high-grade fever, chills and diarrhoea.

FINAL IDENTIFICATION: *Salmonella enterica* subspp *enterica* serovar Typhi

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	≥17	≤ 8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Ceftriaxone 30µg	≥ 23	≤ 1	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Co-trimoxazole 1.25/23.75µg	≥ 16	≤ 2/38	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Chloramphenicol 30µg	≥ 18	≤ 8	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Azithromycin 15µg	≥ 13	≤ 16	Susceptible	✓		-1 0 1 (2)	mE/ ME/ VME
Pefloxacin 5µg	≤ 23	-	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME

SM2	Please carry out a Gram stain on the given fixed smear prepared from a CSF specimen received from a 65-year-old gentleman with a 2-day history of fever, severe headache and vomiting.	Presence and grading of Host cells (1 mark): <u>Many Pus cells (1)</u>  Description of Organism/s (2marks): <u>Many (0.5) lanceolate shaped (0.5), Gram positive diplococci.(1)</u>  Probable organism (1 mark): <u><i>Streptococcus pneumoniae</i> (1)</u>	<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>3</td><td>3.5</td><td>4</td></tr> </table>	0	0.5	1	1.5	2	2.5	3	3.5	4
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 obtained from a 17-year-old boy with an infected post-operative groin wound.	Presence and grading of Host cells (1 mark): <u>Many Pus cells (1)</u>  Description of Organism/s (2marks): <u>Many Gram positive spherical cocci arranged in pairs, groups and scattered (1)</u> <u>Many long, slender Gram negative bacilli (1)</u>  What is the recommended method of collection of a superficial wound exudate specimen? (1 mark):  <u>Clean superficial wound with sterile saline (0.5)</u> <u>Collect exudate from the base of the wound on sterile cotton swabs (0.5)</u> <u>Tightly seal the specimen tube.</u> <u>Specimen to be transported immediately to the laboratory.</u>	<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>3</td><td>3.5</td><td>4</td></tr> </table>	0	0.5	1	1.5	2	2.5	3	3.5	4
0	0.5	1										
1.5	2	2.5										
3	3.5	4										

**MARCH 2022 / 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 a SPUTUM specimen of a 72-year-old gentleman with fever, breathlessness and cough with expectoration.

FINAL IDENTIFICATION: *Klebsiella pneumoniae*

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		
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 100/10 µg	≤ 20	≥ 32/4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Meropenem 10µg	≤ 19	≥ 4	Resistant	✓		-1 0 1 (2)	mE/ ME/ VME
Ceftazidime-Avibactam 30/20µg	≥ 21	≤ 8/4	Susceptible			NOT DONE	



Indian Association of Medical Microbiologists  
Virology External Quality Assessment Scheme  
CMCVIROEQAS, Proficiency Testing Unit, Department of Clinical Virology  
Christian Medical College, Vellore-632004, Tamil Nadu  
Email: viroeqas@cmcvellore.ac.in Phone: 0416-2283455

PC - 1034

16<sup>th</sup> SEROLOGY CMCVIREQAS EVALUATION FINAL REPORT

PANEL: BBVS

CMCVIREQAS ID.

Opening Date: 21-03-2022

Distribution No:

Result Receiving Date: 16/04/2022

Specimen #	Intended Result			Your Result		
	HIV	HBsAg	HCV	HIV	HBsAg	HCV
S01122001	Negative	Positive	Negative	NEGATIVE	NEGATIVE	NEGATIVE
S01122002	Negative	Negative	Negative	NEGATIVE	NEGATIVE	NEGATIVE
S01122003	Negative	Negative	Negative	POSITIVE	NEGATIVE	NEGATIVE
S01122004	Negative	Negative	Positive	NEGATIVE	NEGATIVE	NEGATIVE
Your Score				6/8 (75%)	6/8 (75%)	6/8 (75%)
Performance grading				G	G	G

Scoring System

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

Page 1 of 6



PC - 1034

Indian Association of Medical Microbiologists  
Virology External Quality Assessment Scheme  
CMCVIROEQAS, Proficiency Testing Unit, Department of Clinical Virology  
Christian Medical College, Vellore-632004, Tamil Nadu  
Email: viroeqas@cmcvellore.ae.in Phone: 0416-2283455

**Performance Grading**

Your score	Score	Grade
100%	Excellent	E
75 – 99%	Good	G
50 – 74%	Average	A
0 – 49%	Poor	P

**Cumulative Report of this cycle:**

Total Number of specimens you received : 4  
Number of markers reported as not examined : 0  
Specimen # not used for analysis : 0  
Number of Specimens Reported Late for analysis : 0  
Your cumulative score for the specimens you reported: 18 out of the possible total of 24  
Total Number of participants for BBVS : 559  
Total Number of Participants who turned in their results : 547



PC-1033

# 110<sup>th</sup> IAMM EQAS Microbiology: Bacteriology/ Serology CMC MICRO EQAS

Department of Clinical Microbiology, Christian Medical College, Vellore-632004, Tamil Nadu  
Email: [eqas@cmcvellore.ac.in](mailto:eqas@cmcvellore.ac.in), Twitter: @microeqas, Phone: +91-416-2282588



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

MARCH 2022

MEMBER ID: 

M	0	9	3	3
---	---	---	---	---

Marks Obtained: 66/71 (93%)

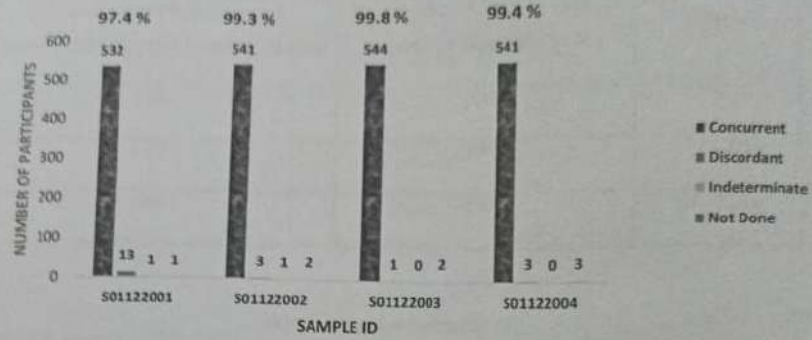
### MARCH 2022 / BACTERIOLOGY SMEARS

**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.

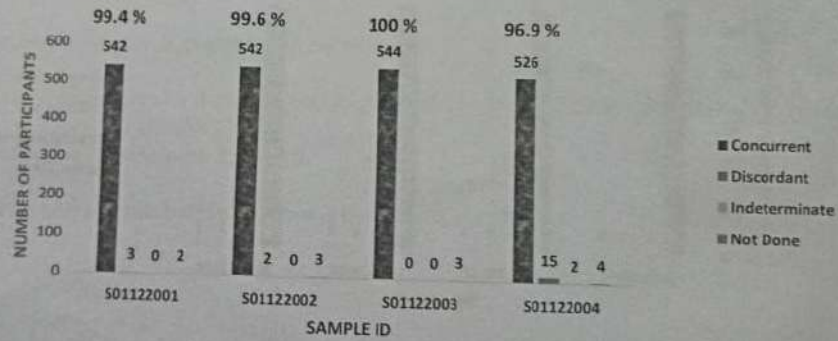
**PLEASE NOTE:** The inaccuracies in the participant report resulting in deduction of marks has been underlined in the expected smear report.

Exercise Number	Question	Expected Report	Evaluation		
			0	0.5	1
SM1	Please carry out a Gram stain on the given fixed smear prepared from a URINE culture specimen obtained from a 56-year-old lady presenting with recurrent UTI.	Presence and grading of Host cells (1 mark): <u>Moderate Pus cells (1)</u>	0	0.5	1
		Description of Organism/s (2marks): <u>Many (0.5)</u> oval and spherical (0.5), Gram positive cocci in pairs and short chains.(1)	1.5	2	2.5
		Probable organism (1 mark): <u>Enterococcus / Streptococcus spp (1)</u>	3	3.5	4

**BBVS - HBsAg**



**BBVS - HCV Ab**







Indian Association of Medical Microbiologists  
Virology External Quality Assessment Scheme  
CMCVIROEQAS, Proficiency Testing Unit, Department of Clinical Virology  
Christian Medical College, Vellore-632004, Tamil Nadu  
Email: viroeqas@cmcvellore.ac.in Phone: 0416-2283455

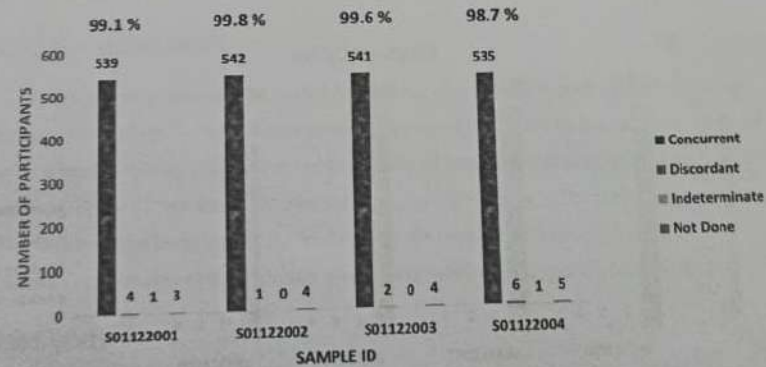
PC - 1034

Participants who reported all analyzed specimens accurately

Marker	Number of Participants with all four specimen's results	Percentage of Participants with concordant result from all four specimens
HIV	543	97.2
HBsAg	544	96.7
HCV-Ab	543	96.1

**Performance Graph**

**BBVS - HIV Ag/Ab**





Indian Association of Medical Microbiologists  
Virology External Quality Assessment Scheme  
CMCVIROEQAS, Proficiency Testing Unit, Department of Clinical Virology  
Christian Medical College, Vellore-632004, Tamil Nadu  
Email: viroeqas@cmcvellore.ac.in Phone: 0416-2283455

PC - 1034

**Scoring:**

Participants are scored based on qualitative result. If more than 30% of the laboratory report discrepant result that sample will not be considered for analysis.

**Confidentiality of the results:**

The results are kept confidential between the participant and the provider. The results can be revealed to a regulatory body with written consent from the participant. However, in exceptional circumstances, results from a particular participant will be provided to the regulatory body and the participant will be notified of this action in writing.

**Appeal:**

For appeals, regarding result analysis and evaluation process, please contact CMCVIRROEQAS coordinator by phone 08610058215 or email [viroeqas@cmcvellore.ac.in](mailto:viroeqas@cmcvellore.ac.in).

**Enquiries:** For all communications, please use your CMCVIRROEQAS LAB ID and Distribution Number.

END OF REPORT

Name of CMCVIRROEQAS Coordinator

Signature

Dr. Rajesh Kannangai

Department of Clinical Virology

Report Dispatch Date: 03-06-2022

Report authorized by: CMCVIRROEQAS Coordinator

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

The data in this CMCVIRROEQAS report is confidential

Page 6 of 6



PC-1033



**The Department of Clinical Microbiology  
Christian Medical College  
Vellore-632 004**

## **Certificate**

*This is to certify that*

**Department of Microbiology**

**Shalinitai Meghe Hosputal and Research Centre, Nagpur**

LAB CODE NO: M0933

*Participated in the Microbiology*

**External Quality Assessment Scheme**

**Basic Bacteriology and Serology: Tier 1**

*under the aegis of*

**Indian Association of Medical Microbiologists (IAMM)**

*for the year 2021.*

*Balaji Veeraraghavan*

**Balaji Veeraraghavan, MD., Ph.D., FRCP.**  
Microbiology EQAS Coordinator  
Dept. of Clinical Microbiology  
Christian Medical College  
Vellore-632 004



Indian Association of Medical Microbiologists  
 Virology External Quality Assessment Scheme  
 CMCVIREQAS, Proficiency Testing Unit, Department of Clinical Virology  
 Christian Medical College, Vellore-632004, Tamil Nadu  
 Email: viroeqas@cmcvellore.ac.in Phone: 0416-2383455

PC - 1034

	HIV Ag/Ab		HBsAg		HCV-Ab	
	n	Discordant	n	Discordant	n	Discordant
Chemiluminescence	253	5 (2.0 %)	250	8 (3.2 %)	256	3 (1.2 %)
ELFA	15	1 (6.7 %)	14	0	14	1 (7.1 %)
ELISA	72	0	86	4 (4.7 %)	78	0
Rapid Assay	203	9 (4.4 %)	195	10 (5.1 %)	196	18 (9.2 %)
Not Done	3	-	1	-	2	-
No Info	1	0	1	0	1	0

**Comments:**

This PT program is a simultaneous and continuous scheme.

**Testing Material (Specimen):**

The proficiency testing material is a pooled lyophilized plasma sample prepared by following institutional proficiency testing standard operating protocol (PT-SOP) by trained staff. None of the work related to testing, preparation and packaging of sample is subcontracted. The homogeneity of the PT material is determined using multiple testing. The stability of the testing material is determined by assessing the reactivity of the specimen till the closing date. The homogeneity and stability of the materials were found satisfactory as per ISO13528:2015.

**Assigned Value:**

Assigned value is pre-determined using multiple assays/multiple testing of the same analyte. Assigned value was not derived using reference material or calibrators.

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

The data in this CMCVIREQAS report is confidential

amil Nadu  
588  
MEMBER

Low Density Lipoprotein Cholesterol (LDL)

Renal Function Tests (Urea/Blood Urea Nitrogen, Creatinine, Uric acid)

Liver Function Tests (Total Bilirubin, Alanine Aminotransferase (ALT/SGPT), Aspartate Aminotransferase (AST/SGOT), Alkaline Phosphatase (ALP), Albumin, Total Protein)

15/06/2022  
MR. 1122...  
GENERAL  
Cash  
NET AMOUNT 200.00  
CONCESSION 0.00  
RATE AMOUNT 200.00  
Payment Mode  
Receipt Created By  
ANNITA

**MARCH 2022 / SEROLOGY**

Test method employed for detection C-reactive protein (CRP) at your lab: Latex Agglutination  
Peer group (n) = 228

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	240	Positive	32.9666	20.4511	6 to 240	10.1	2	1
SE2	CRP	Negative	Not Reported	Negative	NOT APPLICABLE				2	2
SE3	CRP	Negative		Negative					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 9 3 3

SM1	SM2	SM3	CU1	CU2	CU3	SE1	SE2	SE3	Marks obtained	
3.5	3.5	3	15	17	19	1	2	2	66	93%
4	4	4	17	17	19	2	2	2	Maximum marks = 71	

*Dr. Rani Diana Sahni*  
Dr. Rani Diana Sahni  
Scientific Co-ordinator  
Report Dispatch Date: 15.06.2022

*John*  
Dr. John A Jude Prakash  
Quality Manager

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

..... End of Report .....