

# 109<sup>th</sup> IAMM EQAS Microbiology: Bacteriology / Serology Department of Clinical Microbiology Christian Medical College, Vellore-632004, Tamil Nadu



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

OCTOBER 2021

109th EQAS - SEROLOGY

MEMBER ID:

M0372

# Last date for receiving reports: December 20th, 2021

### Instructions:

- 1. Each individual serum sample to be reconstituted with 0.6ml of sterile distilled water / deionized water.
- 2. Please perform required tests and send your results as per the attached tabular format.
- 3. You are instructed to fill up each column; as this information will be used for assessing your performance.
- 4. Do not use tick marks and encircle wherever necessary.
- 5. Please perform only the test specified for the sample.
- 6. Please mention levels of C-reactive protein (CRP) in mg/L and Antistreptolysin O (ASO) in IU/ml
  Note: Do not mention CRP in mg/dl
- 7. Separate sheets are provided for entering the results.
- 8. Evaluation format for 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)
    - 1. Interpretation (1 mark)
      - Correct interpretation: one mark (1 mark)
      - > Wrong Interpretation: Zero mark (0 mark)

# 2. Values (1 mark)

We will assess by robust analysis (as per ISO: 13528:2015) using participants results for different peer groups (Nephelometry, Turbidimetry, etc.,) and marking format as based on Z & Z' score, which is 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           |

ApprovedBy

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Incharge CCL- Biochemistry PMT,RMC,Loni

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IMPORTANT!! All sera are potentially infectious. Adequate universal precautions to be used while handling the specimens Note: Do not use tick marks; encircle as necessary

Widal

SE1: Serum specimen from 45-year old patient with acute febrile illness of 5 days duration.

| S No. | Subject                                  | STO                                    | STH  | Interpretation     |
|-------|--|--|--|--------------------|
| 1     | SE1                                      | NEGATIVE                               | NEGATIVE                                     | NEGATIVE           |
| 2     | Your Normal<br>Range                     | NA                                     |  |                    |
| 3     | Method                                   | 7                                      | ube agglutination or s                       | lide agglutination |
| 4     | Name of the kit used                     | TYDAL                                  |  |                    |
| 5     | Manufacturer<br>(Name, City,<br>Country) | Corol Clinic<br>TULIP DIAG<br>GOA-4037 | Lal Systems<br>Nostics (P) LTI<br>122, India |                    |
| 6     | Lot No.                                  | 410104                                 |  |                    |
| 7     | Expiry date of kit                       | Nov 202                                | 2  |                    |

IMPORTANT!! All sera are potentially infectious. Adequate universal precautions to be used while handling the specimens

Note: Do not use tick marks; encircle as necessary

# Antistreptolysin O (ASO)

SE2: Serum specimen from 10-year old child with fever and sore throat for 3 days duration.

| S. | Subject                               | Antistreptolysin O (ASO)                      |                                       |  |  |  |  |  |
|----|---------------------------------------|---|---------------------------------------|--|--|--|--|--|
| no |                                       | Report  |                                       | Value in (IU/mL)                           |  |  |  |  |
| 1  | SE2                                   | Positive / Negative                           |                                       | < 200 IU                                   |  |  |  |  |
| 2  | Your Normal Range                     | < 200 I                                       |                                       | 2 September 2 Carlo September 2            |  |  |  |  |
| 3  | Method                                | Qualitative                                   | Latex agglut                          | tination)                                  |  |  |  |  |
|    |                                       | Semi-Quantitative                             | Semi-Quantitative Latex agglutination |  |  |  |  |  |
|    |                                       | Quantitative                                  | Nephelomet                            | try / Turbidimetry / ELISA / CLIA/ Others: |  |  |  |  |
| 4  | Name of the kit used                  | RHELAX AS                                     | 0                                     | 12 TA 12 F N - 1915 M Sup 10 Sup 10        |  |  |  |  |
| 5  | Manufacturer<br>(Name, City, Country) | TULIP DIAGNOSTICS (P) LTD<br>GOA-403722 India |                                       |  |  |  |  |  |
| 6  | Lot No.                               | Lot No. R 201208                              |                                       |  |  |  |  |  |
| 7  | Expiry date of kit                    | Sep 2022                                      | 2                                     |  |  |  |  |  |
| -  | Automation used                       |   |                                       | Yes /No                                    |  |  |  |  |
| 8  |                                       | Model:  |                                       |  |  |  |  |  |
| 9  | If yes, give details of               | Model.  |                                       |  |  |  |  |  |
|    | Automation used                       |   |                                       |  |  |  |  |  |
|    |                                       | Manufacturer:                                 |                                       |  |  |  |  |  |
|    |                                       | City:   |                                       | Country:                                   |  |  |  |  |

Incharge CCL- Biochemistry PMT,RMC,Loni IMPORTANT!! All sera are potentially infectious. Adequate universal precautions to be used while

handling the specimens

Note: Do not use tick marks; encircle as necessary

# C-reactive protein (CRP)

SE3: Serum specimen from 38-year old adult with acute fever of 4 days duration.

| S. | Subject                               | C-reactive protein (CRP)*  |              |  |  |
|----|---------------------------------------|--|--------------|--|--|
| no |                                       | Report   |              | Value in (mg/L)  |  |
|    | SE3                                   | Positive Negative  |              | 24 mg/L  |  |
|    | Your Normal Range                     | < 6 mg/L   |              |  |  |
| 3  | Method                                | Qualitative  | Latex agglut | ination  |  |
|    |                                       | Semi-Quantitative  | Latex agglut | ination  |  |
|    |                                       | Quantitative   | Nephelometr  | ry / Turbidimetry / ELISA / CLIA/ Others:  |  |
| 1  | Name of the kit used                  | RHELAX CRP   |              |  |  |
| 5  | Manufacturer<br>(Name, City, Country) | Corol Clinical System TULIP DIAGNOSTICS (P) LTD U.S. Nagar, Uttarakhand, India |              |  |  |
| 5  | Lot No.                               | Lot No. R 202263  Jan 2023   |              |  |  |
| 7  | Expiry date of kit                    |  |              |  |  |
| ;  | Automation used                       | Yes (No)   |              |  |  |
| ì  | If yes, give details of               | Model:   |              |  |  |
|    | Automation used                       | Manufacturer:  |              | The second secon |  |
|    |                                       | City:  |              | Country:   |  |

It is understood that the value mentioned is in mg/L only

aboratory / Institution Name: Dept. of Microbiology

Date of Dispatch: 1811212021

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ame:

PROFESSOR & HEAD







## CMCVIROEOAS

(Under the aegis of Indian Association of Medical Microbiologists)
PT Unit, Department of Clinical Virology, Christian Medical College,
Vellore-632004, Tamil Nadu
Email: viroeqas@cmcvellore.ac.in Phone: 0416-2283455

# 15th SEROLOGY CMCVIROEQAS EVALUATION FINAL REPORT

**PANEL: BBVS** 

CMCVIROEQAS ID.

V0283

Opening Date: 01-11-2021

Result Receiving Date: 12/11/2021

Distribution No:

S321

| Specimen # | Intended Result |          |          | Your Result |            |            |
|------------|-----------------|----------|----------|-------------|------------|------------|
|            | HIV             | HBsAg    | HCV      | HIV         | HBsAg      | HCV        |
| S0132109   | Negative        | Negative | Negative | NEGATIVE    | NEGATIVE   | NEGATIVE   |
| S0132110   | Negative        | Negative | Positive | NEGATIVE    | NEGATIVE   | POSITIVE   |
| S0132111   | Positive        | Negative | Negative | POSITIVE    | NEGATIVE   | NEGATIVE   |
| S0132112   | Negative        | Negative | Negative | NEGATIVE    | NEGATIVE   | NEGATIVE   |
| Your Score |                 |          |          | 8/8 (100%)  | 8/8 (100%) | 8/8 (100%) |

**Scoring System** 

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

Approved By

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

Incharge CCL- Biochemistry PMT,RMC,Loni







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## 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: 24 out of the possible total of 24

Total Number of participants for BBVS : 536

Total Number of Participants who turned in their results : 505

# Standard Deviation Index (SDI)

| Performance of the participating  Laboratories | HIV Ag/Ab | HBsAg | HCV-Ab |
|--|-----------|-------|--------|
| Mean score of all Laboratories                 | 8.0       | 8.0   | 8.0    |
| Standard Deviation                             | 0.3       | 0.1   | 0.2    |
| Your Laboratory SDI                            | 0         | 0     | 0      |

SDI of  $\pm$  3 and above indicates possible poor performance







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| Standard Deviation                            | 0.3       | 0.1   | 0.2    |
| Your Laboratory SDI                           | 0         | 0     | 0      |

SDI of  $\pm$  3 and above indicates possible poor performance

snJ ~ Incharge CCL- Biochemistry PMT, RMC, Loni

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|------------|-----------------|----------|----------|-------------|------------|------------|
|            | HIV             | HBsAg    | HCV      | HIV         | HBsAg      | HCV        |
| S0132109   | Negative        | Negative | Negative | NEGATIVE    | NEGATIVE   | NEGATIVE   |
| S0132110   | Negative        | Negative | Positive | NEGATIVE    | NEGATIVE   | POSITIVE   |
| S0132111   | Positive        | Negative | Negative | POSITIVE    | NEGATIVE   | NEGATIVE   |
| S0132112   | Negative        | Negative | Negative | NEGATIVE    | NEGATIVE   | NEGATIVE   |
| Your Score |                 |          |          | 8/8 (100%)  | 8/8 (100%) | 8/8 (100%) |

## **Scoring System**

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



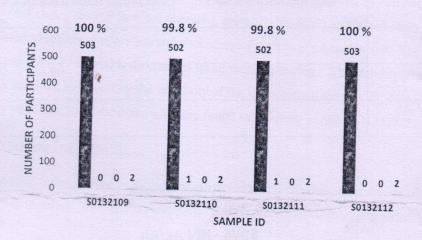




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# BBVS - HBsAg

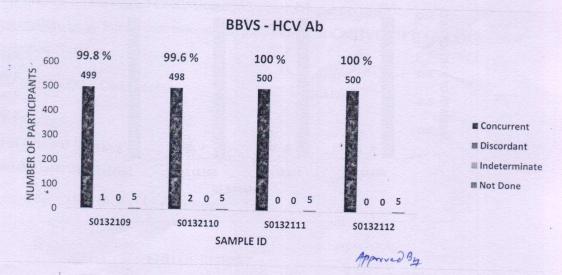


■ Concurrent

■ Discordant

■ Indeterminate

Not Done



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## **CMCVIROEQAS**

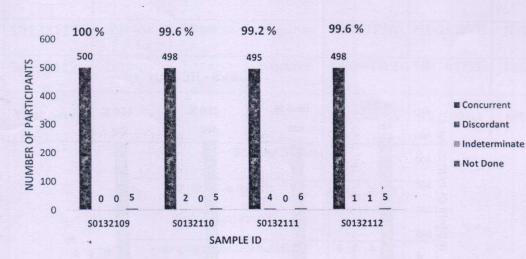
(Under the aegis of Indian Association of Medical Microbiologists)
PT Unit, Department of Clinical Virology, Christian Medical College,
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Email: viroeqas@cmcvellore.ac.in Phone: 0416-2283455
Participants who reported all analyzed specimens accurately

| Marker | Number of Participants with all four specimen's results | Percentage of Participants with concordant result from all four specimens |
|--------|---|---|
| HIV    | 499   | 98.4  |
| HBsAg  | 503   | 99.6  |
| HCV-Ab | 500   | 99.4  |

# Performance Graph

# BBVS - HIV Ag/Ab









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## Assigned Value:

Assigned value is determined using multiple assays/multiple testing of the same analyte. 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.

# Standard Deviation Index (SDI):

Standard deviation index is used to analyze your laboratories performance relative to the other participating laboratories. The SDI is calculated for each parameter or marker separately using the formula

SDI = (Your score – interlaboratory mean score)/interlaboratory standard deviation of the score

Enquiries: For queries, please contact CMCVIROEQAS coordinator at the email <a href="mailto:viroeqas@cmcvellore.ac.in">viroeqas@cmcvellore.ac.in</a> For all communications, please use your CMCVIROEQAS LAB ID and Distribution Number.

Name of CMCVIROEQAS Coordinator

Signature

Dr. Rajesh Kannangai

Department of Clinical Virology

Report Dispatch Date: 28-12-2021

Report authorized by: CMCVIROEQAS Coordinator

END OF REPORT

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

Incharge

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Signature

Name of CMCVIROEQAS Coordinator

Dr. Rajesh Kannangai Department of Clinical Virology Report Dispatch Date: 28-12-2021

Report authorized by: CMCVIROEQAS Coordinator

**END OF REPORT** 

PT Unit, Department of Clinical Virology CHRISTIAN MEDICAL COLLEGE, VELLORE Page 6 of 6