

# Quality Assessment Schemes Program

## 2027





## CONTENT - ESFEQA PROGRAMS

|                                             |    |              |
|---------------------------------------------|----|--------------|
| Content ESfEQA Programs                     | 3  |              |
| Introduction                                | 6  |              |
| <b>Biochemistry Programs</b>                |    |              |
| Blood Gas and Electrolytes                  | 7  | BIOCHEMISTRY |
| Cardiac Marker                              | 7  |              |
| Cardiac Marker POCT                         | 7  |              |
| Clinical Chemistry                          | 8  |              |
| Coagulation                                 | 8  |              |
| Co-Oximetry                                 | 8  |              |
| CSF Diagnostics                             | 9  |              |
| Drugs of Abuse                              | 9  |              |
| Ethanol, Ammonia and Bicarbonate            | 9  |              |
| Fecal Occult Blood                          | 9  |              |
| Glucose POC - Whole Blood                   | 10 |              |
| Glycated Hemoglobin (HbA1c)                 | 10 |              |
| Lipids                                      | 10 |              |
| Prothrombin Time (INR-POCT)                 | 10 |              |
| Qualitative Urine Analysis (Urine stick)    | 11 |              |
| Therapeutic Drugs                           | 11 |              |
| Urine Chemistry                             | 11 |              |
| Urine Sediment for Light Scattering Methods | 11 |              |
| Urine Sediment for Microscopic Methods      | 12 |              |
| <b>Immunoassay Programs</b>                 |    |              |
| Antinuclear Antibodies                      | 13 | IMMUNOASSAYS |
| Cyclic Citrullinated Peptide Antibodies     | 13 |              |
| hCG in Serum                                | 13 |              |
| Hormones                                    | 14 |              |
| Procalcitonin                               | 14 |              |
| Specific Proteins                           | 14 |              |
| Thyroid Antibodies                          | 15 |              |
| Tumor Markers                               | 15 |              |
| Tumor Markers & Hormones                    | 15 |              |
| <b>Microbiology Programs</b>                |    |              |
| Adenovirus & Rotavirus Stool Antigen        | 16 | MICROBIOLOGY |
| Adenovirus Serology                         | 16 |              |
| Aspergillus Fumigatus Serology              | 16 |              |
| Aspergillus Galactomannan Antigen           | 16 |              |
| Bacteriology                                | 17 |              |
| Bacteriology Blood Culture                  | 17 |              |
| Bacteriology Urine Culture                  | 17 |              |
| Bordetella Serology                         | 18 |              |
| Borrelia IgG Antibody Index                 | 18 |              |
| Borrelia IgM Antibody Index                 | 18 |              |
| Borrelia Serology                           | 18 |              |
| Brucella Serology                           | 19 |              |
| Chagas Serology                             | 19 |              |
| Chikungunya Virus Serology                  | 19 |              |
| Chlamydia Trachomatis Serology              | 19 |              |
| Clostridium difficile Stool Antigen         | 20 |              |
| Coxsackievirus Serology                     | 20 |              |
| Dengue Virus Antibodies                     | 20 |              |

## CONTENT - ESFEQA PROGRAMS

### MICROBIOLOGY

|                                                                 |    |
|-----------------------------------------------------------------|----|
| Dengue Virus NS1 Antigen                                        | 20 |
| ECHO Virus Serology                                             | 21 |
| Enterovirus Serology                                            | 21 |
| Epstein-Barr Virus Serology                                     | 21 |
| Helicobacter Pylori Antibodies                                  | 21 |
| Helicobacter Pylori Antigen                                     | 22 |
| Hepatitis A Virus Serology                                      | 22 |
| Hepatitis B Virus Serology                                      | 22 |
| Hepatitis E Virus Serology                                      | 22 |
| HIV Antibodies and Antigen                                      | 23 |
| HTLV I/II                                                       | 23 |
| Infectious Disease Combination Control (HBV, HCV, HIV) Serology | 23 |
| Influenza A Virus Serology                                      | 23 |
| Influenza B Virus Serology                                      | 24 |
| Legionella Pneumophila Antibodies                               | 24 |
| Leptospira Serology                                             | 24 |
| Malaria Microscopy                                              | 24 |
| Measles Serology                                                | 25 |
| Mycoplasma Antibodies                                           | 25 |
| Norovirus Stool Antigen                                         | 25 |
| Parainfluenza Virus Serology                                    | 25 |
| Parvovirus B19 Serology                                         | 26 |
| Respiratory Syncytial Virus Serology                            | 26 |
| Respiratory Viral Antigen Detection                             | 26 |
| SARS-CoV-2 Antigen                                              | 26 |
| SARS-CoV-2 Serology                                             | 27 |
| Streptococcus A Antigen                                         | 27 |
| Syphilis Serology                                               | 27 |
| TBEV IgG Antibody Index                                         | 27 |
| TBEV IgM Antibody Index                                         | 28 |
| ToRCH Serology                                                  | 28 |
| Varicella Zoster Virus Serology                                 | 28 |
| West Nile Virus Serology                                        | 28 |
| Zika Virus Serology                                             | 29 |

### MOLECULAR

#### Molecular Diagnostics Programs

|                                           |    |
|-------------------------------------------|----|
| HBV Molecular                             | 29 |
| HCV Molecular                             | 29 |
| HIV Molecular                             | 29 |
| Human Papilloma Virus Molecular           | 30 |
| Respiratory Pathogens Molecular           | 30 |
| Sexually Transmitted Infections Molecular | 31 |

### HEMATOLOGY

#### Hematology Programs

|                                                     |    |
|-----------------------------------------------------|----|
| Blood Grouping                                      | 32 |
| Erythrocyte Sedimentation Rate                      | 32 |
| Erythrocyte Sedimentation Rate for Alcor Analysers  | 32 |
| Erythrocyte Sedimentation Rate for Alifax Analysers | 32 |
| Erythrocyte Sedimentation Rate for Mindray          | 33 |
| Hemogram                                            | 33 |
| Hemogram incl. 3-part Diff.                         | 33 |
| Hemogram incl. 5-part Diff.                         | 34 |
| Immunohematology                                    | 34 |

## CONTENT - ESFEQA PROGRAMS

|                                             |    |                         |
|---------------------------------------------|----|-------------------------|
| <b>Educational Programs</b>                 |    | EDUCATIONAL<br>PROGRAMS |
| Clinical Case Study Program                 | 35 |                         |
| Case Studies in Clinical Laboratory Science | 35 |                         |
| Calendar                                    | 36 |                         |
| General Terms for the Participation         | 38 |                         |

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A high quality standard is essential for every medical laboratory since test results are the basis for medical decisions and have an important impact on the wellbeing and treatment of patients. There are different approaches to maintain and improve quality in medical laboratories.

ESfEQA – European Society for External Quality Assessment – supports laboratories to assess the quality of their analytical results and ultimately improve their performance by providing well-designed external quality assessment programs. ESfEQA offers a wide range of External Quality Assessment Schemes.

ESfEQA was founded in Heidelberg/Germany in 2013 and is accredited according to the international standard ISO 17043:2023 by the German national accreditation body DAkkS. Since its foundation, ESfEQA has expanded its program portfolio and at the same time the number of laboratories participating in ESfEQA's external quality assessment schemes.

### Extension of Accreditation Scope

Due to the flexible scope of the ESfEQA ISO 17043 accreditation the number of accredited EQA programs in our portfolio has increased.

Non-accredited programs / analytes are highlighted in our catalog as follows: "This program / parameter is not accredited according to DIN EN ISO/ IEC 17043."

### Registration and Sample Ordering

ESfEQA offers EQA schemes worldwide and cooperates with reliable regional distributors. They are the direct business partners of participants, responsible for the ordering process, invoicing and local shipment of survey samples. ESfEQA offers programs with 2, 4 or 12 surveys per year. Participants generally sign up for a subscription for an entire calendar year.

### Survey Calendar

The dates when participants can enter results and the deadlines are published in this catalogue and on the ESfEQA website ([www.esfeqa.eu](http://www.esfeqa.eu)).

The testing periods of our proficiency test programs are synchronized in order to make the samples of a year available to participants in as few shipments as possible. Thus, a maximum of 4 shipments per year are required per participant.

Survey samples are sent to the participants in good time, usually at the beginning of the respective testing period. In order to keep the logistical, environmental and financial effort as low as possible, the samples of the first and second quarters of the monthly and quarterly programs are sent together; as well as the samples for the third and fourth quarters. This procedure is chosen for samples with sufficient stability for a period of at least 6 months.

Samples with a shorter shelf life, as well as the samples for the semi-annual programs are sent quarterly.

### Submission of Results, Survey Reports and Certificates

Participants submit their results online via the TEQA 2.0 web-application. Requests for new method, instrument and reagent codes can be made online. The subscription to any ESfEQA program allows participants to submit up to three results obtained from a single control set using different devices. Reports and certificates are provided online as pdf-files within 3 weeks (within one week for monthly programs) after the deadline of result submission. Report files and certificates can be stored electronically, forwarded and printed.

### Educational Programs

The CASE and CASE-T present in each case study a different hypothetical patient case.

The CASE-T program is intended for medical laboratory technicians to strengthen analytical troubleshooting skills. The CASE program is intended for clinicians to strengthen diagnostic acumen.

Participants can join the CASE or CASE-T programs at any time of the year. Please contact your distributor or ESfEQA ([info@esfeqa.eu](mailto:info@esfeqa.eu)) to register.

### New Programs

Based on the feedback of our participants, ESfEQA will offer new proficiency testing programs in 2027. These include further programs in the field of:

### Autoimmunity

**ANA:** Antinuclear Antibodies

### Biochemistry

**LIPID:** Lipids

### Stool Antigens

**ADROTag:** Adenovirus & Rotavirus Stool Antigen

**CDIFFAg:** Clostridioides difficile Stool Antigen

**NOROA:** Norovirus Stool Antigen

### Molecular Diagnostics

**HPVM:** Human Papillomavirus

**STMI:** Sexually Transmitted Infections Molecular

We appreciate your participation in the ESfEQA External Quality Assessment surveys.

Please contact us for further suggestions on new programs.

Heidelberg, September 2026

## BIOCHEMISTRY PROGRAMS

### BLOOD GAS AND ELECTROLYTES

BG

**Program:** BG12: 12 surveys/year x 1 sample

BG4: 4 surveys/year x 2 samples

**Material:** Liquid buffered aqueous solution or serum-based samples (minimum 2 mL)

**Evaluation:** Quantitative

#### Analytical parameters:

|                                  |                  |                 |      |
|----------------------------------|------------------|-----------------|------|
| Bicarbonate ( $\text{HCO}_3^-$ ) | Glucose          | pH              | Urea |
| Calcium                          | Lactate          | pO <sub>2</sub> |      |
| Chloride                         | Magnesium        | Potassium       |      |
| Creatinine                       | pCO <sub>2</sub> | Sodium          |      |

### CARDIAC MARKER

CM

**Program:** CM12: 12 surveys/year x 1 sample

CM4: 4 surveys/year x 2 samples

CM2: 2 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added analytes of human origin (minimum 1 mL)

**Evaluation:** Quantitative

Analytical devices that are intended for whole blood only are not suitable for these samples.

#### Analytical parameters:

|                  |              |            |
|------------------|--------------|------------|
| BNP              | Homocysteine | NT-proBNP  |
| CK-MB (mass)     | hsCRP        | Troponin I |
| CK-MB (activity) | Myoglobin    | Troponin T |

### CARDIAC MARKER POCT

CM-POCT

**Program:** CM-POCT12: 12 surveys/year x 1 sample

CM-POCT4: 4 surveys/year x 2 samples

CM-POCT2: 2 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added analytes of human origin (minimum 1mL)

**Evaluation:** Quantitative and qualitative\*

Analytical devices that are intended for whole blood only are not suitable for these samples.

#### Analytical parameters:

|                  |            |            |
|------------------|------------|------------|
| BNP              | Myoglobin  | Troponin T |
| CK-MB (mass)     | NT-proBNP  |            |
| CK-MB (activity) | Troponin I |            |

\* The qualitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## CLINICAL CHEMISTRY

CC

**Program:** CC12: 12 surveys/year x 1 sample

CC4: 4 surveys/year x 2 samples

CC2: 2 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added enzymes and proteins of human origin (5 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                           |                           |                                        |
|---------------------------|---------------------------|----------------------------------------|
| Albumin                   | Cholesterol               | Lipase                                 |
| ALP Alkaline phosphatase  | Cholinesterase            | Lithium                                |
| ALT/GPT                   | CK Creatinkinase          | Magnesium                              |
| α-Amylase                 | Creatinine                | Phosphate                              |
| Amylase pancreatic        | Copper                    | Potassium                              |
| AST/GOT                   | Gamma GT                  | Sodium                                 |
| Bilirubin, direct         | Glucose                   | TIBC Total Iron Binding Capacity       |
| Bilirubin, total          | HDL Cholesterol           | Total protein                          |
| Bilirubin conjugated*     | Iron                      | Triglycerides                          |
| Bilirubin non-conjugated* | Lactate                   | UIBC Unsaturated Iron Binding Capacity |
| Calcium                   | LDH Lactate Dehydrogenase | Urea                                   |
| Calcium (ionized)         | LDL Cholesterol           | Uric acid                              |
| Chloride                  |                           | Zinc                                   |

\*This parameter is not accredited according to DINENISO/IEC 17043.

## COAGULATION

COA

**Program:** COA12: 12 surveys/year x 1 sample

COA4: 4 surveys/year x 2 samples

COA2: 2 surveys/year x 2 samples

**Material:** Lyophilized samples of human plasma (1 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                                                 |                       |               |
|-------------------------------------------------|-----------------------|---------------|
| aPTT (activated Partial<br>Thromboplastin Time) | D-Dimer               | Protein C     |
| Antithrombin III                                | Fibrinogen            | Protein S     |
|                                                 | PT (prothrombin time) | Thrombin Time |

## CO-OXIMETRY

OXI

**Program:** OXI: 4 surveys/year x 2 samples

**Material:** Purified bovine hemoglobin solution treated with carbon monoxide (minimum 1,0 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                  |                   |                  |
|------------------|-------------------|------------------|
| Oxyhemoglobin    | Carboxyhemoglobin | Total Hemoglobin |
| Desoxyhemoglobin | Methemoglobin     |                  |

## CSF DIAGNOSTICS

CSF

**Program:** CSF: 4 surveys/year x 2 samples

**Material:** Liquid samples made from human serum and other human and chemical components (minimum 1 mL)

**Evaluation:** Quantitative

This program is not accredited according to DIN EN ISO/ IEC 17043

### Analytical parameters:

|          |         |          |
|----------|---------|----------|
| Albumin  | IgG     | Sodium   |
| Chloride | IgM     | Proteins |
| Glucose  | Lactate |          |
| IgA      | LDH     |          |

## DRUGS OF ABUSE

DAT

**Program:** DAT12: 12 surveys/year x 1 sample

DAT4: 4 surveys/year x 2 samples

**Material:** Liquid samples of filtered human urines with added drugs for qualitative analysis (minimum 2 mL)

**Evaluation:** Qualitative

### Analytical parameters:

New:  
K3/AB-  
Pinaca

|                 |                         |                 |                                  |
|-----------------|-------------------------|-----------------|----------------------------------|
| Acetylmorphine  | Cannabinoids            | MDMA            | Synthetic Cannabinoids K2/Spice  |
| Amphetamines    | Cocaine and metabolites | Methadone       | Synthetische Cannabinoide K3/AB- |
| Barbiturates    | EDDP                    | Metamphetamines | Pinaca                           |
| Benzodiazepines | Fentanyl                | Opiates         | Tramadol                         |
| Buprenorphine   | Ketamine                | Phencyclidine   | Tricyclic Antidepressants        |

## ETHANOL, AMMONIA AND BICARBONATE

ETH

**Program:** ETH12: 12 surveys/year x 1 sample

ETH4: 4 surveys/year x 2 samples

**Material:** Liquid samples with added compounds (minimum 1 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|         |         |             |
|---------|---------|-------------|
| Ethanol | Ammonia | Bicarbonate |
|---------|---------|-------------|

## FECAL OCCULT BLOOD

FOB

**Program:** FOB: 2 surveys/year x 2 samples

**Material:** Liquid samples simulating extracted stool samples (minimum 0,5 mL)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

Human Hemoglobin (qualitative and quantitative)

## GLUCOSE POC - WHOLE BLOOD

GLUWB

**Program:** 4 surveys/year x 2 samples

GLUWB: Registration of 1-3 measuring systems

GLUWB 6 DEVICES: Registration of up to 6 measuring systems

GLUWB 9 DEVICES: Registration of up to 9 measuring systems

**Material:** Simulated whole blood (minimum 1 mL)**Evaluation:** Quantitative**Analytical parameters:**

Glucose

## GLYCATED HEMOGLOBIN (HbA1c)

GHB

**Program:** GHB12: 12 surveys/year x 1 sample

GHB4: 4 surveys/year x 2 samples

**Material:** Lyophilized samples of hemolysate of human blood (minimum 0,5 mL)**Evaluation:** Quantitative**Analytical parameters:**

HbA1c

## LIPIDS

LIPID

**Program:** LIPID: 4 surveys/year x 2 samples**Material:** Lyophilized samples of human plasma (minimum 3 mL)**Evaluation:** QuantitativeNew  
Program**Analytical parameters:**Apolipoproteins  
Cholesterol, HDLCholesterol, LDL  
Cholesterol, totalLipoprotein(a)  
Triglycerides

## PROTHROMBIN TIME (INR)-POCT

INR-POCT

**Program:** 4 surveys/year x 2 samples

INR-POCT: Registration of 1-3 measuring systems

INR-POCT 6 DEVICES: Registration of up to 6 measuring systems

INR-POCT 9 DEVICES: Registration of up to 9 measuring systems

**Material:** Liquid samples (minimum 0,3 mL)**Evaluation:** Quantitative

Suitable for POCT analyzers, e.g. Roche CoaguChek, Siemens Xprecia Stride, Abbott iStat.

**Analytical parameters:**

Prothrombin Time (INR)

## QUALITATIVE URINE ANALYSIS (URINE STICK)

US

**Program:** US4: 4 surveys/year x 2 samples

US2: 2 surveys/year x 2 samples

**Material:** Liquid or lyophilized samples of urine preparation of human origin with added preservatives and stabilizers (minimum 10 mL)

**Evaluation:** Semi-quantitative

### Analytical parameters:

|            |               |                  |
|------------|---------------|------------------|
| Bilirubin  | Ketone bodies | pH               |
| Glucose    | Leucocytes    | Specific Gravity |
| hCG        | Microalbumin  | Total Protein    |
| Hemoglobin | Nitrite       | Urobilinogen     |

## THERAPEUTIC DRUGS

TDM

**Program:** TDM: 4 surveys/year x 2 samples

**Material:** Liquid samples with added compounds (minimum 2 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|               |               |               |
|---------------|---------------|---------------|
| Amikacin      | Gentamicin    | Primidone     |
| Carbamazepine | Lidocaine     | Salicylate    |
| Chinidine     | Paracetamol   | Theophylline  |
| Digoxin       | Phenobarbital | Valproic Acid |
| Ethosuximide  | Phenytoin     | Vancomycin    |

## URINE CHEMISTRY

UC

**Program:** UC: 4 surveys/year x 2 samples

**Material:** Liquid or lyophilized samples of human urine (minimum 5 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|            |              |               |           |
|------------|--------------|---------------|-----------|
| Amylase    | Glucose      | Phosphate     | Urea      |
| Calcium    | Magnesium    | Potassium     | Uric acid |
| Chloride   | Microalbumin | Total protein |           |
| Creatinine | Osmolality*  | Sodium        |           |

\*This parameter is not accredited according to DINENISO/IEC 17043.

## URINE SEDIMENT FOR LIGHT SCATTERING METHODS

USEDL

**Program:** USED4: 4 surveys/year x 2 samples

USED2: 2 surveys/year x 2 samples

**Material:** Liquid samples of human urine (minimum 5 mL)

**Evaluation:** Qualitative, quantitative and semi-quantitative

This program is suitable for light scattering methods, e.g. Sysmex UF-5000/4000/1500.

### Analytical parameters:

|                                     |                                        |
|-------------------------------------|----------------------------------------|
| Bacteria qual., semi-quant., quant. | Red cells qual., semi-quant., quant.   |
| Casts qual., semi-quant., quant.    | White cells qual., semi-quant., quant. |
| Crystals qual., semi-quant., quant. |                                        |

**Program:** USED4: 4 surveys/year x 2 samples

USED2: 2 surveys/year x 2 samples

**Material:** Liquid samples of human urine (minimum 5 mL)

**Evaluation:** Qualitative, quantitative and semi-quantitative

This program is suitable for manual microscopy and automated microscopy, e.g. Siemens Atellica, Beckman Coulter Iris, Roche Cobas u 701, Menarini Sedimax, 77 Elektronika UriSed, Dirui FUS, Analyticon Urilyzer Cell, Mindray EH Series, Mindray EU series.

**Analytical parameters:**

Bacteria qual., semi-quant., quant.

Casts qual., semi-quant., quant.

Crystals qual., semi-quant., quant.

Red cells qual., semi-quant., quant.

White cells qual., semi-quant., quant.

## IMMUNOASSAY PROGRAMS

### ANTINUCLEAR ANTIBODIES

ANA

IMMUNOASSAYS

**Program:** ANA: 2 surveys/year x 3 samples

**Material:** Liquid samples of human defibrinated plasma or serum (minimum 0,5 mL)

**Evaluation:** Qualitative, semiquantitative and quantitative

This program is not accredited according to DIN EN ISO/ IEC 17043

New  
Program

#### Analytical parameters:

ANA screen/detection

ANA - IFA Hep-Cell Pattern

ANA-Titer (dominant pattern) - semi-quant.

ANA quantitative

ANA identification: Anti-CENP-A, Anti-CENP-B, Anti-dsDNA, Anti-Jo1, anti-RNP, Anti-Scl70, Anti-Sm, Anti-SS-A/Ro60, Anti-SS-B/La

### CYCLIC CITRULLINATED PEPTIDE ANTIBODIES

CCP

**Program:** CCP: 2 surveys/year x 2 samples

**Material:** Liquid samples of human defibrinated plasma (minimum 0,5 mL)

**Evaluation:** Quantitative and qualitative

#### Analytical parameters:

anti-CCP (anti-cyclic citrullinated peptide)

### HCG IN SERUM

HCG

**Program:** hCG: 4 surveys/year x 1 sample

**Material:** Lyophilized or liquid sample of human serum with added analytes of human origin (minimum 1 mL)

**Evaluation:** Qualitative

#### Analytical parameters:

hCG qualitative

## HORMONES

HOR

**Program:** HOR12: 12 surveys/year x 1 sample

HOR4: 4 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added analytes (minimum 3 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                    |                                    |                    |
|--------------------|------------------------------------|--------------------|
| 17-OH-Progesterone | FSH                                | Prolactin          |
| Aldosterone        | hCG (qualitative and quantitative) | SHBG               |
| AMH                | Homocysteine                       | T3, free           |
| Androstenedione    | Human Growth Hormone               | T3, total          |
| Calcitonin         | IgE                                | T4, free           |
| C-Peptide          | IGF-1                              | T4, total          |
| Cortisol           | Insulin                            | Testosterone Total |
| DHEA-S             | LH (Luteinizing Hormone)           | Thyroglobulin      |
| Estradiol          | Methylmalonic Acid                 | TSH                |
| Ferritin           | PTH                                | Vitamin B12        |
| Folate             | Progesterone                       | Vitamin D (25-OH)  |

## PROCALCITONIN

PCT

**Program:** PCT: 4 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added analyte (minimum 0,5 mL)

**Evaluation:** Quantitative

### Analytical parameters:

Procalcitonin

## SPECIFIC PROTEINS

SP

**Program:** SP12: 12 surveys/year x 1 sample

SP4: 4 surveys/year x 2 samples

**Material:** Liquid or lyophilized samples of human sera with added analytes of human origin (minimum 1 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                           |                                      |                              |
|---------------------------|--------------------------------------|------------------------------|
| Albumin                   | Ceruloplasmin                        | Prealbumin                   |
| Alpha-1-acid glycoprotein | CRP (C-Reactive Protein)             | RF                           |
| Alpha-1-antitrypsin       | Cystatin C*                          | soluble Transferrin receptor |
| Alpha-2-macroglobulin     | Haptoglobin                          | (sTfR)*                      |
| ASO                       | IgA, IgE, IgG, IgM                   | Transferrin                  |
| Beta-2-microglobulin      | Kappa light chains, total* and free  |                              |
| C3, C4                    | Lambda light chains, total* and free |                              |

\* This parameter is not accredited according to DIN EN ISO/ IEC 17043.

## THYROID ANTIBODIES

## ANTI-THYR

**Program:** ANTI-THYR: 4 surveys/year x 2 samples

**Material:** Samples liquid or lyophilized (minimum 0,5 mL)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

|                                           |          |
|-------------------------------------------|----------|
| anti-TG<br>TRAb (TSH-Receptor Antibodies) | anti-TPO |
|-------------------------------------------|----------|

## TUMOR MARKER

## TM

**Program:** TM12: 12 surveys/year x 1 sample

TM4: 4 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added analytes (minimum 3 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|         |          |            |
|---------|----------|------------|
| AFP     | CA 125   | PSA, total |
| CEA     | CA 15-3  | PSA, free  |
| CA 19-9 | Ferritin |            |

## TUMOR MARKER & HORMONES

## TMH

**Program:** TMH12: 12 surveys/year x 1 sample

TMH4: 4 surveys/year x 2 samples

TMH2: 2 surveys/year x 2 samples

**Material:** Lyophilized samples of human sera with added analytes (minimum 3 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                    |                                    |                    |
|--------------------|------------------------------------|--------------------|
| 17-OH-Progesterone | Estradiol                          | PSA, free          |
| AFP                | Ferritin                           | PSA, total         |
| Aldosterone        | Folate                             | PTH                |
| AMH                | FSH                                | SHBG               |
| Androstenedione    | hCG (qualitative and quantitative) | T3, free           |
| CA 125             | Homocysteine                       | T3, total          |
| CA 15-3            | Human Growth Hormone               | T4, free           |
| CA 19-9            | IgE                                | T4, total          |
| Calcitonin         | IGF-1                              | Testosterone Total |
| CEA                | Insulin                            | Thyroglobulin      |
| Cortisol           | LH (Luteinizing Hormone)           | TSH                |
| C-Peptide          | Methylmalonic Acid                 | Vitamin B12        |
| DHEA-S             | Progesterone                       | Vitamin D (25-OH)  |
|                    | Prolactin                          |                    |

## MICROBIOLOGY PROGRAMS

### ADENOVIRUS & ROTAVIRUS STOOL ANTIGEN

ADROTA<sub>g</sub>

**Program:** ADROTA<sub>g</sub>: 2 surveys/year x 2 samples

**Material:** Liquid or lyophilized material simulating human liquid stool specimens (minimum 0,3 mL)

**Evaluation:** Qualitative

**Analytical parameters:**

Adenovirus Stool Antigen  
Rotavirus Stool Antigen

New  
Program

### ADENOVIRUS SEROLOGY

ADE

**Program:** ADE: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for NovaLisa, Virion/Serion and Euroimmun ELISA reagents. Other reagents upon request.

**Analytical parameters:**

IgA, IgG and IgM antibodies against Adenovirus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

### ASPERGILLUS FUMIGATUS SEROLOGY

ASF

**Program:** ASF: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for Virion/Serion ELISA reagents. Other reagents upon request.

**Analytical parameters:**

IgA, IgG, IgM and total antibodies against Aspergillus fumigatus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

### ASPERGILLUS GALACTOMANNAN ANTIGEN

ASPAG

**Program:** ASPAG: 2 surveys/year x 2 samples

**Material:** Liquid samples of simulated bronchoalveolar lavage (BAL) fluid or serum (minimum 0,5 mL)

**Evaluation:** Qualitative and quantitative\*

**Analytical parameters:**

Aspergillus Antigen (Galactomannan)

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

**Program:** BAC-C or BAC-E: 4 surveys/year x 4 samples

**Material:** Lyophilised samples (pure strain and/or mixture of bacteria): 2 for identification and 2 for antibiotic susceptibility testing (AST). AST according to EUCAST or CLSI guidelines.

**Evaluation:** Qualitative

In this program we simulate different types of specimens: blood, urine, swabs (e.g. surgical/wound site, etc.), sputum/bronchoscopy specimen, paracentesis samples (e.g. ascites), joint/synovial fluid, sonicate fluid of explanted prosthetic joints, and CSF.

#### Analytical parameters:

Identification (genus and species)

Antibiotic susceptibility testing (according to EUCAST or CLSI guidelines)

### BACTERIOLOGY BLOOD CULTURE

### BACBC-C, BACBC-E

**Program:** BACBC-C or BACBC-E: 4 surveys/year x 4 samples

**Material:** Lyophilised samples (pure strain and/or mixture of bacteria): 2 for identification and 2 for antibiotic susceptibility testing (AST). AST according to EUCAST or CLSI guidelines.

In this program we simulate blood specimens focusing on blood culture pathogen identification and antimicrobial susceptibility testing.

**Evaluation:** Qualitative

#### Analytical parameters:

Identification (genus and species)

Antibiotic susceptibility testing (according to EUCAST or CLSI guidelines)

### BACTERIOLOGY URINE CULTURE

### BACUC-C, BACUC-E

**Program:** BACUC-C or BACUC-E: 4 surveys/year x 2 samples

**Material:** Lyophilised samples (pure strain and/or mixture of bacteria): 1 for identification and 1 for antibiotic susceptibility testing (AST). AST according to EUCAST or CLSI guidelines. In this program we simulate urine specimens focusing on urine culture pathogen isolation, identification, and antimicrobial susceptibility testing.

**Evaluation:** Qualitative

#### Analytical parameters:

Identification (genus and species)

Antibiotic susceptibility testing (according to EUCAST or CLSI guidelines)

## BORDETELLA SEROLOGY

BPES

**Program:** BPES: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgA, IgG and IgM antibodies against Bordetella  
IgA antibodies against Bordetella Pertussis-Toxin  
IgG antibodies against Bordetella Pertussis-Toxin

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## BORRELIA IgG ANTIBODY INDEX

BOR-G-AI

**Program:** BOR-G-AI: 2 surveys/year x 2 samples

**Material:** One CSF/serum sample pair and (simulated) clinical information on the patient needed to calculate the antibody index is provided to the participant (CSF sample: 0,8 mL; serum sample: 0,3 mL)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

Borrelia IgG-antibody index (AI), qualitative and quantitative

## BORRELIA IgM ANTIBODY INDEX

BOR-M-AI

**Program:** BOR-M-AI: 2 surveys/year x 2 samples

**Material:** One CSF/serum sample pair and (simulated) clinical information on the patient needed to calculate the antibody index is provided to the participant (CSF sample: 0,8 mL; serum sample: 0,3 mL)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

Borrelia IgM-antibody index (AI), qualitative and quantitative

## BORRELIA SEROLOGY

BOR

**Program:** BOR: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgG and IgM antibodies against Borrelia burgdorferi

## BRUCELLA SEROLOGY

BRU

**Program:** BRU: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgA, IgG, IgM and agglutinating antibodies against Brucella

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## CHAGAS SEROLOGY

CHA

**Program:** CHA: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,5 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgG, IgM and total antibodies against Trypanosoma cruzi (qualitative)  
IgG and total antibodies against Trypanosoma cruzi (quantitative)

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## CHIKUNGUNYA VIRUS SEROLOGY

CHIKV

**Program:** CHIKV: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgG and IgM antibodies against Chikungunya Virus

## CHLAMYDIA TRACHOMATIS SEROLOGY

CHT

**Program:** CHT: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgA, IgG and IgM antibodies against Chlamydia trachomatis

**C. DIFFICILE STOOL ANTIGEN****CDIFFAg****Program:** CDIFFAg: 2 surveys/year x 2 samples**Material:** Swabs simulating human solid stool (on swabs) or lyophilized samples simulating liquid stool specimens (minimum 0,4 mL)**Evaluation:** Qualitative**New  
Program****Analytical parameters:**

C. difficile GDH  
C. difficile Toxins A/B

**COXSACKIEVIRUS SEROLOGY****COX****Program:** COX: 2 surveys/year x 2 samples**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)**Evaluation:** Qualitative and quantitative\*

The scheme is intended for Virion/Serion ELISA and Euroimmun IFT reagents. Other reagents upon request.

**Analytical parameters:**

IgA, IgG and IgM antibodies against Coxsackievirus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

**DENGUE VIRUS ANTIBODIES****DENV****Program:** DENV: 2 surveys/year x 2 samples**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)**Evaluation:** Qualitative**Analytical parameters:**

IgG and IgM antibodies against Dengue Virus

**DENGUE VIRUS NS1 ANTIGEN****DENVAG****Program:** DENVAG: 2 surveys/year x 2 samples

**Material:** Liquid or lyophilized samples. The samples are either serum or plasma samples or simulated samples consisting of an aqueous protein matrix. Dengue virus NS1 antigen positive samples contain recombinant DENV NS1 protein.

**Evaluation:** Qualitative

This program is intended for immunochromatographic tests (Lateral Flow Rapid tests) and ELISA. Other reagents on request.

**Analytical parameters:**

Dengue Virus NS1 antigen

## ECHO VIRUS SEROLOGY

ECH

**Program:** ECH: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for Virion/Serion ELISA reagents. Other reagents upon request.

### Analytical parameters:

IgA, IgG and IgM antibodies against ECHO-Virus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## ENTEROVIRUS SEROLOGY

ENT

**Program:** ENT: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for Virion/Serion, Virotech and Euroimmun ELISA reagents. Other reagents upon request.

### Analytical parameters:

IgA, IgG and IgM antibodies against Enterovirus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## EPSTEIN-BARR VIRUS SEROLOGY

EBV

**Program:** EBV: 4 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

anti-EBV EBNA-1 IgG + total

anti-EBV VCA IgG + total

anti-EBV VCA IgM

## HELICOBACTER PYLORI ANTIBODIES

HPYL

**Program:** HPYL: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgA, IgG and total antibodies against Helicobacter pylori

## HELICOBACTER PYLORI ANTIGEN

HPYLAG

**Program:** HPYLAG: 2 surveys/year x 2 samples

**Material:** Liquid or lyophilized simulated stool samples (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

Helicobacter pylori Antigen

## HEPATITIS A VIRUS SEROLOGY

HAV

**Program:** HAV12: 12 surveys/year x 1 sample

HAV4: 4 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgG, IgM and total antibodies against HAV

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## HEPATITIS B VIRUS SEROLOGY

HBV

**Program:** HBV12: 12 surveys/year x 1 sample

HBV4: 4 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 1 mL)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

anti-HBs  
anti-HBc IgG + total\*

anti-HBe\*  
anti-HBc IgM\*

HBsAg  
HBeAg\*

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## HEPATITIS E VIRUS SEROLOGY

HEV

**Program:** HEV: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgG, IgM and total antibodies against HEV

## HIV ANTIBODIES AND ANTIGEN

HIV

**Program:** HIV: 4 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

Please note that the HIV survey is designed for assays that detect HIV antibodies and HIV antigen separately. For combo tests (e.g. HIV 4th generation assays) that detect HIV antibodies and HIV antigen simultaneously we recommend the enrollment in the ESfEQA INF program.

### Analytical parameters:

anti-HIV 1/2 antibodies      HIV p24 Antigen

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## HTLV I/II

HTL

**Program:** HTL: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

total antibodies against HTLV I/II

## INFECTIOUS DISEASE COMBINATION CONTROL SEROLOGY

INF

**Program:** INF12: 12 surveys/year x 1 sample

INF4: 4 surveys/year x 2 samples

INF4x4: 4 surveys/year x 4 samples

INF2: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 1 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

anti-HIV 1/2 / p24 Ag      anti-HBc  
anti-HCV      HBsAg

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## INFLUENZA A VIRUS SEROLOGY

INA

**Program:** INA: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for Novalisa, Virion/Serion and Euroimmun ELISA reagents. Other reagents upon request.

### Analytical parameters:

IgA, IgG and IgM antibodies against Influenza A Virus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## INFLUENZA B VIRUS SEROLOGY

INB

**Program:** INB: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for NovaLisa, Virion/Serion and Euroimmun ELISA reagents. Other reagents upon request.

### Analytical parameters:

IgA, IgG and IgM antibodies against Influenza B Virus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## LEGIONELLA PNEUMOPHILA ANTIBODIES

LPAB

**Program:** LPAB: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgG, IgM and total antibodies against Legionella pneumophila

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## LEPTOSPIRA SEROLOGY

LEP

**Program:** LEP: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgG and IgM antibodies against Leptospira

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## MALARIA MICROSCOPY

MALM

**Program:** MALM: 4 surveys/year x 2 samples

**Material:** Slides of stained smears

**Evaluation:** Qualitative and quantitative

This program is not accredited according to DIN EN ISO/ IEC 17043.

### Analytical parameters:

Malaria Parasite Detection  
Species Identification

Stage Identification  
Quantification of Plasmodium falciparum

## MEASLES SEROLOGY

MEA

**Program:** MEA: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgG and IgM antibodies against Measles Virus

## MYCOPLASMA ANTIBODIES

MYPL

**Program:** MYPL: 2 surveys/year x 2 samples

**Material:** Samples of human serum (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgA, IgG, IgM and total antibodies against Mycoplasma pneumoniae

## NOROVIRUS STOOL ANTIGEN

NOROA<sub>g</sub>

**Program:** NOROA<sub>g</sub>: 2 surveys/year x 2 samples

**Material:** Swabs simulating human solid stool

**Evaluation:** Qualitative

New  
Program

### Analytical parameters:

Norovirus GI Antigen  
Norovirus GII Antigen

## PARAINFLUENZA VIRUS SEROLOGY

PIN

**Program:** PIN: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for NovaLisa, Virion/Serion and Euroimmun ELISA reagents. Other reagents upon request.

### Analytical parameters:

IgA, IgG and IgM antibodies against Parainfluenza Virus

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## PARVOVIRUS B19 SEROLOGY

PAR

**Program:** PAR: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgG and IgM antibodies against Parvovirus B19

## RESPIRATORY SYNCYTIAL VIRUS (RSV) SEROLOGY

RSV

**Program:** RSV: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

The scheme is intended for NovaLisa, Virion/Serion and Euroimmun ELISA reagents. Other reagents upon request.

### Analytical parameters:

IgG, IgM and IgA antibodies against Respiratory Syncytial Virus (RSV)

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## RESPIRATORY VIRAL ANTIGEN DETECTION

RESPAG

**Program:** RESPAG: 2 surveys/year x 3 samples

**Material:** Lyophilized samples (minimum 0,3mL) simulating swab specimens (e.g. oropharyngeal, nasal, nasopharyngeal, etc.) or swabs. Antigen positive samples contain inactivated whole virus.

**Evaluation:** Qualitative

### Analytical parameters:

Influenza A Antigen

Influenza B Antigen

RSV Antigen

## SARS-CoV-2 ANTIGEN

COVAG

**Program:** COVAG: 4 surveys/year x 3 samples

**Material:** Liquid or lyophilized samples simulating swab specimens (e.g. oropharyngeal, nasopharyngeal, nasal etc.). SARS-CoV-2 antigen positive samples contain inactivated whole virus (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

SARS-CoV-2 Antigen

## SARS-CoV-2 SEROLOGY

COVID

**Program:** COVID: 2 Surveys/year x 4 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgA, IgG and total antibodies against SARS-CoV-2  
SARS-CoV-2 neutralising antibodies

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## STREPTOCOCCUS A ANTIGEN

STAA

**Program:** STAA: 2 Surveys/year x 2 samples

**Material:** Swab, liquid or lyophilized samples (minimum 0,3 mL) simulating swab specimens.

**Evaluation:** Qualitative

### Analytical parameters:

Streptococcus A Antigen

## SYPHILIS SEROLOGY

SYP

**Program:** SYP12: 12 surveys/year x 1 sample

SYP4: 4 surveys/year x 2 samples

SYP2: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (1 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

Total antibodies against *Treponema pallidum* (qualitative, semi-quantitative\* and quantitative\*)  
IgG and IgM antibodies against *Treponema pallidum* (qualitative\*)  
Non-treponemal Lipoid antibodies (RPR/VDRL Tests) (qualitative)  
Non-treponemal Lipoid antibodies (RPR/VDRL Tests Titers) (semi-quantitative\*)

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## TBEV IgG ANTIBODY INDEX

TBEV-G-AI

**Program:** TBEV-G-AI: 2 surveys/year x 2 samples

**Material:** CSF/serum sample pair and (simulated) clinical information on the patient needed to calculate the antibody index is provided to the participant (CSF sample 0,8 mL; 0,3 mL for the serum sample)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

TBEV IgG-antibody index (AI), qualitative and quantitative

## TBEV IgM ANTIBODY INDEX

TBEV-M-AI

**Program:** TBEV-M-AI: 2 surveys/year x 2 samples

**Material:** CSF/serum sample pair and (simulated) clinical information on the patient needed to calculate the antibody index is provided to the participant (CSF sample 0,8 mL; 0,3 mL for the serum sample)

**Evaluation:** Qualitative and quantitative

### Analytical parameters:

TBEV IgM-antibody index (AI), qualitative and quantitative

## ToRCH SEROLOGY

TORCH

**Program:** TORCH12: 12 surveys/year x 1 sample

TORCH4: 4 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 1 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

|                  |                |                            |
|------------------|----------------|----------------------------|
| anti-CMV IgG     | anti-HSV 1 IgG | anti-Rubella IgG           |
| anti-CMV IgM     | anti-HSV 2 IgG | anti-Rubella IgM           |
| anti-HSV 1/2 IgG | anti-HSV 1 IgM | anti-Toxoplasma gondii IgG |
| anti-HSV 1/2 IgM | anti-HSV 2 IgM | anti-Toxoplasma gondii IgM |

\* The quantitative antibody determination is not accredited according to DIN EN ISO/ IEC 17043.

## VARIZELLA ZOSTER VIRUS SEROLOGY

VZV

**Program:** VZV: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative and quantitative\*

### Analytical parameters:

IgA, IgG, and IgM antibodies against Varizella Zoster Virus (VZV)

\* The quantitative antibody determination is not accredited according to DIN EN ISO/ IEC 17043.

## WEST NILE VIRUS SEROLOGY

WNV

**Program:** WNV: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

### Analytical parameters:

IgG and IgM antibodies against West Nile Virus

## ZIKA VIRUS SEROLOGY

ZIKV

**Program:** ZIKV: 2 surveys/year x 2 samples

**Material:** Liquid samples of defibrinated human plasma (minimum 0,3 mL)

**Evaluation:** Qualitative

**Analytical parameters:**

IgG and IgM antibodies against Zika Virus

## MOLECULAR DIAGNOSTICS PROGRAMS

## HBV MOLECULAR

HBVM

**Program:** HBVM: 4 surveys/year x 3 samples

**Material:** Lyophilized samples of human serum. Virus positive samples contain the whole genome of inactivated HBV (minimum 1 mL)

**Evaluation:** Qualitative and quantitative\*

**Analytical parameters:**

HBV-DNA

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## HCV MOLECULAR

HCVM

**Program:** HCVM: 4 surveys/year x 3 samples

**Material:** Lyophilized samples of human serum. Virus positive samples contain the whole genome of inactivated HCV (minimum 1 mL)

**Evaluation:** Qualitative and quantitative\*

**Analytical parameters:**

HCV-RNA)

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## HIV MOLECULAR

HIVM

**Program:** HIVM: 4 surveys/year x 3 samples

**Material:** Lyophilized samples of human serum. Virus positive samples contain the whole genome of inactivated HIV (minimum 1 mL)

**Evaluation:** Qualitative and quantitative\*

**Analytical parameters:**

HIV-RNA

\* The quantitative parameters are not accredited according to DIN EN ISO/ IEC 17043.

## HUMAN PAPILLOMA VIRUS MOLECULAR

HPVM

**Program:** HPVM: 2 surveys/year x 3 samples

**Material:** Swab specimens simulating cervical swabs containing inactivated cells that may or may not carry HPV.

**Evaluation:** Qualitative

This program is suitable for HPV DNA as well as mRNA detection methods.

New  
Program

### Analytical parameters:

HPV detection

High-Risk HPV type detection (types covered are 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59, 66, 68)

High-Risk HPV type identification: HPV 16, HPV 18, HPV types without 16/18 grouped

## RESPIRATORY PATHOGENS MOLECULAR

RESPM

**Program:** RESPM: 2 surveys/year x 3 samples

**Material:** Liquid, lyophilized samples or swabs containing human epithel cells or fibroblasts as control for positive nucleic acid extraction and amplification. Positive samples contain the whole genome of inactivated pathogens, thus covering all possible gene targets used in different NAT/PCR assays (minimum 1 mL).

**Evaluation:** Qualitative

### Analytical parameters:

Adenovirus

Coronavirus 229E

Coronavirus HKU1

Coronavirus NL63

Coronavirus OC43

SARS-CoV-2 (COVID-19)

Influenza A

Influenza B

Human Rhinovirus/Enterovirus

Human Metapneumovirus

Parainfluenza virus

RSV

*Bordetella parapertussis*

*Bordetella pertussis*

*Chlamydia pneumoniae*

*Haemophilus influenzae*

*Legionella pneumophila*

*Streptococcus pneumoniae*

*Mycoplasma pneumoniae*

**Program:** STIM: 2 surveys/year x 3 samples

**Material:** Swab specimens simulating genital swabs containing inactivated cells that may or may not carry STI pathogens

**Evaluation:** Qualitative

**Analytical parameters:**

New  
Program

Chlamydia trachomatis (CT) DNA

HSV-1 DNA

HSV-2 DNA

Mycoplasma genitalium (MG) DNA

Mycoplasma hominis (MH) DNA

Neisseria gonorrhoeae (NG) DNA

Treponema pallidum (TP) DNA

Trichomonas vaginalis (TV) DNA

Ureaplasma urealyticum (UU) DNA

## HEMATOLOGY PROGRAMS

### BLOOD GROUPING

ABO

**Program:** ABO: 4 surveys/year x 2 samples

**Material:** Liquid samples of stabilized human red cells suspended in a buffered fluid and preservative. Erythrocyte suspensions contain a red blood cell concentration of 8% minimum (minimum 4 mL).

**Evaluation:** Qualitative

#### Analytical parameters:

ABO-Typing

Rhesus (D)-Detection

### ERYTHROCYTE SEDIMENTATION RATE

ESR

**Program:** ESR: 4 surveys/year x 2 samples

**Material:** Liquid samples containing erythrocytes in blood collection tubes (75x13mm) with pierceable caps (3 mL)

**Evaluation:** Quantitative

The samples are not suitable for testing on Alifax, Alcor iSED and Mindray BC instruments.

#### Analytical parameters:

Erythrocyte Sedimentation Rate

### ERYTHROCYTE SEDIMENTATION RATE FOR ALCOR

ESRAL

**Program:** ESRAL: 2 surveys/year x 2 samples

**Material:** Liquid samples of stabilized human red cells suspended in a buffered fluid and preservative (minimum 2 mL)

**Evaluation:** Quantitative

#### Analytical parameters:

Erythrocyte Sedimentation Rate

### ERYTHROCYTE SEDIMENTATION RATE FOR ALIFAX

ESRAF

**Program:** ESRAF-G: 2 surveys/year x 3 samples in Greiner tubes

ESRAF-S: 2 surveys/year x 3 samples in Sarstedt tubes

**Material:** Liquid samples for transmittance measurement related to ESR values in human samples (3 mL)

**Evaluation:** Quantitative

#### Analytical parameters:

Erythrocyte Sedimentation Rate

## ERYTHROCYTE SEDIMENTATION RATE FOR MINDRAY

ESRMR

**Program:** ESRMR: 2 surveys/year x 3 samples

**Material:** Liquid samples for transmittance measurement related to ESR values in human samples (3 mL)

**Evaluation:** Quantitative

This program is suitable for Mindray ESR analyzers BC-700 and BC-7000 series.

New  
Program

### Analytical parameters:

Erythrocyte Sedimentation Rate

## HEMOGRAM

HEM

**Program:** HEM12: 12 surveys/year x 1 sample

HEM4: 4 surveys/year x 2 samples

HEM2: 2 surveys/year x 2 samples

**Material:** Plasma like fluid samples that contain stabilized human red blood cells, white blood cells and platelets of human and/or non-human analogs (minimum 2 mL)

**Evaluation:** Quantitative

### Analytical parameters:

|                                               |                                   |                              |
|-----------------------------------------------|-----------------------------------|------------------------------|
| HCT (hematocrit)                              | MCV (mean corpuscular volume)     | RDW (RBC distribution width) |
| HGB (hemoglobin)                              | MPV (mean platelet volume)        | WBC (white blood cells)      |
| MCH (mean corpuscular hemoglobin)             | PCT (Plateletcrit)                |                              |
| MCHC (mean cellular hemoglobin concentration) | PDW (Platelet distribution width) |                              |
|                                               | PLT (platelets)                   |                              |
|                                               | RBC (red blood cells)             |                              |

## HEMOGRAM INCL. 3-PART DIFF.

HEM3D

**Program:** HEM3D: 4 surveys/year x 2 samples

**Material:** Plasma like fluid samples that contain stabilized human red blood cells, white blood cells and platelets of human and/or non-human analogs (minimum 1,5 mL)

**Evaluation:** Quantitative

This program is dedicated for 3-part WBC/leucocyte differential hematology analyses.

### Analytical parameters:

|                                   |                                               |                                   |
|-----------------------------------|-----------------------------------------------|-----------------------------------|
| GRAN (granulocytes)*              | MCHC (mean cellular hemoglobin concentration) | PCT (plateletcrit)                |
| HCT (hematocrit)                  | MCV (mean corpuscular volume)                 | PDW (Platelet distribution width) |
| HGB (hemoglobin)                  | MID, MXD (mid-sized leucocytes)               | PLT (platelets)                   |
| LYMPH (lymphocytes)               | MONO (monocytes)                              | RBC (red blood cells)             |
| MCH (mean corpuscular hemoglobin) | MPV (mean platelet volume)                    | RDW (RBC distribution width)      |
|                                   |                                               | WBC (white blood cells)           |

\* The quantitative antibody determination is not accredited according to DIN EN ISO/ IEC 17043.

**Program:** HEM5D12: 12 surveys/year x 1 sample

HEM5D4: 4 surveys/year x 2 samples

**Material:** Plasma like fluid samples that contain stabilized human red blood cells, white blood cells and platelets of human and/or non-human analogs (minimum 1,5 mL)

**Evaluation:** Quantitative

This program is dedicated for 5-part WBC/leucocyte differential hematology analyses.

#### Analytical parameters:

|                                   |                                               |                                   |
|-----------------------------------|-----------------------------------------------|-----------------------------------|
| BASO (basophiles)*                | MCHC (mean cellular hemoglobin concentration) | PDW (platelet distribution width) |
| EO (eosinophiles)*                | MCV (mean corpuscular volume)                 | PLT (platelets)                   |
| HCT (hematocrit)                  | MONO (monocytes)                              | RBC (red blood cells)             |
| HGB (hemoglobin)                  | MPV (mean platelet volume)                    | RDW (RBC distribution width)      |
| LYMPH (lymphocytes)               | NEUT (neutrophils)                            | RET (reticulocytes)               |
| MCH (mean corpuscular hemoglobin) | PCT (plateletcrit)                            | WBC (white blood cells)           |

\* The quantitative antibody determination is not accredited according to DIN EN ISO/ IEC 17043.

## IMMUNOHEMATOLOGY

## IMHEM

**Program:** IMHEM4x3: 4 surveys/year x 3 samples

IMHEM2x6: 2 surveys/year x 6 samples

**Material:** 1 (IMHEM4x3) or 2 (IMHEM2x6) tubes of the patient's red blood cell suspension (minimum 4 mL), 1 (4x3) or 2 (2x6) tubes of the patient's serum (minimum 4 mL) and 1 (4x3) or 2 (2x6) tubes of the donor's red blood cell suspension (minimum 4 mL). Erythrocyte suspensions contain a red blood cell concentration of 8% minimum

**Evaluation:** Qualitative

#### Analytical parameters:

|                      |                        |                         |
|----------------------|------------------------|-------------------------|
| ABO-Typing           | Rh-Typing              | Antibody screening      |
| A-Subtypes           | Kell-Antigen Detection | Antibody identification |
| Rhesus (D)-Detection | Direct Coombs test     | Cross-matching          |

## EDUCATIONAL PROGRAMS

### CLINICAL CASE STUDY PROGRAM

#### CASE

12 cases/year.

For new  
Subscribers:  
3 cases free  
of charge

This program focuses on the interpretation of analytical data and aims to support and strengthen the skills of staff to draw the right conclusions from the analytical results. Participants receive the case description online and submit their interpretation of the clinical data via the ESfEQA web application.

Participants are asked to derive a diagnosis from the laboratory data and to identify the analytes that lead to the diagnosis. A further question addresses additional tests to support the stated diagnosis, and finally, to provide a therapy recommendation.

### CASE STUDIES IN CLINICAL LABORATORY SCIENCE

#### CASE-T

6 cases/year.

For new  
Subscribers:  
2 cases free  
of charge

The target group of this program is technical personnel as well as laboratory doctors in medical laboratories. It aims to support and to strengthen the skills of the staff for (pre)analytical questions. Participants receive the case description online and submit their interpretation of the clinical data via the ESfEQA web application.

Each study in the Clinical Laboratory Sciences Case Study program provides a case description with analytical data for Clinical Chemistry, Hematology, Coagulation, and related areas. Participants in the survey will be asked for their interpretation, explanation and corrective actions (if applicable) for the described case. Possible answers will be offered in dropdown lists. Participants are requested to select one or more responses they consider appropriate.

| Monthly   | Program / Date*                             | Quarterly | Program / Date*                          |
|-----------|---------------------------------------------|-----------|------------------------------------------|
|           | 02/02/2027 - 16/02/2027                     |           | 16/02/2027 - 09/03/2027                  |
|           | 23/02/2027 - 09/03/2027                     |           | 20/04/2027 - 11/05/2027                  |
|           | 23/03/2027 - 06/04/2027                     |           | 20/07/2027 - 10/08/2027                  |
|           | 27/04/2027 - 11/05/2027                     |           | 12/10/2027 - 02/11/2027                  |
|           | 25/05/2027 - 08/06/2027                     | ABO       | Blood grouping                           |
|           | 22/06/2027 - 06/07/2027                     | ANTI-THYR | Thyroid antibodies                       |
|           | 27/07/2027 - 10/08/2027                     | BAC       | Bacteriology                             |
|           | 25/08/2027 - 08/09/2027                     | BACBC     | Bacteriology Blood Culture               |
|           | 21/09/2027 - 05/10/2027                     | BACUC     | Bacteriology Urine Culture               |
|           | 19/10/2027 - 02/11/2027                     | BG4       | Blood Gas and Electrolytes               |
|           | 09/11/2027 - 23/11/2027                     | CC4       | Clinical Chemistry                       |
|           | 30/11/2027 - 14/12/2027                     | CM4       | Cardiac Marker                           |
| BG12      | Blood Gas and Electrolytes                  | CM-POCT4  | Cardiac Marker POCT                      |
| CASE      | Clinical Case Study Program                 | COA4      | Coagulation                              |
| CC12      | Clinical Chemistry                          | COVAg     | SARS-CoV-2 Antigen                       |
| CM12      | Cardiac Marker                              | CSF       | CSF diagnostics                          |
| CM-POCT12 | Cardiac Marker POCT                         | DAT4      | Drugs of Abuse                           |
| COA12     | Coagulation                                 | EBV       | Epstein-Barr Virus Serology              |
| DAT12     | Drugs of Abuse                              | ESR       | Erythrocyte sedimentation rate           |
| ETH12     | Ethanol, Ammonia and Bicarbonate            | ETH4      | Ethanol, Ammonia and Bicarbonate         |
| GHB12     | Glycated Hemoglobin (HbA1c)                 | GHB4      | Glycated Hemoglobin (HbA1c)              |
| HAV12     | Hepatitis A Virus Serology                  | GLUWB     | Glucose POC - Whole Blood                |
| HBV12     | Hepatitis B Virus Serology                  | HAV4      | Hepatitis A Virus Serology               |
| HEM12     | Hemogram                                    | HBV4      | Hepatitis B Virus Serology               |
| HEM5D12   | Hemogram incl. 5-part diff.                 | HBVM      | HBV Molecular                            |
| HOR12     | Hormones                                    | HCG       | hCG in serum                             |
| INF12     | Inf. Disease Combination Control            | HCV4      | HCV Molecular                            |
| SP12      | Specific Proteins                           | HEM3D     | Hemogram incl. 3-part diff.              |
| SYP12     | Syphilis Serology                           | HEM4      | Hemogram                                 |
| TM12      | Tumor Marker                                | HEM5D4    | Hemogram incl. 5-part diff.              |
| TMH12     | Tumor Marker & Hormones                     | HIV       | HIV Antibodies and Antigen               |
| ToRCH12   | ToRCH Serology                              | HIVM      | HIV Molecular                            |
|           |                                             | HOR4      | Hormones                                 |
|           |                                             | INF4      | Inf. Disease Combination Control         |
|           |                                             | INF4x4    | Inf. Disease Combination Control         |
|           | 23/02/2027 - 16/03/2027                     | IMHEM4x3  | Immunohematology                         |
|           | 27/04/2027 - 18/05/2027                     | INR-POCT  | Prothrombin Time (POCT)                  |
|           | 22/06/2027 - 13/07/2027                     | LIPID     | Lipids                                   |
|           | 24/08/2027 - 14/09/2027                     | MALM      | Malaria Microscopy                       |
|           | 05/10/2027 - 26/10/2027                     | OXI       | Co-Oximetry                              |
|           | 16/11/2027 - 07/12/2027                     | PCT       | Procalcitonin                            |
| CASE-T    | Case Studies in Clinical Laboratory Science | SP4       | Specific Proteins                        |
|           |                                             | SYP4      | Syphilis Serology                        |
|           |                                             | TDM       | Therapeutic Drug Monitoring              |
|           |                                             | TM4       | Tumor Marker                             |
|           |                                             | TMH4      | Tumor Marker & Hormones                  |
|           |                                             | ToRCH4    | ToRCH Serology                           |
|           |                                             | UC        | Urine Chemistry                          |
|           |                                             | US4       | Qualitative Urine Analysis (Urine stick) |
|           |                                             | USEDL4    | Urine Sediment Light scattering methods  |
|           |                                             | USEDM4    | Urine Sediment Microscopy methods        |

\* Start of the measurement period until closing date

Registration deadline: in each case 3 months before the start of the corresponding measurement period.

Late registrations can still be considered if samples are available.

| Semi-annual 1<br>(Q1+Q3) | Program / Date*                          | Semi-annual 2<br>(Q2+Q4) | Program / Date*                                            |
|--------------------------|------------------------------------------|--------------------------|------------------------------------------------------------|
|                          | 16/02/2027 - 09/03/2027                  |                          | 04/05/2027 - 25/05/2027                                    |
|                          | 20/07/2027 - 10/08/2027                  |                          | 26/10/2027 - 16/11/2027                                    |
| CC2                      | Clinical Chemistry                       | ADE                      | Adenovirus Serology                                        |
| CM2                      | Cardiac Marker                           | ADROTA                   | Adenovirus & Rotavirus Stool Antigen                       |
| CM-POCT2                 | Cardiac Marker POCT                      | ANA                      | Autoimmunity - ANA                                         |
| COA2                     | Coagulation                              | ASF                      | Aspergillus Fumigatus Serology                             |
| HEM2                     | Hemogram                                 | ASPAg                    | Aspergillus Galactomannan Antigen                          |
| IMHEM2x6                 | Immunochemistry                          | BOR                      | Borrelia Serology                                          |
| INF2                     | Inf. Disease Combination Control         | BOR-G-AI                 | Borrelia IgG antibody index                                |
| SYP2                     | Syphilis Serology                        | BOR-M-AI                 | Borrelia IgM antibody index                                |
| TMH2                     | Tumor Marker & Hormones                  | BPES                     | Bordetella Serology                                        |
| US2                      | Qualitative Urine Analysis (Urine stick) | BRU                      | Brucella Serology                                          |
| USEDL2                   | Urine Sediment Light scattering methods  | CCP                      | Cyclic Citrullinated Peptide Antibodies                    |
| USEDM2                   | Urine Sediment Microscopy methods        | CDIFFAg                  | C. difficile Stool Antigen                                 |
|                          |                                          | CHA                      | Chagas Serology                                            |
|                          |                                          | CHIKV                    | Chikungunya Virus Serology                                 |
|                          |                                          | CHT                      | Chlamydia Trachomatis Serology                             |
|                          |                                          | COVID                    | SARS-CoV-2 Serology                                        |
|                          |                                          | COX                      | Coxsackievirus Serology                                    |
|                          |                                          | DENV                     | Dengue Virus Antibodies                                    |
|                          |                                          | DENVAg                   | Dengue Virus NS1 Antigen                                   |
|                          |                                          | ECH                      | ECHO Virus Serology                                        |
|                          |                                          | ENT                      | Enterovirus Serology                                       |
|                          |                                          | ESRAF                    | Erythrocyte sedimentation rate<br>for Alifax analysers     |
|                          |                                          | ESRAL                    | Erythrocyte sedimentation rate<br>for Alcor iSED analysers |
|                          |                                          | ESRMR                    | Erythrocyte sedimentation rate<br>for Mindray analysers    |
|                          |                                          | FOB                      | Fecal Occult Blood                                         |
|                          |                                          | HEV                      | Hepatitis E Virus Serology                                 |
|                          |                                          | HPVM                     | HPV Molecular                                              |
|                          |                                          | HPYL                     | Helicobacter Pylori Antibodies                             |
|                          |                                          | HPYLA                    | Helicobacter Pylori Antigen                                |
|                          |                                          | HTL                      | HTLV I/II                                                  |
|                          |                                          | INA                      | Influenza A Virus Serology                                 |
|                          |                                          | INB                      | Influenza B Virus Serology                                 |
|                          |                                          | LEP                      | Leptospira Serology                                        |
|                          |                                          | LPAb                     | Legionella Pneumophila Antibodies                          |
|                          |                                          | MEA                      | Measles Serology                                           |
|                          |                                          | MYPL                     | Mycoplasma Antibodies                                      |
|                          |                                          | NOROA                    | Norovirus Stool Antigen                                    |
|                          |                                          | PAR                      | Parvovirus B19 Serology                                    |
|                          |                                          | PIN                      | Parainfluenza Virus Serology                               |
|                          |                                          | RESPAg                   | Respiratory Viral Antigen Detection                        |
|                          |                                          | RESPM                    | Respiratory Pathogens Molecular                            |
|                          |                                          | RSV                      | RSV Serology                                               |
|                          |                                          | STAA                     | Streptococcus A Antigen                                    |
|                          |                                          | STIM                     | Sexually Transmitted Infections Molecular                  |
|                          |                                          | TBEV-G-AI                | TBEV IgG antibody index                                    |
|                          |                                          | TBEV-M-AI                | TBEV IgM antibody index                                    |
|                          |                                          | VZV                      | Varicella Zoster Virus Serology                            |
|                          |                                          | WNV                      | West Nile Virus Serology                                   |
|                          |                                          | ZIKV                     | Zika Virus Serology                                        |

\* Start of the measurement period until closing date

Registration deadline: in each case 3 months before the start of the corresponding measurement period.

Late registrations can still be considered if samples are available.

## 1. Participation

Participation in ESfEQA external quality assessment (EQA) surveys is open to anyone who performs laboratory tests in their own practice or in a managed medical laboratory. The following conditions for participation apply.

## 2. Consent to conditions of participation

By registering with ESfEQA GmbH, the participant agrees to these general terms and conditions of participation.

## 3. Assignment of services

Individual elements of EQA schemes (e.g. pretesting of values, packaging and shipping) may be assigned to subcontractors. ESfEQA is responsible for the work of the subcontractors.

## 4. ESfEQA catalogue

The ESfEQA portfolio of EQA schemes and analytes contained in individual programs are described in the ESfEQA catalogue. Depending on the availability of samples and number of participants, ESfEQA reserves the right not to offer the entire spectrum of analytes for each EQA survey or sample.

## 5. Schedule

The schedule, published in the ESfEQA catalogue, contains deadlines for ordering and result submission, as well as the testing periods. Once the deadline for ordering has passed, acceptance of late orders is at ESfEQA's discretion. Results must be submitted to ESfEQA electronically, or using a result entry form, on or before the closing date. All deadlines and calendar dates are given in UTC.

## 6. Cancellation of EQA surveys

ESfEQA reserves the right to cancel or postpone EQA surveys. This information will be provided to participants before the original sample shipping date and ESfEQA will endeavour to offer an alternative date in a timely manner.

## 7. Registration

For participation in ESfEQA EQA surveys registration is required. This can be done online, or by sending the necessary information to ESfEQA by email to [info@esfeqa.eu](mailto:info@esfeqa.eu). The following information is required: laboratory name, name of the organization/hospital, name of participant, number of analytical devices, and e-mail address.

## 8. Ordering of samples

Distribution of ESfEQA EQA surveys is usually carried out by international distributors. If there is no distributor available in the participant's region, sales can be carried out directly by ESfEQA. The ordering process between participants and distributors is the responsibility of the parties involved. As a rule, an EQA program is ordered for a full calendar year. Orders placed during the year generally include the survey samples up to the end of the current calendar year.

## 9. Homogeneity and stability of EQA samples

The EQA survey samples selected by ESfEQA were examined and evaluated with regard to homogeneity and stability.

## 10. Designation of EQA samples

The EQA samples can be distinguished by their identifier, which has the following format: program acronym\_survey year\_survey number\_sample number. For example, the sample CM4\_2027\_01\_a belongs to the quarterly program Cardiac Marker (CM4) in the year 2027 and is sample "a" of the first survey. Samples with the same designation are not necessarily identical, i.e. different results can be obtained despite the same designation. ESfEQA correctly allocates samples to the original batch and thus to the target values.

## 11. Shipping of EQA samples

EQA samples are shipped by postal or parcel service. Due to governmental restrictions, or insufficient sample stability, shipping of individual EQA programs to specific countries may be excluded.

## 12. Instructions for use

Instructions for Use (IFU) for each EQA survey are available on the ESfEQA website ([www.esfeqa.eu](http://www.esfeqa.eu)) and on the TEQA 2.0 LAB platform (<https://teqa-labv2.esfeqa.eu>). Each IFU includes instructions for sample preparation and stability.

## 13. Use of EQA samples

Usually, EQA samples should be treated exactly like patient samples and measured in the same way as routine samples according to the manufacturer's instructions for the instrument and reagent. They may only be used for the purpose of participating in an EQA survey and may not be used in a misappropriated manner. Generally, normal laboratory procedure for testing potentially hazardous and potentially infectious samples also applies to EQA samples.

## 14. Submission of survey results

Where applicable, submission of results includes the actual measured value as well as instrument, reagent and method used. The input mask in TEQA 2.0 LAB (ESfEQA's evaluation software application, <https://teqa-labv2.esfeqa.eu>) displays the required information for each EQA program. A drop-down list of instruments, reagents and analyte-specific methods is provided in the configuration section. In instances where an instrument, reagent or method is not listed in TEQA 2.0, participants may utilize the designated "coding request" functionality to add the missing information. They can select their specific instrument, reagent and method to create a new configuration prior to entering their test results. The selection of instrument, reagent and method as well as the submission of results, must be performed using the TEQA 2.0 LAB web application. Participants receive their login data (username and password) from ESfEQA, which is required to enter results. The password consists of at least 8 characters, including an uppercase letter, a number, and a special character. Username and password are to be treated confidentially by the participant. An alternative to result submission via the TEQA 2.0 LAB web application, is the result form, which can be sent to ESfEQA either by e-mail ([surveys@esfeqa.eu](mailto:surveys@esfeqa.eu)) or fax (+49 6221 4166 790). Result forms specific for each EQA program are provided on the ESfEQA website. ESfEQA encourages all participants to submit their results online via the secure TEQA 2.0 LAB web application, for the sake of data security and convenience.

ESfEQA evaluates all survey results submitted by participants by the deadline. In the event of loss or late arrival of their data, the participant bears the risk. ESfEQA is not obliged to evaluate results submitted after the submission deadline.

Quantitative results are generally reported with a value and unit. The participant determines the number of digits for reporting. In general, results should be reported as measured. However, results submitted as "< test range" (e.g. "< 10") or "> test range" (e.g. ">2000") are not valid.

For results below the test range, the lower test range limit should be reported (e.g. "10").

For samples with analyte concentrations above the test range, the sample can be diluted (if recommended for particular applications) or the upper test range limit (e.g. "2000") can be submitted as the result. Several units are usually available for entering quantitative results. The units are converted into the standard unit used by ESfEQA.

Laboratories are obliged to treat their results confidentially and not to pass them on to third parties until the EQA survey report has been received. If ESfEQA becomes aware of the passing on or falsification of results or the collusion between participants, ESfEQA reserves the right to exclude those concerned from further participation in EQA surveys conducted by ESfEQA as well as to exclude the issuance of reports.

#### 15. Number of results per participant

For each EQA sample and analyte, up to 3 values per participant can be submitted. The values have to be determined by different analytical devices that are independent from each other.

#### 16. Correction of transmitted results

Participants can edit their results in their laboratory account on the TEQA 2.0 LAB platform up until the deadline for result submission of the EQA survey.

#### 17. Evaluation of EQA results

For each analyte in ESfEQA EQA surveys, the type of target value determination and acceptance criterion are predefined. For quantitative parameters, the target value is usually the consensus value of participants results. This value is calculated according to ISO 13528:2022 'Statistical methods for use in proficiency testing by interlaboratory comparison' using robust statistics.

Samples provided for testing of qualitative parameters are thoroughly tested with different analytical systems before being used as control material, thereby setting the target value.

System-specific differences are taken into account, if appropriate and feasible, with a corresponding statistical evaluation. The broadest possible distinction according to method, device and/or reagent used is made available to participants (M-, I-, R-group). The minimum number of results of an evaluation group is 5. If this number is not reached in the survey, the individual result has to be compared to the robust mean of the next largest group that can be evaluated. Usually, this is the group consisting of participants using the same method (M group), or the general group containing the results of all participants. The definition of the evaluation group is documented in the survey report.

For quantitatively determined analytes, the maximum permissible ranges of the target value are predefined. The permissible range for each analyte is derived from its medical relevance as well as the reference interval. In the report display, the upper limit of the permissible range corresponds to a z-value of 3 and the lower limit to a z-value of -3.

#### 18. Survey reports

In general, the participants will receive reports electronically via the TEQA 2.0 LAB web application within 10 days (for monthly programs), or three weeks (for quarterly and semi-annual programs) after the deadline for submission of the results. The reports include the results submitted by the participant evaluated in comparison to target values. The data is displayed both in tabular and illustrated form

(e. g., Histogram and Shewhart chart). The reports are intended for external quality assurance of laboratories. They may not be published, passed on or used for purposes other than quality assurance without the written consent of ESfEQA.

#### 19. Fees

The fees for participation are set and communicated to the participants by the responsible distributor of ESfEQA programs in their geographical area/country. Due to the high variability of shipping, handling and customs costs, the prices may vary between various countries. Please contact your local distributor for the participation fee.

#### 20. Certificates

For each EQA program participants receive a certificate of participation. In addition, participants receive a certificate for those parameters which met the specified performance criteria in the respective EQA survey. Both certificates are made available to participants via the TEQA 2.0 LAB web application. The certificates are issued simultaneously with the reports.

#### 21. Loss and damage of EQA test material

In the event of sample loss or damage, ESfEQA should be notified immediately. If possible, ESfEQA will send replacement samples without acknowledging any claims. However, the contract is fulfilled on the date of dispatch of the original sample material.

#### 22. Complaints and appeals

After receipt of an EQA survey report, a complaint/appeal can be made within a period of 4 weeks. After expiry of this period, any claims by the participant based on a complaint/appeal are excluded. In the event of a justified complaint/appeal, ESfEQA will decide whether to reimburse the amount paid for the EQA survey, or to provide a substitute EQA survey. ESfEQA GmbH does not reimburse any costs incurred for reagents, time expenditure etc. unless ESfEQA GmbH is liable in accordance with paragraph 23 of these General Terms and Conditions for Participation.

#### 23. Warranty

ESfEQA shall only be liable for damages of any kind in the case of intent and gross negligence, if the other prerequisites for claims are met. In all other respects, liability for damages of any kind, regardless of the basis of the claim, including liability for culpa in contrahendo, is excluded.

#### 24. Confidentiality

Individual EQA data is kept confidential. It is only known to the corresponding participant, their distributor and ESfEQA employees. ESfEQA collects, processes and uses personal data of the participant only to the extent necessary for the performance of EQA surveys, the preparation of the reports and for the purpose of quality assurance. This includes the forwarding of the data identifiable by subscriber and device number for quality assurance measures to the respective manufacturer of the analytical systems (device and reagent).

## **COMPANY INFORMATION**

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