



Verein für medizinische Qualitätskontrolle  
Association pour le contrôle de Qualité médical  
Associazione per il controllo di qualità medico

## Instructions and patient details survey 2024-1

### General

A list of all analyses with the corresponding samples can be found on [www.MQZH.ch](http://www.MQZH.ch) under «Offer».



Attention! Sample change for AFIAS and triage: You will receive a separate sample (G6) for the D-dimer. Please refer to the device instructions on [MQZH.ch](http://MQZH.ch).

### Sample handling

If nothing special is specified, you can use our proficiency test samples like patient material.

Refrigerated samples must be removed from the refrigerator about 15-30 minutes (exception blood gas ampoules 5 hrs) before analysis so that they are at room temperature. Ready-to-use samples only need to be mixed afterwards. Our samples are partly of human origin and are handled and disposed of with the same care as patient samples.

### Sample analysis

- The samples must be analyzed using the same method that you use for the patient samples.
- Multiple determinations are only allowed if this is also done for patient samples.
- Samples must not be forwarded to other laboratories.

### Results submission

- If the results are not submitted via the online system, the protocol sheet must be signed by the responsible laboratory manager/physician
- The results may only be discussed with colleagues from other laboratories once the proficiency test has been completed.

### Administration

- **IMPORTANT:** Check whether the information on the log sheet is correct and complete. You can write changes and additions directly on the sheet by hand or enter them in the "Notes" field in the online account..
- Please do not forget to keep a copy of your results until you have received and checked the evaluation.

## The following samples require special handling

### B1 Strep A Test

You will receive sample B1 as a liquid (it simulates the patient's nose, throat, etc.). Be sure to use the swab included in your rapid test pack and dip it into the sample B01. Then process the swab as if it were a patient sample.

### B9 Bacteriology

Important: Only dissolve and process the sample under the safety cabinet! Open the screw cap and disinfect the grey rubber. Reconstitute the samples with 0.5 ml 0.9% NaCl by injecting the liquid through the grey rubber using a sterile syringe.

### B10 Gram stain

Material: blood culture, Diagnosis: urosepsis

### B31 SARS CoV-2 , NAT

Sample B31 can be diluted 1:2 with NaCl if the amount of sample material is insufficient.

### B33 SARS CoV-2 Antigen Rapid Test

You will receive the B33 sample as a liquid (it simulates the patient's nose). Be sure to use the swab, which is included in your rapid test kit. You can find detailed instructions on [www.MQZH.ch](http://www.MQZH.ch)

### G1, G3, G4, G18-G22, Coagulation

Pipette 1 ml distilled water into the vial, close and mix gently. Allow to stand for 30 minutes at room temperature. Mix again carefully by hand before measurement. Measure within 2 hours.

### H4 Blood parasites

Possible codes:

100	No parasites found
101	Plasmodium
102	Plasmodium falciparum
103	Plasmodium malariae
104	Plasmodium vivax
105	Plasmodium ovale
106	Trypanosoma sp.
107	Mikrofilaria
199	Others:

(For P. falciparum, indicate % of infected erythrocytes).

### H6, H7 Bloodcount 5-Part / Retikulocytes

These proficiency test samples are measured like patient samples. Please measure the samples immediately after receipt!

### K1 Clinical chemistry

#### Estimated glomerular filtration rate (eGFR)

In order to assess a patient's renal function, plasma creatinine should be measured and the eGFR should be calculated. In the protocol sheet, all participants who measure creatinine will find an additional entry for the eGFR. If you do not yet work with the eGFR, you will find further information and a calculator at [www.mqzh.ch](http://www.mqzh.ch).

Patient details: 88-year-old man, skin color white, (weight 97 kg)

### K3 HbA1c

Participants with Afinion: Please perform the determination as soon as possible (fresh whole blood)

### K29 Calprotectine

The sample can be handled like liquid faeces.

If it is not possible to measure the sample on the day of arrival, please store it at -20°C

**K38 Immunofixation****Specimen description: Patient: from different patients**

Codes for the interpretation of the immunofixation: (Please specify the appropriate code.)

Codes	Description
	<b>In the immunofixation appears a:</b>
1	monoclonal component type IgA Kappa
2	monoclonal component type IgA Lambda
3	monoclonal component type IgG Kappa
4	monoclonal component type IgG Lambda
5	monoclonal component type IgM Kappa
6	monoclonal component type IgM Lambda
7	Oligoclonal immunoglobulin responses indicate limited heterogeneity of synthesized immunoglobulins
8	Inconspicuous findings, no further investigations
9	In the event of a suspected artifact or unclear findings, possibly further clarification. Please send us your image with the result

**K39 Folate in Erythrocytes**

The hematocrit value of the sample can be read on the label.

**K48 Creatinin whole blood**

These proficiency test samples are measured like patient samples. Please measure the samples immediately after receipt!

**S1 Fecal occult blood**

The simulated stool sample is ready for use. The application of the sample which is done by the patient in the case of the patient sample, must also be performed.

**U2, urine test strips**

Please enter your result as you do for your patient samples. (Submission in numbers or +++ is possible))

**The following device-specific instructions can be found at [www.MQZH.ch](http://www.MQZH.ch) under "Instructions"»:**

Afias	Fuji Dri-chem
Afinion	Hemochron jr
ABL90 Flex+	LumiraDX
ABL800 Flex Serie	Hemoscreen
ABL80 Flex CO-OX	Hematology blood gases
AQT90	Erythrocyte sedimentation
Uricult (B2)	ImmunoCap rapid
Covid Test rapid (B33)	StatSensor
Microbiologie NAT (B11-B36)	Piston pipette
Helicobater-Urease-Test	Micro INR
Cholestec LDx	Microsemi
Coagu Chek XS/Pro II	Mythic
Cobas b101	Xprecia
Differential blood smear	Zybio Z3 CRP
EPOC	
Eurolyser Cube	

### H3 Differential Blood Smear

#### Patient data

	Age / Sex		Hb	Hk	Leuc	Tc	Ec
2024-1 H3A	51	w	106 g/l	0.310 l/l	2.33 G/l	38 G/l	3.74 T/l
2024-1 H3B	16	w	144 g/l	0.416 l/l	7.76 G/l	174 G/l	4.82 T/l

#### Instructions for filling out the H3 Protokoll

If your smear is defective or bad, we will gladly send you another one. Call us as soon as possible, our stock is limited.

#### Leukocyte differentiation

For the differentiation of rod and segment nucleated neutrophil granulocytes you have to work according to the thread rule.

Neutrophils (rod + seg), lymphocytes/plasma cells and white precursors (promyelocytes + myelocytes + metamyelocytes) are automatically added together for QUALAB assessment.

For example, if you cannot distinguish the white precursors, it is possible to sum them up with a curly bracket.

IMPORTANT: Make sure that the sum adds up to 100%, otherwise you will get a "not fulfilled".

#### Morphological data

After you have assessed the morphology of the leukocytes, platelets and erythrocytes, you must select the most important features of this blood count for the report. (max. 5 codes)

To do this, enter the codes below under "Findings":

#### General Codes

29 Normal findings (do not add any other codes)

30 Pathologic findings, refer to expert

31 Pathologic findings, not referred to expert

(Note: Even if you write code 30 on a blood count, the leukocyte differentiation must be done in any case).

#### Leukocyte assessment

01 Hypersegmentation

02 Left shift

03 Pelger-Huet Abnormaly

04 Toxic signs of neutrophils

(toxic granulation, basophilic stripping or vacuoles)

05 Atypical lymphocytes presumably reactive

06 Atypical lymphocytes probably neoplastic

07 Auer rods

08 other:

#### Thrombocyte assessment

09 Giant platelet

10 Platelet aggregates

11 other:

#### Erythrocyte assessment

12 Microcyten

13 Macrocytes

14 Hypochromasia

15 Polychromasia

16 Poikilocytosis

17 Elliptocytes/Ovalocytes

18 Stomatocytosis

19 Targetcells

20 Fragmentocytes

21 Spherocytes/Microspherocytes

22 Rouleaux

23 Erythrocyte agglutination

24 Howell-Jolly bodies

25 Basophilic stripping

26 Tear drops

27 other:

28 Parasites (please specify)

To meet the requirements, you must specify at least one code for both preparations, and differentiate the leucocytes.

## U4 Urine sediment

Sample description: 59-year-old male patient

### Urin-strip

		Ref. / Norm.
Glucose/Glucose/Glucosio	<b>Neg</b>	<b>neg</b>
Protein/Protéine/Proteina	<b>Spuren</b>	<b>neg</b>
Bilirubin/Bilirubine/Bilirubina	<b>Neg</b>	<b>neg</b>
Urobilinogen/Urobilinogène/Urobilinogeno	<b>Norm</b>	<b>norm</b>
pH	<b>5.0</b>	<b>5.0-7.5</b>
Dichte/Densité/Peso spec.	<b>1.021 g/ml</b>	<b>1.020-1.030</b>
Erythrozyten/ Erythrocytes/Eritrociti	<b>Neg</b>	<b>neg</b>
Ketonkörper / Corps cétoniques/Chetoni	<b>Neg</b>	<b>neg</b>
Nitrit/Nitrite/Nitriti	<b>Neg</b>	<b>neg</b>
Leukozyten/Leucocytes/Leucociti	<b>Neg</b>	<b>neg</b>

### Codes

10	Erythrozyten normal	Erythrocytes normaux	Eritrociti normale	Erythrocytes normal
11	Erythrozyten dysmorph	Erythrocytes dysmorphes	Eritrociti dismorfici	Dysmorphic Erythrocytes
12	Akanthozyten	Acanthocytes	Acantociti	Acanthocytes
20	Leukozyten	Leucocytes	Leucociti	Leucocytes
30	Plattenepithelien	Epithélium pavimenteux	Epiteli piatti	Squamous Epithelia
31	Epithelien (andere als Platten)	Epithélium (autres que pavimenteux)	Epiteli (altri tipi di epiteli oltre a quelli piatti)	Epithelia (other than squamous-)
32	Geschwänzte Epithelien	Epithélium caudé	Epiteli caudati	Caudate Epithelia
33	Rundepithelien	Epithélium rond	Epiteli rotondo	Round Epithelia
34	Übergangsepithelien	Epithélium transitionnel	Epiteli di transizione	Transitional Epithelia
35	Nierenepithelien	Epithélium rénal	Epiteli renali	Renal Tubular Epithelial Cells
36	Decoy-Zellen	Cellule decoy	Cellula decoy	Decoy Cells
40	Spermatozoen	Spermatozoïdes	Spermatozoi	Spermatozoa
50	Hyaliner Zylinder	Cylindre hyalin	Cilindri ialini	Hyaline Casts
51	Granulierter Zylinder	Cylindre granuleux	Cilindri granulosi	Granular Casts
52	Wachszylinder	Cylindre cireux	Cilindri cerei	Waxy Casts
53	Erythrozyten-Zylinder	Cylindre érythrocytaire	Cilindri eritrocitori	Erythrocyte Casts
54	Leukozyten-Zylinder	Cylindre leucocytaire	Cilindri leucocitori	Leucocyte Casts
55	Epithelzylinder	Cylindre épithélial	Cilindri epiteliali	Epithelia Cast
56	Pseudozylinder	Pseudo-cylindre	Pseudocilindri	Pseudocasts
57	Lipide	Lipides	Lipidi	Lipids
60	Bakterien	Bactéries	Batteri	Bacteria
61	Pilze	Champignons (levure)	Funghi (lievito)	Yeast/Fungi
62	Trichomonaden	Trichomonas	Tricomonadi	Trichomonas
70	Kristalle und Salze	Cristaux et sels	Cristalli e sali	Crystals and Salts
80	Haare	Poils	Cappelli	Hair
81	Schleim	Mucus	Mucosa	Mucus
82	Verunreinigungen	Impuretés	Impurità	Impurity
83	Luftblasen	Bulle d'air	bolla d'aria	Air bubble
99	Unbekannt	Inconnu	Sconosciuto	Unknown