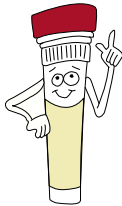




Verein für medizinische Qualitätskontrolle  
Association pour le contrôle de Qualité médical  
Associazione per il controllo di qualità medico

## Instructions and patient details survey 2024-4



**For each proficiency test, please check that the device details on the record sheet match your device. Changes can be noted directly on the record sheet. If you submit the results via the online system, you can enter any changes in the "Comments" field.**

### General information

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

### Sample handling

Unless otherwise stated, our proficiency test samples can be used as patient material. Refrigerated samples must be removed from the refrigerator about 15-30 minutes (exception blood gas ampoules 5 hrs) before analysis to equilibrate them 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

- Please do not forget to keep a copy of your results until you have received and checked the evaluation.
- We advise you to keep the samples until you have received the results. In the event of unsatisfactory results, you can re-analyse your samples.

## Information about the specific samples

### 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 B1. Then process the swab as if it were a patient sample.

### B9 Bacteriology

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

**Diagnose:** Sepsis

### 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:

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

These proficiency test samples are analysed in the same way as 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: 50-year-old man, skin color white, (weight 80 kg)

**K3 HbA1c**

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

**K29 Calprotectine, K51 Pancreatic elastase**

Samples from these interlaboratory tests can be treated as liquid stool samples.

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

**K38 Immunofixation**

**Specimen description:** from different patients.

Codes for immunofixation interpretation: (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 of the sample is indicated on the label. Please process the sample immediately after receipt. If you cannot analyze the sample immediately, please store it at -20°.

**K48 Creatinin WB**

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 and used exactly like a patient sample.

**U2, urine test strips**

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

### H3 Differential Blood Smear

#### Patient data

	Age	Gender	Hb	Hk	Lc	Tc	Ec
2024-4 H3A	39	f	152 g/l	0.46 l/l	8.72 G/l	226 G/l	4.96 T/l
2024-4 H3B	79	f	87 g/l	0.277 l/l	22.13 G/l	287 G/l	2.79 T/l

**Note on H3B: female patient with known CLL.**

#### Instructions for filling out the H3 Protokoll

If your smear is defective or bad, we will gladly send you another one.

#### 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 Abnormality

04 Toxic signs of neutrophils

(toxic granulation, basophilic strippling 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 strippling

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

### Procedure

Enclosed you will receive 5 photos with images of urine sediment components. The following types of images we will use: PK=phase contrast, HF=bright field.

Your task is to identify the objects marked with an arrow using the two-digit codes below. On the protocol sheet, you will find five entries ("Image 1" to "Image 5") in the "Urine Sediment" section where you can enter the codes.

**Sample description: 58-year-old patient, male.**

### Urin-Teststrip

Test	Resultat	Unit	Reference
Glucose, ql	neg		neg
Protein, ql	trace		neg
Bilirubin	neg		neg
Urobilinogen	norm		norm
pH	5.0		5.0-7.5
Specific gravity	1.019	g/ml	1.020-1.030
Erythrozyten, ql	neg		neg
Ketone	neg		neg
Nitrite	neg		neg
Leukocytes	++		neg

The images are all from the same sample and were taken with a 40x objective.

**IMPORTANT:** Note the scale at the bottom right to estimate the size of the elements.

More images of this sample can be found on the web at [www.mqzh.ch](http://www.mqzh.ch) in the photo album.

### Codes

<b>10</b> Erythrocytes normal	<b>40</b> Spermatozoa	<b>60</b> Bacteria
<b>11</b> dysmorphic Erythrocytes		<b>61</b> Yeast/Fungi
<b>12</b> Acanthocytes	<b>50</b> Hyaline Casts	<b>62</b> Trichomonas
	<b>51</b> Granular Casts	
<b>20</b> Leucocytes	<b>52</b> Waxy Casts	<b>70</b> Crystals and Salts
	<b>53</b> Erythrocyte Casts	
<b>30</b> Squamous Epithelia	<b>54</b> Leucocyte Casts	<b>80</b> Hair
<b>31</b> Epithelia (other than squamous-)	<b>55</b> Epithelia Casts	<b>81</b> Mucus
<b>32</b> Caudate Epithelia	<b>56</b> Pseudocasts	<b>82</b> Impurity
<b>33</b> Round Epithelia	<b>57</b> Lipids	<b>83</b> Air bubble
<b>34</b> Transitional Epithelia		<b>99</b> Unknown
<b>35</b> Renal Tubular Epithelial Cells		
<b>36</b> Decoy Cells		

Several terms are possible for epithelia. Use the term that is common in your laboratory.

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

Afiias	Fuji Dri-chem
Afinion	Hemorchron 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
Microbiology 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	Triage
Eurolyser Cube	Virus genome detection (V2-V6)
Immunfixation	