



# External Quality Assessment Product Catalogue 2018

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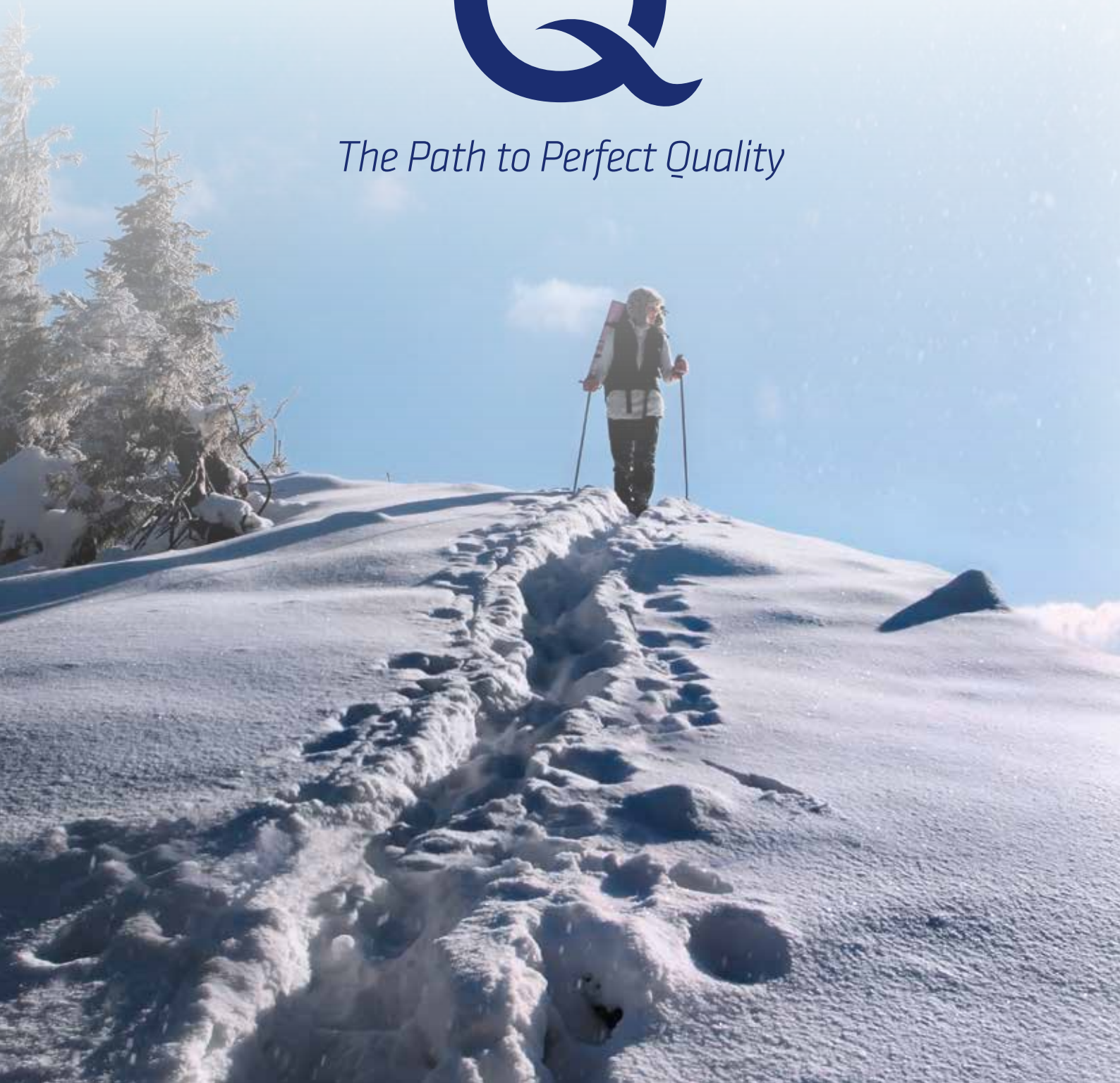
## LABQUALITY

- Kumpulantie 15, FI-00520 Helsinki, Finland
- Tel. +358 9 8566 8200 ■ Fax +358 9 8566 8280
- [www.labquality.fi](http://www.labquality.fi) ■ [info@labquality.fi](mailto:info@labquality.fi)





*The Path to Perfect Quality*



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Labquality – EQAS

## Service information

### Labquality – EQAS

Labquality is an independent external quality assessment provider from Finland owned by various non-profit organizations. Labquality has over 45 years' of experience in helping clinical laboratories and POCT sites to develop and maintain their performance. Labquality's EQA schemes are internationally recognized high quality programs. EQA programs have clinical scope with educational touch. Part of the EQA production is outsourced to expert laboratories and national partners.

### Integrated EQA service

Labquality is the first EQA provider, who has integrated pre-analytical, analytical and post-analytical phases to its EQA programs. Advanced and traditional EQA schemes have been designed to fully support laboratory's total quality management system and fulfill ISO 15189 requirements concerning the extra-analytical phases. Integrated EQA schemes include samples and pre- and post-analytical questionnaires concerning the scope of the scheme.

### Quality management

Labquality's management system is certified according to ISO 9001 (DQS) and main EQA schemes (299) are accredited according to ISO 17043 (PT02/FINAS). Certificates and scope of accreditation are available on our website [www.labquality.fi](http://www.labquality.fi).

### EQA service availability

Labquality has customers in over 50 countries in Europe, Asia, America and North Africa. Service is localized by 25 national partners. All digital schemes including pre-analytical schemes and diagnostic schemes for anatomic pathology are available globally. All schemes (with few exceptions) are available via national partners in Europe, Middle East and Central Asia. For direct customers the program selection is limited to the schemes with stable and non-hazardous sample materials.

### Enrolment and prices

Labquality has annual programs and pricing. Participants shall place their orders for next year before the end of November to ensure the participation to all needed EQA rounds. Enrolment is possible during the calendar year, but only part of the EQA rounds may be available. To place an order, please contact to our national partner in your country or Labquality's customer service at [info@labquality.fi](mailto:info@labquality.fi).

### Deliveries

Labquality's specimen logistics system is accepted and continuously audited as a part of accreditation according to ISO 17043 (PT02/FINAS) standard. Specimens are shipped according to annual schedule. Labquality retains the right to make changes to the schedule.

### LabScala EQA portal

Partners and participants are able to operate the whole EQA process from orders to reports via modern web based software, LabScala. EQA process is designed to go along with laboratory process from pre-analytics to post-analytics. Easy availability and user-friendly interface guarantee advanced experience.

### Certificate

Certificate of participation will be issued to all participants in the end of calendar year. Certificate refers to EQA reports to evaluate the performance of the participant.

### Customer service

Please contact to Labquality's national partner (listed on Labquality's web site: [www.labquality.fi](http://www.labquality.fi)) or customer service (English) at [info@labquality.fi](mailto:info@labquality.fi).

## How to use the catalogue

Scheme code and name		Rounds (delivery months)											
		1	2	3	4	5	6	7	8	9	10	11	12
POCT	1234 Scheme name	■				■				■		■	
	Specimens: Examinations:	Notes:											
Additional info													
<span style="background-color: #4a7c9c; color: white; padding: 2px;">EQA<sup>3</sup></span> = Integrated EQA service <span style="background-color: #90c040; color: white; padding: 2px; margin-left: 10px;">NEW</span> = New product <span style="background-color: #c04070; color: white; padding: 2px; margin-left: 10px;">POCT</span> = Suitable for Point-of-Care testing sites <span style="background-color: #90b0d0; color: white; padding: 2px; margin-left: 10px;">VIRTUAL</span> = Virtual microscopy													

## Updates for 2018

### New schemes and products

- 7130 ECG, interpretation (p. 33)
- 8817 HIL-index [DEKS] (p. 32)
- 5086 Human papillomavirus, nucleic acid detection (p. 28)
- 5300 Respiratory infections multiplex, nucleic acid detection (p. 30)
- 5302 Sexually transmitted diseases multiplex, nucleic acid detection (p. 30)
- 2685 Tryptase [UK NEQAS] (p. 6)

### Discontinued schemes

- 5970 Enteropathogens

### New integrated EQA schemes (EQA<sup>3</sup>) (pre- and/or post-analytics included)

Integrated EQA schemes combine pre-analytical, analytical and post-analytical EQA to one scheme fulfilling ISO 15189 requirements.

- 5940 Coeliac disease, antibodies (p. 19)
- 2301 Hormones B: Steroid and peptide hormones (p. 9)
- 2200 Lipids and lipoproteins (p. 12)
- 2240 Proteins, electrophoresis (p. 13)
- 1072 Serum A, lyophilized samples (p. 9)
- 5060 Urine culture, quantitative screening (p. 25)
- 5065 Urine culture, quantitative screening, identification and susceptibility (p. 25)

### Optional schemes

- 2221 Down's syndrome screening, quality assurance (p. 8)\*

\*) Will be organised, if there are at least 10 participants.

### Changes in delivery schedule

- 2040 Bilirubin, neonatal (FEB, APR, JUN, AUG, OCT, DEC)
- 1002 Haemoglobin for analyzers (FEB, APR, JUN, AUG, OCT, DEC)
- 6543 Histological staining techniques (MAR, OCT)
- 6542 Histopathology, virtual microscopy (APR, OCT)
- 6600, 6600S Immunohistochemical staining methods (MAR, SEP, NOV)
- 2226 Prostate specific antigen (FEB, APR, JUL, OCT)

### Changes in scope, specimens or parameters

- 2040 Bilirubin, neonatal  
Specimens are not delivered together with Serum A anymore
- 5191 Faecal bacterial pathogens multiplex, nucleic acid detection  
New scope: Multiplex
- 5191 Faecal bacterial pathogens multiplex, nucleic acid detection  
New parameter: Samples may include EHEC
- 5190 Faecal culture  
New parameter: Samples may include EHEC
- 2370 Folate, erythrocytes  
New availability: Available globally
- 1002 Haemoglobin for analyzers  
Specimens are not delivered together with Serum A anymore
- 5430 Malaria, antigen and nucleic acid detection  
New parameter: Nucleic acid detection
- 1072, 1072S Serum A, lyophilized samples  
Lyophilized specimens only

# Clinical chemistry

The clinical chemistry portfolio covers areas of allergology, basic chemistry, cardiac markers, diabetes analysis, endocrinology, special chemistry, specific proteins, tumour markers and urine analysis. For routine chemistry needs, schemes with both one and two level samples enabling assessment of more than 50 analytes are available. A wide selection of schemes specifically tailored for POCT devices are also available including those for drug abuse screening, glucose meters and troponin detection.

## Clinical chemistry » Allergology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2675 Allergen component [UK NEQAS]</b>			■		■	■		■		■		■
<b>Specimens:</b> 2 liquid human serum samples for allergen component tests <b>Examinations:</b> Allergen component test which covers recombinant allergens as well as the ISAC system	<b>Notes:</b> Participation is not possible for less than 6 rounds in a year. Should be ordered by <b>November 13<sup>th</sup>, 2017</b> .											
<b>2670 Allergy in vitro diagnostics [UK NEQAS]</b>			■		■	■		■		■		■
<b>Specimens:</b> 2 liquid human serum samples for specific IgEs with 4 allergens in each specimen, 0.5 mL each and 1 serum specimen for total IgE, 0.5 mL <b>Examinations:</b> Total IgE and specific IgEs	<b>Notes:</b> Participation is not possible for less than 6 rounds in a year. Should be ordered by <b>November 13<sup>th</sup>, 2017</b> .											
<b>2681 Allergy in vitro diagnostics [SKML]</b>		■			■			■		■		
<b>Specimens:</b> 3 liquid human serum samples for specific IgEs with 3 allergens, 2 mixes and total IgE in each and some allergen components, 0.5 mL each <b>Examinations:</b> Total IgE, specific IgEs, allergen mixes and allergen components	<b>Notes:</b> Participation is not possible for less than 4 rounds in a year. Should be ordered by <b>November 13<sup>th</sup>, 2017</b> . All samples are distributed in February.											
<b>2680 Eosinophil cationic protein</b>			■		■	■		■		■		■
<b>Specimens:</b> 1 lyophilized human serum sample, 0.3 mL <b>Examinations:</b> ECP	<b>Notes:</b> Results are processed in connection with total IgE results of scheme 2670.											
<b>2685 Tryptase [UK NEQAS]</b>		■		■	■		■		■		■	
<b>Specimens:</b> 2 liquid human serum samples <b>Examinations:</b> Tryptase	<b>Notes:</b> Participation is not possible for less than 6 rounds in a year. Should be ordered by <b>November 13<sup>th</sup>, 2017</b> .											

## Clinical chemistry » Basic chemistry

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2100 Basic chemistry, POCT analyzers</b>		■			■			■			■	
<b>Specimens:</b> 2 human serum samples, 1 mL each <b>Examinations:</b> Alanine aminotransferase, albumin, alkaline phosphatase, amylase (total and pancreatic), aspartate aminotransferase, calcium, chloride, HDL cholesterol, cholesterol, creatinekinase, creatinine, gamma glutamyltransferase, glucose, lactate dehydrogenase, magnesium, phosphorus, potassium, sodium, total protein, triglycerides, urea, uric acid	<b>Notes:</b> For clinical laboratories and POCT sites. Only for dry chemistry analyzers.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2730 Erythrocyte sedimentation rate</b>			■		■				■		■	
<b>Specimens:</b> 1 artificial blood cell suspension, 4.5 mL	<b>Examinations:</b> ESR											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2731 Erythrocyte sedimentation rate: Alifax; Greiner tube</b>			■		■				■		■	
<b>Specimens:</b> 3 test tubes containing synthetic latex solution, 3 mL each	<b>Examinations:</b> ESR											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2732 Erythrocyte sedimentation rate: Alifax; Sarstedt tube</b>			■		■				■		■	
<b>Specimens:</b> 3 test tubes containing synthetic latex solution, 3 mL each	<b>Examinations:</b> ESR											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2750 Faecal occult blood</b>	■				■				■		■	
<b>Specimens:</b> 2 preparations that include human haemoglobin, ≥ 0.5 mL each	<b>Notes:</b> For clinical laboratories and POCT sites											
<b>Examinations:</b> Detection of haemoglobin												

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2114 Haemoglobin, 1-level, POCT</b>			■		■				■		■	
<b>Specimens:</b> 1 bovine hemolysate or human whole blood control sample, 1 mL	<b>Notes:</b> Only for POCT devices. Not suitable for Diaspect.											
<b>Examinations:</b> Haemoglobin												

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2113 Haemoglobin, 3-level samples, cell counters and analyzers</b>									■			
<b>Specimens:</b> 3 human whole blood control samples, 1 mL each (low, medium and high concentration)	<b>Examinations:</b> Haemoglobin linearity with three samples. Reference values will be provided in the summary report.											
	<b>Notes:</b> For cell counters and analyzers											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2112 Haemoglobin, 3-level samples, POCT</b>									■			
<b>Specimens:</b> 3 bovine or human samples, 1 mL each (low, medium and high concentration)	<b>Examinations:</b> Haemoglobin linearity with three samples											
	<b>Notes:</b> Only for POCT devices. Not suitable for Diaspect.											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1002 Haemoglobin for analyzers</b>		■		■		■		■		■		■
<b>Specimens:</b> 2 hemolyzed samples, 1 mL	<b>Notes:</b> Order product 2114 for POCT Hb meters.											
<b>Examinations:</b> Haemoglobin												

## Clinical chemistry » Cardiac markers

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1541 CRP, low concentration</b>		■		■		■			■		■	
<b>Specimens:</b> 1 human serum sample	<b>Notes:</b> CRP, low concentration sample is included in product 2541 Myocardial markers and CRP											
<b>Examinations:</b> CRP												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2540 Myocardial markers</b>		■		■		■			■		■	
<b>Specimens:</b> 2 fresh human samples or 2 liquid samples, 0.5–1 mL each	<b>Notes:</b> Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT.											
<b>Examinations:</b> CK MB mass, myoglobin, quantitative troponin I, quantitative troponin T												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2541 Myocardial markers and CRP, low concentration</b>		■		■		■			■		■	
<b>Specimens:</b> 2 fresh human samples or 2 liquid samples for myocardial markers, 0.5–1 mL each and 1 for CRP, 1 mL <b>Examinations:</b> CK-MB mass, myoglobin, quantitative troponin I, quantitative troponin T and CRP, low concentration	<b>Notes:</b> Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2690 Natriuretic peptides 1, B-type, NT-ProBNP</b>	■			■			■			■		
<b>Specimens:</b> 2 lyophilized or liquid samples, 1–2 mL each <b>Examinations:</b> NT-ProBNP	<b>Notes:</b> Suits both clinical laboratories and POCT sites. Also suitable for Roche Cardiac Reader and Cobas h232.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2691 Natriuretic peptides 2, B-type, BNP</b>	■			■			■			■		
<b>Specimens:</b> 2 lyophilized or liquid samples, 1–2 mL each <b>Examinations:</b> BNP	<b>Notes:</b> For clinical laboratories and POCT sites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2530 Troponin I and Troponin T, detection, POCT</b>		■		■		■			■		■	
<b>Specimens:</b> 2 fresh human samples or 2 liquid samples, 0.5 mL each <b>Examinations:</b> Detection of troponin I and troponin T	<b>Notes:</b> Qualitative, semi-quantitative and quantitative results are processed. This scheme is only for POCT, scheme 2540 is for analyzers.											

## Clinical chemistry » Diabetes analysis

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2570, 2580, 2590 Glucose meters 1, 2 and 3</b>		■			■				■		■	
<b>Device specific product codes:</b> 2570 for all glucose meters except Contour, HemoCue and On Call Plus 2580 for HemoCue meters 2590 for Contour meters <b>Specimens:</b> 1 whole blood or plasma sample	<b>Examinations:</b> Glucose <b>Notes:</b> For clinical laboratories and POCT sites. Observe device specific product codes. 5 results processed with one order.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1261 Haemoglobin A1c, liquid samples</b>		■		■		■		■		■		■
<b>Specimens:</b> 2 liquid blood samples, 0.5 mL each <b>Examinations:</b> HbA1c	<b>Notes:</b> Result processing in IFCC and DCCT units. Not suitable for Afinion instruments.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1263 Haemoglobin A1c, liquid samples, POCT</b>				■		■				■		■
<b>Specimens:</b> 2 liquid blood samples, 0.5 mL each <b>Examinations:</b> HbA1c	<b>Notes:</b> Result processing in IFCC and DCCT units. Only for POCT devices. Not suitable for Afinion instruments.											

## Clinical chemistry » Endocrinology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2221 Down's syndrome screening, quality assurance</b>				■								
<b>Specimens:</b> No sample analysis involved	<b>Examinations:</b> Patient results are collected from risk management software (e.g. LifeCycle, Prisca) anonymously for data analysis. Will be delivered only if the number of participants is at least 10.											



	1	2	3	4	5	6	7	8	9	10	11	12
<b>2300, 2300S</b> Hormones A: Basic analytes of hormone and immunochemistry		■		■	■	■		■		■	■	■
<b>Specimens:</b> 2 human serum samples with differing concentrations, 3 mL each. Liquid serum sample (one level) included in Apr and Oct rounds. Pre- and/or post-analytical cases in part of the rounds.												
<b>Examinations:</b> Digoxin, ferritin, folate, hCG (total, intact), T3, free T3, T4, free T4, TSH, vitamin B12, active vitamin B-12, pre- and/or post-analytical indicators												
<b>Notes:</b> 2300S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. For additional set of samples, order scheme 1300.												

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1300</b> Hormones A, extra set of samples		■		■	■	■		■		■	■	■
<b>Specimens:</b> 2 human serum samples, 3 mL each												
<b>Notes:</b> Only in connection with scheme 2300												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2301, 2301S</b> Hormones B: Steroid and peptide hormones		■		■		■		■		■		■
<b>Specimens:</b> 2 human serum samples with differing concentrations, 3 mL each. Liquid serum sample (one level) included in Apr, Aug and Dec rounds. Pre- and/or postanalytical cases in part of the rounds.												
<b>Examinations:</b> Androstenedione, aldosterone, C-peptide, cortisol, DHEAS, estradiol, FSH, gastrin, growth hormone, IGF-1, insulin, LH, progesterone, 17-OH-progesterone, prolactin, SHBG, testosterone, free testosterone, TBG, pre- and/or post-analytical indicators												
<b>Notes:</b> Reference values for 1 analyte in liquid serum will be provided. 2301S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes. For additional set of samples, order scheme 1301.												

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1301</b> Hormones B, extra set of samples		■		■		■		■		■		■
<b>Specimens:</b> 2 human serum samples, 3 mL each												
<b>Notes:</b> Only in connection with scheme 2301												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2250</b> Parathyroid hormone			■							■		
<b>Specimens:</b> 2 lyophilized human serum samples, 1 mL each												
<b>Examinations:</b> PTH												

## Clinical chemistry » General long-term clinical chemistry

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1031</b> DayTrol, human serum	■	■	■	■	■	■	■	■	■	■	■	■
<b>Specimens:</b> 1 lyophilized human serum sample, 5 mL												
<b>Examinations:</b> Alanine aminotransferase, albumin, alkaline phosphatase, amylase, aspartate aminotransferase, bilirubin, calcium, chloride, cholesterol, cholesterol HDL, creatine phosphokinase, creatinine, gamma-glutamyltransferase, glucose, iron, lactate, lactate dehydrogenase, lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium, thyreotropin, thyroxine, thyroxine free, transferrin, transferrin receptor, triglycerides, urea, uric acid												
<b>Notes:</b> Minimum order quantity of 10 bottles per year. Monthly processing of results included.												

## Clinical chemistry » General short-term clinical chemistry

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2020</b> C-reactive protein (CRP) for analyzers												
See specific proteins, page 12												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1072, 1072S</b> Serum A, lyophilized samples	■	■	■	■	■	■	■	■	■	■	■	■
<b>Specimens:</b> Lyophilized serum sample, 3–5 mL each, samples are selected to cover a wide concentration range. Pre- and/or post-analytical cases in part of the rounds.												
<b>Examinations:</b> Alanine aminotransferase, albumin, alkaline phosphatase, alpha-1-antitrypsin, alpha-1-glykoprotein, amylase, amylase (pancreatic), aspartate aminotransferase, bilirubin, calcium, calcium (ionized, actual), calcium (ionized, pH 7.4), chloride, cholesterol, cholesterol HDL, cholesterol LDL, copper, cortisol, creatine phosphokinase, creatinine, ferritin, gamma-glutamyltransferase, glucose, haptoglobin, IgA, IgE, IgG, IgM, iron, lactate, lactate dehydrogenase, lithium, magnesium, oroso-mucoid, osmolality, phosphorus, potassium, protein, selenium, sodium, thyreotropin, thyroxine, thyroxine free, TIBC, transferrin, transferrin receptor, triglycerides, tri-iodio-thyronine, urea, uric acid, zinc, pre- and/or post-analytical indicators												
<b>Notes:</b> Samples for multiple rounds shipped simultaneously. Monthly processing of results included. 1072S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes.												

EQA<sup>3</sup>

1 2 3 4 5 6 7 8 9 10 11 12

**2050 Serum B and C (2-level)**

**Specimens:** 2 liquid human serum samples covering a wide concentration range, 3–5 mL each

**Examinations:** Alanine aminotransferase, albumin, alfa-1-antitrypcine, alfa-1-glycoprotein, alkaline phosphatase, amylase, pancreas amylase, aspartate aminotransferase, bilirubin, ferritin, phosphate, glucose, glutamyltransferase, haptoglobin, IgA, IgE, IgG, IgM, potassium, calcium, ionized calcium, ionized calcium pH corrected (7.4), chloride, cholesterol,

HDL cholesterol, LDL cholesterol, cortisol, creatine kinase, creatinine, copper, lactate, lactate dehydrogenase, lipase, lithium, magnesium, sodium, osmolality, protein, iron binding capacity, iron, selenium, zinc, transferrin, transferrin receptor, triglycerides, tri-iodio-thyronine, thyrotropin, tyroxine, free tyroxine, urea, uric acid

**Notes:** Reference values for common analytes are included

1 2 3 4 5 6 7 8 9 10 11 12

**2610 Acid-base status and electrolytes**

**Specimens:** 3 buffered artificial samples, 2.5 mL each. Pre- and/or post-analytical cases in part of the rounds.

**Examinations:** Chloride, creatinine, glucose, ionized calcium, ionized magnesium, lactate, pCO<sub>2</sub>, pH, pO<sub>2</sub>, potassium, sodium, urea, base excess, HCO<sub>3</sub>, pre- and/or post-analytical cases

**Notes:** Order own sample set for each analyzer. For clinical laboratories and POCT sites.

POCT  
EQA<sup>3</sup>

1 2 3 4 5 6 7 8 9 10 11 12

**2510 Alcohol in blood: Ethanol + methanol + isopropanol**

**Specimens:** Ethanol: 2-level whole blood samples. Methanol and isopropanol: 1-level whole blood samples.

**Examinations:** Ethanol, methanol, isopropanol

1 2 3 4 5 6 7 8 9 10 11 12

**2516 Alcohol in blood: Ethylene glycol in whole blood**

**Specimens:** 1-level whole blood samples

**Examinations:** Ethylene glycol

1 2 3 4 5 6 7 8 9 10 11 12

**2511 Alcohol in serum: Ethanol + methanol + isopropanol**

**Specimens:** Ethanol: 2-level serum samples. Methanol and isopropanol: 1-level serum samples.

**Examinations:** Ethanol, methanol, isopropanol

1 2 3 4 5 6 7 8 9 10 11 12

**2517 Alcohol in serum: Ethylene glycol in serum**

**Specimens:** 1-level serum samples

**Examinations:** Ethylene glycol

1 2 3 4 5 6 7 8 9 10 11 12

**2105 Ammonium ion**

**Specimens:** 2 serum based or buffered samples

**Examinations:** Ammonium ion

1 2 3 4 5 6 7 8 9 10 11 12

**2210 Angiotencin convertase (ACE)**

**Specimens:** 1 liquid and 1 lyophilized human serum sample, 1 mL each

**Examinations:** ACE

1 2 3 4 5 6 7 8 9 10 11 12

**2520 Bile acids**

**Specimens:** 2 pooled human serum samples, 0.5 mL each

**Examinations:** Bile acids

1 2 3 4 5 6 7 8 9 10 11 12

**2109 Bilirubin, conjugated**

**Specimens:** 2 lyophilized or liquid samples

**Examinations:** Total bilirubin, conjugated bilirubin

Clinical chemistry » **Special chemistry**

2040 Bilirubin, neonatal	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples, 1-3 mL	Examinations: Bil, neo											
8702 Chromogranin A [NKK]	1 time											
Specimens: 3 genuine human serum samples												
8805 Cystatin C [DEKS]	2 times											
Specimens: 2 human plasma samples with reference target values, 0.75 mL each	Examinations: P-Cystatin C Notes: Participation is not possible for less than 2 rounds a year											
2370 Folate, erythrocytes	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 human whole blood sample, 1 mL each	Examinations: Blood folate and erythrocyte folate											
2150 Haemoxymeters	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples, 0.5 mL each Examinations: FO2Hb, FCOHb, FMETHb, ctHb, sO2	Notes: Order own sample set for each analyzer											
8816 Homocysteine [DEKS]	5 times											
Specimens: 2 human plasma or serum samples Examinations: P-Homocysteine	Notes: Participation is not possible for less than 5 rounds in a year											
8815 Methyl malonate [DEKS]	5 times											
Specimens: 2 human serum samples Examinations: P-Methyl-malonate	Notes: Participation is not possible for less than 5 rounds in a year											
2651 Nasal swab cells	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images of MGG and methylene eosin stained samples	Examinations: Eosinophils, neutrophils											
2652 Sputum cells	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 4 digital images of MGG and methylene eosin stained samples	Examinations: Eosinophils, neutrophils											
2640 Synovial fluid crystals	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 slides prepared from patient samples	Examinations: Sodium urate monohydrate and calcium pyrophosphate dihydrate crystals											
2410 Therapeutic drugs	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid or lyophilized human serum samples, volume 5 mL each Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline,	paracetamol (acetaminophen), phenobarbital, phenytoin, phenytoin free, primidone, procainamide, quinidine, salicylate, theophylline, tobramycin, tricyclics, valproic acid, valproic acid free, vancomycin											

1 2 3 4 5 6 7 8 9 10 11 12

**2480 Vitamin A, E and D metabolites**

**Specimens:** 2 liquid human serum samples, 1 mL each  
**Examinations:** Vitamin A, vitamin E, 25(OH)D, 1,25(OH)2D

**Notes:** Target values for 25(OH)D vitamin metabolite are provided.

1 2 3 4 5 6 7 8 9 10 11 12

**2481 Vitamin A, E and D metabolites, extra set of samples**

**Specimens:** 2 liquid human serum samples, 5 mL each

**Notes:** Only in connection with scheme 2480

Clinical chemistry » **Specific proteins**

1 2 3 4 5 6 7 8 9 10 11 12

**2020 C-reactive protein (CRP) for analyzers**

**Specimens:** 2 liquid serum or plasma samples  
**Examinations:** CRP

**Notes:** Scheme is designed only for clinical chemistry analyzers. Order scheme 2132 for POCT CRP meters.

1 2 3 4 5 6 7 8 9 10 11 12

POCT

**2132 C-reactive protein (CRP), POCT**

**Specimens:** 2 human serum samples, 1 mL each  
**Examinations:** CRP

**Notes:** Only for **quantitative POCT** CRP meters

1 2 3 4 5 6 7 8 9 10 11 12

**2140 Decialotransferrin [EQUALIS]**

**Specimens:** 2 human plasma samples, varying concentration of CDT  
**Examinations:** CDT

**Notes:** Participation is not possible for less than 6 rounds in a year

1 2 3 4 5 6 7 8 9 10 11 12

**2751 Faecal calprotectin**

**Specimens:** 2 lyophilized faecal specimens, 0.5 mL each

**Examinations:** Calprotectin

1 2 3 4 5 6 7 8 9 10 11 12

EQA<sup>3</sup>

**2200 Lipids and lipoproteins**

**Specimens:** 2 fresh human serum samples, 0.5-1 mL each. Pre- and/or post-analytical cases in part of the rounds.

**Examinations:** Cholesterol, HDL cholesterol, LDL cholesterol, lipoprotein apo A1, lipoprotein apo A2, lipoprotein apo B, lipoprotein (a), triglycerides, pre- and/or post-analytical indicators

**Notes:** Separate round for Lp(a), see scheme 2202

1 2 3 4 5 6 7 8 9 10 11 12

**2202 Lipoprotein a**

**Specimens:** 1 liquid or lyophilized human serum preparation

**Examinations:** Lp(a)

1 2 3 4 5 6 7 8 9 10 11 12

**2280 Procalcitonin**

**Specimens:** 2 lyophilized samples  
**Examinations:** Procalcitonin

**Notes:** Only for **quantitative** methods

1 2 3 4 5 6 7 8 9 10 11 12

**2160 Proteins in cerebrospinal fluid**

**Specimens:** 1 cerebrospinal fluid, 1.8 mL and 1 human serum sample, 1 mL

**Examinations:** Cerebrospinal fluid: Albumin, IgG, total protein, IgG index.  
 Serum: Albumin, IgG.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2240 Proteins, electrophoresis</b>		■			■			■			■	
<b>Specimens:</b> 2 liquid or lyophilized human serum samples, 0.5–1 mL each. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Electrophoresis, contains immunofixation, pre- and/or post-analytical indicators											

EQA 3

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2230 Proteins, immunochemical determinations</b>	■			■		■			■			
<b>Specimens:</b> 2 liquid or lyophilized human serum samples, 1 mL each <b>Examinations:</b> Alpha-1-antitrypsin, alpha-2-macroglobulin, albumin, ceruloplasmin, complement C3, complement C4, haptoglobin, hemopexin,	IgA, IgG, IgLcKappa, IgLcLambda, IgLcKappa free, IgLcLambda free, IgM, orosomucoid, pre-albumin, RBP, transferrin, transferrin receptor											

## Clinical chemistry » Tumour markers

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2226 Prostate specific antigen</b>		■		■			■			■		
<b>Specimens:</b> 2 liquid human serum samples, 1 mL each	<b>Examinations:</b> PSA, complexed PSA, free PSA, free/total PSA ratio											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2700, 2700S Tumour markers</b>		■			■			■			■	
<b>Specimens:</b> 2 liquid human serum samples, 2 mL each <b>Examinations:</b> AFP, CA 125, CA 153, CA 199, CEA, ferritin, hCG (total, intact, beta-subunit), PSA, PSA free, PSA free/total index, TG, TG antibodies, beta-2-microglobulin, Anti-Müllerian hormone, NSE, HE4	<b>Notes:</b> 2700S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2701 Tumour markers, extra set of samples</b>		■			■			■			■	
<b>Specimens:</b> 2 liquid human serum samples, 2 mL each	<b>Notes:</b> Only in connection with scheme 2700											

## Clinical chemistry » Urine analysis

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3240 Albumin and creatinine in urine</b>				■						■		
<b>Specimens:</b> 2 liquid human urine samples with spiked albumin and creatinine, 4 mL each	<b>Examinations:</b> Albumin, creatinine, albumin-creatinine ratio <b>Notes:</b> Only for quantitative methods											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3300 Drug abuse screening in urine</b>		■				■			■			
<b>Specimens:</b> 2 authentic samples, 5 mL each <b>Examinations:</b> alpha PVP, amphetamines, barbiturates, benzo-diazepines, buprenorphine, cannabinoids, carbamazepine, cocaine metabolites, codeine, gammahydroxybutyrate, LSD, MDMA+MDA (Ecstasy), MDPV, metaqualone, methadone metabolites, morphine, opiates, oxycodone, paracetamol, phencyclidine, phentanyle, propoxyphene, salicylate, tramadol, tricyclic antidepressants	<b>Notes:</b> For clinical laboratories and POCT sites. Expert laboratory confirmatory results are provided. Results are reported as positive or negative.											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3270 Pregnancy test</b>			■		■				■		■	
<b>Specimens:</b> 2 fresh urine samples, 1 mL each <b>Examinations:</b> Qualitative hCG	<b>Notes:</b> For clinical laboratories and POCT sites											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3200 Urine, identification of cells and other particles</b>		■			■			■			■	
<b>Specimens:</b> 4 digital images <b>Examinations:</b> Identification of cells and other particles	<b>Notes:</b> Images are also available as paper prints, see scheme 3201											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3201</b> Urine, identification of cells and other particles, paper prints		■			■			■			■	
<b>Specimens:</b> Images of scheme 3200 as paper prints	<b>Notes:</b> Only in connection with scheme 3200											
<b>3160</b> Urine, quantitative chemistry			■		■				■			■
<b>Specimens:</b> 1 lyophilized or liquid urine, 8–10 mL	<b>Examinations:</b> Albumin, amylase, calcium, chloride, cortisol-free, creatinine, glucose, inorganic phosphate, magnesium, osmolality, pH, potassium, protein, relative density, sodium, urea, uric acid											
<b>3100</b> Urine, strip test A		■		■				■		■		
<b>Specimens:</b> 1 lyophilized urine sample with varying concentrations, 15 mL <b>Examinations:</b> Glucose, ketones, leukocytes, nitrite, pH, protein, blood, relative density	<b>Notes:</b> For clinical laboratories and POCT sites. Water for dissolution available, see scheme 3101, should be ordered separately.											
<b>3101</b> Urine strip test A, 15 mL water for sample dissolution		■		■				■		■		
<b>Specimens:</b> 15 mL water for dissolution of samples of scheme 3100	<b>Notes:</b> Only in connection with scheme 3100											
<b>3130</b> Urine, strip test B, particle count and estimation of density			■		■				■			■
<b>Specimens:</b> 1 lyophilized or liquid urine, 12–15 mL <b>Examinations:</b> Particle count: erythrocytes and leukocytes. Estimation of density: creatinine, relative density, osmolality. Strip tests: glucose, ketones, leukocytes, nitrite, pH, protein, blood.	<b>Notes:</b> Also suitable for automatic analyzers (erythrocytes and leukocytes counting). The arbitrary concentrations of the obtained strip test results will only be collected in order to avoid different groupings of positive categories used by different strip tests and user laboratories. Water for dissolution of the lyophilized sample available, see scheme 3131, should be ordered separately.											
<b>3131</b> Urine, strip test B, 15 mL water for sample dissolution			■						■			
<b>Specimens:</b> 15 mL water for dissolution of lyophilized samples of scheme 3130	<b>Notes:</b> Only in connection with scheme 3130											

## EQA schemes for **blood banks**

### Blood transfusion serology

- 4420 ABO and Rh grouping
- 4460 Antibody screening and compatibility testing
- 4440 Antiglobulin test, direct
- 4480 Blood grouping, gel cards, virtual scheme (trial)

### Bacterial serology

- 5880 Syphilis serology

### Bacteriology

- 5100 Blood culture
- 5101 Blood culture, screening

### Virology, serological tests

- 5650 Cytomegalovirus, antibodies
- 5092 Hepatitis A, antibodies
- 5093 Hepatitis B, s-antigen antibodies, quantitative
- 5094–5096 Hepatitis B and C, serology
- 5091 HIV, antibodies
- 5089 Human T-cell lymphotropic virus, antibodies
- 5660 Parvovirus B19, antibodies

### Virology, molecular tests

- 5679 Hepatitis B virus, nucleic acid detection (DNA)
- 5678 Hepatitis C virus, nucleic acid detection (RNA)
- 5680 HIV-1, nucleic acid detection (RNA)

# Haematology

The haematology offering consists of schemes for blood transfusion serology, cell count and morphology as well as coagulation tests. Specialties include the Erythrocyte sedimentation rate for Alifax as well as the White blood cell count and INR schemes for POCT. Units performing blood transfusions find EQA schemes for hepatitis B and C, HIV as well as other infectious diseases under the microbiology portfolio.

## Haematology » Blood transfusion serological tests

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>4420 ABO and Rh grouping</b>		■			■			■			■		EQA <sup>3</sup>
<b>Specimens:</b> 2 whole blood samples. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> ABO & Rh reactivity and interpretation, pre- and/or post-analytical indicators												
<b>4460 Antibody screening and compatibility testing</b>		■			■			■			■		EQA <sup>3</sup>
<b>Specimens:</b> 2 whole blood samples and 4 red blood cell suspensions. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Reaction strengths and interpretation, pre- and/or post-analytical indicators												
<b>4440 Antiglobulin test, direct</b>		■			■			■			■		EQA <sup>3</sup>
<b>Specimens:</b> 2 red blood cell suspensions. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Reaction strengths and interpretation, pre- and/or post-analytical indicators												
<b>4480 Blood grouping, gel cards, virtual scheme</b>										■			
<b>Specimens:</b> 3-5 cases and digital images	<b>Notes:</b> Post-analytical scheme												
<b>Examinations:</b> Interpretation of the cases and reaction strengths of the digital images													

## Haematology » Cell count and cell morphology

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>4100 Basic blood count, one specimen</b>	■	■	■	■	■	■	■	■	■	■	■	■	
<b>Specimens:</b> 1 blood cell suspension	<b>Examinations:</b> Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV												
<b>4110 Basic blood count, two specimens</b>	■	■	■	■	■	■	■	■	■	■	■	■	
<b>Specimens:</b> 2 blood cell suspensions	<b>Examinations:</b> Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV												
<b>4180 Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy</b>					■					■			VIRTUAL
<b>Specimens:</b> 2-3 patient cases as virtual slide images	<b>Examinations:</b> Leucocyte differential count and evaluation of red blood cells												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4200–4201 Leucocyte differential count, 3-part, automated</b>			■			■			■			■
<b>Specimens:</b> 1 blood cell suspension, 2–4 mL	<b>Analyzer specific product codes:</b>											
<b>Examinations:</b> Absolute numbers of leucocytes, lymphocytes, mononuclear cells and granulocytes	4200: ABX, Advia, Cell-Dyn, Coulter, Nihon Kohden Celltac MEK 4201: Sysmex											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4230–4238 Leucocyte differential count, 5-part, automated</b>			■			■			■			■
<b>Specimens:</b> 1 blood cell suspension, 2–4 mL	<b>Analyzer specific product codes:</b>											
<b>Examinations:</b> Leucocytes, basophils, eosinophils, granulocytes, lymphocytes and monocytes	4238: Abacus 4234: ABX Pentra 4231: Cell-Dyn 4232: Coulter 4235: Coulter ACT5-diff 4236: Mindray 4237: Nihon Kohden Celltac MEK 4230: Siemens Advia 4233: Sysmex XE, XS, XT, XN											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5430 Malaria, antigen and nucleic acid detection</b>		■			■			■			■	
<b>Specimens:</b> 3 whole blood samples	<b>Notes:</b> For clinical laboratories and POCT sites											
<b>Examinations:</b> Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5460 Parasites in blood, Giemsa stain</b>		■			■			■			■	
<b>Specimens:</b> 2 Giemsa stained smears. Brief case histories are also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5470 Parasites in blood, Giemsa stain, virtual microscopy</b>										■		
<b>Specimens:</b> Virtual whole slide images of Giemsa stained smears prepared by using a scanner microscope. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5461 Parasites in blood, May-Grünwald-Giemsa stain</b>		■			■			■			■	
<b>Specimens:</b> 2 May-Grünwald-Giemsa stained smears. Brief case histories are also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5471 Parasites in blood, May-Grünwald-Giemsa stain, virtual microscopy</b>										■		
<b>Specimens:</b> Virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories are also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4150–4155 Reticulocyte count, automated</b>			■			■			■			■
<b>Specimens:</b> 2 stabilized red blood cell suspensions, 2–4 mL each	<b>Analyzer specific product codes:</b>											
<b>Examinations:</b> Reticulocyte count	4154: ABX Pentra 4151: Cell-Dyn 4000, Sapphire 4155: Cell-Dyn 3200, 3500, 3700, Ruby 4152: Coulter Gens, LH750 4150: Siemens Advia 4153: Sysmex											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4140 Reticulocyte count, manual methods</b>			■			■			■			■
<b>Specimens:</b> 1 stabilized red blood cell suspension, 2 mL	<b>Examinations:</b> Reticulocyte count											



	1	2	3	4	5	6	7	8	9	10	11	12
<b>4130 White blood cell count: HemoCue, POCT</b>			■						■			
<b>Specimens:</b> 1 blood cell suspension, 2 mL <b>Examinations:</b> Leucocytes	<b>Notes:</b> The scheme is for HemoCue WBC Systems											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4190 White blood cell differential count: HemoCue, POCT</b>						■						■
<b>Specimens:</b> 1 blood cell suspension, 2 mL <b>Examinations:</b> Leucocytes, neutrophils, lymphocytes, monocytes, basophils, eosinophils	<b>Notes:</b> The scheme is for HemoCue WBC Diff analyzers (5-part)											

POCT

## Haematology » Coagulation

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4330 Activated partial thromboplastin time and fibrinogen</b>		■			■			■			■	
<b>Specimens:</b> 2 lyophilized plasma samples, 0.5–1 mL each	<b>Examinations:</b> Coagulation time in seconds, fibrinogen											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4387 Anticoagulants: LMW-Heparin/antiFXa</b>		■			■			■			■	
<b>Specimens:</b> 2 lyophilized plasma samples, 0.5–1 mL each	<b>Examinations:</b> LMW-heparin/antiFXa											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4391 Anticoagulants: Rivaroxaban</b>					■						■	
<b>Specimens:</b> 2 lyophilized plasma samples	<b>Examinations:</b> Rivaroxaban concentration											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4388 D-dimer</b>		■			■			■			■	
<b>Specimens:</b> 2 pooled plasma samples, 0.5–1 mL each. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> D-Dimer, pre- and/or post-analytical indicators <b>Notes:</b> For clinical laboratories and POCT sites											

EQa<sup>3</sup>  
POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4339 INR, CoagSense, POCT</b>					■						■	
<b>Specimens:</b> 1 lyophilized plasma sample <b>Examinations:</b> Prothrombin time in INR unit	<b>Notes:</b> Only for CoagSense meter											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4335 INR, CoaguChek, i-STAT and Siemens Xprexia, POCT</b>					■						■	
<b>Specimens:</b> 1 lyophilized or liquid plasma sample <b>Examinations:</b> Prothrombin time in INR unit	<b>Notes:</b> Only for CoaguChek, i-STAT and Siemens Xprexia meters											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4337 INR, EuroLyzer, POCT</b>					■						■	
<b>Specimens:</b> 1 lyophilized plasma sample <b>Examinations:</b> Prothrombin time in INR unit	<b>Notes:</b> Only for EuroLyzer INR meter											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4338 INR, MicroINR, POCT</b>					■						■	
<b>Specimens:</b> 1 lyophilized plasma sample <b>Examinations:</b> Prothrombin time in INR unit	<b>Notes:</b> Only for microINR meter											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>POCT</b>	<b>4336 POCT INR evaluation scheme</b>											
	<b>Specimens:</b> Lyophilized or liquid plasma sample/samples						<b>Notes:</b> Scheme is designed for evaluation of several new POCT INR meters at the same time.					
	<b>Examinations:</b> Prothrombin time in INR unit											
					■	■	■	■	■	■	■	■
	<b>4300 Prothrombin time</b>											
	<b>Specimens:</b> 2 lyophilized plasma samples, 0.5–1 mL each						<b>Examinations:</b> Prothrombin time, PT%					
		■			■			■			■	
	<b>4386 Special coagulation</b>											
	<b>Specimens:</b> 2 lyophilized plasma samples, 0.5–1 mL each						<b>Examinations:</b> Antithrombin, Factor VIII, Protein C, Protein S					
		■			■			■			■	

## EQA services for POCT sites

Patient outcome is associated with obtaining a reliable test result regardless of where the testing is performed. To ensure quality of care and patient safety, it is imperative that point-of-care testing (POCT) is subjected to the same quality requirements as conventional laboratory analyses.

Labquality offers a range of EQA schemes suitable for POCT sites. These services are intended for all testing units including home/community nursing, hospital wards, pediatric clinics, surgical units, occupational healthcare, outpatient clinics and medical centers.

### Clinical chemistry

- 2610 Acid-base status and electrolytes
- 3240 Albumin and creatinine in urine
- 2100 Basic chemistry, POCT analyzers
- 2132 C-reactive protein (CRP), POCT
- 3300 Drug abuse screening in urine
- 2750 Faecal occult blood
- 2570, 2580, 2590 Glucose meters 1, 2 and 3
- 1263 Haemoglobin A1c, liquid samples, POCT
- 2114 Haemoglobin, 1-level, POCT
- 2112 Haemoglobin, 3-level samples, POCT
- 2690 Natriuretic peptides 1, B-type, NT-ProBNP
- 2691 Natriuretic peptides 2, B-type, BNP
- 3270 Pregnancy test
- 2530 Troponin I and Troponin T, detection, POCT
- 3100 Urine, strip test A

### Haematology

- 4388 D-Dimer
- 4339 INR, CoagSense, POCT

- 4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT
- 4337 INR, EuroLyzer, POCT
- 4338 INR, MicroINR, POCT
- 5430 Malaria, antigen and nucleic acid detection
- 4336 POCT INR evaluation scheme
- 4130 White blood cell count: HemoCue, POCT
- 4190 White blood cell differential count: HemoCue, POCT

### Microbiology

- 5640 EBV mononucleosis, heterophile antibodies
- 5596 *Helicobacter pylori*, antigen detection in faeces
- 5090 HIV, antibodies, POCT
- 5671 Influenza virus A+B, antigen detection
- 5597 Legionella, antigen detection in urine
- 5430 Malaria, antigen and nucleic acid detection
- 5980 *Mycoplasma pneumoniae*, antibodies
- 5560 Puumala virus, antibodies
- 5672 RS virus, antigen detection
- 5595 *Streptococcus*, group A, antigen detection
- 5594 *Streptococcus*, group B (GBS), detection
- 5598 *Streptococcus pneumoniae*, antigen detection in urine
- 5099 Tick-borne encephalitis virus, antibodies
- 5474 *Trichomonas vaginalis*, antigen detection

### Preanalytics

- 7801 Preanalytics, phlebotomy
- 7804 Preanalytics, POCT

# Immunology

This program includes schemes for immunodiagnostic tests such as those for coeliac disease, rheumatoid factor and thyroid gland autoantibodies. All of the schemes involve analysis of liquid human serum or plasma samples. For allergy diagnostics, review the allergology program in the clinical chemistry portfolio.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5935 ANCA and GbmAb</b>		■						■				
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.5 mL each		<b>Notes:</b> Quantitative results are also processed (Pr3Ab, MPOAb)										
<b>Examinations:</b> Anti-neutrophilic cytoplasmic Ab, Myeloperoxidase Ab, Proteinase-3 Ab and Glomerular basement membrane Ab												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5900 Antinuclear antibodies</b>				■						■		
<b>Specimens:</b> 3 liquid human serum or plasma samples, 0.6 mL each		<b>Notes:</b> Extractable antinuclear antigens and double-stranded deoxyribonucleic acid are included										
<b>Examinations:</b> ANA, ENAAb, RNPAb, SmAb, SSAAb, SSBAb, Scl70Ab, CentAb, Jo1Ab, DNAnAb (dsDNA), HistAb												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5938 Autoimmune diagnostics, IFA interpretation</b>					■							
<b>Specimens:</b> 3–5 cases (digital images)		<b>Examinations:</b> Interpretation										

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5930 Autoimmune liver disease and gastric parietal cell antibodies</b>					■						■	
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.4 mL each		<b>Examinations:</b> Liver kidney microsomal antibodies, Smooth muscle antibodies, Mitochondrial antibodies, Gastric parietal cell antibodies										

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5940 Coeliac disease, antibodies</b>		■				■				■		
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.7 mL each. Pre- and/or post-analytical cases in part of the rounds.		<b>Notes:</b> Quantitative results are also processed (tTGAbA, tTGAbG, DGPAbA, DGPAbG). Scheme is not suitable for POC tests.										
<b>Examinations:</b> Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, pre- and/or post-analytical indicators												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5937 Phospholipid antibodies</b>					■							
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.5 mL each		<b>Notes:</b> Quantitative results are also processed										
<b>Examinations:</b> Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM), beta-2-glycoprotein antibodies (IgG and IgM).												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5820 Rheumatoid factor and citrullinic peptide antibodies</b>	■			■			■			■		
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.7 mL each		<b>Examinations:</b> Qualitative and quantitative RF, CCPAb										

EOA<sup>3</sup>

1 2 3 4 5 6 7 8 9 10 11 12

5920 Thyroid gland antibodies

		■			■					■		
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**Specimens:** 2 liquid human serum or plasma samples, 0.4 mL each  
**Examinations:** Thyroglobulin antibodies and thyroid peroxidase antibodies

**Notes:** Quantitative results are also processed

1 2 3 4 5 6 7 8 9 10 11 12

5913 TSH receptor antibodies

		■							■			
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**Specimens:** 2 liquid human serum samples, 0.4 mL each  
**Examinations:** Thyroid stimulating hormone receptor antibodies

**Notes:** Quantitative results are also processed



# Microbiology

The microbiological EQA programs are suitable for clinical laboratories and POCT sites performing testing in the areas of bacterial serology, bacteriology, mycology, parasitology and virology. While the selection includes schemes for antigen detection, antibody detection, culture, microscopy, and PCR tests, solutions for versatile needs are available. Authentic single donor samples are included in multiple schemes.

## Microbiology » Bacterial Serology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5840 Antistreptolysin</b>		■			■			■			■	
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.4 mL each. Authentic, commutable, single donor samples.	<b>Examinations:</b> Qualitative and quantitative ASO											
<b>5950 <i>Bordetella pertussis</i>, antibodies</b>	■			■				■			■	
<b>Specimens:</b> 2 liquid human serum samples, ≥ 0.3 mL each	<b>Examinations:</b> <i>B. pertussis</i> IgA, IgG & IgM antibodies, Pertussis toxin IgA, IgG & IgM and clinical interpretation											
<b>5960 <i>Borrelia burgdorferi</i>, antibodies, European origin</b>	■			■				■			■	
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.5 mL each. Authentic, commutable, single donor samples.	<b>Examinations:</b> <i>B. burgdorferi</i> IgG, IgM and total antibodies, clinical interpretation											
<b>5620 <i>Chlamydia pneumoniae</i>, antibodies</b>		■			■			■			■	
<b>Specimens:</b> 1 single serum and 1 paired serum samples, 0.4 mL each	<b>Examinations:</b> <i>C. pneumoniae</i> IgA, IgG, IgM antibodies, clinical interpretation											
<b>5860 <i>Helicobacter pylori</i>, antibodies</b>			■			■			■			■
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.4 mL each	<b>Examinations:</b> <i>H. pylori</i> IgA, IgG and total antibodies, quantitative and qualitative tests, clinical interpretation											
<b>5980 <i>Mycoplasma pneumoniae</i>, antibodies</b>		■			■				■		■	
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.3 mL each. Authentic, commutable, single donor samples.	<b>Examinations:</b> <i>M. pneumoniae</i> IgG, IgM and total antibodies, clinical interpretation											
	<b>Notes:</b> For clinical laboratories and POCT sites											
<b>5880 Syphilis serology</b>		■				■				■		■
<b>Specimens:</b> 2 liquid human serum samples, 0.6 mL each. Authentic, commutable, single donor samples.	<b>Examinations:</b> Cardiolipin, <i>Treponema pallidum</i> antibodies and clinical interpretation											

POCT

## Microbiology » Bacteriology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5050 Bacteriological staining, direct</b>				■						■		
<b>Specimens:</b> 3 cases, 3–9 digital images	<b>Examinations:</b> Interpretation of digital images taken from direct bacteriological staining of clinical samples											
<b>5100 Blood culture</b>			■		■					■		■
<b>Specimens:</b> 2 lyophilized samples. Brief case histories also given. Fresh blood is needed in the specimen preparation. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.	<b>Examinations:</b> Culture, identification, antimicrobial susceptibility <b>Notes:</b> Fresh blood is needed but not included in the shipment											
<b>5101 Blood culture, screening</b>			■		■					■		■
<b>Specimens:</b> 2 lyophilized samples. Brief case histories also given. Fresh blood is needed in the sample preparation.	<b>Examinations:</b> Culture, preliminary identification using Gram staining. The scheme is also suitable for stem cell banks screening only for possible growth. <b>Notes:</b> Fresh blood is needed but not included in the shipment											
<b>5150 Cerebrospinal fluid, culture</b>		■			■				■			■
<b>Specimens:</b> 2 lyophilized samples. Brief case histories also given.	<b>Examinations:</b> Culture and identification. The scheme is also suitable for laboratories performing screening and reporting merely a preliminary identification.											
<b>5612 <i>Chlamydia trachomatis</i> and <i>Neisseria gonorrhoeae</i> nucleic acid detection</b>				■		■			■			■
<b>Specimens:</b> 3 simulated swab/urine samples	<b>Examinations:</b> Detection of <i>C. trachomatis</i> and <i>N. gonorrhoeae</i> nucleic acid											
<b>5200 <i>Clostridium difficile</i>, culture and toxin detection</b>		■			■			■			■	
<b>Specimens:</b> 2 lyophilized mixtures of bacteria	<b>Examinations:</b> This scheme includes <i>C. difficile</i> culture, antigen detection (GDH), toxin detection and direct nucleic acid detection											
<b>5202 <i>Clostridium difficile</i>, extra set of samples</b>		■			■			■			■	
<b>Specimens:</b> 2 lyophilized mixtures of bacteria	<b>Notes:</b> Only in connection with scheme 5200											
<b>5201 <i>Clostridium difficile</i>, nucleic acid detection</b>		■			■			■			■	
<b>Specimens:</b> 2 lyophilized mixtures of bacteria	<b>Notes:</b> 5200 includes also this examination											
<b>5191 Faecal bacterial pathogens multiplex, nucleic acid detection</b>				■		■				■		■
<b>Specimens:</b> 2 lyophilized mixtures of bacteria	<b>Notes:</b> 5190 includes also this examination											
<b>Examinations:</b> Direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> , may also include EHEC.												

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5190 Faecal culture</b>				■		■				■		■	
<b>Specimens:</b> 2 lyophilized mixtures of bacteria	<b>Examinations:</b> Culture and direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> , may also include EHEC.												
<b>5080 General Bacteriology 1 (aerobes and anaerobes)</b>			■		■				■			■	EQA <sup>3</sup>
<b>Specimens:</b> 4 lyophilized mixtures of microbes: both pathogens and normal flora. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Brief case histories are also given. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases <b>Notes:</b> 5080 includes 5081, General Bacteriology 2												
<b>5081 General Bacteriology 2 (aerobes)</b>			■		■				■			■	EQA <sup>3</sup>
<b>Specimens:</b> 2 lyophilized mixtures of microbes: both pathogens and normal flora. The specimens intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Brief case histories are also given. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases <b>Notes:</b> 5080 General Bacteriology 1 includes 5081												
<b>5041 Gram stain, blood culture</b>	■			■			■			■			
<b>Specimens:</b> 2–3 air-dried microbe suspensions on slides	<b>Examinations:</b> Staining and microscopy												
<b>5040 Gram stain, colonies</b>	■			■			■			■			
<b>Specimens:</b> 3 air-dried, unfixed microbe suspensions on a slide	<b>Examinations:</b> Staining and microscopy												
<b>5596 <i>Helicobacter pylori</i>, antigen detection in faeces</b>			■			■			■			■	POCT
<b>Specimens:</b> 3 lyophilized faecal samples <b>Examinations:</b> Antigen detection	<b>Notes:</b> For clinical laboratories and POCT sites												
<b>5597 Legionella, antigen detection in urine</b>			■		■				■			■	POCT
<b>Specimens:</b> 3 simulated urine samples	<b>Examinations:</b> Legionella antigen detection												
<b>5220 Mycobacterial culture and stain</b>			■			■			■			■	
<b>Specimens:</b> 2 lyophilized samples and 2 fixed smears on slides	<b>Examinations:</b> Detection of <i>Mycobacterium tuberculosis</i> , <i>Mycobacterium tuberculosis</i> complex and atypical mycobacteria: culture, direct nucleic acid detection, acid-fast staining and microscopy												
<b>5221 Mycobacterial nucleic acid detection and stain</b>			■			■			■			■	
<b>Specimens:</b> 2 lyophilized samples and 2 fixed smears on slides <b>Examinations:</b> Direct nucleic acid detection, acid-fast staining and microscopy	<b>Notes:</b> 5220 includes also this examination												
<b>5240 Mycobacterial stain</b>			■			■			■			■	
<b>Specimens:</b> 2 fixed smears on slides	<b>Examinations:</b> Acid-fast staining and microscopy												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5120</b> <i>Neisseria gonorrhoeae</i> (Gc), culture and susceptibility testing			■		■			■			■	
<b>Specimens:</b> 2 lyophilized mixtures of microbes. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.	<b>Examinations:</b> Culture, identification and antimicrobial susceptibility testing. Also suitable for laboratories performing preliminary screening.											
<b>5180</b> Salmonella culture				■		■				■		■
<b>Specimens:</b> 2 lyophilized mixtures of bacteria <b>Examinations:</b> Culture	<b>Notes:</b> 5190 also includes 5180											
<b>POCT</b> <b>5595</b> <i>Streptococcus</i> group A, antigen detection			■		■				■			■
<b>Specimens:</b> 3 simulated pharyngeal samples <b>Examinations:</b> Antigen detection	<b>Notes:</b> For clinical laboratories and POCT sites											
<b>5593</b> <i>Streptococcus</i> group A, nucleic acid detection			■		■				■			■
<b>Specimens:</b> 3 simulated pharyngeal samples	<b>Examinations:</b> Nucleic acid detection											
<b>POCT</b> <b>5594</b> <i>Streptococcus</i> group B (GBS), detection				■		■			■		■	
<b>Specimens:</b> 2 lyophilized samples. Samples include pathogens and/or normal flora.	<b>Examinations:</b> Culture, direct nucleic acid detection and antigen detection											
<b>POCT</b> <b>5598</b> <i>Streptococcus pneumoniae</i> , antigen detection in urine			■		■				■			■
<b>Specimens:</b> 3 simulated urine specimens	<b>Examinations:</b> <i>S. pneumoniae</i> antigen detection											
<b>5073</b> Surveillance culture for multidrug resistant bacteria, gramnegative rods		■				■			■		■	
<b>Specimens:</b> 1 lyophilized mixture of microbes; including pathogens and/or normal flora	<b>Examinations:</b> The scheme is intended for laboratories performing screening of multidrug resistant gramnegative rods (e.g. CPE, ESBL, MDR <i>Acinetobacter</i> and <i>P. aeruginosa</i> ) by culture and/or direct nucleic acid detection method											
<b>5071</b> Surveillance culture for multidrug resistant bacteria, MRSA		■				■			■		■	
<b>Specimens:</b> 1 lyophilized mixture of microbes; including pathogens and/or normal flora	<b>Examinations:</b> The scheme is intended for laboratories performing screening of MRSA (methicillin resistant <i>Staphylococcus aureus</i> ) by culture and/or direct nucleic acid detection method											
<b>5072</b> Surveillance culture for multidrug resistant bacteria, VRE		■				■			■		■	
<b>Specimens:</b> 1 lyophilized mixture of microbes; including pathogens and/or normal flora	<b>Examinations:</b> The scheme is intended for laboratories performing screening of VRE (vancomycin-resistant enterococci) by culture and/or direct nucleic acid detection method											
<b>5140</b> Throat streptococcal culture			■		■			■			■	
<b>Specimens:</b> 3 lyophilized mixtures of bacteria	<b>Examinations:</b> Culture and identification of group A, C and G streptococci											



	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5060</b> Urine culture, quantitative screening			■			■			■			■	EQA <sup>3</sup>
<b>Specimens:</b> 2 lyophilized samples and dilutor. Brief case histories also given. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Culture and quantitation, pre-and/or post-analytical indicators												

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5065</b> Urine culture, quantitative screening, identification and susceptibility			■			■			■			■	EQA <sup>3</sup>
<b>Specimens:</b> 2 lyophilized samples and dilutor. Brief case histories also given. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains. Pre- and/or post-analytical cases in part of the rounds.	<b>Examinations:</b> Culture, quantitation, identification and antimicrobial susceptibility testing, pre-and/or post-analytical indicators												

## Microbiology » Mycology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5260</b> Fungal culture			■		■				■			■
<b>Specimens:</b> 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.	<b>Examinations:</b> Culture and identification. Antimicrobial susceptibility testing of yeast strains.											

## Microbiology » Parasitology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5472</b> <i>Giardia</i> and <i>Cryptosporidium</i> , nucleic acid detection				■						■		
<b>Specimens:</b> 3 lyophilized samples	<b>Examinations:</b> Detection of <i>Giardia lamblia</i> and/or <i>Cryptosporidium</i> nucleic acid.											

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5430</b> Malaria, antigen and nucleic acid detection		■			■			■				■	POCT
<b>Specimens:</b> 3 whole blood samples <b>Examinations:</b> Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.	<b>Notes:</b> For clinical laboratories and POCT sites												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5460</b> Parasites in blood, Giemsa stain		■			■			■				■
<b>Specimens:</b> 2 Giemsa stained smears. Brief case histories also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites											

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5470</b> Parasites in blood, Giemsa stain, virtual microscopy										■			VIRTUAL
<b>Specimens:</b> Virtual whole slide images of Giemsa stained smears prepared by using a scanner microscope. Brief case histories also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5461</b> Parasites in blood, May-Grünwald-Giemsa stain		■			■			■				■
<b>Specimens:</b> 2 MGG stained smears. Brief case histories also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites											

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5471</b> Parasites in blood, May-Grünwald-Giemsa stain, virtual microscopy										■			VIRTUAL
<b>Specimens:</b> Virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given. Authentic samples.	<b>Examinations:</b> Screening and identification of malaria plasmodia and other blood parasites												

1 2 3 4 5 6 7 8 9 10 11 12

**5440 Parasites in faeces**

**Specimens:** 3 stool samples in formalin. Brief case histories also given.

**Examinations:** Screening and identification of intestinal parasites (ova and parasites)

1 2 3 4 5 6 7 8 9 10 11 12

**5450 Parasites in faeces, virtual microscopy**

**Specimens:** Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.

**Examinations:** Screening and identification of intestinal parasites (ova and parasites)

1 2 3 4 5 6 7 8 9 10 11 12

**5420 Toxoplasma, antibodies**

**Specimens:** 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given. Authentic commutable samples: Each sample batch originates from a single human donor.

**Examinations:** Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity and clinical interpretation

1 2 3 4 5 6 7 8 9 10 11 12

**5474 *Trichomonas vaginalis*, antigen detection**

**Specimens:** 3 artificial samples

**Examinations:** Detection of *Trichomonas vaginalis* antigen

**Notes:** For clinical laboratories and POCT sites.

1 2 3 4 5 6 7 8 9 10 11 12

**5473 *Trichomonas vaginalis*, nucleic acid detection**

**Specimens:** 3 lyophilized samples

**Examinations:** Detection of *Trichomonas vaginalis* nucleic acid (NAT)

Microbiology » **Virology**

1 2 3 4 5 6 7 8 9 10 11 12

**5650 Cytomegalovirus, antibodies**

**Specimens:** 3 liquid human plasma samples, ≥ 0.7 mL each. Authentic commutable samples: each batch originates from a single human donor.

**Examinations:** Cytomegalovirus IgG, IgM and total antibodies, IgG avidity and clinical interpretation

1 2 3 4 5 6 7 8 9 10 11 12

**5635 Dengue virus, antibodies and antigen detection**

**Specimens:** 3 human serum or plasma samples, 0.5 mL each. Authentic, commutable samples from a single human donor or occasionally simulated samples.

**Examinations:** Dengue virus IgG and IgM antibodies, Dengue virus antigen (NS1) and clinical interpretation

1 2 3 4 5 6 7 8 9 10 11 12

**5640 EBV mononucleosis, heterophile antibodies**

**Specimens:** 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.

**Examinations:** MonAb, heterophile antibodies  
**Notes:** For clinical laboratories and POCT sites

1 2 3 4 5 6 7 8 9 10 11 12

**5641 EBV mononucleosis, specific antibodies**

**Specimens:** 3 liquid human plasma samples, 1.4 mL each. Authentic commutable samples: each batch originates from a single human donor.

**Examinations:** EBNAAb, EBVAb, EBVAbG, EBVAbM, EBVAvi and clinical interpretation.

1 2 3 4 5 6 7 8 9 10 11 12

**5092 Hepatitis A, antibodies**

**Specimens:** 3 liquid human plasma samples, ≥ 0.6 mL each. Authentic commutable samples: each batch originates from a single human donor.

**Examinations:** HAVAb, HAVAbM, HAVAbG and clinical interpretation

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5094–5096</b> Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL			■			■			■			■
<b>Specimens:</b> 3 liquid human plasma samples, 0.6 / 1.2 or 2.0 mL. Authentic commutable samples: each batch originates from a single human donor. <b>Examinations:</b> HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and clinical interpretation	<b>Volume specific product codes:</b> 5094: for 0.6 mL human plasma specimens 5095: for 1.2 mL human plasma specimens 5096: for 2.0 mL human plasma specimens											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5093</b> Hepatitis B, s-antigen antibodies, quantitative	■			■			■			■		
<b>Specimens:</b> 2 liquid human plasma or serum samples, ≥ 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> HBsAb (anti-HBs), quantitative											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5679</b> Hepatitis B virus, nucleic acid detection (DNA)					■					■		
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, ≥ 1.2 mL each <b>Examinations:</b> HBV DNA, quantitative and/or qualitative nucleic acid detection	<b>Notes:</b> Delivered together with schemes 5678 and 5680											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5678</b> Hepatitis C virus, nucleic acid detection (RNA)					■					■		
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, ≥ 1.2 mL each <b>Examinations:</b> HCV RNA, quantitative and/or qualitative nucleic acid detection	<b>Notes:</b> Delivered together with schemes 5679 and 5680											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5682</b> Hepatitis E, antibodies										■		
<b>Specimens:</b> 3 liquid human plasma samples, ≥ 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> Hepatitis E virus IgG and IgM antibodies and clinical interpretation.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5555</b> Herpes simplex 1 and 2, antibodies		■			■			■				■
<b>Specimens:</b> 3 liquid human plasma or serum samples, ≥ 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> HSV IgG (qualitative/quantitative), HSV IgM, HSV-1 IgG, HSV-2 IgG											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5680</b> HIV-1, nucleic acid detection (RNA)					■					■		
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, ≥ 1.2 mL each <b>Examinations:</b> HIV-1 RNA, quantitative and/or qualitative nucleic acid detection	<b>Notes:</b> Delivered together with schemes 5678 and 5679											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5091</b> HIV, antibodies			■			■			■			■
<b>Specimens:</b> 4 liquid human plasma samples, ≥ 0.7 mL each	<b>Examinations:</b> HIVAgAb (combo), HIVAb, HIVAbCt: primary and confirmatory tests, clinical interpretation. Positive specimens may include HIV-1 or HIV-2.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5090</b> HIV, antibodies, POCT			■			■			■			■
<b>Specimens:</b> 3–4 liquid human plasma samples, ≥ 0.5 mL each <b>Examinations:</b> HIVAb and HIVAgAb primary tests (POCT)	<b>Notes:</b> Scheme 5091 is for clinical laboratories											

POCT

NEW	5086 Human papillomavirus, nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> Simulated samples <b>Examinations:</b> High-risk human papillomavirus NAT, hrHPVNAT				■							■	
	5089 Human T-cell lymphotropic virus, antibodies	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 liquid human plasma samples, ≥ 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.		■			■			■			■	
	5670 Influenza virus A+B and RS virus, nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 5 artificial samples, 0,5 mL each	■										■	
POCT	5671 Influenza virus A+B, antigen detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 artificial samples, 0,5 mL each <b>Examinations:</b> InfAAg, InfBAg	■										■	
	5668 Measles virus, antibodies	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 liquid human plasma samples, 0,5 mL each. Authentic commutable samples: each batch originates from a single human donor.	■			■			■			■		
	5669 Mumps virus, antibodies	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 liquid human plasma samples, 0,5 mL each. Authentic commutable samples: each batch originates from a single human donor.	■			■			■			■		
	5675 Norovirus, nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 simulated samples, ≥ 0,5 mL each			■			■			■			■
	5660 Parvovirus B19, antibodies	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 liquid human plasma or serum samples, ≥ 0.4 mL each. Authentic commutable samples: each batch originates from a single human donor.		■			■			■			■	
POCT	5560 Puumala virus, antibodies	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 liquid human plasma or serum samples, ≥ 0.3 mL each. Brief case histories are also provided.			■			■				■		■
	5098 Rotavirus and adenovirus, antigen detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 faecal suspensions, 0,5 mL each			■			■			■			■
POCT	5672 RS virus, antigen detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 artificial samples, 0,5 mL each <b>Examinations:</b> RSVAg	■										■	

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5667 Rubella virus, antibodies</b>	■			■			■			■		
<b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> Rubella virus IgG and IgM antibodies, IgG avidity and clinical interpretation											
<b>5099 Tick-borne encephalitis virus, antibodies</b>		■			■			■			■	
<b>Specimens:</b> 3 liquid human plasma or serum samples, ≥ 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> TBE IgG, IgM, total antibodies and clinical interpretation <b>Notes:</b> For clinical laboratories and POCT sites											
<b>5665 Varicella-zoster virus, antibodies</b>		■			■			■			■	
<b>Specimens:</b> 3 liquid human plasma or serum samples, ≥ 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> Varicella zoster IgG, IgM, total antibodies and clinical interpretation											

POCT

## EQA schemes including **Antimicrobial Susceptibility Testing**

### Bacteriology and mycology

- 5100 Blood culture
- 5260 Fungal culture
- 5080 General Bacteriology 1
- 5081 General Bacteriology 2
- 5120 *Neisseria gonorrhoeae* (Gc), culture and susceptibility testing
- 5073 Surveillance culture for multidrug resistant bacteria, gramnegative rods
- 5071 Surveillance culture for multidrug resistant bacteria, MRSA
- 5072 Surveillance culture for multidrug resistant bacteria, VRE
- 5065 Urine culture, quantitative screening, identification and susceptibility

## EQA schemes suitable for **direct nucleic acid testing methods**

### Bacteriology

- 5612 *Chlamydia trachomatis* and *Neisseria gonorrhoeae* nucleic acid detection
- 5201 *Clostridium difficile*, nucleic acid detection
- 5191 Faecal bacterial pathogens multiplex, nucleic acid detection
- 5221 Mycobacterial nucleic acid detection and stain
- 5593 *Streptococcus* group A, nucleic acid detection
- 5594 *Streptococcus* group B (GBS), detection
- 5071 Surveillance culture for multidrug resistant bacteria, MRSA
- 5072 Surveillance culture for multidrug resistant bacteria, VRE
- 5073 Surveillance culture for multidrug resistant bacteria, gramnegative rods

### Multiplex

- 5191 Faecal bacterial pathogens multiplex, nucleic acid detection
- 5300 Respiratory infections multiplex, nucleic acid detection
- 5302 Sexually transmitted diseases multiplex, nucleic acid detection

### Parasitology

- 5472 *Giardia* and *Cryptosporidium*, nucleic acid detection
- 5430 Malaria, antigen and nucleic acid detection
- 5473 *Trichomonas vaginalis*, nucleic acid detection

### Virology

- 5679 Hepatitis B virus, nucleic acid detection (DNA)
- 5678 Hepatitis C virus, nucleic acid detection (RNA)
- 5680 HIV-1, nucleic acid detection (RNA)
- 5086 Human papillomavirus, nucleic acid detection
- 5670 Influenza virus A+B and RS virus, nucleic acid detection
- 5675 Norovirus, nucleic acid detection

# Multiplex

Multiplex EQA schemes are aimed to support laboratories to fulfill quality requirements of multiplex nucleic acid tests. Schemes cover the most common screening methods for respiratory infections, gastrointestinal bacteria and sexually transmitted diseases. All schemes include clinically relevant samples specially designed for multiplex nucleic acid testing. Multiplex schemes are annual programs and during the period of one calendar year, samples will cover listed pathogens.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5191 Faecal bacterial pathogens multiplex, nucleic acid detection</b>				■		■				■		■
<b>Specimens:</b> 2 lyophilized mixtures of bacteria												
<b>Examinations:</b> Direct nucleic acid detection. Pathogens included are <i>Aeromonas</i> , <i>Campylobacter</i> , <i>Plesiomonas</i> , <i>Salmonella</i> , <i>Shigella</i> and <i>Yersinia</i> , may also include EHEC.												
<b>Notes:</b> 5190 includes also this examination. Pathogens are covered during annual scheme: participation to all rounds required.												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5300 Respiratory infections multiplex, nucleic acid detection</b>					■							■
<b>Specimens:</b> 4 simulated samples, ≥ 0.5mL each												
<b>Examinations:</b> Direct multiplex nucleic acid detection. Pathogens included are <i>C. pneumoniae</i> , <i>M. pneumoniae</i> , <i>B. pertussis</i> , <i>B. parapertussis</i> , influenza A/B, RSV A/B, human rhinovirus, enterovirus, parainfluenza, human metapneumovirus, adenovirus and coronavirus.												
<b>Notes:</b> Pathogens are covered during annual scheme: participation to all rounds required												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5302 Sexually transmitted diseases multiplex, nucleic acid detection</b>				■		■			■			■
<b>Specimens:</b> 4 simulated swab/urine samples												
<b>Examinations:</b> Direct multiplex nucleic acid detection. Pathogens included are <i>C. trachomatis</i> , <i>M. genitalium</i> , <i>N. gonorrhoeae</i> , <i>T. vaginalis</i> and <i>U. urealyticum</i> .												
<b>Notes:</b> Pathogens are covered during annual scheme: participation to all rounds required												

## Note also our minipanel

- 5670 Influenza virus A+B and RS virus, nucleic acid detection
- 5472 *Giardia* and *Cryptosporidium*, nucleic acid detection
- 5612 *Chlamydia trachomatis* and *Neisseria gonorrhoeae* nucleic acid detection

# Pathology

Six high quality schemes are available for pathology laboratories. With changing topics of the rounds, both the routine and more advanced needs are covered. The challenges are realistic and include also the less commonly encountered clinically relevant cases. In the cytology and histopathology schemes virtual microscopy is used. With this technology, viewing of several fields of vision and levels of focus are enabled on a computer screen simulating analysis with an optical microscope.

## Pathology » Diagnostics

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>6700 Gynaecological cytology (smear), virtual microscopy</b>			■										VIRTUAL
<p><b>Specimens:</b> Virtual images of at least 5 Papanicolaou stained slides of conventional pap smear samples. The samples are selected from routine cytological material. Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided.</p> <p><b>Examinations:</b> Observations and diagnoses</p>													
<b>6701 Gynaecological cytology (liquid based), virtual microscopy</b>					■								VIRTUAL
<p><b>Specimens:</b> Virtual images of at least 5 Papanicolaou stained slides of liquid based pap samples (ThinPrep). Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided.</p> <p><b>Examinations:</b> Observations and diagnoses</p>													
<b>6702 Non-gynaecological cytology, virtual microscopy</b>										■			VIRTUAL
<p><b>Specimens:</b> Virtual images of Papanicolaou stained slides of non-gynaecological cytosentrifuge or smear preparations or May-Grünwald-Giemsa stained smears. Images of at least 5 cases from representative loci. Brief case histories and instructions are provided.</p> <p><b>Examinations:</b> Observations and diagnoses</p>													
<b>6542 Histopathology, virtual microscopy</b>				■							■		VIRTUAL
<p><b>Topics in 2018:</b> Apr: Prostate pathology, Oct: Breast pathology</p> <p><b>Specimens:</b> Virtual images of at least 5 slides of miscellaneous tissue. Brief case histories and instructions are provided.</p> <p><b>Examinations:</b> Observations and diagnoses</p> <p><b>Notes:</b> Topics may vary annually</p>													

## Pathology » Technology

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>6543 Histological staining techniques</b>			■							■			
<p><b>Topics in 2018:</b> Mar: Iron, Reticulin, Oct: Toluidine blue, Jones (Methenamine)</p> <p><b>Specimens:</b> Paraffin sections or smears</p> <p><b>Examinations:</b> Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.</p> <p><b>Notes:</b> Stains vary annually</p>													
<b>6600, 6600S Immunohistochemical staining methods</b>			■						■		■		
<p><b>Topics in 2018:</b> Mar: CD1a, CD43, CD45, CD30, CyclinD1 (lymphoma), Sep: ER, PR, Ki-67, HER2, GATA3 (breast cancer), Nov: Synaptophysin (SYP), Chromogranin A (CGA), Melan A (MART-1), CEA, CD117 (unknown tumour, melanoma)</p> <p><b>Specimens:</b> Paraffin embedded tissue from different tissue blocks or from one multiblock</p> <p><b>Examinations:</b> Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.</p> <p><b>Notes:</b> Changes in frequency, antibodies and sample type. Three rounds with distinct topics available annually. Multiblock samples are now included. Participants can select 3 or 5 antibodies of their choice in each round (6600S for 3 antibodies, 6600 for 5).</p>													

# Preanalytics

The preanalytical schemes provide laboratories and POCT sites with tools for extending quality assurance beyond the commonly assessed analytical phase. As a result of the improved analytical quality, most errors have been suggested to now occur in the preanalytical phase. Managing all phases of the total testing cycle is equally important to ensure patient safety.

NEW	8817 HIL-index [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 2 serum samples, 2 mL each			■							■		
	<b>Examinations:</b> Selected components are asked to be analysed. The other sample is haemolysed, icteric or lipemic.												
	7800 Preanalytics, clinical chemistry	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 cases with preanalytical error(s) <b>Examinations:</b> Laboratories are asked to find preanalytical error(s) in the cases		■							■			
	<b>Notes:</b> The scheme is intended for clinical chemistry laboratories. Scheme is carried out online.												
	7802 Preanalytics, microbiology	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 cases with preanalytical error(s) <b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases				■							■	
	<b>Notes:</b> The scheme is intended for all laboratory staff of clinical microbiology laboratories. Scheme is carried out online.												
POCT	7801 Preanalytics, phlebotomy	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 cases with preanalytical error(s) <b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases			■									
	<b>Notes:</b> The scheme is intended for personnel performing blood sample collection (phlebotomy). Scheme is carried out online.												
POCT	7804 Preanalytics, POCT	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 cases with preanalytical error(s) <b>Examinations:</b> Participants are asked to find preanalytical error(s) in the cases										■		
	<b>Notes:</b> The scheme is intended for personnel using POCT tests and devices. Scheme is carried out online.												



# Others

## Others » Andrology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>6400 Semen analysis</b>										■		
<b>Specimens:</b> 3–6 digital videos and/or digital images <b>Examinations:</b> Concentration, morphology and motility	<b>Notes:</b> Scheme is carried out online											

## Others » Clinical physiology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>7130 ECG, interpretation</b>				■								
<b>Specimens:</b> 6 digital ECG registrations (images) <b>Examinations:</b> Technical quality and findings	<b>Notes:</b> Scheme is designed for personnel in POCT units as well as nurses and general practitioners. Participants are evaluated on their responses on technical quality, findings or both if given.											

NEW

## Others » Genetics

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3865 DNA analysis [EQUALIS]</b>			■							■		
<b>Specimens:</b> Whole blood or extracted DNA. Blank samples (water) are sometimes included.	<b>Examinations:</b> DNA-Apolipoprotein E genotype, DNA-Factor 2 (F2) g.20210G>A, DNA-Factor 5 (F5) c.1691G>A, DNA-Hemochromatosis (HFE) c.187C>G; c.845G>A, DNA-Lactase gene (LCT) g.13910C>T, DNA-Methylene tetrahydrofolate reductase (MTHFR) c.677C>T; c.1298A>C											

## Others » Laboratory instruments

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8814 ELISA reader photometry control [DEKS]</b>	Circulation starts in March											
<b>Specimens:</b> An ELISA-plate with built-in gray glass filters <b>Examinations:</b> Control for the absorbance scale in ELISA reader	<b>Notes:</b> Absorbance traceable to NIST Control of the absorbance scale of ELISA readers											

## Others » Veterinary EQA

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8610 Veterinary basic blood count</b>			■							■		
<b>Specimens:</b> 2 animal blood cell suspensions. Species vary from round to round.	<b>Examinations:</b> Most common examinations in use											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8530 Veterinary basic chemistry</b>				■							■	
<b>Specimens:</b> 2 animal serum samples. Species vary from round to round.	<b>Examinations:</b> Most common examinations in use											



Labquality - EQAS

# Digital External Quality Assessment Program

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Labquality's digital EQA product line provides an advanced approach to external quality assessment. Digital programs use digital images, videos, virtual microscopy technology and questionnaires as EQA samples. It has many advantages. Samples have no stability issues and no shipping costs. All participants get to evaluate the same sample at the same time all over the world. There are no logistical limitations to participate. Only an Internet connection and an appropriate screen are needed.



*Available globally*  
*No shipping costs*  
*No stability or homogeneity issues*

## Digital EQA programs

### Anatomic pathology

Histopathology and cytology digital schemes use virtual microscopy technology (digital pathology).

- Clinical cytology diagnostics
- Gynecological cytology diagnostics
- Histopathology diagnostics

### Clinical chemistry and haematology

Visual evaluation of cell morphology or motility of sperm cells uses digital images, digital video and virtual microscopy technology as sample material. Several cases are provided in every round.

- Blood grouping, gel cards, evaluation
- Down's syndrome screening, data analysis (LifeCycle, Prisca)
- Leucocyte differential count and evaluation of blood cell morphology
- Nasal swab cells identification
- Semen analysis
- Sputum cells identification
- Urine, identification of cells and other particles

### Clinical physiology

Clinical physiology scheme uses digital images of ECG registration.

- ECG, interpretation

### Immunology and microbiology

Interpretation and evaluation of IFA and gram stain is made from high quality digital images.

- Autoimmune diagnostics, IFA interpretation
- Bacteriological staining, direct, evaluation
- Parasites in blood, identification
- Parasites in faeces, identification

### Preanalytics

Preanalytical phase of laboratory investigations is evaluated from written cases or digital images on Labquality's website. Participants are asked to evaluate possible preanalytical errors from the cases.

- Preanalytics, clinical chemistry
- Preanalytics, microbiology
- Preanalytics, phlebotomy
- Preanalytics, point-of-care

## Alphabetical scheme directory, A – F

### A

ABO and Rh grouping, **15**  
Acid-base status and electrolytes, **10**  
Activated partial thromboplastin time and fibrinogen, **17**  
Albumin and creatinine in urine, **13**  
Alcohol in blood: Ethanol + methanol + isopropanol, **10**  
Alcohol in blood: Ethylene glycol in whole blood, **10**  
Alcohol in serum: Ethanol + methanol + isopropanol, **10**  
Alcohol in serum: Ethylene glycol in serum, **10**  
Allergen component [UK NEQAS], **6**  
Allergy in vitro diagnostics [SKML], **6**  
Allergy in vitro diagnostics [UK NEQAS], **6**  
Ammonium ion, **10**  
ANCA and GbmAb, **19**  
Angiotensin convertase (ACE), **10**  
Antibody screening and compatibility testing, **15**  
Anticoagulants: LMW-Heparin/antiFXa, **17**  
Anticoagulants: Rivaroxaban, **17**  
Antiglobulin test, direct, **15**  
Antinuclear antibodies, **19**  
Antistreptolysin, **21**  
Autoimmune diagnostics, IFA interpretation, **19**  
Autoimmune liver disease and gastric parietal cell antibodies, **19**

### B

Bacteriological staining, direct, **22**  
Basic blood count, one specimen, **15**  
Basic blood count, two specimens, **15**  
Basic chemistry, POCT analyzers, **6**  
Bile acids, **10**  
Bilirubin, conjugated, **10**  
Bilirubin, neonatal, **11**  
Blood culture, **22**  
Blood culture, screening, **22**  
Blood grouping, gel cards, virtual scheme, **15**  
*Bordetella pertussis*, antibodies, **21**  
*Borrelia burgdorferi*, antibodies, European origin, **21**

### C

Cerebrospinal fluid, culture, **22**  
*Chlamydia pneumoniae*, antibodies, **21**  
*Chlamydia trachomatis* and *Neisseria gonorrhoeae* nucleic acid detection, **22**  
Chromogranin A [NKK], **11**  
*Clostridium difficile*, culture and toxin detection, **22**  
*Clostridium difficile*, nucleic acid detection, **22**  
Coeliac disease, antibodies, **19**  
C-reactive protein (CRP) for analyzers, **12**  
C-reactive protein (CRP), POCT, **12**  
CRP, low concentration, **7**  
Cystatin C [DEKS], **11**  
Cytomegalovirus, antibodies, **26**

### D

DayTrol, human serum, **9**  
D-dimer, **17**  
Decalotransferrin [EQUALIS], **12**  
Dengue virus, antibodies and antigen detection, **26**  
DNA analysis [EQUALIS], **33**  
Down's syndrome screening, quality assurance, **8**  
Drug abuse screening in urine, **13**

### E

EBV mononucleosis, heterophile antibodies, **26**  
EBV mononucleosis, specific antibodies, **26**  
ECG, interpretation, **33**  
ELISA reader photometry control [DEKS], **33**  
Eosinophil cationic protein, **6**  
Erythrocyte sedimentation rate, **7**  
Erythrocyte sedimentation rate: Alifax; Greiner tube, **7**  
Erythrocyte sedimentation rate: Alifax; Sarstedt tube, **7**

### F

Faecal bacterial pathogens multiplex, nucleic acid detection, **22, 30**  
Faecal calprotectin, **12**  
Faecal culture, **23**  
Faecal occult blood, **7**  
Folate, erythrocytes, **11**  
Fungal culture, **25**

## Alphabetical scheme directory, G – N

### G

General Bacteriology 1 (aerobes and anaerobes), **23**  
General Bacteriology 2 (aerobes), **23**  
*Giardia* and *Cryptosporidium*, nucleic acid detection, **25**  
Glucose meters 1, 2 and 3, **8**  
Gram stain, blood culture, **23**  
Gram stain, colonies, **23**  
Gynaecological cytology (liquid based), virtual microscopy, **31**  
Gynaecological cytology (smear), virtual microscopy, **31**

### H

Haemoglobin A1c, liquid samples, **8**  
Haemoglobin A1c, liquid samples, POCT, **8**  
Haemoglobin, 1-level, POCT, **7**  
Haemoglobin, 3-level samples, cell counters and analyzers, **7**  
Haemoglobin, 3-level samples, POCT, **7**  
Haemoglobin for analyzers, **7**  
Haemoxymeters, **11**  
*Helicobacter pylori*, antibodies, **21**  
*Helicobacter pylori*, antigen detection in faeces, **23**  
Hepatitis A, antibodies, **26**  
Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL, **27**  
Hepatitis B, s-antigen antibodies, quantitative, **27**  
Hepatitis B virus, nucleic acid detection (DNA), **27**  
Hepatitis C virus, nucleic acid detection (RNA), **27**  
Hepatitis E, antibodies, **27**  
Herpes simplex 1 and 2, antibodies, **27**  
HIL-index [DEKS], **32**  
Histological staining techniques, **31**  
Histopathology, virtual microscopy, **31**  
HIV-1, nucleic acid detection (RNA), **27**  
HIV, antibodies, **27**  
HIV, antibodies, POCT, **27**  
Homocysteine [DEKS], **11**  
Hormones A: Basic analytes of hormone and immunochemistry, **9**  
Hormones B: Steroid and peptide hormones, **9**  
Human papillomavirus, nucleic acid detection, **28**  
Human T-cell lymphotropic virus, antibodies, **28**

### I

Immunohistochemical staining methods, **31**  
Influenza virus A+B and RS virus, nucleic acid detection, **28**  
Influenza virus A+B, antigen detection, **28**  
INR, CoagSense, POCT, **17**  
INR, CoaguChek, i-STAT and Siemens Xprecia, POCT, **17**  
INR, EuroLyzer, POCT, **17**  
INR, MicroINR, POCT, **17**

### L

Legionella, antigen detection in urine, **23**  
Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy, **15**  
Leucocyte differential count, 3-part, automated, **16**  
Leucocyte differential count, 5-part, automated, **16**  
Lipids and lipoproteins, **12**  
Lipoprotein a, **12**

### M

Malaria, antigen detection, **16, 25**  
Measles virus, antibodies, **28**  
Methyl malonate [DEKS], **11**  
Mumps virus, antibodies, **28**  
Mycobacterial culture and stain, **23**  
Mycobacterial nucleic acid detection and stain, **23**  
Mycobacterial stain, **23**  
*Mycoplasma pneumoniae*, antibodies, **21**  
Myocardial markers, **7**  
Myocardial markers and CRP, low concentration, **8**

### N

Nasal swab cells, **11**  
Natriuretic peptides 1, B-type, NT-ProBNP, **8**  
Natriuretic peptides 2, B-type, BNP, **8**  
*Neisseria gonorrhoeae* (Gc), culture and susceptibility testing, **24**  
Non-gynaecological cytology, virtual microscopy, **31**  
Norovirus, nucleic acid detection, **28**

## Alphabetical scheme directory, P – W

### P

Parasites in blood, Giemsa stain, **16, 25**  
Parasites in blood, Giemsa stain, virtual microscopy, **16, 25**  
Parasites in blood, May-Grünwald-Giemsa stain, **16, 25**  
Parasites in blood, May-Grünwald-Giemsa stain, virtual microscopy, **16, 25**  
Parasites in faeces, **26**  
Parasites in faeces, virtual microscopy, **26**  
Parathyroid hormone, **9**  
Parvovirus B19, antibodies, **28**  
Phospholipid antibodies, **19**  
POCT INR evaluation scheme, **18**  
Preanalytics, clinical chemistry, **32**  
Preanalytics, microbiology, **32**  
Preanalytics, phlebotomy, **32**  
Preanalytics, POCT, **32**  
Pregnancy test, **13**  
Procalcitonin, **12**  
Prostate specific antigen, **13**  
Proteins in cerebrospinal fluid, **12**  
Proteins, electrophoresis, **13**  
Proteins, immunochemical determinations, **13**  
Prothrombin time, **18**  
Puumala virus, antibodies, **28**

### R

Respiratory infections multiplex, nucleic acid detection, **30**  
Reticulocyte count, automated, **16**  
Reticulocyte count, manual methods, **16**  
Rheumatoid factor and citrullin peptide antibodies, **19**  
Rotavirus and adenovirus, antigen detection, **28**  
RS virus, antigen detection, **28**  
Rubella virus, antibodies, **29**

### S

Salmonella, culture, **24**  
Semen analysis, **33**  
Serum A, lyophilized samples, **9**  
Serum B and C (2-level), **10**  
Sexually transmitted diseases multiplex, nucleic acid detection, **30**  
Special coagulation, **18**  
Sputum cells, **11**  
*Streptococcus* group A, antigen detection, **24**  
*Streptococcus* group A, nucleic acid detection, **24**  
*Streptococcus* group B (GBS), detection, **24**  
*Streptococcus pneumoniae*, antigen detection in urine, **24**  
Surveillance culture for multidrug resistant bacteria, gramnegative rods, **24**  
Surveillance culture for multidrug resistant bacteria, MRSA, **24**  
Surveillance culture for multidrug resistant bacteria, VRE, **24**

Synovial fluid crystals, **11**  
Syphilis serology, **21**

### T

Therapeutic drugs, **11**  
Throat streptococcal culture, **24**  
Thyroid gland antibodies, **20**  
Tick-borne encephalitis virus, antibodies, **29**  
Toxoplasma, antibodies, **26**  
*Trichomonas vaginalis*, antigen detection, **26**  
*Trichomonas vaginalis*, nucleic acid detection, **26**  
Troponin I and Troponin T, detection, POCT, **8**  
Tryptase [UK NEQAS], **6**  
TSH receptor antibodies, **20**  
Tumour markers, **13**

### U

Urine culture, quantitative screening, **25**  
Urine culture, quantitative screening, identification and susceptibility, **25**  
Urine, identification of cells and other particles, **13**  
Urine, quantitative chemistry, **14**  
Urine, strip test A, **14**  
Urine, strip test B, particle count and estimation of density, **14**

### V

Varicella-zoster virus, antibodies, **29**  
Veterinary basic blood count, **33**  
Veterinary basic chemistry, **33**  
Vitamin A, E and D metabolites, **12**

### W

White blood cell count, HemoCue, POCT, **17**  
White blood cell differential count: HemoCue, POCT, **17**

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