

A large, stylized, light blue 'Q' logo is positioned in the upper right quadrant of the page. The 'Q' is composed of a thick, curved line that forms the letter, with a small tail at the bottom right. The background of the page is white, with a large, dark blue, curved shape that overlaps the 'Q' and extends across the middle of the page. In the bottom right corner, there is a microscopic image of cells, showing a cluster of cells with red and blue staining, likely representing a histological section.

# Q

## External Quality Assessment Product Catalogue 2019

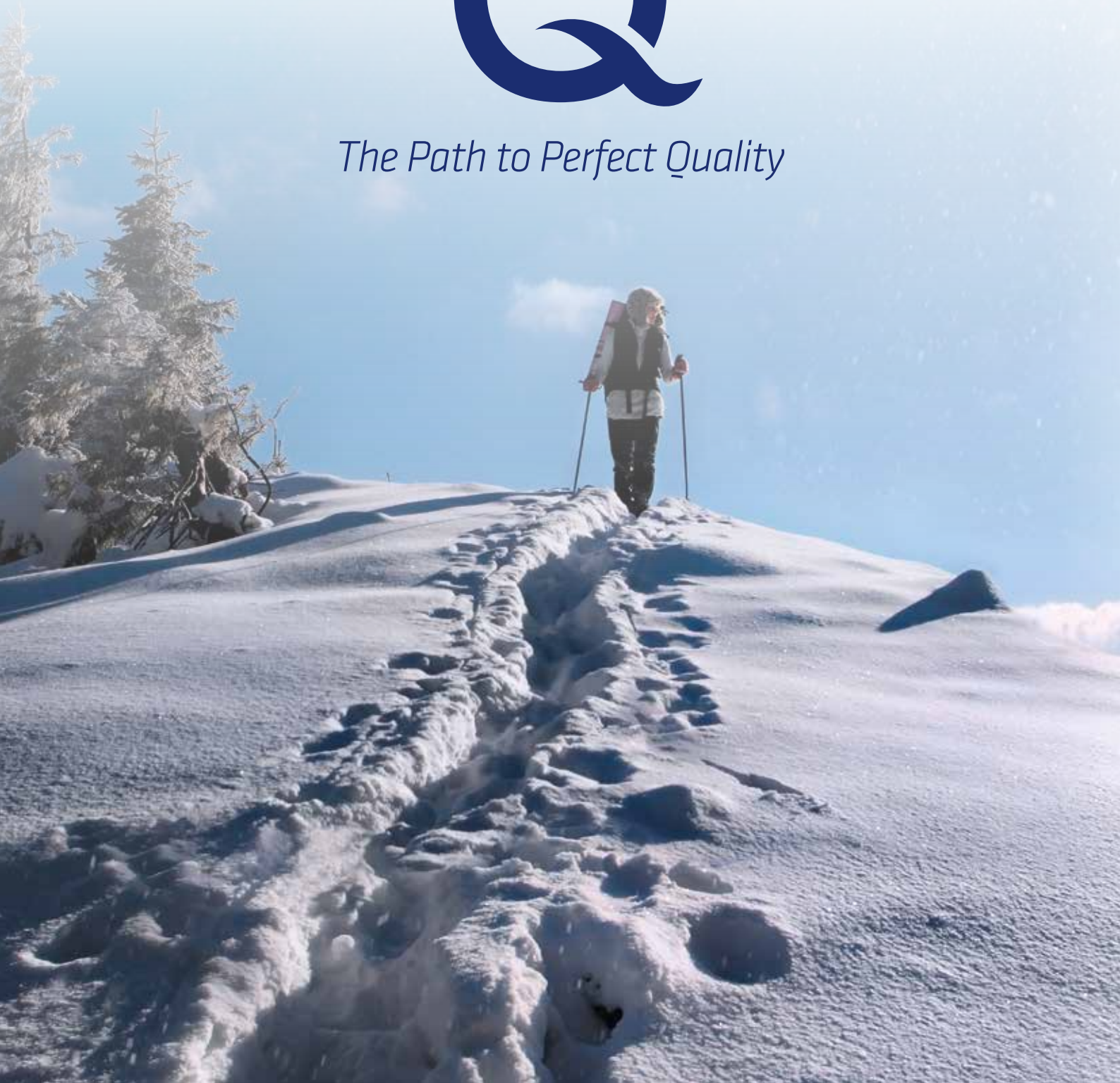
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*The Path to Perfect Quality*



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Labquality – EQAS

## Service information

### Labquality – EQAS

Labquality is a Finnish independent external quality assessment provider 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. The EQA programs have a clinical scope with an educational touch. Part of the EQA production is outsourced to expert laboratories and national partners.

### Integrated EQA service (EQA<sup>3</sup>)

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 the total quality management system of the participating laboratories and fulfill ISO 15189 requirements concerning the non-analytical phases. In addition to the samples, the intergrated schemes include pre- and/or 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. With only a few exceptions all schemes are available via national partners in Europe, Middle East and Central Asia. For direct customers the program selection is limited to the schemes with stabile and non-hazardous sample materials.

### Enrolment and prices

Labquality has annual programs and pricing. Participants shall place their orders for the 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 the 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 a modern web based software, LabScala. EQA process is designed to go along with the laboratory process from pre-analytics to post-analytics. Easy availability and user-friendly interface guarantee an advanced experience.

### Certificate

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

### Customer service

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

## How to use the catalogue

**Scheme code and name**

1234 Scheme name

**POCT**

Specimens: Examinations: Notes:

**Additional info**

**EQA<sup>3</sup>** = Integrated EQA service   **NEW** = New product   **POCT** = Suitable for Point-of-Care testing sites   **VIRTUAL** = Virtual microscopy

**Rounds (delivery months)**

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

## Updates for 2019

### New schemes and products

- 5303 Meningitis-encephalitis multiplex, nucleic acid detection (p. 30)
- 5222 Mycobacteria, extra set of samples (p. 24)
- 4156 Reticulocyte count, automated: Mindray (p. 16)
- 2481 Vitamin A, E and D metabolites, extra set of samples (p. 12)

### Discontinued schemes

- 1002 Haemoglobin for analyzers
- 4336 POCT INR evaluation scheme
- 5474 *Trichomonas vaginalis*, antigen detection

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

Integrated EQA schemes combine pre-analytical, analytical and post-analytical EQA to one scheme fulfilling ISO 15189 requirements. The EQA Programme 2019 has over 30 Integrated EQA schemes that include pre and/or postanalytical cases. All integrated EQA schemes are marked with EQA<sup>3</sup> label.

### Changes in distribution schedule

- 7130 ECG, interpretation (APR, OCT)
- 5472 Faecal parasites multiplex, nucleic acid detection (APR, AUG, DEC)
- 2370 Folate, erythrocytes (FEB, JUN, OCT)
- 5682 Hepatitis E, antibodies (MAY, NOV)
- 6543 Histological staining techniques (APR, OCT)
- 6542 Histopathology, virtual microscopy (MAR, OCT)
- 5300 Respiratory infections multiplex, nucleic acid detection (FEB, MAY, SEP, DEC)

- 8610 Veterinary basic blood count (OCT)
- 8530 Veterinary basic chemistry (NOV)

### Changes in scope, specimens or parameters

- 5650 Cytomegalovirus, antibodies  
New specimen volume 0.5 mL
- 5472 Faecal parasites multiplex, nucleic acid detection  
New parameters: *Dientamoeba fragilis*, *Entamoeba dispar*, *Entamoeba histolytica*
- 2114 Haemoglobin, 1-level, POCT  
New specimen quantity: 2 specimens / round
- 4200 Leucocyte differential count, 3-part, automated  
Suitable also for Medonic analysers
- 5098 Rotavirus and adenovirus, detection  
New parameter: Nucleic acid detection. New specimen material.

# 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 to all rounds required. Should be ordered by <b>November 9<sup>th</sup>, 2018</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 to all rounds required. Should be ordered by <b>November 9<sup>th</sup>, 2018</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 to all rounds required. Should be ordered by <b>November 9<sup>th</sup>, 2018</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 to all rounds required. Should be ordered by <b>November 9<sup>th</sup>, 2018</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.											

POCT

	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	<b>Notes:</b> Not suitable for Algor iSed											

	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>Examinations:</b> Detection of haemoglobin	<b>Notes:</b> For clinical laboratories and POCT sites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2114 Haemoglobin, 1-level, POCT</b>			■		■				■		■	
<b>Specimens:</b> 2 bovine hemolysate or human whole blood control samples, 1 mL each, pre- and/or post-analytical cases in part of the rounds	<b>Examinations:</b> Haemoglobin, pre- and/or post-analytical indicators <b>Notes:</b> Only for POCT devices. Not suitable for Diaspect.											

	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.											

## 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>Examinations:</b> CRP	<b>Notes:</b> CRP, low concentration sample is included in product 2541 Myocardial markers and 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>Examinations:</b> CK MB mass, myoglobin, quantitative troponin I, quantitative troponin T	<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>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
POCT	<b>2690 Natriuretic peptides 1, B-type, NT-ProBNP</b>											
	■			■			■			■		
<b>Specimens:</b> 2 lyophilized or liquid samples, 1–2 mL each				<b>Notes:</b> Suits both clinical laboratories and POCT sites. Also suitable for Roche Cardiac Reader and cobas h232.								
<b>Examinations:</b> NT-ProBNP												

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

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

## Clinical chemistry » Diabetes analysis

	1	2	3	4	5	6	7	8	9	10	11	12
POCT	<b>2570, 2580, 2590 Glucose meters</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>Examinations:</b> Glucose								
<b>Specimens:</b> 1 whole blood or plasma sample				<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, 1 mL each				<b>Notes:</b> Result processing in IFCC and DCCT units. Not suitable for Afinion instruments.								
<b>Examinations:</b> HbA1c												

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

## 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.								

	1	2	3	4	5	6	7	8	9	10	11	12
EQA <sup>3</sup>	<b>2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry</b>											
		■		■	■	■		■		■	■	■
<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>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.								
<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												



	1	2	3	4	5	6	7	8	9	10	11	12
<b>1300 Hormones A, extra set of samples</b>		■		■	■	■		■		■	■	■
<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 Hormones B: Steroid and peptide hormones</b>		■		■		■		■		■		■
<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.	17-OH-progesterone, prolactin, SHBG, testosterone, free testosterone, TBC, pre- and/or post-analytical indicators											
<b>Examinations:</b> Androstenedione, aldosterone, C-peptide, cortisol, DHEAS, estradiol, FSH, gastrin, growth hormone, IGF-1, insulin, LH, progesterone,	<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 3

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1301 Hormones B, extra set of samples</b>		■		■		■		■		■		■
<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 Parathyroid hormone</b>			■							■		
<b>Specimens:</b> 2 lyophilized human serum samples, 3-5 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 DayTrol, human serum</b>	■	■	■	■	■	■	■	■	■	■	■	■
<b>Specimens:</b> 1 lyophilized human serum sample, 5 mL	lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium, thyrotropin, thyroxine, thyroxine free, transferrin, transferrin receptor, triglycerides, urea, uric acid											
<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,	<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>1072, 1072S Serum A, lyophilized samples</b>	■	■	■	■	■	■	■	■	■	■	■	■
<b>Specimens:</b> Lyophilized serum sample, 3-5 mL each, samples are selected to cover a wide concentration range	iron, lactate, lactate dehydrogenase, lithium, magnesium, oroso-mucoid, osmolality, phosphorus, potassium, protein, selenium, sodium, thyrotropin, thyroxine, thyroxine free, TIBC, transferrin, transferrin receptor, triglycerides, tri-iodio-thyronine, urea, uric acid											
<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, cortisol, creatine phosphokinase, creatinine, ferritin, gamma-glutamyltransferase, glucose, haptoglobin, IgA, IgE, IgG, IgM,	<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.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2050 Serum B and C (2-level)</b>		■		■		■		■		■		■
<b>Specimens:</b> 2 liquid human serum samples covering a wide concentration range, 3-5 mL each	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											
<b>Examinations:</b> 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,	<b>Notes:</b> Reference values for common analytes are included											

# Clinical chemistry » Special chemistry

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2610 Acid-base status and electrolytes</b>		■		■				■			■	
	<b>Specimens:</b> 3 buffered artificial samples, 2.5 mL each. Pre- and/or post-analytical cases in part of the rounds.						<b>Notes:</b> Order one sample set for each analyzer. For clinical laboratories and POCT sites.					
<b>2510 Alcohol in blood: Ethanol + methanol + isopropanol</b>			■							■		
	<b>Specimens:</b> Ethanol: 2-level whole blood samples. Methanol and isopropanol: 1-level whole blood samples.						<b>Examinations:</b> Ethanol, methanol, isopropanol					
<b>2516 Alcohol in blood: Ethylene glycol in whole blood</b>			■							■		
	<b>Specimens:</b> 1-level whole blood samples						<b>Examinations:</b> Ethylene glycol					
<b>2511 Alcohol in serum: Ethanol + methanol + isopropanol</b>			■							■		
	<b>Specimens:</b> Ethanol: 2-level serum samples. Methanol and isopropanol: 1-level serum samples.						<b>Examinations:</b> Ethanol, methanol, isopropanol					
<b>2517 Alcohol in serum: Ethylene glycol in serum</b>			■							■		
	<b>Specimens:</b> 1-level serum samples						<b>Examinations:</b> Ethylene glycol					
<b>2105 Ammonium ion</b>				■				■				■
	<b>Specimens:</b> 2 serum based or buffered samples						<b>Examinations:</b> Ammonium ion					
<b>2210 Angiotensin convertase (ACE)</b>					■							
	<b>Specimens:</b> 1 liquid and 1 lyophilized human serum sample, 1 mL each						<b>Examinations:</b> ACE					
<b>2520 Bile acids</b>			■								■	
	<b>Specimens:</b> 2 pooled human serum samples, 0.5 mL each						<b>Examinations:</b> Bile acids					
<b>2109 Bilirubin, conjugated</b>				■						■		
	<b>Specimens:</b> 2 lyophilized or liquid samples						<b>Examinations:</b> Total bilirubin, conjugated bilirubin					
<b>2040 Bilirubin, neonatal</b>		■		■		■		■		■		■
	<b>Specimens:</b> 2 lyophilized samples, 1-3 mL						<b>Examinations:</b> Bil, neo					
<b>8702 Chromogranin A [NKK]</b>												
	<b>Specimens:</b> 3 genuine human serum samples						1 time					

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8805 Cystatin C [DEKS]</b>	2 times											
<b>Specimens:</b> 2 human plasma samples with reference target values, 0.75 mL each	<b>Examinations:</b> P-Cystatin C											
	<b>Notes:</b> Participation to all rounds required.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2370 Folate, erythrocytes</b>		■				■				■		
<b>Specimens:</b> 1 human whole blood sample, 1 mL	<b>Examinations:</b> Blood folate and erythrocyte folate											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2150 Haemoxymeters</b>			■						■			
<b>Specimens:</b> 2 liquid (1.2 mL) or lyophilized (0.5 mL) samples	<b>Notes:</b> Order one sample set for each analyzer											
<b>Examinations:</b> FO2Hb, FCOHb, FMETHb, ctHb, sO2												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8816 Homocysteine [DEKS]</b>	5 times											
<b>Specimens:</b> 2 human plasma or serum samples	<b>Notes:</b> Participation to all rounds required.											
<b>Examinations:</b> P-Homocysteine												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8815 Methyl malonate [DEKS]</b>	5 times											
<b>Specimens:</b> 2 human serum samples	<b>Notes:</b> Participation to all rounds required.											
<b>Examinations:</b> P-Methyl-malonate												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2651 Nasal swab cells</b>												■
<b>Specimens:</b> 4 digital images of MGG and methylene eosin stained samples	<b>Examinations:</b> Eosinophils, neutrophils											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2652 Sputum cells</b>												■
<b>Specimens:</b> 4 digital images of MGG and methylene eosin stained samples	<b>Examinations:</b> Eosinophils, neutrophils											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2640 Synovial fluid crystals</b>			■						■			
<b>Specimens:</b> 3 slides prepared from patient samples	<b>Examinations:</b> Sodium urate monohydrate and calcium pyrophosphate dihydrate crystals											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2410 Therapeutic drugs</b>			■		■			■			■	
<b>Specimens:</b> 2 liquid or lyophilized human serum samples, volume 5 mL each, pre- and/or post-analytical cases in part of the rounds	<b>Examinations:</b> paracetamol (acetaminophen), phenobarbital, phenytoin, phenytoin free, primidone, procainamide, quinidine, salicylate, theophylline, tobramycin, tricyclics, valproic acid, valproic acid free, vancomycin, pre- and/or post-analytical indicators											
<b>Examinations:</b> Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline,												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>2480 Vitamin A, E and D metabolites</b>				■							■	
<b>Specimens:</b> 2 liquid human serum samples, 1 mL each. Pre- and/or post-analytical cases in part of the rounds.	<b>Notes:</b> Target values for 25(OH)D vitamin metabolite are provided.											
<b>Examinations:</b> Vitamin A, vitamin E, 25(OH)D, 1,25(OH)2D, pre- and/or post-analytical indicators												

EOA<sup>3</sup>EOA<sup>3</sup>

NEW	2481 Vitamin A, E and D metabolites, extra set of samples	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid human serum samples, 5 mL each				■							■	
		Notes: Only in connection with scheme 2480.											

## Clinical chemistry » Specific proteins

NEW	2020 C-reactive protein (CRP) for analyzers	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 liquid serum or plasma samples, 1 mL each Examinations: CRP		■		■		■		■		■		■
		Notes: Scheme is designed only for clinical chemistry analyzers. Order scheme 2132 for POCT CRP meters.											

POCT	2132 C-reactive protein (CRP), POCT	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 human serum samples, 1 mL each Examinations: CRP		■		■		■			■		■	
		Notes: Only for quantitative POCT CRP meters.											

NEW	2140 Decalotransferrin [EQUALIS]	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 human plasma samples, varying concentration of CDT Examinations: CDT	■		■		■			■		■		■
		Notes: Participation to all rounds required.											

NEW	2751 Faecal calprotectin	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 lyophilized faecal specimens, 0.5 mL each		■			■			■			■	
		Examinations: Calprotectin											

EQA <sup>3</sup>	2200 Lipids and lipoproteins	1	2	3	4	5	6	7	8	9	10	11	12
	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											

NEW	2202 Lipoprotein a	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 1 liquid or lyophilized human serum preparation		■								■		
		Examinations: Lp(a)											

NEW	2280 Procalcitonin	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 lyophilized samples Examinations: Procalcitonin				■							■	
		Notes: Only for quantitative methods											

NEW	2160 Proteins in cerebrospinal fluid	1	2	3	4	5	6	7	8	9	10	11	12
	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.											

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

	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											

EQA 3

## 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 of 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 (GHB), ketamine, LSD, MDMA+MDA (Ecstasy), MDPV, metaqualone, methadone metabolites, morphine, opiates, oxycodone, paracetamol, phencyclidine, phentanyle, pregabalin, 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 Urine, identification of cells and other particles, paper prints</b>		■			■			■			■	
<b>Specimens:</b> Images of scheme 3200 as paper prints												
<b>Notes:</b> Only in connection with scheme 3200												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3160 Urine, quantitative chemistry</b>			■		■				■			■
<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											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3100 Urine, strip test A</b>		■		■				■		■		
<b>Specimens:</b> 1 lyophilized urine sample with varying concentrations, 15 mL	<b>Notes:</b> For clinical laboratories and POCT sites. Water for dissolution available, see scheme 3101, should be ordered separately.											
<b>Examinations:</b> Glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3101 Urine strip test A, 15 mL water for sample dissolution</b>		■		■				■		■		
<b>Specimens:</b> 15 mL water for dissolution of samples of scheme 3100	<b>Notes:</b> Only in connection with scheme 3100											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3130 Urine, strip test B, particle count and estimation of density</b>			■		■				■			■
<b>Specimens:</b> 1 lyophilized or liquid urine, 12–15 mL	<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>Examinations:</b> Particle count: erythrocytes and leukocytes. Estimation of density: creatinine, relative density, osmolality. Strip tests: glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes).												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>3131 Urine, strip test B, 15 mL water for sample dissolution</b>			■						■			
<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 Column agglutination methods: grading of reactions and patient cases

### 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 and antigen detection
- 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 selection 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>		■			■			■			■	
<b>Specimens:</b> 2 whole blood samples	<b>Examinations:</b> ABO & Rh reactivity and interpretation, pre- and/or post-analytical indicators											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4460 Antibody screening and compatibility testing</b>		■			■			■			■	
<b>Specimens:</b> 2 whole blood samples and 4 red blood cell suspensions	<b>Examinations:</b> Reaction strengths and interpretation, pre- and/or post-analytical indicators											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4440 Antiglobulin test, direct</b>		■			■			■			■	
<b>Specimens:</b> 2 red blood cell suspensions	<b>Examinations:</b> Reaction strengths and interpretation, pre- and/or post-analytical indicators											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4480 Column agglutination methods: grading of reactions and patient cases</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												

EQA<sup>3</sup>

## 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											

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

	1	2	3	4	5	6	7	8	9	10	11	12
<b>4180 Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy</b>					■					■		
<b>Specimens:</b> 2–3 patient cases as virtual slide images	<b>Examinations:</b> Leucocyte differential count and evaluation of red blood cells											

VIRTUAL

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

**4200–4201 Leucocyte differential count, 3-part, automated**

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

**Analyzer specific product codes:**

4200: ABX, Advia, Cell-Dyn, Coulter, Medonic, Mindray, Nihon Kohden Celltac MEK  
4201: Sysmex

**Examinations:** Absolute numbers of leucocytes, lymphocytes, mononuclear cells and granulocytes

**Specimens:** 1 blood cell suspension, 2–4 mL

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

**4230–4238 Leucocyte differential count, 5-part, automated**

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

**Analyzer specific product codes:**

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

**Specimens:** 1 blood cell suspension, 2–4 mL

**Examinations:** Leucocytes, basophils, eosinophils, granulocytes, lymphocytes and monocytes

POCT

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

**5430 Malaria, antigen and nucleic acid detection**

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

**Specimens:** 3 whole blood samples

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

**Examinations:** 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

**5460 Parasites in blood, Giemsa stain**

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

**Specimens:** 2 methanol fixed or Giemsa stained smears. Brief case histories are also given. Authentic samples.

**Examinations:** Screening and identification of malaria plasmodia and other blood parasites

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

**5470 Parasites in blood, Giemsa stain, virtual microscopy**

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

**Specimens:** Virtual whole slide images of Giemsa stained smears prepared by using a scanner microscope. Brief case histories also given. Authentic samples.

**Examinations:** Screening and identification of malaria plasmodia and other blood parasites

VIRTUAL

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

**5461 Parasites in blood, May-Grünwald-Giemsa stain**

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

**Specimens:** 2 methanol fixed or May-Grünwald-Giemsa stained smears. Brief case histories are also given. Authentic samples.

**Examinations:** Screening and identification of malaria plasmodia and other blood parasites

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

**5471 Parasites in blood, May-Grünwald-Giemsa stain, virtual microscopy**

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

**Specimens:** Virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories are also given. Authentic samples.

**Examinations:** Screening and identification of malaria plasmodia and other blood parasites

VIRTUAL

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

**4150–4156 Reticulocyte count, automated**

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

**Analyzer specific product codes:**

4154: ABX Pentra  
4151: Cell-Dyn 4000, Sapphire  
4155: Cell-Dyn 3200, 3500, 3700, Ruby  
4152: Coulter Gens, LH750  
4156: Mindray  
4150: Siemens Advia  
4153: Sysmex

**Specimens:** 2 stabilized red blood cell suspensions, 2–4 mL each

**Examinations:** Reticulocyte count

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

**4140 Reticulocyte count, manual methods**

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

**Specimens:** 1 stabilized red blood cell suspension, 2 mL

**Examinations:** 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 <b>Examinations:</b> D-Dimer	<b>Notes:</b> For clinical laboratories and POCT sites											

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 Xprecia, 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 Xprecia 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>4300 Prothrombin time</b>		■			■			■			■	
<b>Specimens:</b> 2 lyophilized plasma samples, 0.5–1 mL each	<b>Examinations:</b> Prothrombin time, PT%											

	1	2	3	4	5	6	7	8	9	10	11	12
<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 high 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 of abuse screening in urine
- 2750 Faecal occult blood
- 2570, 2580, 2590 Glucose meters
- 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
- 4130 White blood cell count: HemoCue, POCT
- 4190 White blood cell differential count: HemoCue, POCT

### Microbiology

- 5640 EBV mononucleosis, heterophile antibodies
- 5860 *Helicobacter pylori*, 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
- 5098 Rotavirus and adenovirus, detection
- 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

### Preanalytics

- 7801 Preanalytics, urine and blood sample collection
- 7804 Preanalytics, POCT in chemistry

# 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 POCT.										
<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>	■			■				■			■			EQA <sup>3</sup>
<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, post-analytical clinical interpretation													
<b>5960 <i>Borrelia burgdorferi</i>, antibodies, European origin</b>	■			■				■			■			EQA <sup>3</sup>
<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, post-analytical clinical interpretation													
<b>5620 <i>Chlamydia pneumoniae</i>, antibodies</b>		■			■			■			■			EQA <sup>3</sup>
<b>Specimens:</b> 1 single plasma or serum and 1 paired plasma or serum samples, 0.4 mL each	<b>Examinations:</b> <i>C. pneumoniae</i> IgA, IgG, IgM antibodies, post-analytical clinical interpretation													
<b>5860 <i>Helicobacter pylori</i>, antibodies</b>			■			■			■			■		EQA <sup>3</sup> POCT
<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, post-analytical clinical interpretation <b>Notes:</b> For clinical laboratories and POCT sites													
<b>5980 <i>Mycoplasma pneumoniae</i>, antibodies</b>		■			■				■		■			EQA <sup>3</sup> POCT
<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, post-analytical clinical interpretation <b>Notes:</b> For clinical laboratories and POCT sites													
<b>5880 Syphilis serology</b>		■				■				■		■		EQA <sup>3</sup>
<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, post-analytical clinical interpretation													

## 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 Gram staining of clinical samples											
<b>5100 Blood culture</b>			■		■					■		■
<b>Specimens:</b> 2 lyophilized samples. Brief case histories also given. Fresh blood is needed for 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 for 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>Notes:</b> See also scheme 5303 Meningitis-encephalitis multiplex, nucleic acid detection											
<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>Notes:</b> See also scheme 5302 Sexually transmitted diseases multiplex, nucleic acid detection											
<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. Hypervirulent <i>C. difficile</i> strains also included.											
<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. Hypervirulent <i>C. difficile</i> strains also included.	<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>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> .	<b>Notes:</b> 5190 includes also this examination											

	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> .											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5080 General Bacteriology 1 (aerobes and anaerobes)</b>			■		■				■			■
<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											

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5081 General Bacteriology 2 (aerobes)</b>			■		■				■			■
<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											

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5041 Gram stain, blood culture</b>	■			■			■			■		
<b>Specimens:</b> 2-3 air-dried, unfixed microbe suspensions on slides. Brief case histories also given.	<b>Examinations:</b> Staining and microscopy											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5040 Gram stain, colonies</b>	■			■			■			■		
<b>Specimens:</b> 3 air-dried, unfixed microbe suspensions on a slide	<b>Examinations:</b> Staining and microscopy											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5596 <i>Helicobacter pylori</i>, antigen detection in faeces</b>			■			■			■			■
<b>Specimens:</b> 3 lyophilized faecal samples <b>Examinations:</b> Antigen detection	<b>Notes:</b> For clinical laboratories and POCT sites											

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5597 Legionella, antigen detection in urine</b>			■		■				■			■
<b>Specimens:</b> 3 simulated urine samples	<b>Examinations:</b> Legionella antigen detection											

POCT

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

	1	2	3	4	5	6	7	8	9	10	11	12
<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. For additional set of samples, order scheme 5222.											

NEW	5222 Mycobacteria, extra set of samples	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 2 lyophilized samples and 2 fixed smears on slides	<b>Notes:</b> Only in connection with scheme 5220 or 5221											
	5240 Mycobacterial stain	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 2 fixed smears on slides	<b>Examinations:</b> Acid-fast staining and microscopy											
	5120 <i>Neisseria gonorrhoeae</i> (Gc), culture and susceptibility testing	1	2	3	4	5	6	7	8	9	10	11	12
	<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.											
	5180 Salmonella culture	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 2 lyophilized mixtures of bacteria <b>Examinations:</b> Culture	<b>Notes:</b> 5190 also includes 5180											
POCT	5595 <i>Streptococcus</i> group A, antigen detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 simulated pharyngeal samples <b>Examinations:</b> Antigen detection	<b>Notes:</b> For clinical laboratories and POCT sites											
	5593 <i>Streptococcus</i> group A, nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 simulated pharyngeal samples	<b>Examinations:</b> Nucleic acid detection											
POCT	5594 <i>Streptococcus</i> group B (GBS), detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 2 lyophilized samples. Samples include pathogens and/or normal flora.	<b>Examinations:</b> Culture, direct nucleic acid detection and antigen detection											
POCT	5598 <i>Streptococcus pneumoniae</i> , antigen detection in urine	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 simulated urine specimens	<b>Examinations:</b> <i>S. pneumoniae</i> antigen detection											
	5073 Surveillance culture for multidrug resistant bacteria, gramnegative rods	1	2	3	4	5	6	7	8	9	10	11	12
	<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											
	5071 Surveillance culture for multidrug resistant bacteria, MRSA	1	2	3	4	5	6	7	8	9	10	11	12
	<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											



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

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

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5065</b> Urine culture, quantitative screening, identification and susceptibility			■			■			■			■
<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											

EQA<sup>3</sup>

## 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> Faecal parasites multiplex, nucleic acid detection				■				■				■
<b>Specimens:</b> 3 lyophilized samples	<b>Examinations:</b> Nucleic acid detection of <i>Cryptosporidium</i> , <i>Dientamoeba fragilis</i> , <i>Entamoeba dispar</i> , <i>Entamoeba histolytica</i> , <i>Giardia lamblia</i> .											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5430</b> Malaria, antigen and nucleic acid detection		■			■			■			■	
<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.												

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5460</b> Parasites in blood, Giemsa stain		■			■			■			■	
<b>Specimens:</b> 2 methanol fixed or 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										■		
<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											

VIRTUAL

	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 methanol fixed or 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 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>5440 Parasites in faeces</b>		■			■			■			■	
<b>Specimens:</b> 3 stool samples in formalin. Brief case histories also given.	<b>Examinations:</b> Screening and identification of intestinal parasites (ova and parasites)											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5450 Parasites in faeces, virtual microscopy</b>				■						■		
<b>Specimens:</b> Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.	<b>Examinations:</b> Screening and identification of intestinal parasites (ova and parasites)											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5420 Toxoplasma, antibodies</b>		■			■			■			■	
<b>Specimens:</b> 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.	<b>Examinations:</b> Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5473 Trichomonas vaginalis, antigen and nucleic acid detection</b>				■							■	
<b>Specimens:</b> 3 lyophilized samples	<b>Examinations:</b> Detection of <i>Trichomonas vaginalis</i> antigen and nucleic acid (NAT)											

## Microbiology » Virology

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5650 Cytomegalovirus, 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> Cytomegalovirus IgG, IgM and total antibodies, IgG avidity and post-analytical clinical interpretation											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5635 Dengue virus, antibodies and antigen detection</b>					■				■			
<b>Specimens:</b> 3 human serum or plasma samples, ≥ 0.5 mL each. Authentic, commutable samples from a single human donor or occasionally simulated samples.	<b>Examinations:</b> Dengue virus IgG and IgM antibodies, Dengue virus antigen (NS1) and post-analytical clinical interpretation											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5640 EBV mononucleosis, heterophile 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> MonAb, heterophile antibodies <b>Notes:</b> For clinical laboratories and POCT sites											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5641 EBV mononucleosis, specific antibodies</b>		■			■				■			■
<b>Specimens:</b> 3 liquid human plasma samples, 1.4 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> EBNAAb, EBVAb, EBVAbG, EBVAbM, EBVAvi and post-analytical clinical interpretation											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5092 Hepatitis A, antibodies</b>			■			■			■			■
<b>Specimens:</b> 3 liquid human plasma samples, ≥ 0.6 mL each. Authentic commutable samples: each batch originates from a single human donor.	<b>Examinations:</b> HAVAb, HAVAbM, HAVAbG and post-analytical clinical interpretation											

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5094–5096 Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL</b>			■			■			■			■
<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>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											
<b>Examinations:</b> HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and post-analytical clinical interpretation												

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5093 Hepatitis B, s-antigen antibodies, quantitative</b>	■			■			■			■		
<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 Hepatitis B virus, nucleic acid detection (DNA)</b>					■					■		
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, ≥ 1.2 mL each	<b>Notes:</b> Delivered together with schemes 5678 and 5680											
<b>Examinations:</b> HBV DNA, quantitative and/or qualitative nucleic acid detection												

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

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5682 Hepatitis E, 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> Hepatitis E virus IgG and IgM antibodies, post-analytical clinical interpretation.											

EQA<sup>3</sup>

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5555 Herpes simplex 1 and 2, 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> 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 HIV-1, nucleic acid detection (RNA)</b>					■					■		
<b>Specimens:</b> 3 lyophilized or liquid plasma samples, ≥ 1.2 mL each	<b>Notes:</b> Delivered together with schemes 5678 and 5679											
<b>Examinations:</b> HIV-1 RNA, quantitative and/or qualitative nucleic acid detection												

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

EQA<sup>3</sup>

POCT	5090 HIV, antibodies, POCT	1	2	3	4	5	6	7	8	9	10	11	12
	<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											
EQA <sup>3</sup>	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				■							■	
		<b>Notes:</b> Suitable for nucleic acid methods used in cervical cancer screening											
EQA <sup>3</sup>	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.		■			■			■			■	
		<b>Examinations:</b> HTLVAb: primary and confirmatory tests, post-analytical clinical interpretation. Positive samples may include HTLV-1 or HTLV-2.											
POCT	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 <b>Examinations:</b> InfANAT, InfBNAT, RSVNAT	■										■	
		<b>Notes:</b> See also scheme 5300 Respiratory infections multiplex, nucleic acid detection											
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	■										■	
		<b>Notes:</b> For clinical laboratories and POCT sites											
EQA <sup>3</sup>	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.	■			■			■			■		
		<b>Examinations:</b> Measles virus IgG and IgM antibodies and post-analytical clinical interpretation											
EQA <sup>3</sup>	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.	■			■			■			■		
		<b>Examinations:</b> Mumps virus IgG and IgM antibodies and post-analytical clinical interpretation											
POCT	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			■			■			■			■
		<b>Examinations:</b> Norovirus NAT, genogroups GI and GII											
EQA <sup>3</sup>	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.		■			■			■			■	
		<b>Examinations:</b> Parvovirus IgG, IgM, IgG avidity and post-analytical clinical interpretation											
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.			■			■				■		■
		<b>Examinations:</b> Puumala virus IgG, IgM, POC tests and specific antibodies, IgG avidity and post-analytical clinical interpretation <b>Notes:</b> For clinical laboratories and POCT sites											
POCT	5098 Rotavirus and adenovirus, detection	1	2	3	4	5	6	7	8	9	10	11	12
	<b>Specimens:</b> 3 simulated samples, ≥ 0.5 mL each			■			■			■			■
		<b>Examinations:</b> Rotavirus and adenovirus antigen and nucleic acid detection											

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5672 RS virus, antigen detection</b>	■										■		POCT
<b>Specimens:</b> 3 artificial samples, 0.5 mL each <b>Examinations:</b> RSVAg	<b>Notes:</b> For clinical laboratories and POCT sites												

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5667 Rubella virus, antibodies</b>	■			■			■			■			EQA <sup>3</sup>
<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 post-analytical clinical interpretation												

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5099 Tick-borne encephalitis virus, antibodies</b>		■			■			■			■		EQA <sup>3</sup> POCT
<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 post-analytical clinical interpretation <b>Notes:</b> For clinical laboratories and POCT sites												

	1	2	3	4	5	6	7	8	9	10	11	12	
<b>5665 Varicella-zoster virus, antibodies</b>		■			■			■			■		EQA <sup>3</sup>
<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 post-analytical clinical interpretation												

## 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  
 5472 Faecal parasites multiplex, nucleic acid detection  
 5303 Meningitis-encephalitis multiplex, nucleic acid detection  
 5300 Respiratory infections multiplex, nucleic acid detection  
 5302 Sexually transmitted diseases multiplex, nucleic acid detection

### Parasitology

5472 Faecal parasites multiplex, nucleic acid detection  
 5430 Malaria, antigen and nucleic acid detection  
 5473 *Trichomonas vaginalis*, antigen and 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  
 5098 Rotavirus and adenovirus, detection

# Multiplex

Multiplex EQA schemes are aimed to support laboratories to fulfill quality requirements of multiplex nucleic acid tests. All schemes include clinically relevant samples specially designed for multiplex nucleic acid testing. The 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> .												
<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>5472 Faecal parasites multiplex, nucleic acid detection</b>				■				■				■
<b>Specimens:</b> 3 lyophilized samples												
<b>Examinations:</b> Nucleic acid detection of <i>Cryptosporidium</i> , <i>Dientamoeba fragilis</i> , <i>Entamoeba dispar</i> , <i>Entamoeba histolytica</i> , <i>Giardia lamblia</i> .												

	1	2	3	4	5	6	7	8	9	10	11	12
<b>5303 Meningitis-encephalitis multiplex, nucleic acid detection</b>				■					■			
<b>Specimens:</b> 2-4 simulated samples												
<b>Examinations:</b> Direct multiplex nucleic acid detection. Most common bacterial, viral and fungal agents causing meningitis and encephalitis are included. A detailed list will be published later.												

	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. paraptussis</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

5612 *Chlamydia trachomatis* and *Neisseria gonorrhoeae* nucleic acid detection

5098 Rotavirus and adenovirus, 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</p> <p>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 cytology (LBC) samples (ThinPrep). Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and</p> <p>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 (CCF) or smear preparations or May-Grünwald-Giemsa stained smears or imprint preparations. 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 2019:</b> Mar: Skin pathology, Oct: Endometrial and ovarian 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 2019:</b> Apr: Kongo, PAS, E-PAS (E=enzyme), Oct: HE, Leder</p> <p><b>Specimens:</b> Unstained 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 2019:</b> Mar: Lymphoma: CD23, BCL2, BCL6, CD10, kappa/lambda* (*primarily cish, and if ish is not in use then ihc, also double stain accepted)</p> <p>Sep: Breast cancer: ER, PR, Ki-67, HER2, CK7</p> <p>Nov: Unknown tumour (brain): IDH1, ATRX, p53, GFAP, CD34</p> <p><b>Specimens:</b> Unstained 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.

	1	2	3	4	5	6	7	8	9	10	11	12
<b>8817 HIL-index [DEKS]</b>			■							■		
<b>Specimens:</b> 2 serum samples, 2 mL each	<b>Examinations:</b> Selected components are asked to be analysed. One of the samples is haemolysed, icteric or lipemic.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>7800 Preanalytics, clinical chemistry</b>		■							■			
<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.											

	1	2	3	4	5	6	7	8	9	10	11	12
<b>7802 Preanalytics, microbiology</b>				■							■	
<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		1	2	3	4	5	6	7	8	9	10	11	12
	<b>7801 Preanalytics, urine and blood sample collection</b>			■									
	<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 and urine sample collection. Scheme is carried out online.											

POCT		1	2	3	4	5	6	7	8	9	10	11	12
	<b>7804 Preanalytics, POCT in chemistry</b>										■		
	<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>Notes:</b> Scheme is carried out online										
<b>Examinations:</b> Concentration, morphology and motility												

## Others » Clinical physiology

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

EOA<sup>3</sup>

## 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>Notes:</b> Absorbance traceable to NIST Control of the absorbance scale of ELISA readers										
<b>Examinations:</b> Control for the absorbance scale in ELISA reader												

## 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 for diagnostics (digital pathology).

- **Non-gynaecological cytology (VIRTUAL)**
- **Gynaecological cytology, liquid based (VIRTUAL)**
- **Gynaecological cytology, smear (VIRTUAL)**
- **Histopathology (VIRTUAL)**

### Clinical chemistry and haematology

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

- **Column agglutination methods: grading of reactions and patient cases**
- **Down's syndrome screening, data analysis (LifeCycle, Prisca)**
- **Leucocyte differential count and evaluation of blood cell morphology (VIRTUAL)**
- **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**

### Clinical immunology and clinical microbiology

Interpretation and evaluation of IFA and Gram stain are made from high quality digital images.

- **Autoimmune diagnostics, IFA interpretation**
- **Bacteriological staining, direct, evaluation**

Parasites in blood and parasites in faeces digital schemes use virtual microscopy technology.

- **Parasites in blood (VIRTUAL)**
- **Parasites in faeces (VIRTUAL)**

### 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, urine and blood sample collection**
- **Preanalytics, POCT in chemistry**

### Virtual microscopy demo

Please use our virtual microscopy demo site ([www.labquality.com](http://www.labquality.com)) to test that your internet connection and internet browser are compatible with the Aiforia cloud webmicroscope.

## 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, **10**  
Blood culture, **22**  
Blood culture, screening, **22**  
*Bordetella pertussis*, antibodies, **21**  
*Borrelia burgdorferi*, antibodies, European origin, **21**

### C

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