LABQUALITY

THE PATH TO PERFECT QUALITY

External Quality Assessment
Product Catalogue 2020

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EXTERNAL QUALITY ASSESSMENT

Product Catalogue 2020

Service information

Labquality – EQAS

Labquality is a Finnish independent external quality assessment provider owned by various non-profit organizations. Labquality has over 48 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 (EQA³)

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 extra-analytical phases. In addition to the samples, the intergrated schemes inlude 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 are accredited according to ISO 17043 (PT02/FINAS). The scope of accreditation is available on FINAS´ website: **www.finas.fi**, and accreditation status of the EQA schemes is available on our website: **www.labquality.fi**. The list of accredited schemes will be provided upon request.

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 our national partner in your country or Labquality's customer service at info@labquality.fi.

Deliveries

Labquality's specimen logistics system is accepted and continuously audited as 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 in the schedule.

LabScala EQA portal

Partners and participants are able to handle 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 guarantees an advanced experience.

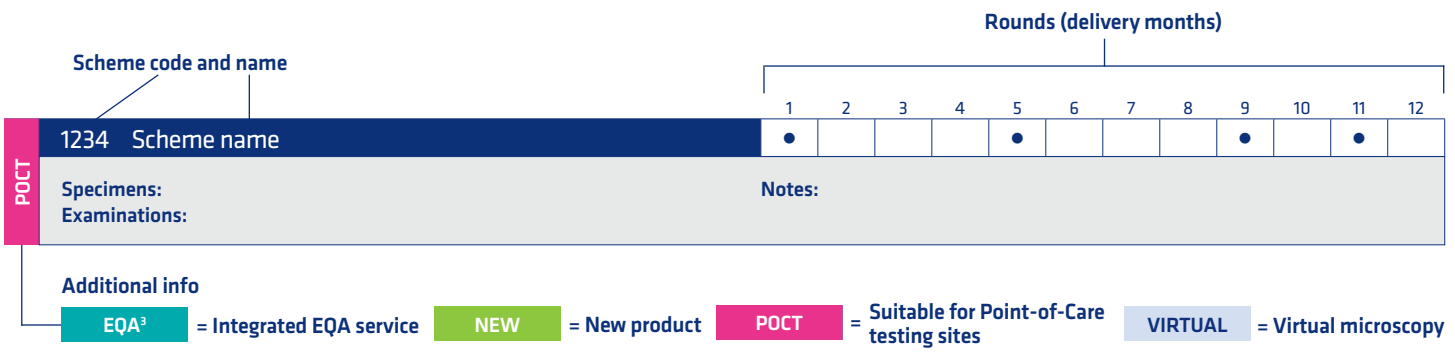
Certificate

Certificate of participation will be provided upon request 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) or our customer service (English) at info@labquality.fi.

How to use the catalogue



Updates for 2020

New schemes and products

4330 Activated partial tromboplastin time, INR and fibrinogen (p.18)
2703 Anti-Müllerian hormone (p.13)
2749 Faecal occult blood, quantitative (p.7)
3501 Flagger program (Noklus) (p.15)
5304 Gastrointestinal viral multiplex (p.31)
3500 Percentiler program (Noklus) (p.15)
7806 Preanalytics in anatomic pathology (p.32)

Discontinued schemes

4391 Anticoagulants: Rivaroxaban
2221 Down´s syndrome screening, quality assurance
8610 Veterinary basic blood count
8530 Veterinary basic chemistry

Changes in distribution schedule

2370 Folate, erythrocytes (FEB, JUN, OCT)
5086 Human papillomavirus (MAR, MAY, SEP, NOV)
5670 Influenza virus A+B and RS virus (FEB, NOV)
5671 Influenza virus A+B (FEB, NOV)
5303 Meningitis-encephalitis multiplex (FEB, MAY, SEP, NOV)
5300 Respiratory infections multiplex (FEB, MAY, SEP, NOV)
5672 RS virus (FEB, NOV)

Changes in scope, specimens or parameters

4330 Activated partial thromboplastin time, INR and fibrinogen
New parameter: INR (prothrombin time)
1072, 1072S, 1072 print Discontinued parameters triiodotyronine, zinc, copper
2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry. Discontinued parameter: Digoxin
5900 Antinuclear antibodies
New parameters: CENP-A and CENP-B. Discontinued parameter: CENTAb
5620 Chlamydia pneumoniae, antibodies
New specimen volume: 3 liquid serum or plasma samples
5221 Mycobacterial nucleic acid detection
Discontinued examination: Acid-fast staining and microscopy
5090-5091 HIV, antibodies and antigen detection
New specimen volume: 3 liquid human plasma 0.7 mL each
5086 Human papillomavirus, nucleic acid detection
New specimen volume: 2 simulated samples
5098 Rotavirus and adenovirus, antigen detection
Discontinued examinations: Rotavirus and adenovirus nucleic acid detection

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**

2675 Allergen component [UK NEQAS]

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

Specimens: 2 liquid human serum samples for allergen component tests

Examinations: Allergen component test which covers recombinant allergens as well as the ISAC system

Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.

2670 Allergy in vitro diagnostics [UK NEQAS]

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

Specimens: 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

Examinations: Total IgE and specific IgEs

Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.

2681 Allergy in vitro diagnostics [SKML]

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

Specimens: 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

Examinations: Total IgE, specific IgEs, allergen mixes and allergen components

Notes: Participation to all rounds required. Should be ordered until the beginning of November. All samples are distributed in February.

2680 Eosinophil cationic protein

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

Specimens: 1 lyophilized human serum sample, 0.3 mL
Examinations: ECP

Notes: Results are processed in connection with total IgE results of scheme 2670.

2685 Tryptase [UK NEQAS]

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

Specimens: 2 liquid human serum samples
Examinations: Tryptase

Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability.

Clinical chemistry » **Basic chemistry**

2100 Basic chemistry, POCT analyzers

POCT

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

Specimens: 2 human serum samples, 1 mL each

Examinations: 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

Notes: For clinical laboratories and POCT sites. Only for dry chemistry analyzers.

2730 Erythrocyte sedimentation rate

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

Specimens: 1 artificial blood cell suspension, ~ 4 mL
Examinations: ESR

Notes: Not suitable for Algor iSed

	1	2	3	4	5	6	7	8	9	10	11	12
2731 Erythrocyte sedimentation rate: Alifax; Greiner tube			●		●				●		●	

Specimens: 3 test tubes containing synthetic latex solution, 3 mL each

Examinations: ESR

	1	2	3	4	5	6	7	8	9	10	11	12
2732 Erythrocyte sedimentation rate: Alifax; Sarstedt tube			●		●				●		●	

Specimens: 3 test tubes containing synthetic latex solution, 3 mL each

Examinations: ESR

	1	2	3	4	5	6	7	8	9	10	11	12
2750 Faecal occult blood, qualitative	●				●				●		●	

Specimens: 2 preparations that include human haemoglobin, 0.5 mL each
Examinations: Qualitative detection of Hb in human faeces

Notes: For clinical laboratories and POCT sites

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
2749 Faecal occult blood, quantitative			●			●			●			●

Specimens: 2 liquid or lyophilized sample preparations of human origin including human haemoglobin.
Examinations: Quantitative determination of Hb in human faeces (iFOB/FIT)

Notes: The liquid samples assess the analytical process only, the lyophilized samples assess both the preanalytical and analytical processes. For clinical laboratories and POCT sites.

NEW

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
2114 Haemoglobin, 1-level, POCT			●		●				●		●	

Specimens: 2 bovine hemolysate or human whole blood control samples, 1 mL each.

Examinations: Haemoglobin
Notes: Only for POCT devices. Not suitable for Diaspect.

POCT

	1	2	3	4	5	6	7	8	9	10	11	12
2113 Haemoglobin, 3-level samples, cell counters and analyzers									●			

Specimens: 3 human whole blood control samples, 1 mL each (low, medium and high concentration)

Examinations: Haemoglobin linearity with three samples. Reference values will be provided in the summary report.

Notes: For cell counters and analyzers

	1	2	3	4	5	6	7	8	9	10	11	12
2112 Haemoglobin, 3-level samples, POCT									●			

Specimens: 3 bovine or human samples, 1 mL each (low, medium and high concentration)

Examinations: Haemoglobin linearity with three samples
Notes: Only for POCT devices. Not suitable for Diaspect.

POCT

Clinical chemistry » **Cardiac markers**

	1	2	3	4	5	6	7	8	9	10	11	12
1541 CRP, low concentration		●		●		●			●		●	

Specimens: 1 human serum sample
Examinations: CRP

Notes: CRP, low concentration sample is included in product 2541 Myocardiac markers and CRP

	1	2	3	4	5	6	7	8	9	10	11	12
2540 Myocardial markers		●		●		●			●		●	

Specimens: 2 fresh human samples or 2 liquid samples, 0.5–1 mL each

Examinations: CK MB mass, myoglobin, quantitative troponin I, quantitative troponin T

Notes: Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT.

2541 Myocardial markers and CRP, low concentration

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

Specimens: 2 fresh human samples or 2 liquid samples for myocardial markers, 0.5 mL each and 1 for CRP, 1 mL

Examinations: CK-MB mass, myoglobin, quantitative troponin I, quantitative troponin T and CRP, low concentration

Notes: Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT.

POCT

2690 Natriuretic peptides 1, B-type, NT-ProBNP

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

Specimens: 2 lyophilized or liquid samples, 3 mL each
Examinations: NT-ProBNP

Notes: Suits both clinical laboratories and POCT sites. Also suitable for Roche Cardiac Reader and cobas h232.

POCT

2691 Natriuretic peptides 2, B-type, BNP

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

Specimens: 2 lyophilized or liquid samples, 3 mL each
Examinations: BNP

Notes: For clinical laboratories and POCT sites

POCT

2530 Troponin I and Troponin T, detection, POCT

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

Specimens: 2 fresh human samples or 2 liquid samples, 0.5 mL each
Examinations: Detection of troponin I and troponin T

Notes: Qualitative, semi-quantitative and quantitative results are processed. This scheme is only for POCT, scheme 2540 is for analyzers.

Clinical chemistry » **Diabetes analysis**

POCT

2570, 2580, 2590 Glucose meters

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

Device specific product codes:
2570 for all glucose meters except Contour, HemoCue and On Call Plus
2580 for HemoCue meters
2590 for Contour meters

Specimens: 1 whole blood or plasma sample

Examinations: Glucose

Notes: For clinical laboratories and POCT sites. Observe device specific product codes. 5 results processed with one order.

1261 Haemoglobin A1c, liquid samples

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

Specimens: 2 liquid blood samples, 0.5 mL each
Examinations: HbA1c

Notes: Result processing in IFCC and DCCT units. Not suitable for Afinion instruments.

POCT

1263 Haemoglobin A1c, liquid samples, POCT

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

Specimens: 2 liquid blood samples, 0.5 mL each
Examinations: HbA1c

Notes: Result processing in IFCC and DCCT units. Only for POCT devices. Not suitable for Afinion instruments.

Clinical chemistry » **Endocrinology**

EQA³

2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry

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

Specimens: 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.

Examinations: Ferritin, folate, hCG (total, intact), T3, free T3, T4, free T4, TSH, vitamin B12, active vitamin B-12, pre- and/or post-analytical indicators

Notes: 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.

1300 Hormones A, extra set of samples	1	2	3	4	5	6	7	8	9	10	11	12
		●		●	●	●		●		●	●	●

Specimens: 2 human serum samples, 3 mL each

Notes: Only in connection with scheme 2300

2301, 2301S Hormones B: Steroid and peptide hormones	1	2	3	4	5	6	7	8	9	10	11	12
		●		●		●		●		●		●

EQA3

Specimens: 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.

Examinations: Androstenedione, aldosterone, C-peptide, cortisol, DHEAS, estradiol, FSH, gastrin, growth hormone, IGF-1, insulin, LH, progesterone, 17-OH-progesterone, prolactin, SHBG, testosterone, free testosterone, TBG, pre- and/or post-analytical indicators

Notes: 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.

1301 Hormones B, extra set of samples	1	2	3	4	5	6	7	8	9	10	11	12
		●		●		●		●		●		●

Specimens: 2 human serum samples, 3 mL each

Notes: Only in connection with scheme 2301

2250 Parathyroid hormone	1	2	3	4	5	6	7	8	9	10	11	12
			●							●		

Specimens: 2 lyophilized human serum samples, 3 mL each

Examinations: PTH

Clinical chemistry » **General long-term clinical chemistry**

1031 DayTrol, human serum	1	2	3	4	5	6	7	8	9	10	11	12
	●	●	●	●	●	●	●	●	●	●	●	●

Specimens: 1 lyophilized human serum sample, 5 mL

Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase, aspartate aminotransferase, bilirubin, calcium, chloride, cholesterol, cholesterol HDL, creatine phosphokinase, creatinine, gamma-glutamyltransferase, glucose, iron, lactate, lactate dehydrogenase, lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium, thyreotropin, thyroxine, thyroxine free, transferrin, transferrin receptor, triglycerides, urea, uric acid

Notes: Minimum order quantity of 10 bottles per year. Monthly processing of results included.

Clinical chemistry » **General short-term clinical chemistry**

1072, 1072S Serum A, lyophilized samples	1	2	3	4	5	6	7	8	9	10	11	12
	●	●	●	●	●	●	●	●	●	●	●	●

Specimens: Lyophilized serum sample, 3 mL each, samples are selected to cover a wide concentration range

Examinations: 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, iron, lactate, lactate dehydrogenase, lithium, magnesium, oroso-mucoid, osmolality, phosphorus, potassium, protein, selenium, sodium, thyreotropin, thyroxine, thyroxine free, TIBC, transferrin, transferrin receptor, triglycerides, urea, uric acid

Notes: 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.

2050 Serum B and C (2-level)	1	2	3	4	5	6	7	8	9	10	11	12
		●		●		●		●		●	●	

EQA3

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

Examinations: Alanine aminotransferase, albumin, alfa-1-antitrypcine, alfa-1-glycoprotein, alkaline phosphatase, amylase, pancreas amylase, aspartate aminotransferase, bilirubin, ferritin, phosphate, glucose, glutamyltransferase, haptoglobin, IgA, IgE, IgG, IgM, potassium, calcium, ionized calcium, ionized calcium pH corrected (7.4), chloride, cholesterol, HDL cholesterol, LDL cholesterol, cortisol, creatine kinase, creatinine, copper, lactate, lactate dehydrogenase, lipase, lithium, magnesium, sodium, osmolality, protein, iron binding capacity, iron, selenium, zinc, transferrin, transferrin receptor, triglycerides, tri-iodio-thyronine, thyrotropin, tyroxine, free tyroxine, urea, uric acid

Notes: Reference values for common analytes are included

2610 Acid-base status and electrolytes

EQA³ POCT

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

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

Examinations: Chloride, creatinine, glucose, ionized calcium, ionized magnesium, lactate, pCO_2, pH, pO_2, potassium, sodium, urea, base excess, HCO_3, pre- and/or post-analytical cases

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

2510 Alcohol in whole blood: Ethanol + methanol + isopropanol

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

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

Examinations: Ethanol, methanol, isopropanol

2516 Alcohol in whole blood: Ethylene glycol

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

Specimens: 1-level whole blood samples

Examinations: Ethylene glycol

2511 Alcohol in serum: Ethanol + methanol + isopropanol

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

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

Examinations: Ethanol, methanol, isopropanol

2517 Alcohol in serum: Ethylene glycol

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

Specimens: 1-level serum samples

Examinations: Ethylene glycol

2105 Ammonium ion

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

Specimens: 2 serum based or buffered samples

Examinations: Ammonium ion

2210 Angiotensin convertase (ACE)

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

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

Examinations: ACE

2520 Bile acids

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

Specimens: 2 pooled human serum samples, 0.5 mL each

Examinations: Bile acids

2109 Bilirubin, conjugated

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

Specimens: 2 lyophilized or liquid samples

Examinations: Total bilirubin, conjugated bilirubin

2040 Bilirubin, neonatal

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

Specimens: 2 lyophilized samples, 1 mL

Examinations: Bil, neo

8702 Chromogranin A (Noklus)

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

Specimens: 3 genuine human serum samples

8805 Cystatin C [DEKS]

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

Specimens: 2 human plasma samples with reference target values, 0.75 mL each

Examinations: P-Cystatin C
Notes: Participation to all rounds required.

2370 Folate, erythrocytes

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

Specimens: 1 human whole blood sample, 1 mL

Examinations: Blood folate and erythrocyte folate

2150 Haemoxymeters

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

Specimens: 2 liquid (1.2 mL) samples
Examinations: FO2Hb, FCOHb, FMETHb, ctHb, sO2

Notes: Order one sample set for each analyzer

8816 Homocysteine [DEKS]

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

Specimens: 2 human plasma or serum samples
Examinations: P-Homocysteine

Notes: Participation to all rounds required.

8815 Methyl malonate [DEKS]

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

Specimens: 2 human serum samples
Examinations: P-Methyl-malonate

Notes: Participation to all rounds required.

2651 Nasal swab cells

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

Specimens: 4 digital images of MGG and methylene eosin stained samples

Examinations: Eosinophils, neutrophils

2652 Sputum cells

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

Specimens: 4 digital images of MGG and methylene eosin stained samples

Examinations: Eosinophils, neutrophils

2640 Synovial fluid crystals

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

Specimens: 3 slides prepared from patient samples

Examinations: Sodium urate monohydrate and calcium pyrophosphate dihydrate crystals

2410 Therapeutic drugs

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

Specimens: 2 liquid or lyophilized human serum samples, volume 5 mL each.

Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline, paracetamol (acetaminophen), phenobarbital, phenytoin, phenytoin free, primidone, procainamide, quinidine, salicylate, theophylline, tobramycin, tricyclics, valproic acid, valproic acid free, vancomycin

2480 Vitamin A, E and D metabolites

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

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

Examinations: Vitamin A, vitamin E, 25(OH)D, 1,25(OH)2D, pre- and/or post-analytical indicators

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

EQA³

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.

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.

2140 Decialotransferrin [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.

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[3]

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

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)

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

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[3]

2240 Proteins, electrophoresis

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

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

Examinations: Electrophoresis, contains immunofixation, pre- and/or post-analytical indicators

2230 Proteins, immunochemical determinations

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

Specimens: 2 liquid or lyophilized human serum samples, 1 mL each.

Examinations: Alpha-1-antitrypsin, alpha-2-macroglobulin, albumin, ceruloplasmin, complement C3, complement C4, haptoglobin, hemopexin, IgA, IgG, IgLcKappa, IgLcLambda, IgLcKappa free, IgLcLambda free, IgM, orosomucoid, pre-albumin, RBP, transferrin, transferrin receptor.

Clinical chemistry » **Tumour markers**

2703 Anti-Müllerian hormone

NEW

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

Specimens: 2 liquid human serum samples, 1 mL each
Examinations: Anti-Müllerian hormone

2226 Prostate specific antigen

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

Specimens: 2 liquid human serum samples, 1 mL each

Examinations: PSA, complexed PSA, free PSA, free/total PSA ratio

2700, 2700S Tumour markers

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

Specimens: 2 liquid human serum samples, 2 mL each

Examinations: 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, NSE, HE4

Notes: 2700S is a limited version of the scheme available for laboratories performing testing of 1–5 analytes.

2701 Tumour markers, extra set of samples

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

Specimens: 2 liquid human serum samples, 2 mL each

Notes: Only in connection with scheme 2700

Clinical chemistry » **Urine analysis**

3240 Albumin and creatinine in urine

POCT

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

Specimens: 2 liquid human urine samples with spiked albumin and creatinine, 4 mL each

Examinations: Albumin, creatinine, albumin-creatinine ratio
Notes: Only for quantitative methods

3300 Drug of abuse screening in urine

POCT

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

Specimens: 2 authentic samples, 5 mL each

Examinations: 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

Notes: For clinical laboratories and POCT sites. Expert laboratory confirmatory results are provided. Results are reported as positive or negative.

3270 Pregnancy test

POCT

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

Specimens: 2 fresh urine samples, 1 mL each
Examinations: Qualitative hCG

Notes: For clinical laboratories and POCT sites

3200 Urine, identification of cells and other particles

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

Specimens: 4 digital images
Examinations: Identification of cells and other particles

Notes: Images are also available as paper prints, see scheme 3201

3201 Urine, identification of cells and other particles, paper prints

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

Specimens: Images of scheme 3200 as paper prints

Notes: Only in connection with scheme 3200

3160 Urine, quantitative chemistry

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

Specimens: 1 lyophilized or liquid urine, 8–10 mL

Examinations: Albumin, amylase, calcium, chloride, cortisol-free, creatinine, glucose, inorganic phosphate, magnesium, osmolality, pH, potassium, protein, relative density, sodium, urea, uric acid

POCT

3100 Urine, strip test A

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

Specimens: 1 lyophilized urine sample with varying concentrations, 15 mL

Examinations: Glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density

Notes: For clinical laboratories and POCT sites. Water for dissolution available, see scheme 3101, should be ordered separately.

POCT

3101 Urine, strip test A, 15 mL water for sample dissolution

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

Specimens: 15 mL water for dissolution of samples of scheme 3100

Notes: Only in connection with scheme 3100

3130 Urine, strip test B, particle count and estimation of density

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

Specimens: 1 lyophilized urine, 15 mL

Examinations: Particle count: erythrocytes and leukocytes. Estimation of density: creatinine, relative density, osmolality. Strip tests: glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes).

Notes: 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.

3131 Urine, strip test B, 15 mL water for sample dissolution

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

Specimens: 15 mL water for dissolution of lyophilized samples of scheme 3130

Notes: Only in connection with scheme 3130

Clinical chemistry and haematology

Clinical chemistry and haematology » **Percentiler and flagger programs**

3500 Percentiler program (Noklus)

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

Specimens: results from selected patient groups are used to calculate instrument-specific daily medians

Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC

Notes: Participating laboratories calculate, and report instrument-specific medians based on patient results. The total number of patient results is also reported. Ideally, patient medians are reported daily, but less frequent reporting is also possible. Results are exported to a central database by standardized e-mails.

NEW

3501 Flagger program (Noklus)

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

Specimens: The percentage of patient results outside the reference limits

Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC

Notes: Each participant will receive log in information giving access to the laboratories results and allowing dynamic on-line monitoring of mid-to long-term stability of performance and flagging rate. Laboratories can choose to participate in The Percentiler program only.

NEW

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**

4420 ABO and Rh grouping

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

Specimens: 2 whole blood samples

Examinations: ABO & Rh reaction strengths and interpretation

4460 Antibody screening and compatibility testing

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

Specimens: 2 whole blood samples and 4 red blood cell suspensions

Examinations: Reaction strengths and interpretation

4440 Antiglobulin test, direct

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

Specimens: 2 red blood cell suspencions

Examinations: Reaction strengths and interpretation

EQA³

4480 Column agglutination methods: grading of reactions and patient cases

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

Specimens: 3-5 cases and digital images (DiaMed and Grifols cards)

Examinations: Interpretation of the cases and reaction strengths of the digital images

Notes: Post-analytical scheme

Haematology » **Cell count and cell morphology**

4100 Basic blood count, one specimen

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

Specimens: 1 blood cell suspension

Examinations: Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV

4110 Basic blood count, two specimens

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

Specimens: 2 blood cell suspensions

Examinations: Hb, HCT, MCH, MCHC, MCV, PLT, RBC, RDW (red cell distribution width), WBC, cumulative patient means of MCH, MCHC, MCV

VIRTUAL

4180 Leucocyte differential count and evaluation of blood cell morphology, virtual microscopy

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

Specimens: 2–3 patient cases as virtual slide images

Examinations: Leucocyte differential count and evaluation of red blood cells

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

Specimens: 1 blood cell suspension, 2–4 mL

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

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

5430 Malaria, antigen and nucleic acid detection

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

POCT

Specimens: 3 whole blood samples
Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.
Notes: For clinical laboratories and POCT sites

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

5470 Parasites in blood, Giemsa stain, virtual microscopy

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

VIRTUAL

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

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

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

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

VIRTUAL

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

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, Saphire
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

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: Reticulosyte count

4130 White blood cell count: HemoCue, POCT

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

POCT

Specimens: 1 blood cell suspension, 2 mL
Examinations: Leucocytes
Notes: The scheme is for HemoCue WBC Systems

	1	2	3	4	5	6	7	8	9	10	11	12
4190 White blood cell differential count: HemoCue, POCT						●						●

POCT

Specimens: 1 blood cell suspension, 2 mL
Examinations: Leucocytes, neutrophiles, lymphocytes, monocytes, basophils, eosinophils

Notes: The scheme is for HemoCue WBC Diff analyzers (5-part)

Haematology » **Coagulation**

	1	2	3	4	5	6	7	8	9	10	11	12
4330 Activated partial thromboplastin time, INR and fibrinogen		●			●			●			●	

NEW

Specimens: 2 lyophilized plasma samples, 0.5–1 mL each

Examinations: Coagulation time in seconds, fibrinogen, INR

	1	2	3	4	5	6	7	8	9	10	11	12
4387 Anticoagulants: LMW-Heparin/antiFXa		●			●			●			●	

Specimens: 2 lyophilized plasma samples, 0.5–1 mL each

Examinations: LMW-heparin/antiFXA

	1	2	3	4	5	6	7	8	9	10	11	12
4388 D-dimer		●			●			●			●	

POCT

Specimens: 2 liquid commercial plasma samples, 0.5 mL
Examinations: D-Dimer

Notes: For clinical laboratories and POCT sites

	1	2	3	4	5	6	7	8	9	10	11	12
4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT					●						●	

POCT

Specimens: Liquid or lyophilized sample
Examinations: Prothrombin time in INR unit

Notes: Only for CoaguChek, i-STAT and Siemens Xprecia meters

	1	2	3	4	5	6	7	8	9	10	11	12
4337 INR, EuroLyzer, POCT					●						●	

POCT

Specimens: 1 lyophilized plasma sample
Examinations: Prothrombin time in INR unit

Notes: Only for EuroLyzer INR meter

	1	2	3	4	5	6	7	8	9	10	11	12
4338 INR, MicroINR, LumiraDX and CoagSense, POCT					●						●	

POCT

Specimens: Lyophilized whole blood sample or lyophilized plasma sample
Examinations: Prothrombin time in INR unit

Notes: Only for microINR, LumiraDX and CoagSense meters

	1	2	3	4	5	6	7	8	9	10	11	12
4300 Prothrombin time		●			●			●			●	

Specimens: 2 lyophilized plasma samples, 0.5–1 mL each

Examinations: Prothrombin time, PT%

	1	2	3	4	5	6	7	8	9	10	11	12
4386 Special coagulation		●			●			●			●	

Specimens: 2 lyophilized plasma samples, 0.5–1 mL each

Examinations: Thrombin time, Antithrombin, Factor VIII, Protein C, Protein S

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)

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, qualitative
2749 Faecal occult blood, quantitative
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
4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT
4337 INR, EuroLyzer, POCT
4338 INR, MicroINR, LumiraDX and CoagSense, 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, 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, antigen detection
5672 RS virus, detection
5595 *Streptococcus pyogenes*, group A, antigen detection in pharyngeal sample
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.

5935 ANCA and GbmAb

EQA³

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

Specimens: 2 liquid human serum or plasma samples, 0.5 mL each

Examinations: Anti-neutrophilic cytoplasmic Ab, Myeloperoxidase Ab, Proteinase-3 Ab and Glomerular basement membrane Ab. Pre- and/or post-analytical cases in part of the rounds.

Notes: Quantitative results are also processed (Pr3Ab, MPOAb)

5900 Antinuclear antibodies

EQA³

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

Specimens: 3 liquid human serum or plasma samples, 0.6 mL each

Examinations: ANA, ENAAb, RNPAb, SmAb, SSAAb, SSBAb, Scl70Ab, CENP-B, CENP-A, Jo1Ab, DNAnAb (dsDNA), HistAb. Pre- and/or post-analytical cases in part of the rounds.

Notes: Extractable antinuclear antigens and double-stranded deoxyribonucleic acid are included

5938 Autoimmune diagnostics, IFA interpretation

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

Specimens: 3–5 cases (digital images)

Examinations: Interpretation

5930 Autoimmune liver disease and gastric parietal cell antibodies

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

Specimens: 2 liquid human serum or plasma samples, 0.4 mL each

Examinations: Liver kidney microsomal antibodies, Smooth muscle antibodies, Mitochondrial antibodies, Gastric parietal cell antibodies

5940 Coeliac disease, antibodies

EQA³

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

Specimens: 2 liquid human serum or plasma samples, 0.7 mL each. Pre- and/or post-analytical cases in part of the rounds.

Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies.

Notes: Quantitative results are also processed (tTGAbA, tTGAbG, DGPAbA, DGPAbG). Scheme is not suitable for POCT.

5937 Phospholipid antibodies

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

Specimens: 2 liquid human serum or plasma samples, 0.5 mL each

Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM), beta-2-glycoprotein antibodies (IgG and IgM).

Notes: Quantitative results are also processed

5820 Rheumatoid factor and citrullic peptide antibodies

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

Specimens: 2 liquid human serum or plasma samples, 0.7 mL each

Examinations: Qualitative and quantitative RF, CCPAb

	1	2	3	4	5	6	7	8	9	10	11	12
5920 Thyroid gland antibodies			●			●				●		

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			●						●			

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**

5840 Antistreptolysin

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

Specimens: 2 liquid human serum or plasma samples, 0.4 mL each. Authentic, commutable, single donor samples.

Examinations: Qualitative and quantitative ASO

EQA³

5950 *Bordetella pertussis*, antibodies

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

Specimens: 2 liquid human serum samples, 0.3 mL each

Examinations: *B. pertussis* IgA, IgG & IgM antibodies, Pertussis toxin IgA, IgG & IgM, post-analytical clinical interpretation

EQA³

5960 *Borrelia burgdorferi*, antibodies, European origin

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

Specimens: 2 liquid human serum or plasma samples, 0.5 mL each. Authentic, commutable, single donor samples.

Examinations: *B. burgdorferi* IgG, IgM and total antibodies, post-analytical clinical interpretation

EQA³

5620 *Chlamydia pneumoniae*, antibodies

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

Specimens: 3 liquid serum or plasma samples, 0.4 mL each.

Examinations: *C. pneumoniae* IgA, IgG, IgM antibodies, post-analytical clinical interpretation

POCT
EQA³

5860 *Helicobacter pylori*, antibodies

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

Specimens: 2 liquid human serum or plasma samples, 0.4 mL each

Examinations: *H. pylori* IgA, IgG and total antibodies, quantitative and qualitative tests, post-analytical clinical interpretation

Notes: For clinical laboratories and POCT sites

POCT
EQA³

5980 *Mycoplasma pneumoniae*, antibodies

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

Specimens: 2 liquid human serum or plasma samples, 0.3 mL each. Authentic, commutable, single donor samples.

Examinations: *M. pneumoniae* IgG, IgM and total antibodies, post-analytical clinical interpretation

Notes: For clinical laboratories and POCT sites

EQA³

5880 Syphilis serology

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

Specimens: 2 liquid human serum samples, 0.6 mL each. Authentic, commutable, single donor samples.

Examinations: Cardiolipin, *Treponema pallidum* antibodies, post-analytical clinical interpretation

5050 Bacteriological staining, direct

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

Specimens: 3 cases, 3–9 digital images

Examinations: Interpretation of digital images taken from direct bacteriological Gram staining of clinical samples

5100 Blood culture

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

Specimens: 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.

Examinations: Culture, identification, antimicrobial susceptibility

Notes: Fresh blood is needed but not included in the shipment

5101 Blood culture, screening

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

Specimens: 2 lyophilized samples. Brief case histories also given. Fresh blood is needed for sample preparation.

Examinations: Culture, preliminary identification using Gram staining. The scheme is also suitable for stem cell banks screening only for possible growth.

Notes: Fresh blood is needed but not included in the shipment

5150 Cerebrospinal fluid, culture

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

Specimens: 2 lyophilized samples. Brief case histories also given.

Examinations: Culture and identification. The scheme is also suitable for laboratories performing screening and reporting merely a preliminary identification.

Notes: See also scheme 5303 Meningitis-encephalitis multiplex, nucleic acid detection

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

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

Specimens: 3 simulated swab/urine samples
Examinations: Detection of *C. trachomatis* and *N. gonorrhoeae* nucleic acid

Notes: See also scheme 5302 Sexually transmitted diseases multiplex, nucleic acid detection

5200 *Clostridium difficile*, culture and toxin detection

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

Specimens: 2 lyophilized mixtures of bacteria.

Examinations: This scheme includes *C. difficile* culture, antigen detection (GDH), toxin detection and direct nucleic acid detection. Hypervirulent *C. difficile* strains also included.

5202 *Clostridium difficile*, extra set of samples

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

Specimens: 2 lyophilized mixtures of bacteria

Notes: Only in connection with scheme 5200

5201 *Clostridium difficile*, nucleic acid detection

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

Specimens: 2 lyophilized mixtures of bacteria. Hypervirulent *C. difficile* strains also included.

Notes: 5200 includes also this examination

5191 Faecal bacterial pathogens multiplex, nucleic acid detection

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

Specimens: 2 lyophilized mixtures of bacteria

Examinations: Direct nucleic acid detection. Pathogens included are *Aeromonas, Campylobacter, Plesiomonas, Salmonella*, *Shigella* and *Yersinia*.

Notes: 5190 includes also this examination

5190 Faecal culture

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

Specimens: 2 lyophilized mixtures of bacteria

Examinations: Culture and direct nucleic acid detection. Pathogens included are *Aeromonas*, *Campylobacter*, *Plesiomonas*, *Salmonella*, *Shigella* and *Yersinia*.

5080 General Bacteriology 1 (aerobes and anaerobes)

EQA³

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

Specimens: 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.

Examinations: Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases

Notes: 5080 includes 5081, General Bacteriology 2

5081 General Bacteriology 2 (aerobes)

EQA³

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

Specimens: 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.

Examinations: Isolation of pathogens and antimicrobial susceptibility testing, pre- and/or post-analytical cases

Notes: 5080 General Bacteriology 1 includes 5081

5041 Gram stain, blood culture

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

Specimens: 2–3 air-dried, unfixed microbe suspensions on slides. Brief case histories also given.

Examinations: Staining and microscopy

5040 Gram stain, colonies

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

Specimens: 3 air-dried, unfixed microbe suspensions on a slide

Examinations: Staining and microscopy

5596 *Helicobacter pylori*, antigen detection in faeces

POCT

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

Specimens: 3 lyophilized faecal samples
Examinations: Antigen detection

Notes: For clinical laboratories and POCT sites

5597 Legionella, antigen detection in urine

POCT

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

Specimens: 3 simulated urine samples

Examinations: Legionella antigen detection

5220 Mycobacterial culture and stain

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

Specimens: 2 lyophilized samples and 2 fixed smears on slides

Examinations: Detection of *Mycobacterium tuberculosis*, *Mycobacterium tuberculosis* complex and atypical mycobacteria: culture, direct nucleic acid detection, acid-fast staining and microscopy.

5221 Mycobacterial nucleic acid detection

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

Specimens: 2 lyophilized samples
Examinations: Direct nucleic acid detection

Notes: 5220 includes also this examination. For additional set of samples, order scheme 5222.

5222 Mycobacteria, extra set of samples

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

Specimens: 2 lyophilized samples

Notes: Only in connection with scheme 5220 or 5221

5240 Mycobacterial stain

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

Specimens: 2 fixed smears on slides

Examinations: Acid-fast staining and microscopy

5120 *Neisseria gonorrhoeae* (Gc), culture and susceptibility testing

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

Specimens: 2 lyophilized mixtures of microbes. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.

Examinations: 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
			●		●				●		●

Specimens: 2 lyophilized mixtures of bacteria
Examinations: Culture

Notes: 5190 also includes 5180

5594 *Streptococcus* group B (GBS), detection

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

POCT

Specimens: 2 lyophilized samples. Samples include pathogens and/or normal flora.

Examinations: Culture, direct nucleic acid detection and antigen detection

5598 *Streptococcus pneumoniae*, antigen detection in urine

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

POCT

Specimens: 3 simulated urine specimens

Examinations: *S. pneumoniae* antigen detection

5595 Streptococcus pyogenes (Group A), antigen detection in pharyngeal sample

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

POCT

Specimens: 3 simulated pharyngeal samples
Examinations: Antigen detection

Notes: For clinical laboratories and POCT sites

5593 Streptococcus pyogenes (Group A), nucleic acid detection in pharyngeal sample

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

Specimens: 3 simulated pharyngeal samples

Examinations: Nucleic acid detection

5073 Surveillance culture for multidrug resistant bacteria, gramnegative rods

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

Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora

Examinations: The scheme is intended for laboratories performing screening of multidrug resistant gramnegative rods (e.g. CPE, ESBL, MDR *Acinetobacter* and *P. aeruginosa)* 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
	●				●			●		●	

Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora

Examinations: The scheme is intended for laboratories performing screening of MRSA (methicillin resistant *Staphylococcus aureus*) by culture and/or direct nucleic acid detection method

5072 Surveillance culture for multidrug resistant bacteria, VRE

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

Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora

Examinations: 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
5140 Throat streptococcal culture			●		●			●			●	

Specimens: 3 lyophilized mixtures of bacteria

Examinations: Culture and identification of group A, C and G streptococci

	1	2	3	4	5	6	7	8	9	10	11	12
5060 Urine culture, quantitative screening			●			●			●			●

EQA³

Specimens: 2 lyophilized samples and dilutor. Brief case histories also given. Pre- and/or post-analytical cases in part of the rounds.

Examinations: Culture and quantitation, pre-and/or post-analytical indicators

	1	2	3	4	5	6	7	8	9	10	11	12
5065 Urine culture, quantitative screening, identification and susceptibility			●			●			●			●

EQA³

Specimens: 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.

Examinations: Culture, quantitation, identification and antimicrobial susceptibility testing, pre-and/or post-analytical indicators

Microbiology » **Mycology**

	1	2	3	4	5	6	7	8	9	10	11	12
5260 Fungal culture			●		●				●		●	

Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.

Examinations: Culture and identification. Antimicrobial susceptibility testing of yeast strains.

Microbiology » **Parasitology**

	1	2	3	4	5	6	7	8	9	10	11	12
5472 Faecal parasites multiplex, nucleic acid detection				●				●				●

Specimens: 3 lyophilized samples

Examinations: Nucleic acid detection of *Cryptosporidium*, *Dientamoeba fragilis*, *Entamoeba dispar*, *Entamoeba histolytica*, *Giardia lamblia*.

	1	2	3	4	5	6	7	8	9	10	11	12
5430 Malaria, antigen and nucleic acid detection		●			●			●			●	

POCT

Specimens: 3 whole blood samples

Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.

Notes: For clinical laboratories and POCT sites

	1	2	3	4	5	6	7	8	9	10	11	12
5460 Parasites in blood, Giemsa stain		●			●			●			●	

Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories also given.

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										●		

VIRTUAL

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

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

	1	2	3	4	5	6	7	8	9	10	11	12
5461 Parasites in blood, May-Grünwald-Giemsa stain		●			●			●			●	

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

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										●			VIRTUAL
Specimens: Virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.													
Examinations: Screening and identification of malaria plasmodia and other blood parasites													

	1	2	3	4	5	6	7	8	9	10	11	12
5440 Parasites in faeces		●			●			●			●	
Specimens: 3 stool samples in formalin. Brief case histories also given.												
Examinations: Screening and identification of intestinal parasites (ova and parasites)												

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

	1	2	3	4	5	6	7	8	9	10	11	12	
5420 Toxoplasma, antibodies		●			●			●			●		EQA³
Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given. Authentic commutable samples: Each sample batch originates from a single human donor.													
Examinations: Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation													

	1	2	3	4	5	6	7	8	9	10	11	12
5473 *Trichomonas vaginalis*, detection				●							●	
Specimens: 3 simulated samples												
Examinations: Detection of *Trichomonas vaginalis* antigen and nucleic acid (NAT)												

Microbiology » **Virology**

	1	2	3	4	5	6	7	8	9	10	11	12	
5650 Cytomegalovirus, antibodies		●			●				●			●	EQA³
Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.													
Examinations: 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	
5635 Dengue virus, antibodies and antigen detection					●				●				EQA³
Specimens: 3 human serum or plasma samples, 0.5 mL each. Authentic, commutable samples from a single human donor or occasionally simulated samples.													
Examinations: Dengue virus IgG and IgM antibodies, Dengue virus antigen (NS1) and post-analytical clinical interpretation													

	1	2	3	4	5	6	7	8	9	10	11	12	
5640 EBV mononucleosis, heterophile antibodies		●			●				●			●	POCT
Specimens: 3 liquid human plasma samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.													
Examinations: MonAb, heterophile antibodies **Notes:** For clinical laboratories and POCT sites													

	1	2	3	4	5	6	7	8	9	10	11	12	
5641 EBV mononucleosis, specific antibodies		●			●				●			●	EQA³
Specimens: 3 liquid human plasma samples, 1.4 mL each. Authentic commutable samples: each batch originates from a single human donor.													
Examinations: EBNA AbG, EBVAbG, EBVAbM, EBVAvi and post-analytical clinical interpretation													

5092 Hepatitis A, antibodies

EQA³

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

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

Examinations: HAVAb, HAVAbM, HAVAbG and post-analytical clinical interpretation

5094–5096 Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL

EQA³

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

Specimens: 3 liquid human plasma samples, 0.6 / 1.2 or 2.0 mL. Authentic commutable samples: each batch originates from a single human donor.

Examinations: HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and post-analytical clinical interpretation

Volume specific product codes:
5094: for 0.6 mL human plasma specimens
5095: for 1.2 mL human plasma specimens
5096: for 2.0 mL human plasma specimens

5093 Hepatitis B, s-antigen antibodies, quantitative

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

Specimens: 2 liquid human plasma or serum samples, 0.5 mL each. Authentic commutable samples: each batch originates from a single human donor.

Examinations: HBsAb (anti-HBs), quantitative

5679 Hepatitis B virus, nucleic acid detection (DNA)

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

Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL each.

Examinations: HBV DNA, quantitative and/or qualitative nucleic acid detection

Notes: Delivered together with schemes 5678 and 5680

5678 Hepatitis C virus, nucleic acid detection (RNA)

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

Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL each.
Examinations: HCV RNA, quantitative and/or qualitative nucleic acid detection

Notes: Delivered together with schemes 5679 and 5680

5682 Hepatitis E, antibodies

EQA³

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

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

Examinations: Hepatitis E virus IgG and IgM antibodies, post-analytical clinical interpretation.

5555 Herpes simplex 1 and 2, antibodies

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

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

Examinations: HSV IgG (qualitative/quantitative), HSV IgM, HSV-1 IgG, HSV-2 IgG

5680 HIV-1, nucleic acid detection (RNA)

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

Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL each.

Examinations: HIV-1 RNA, quantitative and/or qualitative nucleic acid detection

Notes: Delivered together with schemes 5678 and 5679

5091 HIV, antibodies and antigen detection

EQA³

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

Specimens: 3 liquid human plasma 0.7 mL each.

Examinations: HIVAgAb (combo), HIVAb, HIVAg, HIVAbCt: primary and confirmatory tests, post-analytical clinical interpretation. Positive specimens may include HIV-1 or HIV-2.

5090 HIV, antibodies, POCT

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

Specimens: 3 liquid human plasma 0.7 mL each.
Examinations: HIVAb and HIVAgAb primary tests (POCT)

Notes: Scheme 5091 is for clinical laboratories

POCT

5086 Human papillomavirus, nucleic acid detection

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

Specimens: 2 simulated samples
Examinations: High-risk human papillomavirus NAT, hrHPVNAT

Notes: Suitable for nucleic acid methods used in cervical cancer screening

5089 Human T-cell lymphotropic virus, antibodies

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

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

Examinations: HTLVAb: primary and confirmatory tests, post-analytical clinical interpretation. Positive samples may include HTLV-1 or HTLV-2.

EQA³

5670 Influenza virus A+B and RS virus, nucleic acid detection

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

Specimens: 5 artificial samples. 0.5 mL each
Examinations: InfANAT, InfBNAT, RSVNAT

Notes: See also scheme 5300 Respiratory infections multiplex, nucleic acid detection

5671 Influenza virus A+B, detection

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

Specimens: 3 artificial samples, 0.5 mL each
Examinations: InfAAg, InfBAg

Notes: For clinical laboratories and POCT sites

POCT

5668 Measles virus, antibodies

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

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

Examinations: Measles virus IgG and IgM antibodies and post-analytical clinical interpretation

EQA³

5669 Mumps virus, antibodies

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

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

Examinations: Mumps virus IgG and IgM antibodies and post-analytical clinical interpretation

EQA³

5675 Norovirus, nucleic acid detection

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

Specimens: 3 simulated samples, 0.5 mL each

Examinations: Norovirus NAT, genogroups GI and GII

5660 Parvovirus B19, antibodies

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

Specimens: 3 liquid human plasma or serum samples, 0.4 mL each. Authentic commutable samples: each batch originates from a single human donor.

Examinations: Parvovirus IgG, IgM, IgG avidity and post-analytical clinical interpretation

EQA³

5560 Puumala virus, antibodies

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

Specimens: 3 liquid human plasma or serum samples, 0.3 mL each. Brief case histories are also provided.

Examinations: Puumala virus IgG, IgM, POC tests and specific antibodies, IgG avidity and post-analytical clinical interpretation

Notes: For clinical laboratories and POCT sites

POCT

EQA³

5098 Rotavirus and adenovirus, antigen detection

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

Specimens: 3 simulated samples, 0.5 mL each

Examinations: Rotavirus and adenovirus antigen detection

POCT

POCT

5672 RS virus, detection

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

Specimens: 3 artificial samples, 0.5 mL each
Examinations: RSVAg

Notes: For clinical laboratories and POCT sites

EQA³

5667 Rubella virus, antibodies

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

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

Examinations: Rubella virus IgG and IgM antibodies, IgG avidity and post-analytical clinical interpretation

POCT
EQA³

5099 Tick-borne encephalitis virus, antibodies

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

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

Examinations: TBE IgG, IgM, total antibodies and post-analytical clinical interpretation

Notes: For clinical laboratories and POCT sites

EQA³

5665 Varicella-zoster virus, antibodies

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

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

Examinations: 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
5594 *Streptococcus* group B (GBS), detection
5593 *Streptococcus pyogenes* (Group A), nucleic acid detection in pharyngeal sample
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
5304 Gastrointestinal viral 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*, detection

Virology

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

Multiplex

Multiplex EQA schemes are aimed to support laboratories to fulfill quality requirements of multiplex nucleic acid tests. 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, a comprehensive selection of listed pathogens will be covered.

5191 Faecal bacterial pathogens multiplex, nucleic acid detection

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

Specimens: 2 lyophilized mixtures of bacteria

Examinations: Direct nucleic acid detection. Pathogens included are *Aeromonas*, *Campylobacter*, *Plesiomonas*, *Salmonella*, *Shigella* and *Yersinia*.

Notes: 5190 includes also this examination. During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

5472 Faecal parasites multiplex, nucleic acid detection

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

Specimens: 3 lyophilized samples

Examinations: Nucleic acid detection of *Cryptosporidium*, *Dientamoeba fragilis*, *Entamoeba dispar*, *Entamoeba histolytica*, *Giardia lamblia*.

5304 Gastrointestinal viral multiplex

NEW

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

Specimens: 3 simulated samples, 1 mL each.

Examinations: Nucleic acid detection of Norovirus, Rotavirus, Adenovirus, Astrovirus, Sapovirus

Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

5303 Meningitis-encephalitis multiplex, nucleic acid detection

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

Specimens: 3 simulated samples, 1 mL each.

Examinations: Direct multiplex nucleic acid detection. Pathogens included are: *Escherichia coli* K1, *Haemophilus influenzae, Listeria monocytogenes, Neisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae,* Cytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes simplex virus 1 (HSV1), Herpes simplex virus 2 (HSV2), Human herpesvirus 6 (HHV6), Human parechovirus (HPeV), Varizella zoster virus (VZV) and *Cryptococcus neoformans.*

Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

5300 Respiratory infections multiplex, nucleic acid detection

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

Specimens: 4 simulated samples, 1 mL each

Examinations: Direct multiplex nucleic acid detection. Pathogens included are *C. pneumoniae*, *M. pneumoniae*, *B. pertussis*, *B. parapertussis*, influenza A/B, RSV A/B, human rhinovirus, enterovirus, parainfluenza, human metapneumovirus, adenovirus and coronavirus.

Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

5302 Sexually transmitted diseases multiplex, nucleic acid detection

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

Specimens: 4 simulated swab/urine samples

Examinations: Direct multiplex nucleic acid detection. Pathogens included are *C. trachomatis*, *M. genitalium, N. gonorrhoeae*, *T. vaginalis, U. urealyticum, M. hominis and U. parvum*.

Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered.

Pathology

Seven high quality schemes are available for pathology laboratories. With changing topics in the rounds, both the routine and more advanced needs are covered. The challenges are realistic and include also 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 » **Preanalytics**

7806 Preanalytics and process in anatomic pathology

NEW

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

Specimens: 3-5 cases with preanalytical and process error(S)

Examinations: Participants are asked to find preanalytical error(s) in the cases.

Notes: The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online.

Pathology » **Diagnostics**

6700 Gynaecological cytology (smear), virtual microscopy

VIRTUAL

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

Specimens: Virtual images of at least 5 Papanicolaou stained slides of conventional pap smear samples. The samples are selected from routine cytological material. Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Brief case histories and instructions are provided.

Examinations: Observations and diagnoses

Notes: Virtual microscopy program doesn´t work with Internet Explorer.

6701 Gynaecological cytology (liquid based), virtual microscopy

VIRTUAL

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

Specimens: 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 instructions are provided.

Examinations: Observations and diagnoses

Notes: Virtual microscopy program doesn´t work with Internet Explorer.

6702 Non-gynaecological cytology, virtual microscopy

VIRTUAL

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

Specimens: 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.

Examinations: Observations and diagnoses

Notes: Virtual microscopy program doesn´t work with Internet Explorer.

6542 Histopathology, virtual microscopy

VIRTUAL

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

Topics 2020: 1/2020 GI-tract and mouth 2/2020 Thyroid glang

Specimens: Virtual images of at least 5 slides of miscellaneous tissue. Brief case histories and instructions are provided.

Examinations: Observations and diagnoses

Notes: Topics may vary annually

Pathology » **Technology**

6543 Histological staining techniques

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

Topics 2020: 1/2020 FE, AB-PAS, 2/2020 HE, Helico-GIEMSA

Specimens: Unstained paraffin sections or smears

Examinations: Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.

Notes: Stains vary annually

6600, 6600S Immunohistochemical staining methods

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

Topics 2020: 1/2020 Lymphoma: PAX5, CD3, CD20, CD5, CD30 and 2/2020 Breast cancer: ER, PR, Ki-67, HER2, P63 and 3/2020 Unknown tumour (soft tissue tumour): CD31, ERG, MDM2, Desmin, S-100

Specimens: Unstained paraffin embedded tissue from different tissue blocks or from one multiblock

Examinations: Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.

Notes: 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).

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.

8817 HIL-index [DEKS]

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

Specimens: 2 serum samples, 2 mL each

Examinations: Selected components are asked to be analysed. One of the samples is haemolysed, icteric or lipemic.

7806 Preanalytics and process in anatomic pathology

NEW

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

Specimens: 3-5 cases with preanalytical error(S)

Examinations: Participants are asked to find preanalytical error(s) in the cases.

Notes: The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online.

7800 Preanalytics, clinical chemistry

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

Specimens: 3 cases with preanalytical error(s)

Examinations: Laboratories are asked to find preanalytical error(s) in the cases

Notes: The scheme is intended for clinical chemistry laboratories. Scheme is carried out online.

7802 Preanalytics, microbiology

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

Specimens: 3 cases with preanalytical error(s)

Examinations: Participants are asked to find preanalytical error(s) in the cases

Notes: The scheme is intended for all laboratory staff of clinical microbiology laboratories. Scheme is carried out online.

7804 Preanalytics, POCT in chemistry

POCT

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

Specimens: 3 cases with preanalytical error(s)

Examinations: Participants are asked to find preanalytical error(s) in the cases

Notes: The scheme is intended for personnel using POCT tests and devices. Scheme is carried out online.

7801 Preanalytics, urine and blood sample collection

POCT

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

Specimens: 3 cases with preanalytical error(s)

Examinations: Participants are asked to find preanalytical error(s) in the cases

Notes: The scheme is intended for personnel performing blood and urine sample collection. Scheme is carried out online.

Others

Others » **Andrology**

6400 Semen analysis	1	2	3	4	5	6	7	8	9	10	11	12
										•		

Specimens: 3–6 digital videos and/or digital images
Examinations: Concentration, morphology and motility

Notes: Scheme is carried out online

Others » **Clinical physiology**

7130 ECG, interpretation	1	2	3	4	5	6	7	8	9	10	11	12
				•						•		

EQA[3]

Specimens: 3 digital ECG registrations (images)
Examinations: Technical quality and findings

Notes: 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.

Others » **Genetics**

3865 DNA analysis [EQUALIS]	1	2	3	4	5	6	7	8	9	10	11	12
			•							•		

Specimens: Whole blood or extracted DNA. Blank samples (water) are sometimes included.

Examinations: 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 tetrahydropholate reductase (MTHFR) c.677C>T; c.1298A>C

Others » **Laboratory instruments**

8814 ELISA reader photometry control [DEKS]	1	2	3	4	5	6	7	8	9	10	11	12
	Circulation starts in March											

Specimens: An ELISA-plate with built-in gray glass filters
Examinations: Control for the absorbance scale in ELISA reader

Notes: Absorbance traceable to NIST Control of the absorbance scale of ELISA readers

External quality assessment for extra-analytical phases

PREANALYTICAL EQA | ANALYTICAL EQA | POSTANALYTICAL EQA

Labquality has two advanced external quality assessment programs for extra-analytical phases of clinical laboratory investigation process. Preanalytical EQA programs are independent schemes for the evaluation of preanalytical phase and Integrated EQA programs includes pre- and/or postanalytical evaluation together with traditional EQA samples.

Pre- and postanalytical EQA programs

Preanalytical EQA programs

- 8817 HIL-index [DEKS]
- 7806 Preanalytics and process in anatomic pathology
- 7800 Preanalytics, clinical chemistry
- 7802 Preanalytics, microbiology
- 7804 Preanalytics, POCT in chemistry
- 7801 Preanalytics, urine and blood sample collection

Integrated EQA programs

Clinical chemistry

- 2610 Acid-base status and electrolytes
- 2300, 2300S Hormones A: Basic analytes of hormone and immunochemistry
- 2301, 2301S Hormones B: Steroid and peptide hormones
- 2200 Lipids and lipoproteins
- 2050 Serum B and C (2-level)
- 2480 Vitamin A, E and D metabolites

Clinical physiology

- 7130 ECG, interpretation

Haematology

- Column agglutination methods: grading of reactions and patient cases

Immunology

- 5935 ANCA and GbmAb
- 5900 Antinuclear antibodies
- 5930 Autoimmune liver disease and gastric parietal cell antibodies
- 5940 Coeliac disease, antibodies

Microbiology

- 5950 Bordetella pertussis, antibodies
- 5960 Borrelia burgdorferi, antibodies, European origin
- 5620 Chlamydia pneumoniae, antibodies
- 5650 Cytomegalovirus, antibodies
- 5635 Dengue virus, antibodies and antigen detection
- 5641 EBV mononucleosis, specific antibodies
- 5080 General Bacteriology 1 (aerobes and anaerobes)
- 5081 General Bacteriology 2 (aerobes)
- 5860 Helicobacter pylori, antibodies
- 5092 Hepatitis A, antibodies
- 5094–5096 Hepatitis B and C, serology
- 5682 Hepatitis E, antibodies
- 5091 HIV, antibodies and antigen detection
- 5089 Human T-cell lymphotropic virus, antibodies
- 5668 Measles virus, antibodies
- 5669 Mumps virus, antibodies
- 5980 Mycoplasma pneumoniae, antibodies
- 5660 Parvovirus B19, antibodies
- 5560 Puumala virus, antibodies
- 5667 Rubella virus, antibodies
- 5880 Syphilis serology
- 5099 Tick-borne encephalitis virus, antibodies
- 5420 Toxoplasma, antibodies
- 5060 Urine culture, quantitative screening
- 5065 Urine culture, quantitative screening, identification and susceptibility
- 5665 Varicella-zoster virus, antibodies

Alphabetical scheme directory, A – F

Alphabetical scheme directory, G – N

G

H

I

L

M

N

Alphabetical scheme directory, P – W

6-7-FEBRUARY, 2020
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