

# EXTERNAL QUALITY ASSESSMENT 2023 PRODUCT CATALOGUE



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Alphabetical scheme directory

## Service information

#### Labquality - EQAS

Labquality is a Finnish independent external quality assessment provider. Labquality has more than 50 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 the FINAS website: **www.finas.fi**, and accreditation status of the EQA schemes is available on our website: **www.labquality.fi/en**. 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 40 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 globally. 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.com

#### **Distributions**

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. The 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.

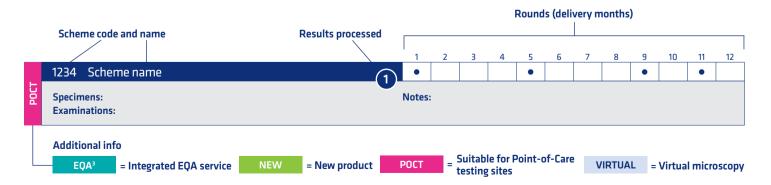
#### Certificate

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 international partners (listed on our website: www.labquality.fi/en) or our customer service: info@labquality.fi

# How to use the catalogue



**Results processed:** The number shows how many results from different analyzers or tests within the same laboratory are allowed depending on scheme, when the sample volume is sufficient. Schemes marked with \* allow multiple results reporting only, if they are analyzed with different methods.

# Updates for 2023

#### New schemes and products

2704 ACTH and Cortisol (p 9)

2706 Salivary cortisol (p 8)

2754 Faecal elastase (p 11)

5250 Interferon Gamma Release Assay (IGRA) for Mycobacterium tuberculosis (p 20)

5261 Fungal infections, nucleic acid detection (p 25)

5556 HSV182/VZV/T. pallidum, nucleic acid detection (p 26)

5965 CXCL13 Chemokine (p 21)

5230 Mycobacterium tuberculosis, drug resistance (p 23)

2115 Haemoglobin, 1-level HemoCue 801 and HemoCue 301 (p 7)

#### Changes in distribution schedule

2200 Lipids and lipoproteins and 2202 - Lipoprotein a (4 rounds /year)

2109 Bilirubin, conjugated (4 rounds /year)

5612 Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection

5302 Sexually transmitted diseases multiplex, nucleic acid detection

2132 C-reactive protein (CRP), POCT

5940 Coeliac disease, antibodies

5560 Puumala virus, antibodies

5635 Dengue virus, antibodies and antigen detection

#### Discontinued schemes

5850 Brucella antibodies

2733 Erythrocyte sedimentation rate: iSED

#### Changes in scope, specimens or parameters

5300 Respiratory infections multiplex, nucleic acid detection

New parameter: Legionella pneumophila

5472 Faecal parasites multiplex, nucleic acid detection

Discontinued parameter: Entamoeba dispar

#### Planned pilot schemes

Information about pilot studies and schdules are updated on our website https://www.labquality.fi/en/external-quality-assessment/new-round/ Pilot studies are EQA schemes under development.

Virology: Monkeypox virus, nucleic acid detection (planned for late 2022)

Microbiology: Blood culture pathogens (sepsis), multiplex, nucleic acid detection

Mycology: Fungal infection, native and fluorescence virtual microscopy

Haematology: Flow cytometry: Immunophenotyping, lymphocyte subsets

# 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] Specimens: 2 liquid human serum samples for allergen component tests Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability. Examinations: Allergen component test which covers recombinant allergens as well as the ISAC system 2681 Allergy in vitro diagnostics [SKML] Specimens: 3 liquid human serum samples for specific IgEs with 3 allergens, Notes: Participation to all rounds required. Should be ordered 2 mixes and total IgE in each and some allergen components, 0.5 mL until the beginning of November. All samples are distributed in February. Examinations: Total IgE, specific IgEs, allergen mixes and allergen components 10 12 2670 Allergy in vitro diagnostics [UK NEQAS] • Specimens: 2 liquid human serum samples for specific IgEs with 4 allergens Notes: Participation to all rounds required. Should be ordered in each specimen, 0.5 mL each and 1 serum specimen for total IgE, 0.5 mL until the beginning of November. Limited availability. Examinations: Total IgE and specific IgEs 2680 Eosinophil cationic protein Specimens: 1 lyophilized human serum sample, 0.3 mL Notes: Results are processed in connection with total IgE results of scheme 2670. **Examinations: ECP** 2685 Tryptase [UK NEQAS] Specimens: 2 liquid human serum samples Notes: Participation to all rounds required. Should be ordered until the beginning of November. Limited availability. **Examinations:** Tryptase Clinical chemistry » Basic chemistry 2100 Basic chemistry, POCT analyzers Specimens: 2 human serum samples, 1 mL gamma glutamyltransferase, glucose, lactate dehydrogenase, magnesium, phosphorus, potassium, sodium, total protein, triglycerides, urea, uric acid Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase (total and pancreatic), aspartate aminotransferase, calcium, Notes: For clinical laboratories and POCT sites. Only for dry chemistry analyzers. chloride, HDL cholesterol, cholesterol, creatinekinase, creatinine, If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service. Erythrocyte sedimentation rate Specimens: 1 artificial blood cell suspension, ~ 4 mL Notes: Not suitable for Algor iSed

**Examinations: ESR** 





#### Clinical chemistry » General long-term clinical chemistry, known concentration

#### 1031 DayTrol, human serum

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, gammaglutamyltransferase, glucose, iron, lactate, lactate dehydrogenase, lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium,

thyreotropin, thyroxine, thyroxine free, transferrin, transferrin receptor, triglycerides, urea, uric acid

Notes: This program combines internal and external quality assessment. Same sample is analyzed daily or weekly basis. Monthly averages and CV%'s are compared with other participants. Minimum order quantity of 10 bottles per year. Monthly reporting is included

#### Clinical chemistry » General short-term clinical chemistry, unknown concentration

#### 1072, 1072S Serum A, lyophilized samples

Specimens: Lyophilized serum sample, 3 mL, 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. Product 1072S does not include reporting from multiple analyzers or methods.

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

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

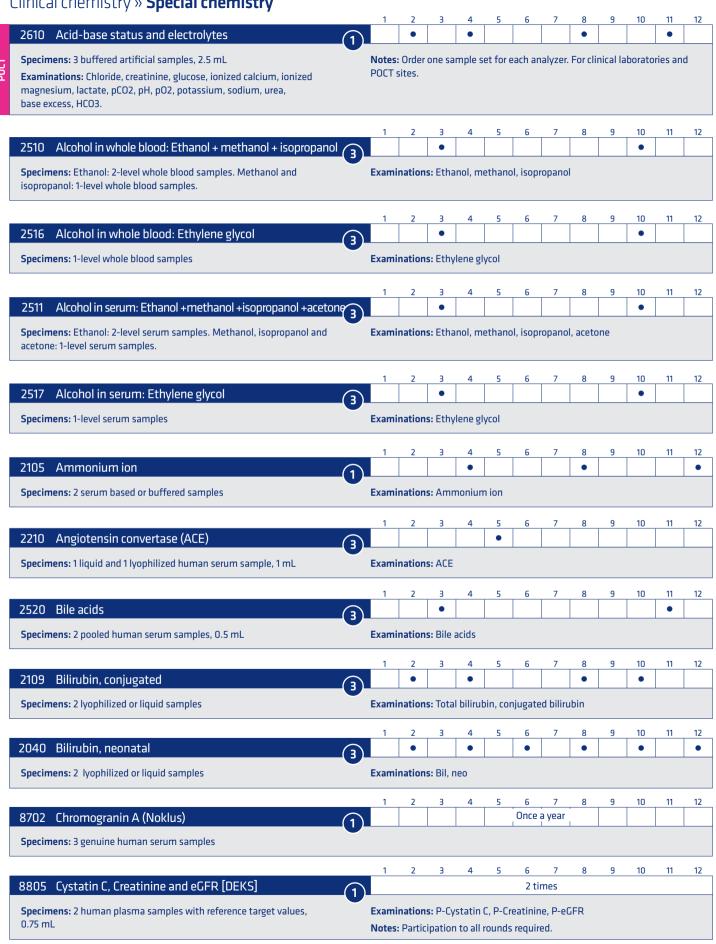
Examinations: Alanine aminotransferase, albumin, alfa-1-antitrypcine, alfa-1-glycoprotein, alkaline phosphatase, amylase, pancreas amylase, aspartate aminotransferase, bilirubin, ferritin, phosphate, glucose, glutamyltransferase, haptoglobin, IgA, IgE, IgG, IgM, potassium, calcium, ionized calcium, ionized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

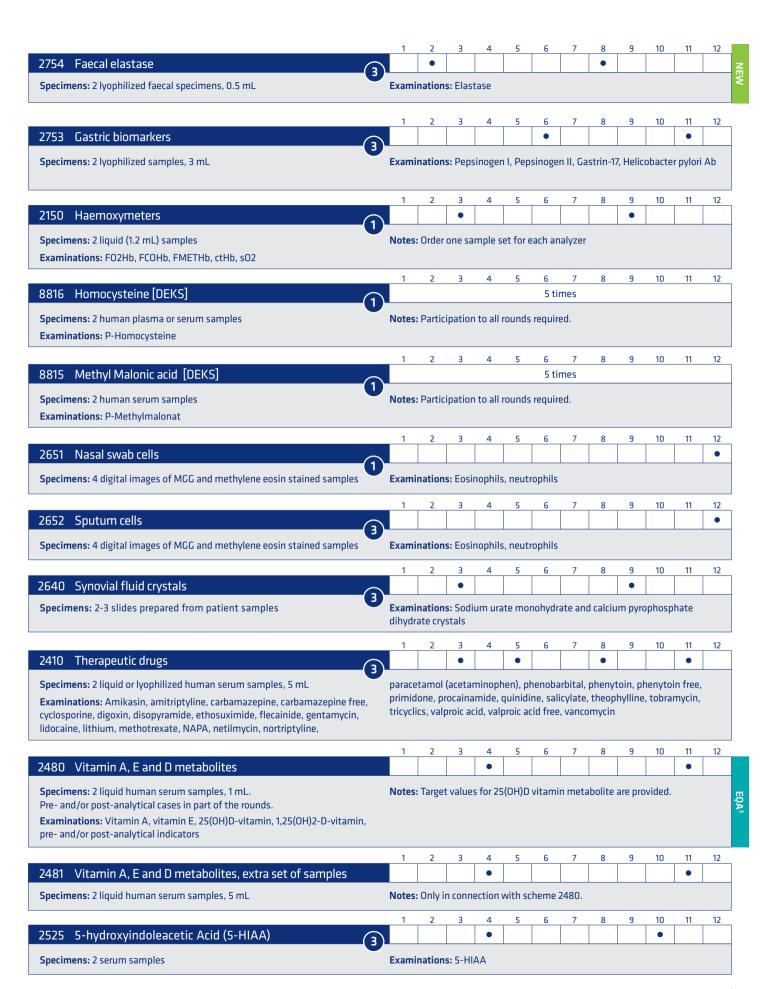
HDL cholesterol, LDL cholesterol, cortisol, creatine kinase, creatinine, copper, lactate, lactate dehydrogenase, lipase, lithium, magnesium, sodium, osmolality, protein, iron binding capacity, iron, selenium, zinc, transferrin, transferrin receptor, triglycerides, tri-iodio-thyronine, thyrotropin, tyroxine,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

Notes: Comparison of two different concentration ranges simultaneously. Reference method values available occasionally for some of the analytes.

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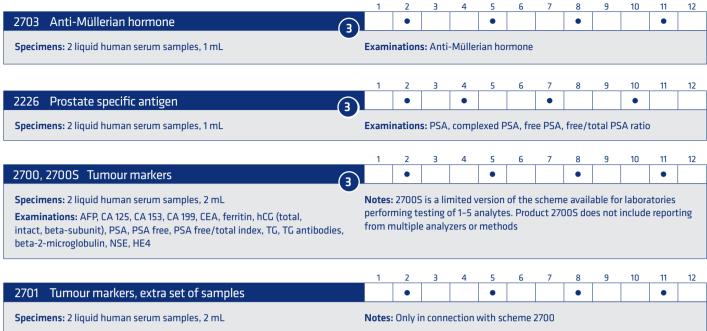
#### Clinical chemistry » Special chemistry



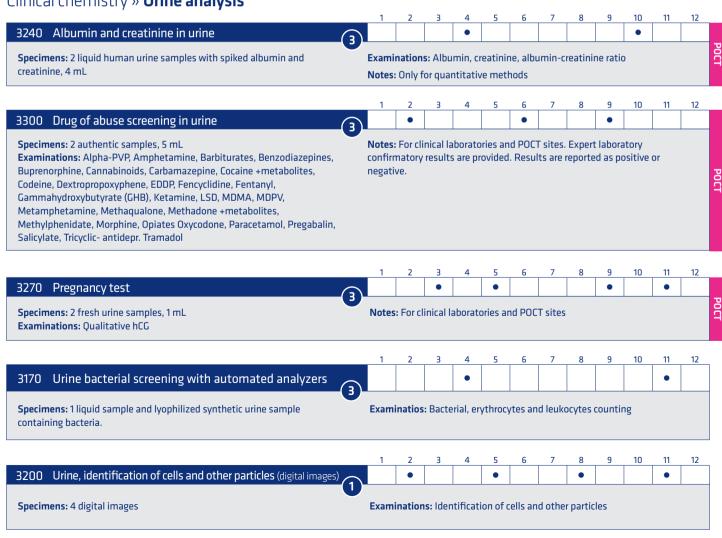


#### Clinical chemistry » Specific proteins 2020 C-reactive protein (CRP) for analyzers Specimens: 2 liquid serum or plasma samples, 1 mL Notes: Scheme is designed only for clinical chemistry analyzers. Order scheme 2132 for POCT CRP meters. If you are not sure whether your device is **Examinations: CRP** a POCT meter or an analyzer, please contact our customer service. C-reactive protein (CRP), POCT • 3 Specimens: 2 human plasma samples, 1 mL Notes: Only for quantitative POCT CRP meters. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service. **Examinations: CRP** 2140 Decialotransferrin [EQUALIS] Specimens: 2 human plasma samples, varying concentration of CDT Notes: Participation to all rounds required. **Examinations: CDT** 10 11 12 2751 Faecal calprotectin Specimens: 2 lyophilized faecal specimens, 0.5 mL Examinations: Calprotectin 2281 Interleukin-6 Specimens: 2-3 lyophilized samples Examinations: IL-6 2200 Lipids and lipoproteins Specimens: 2 fresh human serum samples, 0.5-1 mL. Pre- and/or postlipoprotein apo A2, lipoprotein apo B, lipoprotein (a), triglycerides, analytical cases in part of the rounds. pre- and/or post-analytical indicators Examinations: Cholesterol, HDL cholesterol, LDL cholesterol, lipoprotein apo A1, Notes: Separate round for Lp(a), see scheme 2202 2202 Lipoprotein a Specimens: 1 liquid or lyophilized human serum preparation Examinations: Lp(a) 10 2280 Procalcitonin Specimens: 2 lyophilized samples Notes: Only for quantitative methods **Examinations:** Procalcitonin 2160 Proteins in cerebrospinal fluid Specimens: 1 cerebrospinal fluid sample 1-3 mL and 1 human serum sample, Examinations: Cerebrospinal fluid: Albumin, IgG, total protein, IgG index. Serum: Albumin, IgG. 1 mL Proteins, electrophoresis Specimens: 2 liquid or lyophilized human serum samples, 1 mL Examinations: Electrophoresis, contains immunofixation, pre- and/or post-Pre- and/or post-analytical cases in part of the rounds. analytical indicators Proteins, immunochemical determinations IgA, IgG, IgLcKappa, IgLcLambda, IgLcKappa free, IgLcLambda free, IgM, Specimens: 2 liquid human serum samples, 1 mL orosomucoid, pre-albumin, RBP, transferrin, transferrin receptor. Examinations: Alpha-1-antitrypsin, alpha-2-macroglobulin, albumin, ceruloplasmin, complement C3, complement C4, haptoglobin, hemopexin,

## Clinical chemistry » Tumour markers



#### Clinical chemistry » Urine analysis



			1	2	3	4	5	6	7	8	9	10	11	12
3160 Urine qua	ntitative chemistry		3		•		•				•			•
Specimens: 1 liquid (	ırine, 10 mL				<b>ոs։</b> Albւ		,		,					ne,
			_		rganic p tive dei			_			у, рН, р	otassi	um,	
						•								
2400 1111 111	11.0		1	2	3	4	5	6	7	8	9	10	11	12
3100 Urine strip	test A		3			•				•		•		
Specimens: 1 lyophil	ized urine sample with varying	g concentrations, 15 mL			linical l							solutio	on	
Examinations: Gluco	<b>Examinations:</b> Glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density		avail	able, se	e scher	me 3101	, snoul	a be oi	rdered	separa	tely.			
			1	2	3	4	5	6	7	8	9	10	11	12
3101 Urine strip	test A, 15 mL water for s	ample dissolution		•		•				•		•		
Specimens: 15 mL w	vater for dissolution of samples of scheme 3100 Notes: Only in connection with scheme 3100													
			1	2	3	4	5	6	7	8	9	10	11	12
3130 Urine strip	test B, particle count and e	stimation of density	3		•		•				•			•
Specimens: 1 lyophil	ized urine, 15 mL		Note	s: Also	suitabl	e for au	tomat	ic anal	yzers (	erythro	cytes a	and leu	kocyte	5
	<b>Examinations:</b> Particle count: erythrocytes and leukocytes. Estimation of				he arbit									
The second secon	density: creatinine, relative density, osmolality. Strip tests: glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes).					order t trip test								25
Retorie boules, reund	cytes, minte, pri, protein, biol	ou (erytimocytes).		e lyoph rately.	ilized s	ample a	availab	le, see	schem	e 3131,	should	l be ord	lered	
			1	2	3	4	5	6	7	8	9	10	11	12
3131 Urine strip	test B, 15 mL water for s	ample dissolution		$\perp$	•		•				•			•

# Clinical chemistry and haematology

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

#### 3501 Flagger program (Noklus)

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 longterm stability of performance and flagging rate. Laboratories can choose to participate in The Percentiler program only.

#### 3500 Percentiler program (Noklus)

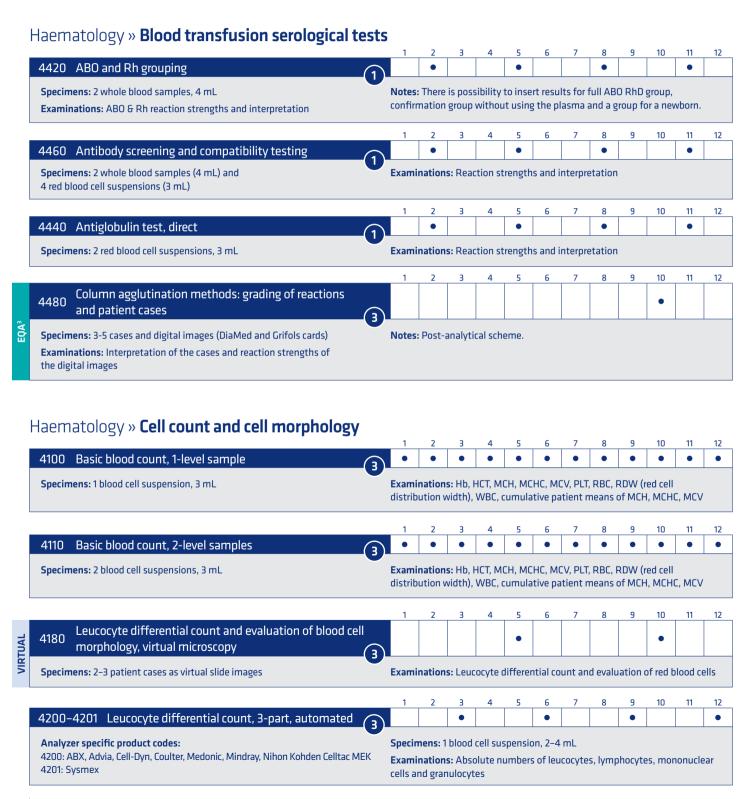
Specimens: results from selected patient groups are used to calculate instrument-specific daily medians

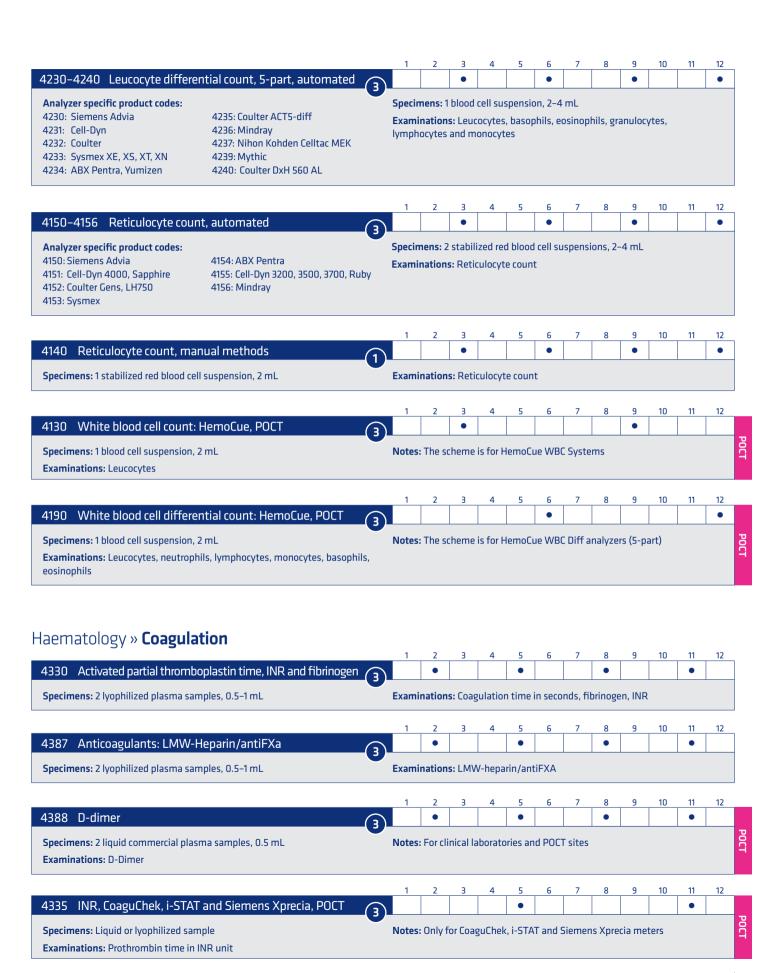
Examinations: ALP, ALT, AST, bilirubin, BUN, calcium, cholesterol, chloride, creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin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

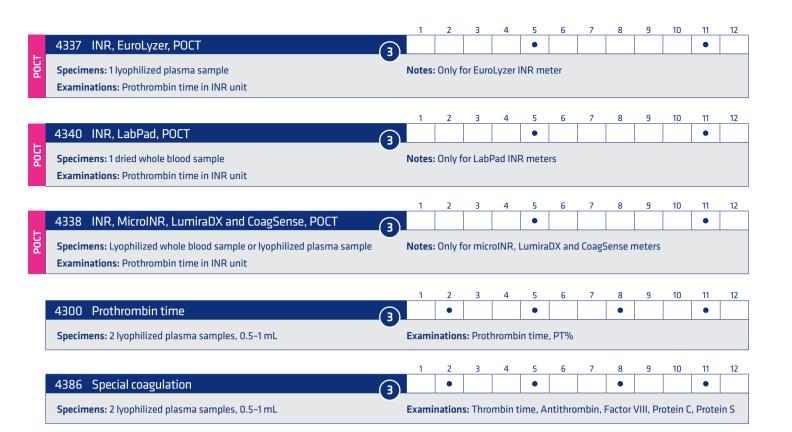
Notes: Participating laboratories calculate, and report instrument-specific medians based on patient results. The total number of patient results is also reported. Ideally, patient medians are reported daily, but less frequent reporting is also possible. Results are exported to a central database by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

# 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. Schemes related to blood parasites can be found under the parasites chapter.







## 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

2526 Ketones (beta-hydroxybutyrate), 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

2115 Haemoglobin, 1-level HemoCue 801 and HemoCue 301

#### Haematology

4388 D-Dimer

4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT

4337 INR, EuroLyzer, POCT

4340 INR LAbPad, 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, POCT

5635 Dengue virus, antibodies and antigen detection

5860 Helicobacter pylori, antibodies

5596 Helicobacter pylori, antigen detection in faeces

5090 HIV, antibodies and antigen detection, 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

5673 Respiratory adenovirus, antigen detection

5098 Rotavirus and adenovirus, antigen detection

5672 RS virus, antigen detection

5677 SARS CoV-2, antibodies

5681 SARS-CoV-2 antigen detection

5676 SARS-CoV-2 nucleic acid detection

5595 Streptococcus pyogenes, group A, antigen detection in pharyngeal sample

5599 Streptococcus agalactiae (GBS), nucleic acid detection

5598 Streptococcus pneumoniae, antigen detection in urine

5099 Tick-borne encephalitis virus, antibodies

5473 Trichomonas vaginalis, detection

#### **Preanalytics**

7801 Preanalytics, urine and blood sample collection

7804 Preanalytics, POCT in chemistry

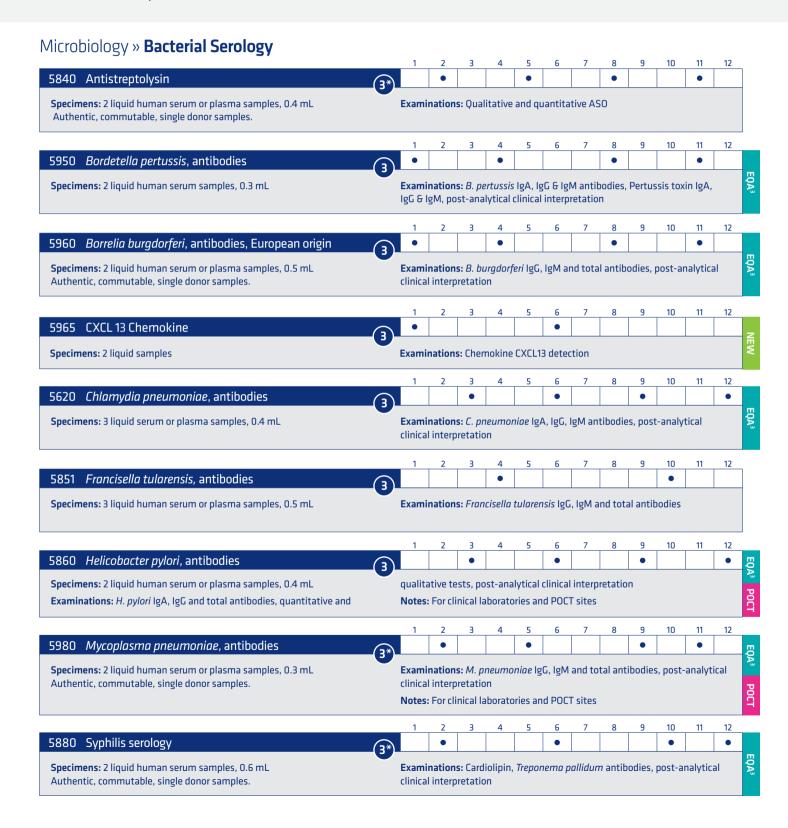
# Immunology

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.

	5250 Interferon Gamma Release Assay (IGRA) for Mycobacterium tuberculosis	1	•	3	4	•	6	7	8	9	10	•	12	
	Specimens: 2 lyophilized sample sets and a preanalytical case description incl. questions		ination ne is no		<b>.</b>				qualita	ative in	terpret	ation.	The	
		1	2	3	4	5	6	7	8	9	10	11	1	
	5935 ANCA and GbmAb		•						•					
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL  Examinations: Anti-neutrophilic cytoplasmic Ab, Myeloperoxidase Ab,  Proteinase-3 Ab and Glomerular basement membrane Ab. Pre- and/or post-		tical cas					essed	(Pr3Ab	, MPO	Ab, Gbı	mAb)		
	·	1	2	3	4	5	6	7	8	9	10	11	1	
J	5900 Antinuclear antibodies 3				•						•		L	
	<b>Specimens:</b> 3 liquid human serum or plasma samples, 0.6 mL <b>Examinations:</b> ANA, ENAAb, RNPAb, SmAb (SmDAb and/or SmBAb),SSAAb, SSBAb, ScI70Ab, CENP-B, CENP-A, Jo1Ab, dsDNA, HistAb, RibP Ab, RNApol III Ab	<b>Notes</b> deoxy	nd/or prise Extra	ctable a cleic aci	ntinuc d are ir	lear an Icludeo	tigens I	and do	ouble-s	strande				
	5938 Autoimmune diagnostics, IFA interpretation (digital images)	1	2	3	4	5	6	7	8	9	10	11	1	
	Specimens: 3–5 cases (digital images)	Exam	ination	s: Inter	pretati	on (AN	IA, ANG	CA and	EMA i	mages	5)			
		1	2	3	4	5	6	7	8	9	10	11	_ 1	
	5930 Autoimmune liver disease and gastric parietal cell antibodies					•						•		
		(3)												
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL													
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL												1	
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL  5940 Coeliac disease, antihodies	antibo	odies, N	1itocho	ndrial a	intiboo	lies, Ga	stric p	arietal	cell an	tibodie	?S	1	
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL	1 tratio	odies, N	3 2 sampl	4 e. Pre-	5 and/o	6 • r post-a	7 analyti	8 cal cas	es in p	10 •	11 he rou	nds	
	5940 Coeliac disease, antibodies  Specimens: 2 liquid human serum or plasma samples, 0.4 mL  Specimens: 2 liquid human serum or plasma samples, 0.7 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen-	1 tratio	odies, N	3 2 sampl	4 e. Pre-	5 and/o	6 • r post-a	7 analyti	8 cal cas	es in p	10 •	11 he rou	nds A,	
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL  5940 Coeliac disease, antibodies  Specimens: 2 liquid human serum or plasma samples, 0.7 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies,	tratio Notes DGPA	odies, N  2  on of the see QuantibG). Scott	4 sample sample titative heme is	e. Pre- results	and/o and/o are al iitable	files, Ga  6  r post-a  so proofor PO	analyti ressed CT.	8 cal cas	es in p	10 • art of t	11 he rou	nds A,	
	5940 Coeliac disease, antibodies  5940 Coeliac disease, antibodies  59ecimens: 2 liquid human serum or plasma samples, 0.7 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen-  5937 Phospholipid antibodies	tratio Notes DGPA	odies, N  2  n of thes: QuantbG). Sco	s sample sample titative heme is	e. Pre- results not su	and/o are all itable  5  dies (Ig	files, Ga  6  r post-a so prooffor PO	7 annalyti essed CT. 7	8 cal cas	es in p	10 • art of t	11 he rou	nds A,	
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	5940 Coeliac disease, antibodies  5pecimens: 2 liquid human serum or plasma samples, 0.4 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen-  5937 Phospholipid antibodies  Specimens: 2 liquid human serum or plasma samples, 0.5 mL  Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),  5820 Rheumatoid factor and citrullic peptide antibodies  Specimens: 2 liquid human-derived samples, 0.7 mL	tratio Notes DGPA  1 beta Notes	odies, N  2  on of the se Quant bg). Sci  2  2-glycols: Quant 2	ditocho  3 e sampl titative heme is  3 protein titative  3 s: Qual	e. Pre- results not su  4  antibo results	and/o are al itable  5  dies (Ig	r post-asso processo	analyticessed T.  7 IgM).	arietal  8  cal cas (tTGAb	es in poA, tTC	10 • art of t 6AbG, E	the round GPAbA	nds	
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL  5940 Coeliac disease, antibodies  Specimens: 2 liquid human serum or plasma samples, 0.7 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen-  5937 Phospholipid antibodies  Specimens: 2 liquid human serum or plasma samples, 0.5 mL  Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),  5820 Rheumatoid factor and citrullic peptide antibodies  Specimens: 2 liquid human-derived samples, 0.7 mL	tratio Notes DGPA  1 beta-: Notes 1 Exam	odies, N  2  on of the se Quant bg). Sci  2  2-glycog: Quant 2  ination	ditocho  3 e sampl titative heme is  3 protein titative 3 s: Qual	e. Pre- results not su  4  antibo results  4	and/o  and/o  and/o  are al  ditable	r post-a sso proc for PO  6  gG and sso proc 6	7 7 analyti 7 7 llgM). 7 essed 7 • tive RF	8 cal cas (tTGAt	es in p	10  art of t AbG, E	11 he roui	nds A,	
	5940 Coeliac disease, antibodies  5pecimens: 2 liquid human serum or plasma samples, 0.4 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen-  5937 Phospholipid antibodies  Specimens: 2 liquid human serum or plasma samples, 0.5 mL  Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),  5820 Rheumatoid factor and citrullic peptide antibodies  Specimens: 2 liquid human-derived samples, 0.7 mL	tratio Notes DGPA  1 beta Notes  1 Exam  1	odies, N  2  on of the se Quant bg). Sci  2  2-glycog: Quant 2  ination	ditocho  3 e sampl titative heme is  3 protein titative  3 s: Qual	e. Pre- results not su  4  antibo results  4  itative  4	s and/o s are al iitable  dies (Isi s are al cases	r post-a so proceed for POI fo	7 7 analyti ressed CT. 7 7 filligM). essed 7 filligm of the	8 cal cas (tTGAt	ges in p	10 • art of t 6AbG, E	11 he roui	nds A,	
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL  5940 Coeliac disease, antibodies  Specimens: 2 liquid human serum or plasma samples, 0.7 mL  Pre- and/or post-analytical cases in part of the rounds  Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen-  5937 Phospholipid antibodies  Specimens: 2 liquid human serum or plasma samples, 0.5 mL  Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),  5820 Rheumatoid factor and citrullic peptide antibodies  Specimens: 2 liquid human-derived samples, 0.7 mL  5920 Thyroid gland antibodies  Specimens: 2 liquid human serum or plasma samples, 0.4 mL  Examinations: Thyroglobulin antibodies and thyroid peroxidase antibodies.	tratio Notes DGPA  1 beta Notes  1 Exam  1	odies, N  2  n of the se QuantbG). Sci  2  2-glycoles: Quant  2  ination  2	ditocho  3 e sampl titative heme is  3 protein titative  3 s: Qual	e. Pre- results not su  4  antibo results  4  itative  4	s and/o s are al iitable  dies (Isi s are al cases	r post-a so proceed for POI fo	7 7 analyti ressed CT. 7 7 filligM). essed 7 filligm of the	8 cal cas (tTGAt	ges in p	10 • art of t 6AbG, E	11 he roui	nds A,	
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# 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.

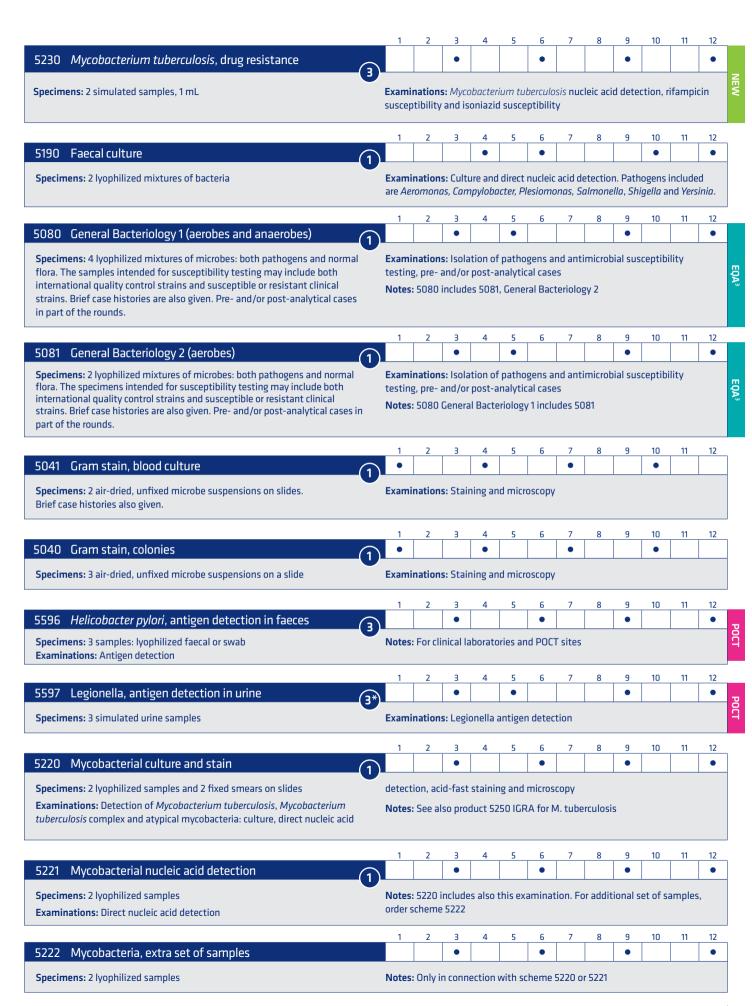


## Microbiology » **Bacteriology**

050 Bacteriological staining, direct (digital images)				-	5	6	7	8	9	10	11		
3 actionological scanning, unect (digital images)													
Specimens: 3 cases, 3–9 digital images		<b>Examinations:</b> Interpretation of digital images taken from direct bacteriological Gram staining of clinical samples											
	1	2	3	4	5	6	7	8	9	10	11	1	
100 Blood culture	\		•		•					•			
<b>specimens:</b> 2 lyophilized samples. Brief case histories also given. Fresh blood is needed for specimen preparation. The samples intended for susceptibility esting may include both international quality control strains and susceptible or resistant clinical strains.				ure, ide is need						•			
	1	2	3	4	5	6	7	8	9	10	11		
5101 Blood culture, screening	$\perp$		•		•					•			
ipecimens: 2 lyophilized samples. Brief case histories also given. Fresh blood is needed for sample preparation.	The so	heme i	s also s	suitable	for st	em cel	l bank	scree	ning or	m stain nly for p e shipn	ossible	е	
	1	2	3	4	5	6	7	8	9	10	11	_	
150 Cerebrospinal fluid, bacterial culture	)	•			•				•				
xaminations: Culture and identification. The scheme is also suitable													
or laboratories performing screening and reporting merely a preliminary dentification.	1	2	3	4	5	6	7	8	9	10	11		
cor laboratories performing screening and reporting merely a preliminary dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae  pureleic acid detection	1	2	3	4	5	6	7	8	9	10	11		
dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae			so sch	eme 53	•		7 ransm	•		10	•		
or laboratories performing screening and reporting merely a preliminary dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  Specimens: 3 simulated swab/urine samples 2 mL		: See a	so sch	eme 53	•		7 ransm	•			•		
or laboratories performing screening and reporting merely a preliminary dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  Specimens: 3 simulated swab/urine samples 2 mL	nuclei	: See a	so scho	eme 53 on	• 02 Sex	ually t		• itted d	isease:	s multip	• olex,		
cor laboratories performing screening and reporting merely a preliminary dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  specimens: 3 simulated swab/urine samples 2 mL examinations: Detection of C. trachomatis and N. gonorrhoeae nucleic acid	1 Exami (GDH)	: See alc acid c	ss schiletection 3 s: This detection	eme 53 on 4 schem	02 Sex	6 des C.	7 difficil	8 • culture	g g re, anti	s multip	olex,		
Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  General Section Sectio	1 Exami (GDH)	: See alc acid c	ss schiletection 3 s: This detection	eme 53 on 4 schem	02 Sex	6 des C.	7 difficil	8 • culture	g g re, anti	s multip	olex,		
cor laboratories performing screening and reporting merely a preliminary dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  specimens: 3 simulated swab/urine samples 2 mL ixaminations: Detection of C. trachomatis and N. gonorrhoeae nucleic acid  Clostridioides difficile, culture and toxin detection	nuclei  1  Exami (GDH) C. diff	: See a c acid c 2  •  ination , toxin incide str	so schiletection 3 s: This detection ains ali	eme 53 on 4 schem on and so inclu	02 Sex  5 e includirect ided.	6 des <i>C.</i> nucleid	7 difficill	8 • culture detection	9 re, anti	10 igen de	olex,		
Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  General Section Sectio	Exami (GDH) C. diff	: See al c acid c  2  •  ination , toxin incicle str	so scholetection 3 s: This detection ains along 3	eme 53 on 4 schem on and so inclu	5 e includirect ided.	6  des C. nucleid	7 difficill c acid c	8 • cultural detection 8	9 re, anti	10 igen de	olex,		
Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  General Section Sectio	Exami (GDH) C. diff	: See al c acid c  2  •  ination , toxin incicle str	so scholetection 3 s: This detection ains along 3	schemon and so inclu	5 e includirect ided.	6  des C. nucleid	7 difficill c acid c	8 • cultural detection 8	9 re, anti	10 igen de	olex,		
Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  General Section Sectio	Exami (GDH) C. diff	: See alc acid co	s: This detection ains also an conn	eme 53 on  4 schem on and so inclu 4 ection v	5 • includirect ided.  5 • vith score in the	des C. nucleid	7 difficille acid of	8 • culture distribution of the second of th	9 Pre, antipon. Hyp	10 ligen de pervirulo	olex,		
cor laboratories performing screening and reporting merely a preliminary dentification.  Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  General Section of C. trachomatis and N. gonorrhoeae nucleic acid  Clostridioides difficile, culture and toxin detection  General Section of C. trachomatis and Company of the section of the	Exami (GDH) C. diff  Notes	: See alc acid co	ss: This detection in conn	eme 53 on  4 schem on and so inclu 4 ection v	5 e includirect ded. 5 with sc	6  des C. nucleid	7  difficill c acid c  7  5200	8  e cultureletection  8	9 Pre, antipon. Hyp	10 ligen de pervirulo	olex,		
Chlamydia trachomatis and Neisseria gonorrhoeae nucleic acid detection  General Section Sectio	Exami (GDH) C. diff  Notes	: See alc acid co	ss: This detection in conn	schemon and so inclu	5 e includirect ded. 5 with sc	6  des C. nucleid	7  difficill c acid c  7  5200	8  e cultureletection  8	9 Pre, antipon. Hyp	10 ligen de pervirulo	olex,		

listed pathogens will be covered.

**Examinations:** Direct nucleic acid detection. Pathogens included are Aeromonas, Campylobacter, E. coli EHEC (stx1/stx2), E. coli EAEC, E. coli EIEC,

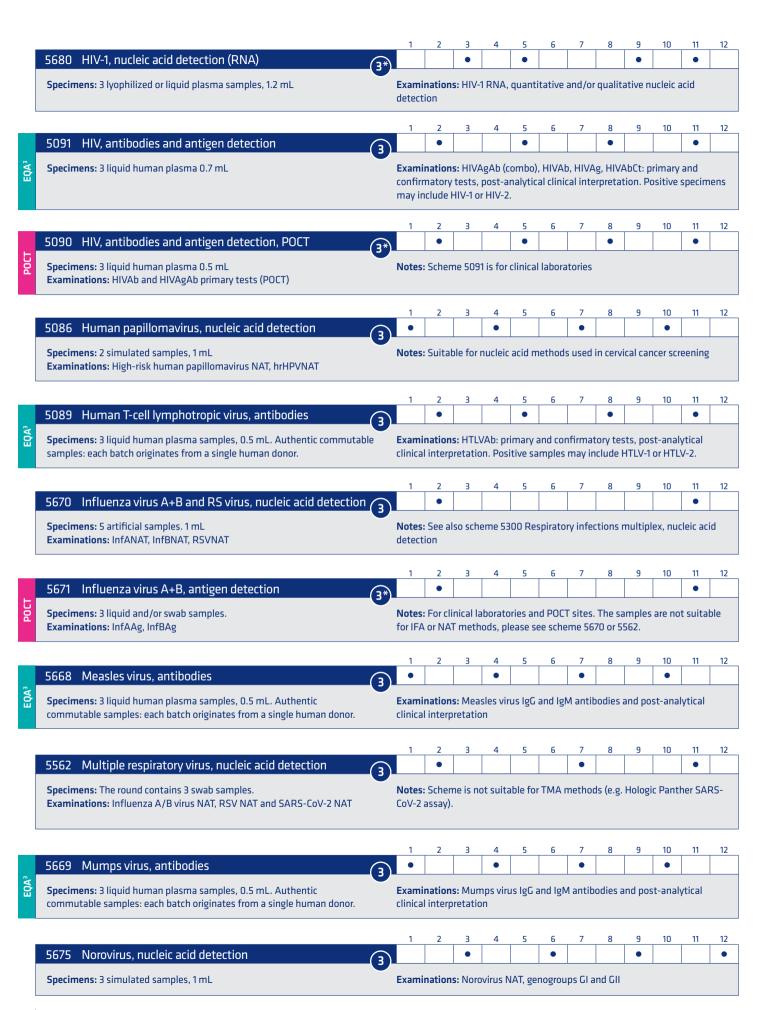


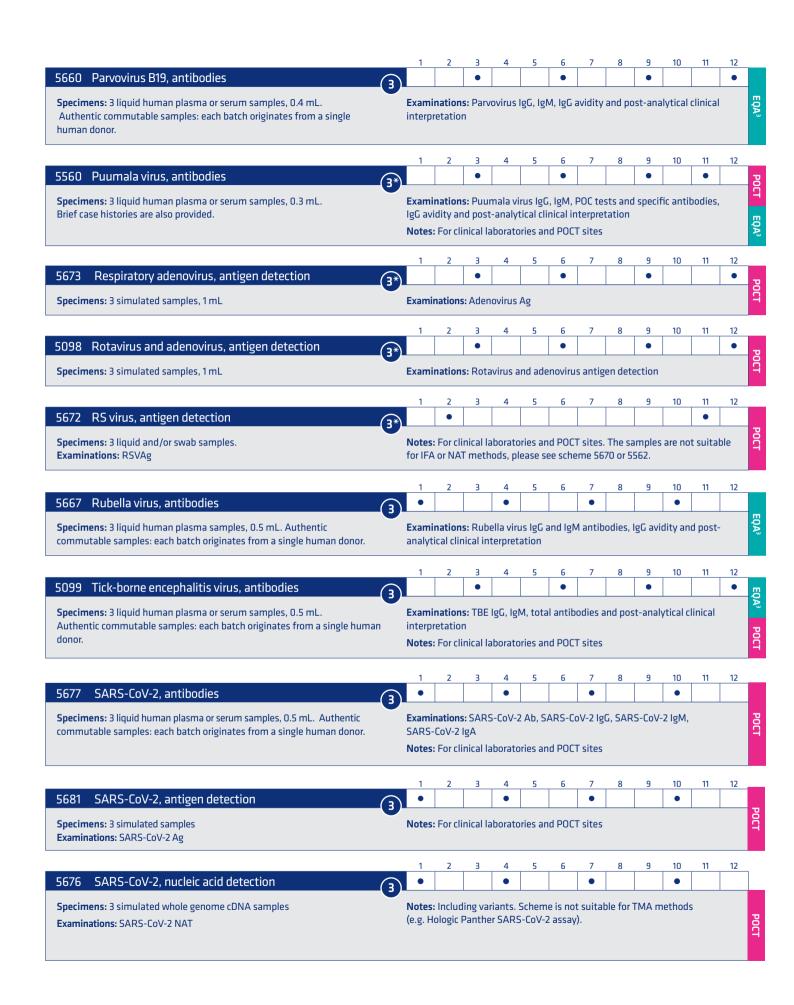
5240 Mycobacterial stain	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 fixed smears on slides	Exam	nation	s: Acid	-fast st	aining	and m	icrosco	ру				
	1	2	3	4	5	6	7	8	9	10	11	12
5120 Neisseria gonorrhoeae (Gc), culture and susceptibility testing			•		•			•			•	
<b>Specimens:</b> 2 lyophilized mixtures of microbes. The samples intended for susceptibility testing may include both international quality control strains and susceptible or resistant clinical strains.		<b>nation</b> uitable									ity tes	ting.
	1	2	3	4	5	6	7	8	9	10	11	12
5180 Salmonella culture				•		•				•		•
Specimens: 2 lyophilized mixtures of bacteria Examinations: Culture	Notes	: 5190 a	also inc	ludes 5	5180							
	1	2	3	4	5	6	7	8	9	10	11	12
5599 Streptococcus agalactiae (GBS), nucleic acid detection	*)			•		•			•		•	<u> </u>
Specimens: 2 swab samples. Samples also include normal flora.  Examinations: Direct nucleic acid detection	Notes	: See a	lso pro	duct 55	94 for	S. agal	actiae	(GBS) c	ulture	•		
	1	2	3	4	5	6	7	8	9	10	11	12
5594 Streptococcus agalactiae (GBS), culture				•		•			•		•	
<b>Specimens:</b> 2 lyophilized samples. Samples include pathogens and/or normal flora.		nation : See a			99 for	direct r	nucleic	acid de	etectio	n.		
	1	2	3	4	5	6	7	8	9	10	11	12
5598 Streptococcus pneumoniae, antigen detection in urine	*)		•		•				•			•
Specimens: 3 simulated urine specimens		nation	<b>s:</b> 5. pr	neumor	niae an	tigen d	letectio	on				
	1	2	3	4	5	6	7	8	9	10	11	12
Streptococcus pyogenes (Group A), antigen detection in pharyngeal sample	*)		•		•				•			•
Specimens: 3 simulated pharyngeal samples Examinations: Antigen detection		: For cli	inical la	borato	ries an	d POCT	Γ sites.	Three	results	if use	d diffe	ent
	1	2	3	4	5	6	7	8	9	10	11	12
5593 Streptococcus pyogenes (Group A), nucleic acid detection in pharyngeal sample			•		•				•			•
Specimens: 3 simulated pharyngeal samples Examinations: Nucleic acid detection	on. Notes	: Three	result	s if use	d diffe	rent kit	S.					
	1	2	3	4	5	6	7	8	9	10	11	12
Surveillance for multidrug resistant bacteria, gramnegative rods		•				•			•		•	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora	of mu	nation Itidrug aerugi	resista	nt gran	nnegat	ive rod	ls (e.g.	CPE, E	SBL, M	DR <i>Aci</i>	netobo	_
	1	2	3	4	5	6	7	8	9	10	11	12
5071 Surveillance for multidrug resistant bacteria, MRSA		•				•			•		•	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora	<b>Exam</b> iof MR	nation SA (me nucleio	ethicilli	n resist	ant St	aphylo						ing

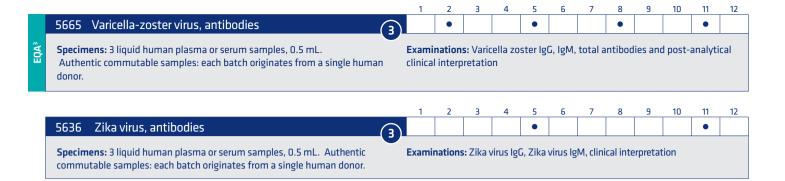












## EQA schemes including Antimicrobial Susceptibility Testing

#### **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

5230 Mycobacterium tuberculosis, drug resistance

## 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
- 5599 Streptococcus agalactiae (GBS), nucleic acid 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
- 5230 Mycobacterium tuberculosis, drug resistance

#### **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

- 5556 HSV1&2/VZV/T. pallidum, nucleic acid detection
- 5651 CMV and EBV, nucleic acid detection, quantitative
- 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
- 5562 Multiple Respiratory Virus, nucleic acid detection
- 5675 Norovirus, nucleic acid detection
- 5676 SARS-CoV-2, nucleic acid detection

#### Mycology

5261 Fungal infections, nucleic acid detection

# Multiplex

Sexually transmitted diseases multiplex,

are C. trachomatis, M. genitalium, M. hominis, N. gonorrhoeae, T. vaginalis,

nucleic acid detection

U. parvum and U. urealyticum.

5302

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.

#### Faecal bacterial pathogens multiplex, nucleic acid detection Specimens: 3 samples. Either lyophilized mixtures of bacteria and/or Notes: During the period of one calendar year, a comprehensive selection of simulated samples, 1 mL. listed pathogens will be covered. Examinations: Direct nucleic acid detection. Pathogens included are Aeromonas, Campylobacter, E. coli EHEC (stx1/stx2), E. coli EAEC, E. coli EIEC, E. coli EPEC, E. coli ETEC, Plesiomonas, Salmonella, Shigella and Yersinia. 5472 Faecal parasites multiplex, nucleic acid detection Specimens: 3 lyophilized samples Examinations: Nucleic acid detection of Cryptosporidium, Dientamoeba fragilis, Entamoeba histolytica, Giardia lamblia. Gastrointestinal viral multiplex, nucleic acid detection Specimens: 3 simulated samples, 1 mL. Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Adenovirus, Astrovirus, Norovirus, Rotavirus, Sapovirus. Meningitis-encephalitis multiplex, nucleic acid detection Specimens: 3 simulated samples, 1 mL. simplex virus 1 (HSV1), Herpes simplex virus 2 (HSV2), Human herpesvirus 6 (HHV6), Human parechovirus (HPeV), Varizella zoster virus (VZV) and Examinations: Direct multiplex nucleic acid detection. Pathogens included Cryptococcus neoformans/gattii. are: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Neisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae, Notes: During the period of one calendar year, a comprehensive selection of Cytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes listed pathogens will be covered. 5300 Respiratory infections multiplex, nucleic acid detection Specimens: 4 simulated samples, 1 mL Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. Examinations: Direct multiplex nucleic acid detection. Pathogens included are adenovirus, B. parapertussis, B. pertussis, C. pneumoniae, coronavirus (OC43, 229E, NL63, HKU1), enterovirus, influenzavirus A/B, L. pneumophila, metapneumovirus, M. pneumoniae, parainfluenzavirus 1-4, rhinovirus, RSV A/B, SARS-CoV-2 and S. pneumoniae.

Specimens: 4 simulated swab/urine samples 2 mL Notes: During the period of one calendar year, a comprehensive selection of listed pathogens will be covered. Examinations: Direct multiplex nucleic acid detection. Pathogens included

12

# 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 Specimens: 3-5 cases with preanalytical and process error(s) Notes: The scheme is intended for all laboratory staff of pathology laboratories. Scheme is carried out online. Examinations: Participants are asked to find preanalytical or laboratory process error(s) in the cases. Pathology » Diagnostics 6701 Gynaecological cytology (liquid based), virtual microscopy Specimens: Virtual images of at least 5 Papanicolaou stained slides of liquid instructions are provided. based cytology (LBC) samples (ThinPrep). Diagnostics of cellular atypias in **Examinations:** Observations and diagnoses samples taken from gynaecological loci is assessed. Brief case histories and Notes: Virtual microscopy program does not work with Internet Explorer. 12 6700 Gynaecological cytology (smear), virtual microscopy Specimens: Virtual images of at least 5 Papanicolaou stained slides of gynaecological loci is assessed. Brief case histories and instructions are provided conventional pap smear samples. The samples are selected from routine **Examinations:** Observations and diagnoses cytological material. Diagnostics of cellular atypias in samples taken from **Notes:** Virtual microscopy program does not work with Internet Explorer. 10 6542 Histopathology, virtual microscopy Topics 2022: 1/2023 Lymphohematopoietic pathology, 2/2023 Prostate Examinations: Observations and diagnoses Specimens: Virtual images of at least 5 slides of miscellaneous tissue. Notes: Topics may vary annually Brief case histories and instructions are provided. Non-gynaecological cytology, virtual microscopy Specimens: Virtual images of Papanicolaou stained slides of nonfrom representative loci. Brief case histories and instructions are provided. gynaecological cytosentrifuge (CCF) or smear preparations or May-Grünwald-Examinations: Observations and diagnoses Giemsa stained smears or imprint preparations. Images of at least 5 cases Notes: Virtual microscopy program does not work with Internet Explorer. Pathology » **Technology** 6543 Histological staining techniques Topics: 1/2023 HE, FE 2/2023 PAS, D-PAS, LEDER Labquality for evaluation by an expert board. Specimens: Unstained paraffin sections or smears Notes: Stains vary annually **Examinations:** Staining of the slides. A set of stained slides is returned to 12 6600, 6600S Immunohistochemical staining methods Topics: 1/2023 Unknown tumour: SOX10, Prame, Melan A/Mart-1, CK20, CK7 Examinations: Staining of the slides. A set of stained slides is returned to 2/2023 Breast cancer: PR, HER2, ER, Ki-67 and HER2 -ISH\* \*) also double Labquality for evaluation by an expert board. stain accepted, but no FISH Notes: Changes in frequency, antibodies and sample type. Three rounds 3/2023 Lymphoma: CD23, bcl2, bcl6, CD35, CD138 with distinct topics available annually. Multiblock samples are now included.

Participants can select 3 or 5 antibodies of their choice in each round (6600S

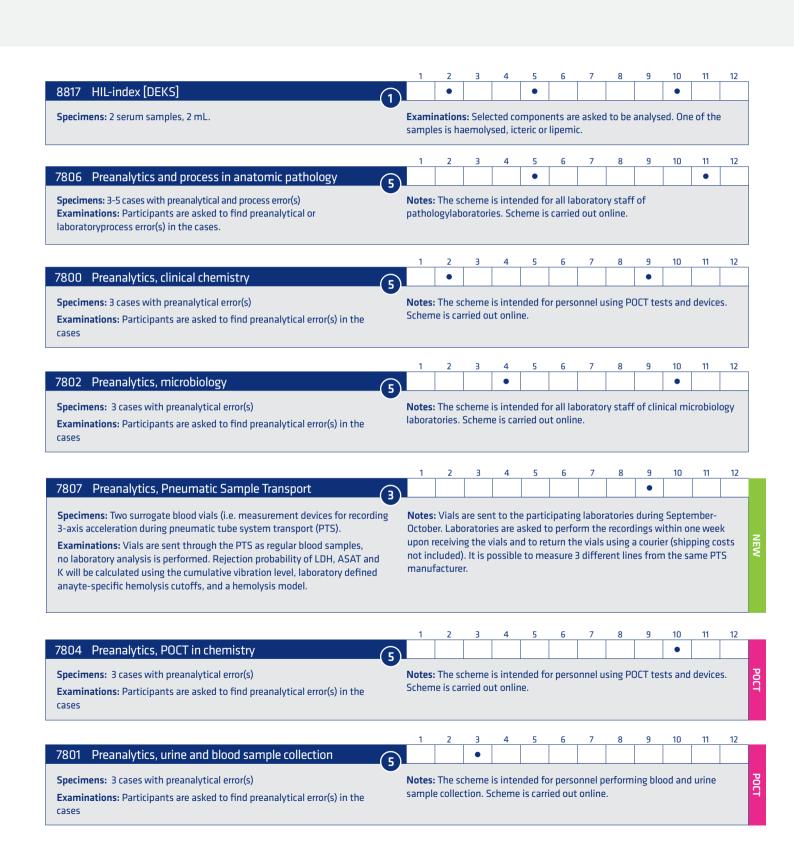
for 3 antibodies, 6600 for 5).

blocks or from one multiblock

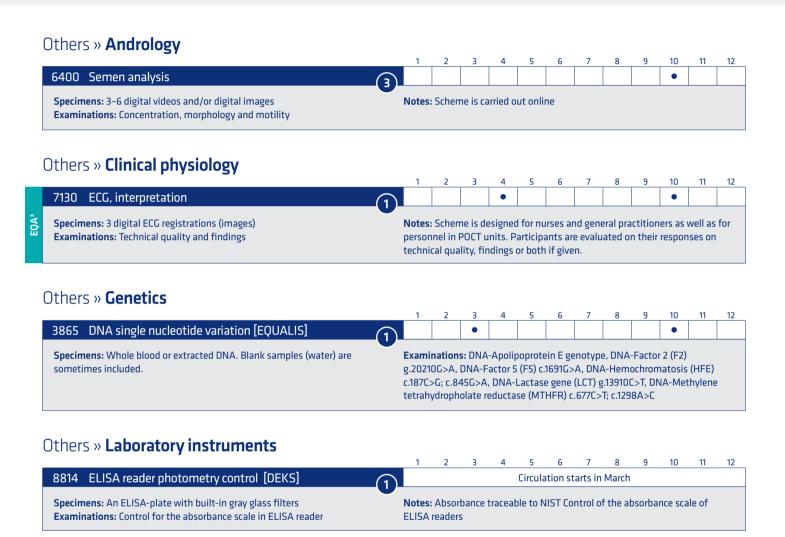
Specimens: Unstained paraffin embedded tissue from different tissue

# 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.



## **Others**



# 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

7807 Preanalytics, Pneumatic sample transport

7804 Preanalytics, POCT in chemistry

7801 Preanalytics, urine and blood sample collection

#### Integrated EQA programs

#### **Clinical chemistry**

2570, 2580, 2590 Glucose meters 2114 Haemoglobin, 1-level, POCT

2300, 2300S Hormones A:

Basic analytes of hormone and immunochemistry 2301, 2301S Hormones B: Steroid and peptide hormones

2200 Lipids and lipoproteins

2240 Proteins, electrophoresis

2050 Serum B and C (2-level)

2480 Vitamin A, E and D metabolites

#### **Clinical physiology**

7130 ECG, interpretation

#### Haematology

4480 Column agglutination methods: grading of reactions and patient cases

#### **Immunology**

5935 ANCA and GbmAb

5900 Antinuclear antibodies

5920 Thyroid gland antibodies

5940 Coeliac disease, 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

5636 Zika virus, 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
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- 5089 Human T-cell lymphotropic virus, antibodies

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Kumpulantie 15, Fl-00520 Helsinki, Finland

VAT Fl01100791