

# EXTERNAL OUALITY ASSESSMENT 2023 PRODUCT CATALOGUE

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## Service information

#### Labquality - EQAS

Labquality is an independent Finnish external quality assessment provider. Labquality has more than 50 years of experience in helping clinical laboratories and POCT sites develop and maintain their performance. Labquality's EQA schemes are internationally recognized high quality programs. The EQA programs have a clinical scope with an educational touch. Part of the EQA production is outsourced to expert laboratories and national partners.

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

Labquality is the first EQA provider that 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 integrated schemes include pre- and/or post-analytical questionnaires concerning the scope of the scheme.

#### **Quality management**

Labquality's management system is certified according to ISO 9001 (DQS) and the 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 the 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 globally available through national partner. 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 following year before the end of November to ensure their participation in 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 the 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 through 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 guarantee an advanced experience.

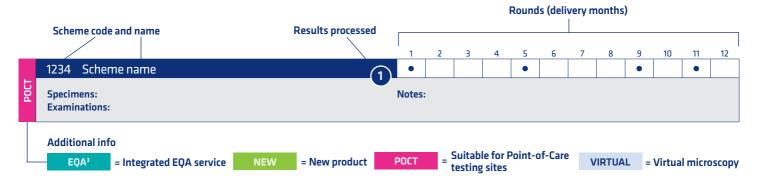
#### Certificate

A certificate of participation will be provided upon request at the end of the calendar year. The 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 9)
- 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 HSV162/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
- 5560 Puumala virus, antibodies
- 5635 Dengue virus, antibodies and antigen detection 5562 Multiple respiratory virus, nucleic acid 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*
- 5681 SARS-CoV-2 antigen detection Samples: Number of samples increased from two to three

#### **Planned pilot schemes**

Information about pilot studies and schedules are updated on our website <a href="https://www.labquality.fi/en/external-quality-assessment/new-round/">https://www.labquality.fi/en/external-quality-assessment/new-round/</a> 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 e.g. those for drug abuse screening, glucose meters and troponin detection.

### Clinical chemistry » Allergology

	1	2	3	4	5	6	7	8	9	10	11	12	
2675 Allergen component [UK NEQAS]			•		•	•		•		•		•	
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: until th									≥d			
	1	2	3	4	5	6	7	8	9	10	11	12	
2681 Allergy in vitro diagnostics [SKML]		•			•			•		•			
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 Examinations: Total IgE, specific IgEs, allergen mixes and allergen components	Notes: until th										oruary.		
	1	2	3	4	5	6	7	8	9	10	11	12	
2670 Allergy in vitro diagnostics [UK NEQAS]			•		•	•		•		•		•	
<b>Specimens:</b> 2 liquid human serum samples for specific IgEs with 4 allergens in each specimen, 0.5 mL each and 1 serum specimen for total IgE, 0.5 mL <b>Examinations:</b> Total IgE and specific IgEs	Notes: until ti									ed			
	1	2	3	4	5	6	7	8	9	10	11	12	
2680 Eosinophil cationic protein			•		•	•		•		•		•	
Specimens: 1 lyophilized human serum sample, 0.3 mL Examinations: ECP	Notes: schem			process	ed in c	onnect	ion wit	th tota	l IgE re	sults o	f		
	1	2	3	4	5	6	7	8	9	10	11	12	
		•		•	•		•		•		•		
2685 Tryptase [UK NEQAS]	Notes: Participation to all rounds required. Should be ordered												
2685 Tryptase [UK NEQAS]  Specimens: 2 liquid human serum samples	Notes:	Partic	ipatior	n to all	rounds	requir	ed. Sho	ould be	ordere	ed			

### Clinical chemistry » Basic chemistry

			1	2	3	4	5	6	7	8	9	10	11	12	
	2100 Basic chemistry, POCT analyzers	3		•			•			•			•		
POCT	Specimens: 2 human serum samples, 1 mL 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, tase, phosphorus, potassium, sodium, total protein, triglycerides, urea, uric acid													
			1	2	3	4	5	6	7	8	9	10	11	12	
	2730 Erythrocyte sedimentation rate	3			•		•				•		•		
	Specimens: 1 artificial blood cell suspension, ~ 4 mL     Notes: Not suitable for Algor iSed       Examinations: ESR														

2731 Erythrocyte sedimentation rate: Alifax-analyzers; Greiner tube	1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 test tubes containing synthetic latex solution, 3 mL		inatior	ns: ESR		-					<u> </u>		<u> </u>
	1	2	3	4	5	6	7	8	9	10	11	12
2732 Erythrocyte sedimentation rate: Alifax-analyzers; Sarstedt tube Specimens: 3 test tubes containing synthetic latex solution, 3 mL		inatior	• s: 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 Examinations: Qualitative detection of Hb in human faeces		: For cl	inical li	aborato	ories an	Id POC	T sites					
	1	2	3	4	5	6	7	8	9	10	11	12
2749 Faecal occult blood, quantitative			•			•			•			•
Specimens: 2 liquid samples including human haemoglobin. In June and Dec possibly lyophilized or artificial stool sample preparations including human haemoglobin. Examinations: Quantitative determination of Hb in human faeces (iFOB/FIT)	samp	e form	s asses	amples ss both and P(	the pre	eanalyt						
	1	2	3	4	5	6	7	8	9	10	11	12
2114 Haemoglobin, 1-level, POCT			•		•				•		•	
Specimens: 1 bovine sample, 1 mL Examinations: Haemoglobin	Notes	: Only noCue		T devi	ces. No	t suital	ble for I	Diaspe	ct, He	moCue	301	
	1	2	3	4	5	6	7	8	9	10	11	12
2115 Haemoglobin, 1-level HemoCue 801 and HemoCue 301			•		•				•		•	
Specimens: 1 bovine sample, 1 mL Examinations: Haemoglobin		: Only	for Her	noCue	801 and	d Hemo	oCue 30	)1.				
	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 (low, medium and high concentration)	Exam will be	e provid	ded in t	moglot he sun ters ar	nmary r	eport.	ith thre	e sam	ples. R	leferen	ce valu	es
	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 (low, medium and high concentration)	Exam		<b>is:</b> Hae for PO(	moglot								

### 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		<b>es:</b> Cl kers a			centra	tion sa	mple i	s includ	led in p	roduct	2541 N	lyocar	diac

3

•

•

#### 2540 Myocardial markers

#### Specimens: 2 liquid samples, 0.5 mL

**Examinations:** CK MB mass, myoglobin, quantitative troponin I, quantitative troponin T. Not for CKMB activity!

**Notes:** Suits clinical laboratory analyzers. See also scheme 2530 Troponin I and T, detection for POCT. If you are not sure whether your device is a POCT meter or an analyzer, please contact our customer service.

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2541 Myocardial markers and CRP, low concentration		2	3	4	5	6	/	0		10	11	1
	3	-		-		-			-		-	
Specimens: 2 liquid samples for myocardial markers, 0,5 mL,				labora								
and one for CRP1mL				POCT. I r, pleas						evice is	s a PUL	. 1
<b>Examinations:</b> CK-MB mass, myoglobin, quantitative troponin I, quantitat troponin T and CRP, low concentration. Not for CKMB activity!	ive		,	.,								
, , , , , , , , , , , , , , , , , , , ,	1		3	4	5	6	7	8	9	10	11	
2690 Natriuretic peptides 1, B-type, NT-ProBNP		2	5	•	5	0	•	0	5	•		
	3											
Specimens: 2 liquid samples, 3 mL				linical la cobas l		ries an	d POC	T sites.	Alsos	suitable	e tor Ro	loc
Examinations: NT-ProBNP	curuit											
2691 Natriuretic peptides 2, B-type, BNP		2	3	4	5	6	7	8	9	10	11	
	3			-			•			-		
Specimens: 2 liquid samples, 3 mL Examinations: BNP	Notes	: For cl	inical la	aborato	ries an	d POCT	sites					
	1	2	3	4	5	6	7	8	9	10	11	_
2530 Troponin I and Troponin T, POCT	3	•		•		•			•		•	
Specimens: 2 fresh human samples or 2 liquid samples, 0.5 mL	This s	heme	is only	for PO	CT. sche	eme 25	40 is f	or anal	vzers.	lf vou a	are not	
Examinations: Detection of troponin I and troponin T				levice is								
Notes: Qualitative and quantitative results are processed	custor	ner sei	vice.									
Ilinical chemistry » <b>Diabetes analysis</b>	1	2	3	4	5	6	7	8	9	10	11	
2570, 2580, 2590 Glucose meters	5	•			•				•		•	
Device specific product codes:		nens: 1	whole	blood	or nlasr	na san	nnle, 1	ml				
2570 for all glucose meters except Contour, HemoCue and On Call Plus			s: Gluc				-p, -					
2580 for HemoCue meters				cessed				nple vo	olume	is suffi	cient	
2590 for Contour meters	and de	evices t	pelong	to the s	same p	roauct	group.					
	1	2	3	4	5	6	7	8	9	10		
				•						-	11	<u> </u>
1261 Haemoglobin A1c, liquid samples	-(3)		1					•		•	11	
Specimens: 2 liquid blood samples, 0.5 mL		: Not s	uitable	for Afi	nion in:	strume	nts.	•		•	11	
		: Not s	uitable	for Afi	nion in:	strume	nts.	•		•	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c		: Not s	uitable	for Afi	nion in:	strume 6	nts. 7	8	9	10	11	
Specimens: 2 liquid blood samples, 0.5 mL		: Not s	uitable 3	e for Afi 4	nion in: 5	strume 6	nts. 7	8	9			
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c	Notes	2	3	e for Afi 4 • •	5	6	7	8 Afinion	9 instru	10	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT	Notes	2	3	4	5	6	7	8 Afinion	9 instru	10	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT Specimens: 2 liquid blood samples, 0.5 mL	Notes	2	3	4	5	6	7	8 Afinion 8	9 instru 9	10	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT Specimens: 2 liquid blood samples, 0.5 mL	Notes	2 : Only 1	3 For POC	4 • T devic	5 es. Not	6 • suitat	7 ile for <i>i</i>			10 • Iments	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 2526 Ketones (beta-hydroxybutyrate), POCT	Notes	2 : Only 1 2	3 For POC 3	4 • CT devic	5 es. Not	6 • suitat	7 Ile for <i>i</i> 7	8	9	10 • Iments	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 2526 Ketones (beta-hydroxybutyrate), POCT Specimens: 2 serum samples, 0.4 mL	Notes	2 : Only 1 2 : For P	3 For POC 3 • OCT sit	4 • T devic	5 es. Not	6 • suitat	7 Ile for <i>i</i> 7	8	9	10 • Iments	11	
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 2526 Ketones (beta-hydroxybutyrate), POCT	Notes	2 : Only 1 2 : For P	3 For POC 3 • OCT sit	4 • T devic 4 es and	5 es. Not	6 • suitat	7 Ile for <i>i</i> 7	8	9	10 • Iments	11	
Specimens: 2 liquid blood samples, 0.5 mL         Examinations: HbA1c         1263 Haemoglobin A1c, liquid samples, POCT         Specimens: 2 liquid blood samples, 0.5 mL         Examinations: HbA1c         2526 Ketones (beta-hydroxybutyrate), POCT         Specimens: 2 serum samples, 0.4 mL         Examinations: beta-hydroxybutyrate	Notes	2 : Only 1 2 : For P	3 For POC 3 • OCT sit	4 • T devic 4 es and	5 es. Not	6 • suitat	7 Ile for <i>i</i> 7	8	9	10 • Iments	11	ne
Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 1263 Haemoglobin A1c, liquid samples, POCT Specimens: 2 liquid blood samples, 0.5 mL Examinations: HbA1c 2526 Ketones (beta-hydroxybutyrate), POCT Specimens: 2 serum samples, 0.4 mL	Notes	2 : Only 1 2 : For P	3 For POC 3 • OCT sit	4 • T devic 4 es and	5 es. Not	6 • suitat	7 Ile for <i>i</i> 7	8	9	10 • Iments	11 11	

	2300, 23005 Hormones A: Basic analytes of hormone and immunochemistry		•		•	•	•		•		•	•	•
€QA³	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 perfo scher	ming t	esting . Produ	of 1–5 a uct 230	analyte	s. For a	schem additior nclude i	nal set	of sam	iples, c	order	
		1	2	З	4	5	6	7	8	9	10	11	12
>	1300 Hormones A, extra set of samples		•		•	•	•		•		•	•	•
NEV	Specimens: 2 human serum samples, 3 mL	Notes	: Only i	n conn	ection	with so	heme	2300					

	1	2	3	4	5	6	7	8	9	10	11	1
301, 23015 Hormones B: Steroid and peptide hormones		•		•		•		•		•		
pecimens: 2 human serum samples with differing concentrations, mL. Liquid serum sample (one level) included in Apr, Aug and Dec rounds. The and/or postanalytical cases in part of the rounds. Examinations: Androstenedione, aldosterone, C-peptide, cortisol, DHEAS, stradiol, FSH, gastrin, growth hormone, IGF-1, insulin, LH, progesterone, 7-OH-progesterone, prolactin, SHBG, testosterone, free testosterone, TBG,	Notes is a lin testin	nd/or p Refer nited v g of 1–9 ct 2301 ods.	ence va ersion 5 analy	alues fo of the s tes. Fo	or 1 ana scheme r additi	lyte in e availa ional s	able for et of sa	<sup>r</sup> labora amples	itories , order	, perforr schem	ning e 1301.	
	1	2	3	4	5	6	7	8	9	10	11	1
I301 Hormones B, extra set of samples		•		•		•		•		•		
Specimens: 2 human serum samples, 3 mL	Notes	: Only i	in conn	ection	with so	:heme	2301					
	1	2	3	4	5	6	7	8	9	10	11	
2250 Parathyroid hormone, intact	3		•							•		
pecimens: 2 lyophilized human serum samples, 3 mL	Exami	ination	Is: PTH	, intact	:							
	1	2	3	4	5	6	7	8	9	10	11	
2704 ACTH and cortisol	3					•					•	
specimens: 2 lyophilized human serum samples, 3 mL	Exami	ination	<b>s:</b> Adre	enocort	icotrop	ic horr	mone (/	ACTH) a	and Co	rtisol		
	1	2	3	4	5	6	7	8	9	10	11	
2706 Salivary Cortisol	3		•						•			L
Specimens: To be confirmed: 2 liquid or lyophilized simulated salivary amples	Exami	ination	<b>s:</b> Saliv	vary co	rtisol							

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

	1	2	3	4	5	6	7	8	9	10	11	12
1031 DayTrol, human serum	•	•	•	•	•	•	•	•	•	•	•	•
Specimens: 1 lyophilized human serum sample, 5 mL		otropin, erides,			·	e free, t	transfe	rrin, tra	ansferr	in rece	ptor,	
Examinations: Alanine aminotransferase, albumin, alkaline phosphatase, amylase, aspartate aminotransferase, bilirubin, calcium, chloride, cholesterol, cholesterol HDL, creatine phosphokinase, creatinine, gamma-	Notes	: This p	rogran	n comb	oines ir		and ext y basis.		• •			
glutamyltransferase, glucose, iron, lactate, lactate dehydrogenase,	are co	mpared	l with o	other p	articip	ants. M	y basis. 1inimur					
lithium, magnesium, osmolality, phosphorus, potassium, protein, sodium,	per ye	ar. Mor	ithly re	porting	g is inc	luded						

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

· · · · · · · · · · · · · · · · · · ·											11	
1072, 10725 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.

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

 $\ensuremath{\text{Specimens:}}\xspace$  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.

## Clinical chemistry » Special chemistry

	inned chemistry " <b>Speed chemistry</b>	1	2	3	4	5	6	7	8	9	10	11	12
	2610 Acid-base status and electrolytes		•		•				•			٠	
PUCI	Specimens: 3 buffered artificial samples, 2.5 mL Examinations: Chloride, creatinine, glucose, ionized calcium, ionized magnesium, lactate, pCO2, pH, pO2, potassium, sodium, urea, base excess, HCO3.	Notes POCT		one sa	mple s	et for e	each an	ialyzer.	For cli	nical la	borato	ries an	ł
		1	2	3	4	5	6	7	8	9	10	11	12
	2510 Alcohol in whole blood: Ethanol + methanol + isopropanol 3			•							•		
	<b>Specimens:</b> Ethanol: 2-level whole blood samples. Methanol and isopropanol: 1-level whole blood samples.	Exami	nation	s: Etha	nol, m	ethano	l, isopı	ropano	I				
	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	Evami	nation	s. Ethy	lono di	vcol					-		
	Specimens: i-level whole blood samples	Exami	nation	S: Ethy	iene gi	усог							
		1	2	3	4	5	6	7	8	9	10	11	12
	2511 Alcohol in serum: Ethanol +methanol +isopropanol +aceton			•							•		
	<b>Specimens:</b> Ethanol: 2-level serum samples. Methanol, isopropanol and acetone: 1-level serum samples.	Exami	nation	s: Etha	nol, m	ethano	l, isopı	ropano	l, aceto	ne			
		1	2	3	4	5	6	7	8	9	10	11	12
	2517 Alcohol in serum: Ethylene glycol			•							•		
	Specimens: 1-level serum samples	Exami	nation	s: Ethy	lene gl	ycol							
	2105 Ammonium ion	1	2	3	4	5	6	7	8	9	10	11	12
	Specimens: 2 serum based or buffered samples	Exami	nation	s: Amn	noniun	n 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	Exami	nation	s: ACE	<u> </u>			1	1	1	1		
		1	2	3	4	5	6	7	8	9	10	11	12
	2520 Bile acids			•								•	
	Specimens: 2 pooled human serum samples, 0.5 mL	Exami	nation	s: Bile a	acids								
		1	2	3	4	5	6	7	8	9	10	11	12
	2109 Bilirubin, conjugated		•		•				•		•		
	Specimens: 2 lyophilized or liquid samples	Exami	nation	<b>s:</b> Tota	l bilirut	oin, cor	ijugate	ed biliru	ıbin				
		1	2	3	4	5	6	7	8	9	10	11	12
	2040 Bilirubin, neonatal Specimens: 2 lyophilized or liquid samples	Exami	nation	<b>s:</b> Bil, r	ieo		•		•		•		•
L							_						
	8805 Cystatin C, Creatinine and eGFR [DEKS]	1	2	3	4	5	6 2 ti	7 mes	8	9	10	11	12
	Specimens: 2 human plasma samples with reference target values, 0.75 mL		<b>nation</b> : Partic						GFR				

Specimens: 2 lyophilized faecal specimens: 0.5 mL <ul> <li></li></ul>		1	2	3	4	5	6	7	8	9	10	11	12
2753       Gastric biomarkers         2753       Gastric biomarkers         2753       Gastric biomarkers         Specimens: 2 lyophilized samples:       Examinations: Perpendent II, Gastrin-17, Helicobacter pyoni Ab         1       2       3       4       5       6       7       8       9       10       11       2         Specimens: 2. Hough [12: m]; samples:       Image: provide (IDERS)       Imag	2754 Faecal elastase			•						•			
2733       Castric blomarkers         Specimens: 2 lyophilized samples, 3 mL         2150       Hademoxymeters         Specimens: 2 liquid (1,2 mL) samples         Examinations: FOOHE, FOOHE, FOOHE, NETTHE, CHU, SO2         3816       Homoxyteline [DEKS]         39adimens: 2 liquid (1,2 mL) samples         Examinations: FOOHE, FOOHE, FOOHE, NETTHE, CHU, SO2         3816       Homoxyteline [DEKS]         39adimens: 2 human plasma or serum samples         Examinations: P-Methy Malonic acid [DEKS]         39adimens: 2 human serum samples         Examinations: P-Methyline doal (DEKS)         39adimens: 2 human serum samples         22651       Nasal swab cells         39adimens: 2 human serum samples         22652       Specimens: 4 digital images of MGG and methylene eosin stained samples         39adimens: 4 digital images of MGG and methylene eosin stained samples         39adimens: 4 digital images of MGG and methylene eosin stained samples         39adimens: 4 digital images of MGG and methylene eosin stained samples         39adimens: 2 liquid or hyphilized human serum samples, 5 mL.         240       4       5       6       7       8       9       10       11       12         39adimens: 2 liquid or hyphilized human serum samples, 5 mL.       Taminations chunding, scilic human	Specimens: 2 lyophilized faecal specimens, 0.5 mL	Exami	natio	<b>1s:</b> Elas	stase								
Specimens: 2 lyophilized samples, 3 ml. <ul> <li></li></ul>		1	2	3	4	5	6	7	8	9	10	11	12
2150       Hadmoxymeters         Specimens: 216uid (1,2 mL) samples         Examinations: F02Hb, FCDHb, FMETHb, cHb, s02         3816       Homocysteine (DEKS)         Specimens: 2. human plasma or serum samples         Examinations: P-Methyl Malonic acid (DEKS)         Specimens: 2. human serum samples         Examinations: P-Methyl Malonic acid (DEKS)         Specimens: 2. human serum samples         Examinations: P-Methyl Malonic acid (DEKS)         Specimens: 2. human serum samples         Examinations: P-Methylmalonat         2651       Nasal swab cells         Specimens: 2. Human serum samples         Examinations: P-Methylmalonat         2651       Nasal swab cells         Specimens: 2. Human serum samples         Specimens: 2. Javina full crystals         Specimens: 2. Javina serum samples         Specimens: 2. Javina full crystals         Specimens: 2. Javina full crystals <td>2753 Gastric biomarkers</td> <td>)</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td>	2753 Gastric biomarkers	)					•					•	
2150       Hatemoxymeters       •	Specimens: 2 lyophilized samples, 3 mL	Exami	natio	<b>1s:</b> Pep	sinoge	n I, Pep	sinoge	n II, Ga	istrin-1	7, Helio	obacte	r pylori	Ab
Specimens: 2 Huiud (12 mL) samples         Examinations: F02Hb, FCDHb, FMETHb, cHb, s02         Staff       Hornocysteline (DEKS)         Specimens: 2 human plasma or serum samples         Examinations: P-Homocysteline         Staff       Motes: Enricipation to all nunds required.         Specimens: 2 human plasma or serum samples         Examinations: P-Homocysteline         Staff       Motes: Participation to all nunds required.         Specimens: 2 human serum samples         Examinations: P-Methylmalonat         2251       Nasal swab cells         Specimens: 4 digital images of MCG and methylene eosin stained samples         Examinations: Eosinophils, neutrophils         1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 4 digital images of MCG and methylene eosin stained samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2-3 sildes prepared from patient samples, 5 mL       Examinations: Eosinophils, neutrophils       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2-3 sildes prepared from pati		1	2	3	4	5	6	7	8		10	11	12
Base Invasions: FCOHb, FCOHb, FMETHb, cHb, sol2       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 human plasma or serum samples       Examinations: P-Homocysteine       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 human serum samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 human serum samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 human serum samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 human serum samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 hights inspect of MCG and methylene eosin stained samples       1       2       3       4       5       6       7       8       9       10       11       12	2150 Haemoxymeters	)		•						•			
8816       Homocysteine [DEKS]       4 times         Specimens: 2 human plasma or serum samples       Examinations: P-Homocysteine       1       2       3       4       5       6       7       8       9       10       1       12         Statis       Methyl Malonic acid       (DEKS)       5       times       5       6       7       8       9       10       1       12         Specimens: 2 human serum samples       Examinations: P-Methylmalonat       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 4 digital images of MCG and methylene eosin stained samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 4 digital images of MCG and methylene eosin stained samples       1       2       4       5       6       7       8       9       10       11       12         Specimens: 2-3 slides prepared from patient samples       3       1       2       4       5       6       7       8       9       10       11       12         Specimens: 2-1 slides prepared from patient samples, 5 ml.       1       2	Specimens: 2 liquid (1.2 mL) samples Examinations: FO2Hb, FCOHb, FMETHb, ctHb, sO2	Notes	: Orde	r one si	ample	set for e	each an	alyzer					
Specimens: 2 human plasma or serum samples         Notes: Participation to all rounds required.         Specimens: 2 human serum samples         Colspan="2">Specimens: 2 human serum samples         Date: Participation to all rounds required.         Specimens: 4 digital images of MGC and methylene eosin stained samples         Specimens: 4 digital images of MGC and methylene eosin stained samples         Specimens: 4 digital images of MGC and methylene eosin stained samples         Specimens: 4 digital images of MGC and methylene eosin stained samples         Specimens: 2 digital images of MGC and methylene eosin stained samples         Specimens: 2 a digital images of MGC and methylene eosin stained samples         Specimens: 2 a digital images of MGC and methylene eosin stained samples         Specimens: 2 a digital images of MGC and methylene eosin stained samples         Specimens: 2 a digital images of MGC and methylene eosin stained samples         The sample s		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 human plasma or serum samples          1         2         3         4         5         6         7         8         9         10         1         2         3         4         5         6         7         8         9         10         1         2         3         4         5         6         7         8         9         10         1         2         3         4         5         6         7         8         9         10         1         1	8816 Homocysteine [DEKS]						4 tii	nes					
1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 human serum samples       Examinations: P-Methylmalonat       1       2       3       4       5       6       7       8       9       10       11       12         ZeS1       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       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 4 digital images of MGG and methylene eosin stained samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2-3 slides prepared from patient samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2-3 slides prepared from patient samples. 5 mL       1       2       3       4       5       6       7       8       9       10       11       12	Specimens: 2 human plasma or serum samples	Notes	: Parti	cipatio	n to all	rounds	require	ed.					
8815       Methyl Malonic acid [DEKS]       5 times         Specimens: 2 human serum samples       Notes: Participation to all rounds required.         2651       Nasal swab cells         3pacimens: 4 digital images of MCG and methylene eosin stained samples       1       2       3       4       5       6       7       8       9       10       11       12         2652       Sputum cells       1       2       3       4       5       6       7       8       9       10       11       12         2652       Sputum cells       1       2       3       4       5       6       7       8       9       10       11       12         2654       Synovial fluid crystals       1       2       3       4       5       6       7       8       9       10       11       12         2640       Synovial fluid crystals       1       2       3       4       5       6       7       8       9       10       11       12         2640       Synovial fluid crystals       1       2       3       4       5       6       7       8       9       10       11       12 <t< td=""><td>Examinations: P-Homocysteine</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Examinations: P-Homocysteine												
Specimens: 2 human serum samples       Image: Participation to all rounds required.         2651 Nasal swab cells       Image: Participation to all rounds required.         Specimens: 4 digital images of MGG and methylene eosin stained samples       Image: Participation to all rounds required.         2652 Sputum cells       Image: Participation to all rounds required.         Specimens: 4 digital images of MGG and methylene eosin stained samples       Image: Participation to all rounds required.         2652 Sputum cells       Image: Participation to all rounds required.         Specimens: 4 digital images of MGG and methylene eosin stained samples       Image: Participation to all rounds required.         2640 Synovial fluid crystals       Image: Participation to all rounds required.         Specimens: 2-3 slides prepared from patient samples       Image: Participation to all rounds required.         2410 Therapeutic drugs       Image: Participation to all rounds required.         Specimens: 2 liquid or lyophilized human serum samples, 5 mL.       Image: Participation to all rounds required.         2480 Vitamin A, E and D metabolites       Image: Participation: Participation: Participation: Participation to all rounds required.         2481 Vitamin A, E and D metabolites, extra set of samples       Image: Participation to all rounds required.         1       2       3       4       5       6       7       8       9       10       1		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 human serum samples         Notes: Participation to all rounds required.         Casiminations: P-Methylmalonat         2651 Nasal swab cells	8815 Methyl Malonic acid [DEKS]						5 tir	nes					
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       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 4 digital images of MGG and methylene eosin stained samples       1       2       3       4       5       6       7       8       9       10       11       12       0       1       1       12       0       1       1       12       0       1       1       12       0       1       1       12       0       1       1       12       0       1       1       12       0       1       1       12       0       1       12       0       1       1       12       0       1       1       12       0       1       1       12       0       1       12       12       1       1       12       1       1       12       1       1       12       1       1       12       1       1       1       12       1       1       1       1	Specimens: 2 human serum samples	Notes	: Parti	cipatio	n to all	rounds	require	ed.					
2251 Nasal swab cells <ul> <li>Examinations: Eosinophils, neutrophils</li> <li>Examinations: Eosinophils, neutrophils</li> </ul> <ul> <li>Examinations: Eosinophils, neutrophils</li> </ul> 2252 Sputum cells <ul> <li>I</li> <li>Z</li> <li>Z<td>Examinations: P-Methylmalonat</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></li></ul>	Examinations: P-Methylmalonat												
Specimens: 4 digital images of MGC and methylene eosin stained samples              Examinations: Eosinophils, neutrophils          2652       Sputum cells              1             2		1	2	3	4	5	6	7	8	9	10	11	12
2652       Sputum cells         2652       Sputum cells         3       1       2       3       4       5       6       7       8       9       10       11       12         2652       Sputum cells       1       2       3       4       5       6       7       8       9       10       11       12         2640       Synovial fluid crystals       3       4       5       6       7       8       9       10       11       12         2640       Synovial fluid crystals       3       4       5       6       7       8       9       10       11       12         2640       Synovial fluid crystals       3       4       5       6       7       8       9       10       11       12         2640       Synovial fluid crystals       3       4       5       6       7       8       9       10       11       12         2410       Therapeutic drugs       3       4       5       6       7       8       9       10       11       12         2410       Therapeutic drugs       3       4       5       6		)											•
2252 Sputum cells <ul> <li>Examinations: Eosinophils, neutrophils</li> </ul> 22640 Synovial fluid crystals <ul> <li>I</li> <li>Z</li> <li>Z<td>Specimens: 4 digital images of MGG and methylene eosin stained samples</td><td>Exami</td><td>natio</td><td><b>1s:</b> Eos</td><td>inophil</td><td>s, neut</td><td>rophils</td><td></td><td></td><td></td><td></td><td></td><td></td></li></ul>	Specimens: 4 digital images of MGG and methylene eosin stained samples	Exami	natio	<b>1s:</b> Eos	inophil	s, neut	rophils						
Specimens: 4 digital images of MCG 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: 2-3 slides prepared from patient samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2-3 slides prepared from patient samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 liquid or lyophilized human serum samples, 5 mL       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 liquid or lyophilized human serum samples, 5 mL       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 liquid human serum samples, 1 mL.       Pre- and/or post-analytical cases in part of the rounds.       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 liquid h		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         2240       Synovial fluid crystals	2652 Sputum cells												•
2640       Synovial fluid crystals         Specimens: 2-3 slides prepared from patient samples       Image: Constraint on the state of the	Specimens: 4 digital images of MGG and methylene eosin stained samples	Exami	natio	<b>1s:</b> Eos	inophil	s, neut	rophils						
Specimens: 2-3 slides prepared from patient samples       I z 3 4 5 6 7 8 9 10 11 12         2410 Therapeutic drugs       I z 3 4 5 6 7 8 9 10 11 12         Specimens: 2 liquid or lyophilized human serum samples, 5 mL       I z 3 4 5 6 7 8 9 10 11 12         Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline,       I z 3 4 5 6 7 8 9 10 11 12         Specimens: 2 liquid human serum samples, 1 mL.       I z 3 4 5 6 7 8 9 10 11 12         Pre- and/or post-analytical cases in part of the rounds.       I z 3 4 5 6 7 8 9 10 11 12         Specimens: Vitamin A, E and D metabolites       I z 3 4 5 6 7 8 9 10 11 12         Specimens: Vitamin A, K and D metabolites, extra set of samples       I z 3 4 5 6 7 8 9 10 11 12         C481 Vitamin A, E and D metabolites, extra set of samples       I z 3 4 5 6 7 8 9 10 11 12         Specimens: 2 liquid human serum samples, 5 mL       I z 3 4 5 6 7 8 9 10 11 12         C481 Vitamin A, E and D metabolites, extra set of samples       I z 3 4 5 6 7 8 9 10 11 12         Specimens: 2 liquid human serum samples, 5 mL       I z 3 4 5 6 7 8 9 10 11 12         C481 Vitamin A, E and D metabolites, extra set of samples       I z 3 4 5 6 7 8 9 10 11 12         Specimens: 2 liquid human serum samples, 5 mL       I z 3 4 5 6 7 8 9 10 11 12         C482 Vitamin A, E and D metabolites, extra set of samples       I z		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2-3 slides prepared from patient samples         Examinations: Solium urate monohydrate and calcium pyrophosphate dihydrate crystals         2410 Therapeutic drugs         3 d 4 5 6 7 8 9 10 11 12         Specimens: 2 liquid or lyophilized human serum samples, 5 mL         Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecanide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline.         1 2 3 4 5 6 7 8 9 10 11 12         2480 Vitamin A, E and D metabolites         Specimens: 2 liquid human serum samples, 1 mL.         Pre- and/or post-analytical cases in part of the rounds.         Examinations: Vitamin A, vitamin E, 25(0H)D-vitamin, 1,25(0H)2-D-vitamin, pre- and/or post-analytical indicators       1 2 3 4 5 6 7 8 9 10 11 12         1 2 3 4 5 6 7 8 9 10 11 12         Votes: Target values for 25(0H)D vitamin metabolite are provided.         Vetaminations: Solium urate monohydrate and calcium pyrophosphate dihydrate crystals         1 2 3 4 5 6 7 8 9 10 11 12         Optication of the rounds.         Examinations: Vitamin A, vitamin F, 25(0H)D-vitamin, 1,25(0H)2-D-vitamin, pre- and/or post-analytical indicators         1 2 3 4 5 6 7 8 9 10 11 12         2481 Vitam	2640 Synovial fluid crystals			•						•			
2410       Therapeutic drugs         Specimens: 2 liquid or lyophilized human serum samples, 5 mL       a         Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline,       a       a       a       a         2480       Vitamin A, E and D metabolites       3       a       5       6       7       8       9       10       11       12         Specimens: 2 liquid human serum samples, 1 mL.       a </td <td>Specimens: 2-3 slides prepared from patient samples</td> <td></td> <td></td> <td></td> <td>ium ur</td> <td>ate mo</td> <td>nohydra</td> <td>ate an</td> <td>d calciu</td> <td>ım pyr</td> <td>ophosp</td> <td>hate</td> <td></td>	Specimens: 2-3 slides prepared from patient samples				ium ur	ate mo	nohydra	ate an	d calciu	ım pyr	ophosp	hate	
Specimens: 2 liquid or lyophilized human serum samples, 5 mL         Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline.         2480 Vitamin A, E and D metabolites         Specimens: 2 liquid human serum samples, 1 mL.         Pre- and/or post-analytical cases in part of the rounds.         Examinations: Vitamin A, vitamin E, 25(OH)D-vitamin, 1,25(OH)2-D-vitamin, pre- and/or post-analytical indicators         1       2       3         1       2       3         2481 Vitarnin A, E and D metabolites, extra set of samples       1       2       3         Specimens: 2 liquid human serum samples, 5 mL       1       2       3       4       5       6       7       8       9       10       11       12         2481 Vitarnin A, E and D metabolites, extra set of samples       1       2       3       4       5       6       7       8       9       10       11       12         2481 Vitarnin A, E and D metabolites, extra set of samples       1       2       4       5       6       7       8       9       10       11       12         2525 S-hydroxyindoleacetic Acid (S-HIAA)       3       1       2       4       5 </td <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 liquid or lyophilized human serum samples, 5 mL       paracetamol (acetaminophen), phenobarbital, phenytoin, phenytoin free, primidone, procainamide, quinidine, salicylate, theophylline, tobramycin, tricyclics, valproic acid, valproic acid free, vancomycin         Lexaminations: Amikasin, amitriptyline, carbamazepine, carbamazepine, carbamazepine, carbamazepine, carbamazepine, carbamazepine, carbamazepine, 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.       Pre- and/or post-analytical cases in part of the rounds.       Notes: Target values for 25(0H)D vitamin metabolite are provided.       1       2       3       4       5       6       7       8       9       10       11       12         2481       Vitamin A, E and D metabolites, extra set of samples       1       2       3       4       5       6       7       8       9       10       11       12         2481       Vitamin A, E and D metabolites, extra set of samples       5       6       7       8       9	2410 Therapeutic drugs			•		•			•			•	
2480       Vitamin A, E and D metabolites       •	Specimens: 2 liquid or lyophilized human serum samples, 5 mL Examinations: Amikasin, amitriptyline, carbamazepine, carbamazepine free, cyclosporine, digoxin, disopyramide, ethosuximide, flecainide, gentamycin, lidocaine, lithium, methotrexate, NAPA, netilmycin, nortriptyline,	parace primic	one, p	rocain	amide,	quinidi	ne, sali	cylate,	, theop	hylline			
Specimens: 2 liquid human serum samples, 1 mL.   Pre- and/or post-analytical cases in part of the rounds.   Examinations: Vitamin A, vitamin E, 25(0H)D-vitamin, 1,25(0H)2-D-vitamin, pre- and/or post-analytical indicators   1 2   3 4   5 6   7 8   9 10   1 2   2481 Vitamin A, E and D metabolites, extra set of samples   Specimens: 2 liquid human serum samples, 5 mL   1 2   3 4   5 6   7 8   9 10   1 12   2525 5-hydroxyindoleacetic Acid (5-HIAA)      Notes: Target values for 25(0H)D vitamin metabolite are provided. Notes: Target values for 25(0H)D vitamin metabolite are provided. Notes: Target values for 25(0H)D vitamin metabolite are provided. Provided to the rounds. </td <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12
2481 Vitamin A, E and D metabolites, extra set of samples <ul> <li>Image: Constraint of the sample set of sample set</li></ul>	Specimens: 2 liquid human serum samples, 1 mL. Pre- and/or post-analytical cases in part of the rounds. Examinations: Vitamin A, vitamin E, 25(OH)D-vitamin, 1,25(OH)2-D-vitamin, pre- and/or post-analytical indicators	Notes	: Targe	et value	es for 2	5(OH)D	vitami	n meta	abolite	are pro	ovided.	•	
Specimens: 2 liquid human serum samples, 5 mL       Notes: Only in connection with scheme 2480.         1       2       3       4       5       6       7       8       9       10       11       12         2525       5-hydroxyindoleacetic Acid (5-HIAA)       • <t< td=""><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></t<>		1	2	3	4	5	6	7	8	9	10	11	12
1       2       3       4       5       6       7       8       9       10       11       12         2525       5-hydroxyindoleacetic Acid (5-HIAA)       •	2481 Vitamin A, E and D metabolites, extra set of samples				•							•	
2525 5-hydroxyindoleacetic Acid (5-HIAA)	Specimens: 2 liquid human serum samples, 5 mL	Notes	Only	in conr	ection	with so	heme 2	2480.					
	2525 5-hydroxyindoleacetic Acid (5-HIAA)	1	2	3	4	5	6	7	8	9		11	12
	U	Evami	natio	15: 5-H		1							

## Clinical chemistry » Specific proteins

	ennical enernisary « <b>Specific proteins</b>	1	2	3	4	5	6	7	8	9	10	11	12
	2020 C-reactive protein (CRP) for analyzers		•		•		•		•		•		•
	Specimens: 2 liquid serum or plasma samples, 1 mL Examinations: CRP	schen	1e 2132	for PO	T CRP	meters	s. If yo	u are r	emistry lot sure ur custo	whetl	her you		e is
		1	2	3	4	5	6	7	8	9	10	11	12
	2132 C-reactive protein (CRP), POCT		•		•		•		•		•	•	
POCT	Specimens: 2 human plasma samples, 1 mL Examinations: CRP								. If you se conta				
		1	2	3	4	5	6	7	8	9	10	11	12
	2140 Decialotransferrin [EQUALIS]	•		•		•			•		•		•
	Specimens: 2 human plasma samples, varying concentration of CDT Examinations: CDT	Notes	: Partic	ipation	to all r	ounds	require	ed.					
		1	2	3	4	5	6	7	8	9	10	11	12
	2751 Faecal calprotectin	)	•			•			•			•	
	Specimens: 2 lyophilized faecal specimens, 0.5 mL	Exam	ination	s: Calpı	rotectir	ı							
		1	2	3	4	5	6	7	8	9	10	11	12
	2281 Interleukin-6		•			•			•			•	
	Specimens: 2-3 lyophilized samples	Exam	ination	<b>s:</b> IL-6									
		1	2	з	4	5	6	7	8	9	10	11	12
	2200 Lipids and lipoproteins		•			•	-			•			•
EQA³	Specimens: 2 fresh human serum samples, 0.5–1 mL. Pre- and/or post- analytical cases in part of the rounds. Examinations: Cholesterol, HDL cholesterol, LDL cholesterol, lipoprotein apo A1,	pre- a	nd/or p	po A2, l lost-an ate rou	alytical	indica	tors		ein (a), 1 202	triglyce	erides,		
		1	2	3	4	5	6	7	8	9	10	11	12
	2202 Lipoprotein a 3	)	•			•				•			•
	Specimens: 1 liquid or lyophilized human serum preparation	Exam	ination	<b>s:</b> Lp(a)									
		1	2	З	4	5	6	7	8	9	10	11	12
	2280 Procalcitonin	$\mathbf{b}$			•						•		
	Specimens: 2 lyophilized samples Examinations: Procalcitonin	Notes	: Only f	or quar	ntitativ	e meth	iods						
		1	2	3	4	5	6	7	8	9	10	11	12
	2160 Proteins in cerebrospinal fluid	$\mathbf{)}$			•					•			
	Specimens: 1 cerebrospinal fluid sample 1-3 mL and 1 human serum sample, 1 mL			<b>s:</b> Cerel nin, Ig(		ial fluid	l: Albu	min, Ig	gG, tota	I prote	ein, IgG	index.	
		1	2	3	4	5	6	7	8	9	10	11	12
	2240 Proteins, electrophoresis		•			•			•			•	
EQA³	<b>Specimens:</b> 2 liquid or lyophilized human serum samples, 1 mL Pre- and/or post-analytical cases in part of the rounds.	Exam		<b>s:</b> Elect licators		esis, co	ontains	s immı	unofixa	tion, p	re- anc	l/or po:	st-
		1	2	3	4	5	6	7	8	9	10	11	12
	2230 Proteins, immunochemical determinations	•			•		•			•			
	Specimens: 2 liquid human serum samples, 1 mL Examinations: Alpha-1-antitrypsin, alpha-2-macroglobulin, albumin, ceruloplasmin, complement C3, complement C4, haptoglobin, hemopexin,								ee, IgLo ansferr			, IgM,	

## Clinical chemistry » Tumour markers

	1	2	3	4	5	6	7	8	9	10	11	12
2703 Anti-Müllerian hormone 3		•			•			•			•	
Specimens: 2 liquid human serum samples, 1 mL	Exami	nation	s: Anti	-Müllei	rian ho	rmone						
	1	2	3	4	5	6	7	8	9	10	11	12
2226 Prostate specific antigen		•		•			•			•		
Specimens: 2 liquid human serum samples, 1 mL	Exami	nation	s: PSA	, comp	lexed F	PSA, fre	e PSA,	free/t	otal PS	A ratio	)	
			2	4	-	~	7	8	9	10	11	
	1	2	5	4	5	6	/	0				12
2700, 27005 Tumour markers	1	٠			•		cchom	•			·	
2700, 2700S Tumour markers Specimens: 2 liquid human serum samples, 2 mL 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	1 Notes: perform from n	• 27009 ming te	esting	nited v of 1–5 a	• version analyte	of the s. Prod		• e availa	able fo	r labora	atories	
Specimens: 2 liquid human serum samples, 2 mL 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,	perform	• 27009 ming te	esting	nited v of 1–5 a	• version analyte	of the s. Prod		• e availa	able fo	r labora	atories	ting
Specimens: 2 liquid human serum samples, 2 mL 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,	perform	• 27009 ming te nultiple	esting	nited v of 1–5 a zers or	• version analyte metho	of the s. Prod ods		e availa DOS doo	able fo es not	r labora include	atories repor	

### Clinical chemistry » Urine analysis

linical chemistry » <b>Urine analysis</b>		1	2	ч	4	5	6	7	8	9	10	11	12
3240 Albumin and creatinine in urine	3		2		•						•		
Specimens: 2 liquid human urine samples with spiked albumin and creatinine, 4 mL	Exa					creatini ive met	1	umin-c	reatini	ine rati	io		
		1	2	3	4	5	6	7	8	9	10	11	12
3300 Drug of abuse screening in urine	3		•				•			•			
Specimens: 2 authentic samples, 5 mL Examinations: Alpha-PVP, Amphetamine, Barbiturates, Benzodiazepines, Buprenorphine, Cannabinoids, Carbamazepine, Cocaine +metabolites, Codeine, Dextropropoxyphene, EDDP, Fencyclidine, Fentanyl, Gammahydroxybutyrate (GHB), Ketamine, LSD, MDMA, MDPV, Metamphetamine, Methaqualone, Methadone +metabolites, Methylphenidate, Morphine, Opiates Oxycodone, Paracetamol, Pregabalin, Salicylate, Tricyclic- antidepr. Tramadol	con		atory					T sites Its are			atory	or	
		1	2	3	4	5	6	7	8	9	10	11	12
3270 Pregnancy test	3			•		•				•		•	
Specimens: 2 fresh urine samples, 1 mL Examinations: Qualitative hCG	No	otes:	For c	linical	laborat	tories a	ind PO(	T sites	5				
		1	2	3	4	5	6	7	8	9	10	11	12
3170 Urine bacterial screening with automated analyzers	3				•							•	
Specimens: 1 liquid sample and lyophilized synthetic urine sample containing bacteria.	$\mathbf{}$	amin	atio	<b>1s:</b> Bao	terial,	erythro	ocytes	and leu	kocyte	s coun	ting		
		1	2	3	4	5	6	7	8	9	10	11	12
			•			•						•	
<b>3200</b> Urine, identification of cells and other particles (digital images)	$\bigcirc$		-						-			-	

		1	2	3	4	5	6	7	8	9	10	11	12
	3160 Urine quantitative chemistry	3		•		•				•			•
	Specimens: 1 liquid urine, 10 mL	glucos	e, inor	s: Albu ganic p ive den	hospha	ate, ma	ignesiu	ım, osr	nolalit				ne,
		1	2	3	4	5	6	7	8	9	10	11	12
	3100 Urine strip test A	3	•		•				•		•		
POCT	<b>Specimens:</b> 1 lyophilized urine sample with varying concentrations, 15 mL <b>Examinations:</b> Glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes), relative density			inical la schen							ssolutio	on	
		1	2	3	4	5	6	7	8	9	10	11	12
E.	3101 Urine strip test A, 15 mL water for sample dissolution		•		•				•		•		
POCT	Specimens: 15 mL water for dissolution of samples of scheme 3100	Notes	: Only i	n conn	ection	with so	heme	3100					
		1	2	3	4	5	6	7	8	9	10	11	12
	3130 Urine strip test B, particle count and estimation of density	3		•		•				•			•
	<b>Specimens:</b> 1 lyophilized urine, 15 mL <b>Examinations:</b> Particle count: erythrocytes and leukocytes. Estimation of density: creatinine, relative density, osmolality. Strip tests: glucose, ketone bodies, leukocytes, nitrite, pH, protein, blood (erythrocytes).	counti only b used b	ing). The collect by diffe lyophi	suitable ne arbit tted in rent st lized sa	rary co order to rip test	ncentra o avoid is and i	ations differe user lal	of the orest of th	obtaine upings ries. W	ed strip of pos ater fo	o test re sitive ca r dissol	esults v ategorie ution	vill
		1	2	3	4	5	6	7	8	9	10	11	12
	3131 Urine strip test B, 15 mL water for sample dissolution			•		•				•			•
	Specimens: 15 mL water for dissolution of lyophilized samples of scheme 3130	D Notes	: Only i	n conn	ection	with so	heme	3130					

# Clinical chemistry and haematology

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

	1	2	З	4	5	6	7	8	9	10	11	12
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	labora term s	tories tability	results y of pe	and all rforma	owing nce an	ive log i dynam d flagg gram o	nic on-l ing rate	ine mo	nitorin	g of mi	d-to lo	ong-
	1	2	3	4	5	6	7	8	9	10	11	1
3500 Percentiler program (Noklus)											•	
Specimens: results from selected patient groups are used to calculate instrument-specific daily medians			ipating ed on p			calcula						с

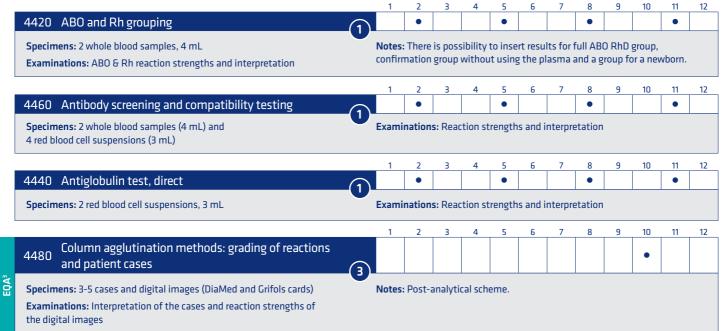
creatinine, CRP, ferritin, folate, FT4, GGT, glucose, Hb, HbA1c, HDL-cholesterol, IgA, IgG, IgM, IgA, K, LDH, MCV, magnesium, Na, phosphate, PLT, protein, PSA, PTH, RBC, triglycerides, TSH, urea, uric acid, vitamin B12, vitamin D, WBC

reporting is also pos e. Results are exported to a central database by standardized e-mails.

## Haematology

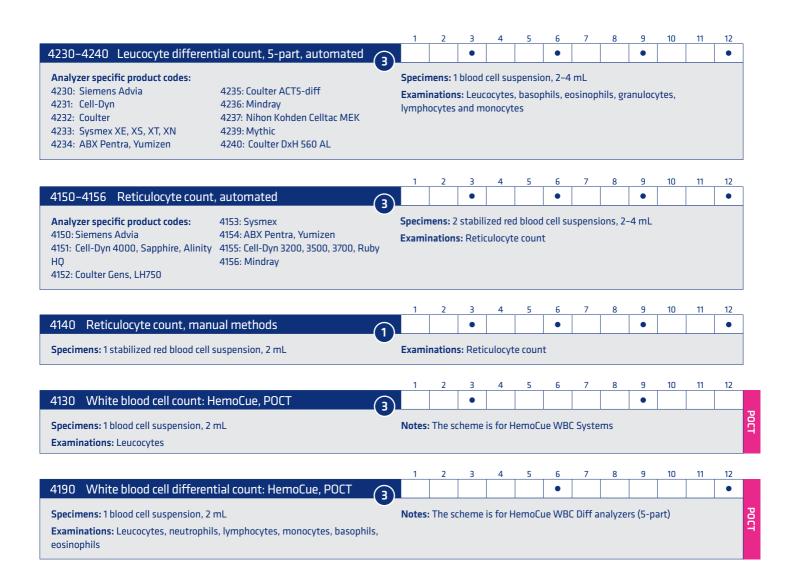
The haematology selection consists of schemes for blood transfusion serology, cell count and morphology as well as coagulation tests. Specialties include the Erythrocyte sedimentation rate for Alifax as well as the White blood cell count and INR schemes for POCT. Units performing blood transfusions find 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.** 

#### Haematology » Blood transfusion serological tests



### Haematology » Cell count and cell morphology

	······································	1	2	3	4	5	6	7	8	9	10	11	12
4100 Bas	ic blood count, 1-level sample	<u>3</u>	•	•	•	•	•	•	•	•	•	•	•
Specimens:	1 blood cell suspension, 3 mL	Exan		<b>ns:</b> Hb, width),									
		1	2	3	4	5	6	7	8	9	10	11	12
4110 Bas	ic blood count, 2-level samples		•	•	•	•	•	•	•	•	•	•	•
Specimens:	2 blood cell suspensions, 3 mL			<b>ns:</b> Hb, width),									
		1	2	3	4	5	6	7	8	9	10	11	12
	icocyte differential count and evaluation of blood cel rphology, virtual microscopy	 				•					•		
Specimens:	2-3 patient cases as virtual slide images		ninatio	ns: Leu	cocyte	differer	ntial co	unt an	d evalı	uation o	of red b	lood ce	ells
		1	2	3	4	5	6	7	8	9	10	11	12
4200-420	1 Leucocyte differential count, 3-part, automated	3		•			•			•			•
	<b>ecific product codes:</b> Idvia, Cell-Dyn, Coulter, Medonic, Mindray, Nihon Kohden Celltac Mf x	Spec EK Exan	ninatio	1 blood <b>ns:</b> Abs inulocy	olute n	·			s, lymp	bhocyte	es, mor	onucle	ar



#### Haematology » Coagulation

		1	2	3	4	5	6	7	8	9	10	11	12
4330 Activated partial thromboplastin time, INR and fibrinogen	3		•			•			•			•	
Specimens: 2 lyophilized plasma samples, 0.5-1 mL		Exami	natior	<b>is:</b> Coag	gulatio	n time	in seco	nds, fi	brinoge	en, INR	R		
		1	2	3	4	5	6	7	8	9	10	11	12
4387 Anticoagulants: LMW-Heparin/antiFXa	3		٠			•			•			•	
Specimens: 2 lyophilized plasma samples, 0.5-1 mL		Exami	natior	is: LMV	V-hepa	rin/ant	iFXA						
		1	2	3	4	5	6	7	8	9	10	11	12
4388 D-dimer	3		•			•			•			•	
<b>Specimens:</b> 2 liquid commercial plasma samples, 0.5 mL <b>Examinations:</b> D-Dimer		Notes	For cl	inical la	aborato	ories an	Id POC	T sites					
		1	2	3	4	5	6	7	8	9	10	11	12
4335 INR, CoaguChek, i-STAT and Siemens Xprecia, POCT	3					•						•	
Specimens: Liquid or lyophilized sample		Notes	Only	for Coa	guChel	k, i-STA	T and !	Siemer	is Xpre	cia me	ters		
Examinations: Prothrombin time in INR unit													

			1	2	3	4	5	6	7	8	9	10	11	12
	4337 INR, EuroLyzer, POCT	3					•						•	
POCT	Specimens: 1 lyophilized plasma sample		Notes	: Only f	or Eur	oLyzer	NR me	ter						
	Examinations: Prothrombin time in INR unit													
			1	2	3	4	5	6	7	8	9	10	11	12
	4340 INR, LabPad, POCT						•						•	
POCT	Specimens: 1 dried whole blood sample		Notes	: Only f	or Lab	Pad INI	R mete	rs						
	Examinations: Prothrombin time in INR unit													
			1	2	3	4	5	6	7	8	9	10	11	12
	4338 INR, MicroINR, LumiraDX and CoagSense, POCT	3					•	_					•	
POCT	Specimens: Lyophilized whole blood sample or lyophilized plasma sample		Notes	: Only f	or mic	roINR,	Lumira	DX and	d Coags	Sense i	neters			
	Examinations: Prothrombin time in INR unit													
			1	2	2	4	-	c	7	0	0	10	11	17
	4300 Prothrombin time	3		•	5	4	•	6	/	•	9	10	11	12
	Specimens: 2 lyophilized plasma samples, 0.5–1 mL	-	Exami	nation	s: Prot	:hromb	in time	, PT%	I		1	I	I	
			1	2	3	4	5	6	7	8	9	10	11	12
	4386 Special coagulation			•			•			•			•	
	Specimens: 2 lyophilized plasma samples, 0.5–1 mL		Exami	nation	s: Thro	ombin t	ime, A	ntithro	mbin,	Factor	VIII, Pr	otein C	, Prote	in S

## EQA schemes for blood banks

#### **Blood transfusion serology**

4420 ABO and Rh grouping4460 Antibody screening and compatibility testing4440 Antiglobulin test, direct4480 Column agglutination methods: grading of reactions and patient cases

#### **Bacterial serology**

5880 Syphilis serology

#### Bacteriology

5100 Blood culture5101 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.

		1	2	3	4	5	6	7	8	9	10	11	1
	5250       Interferon Gamma Release Assay (IGRA) for         Mycobacterium tuberculosis       3		•			•			•			•	
	Specimens: 2-3 lyophilized samples and	Exam	inatior	ıs: Tbli	NFg qua	intitati	ve resu	It and	qualita	ative ir	iterpret	ation.	The
	a preanalytical case description including questions	scherr	ne is no	ot suita	able for	the TB	T-Spot	test.					
		1	2	З	4	5	6	7	8	9	10	11	1
	5935 ANCA and GbmAb		•						•				
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL	Pre- a	nd/or j	post-ai	nalytica	l cases	in part	of the	round	s.			
	<b>Examinations:</b> Anti-neutrophilic cytoplasmic Ab, Myeloperoxidase Ab, Proteinase-3 Ab and Glomerular basement membrane Ab.	Notes	: Quan	titativ	e result	s are al	so proc	essed	(Pr3Ab	), MPO	Ab, Gb	mAb)	
		1	2	3	4	5	6	7	8	9	10	11	
	5900 Antinuclear antibodies				•						•		
	Specimens: 3 liquid human serum or plasma samples, 0.6 mL	Pre- a	nd/or i	oost-ai	nalytica	l cases	in part	of the	round	s.			
	Examinations: ANA, ENAAb, RNPAb, SmAb (SmDAb and/or SmBAb),SSAAb,				antinuo						ed		
	SSBAb, Scl70Ab, CENP-B, CENP-A, Jo1Ab, dsDNA, HistAb, RibP Ab, RNApol III Ab	deoxy	ribonu	cleic ad	id are i	ncluded	1						
		1	2	3	4	5	6	7	8	9	10	11	_
	5938 Autoimmune diagnostics, IFA interpretation (digital images)					•							
	Specimens: 3–5 cases (digital images)	Exam	inatior	<b>is:</b> Inte	erpretat	ion (AN	A, AN	CA and	EMA i	mages	5)		
		1	2	3	4	5	6	7	8	9	10	11	
	5930 Autoimmune liver disease and gastric parietal cell antibodies					•						•	
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL				er kidne ondrial								
		1	2	3	4	5	6	7	8	9	10	11	
-	5940 Coeliac disease, antibodies		•				•				•		
	Specimens: 2 liquid human serum or plasma samples, 0.7 mL Examinations: Endomysium antibodies, tissue transglutaminase antibodies, deamidated gliadin peptide antibodies, interpretation of the Total IgA concen- tration of the sample. Pre- and/or post-analytical cases in part of the rounds.				e result is not si				(tTGAt	5A, tTU	Abu, L	JGPADA	Α,
		1	2	3	4	5	6	7	8	9	10	11	
	5937 Phospholipid antibodies					•							L
	Specimens: 2 liquid human serum or plasma samples, 0.5 mL Examinations: Phospholipid antibodies, Cardiolipin antibodies (IgG and IgM),				n antibo e result			-					
		1	2	3	4	5	6	7	8	9	10	11	_
	5820 Rheumatoid factor and citrullic peptide antibodies	•			•			•			•		
	Specimens: 2 liquid human-derived samples, 0.7 mL	Exam	inatior	<b>ıs:</b> Qua	litative	and qu	antita	tive RF	, CCPA	b			
		1	2	3	4	5	6	7	8	9	10	11	
	5920 Thyroid gland antibodies			•			٠				•		
	Specimens: 2 liquid human serum or plasma samples, 0.4 mL				nalytica e result				round	s.			
	Examinations: Thyroglobulin antibodies and thyroid peroxidase antibodies.	Notes											
	Examinations: Thyroglobulin antibodies and thyroid peroxidase antibodies.	1	2	3	4	5	6	7	8	9	10	11	
	Examinations: Thyroglobulin antibodies and thyroid peroxidase antibodies. 5913 TSH receptor antibodies		2	3	4	5	6	7	8	9	10	11	

## Microbiology

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

### Microbiology » Bacterial Serology

	1	1	2	З	4	5	6	7	8	9	10	11	12
840 Antistreptolysin	3*		•			•			•			•	
Specimens: 2 liquid human serum or plasma samples, 0.4 mL Authentic, commutable, single donor samples.	Exa	amin	ation	s: Qua	litative	e and qu	uantita	itive AS	50				
	1	1	2	3	4	5	6	7	8	9	10	11	12
5950 Bordetella pertussis, antibodies		•			•				•			•	
Specimens: 2 liquid human serum samples, 0.3 mL						s IgA, Ig clinical				, Pertu	ssis to>	kin IgA,	
	1	1	2	З	4	5	6	7	8	9	10	11	12
5960 Borrelia burgdorferi, antibodies, European origin	3				•				•			•	
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.5 mL Authentic, commutable, single donor samples.				<b>s:</b> B. b pretati		feri IgG,	IgM ai	nd tota	ıl antib	odies,	post-a	nalytic	al
	1	1	2	3	4	5	6	7	8	9	10	11	12
5965 CXCL 13 Chemokine							•						
Specimens: 2 liquid samples		min	ation	s: Che	mokine	CXCL1	3 deteo	tion					
	1	1	2	3	4	5	6	7	8	9	10	11	12
5620 <i>Chlamydia pneumoniae</i> , antibodies	3			•			•			•			•
5851 Francisella tularensis, antibodies	1	1	2	3	2 4	5	6	7	8	9	10	11	12
אואפוטווערא אויאפווע געוערא אויאפוער ארסכע אוואפוערא אויאפוער ארסכ	3												
Specimens: 3 liquid human serum or plasma samples, 0.5 mL	Exa	amin	ation	s: Frai	ncisella	tularer	nsis IgC	i, IgM a	ind tot		bodies		
5860 <i>Helicobacter pylori</i> , antibodies		1	2	3	4	5	6	7	8	9	10	11	12
	3		_	•			· · ·	I		-		1	
Specimens: 2 liquid human serum or plasma samples, 0.4 mL Examinations: <i>H. pylori</i> IgA, IgG and total antibodies, quantitative and						alytical ories ar			retatio	on			
	1	1	2	3	4	5	6	7	8	9	10	11	12
5980 Mycoplasma pneumoniae, antibodies	3*		•			•				•		•	
<b>Specimens:</b> 2 liquid human serum or plasma samples, 0.3 mL Authentic, commutable, single donor samples.	Exa clini	ical i	nterp	oretati	on	-	-		ital ant	tibodie	s, post	-analyt	ical
	Not	tes: l	-or cli	inical l	aborati	ories ar	Id POC	I sites					
		1	2	3	4	5	6	7	8	9	10	11	12
5880 Syphilis serology	3*		•				-						•
<b>Specimens:</b> 2 liquid human serum samples, 0.6 mL Authentic, commutable, single donor samples.				<b>s:</b> Caro pretati		, Trepoi	пета р	allidur	n antit	oodies,	, post-a	inalytic	al

## Microbiology » Bacteriology

	1	2	3	4	5	6	7	8	9	10	11	1
050 Bacteriological staining, direct (digital images)	3			•						•		
pecimens: 3 cases, 3-9 digital images		i <b>nation</b> iologica				_	-	es taker Iles	ו from ו	direct		
	1	2	3	4	5	6	7	8	9	10	11	1
5100 Blood culture	1		•		•					•		
Specimens: 2 lyophilized samples. Brief case histories are 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.	Exami							crobial : d in the				
	1	2	3	4	5	6	7	8	9	10	11	1
5101 Blood culture, screening	1		٠		٠					•		
Specimens: 2 lyophilized samples. Brief case histories are also given. Fresholood is needed for sample preparation.	The so	heme i	s also s	suitabl	e for st	em ce	ell banl	ks scree	ening or	im stair nly for p ne shipr	possibl	e
	1	2	3	4	5	6	7	8	9	10	11	1
5150 Cerebrospinal fluid, bacterial culture	1	•			•				•			
Specimens: 2 lyophilized samples. Brief case histories are also given. Examinations: Culture and identification. The scheme is also suitable for laboratories performing screening and reporting merely a preliminary dentification.	Notes detect		so sche	eme 53	03 Me	ningit	is-enco	ephaliti	is multi	iplex, n	ucleic a	acid
	1	2	3	4	5	6	7	8	9	10	11	1
5612 <i>Chlamydia trachomatis</i> and <i>Neisseria gonorrhoeae</i> nucleic acid detection	3		•		•			•			•	
Specimens: 3 simulated swab/urine samples, 2 mL Examinations: Detection of <i>C. trachomatis</i> and <i>N. gonorrhoeae</i> nucleic acid	Notes	: See al c acid d			02 Se>	ually	transn	nitted d	lisease	s multi	plex,	
	1	2	3	4	5	6	7	8	9	10	11	1
200 Clostridioides difficile, culture and toxin detection		•			•			•			•	
200 <i>Clostinuloues ul jittle</i> , culture and toxin detection	$\overline{1}$	-										
Specimens: 2 lyophilized mixtures of bacteria	(GDH)		letecti	on and	direct					igen de pervirul		1
	Exami (GDH)	, toxin d	letecti	on and	direct					pervirul	lent	
ipecimens: 2 lyophilized mixtures of bacteria	Exami (GDH)	, toxin d	letecti	on and	direct							
Specimens: 2 lyophilized mixtures of bacteria	Exami (GDH) <i>C. diff</i>	, toxin d	letection ains als 3	on and so inclu 4	direct Ided.	nucle 6	r acid			pervirul	lent	
Specimens: 2 lyophilized mixtures of bacteria	Exami (GDH) <i>C. diff</i>	, toxin c icile str	letection ains als 3	on and so inclu 4	direct Ided.	6 Cheme	r acid	8 •	9 9	10	11 •	
Specimens: 2 lyophilized mixtures of bacteria	Exami (GDH) <i>C. diff</i> Notes	, toxin c icile str	letection ains als 3	on and so inclu 4	direct Ided.	nucle 6	r acid			pervirul	lent	1
Specimens: 2 lyophilized mixtures of bacteria          202       Clostridioides difficile, extra set of samples         Specimens: 2 lyophilized mixtures of bacteria         5201       Clostridioides difficile, nucleic acid detection	Exami (GDH) <i>C. diff</i> Notes	2 • • • • • • • • • • • • • • • •	ains als	on and so inclu 4 ection v	direct aded. 5 • with so 5 •	6 6	7 2 5200 7	detecti 8  8  8  8  8  8  8  8  8  8  8  8  8	9 9 9	10 10	11 11 11 11 11 •	
Specimens: 2 lyophilized mixtures of bacteria         S202       Clostridioides difficile, extra set of samples         Specimens: 2 lyophilized mixtures of bacteria         S201       Clostridioides difficile, nucleic acid detection	Exami (GDH) C. diff 1 Notes 1 L Exami difficit	2 • • • • • • • • • • • • • • • •	ains als 3 n conno 3 s: <i>C. dij</i> is also	4 ection 4 fficile d include	direct ided. 5 • with so 5 • iirect n ed.	nucle 6 .heme 6 ucleic	7 5200 7 acid d	detecti 8  8  8  8  8  8  8  8  8  8  8  8  8	9 9 9	10	11 11 11 11 0	
Specimens: 2 lyophilized mixtures of bacteria         S202       Clostridioides difficile, extra set of samples         Specimens: 2 lyophilized mixtures of bacteria         S201       Clostridioides difficile, nucleic acid detection	Exami (GDH) C. diff 1 Notes 1 L Exami difficit	2 • • • • • • • • • • • • •	ains als an conno 3 s: <i>C. dij</i> ns also nclude	4 ection 4 fficile d include	direct ided. 5 • with so 5 • iirect n ed.	6 6 cheme 6 ucleic	7 5200 7 acid d	8 8 8 8 etectio	9 9 n. Hype	10 10 ervirule	11 11 11 11 11 11 11 11 11 11	
Specimens: 2 lyophilized mixtures of bacteria         S202       Clostridioides difficile, extra set of samples         Specimens: 2 lyophilized mixtures of bacteria         S201       Clostridioides difficile, nucleic acid detection         Specimens: 2 lyophilized mixtures of bacteria	Exami (GDH) C. diff Notes	2 • • • • • • • • • • • • •	ains als 3 n conno 3 s: <i>C. dij</i> is also	4 ection 4 fficile d include	direct ided. 5 • with so 5 • iirect n ed.	nucle 6 .heme 6 ucleic	7 5200 7 acid d	detecti 8  8  8  8  8  8  8  8  8  8  8  8  8	9 9 9	10 10	11 11 11 11 0	
Specimens: 2 lyophilized mixtures of bacteria         S202 Clostridioides difficile, extra set of samples         Specimens: 2 lyophilized mixtures of bacteria         S201 Clostridioides difficile, nucleic acid detection         Specimens: 2 lyophilized mixtures of bacteria	Exami (GDH) C. diff Notes	2 • • • • • • • • • • • • •	3 n connu 3 s: <i>C. dij</i> i s also nclude	ection of the section	direct ided. 5 • with so 5 5 5 5	6 6 ucleic amina 6 •	7 5200 7 acid d acid d 7	detecti	9 9 n. Hype	10 10 ervirule	111 11 11 11 11 11 11	
Specimens: 2 lyophilized mixtures of bacteria         S202 Clostridioides difficile, extra set of samples         Specimens: 2 lyophilized mixtures of bacteria         S201 Clostridioides difficile, nucleic acid detection         Specimens: 2 lyophilized mixtures of bacteria         Specimens: 2 lyophilized mixtures of bacteria         Specimens: 2 lyophilized mixtures of bacteria         Specimens: 3 lyophilized mixtures of bacteria         Specimens: 3 samples. Either lyophilized mixtures of bacteria and/or	Exami (GDH) C. diff 1 Notes 1 Exami diffici Notes	2 • • • • • • • • • • • • •	3 3 3 3 3 3 5 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7	ection of a solution of a solu	direct dided. 5 • with so 5 • this ex 5 s lesionr	nucle 6 Cheme 6 ucleic amina 6 6	7 5200 7 acid d ation 7 Salmo	8       8       8       8       9       8       9       8       9       8       9       8       9       9       9       8       9 <t< td=""><td>9 9 n. Hype 9 Shigella</td><td>10 10 ervirule</td><td>11 11 1 11 1 11 1 11 1 11 1 1</td><td></td></t<>	9 9 n. Hype 9 Shigella	10 10 ervirule	11 11 1 11 1 11 1 11 1 11 1 1	
<ul> <li>Specimens: 2 lyophilized mixtures of bacteria</li> <li>Clostridioides difficile, extra set of samples</li> <li>Specimens: 2 lyophilized mixtures of bacteria</li> <li>Clostridioides difficile, nucleic acid detection</li> <li>Specimens: 2 lyophilized mixtures of bacteria</li> <li>Faecal bacterial pathogens multiplex, nucleic acid detection</li> </ul>	Exami (GDH) C. diff 1 Notes 1 Exami diffici Notes	2 • • • • • • • • • • • • •	a connu a connu a connu s: C. dij s also nclude	4 ection 4 fficile d include s also 4 eTEC, P eriod o	direct di	nucle 6 Cheme 6 ucleic amina 6 6	7 5200 7 acid d ation 7 Salmo	8       8       8       8       9       8       9       8       9       8       9       8       9       9       9       8       9 <t< td=""><td>9 9 n. Hype 9 Shigella</td><td>10 10 ervirule</td><td>11 11 1 11 1 11 1 11 1 11 1 1</td><td></td></t<>	9 9 n. Hype 9 Shigella	10 10 ervirule	11 11 1 11 1 11 1 11 1 11 1 1	

perimens: 2 simulated samples, 1 ml.   Examinations: V/yopettry, m. uberyouts: suche add detection, rifemplin succeptibility and isolaid succeptibility and iter muches and interched for succeptibility and iter isolaid on participation  Specimens: 2 kyphilized mixtures of microbes tooth pathogens and annihility and iter muches and isolaid succeptibility and iter isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes tooth pathogens and annihice isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid pathogens and onnihice  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid  Specimens: 2 kyphilized mixtures of microbes isolaid isolaid  Specimens: 2 kyphilized mixture and disolaid isolaid  Specimens: 2		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 loophilized mixtures of bacteria         Specimens: 4 loophilized mixtures of bacteria         Specimens: 4 loophilized mixtures of microbors both parhogers and normanic form the samples included sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many includes sourceptibility testing many include buth form. The samples includes sourceptibility testing many i	5230 Mycobacterium tuberculosis, drug resistance	3		•			•			•			•
5190       Faecal culture         Specimens: 2 lyophilized mixtures of bacteria         Specimens: 2 lyophilized mixtures of mixtures of mixtures of bacteria         Specimens: 2 lyophilized mixtures of mixtures	Specimens: 2 simulated samples, 1 mL	Exam		-					leic aci	id dete	ction, I	ifampi	cin
Specimens: 2 lyophilized mixtures of bacteria       Examinations: Curue and direct nucleic acid detection. Pathogens included are Aeronomes. CompoNotacter, Bestomans, CompoNotacter, Best		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 hyphilized mixtures of bacterial       Examinations: Currue and direction costs. Summanilo, Summanilo	5190 Faecal culture				•		•				•		•
5030       Ceneral Bacteriology 1 (derobes and anaerobes)       •		Exan									-		
Specimens: 4 lyophilized mixtures of microbis: both pathogens and normation: Antigen detection in unine       Examinations: Isolation of pathogens and antimicrobial susceptibility testing may include both itstains. Bield case histories are also given. Pre- and/or post-analytical cases         5031       Ceneral Bacteriology 2 (aerobes)       1       2       3       4       5       7       8       9       0       1       1       2         5031       Ceneral Bacteriology 2 (aerobes)       0       1       2       3       4       5       5       7       8       9       0       1       1       2         5031       Ceneral Bacteriology 2 (aerobes)       0       1       1       2       3       4       5       5       7       8       9       1       1       2         5031       Ceneral Bacteriology 2 (aerobes)       0       1       1       2       3       4       5       5       7       8       9       1       1       2         5041       Cram stain, blood culture       0       1       2       3       5       5       7       8       9       1       1       2       3       4       5       5       7       8       9       1       1       2<		1	2	3	4	5	6	7	8	9	10	11	12
line. The samples: Intended for susceptibility testing may include both international quality control starts and susceptible or resistant clinical starts. Bird case histories are also given. Pre- and/or post-analytical cases       Notes: 5080 includes 5081, General Bacteriology 2         5081 Ceneral Bacteriology 2 (aerobes)       1       2       3       4       5       7       8       9       10       11       12         5081 Ceneral Bacteriology 2 (aerobes)       Image: Solid control of pathogens and normal fulcional quality control starts and susceptible or resistant clinical traiting. Bird case histories are also given. Pre- and/or post-analytical cases       Solid Ceneral Bacteriology 1 includes 5081         5081 Ceneral Bacteriology 1 includes 5081       Examinations: Staining and microscopy       1       2       3       4       5       7       8       9       10       11       12         5081 Ceneral Bacteriology 1 includes 5081       Examinations: Staining and microscopy       1       2       3       4       5       7       8       9       10       11       12         5040 Ciram stain, cloonies       Image: significat data of subsection in fraces       Image: significat data of subsection       1       2       3       4       5       6       7       8       9       10       11       12         5040 Ciram stain, colonies       Image: significat data of	5080 General Bacteriology 1 (aerobes and anaerobes)	1		•		•				•			•
5081 Ceneral Bacteriology 2 (aerobes) <ul> <li>Examinations: Isolation of pathogens and normal informations: Isolation of pathogens analytical cases</li> <li>Examinations: Isolation of pathogens and pathogens and normal informations: Isolation of pathogens analytical cases</li> <li>Examinations: Isolation of pathogens and pathogens and normal informations: Stalining and mitrorobial susceptibility trans. Brief case instories are also given. Pre- and/or post-analytical cases</li> </ul> <ul> <li>Examinations: Isolation of pathogens and antimicrobial susceptibility informations: Stalining and microscopy</li> <li>Examinations: Stalining and microscopy</li> </ul> 5041 Gram stain, blood culture <ul> <li>Examinations: Stalining and microscopy</li> <li>Examinations: Stalining and microscopy</li> </ul> 5041 Gram stain, colonies <ul> <li>Examinations: Stalining and microscopy</li> <li>Examinations: Stalining and microscopy</li> <li>Examinations: Stalining and microscopy</li> </ul> 5040 Gram stain, colonies <ul> <li>Examinations: Stalining and microscopy</li> <li>Examinations: Stalining and microscopy</li> </ul> 5056 Helicobacter pylori, antigen detection in facees <ul> <li>Examinations: Legionella, antigen detection in urine</li> <li>Examinations: Legionella, antigen detection in urine</li> <li>Examinations: Legionella, antigen detection</li> </ul> 52597 Legionella, antigen detection in facees	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	testi	ng, pre	e- and/o	r post-a	analyti	al case	25		bial sus	sceptib	ility	
Specimens: 2 lyophilized mixtures of microbes: both pathogens and normal finar. The specimens intended for susceptibility testing may include both international quarkity control strains and susceptible or resistant clinics. There and/or post-analytical cases in Notes: 5080 General Bacteriology 1 includes 5081         Specimens: 2 air-dried, unfixed microbe suspensions on slides. Brief case histories are also given.          1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         1         1         2         3         4         5         6         7         8         9         10         1         1		1	2	3	4	5	6	7	8	9	10	11	
Tipa. The specimens intended for susceptibility testing may include both international quarking outrol strains and susceptibility constrains and	5081 General Bacteriology 2 (aerobes)	1		•		•				•			•
5041 Gram stain, blood culture <ul> <li> <ul> <li> <ul> <li> <ul> <li> <ul></ul></li></ul></li></ul></li></ul></li></ul>	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	testi	ng, pre	e- and/o	r post-a	analyti	cal case	25		oial sus	sceptib	ility	
Specimens: 2 air-dried, unfixed microbe suspensions on slides.         5040       Gram stain, colonies         Specimens: 3 air-dried, unfixed microbe suspensions on a slide         5296       Helicobacter pylori, antigen detection in faeces         Specimens: 3 samples: lyophilized faecal or swab         Examinations: Antigen detection in urine         Specimens: 3 simulated urine samples         1       2       3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         5597       Legionella, antigen detection       in urine       5       5       7       8       9       10       11       12         5220       Mycobacterial culture and stain       1       2       3       4       5       6       7 <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12
Brief case histories also given. 1 2 3 4 5 6 7 8 9 10 11 12 Examinations: Staining and microscopy 1 2 3 4 5 6 7 8 9 10 11 12 Examinations: Staining and microscopy 1 2 3 4 5 6 7 8 9 10 11 12 1	5041 Gram stain, blood culture	1			•			•			•		
5040       Gram stain, colonies         Specimens: 3 air-dried, unfixed microbe suspensions on a slide         5596       Helicobacter pylori, antigen detection in faeces         Specimens: 3 samples: lyophilized faecal or swab         Examinations: Antigen detection         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         3       4       5       6       7       8       9       10       11       12         5597       Legionella, antigen detection in urine       1       2       3       4       5       6       7       8       9       10       11       12         5220       Mycobacterial culture and stain       1       2       3       4       5       6       7       8       9       10       11       12         5220       Mycobacterial cult	<b>Specimens:</b> 2 air-dried, unfixed microbe suspensions on slides. Brief case histories also given.	Exan	ninatio	ons: Sta	ining ar	nd micr	oscopy	,					
Specimens: 3 air-dried, unfixed microbe suspensions on a slide       Examinations: Staining and microscopy         3596       Helicobacter pylori, antigen detection in faeces         Specimens: 3 samples: lyophilized faecal or swab         Examinations: Antigen detection         301         1       2       3       4       5       6       7       8       9       10       11       12         3597       Legionella, antigen detection       1       2       3       4       5       6       7       8       9       10       11       12         3597       Legionella, antigen detection in urine       3       4       5       6       7       8       9       10       11       12         31       2       3       4       5       6       7       8       9       10       11       12         320       Mycobacterial culture and stain       3       1       2       3       4       5       6       7       8       9       10       11       12         321       Mycobacterial nucleic acid detection       1       2       3       4       5       6       7       8       9       10       11		1	2	3	4	5	6	7	8	9	10	11	12
1       2       3       4       5       6       7       8       9       10       1       12         Specimens: 3 samples: lyophilized faecal or swab         Examinations: Antigen detection       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 3 samples: lyophilized faecal or swab       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: Antigen detection       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 3 simulated urine samples       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 tucleic acid       1<	5040 Gram Stain, colonies				•			-			-		
5596 Helicobacter pylori, antigen detection in faeces   Specimens: 3 samples: lyophilized faecal or swab   Examinations: Antigen detection   5597   Legionella, antigen detection in urine   Specimens: 3 simulated urine samples   Specimens: 3 simulated urine samples   5220   Mycobacterial culture and stain   Specimens: 2 lyophilized samples and 2 fixed smears on slides   Examinations: Detection of Mycobacteria: culture, direct nucleic acid detection   1   2   3   4   5   6   7   8   9   1   2   3   4   5   6   7   8   9   1   2   3   4   5   6   7   8   9   10   11   2   3   4   5   6   7   8   9   10   11   2   12   3   4    5   6   7   8   9   10   11   2   12   13   14    15   15   15   16   17   10   10   10<	Specimens: 3 air-dried, unfixed microbe suspensions on a slide	Exan	ninatio	ons: Sta	ining ar	nd micr	oscopy						
Specimens: 3 samples: lyophilized faecal or swab         Examinations: Antigen detection         1       2       3       4       5       6       7       8       9       10       1       12         Specimens: 3 simulated urine samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 3 simulated urine samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 3 simulated urine samples       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 Mycobacteria: culture, direct nucleic acid       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       Examinations: Direct nucleic acid detection       1       2       3 <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 3 samples: lyophilized faecal or swab         Notes: For clinical laboratories and POCT sites         Specimens: 3 simulated urine samples         1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 3 simulated urine samples         Examinations: Legionella antigen detection         1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 3 simulated urine samples         Examinations: Legionella antigen detection         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 Mycobacteriam tuberculosis, Mycobacteriam tuberculosis or of Mycobacteria: culture, direct nucleic acid       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples         Examinations: Direct nucleic acid detection         1       2<	5596 Helicobacter pylori, antigen detection in faeces	3		•			•			•			•
5597 Legionella, antigen detection in urine       3       •		$\overline{}$	s: For	clinical l	aborat	ories ar	nd POC	T sites					
Specimens: 3 simulated urine samples         5220 Mycobacterial culture and stain         5220 Mycobacterial culture and stain         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       etection, acid-fast staining and microscopy       etection, acid-fast staining and microscopy       Notes: See also product 5250 IGRA for <i>M. tuberculosis</i> 5221 Mycobacterial nucleic acid detection       1       2       3       4       5       6       7       8       9       10       11       12         5221 Mycobacterial nucleic acid detection       1       2       3       4       5       6       7       8       9       10       11       12         5221 Mycobacterial nucleic acid detection       1       2       3       4       5       6       7       8       9       10       11       12         5222 Mycobacteria, extra set of samples       1       2       3       4       5       6       7       8       9       10       11       12         5222 Mycobacteria, extra set of samples       1       2       3		1	2	3	4	5	6	7	8		10	11	
5220       Mycobacterial culture and stain         5220       Mycobacterial culture and stain         55pecimens: 2 lyophilized samples and 2 fixed smears on slides         Examinations: Detection of Mycobacterium tuberculosis, Mycobacterium tuberculosis complex and atypical mycobacteria: culture, direct nucleic acid         1       2       3       4       5       6       7       8       9       10       11       12         5220       Mycobacterial nucleic acid detection       0	5597 Legionella, antigen detection in urine	3*		•		•				•			•
5220 Mycobacterial culture and stain       1       0	Specimens: 3 simulated urine samples	Exan	ninatio	ons: Leg	ionella	antige	n detec	tion					
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         1       2       3       4       5       6       7       8       9       10       11       12         5221       Mycobacterial nucleic acid detection       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       1       2       3       4       5 </td <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples and 2 fixed smears on slides       detection, acid-fast staining and microscopy         Examinations: Detection of Mycobacterium tuberculosis, Mycobacterium tuberculosis complex and atypical mycobacteria: culture, direct nucleic acid       Notes: See also product 5250 IGRA for M. tuberculosis         5221       Mycobacterial nucleic acid detection       1       2       3       4       5       6       7       8       9       10       11       12         Specimens: 2 lyophilized samples       •	5220 Mycobacterial culture and stain	$\widehat{\mathbf{n}}$		•			•			•			•
5221 Mycobacterial nucleic acid detection <ul> <li>Image: Specimens: 2 lyophilized samples</li> <li>Examinations: Direct nucleic acid detection</li> </ul> <ul> <li>Image: Specimens: 2 lyophilized samples</li> <li>Image: Specimens: 2 lyophilized samples</li></ul>	Specimens: 2 lyophilized samples and 2 fixed smears on slides Examinations: Detection of <i>Mycobacterium tuberculosis</i> , <i>Mycobacterium</i> <i>tuberculosis</i> complex and atypical mycobacteria: culture, direct nucleic acid	dete				-			rculosi	's			
5221 Mycobacterial nucleic acid detection <ul> <li>Image: Specimens: 2 lyophilized samples</li> <li>Examinations: Direct nucleic acid detection</li> </ul> <ul> <li>Image: Specimens: 2 lyophilized samples</li> <li>Image: Specimens: 2 lyophilized samples</li></ul>													
Specimens: 2 lyophilized samples       Notes: 5220 includes also this examination. For additional set of samples, order scheme 5222         1       2       3       4       5       6       7       8       9       10       11       12         5222       Mycobacteria, extra set of samples       •       <	5221 Myrobacterial nucleic acid detection		2	3	4	5	6	7	8		10	11	
Examinations: Direct nucleic acid detection       order scheme 5222         1       2       3       4       5       6       7       8       9       10       11       12         5222       Mycobacteria, extra set of samples       •							-						-
5222 Mycobacteria, extra set of samples   •   •   •   •						this ex	aminat	tion. Fo	or addit	tional s	set of s	amples	ō,
		1	2	3	4	5		7	8		10	11	
Specimens: 2 lyophilized samples       Notes: Only in connection with scheme 5220 or 5221	5222 Mycobacteria, extra set of samples			•			•			•			•
	Specimens: 2 lyophilized samples	Note	s: Onl	y in coni	nection	with so	cheme	5220 o	r 5221				

5240 Mycobacterial stain		2			-+		•	,	0	•	10		
specimens: 2 fixed smears on slides	Exami	inatio	ns: A	cid-	fast s	taining	and m	icrosco	ру				
	1	2			4	5	6	7	8	9	10	11	
120 Neisseria gonorrhoeae (Gc), culture and susceptibility testing						•			•			•	
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.						entifica ies per						ility tes	tin
	1	2	З		4	5	6	7	8	9	10	11	
5180 Salmonella culture					•		•				•		
Specimens: 2 lyophilized mixtures of bacteria Examinations: Culture	Notes	: 5190	also	incl	udes	5180							
	1	2	Э		4	5	6	7	8	9	10	11	
5599 Streptococcus agalactiae (GBS), nucleic acid detection					•		•			•		•	
Specimens: 2 swab samples. Samples also include normal flora. Examinations: Direct nucleic acid detection	Notes	: See a	also p	orod	uct 5	594 for	S. agal	actiae	(GBS)	culture	2.		
	1	2	з		4	5	6	7	8	9	10	11	
5594 Streptococcus agalactiae (GBS), culture					•		•			•		•	
Specimens: 2 lyophilized samples. Samples include pathogens and/or normal flora.	Exami Notes					599 for	direct r	nucleic	acid d	etectio	on.		
	1	2	З	8	4	5	6	7	8	9	10	11	
5598 Streptococcus pneumoniae, antigen detection in urine $3^*$						•				•			
Specimens: 3 simulated urine specimens	Exami	inatio	<b>ns:</b> 5.	pn	еито	<i>niae</i> an	tigen d	etecti	on				
	1	2	3		4	5	6	7	8	9	10	11	
5595 Streptococcus pyogenes (Group A), antigen detection in pharyngeal sample			•			•				•			
Specimens: 3 simulated pharyngeal samples Examinations: Antigen detection	<b>Notes</b> kits.	: For c	linica	al la	borat	ories ar	Id POCT	l sites	. Three	result	s if use	ed diffe	rer
	1	2	З	}	4	5	6	7	8	9	10	11	
5593 <i>Streptococcus pyogenes</i> (Group A), nucleic acid detection in pharyngeal sample				•		•				•			
Specimens: 3 simulated pharyngeal samples Examinations: Nucleic acid detection	. Notes	: Thre	e res	ults	ifuse	ed diffe	rent kit	s.					
	1	2	3		4	5	6	7	8	9	10	11	
5073 Surveillance for multidrug resistant bacteria, gramnegative rods		•					•			•		•	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora	of mu	ltidrug	g resi	star	nt gra	mnega	ive rod	s (e.g.	CPE, E	SBL, N	MDR A	g scree cinetob nethod	act
	1	2	3	}	4	5	6	7	8	9	10	11	
5071 Surveillance for multidrug resistant bacteria, MRSA		•					•			•		•	
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or	Exami		ns: Tl Iethio		chem		ended	or lab	oratori	es per	formin	g scree	niı

5072 Surveillance for multidrug resistant bacteria, VRE 💋 🥢		2	3	4	5	6	7	8	9	10	11	12
Specimens: 1 lyophilized mixture of microbes; including pathogens and/or normal flora	Exami of VRE		omycir	n-resist	e is into ant en							-
	1	2	3	4	5	6	7	8	9	10	11	12
5140 Throat streptococcal culture	า		•		•			•			•	
Specimens: 3 lyophilized mixtures of bacteria	•	nation	s: Cult	ure and	l identi	ficatio	n of gro	oup A,	C and (	G strept	tococci	
5060 Urine culture, quantitative screening		2	3	4	5	6	7	8	9	10	11	12
Specimens: 2 lyophilized samples and dilutor. Brief case histories also given. Pre- and/or post-analytical cases in part of the rounds.	Exami	Scherr			quantii ble for u							irs
	1	2	3	4	5	6	7	8	9	10	11	12
5065 Urine culture, quantitative screening, identification and susceptibility	<u>1</u>		•			•			•			•
<b>pecimens:</b> 2 lyophilized samples and dilutor. Brief case histories also given. The samples intended for susceptibility testing may include both nternational quality control strains and susceptible or resistant clinical trains. Pre- and/or post-analytical cases in part of the rounds.	suscep	tibility Schem	testin	ig, pre-	antitat and/or ble for L	post-a	nalytic	al indi	cators			
icrobiology » <b>Mycology</b>	1	2	3	4	5	6	7	8	9	10	11	12
5261 Fungal infections, nucleic acid detection	3			•						•		
Specimens: 3-4 simulated samples. The samples may include yeasts, dermatophytes and moulds. Examinations: Nucleic acid detection according to laboratory's own test selection.	Notes: result			n of th	e partio	ipating	g lab is	taken	into co	onsidera	ation ir	ı
	1	2	3	4	5	6	7	8	9	10	11	12
5260 Fungal culture												
	1)										•	
<b>Specimens:</b> 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.	Exami	<b>nation</b> st strai		ure and	l identi	ficatio	n. Antii	microb	ial sus	ceptibi	lity tes	ting
<b>Specimens:</b> 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.	Exami			ure and	l identi	ficatio	n. Antii	microb	ial sus	ceptibi	• lity tes	ting
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.	Exami			ure and	d identi	ficatio	n. Antii	microb	ial sus	ceptibi	lity tes	ting
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. icrobiology » <b>Parasitology</b>	Exami			ure and	identi 5		n. Antii	microb 8	ial sus			
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.	Exami of yea: 1 Exami	2 • nation	ns. 3 <b>s:</b> Nucl	4 leic acio	5 • d detec <i>ytica</i> ar	6 tion of	7 Crypto	8 • sporid	9	10	11	
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. iCrObiology <b>Parasitology</b> 5472 Faecal parasites multiplex, nucleic acid detection	Exami of yea: 1 Exami	2 • nation	ns. 3 <b>s:</b> Nucl	4 leic acio	5 • d detec	6 tion of ad <i>Giard</i>	7 Crypto	8 • sporid blia.	9	10 ientam	11 • oeba	12
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. icrobiology » <b>Parasitology</b> 5472 Faecal parasites multiplex, nucleic acid detection Specimens: 3 lyophilized samples	Exami of yea: 1 Exami fragilis	2 • nation	3 s: Nucl moeba	4 eic acio histoly	5 • d detec	6 tion of	7 Crypto dia lam	8 • sporid	9 ium, D	10	11	
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. Hicrobiology » Parasitology 5472 Faecal parasites multiplex, nucleic acid detection Specimens: 3 lyophilized samples 5430 Malaria, antigen and nucleic acid detection Specimens: 3 whole blood samples	Exami of year 1 Exami fragilis	2 • nation 5, Entai 2 •	3 s: Nucl moeba	4 leic aciu histoly 4	5 • d detec <i>ytica</i> an 5	6 tion of d <i>Giard</i> 6	7 Crypta dia lam 7	8 • sporid blia. 8	9 ium, D	10 ientam	11 • oeba	12
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. HiCrObiology » <b>Parasitology</b> 5472 Faecal parasites multiplex, nucleic acid detection Specimens: 3 lyophilized samples	Exami of year 1 Exami fragilis	2 • nation 5, Entai 2 •	3 s: Nucl moeba	4 leic aciu histoly 4	5 d detec <i>ytica</i> an 5 •	6 tion of d <i>Giard</i> 6	7 Crypta dia lam 7	8 • sporid blia. 8	9 ium, D	10 ientam	11 • oeba	12
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. icrobiology » <b>Parasitology</b> 5472 Faecal parasites multiplex, nucleic acid detection 5pecimens: 3 lyophilized samples 5430 Malaria, antigen and nucleic acid detection 5pecimens: 3 whole blood samples Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.	Exami of year 1 Exami fragilis	2 • nation 5, Entai 2 •	3 s: Nucl moeba	4 leic aciu histoly 4	5 d detec <i>ytica</i> an 5 •	6 tion of d <i>Giard</i> 6	7 Crypta dia lam 7	8 • sporid blia. 8	9 ium, D	10 ientam	11 • oeba	12
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. icrobiology <b>Parasitology</b> 5472 Faecal parasites multiplex, nucleic acid detection 5472 Faecal parasites multiplex, nucleic acid detection 59ecimens: 3 lyophilized samples 5430 Malaria, antigen and nucleic acid detection 59ecimens: 3 whole blood samples Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.	Exami of year 1 Exami fragilis	2 • nation 5, Entai 2 • For cli	3 s: Nucl moeba 3 nical la	4 leic aciu histoly 4 aborato	5 d detec vtica arr 5 • • •	6 tion of d <i>Giard</i> 6 d POC	7 Crypta dia lam 7 T sites	8 • sporid blia. 8	9 	10 ientam	11 • oeba 11 •	12
<ul> <li>Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts.</li> <li>Crobiology » Parasitology</li> <li>472 Faecal parasites multiplex, nucleic acid detection</li> <li>Specimens: 3 lyophilized samples</li> <li>430 Malaria, antigen and nucleic acid detection</li> <li>Specimens: 3 whole blood samples</li> <li>Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.</li> <li>462 Malaria screening, Giemsa stain</li> <li>Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories</li> </ul>	Exami of year 1 Exami fragilis 1 Notes	2 • nation 5, Entai 2 • For cli	3 s: Nucl moeba 3 nical la	4 leic aciu histoly 4 aborato	5 d detec vtica arr 5 • • •	6 tion of d <i>Giard</i> 6 d POC <sup></sup>	7 Crypta dia lam 7 T sites 7	8 • sporid blia. 8 • 8 •	9 ium, D 9 9	10 ientam	11 • oeba 11 •	12
Specimens: 3 lyophilized samples. Brief case histories also given. The samples include moulds, dermatophytes and yeasts. ACCODIOLOGY <b>Parasitology</b> 5472 Faecal parasites multiplex, nucleic acid detection 5472 Faecal parasites multiplex, nucleic acid detection 5473 Malaria, antigen and nucleic acid detection 5474 Malaria, antigen and nucleic acid detection 5475 Examinations: Antigen and nucleic acid detection. Target antigens: HRP2 and/or pLDH and/or aldolase.	Exami of year 1 Exami fragilis 1 Notes	2 • nation 5, Entai 2 • For cli	3 s: Nucl moeba 3 nical la	4 leic aciu histoly 4 aborato	5 d detec vtica an 5 ories an	6 tion of d <i>Giard</i> 6 d POC <sup></sup>	7 Crypta dia lam 7 T sites 7	8 • sporid blia. 8 • 8 •	9 ium, D 9 9	10 ientam	11 • oeba 11 •	12

S460 Parasites in blood, Giernsa stained smears. Brief case histories also given.         Specimens: 2 wirtual whole side images of Giernsa stained smears prepared by using a scaneer microscope. Brief case histories also given.       Colspan="2">Colspan="2"Colsp		1	2	ч	4	5	6	7	8	q	10	11	12	
Specimens: 2 methanol fixed or Giernsa stained smears. Brief case histories also given.       Examinations: Screening and identification of malaria plasmodia and oth blood parasites         State in blood. Giernsa stained smears prepared by using a scanner microscope. Brief case histories also given.       Image: Colspan="2">Colspan="2"      Colspan="2" <t< td=""><td>5460 Parasites in blood, Giemsa stain</td><td></td><td>•</td><td></td><td></td><td>•</td><td></td><td>,</td><td>•</td><td></td><td></td><td>•</td><td></td></t<>	5460 Parasites in blood, Giemsa stain		•			•		,	•			•		
S470 Parasites in blood. Giemsa stained smears prepared by using a scanner microscope. Brief case histories also given.       Examinations: Screening and identification of malaria plasmodia and oth blood parasites         S461 Parasites in blood, MCG stain	Specimens: 2 methanol fixed or Giemsa stained smears. Brief case histories				ening	and ide	entificat	tion of	malaria	a plasn	nodia a	and oth	ier	
Specimens: 2 virtual whole slide images of Giernsa stained smears prepared by using a scanner microscope. Brief case histories also given.       Examinations: Screening and identification of malaria plasmodia and oth blood parasites         Specimens: 2 methanol fixed or May-Grinwald-Giernsa stained smears. Brief case histories are also given.       Examinations: Screening and identification of malaria plasmodia and oth blood parasites         Specimens: 2 withual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.       1       2       4       6       7       9       1       2       4       6       7       9       1       2       3       5       Specimens: 2 virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.       1       2       4       6       7       9       10       1       2       4       6       7       8       Specimens: 2 virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.       1       2       4       6 <th colsp<="" td=""><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></th>	<td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12
S461       Parasites in blood, MCC stain         Beckman: 2       Perminations: Screening and identification of malaria plasmodia and oth blood parasites         S471       Parasites in blood, MCC stain, virtual microscopy         Specimens: 2 virtual whole slide images of MCC stained smears prepared by using a scanner microscope. Brief case histories also given.       1       2       3       4       5       7       8       9       10       1         Specimens: 2 virtual whole slide images of MCC stained smears prepared by using a scanner microscope. Brief case histories also given.       1       2       3       4       5       7       8       9       10       1         S440       Parasites in faeces       1       2       3       4       5       7       8       9       10       1       0												•		
S461       Parasites in blood, MCG stain       3       •	<b>Specimens:</b> 2 virtual whole slide images of Giemsa stained smears prepared by using a scanner microscope. Brief case histories also given.				ening	and ide	entificat	tion of	malaria	a plasr	nodia a	and oth	ier	
Specimens: 2 methanol fixed or May-Grünwald-Giemsa stained smears. Brief case histories are also given.       Examinations: Screening and identification of malaria plasmodia and oth blood parasites         Specimens: 2 virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.       Image: Colspan="2">Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Col		1	2	3	4	5	6	7	8	9	10	11	12	
Brief case histories are also given.       blood parasites         S471       Parasites in blood, MGC stain, virtual microscopy       Image: Comparative state sta	5461 Parasites in blood, MGG stain		•			•			•			•		
5471       Parasites in blood, MCG staine, virtual microscopy       Image: Specimens: 2 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 oth blood parasites         5440       Parasites in faeces       Image: Screening and identification of intestinal parasites (ova ar parasites)         5450       Parasites in faeces, virtual microscopy       Image: Screening and identification of intestinal parasites (ova ar parasites)         5450       Parasites in faeces, virtual microscopy       Image: Screening and identification of intestinal parasites (ova ar parasites)         5420       Toxoplasma, antibodies       Image: Screening and identification of intestinal parasites (ova ar parasites)         5420       Toxoplasma, antibodies       Image: Screening and identification of intestinal parasites (ova ar parasites)         5420       Toxoplasma, antibodies       Image: Screening and identification of intestinal parasites (ova ar parasites)         5420       Toxoplasma, antibodies       Image: Screening and identification of intestinal parasites (ova ar parasites)         5473       Trichormonos vaginalis, detection       Image: Screening and identification of intestinal parasites (ova ar parasites)         5556       HSVIB2/VZV/T. pallidum, nucleic acid detection       Image: Screening and identification of intestinal parasites (ova ar parasites)         1       2       4					ening	and ide	ntificat	tion of	malaria	a plasr	nodia a	and oth	ier	
Specimens: 2 virtual whole slide images of MGC stained smears prepared by using a scanner microscope. Brief case histories also given.       Examinations: Screening and identification of malaria plasmodia and oth blood parasites         5440 Parasites in faeces       1       2       3       4       5       7       8       9       10       11         5450 Parasites in faeces, virtual microscopy       3       4       5       6       7       8       9       10       11         5450 Parasites in faeces, virtual microscopy       3       4       5       6       7       8       9       10       11         5450 Parasites in faeces, virtual microscopy       3       4       5       6       7       8       9       10       11         5420 Toxoplasma, antibodies       3       9       10       11       2       4       5       6       7       8       9       10       11         5420 Toxoplasma, antibodies       3       9       10       11       2       4       5       6       7       8       9       10       11         5420 Toxoplasma, antibodies       3       9       10       11       2       3       4       5       7       8       9       10 </td <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12	
Statu Parasites in faeces         Specimens: 3 stool samples in formalin. Brief case histories also given.         Examinations: Screening and identification of intestinal parasites (ova ar parasites)         Stool Parasites in faeces, virtual microscopy         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.         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.         1         S473 Trichomonas vaginalis, detection         Specimens: 3 simulated samples         Specimens: 3 simulated samples         Microbiology » Virology         Stool HSV162/VZV/T. pallidum, nucleic acid detection												•		
5440       Parasites in faeces         Specimens: 3 stool samples in formalin. Brief case histories also given.         5450       Parasites in faeces, virtual microscopy         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.         5420       Toxoplasma, antibodies         Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given.         1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given.       1       2       3       4       5       6       7       8       9       10       11         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.       1       2       3       4       5       6       7       8       9       10       11         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.       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       0.7	<b>Specimens:</b> 2 virtual whole slide images of MGG stained smears prepared by using a scanner microscope. Brief case histories also given.				ening	and ide	entificat	tion of	malaria	a plasr	nodia a	and oth	ier	
Specimens: 3 stool samples in formalin. Brief case histories also given.         Examinations: Screening and identification of intestinal parasites (ova ar parasites)         S450 Parasites in faeces, virtual microscopy         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.       1       2       3       4       5       7       8       9       10       11         State in faeces, virtual microscopy       Examinations: Screening and identification of intestinal parasites (ova ar parasites)         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 ar parasites)         Stepsimens: 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.       1       2       3       4       5       7       8       9       10       11         Stations: Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation         Stations: Detection of Trichornonas vaginalis, detection         Stop Microbiology         Virology         Stop Microbiology > Virology <t< td=""><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></t<>		1	2	3	4	5	6	7	8	9	10	11	12	
parasites)         1 2 3 4 5 6 7 8 9 10 11         S450 Parasites in faeces, virtual microscopy         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.         Stations: Screening and identification of intestinal parasites (ova arr parasites)         Stations: Toxoplasma, antibodies         Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given. Authentic commutable samples: Each sample batch originates from a single human donor.         Strainations: Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation         Strainations: Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation         Strainations: Toxoplasma IgA, IgG, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation         Strainations: Detection of Trichormonas vaginalis, detection         Strobiology > Virology         1 2 3 4 5 6 7 8 9 10 11         Strobiology > Virology         1 2 3 4 5 6 7 8 9 10 11         Stop Instruction of Trichormonas vaginalis antigen and nucleic acid (b         Mic	5440 Parasites in faeces		•			•			•			•		
S450 Parasites in faeces, virtual microscopy         Specimens: Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.       Examinations: Screening and identification of intestinal parasites (ova ar parasites)         S420 Toxoplasma, antibodies       1       2       3       5       6       7       8       9       10       11         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, IgC, IgM and total antibodies, IgG avidity, post-analytical clinical interpretation         S473 Trichomonas vaginalis, detection       3       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       2       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       Each samples       Each samples       Examinations: Detection of Trichomonas vaginalis antigen and nucleic acid (framework acid)         Microbiology >>       Virology       1       2       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       4       5	Specimens: 3 stool samples in formalin. Brief case histories also given.			<b>is:</b> Scre	ening	and ide	ntificat	tion of	intesti	nal par	asites	(ova ar	nd	
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 ar parasites)         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.       Image: Colspan="2">Examinations: Toxoplasma IgA, IgC, IgM and total antibodies, IgC avidity, post-analytical clinical interpretation         Stars Trichormonas vaginalis, detection         Specimens: 3 simulated samples         Microbiology » Virology         Stars HSV162/VZV/T. pallidum, nucleic acid detection         1       2       3       4       5       6       7       8       9       10       11         5420       Toxoplasma, antibodies       Specimens: 3 liquid human plasma samples, 0.7 mL each. Brief case histories also given.       Examinations: Toxoplasma IgA, IgC, IgM and total antibodies, IgC avidity, post-analytical clinical interpretation         1       2       3       4       5       6       7       8       9       10       11 </td <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12	
5420 Toxoplasma, antibodies       1       2       3       4       5       6       7       8       9       10       11         6       5420 Toxoplasma, antibodies       3       5       6       7       8       9       10       11         6       1       0       1       0       0       0       0       0         7       8       9       10       11       0	5450 Parasites in faeces, virtual microscopy 5	<b></b>			•						•			
5420       Toxoplasma, antibodies       Image: 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.       Image: 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.       Image: Specimens: 1 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.       Image: Specimens: 1 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.       Image: Specimens: 1 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.       Image: Specimens: 1 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.       Image: Specimens: 1 liquid human plasma samples, 0.7 mL each. Brief case histories also given. Authentic commutable samples.         5473       Trichormonas vaginalis, detection       Image: Specimens: 3 simulated samples       Image: Specimens: 2 liquid human plasma human case of the sample sample human human case of the sample human human human human human human human human human hu	<b>Specimens:</b> Virtual whole slide images of stool samples in formalin prepared by using a scanner microscope. Brief case histories also given.			<b>is:</b> Scre	ening	and ide	ntificat	tion of	intesti	nal par	asites	(ova ar	nd	
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.          5473       Trichormonas vaginalis, detection         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11         Specimens: 3 simulated samples       1       2       3       4       5       6       7       8       9       10       11 <td></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td>		1	2	3	4	5	6	7	8	9	10	11	12	
also given. Addretific commutable samples. Each sample batch originates       post-analytical clinical interpretation         from a single human donor.       1       2       3       4       5       6       7       8       9       10       11         5473       Trichomonas vaginalis, detection       3*       • <td>U</td> <td>-</td> <td>•</td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>•</td> <td></td>	U	-	•			•			•			•		
5473 Trichomonas vaginalis, detection       3*       •	also given. Authentic commutable samples. Lach sample batch originates					-		1 and t	otal an	tibodie	es, IgG	avidity	,	
Specimens: 3 simulated samples       Examinations: Detection of Trichomonas vaginalis antigen and nucleic acid (N         Microbiology » Virology       1       2       3       4       5       6       7       8       9       10       11         5556       HSV162/VZV/T. pallidum, nucleic acid detection       1       1       0       0       1       1		1	2	3	4	5	6	7	8	9	10	11	12	
Microbiology » Virology         1       2       3       4       5       6       7       8       9       10       11         5556       HSV16-2/VZV/T. pallidum, nucleic acid detection       1	5473 <i>Trichomonas vaginalis</i> , detection 3*		•		•				•		•			
1       2       3       4       5       6       7       8       9       10       11         5556       HSV162/VZV/T. pallidum, nucleic acid detection       1       1       4       4       5       6       7       8       9       10       11	Specimens: 3 simulated samples	Exami	ination	s: Dete	ction o	f Trichoi	monas	vaginal	<i>is</i> antig	en and	nuclei	c acid (I	VAT)	
5556 HSV1&2/VZV/ <i>T. pallidum</i> , nucleic acid detection	Microbiology » <b>Virology</b>	1	7	2	4	F	c	7	o	0	10	11	17	
	5556 HSV1&2/VZV/ <i>T. pallidum</i> , nucleic acid detection		2	3	•	5	0	•	0	5			12	
		Exami	ination	s: Nuc	leic acio	detect	tion of	HSV1, I	HSV2, ∖	/ZV, Tri	eponer	na palli	idum	
1 2 3 4 5 6 7 8 9 10 11		1	2	3	4	5	6	7	8	9	10	11	12	
5651 CMV and EBV, nucleic acid detection, quantitative	5651 CMV and EBV, nucleic acid detection, quantitative			•						•				
Specimens: 5 samples simulating plasma, 1.5 mL Examinations: CMV and EBV NAT (quantitative).	Specimens: 5 samples simulating plasma, 1.5 mL	Notes	: Quan	titativ	e result	: proces	ssing							
1 2 3 4 5 6 7 8 9 10 11		1	2	3	4	5	6	7	8	9	10	11	12	
5650 Cytomegalovirus, antibodies		<b></b>		1			1	1		-	1		•	
Specimens: 3 liquid human plasma samples, 0.7 mL. Authentic commutable samples: each batch originates from a single human donor. Examinations: Cytomegalovirus IgG, IgM and total antibodies, IgG avidity post-analytical clinical interpretation			•			-				•				

635 Dengue virus, antibodies and antigen detection		2	3	4	5	6	7	8	9	10	11	12
			•			•			•		•	
<b>pecimens:</b> 3 human serum or plasma samples, 0.5 mL. Authentic, commutable samples from a single human donor or occasionally simulated amples.				-	us IgG clinical				Dengu	e virus	antige	1
	1	2	3	4	5	6	7	8	9	10	11	12
640 EBV mononucleosis, POCT	3	•			•				•			•
Specimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.	Exami Notes				ories ar	nd POC	T sites					
	1	2	3	4	5	6	7	8	9	10	11	12
6641 EBV mononucleosis, specific antibodies		•			•				•			•
ipecimens: 3 liquid human plasma samples, 1.4 mL. Authentic commutable amples: each batch originates from a single human donor.					, EBV V erpreta		G, EBV	VCA A	bM, Igi	G Avidi	ty and	
	1	2	3	4	5	6	7	8	9	10	11	12
092 Hepatitis A, antibodies		•			•			•			•	
ipecimens: 3 liquid human plasma samples, 0.6 mL. Authentic commutable amples: each batch originates from a single human donor.	<b>Exami</b> interp			/Ab, H/	AVAbM	HAVA	bG and	post-a	analyti	cal clin	ical	
	1	2	3	4	5	6	7	8	9	10	11	12
094–5096 Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL	3	•			•			•			•	
Specimens: 3 liquid human plasma samples, 0.6 / 1.2 or 2.0 mL. Authentic commutable samples: each batch originates from a single human lonor. Examinations: HBcAb, HBcAbM, HBeAb, HBeAg, HBsAb (qual), HBsAg, HCVAb, HCVAbCt and post-analytical clinical interpretation	5095:	for 0.6 for 1.2	5 mL hi mL hu	uman p man p	odes: Ilasma Iasma s Ilasma	pecim	ens					
	1	2	3	4	5	6	7	8	9	10	11	12
093 Hepatitis B, s-antigen antibodies, quantitative				•			•			•		
Specimens: 2 liquid human plasma or serum samples, 0.5 mL. Authentic ommutable samples: each batch originates from a single human donor.	Exami	inatio	ns: HBs	sAb (an	ti-HBs)	, quant	itative	2				
	1	2	3	4	5	6	7	8	9	10	11	12
i679 Hepatitis B virus, nucleic acid detection (DNA)	3*		•		•				•		•	
		inatio				tativo -	nd/or	oualita	ntive n	ucleic a	cid	
pecimens: 3 lyophilized or liquid plasma samples, 1.2 mL	<b>Exami</b> detect		13.110	7 DNA,	quanti		.,.	9444776				
			3	4 JUNA,	guanti 5	6	7	8	9	10	11	12
Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL 1678 Hepatitis C virus, nucleic acid detection (RNA)		ion	3	4	•							12
678 Hepatitis C virus, nucleic acid detection (RNA)	detect	ion 2	3	4	•	6	7	8	9	10	11	12
678 Hepatitis C virus, nucleic acid detection (RNA)	detect	ion 2	3	4	5	6	7	8	9	10	11 • cid	12
6678 Hepatitis C virus, nucleic acid detection (RNA) Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL 682 Hepatitis E, antibodies	detect	ination	3 • ns: HC\ 3	4 / RNA, 4	5 quanti 5	6 tative a	7 and/or 7	8 qualita	9 • ative nu 9	10 ucleic a 10	11 • cid	
<ul> <li>678 Hepatitis C virus, nucleic acid detection (RNA)</li> <li>678 Hepatitis C virus, nucleic acid detection (RNA)</li> <li>682 Hepatitis E, antibodies</li> <li>682 ipecimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable</li> </ul>	detect	ination	3 • 15: HC\ 3 Is: Hep	4 / RNA, 4 patitis I	5	6 tative a	7 and/or 7	8 qualita	9 • ative nu 9	10 ucleic a 10	11 • cid	
3678 Hepatitis C virus, nucleic acid detection (RNA) 379ecimens: 3 lyophilized or liquid plasma samples, 1.2 mL 3682 Hepatitis E, antibodies 379ecimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable 389 samples: each batch originates from a single human donor.	detect	ination	3 • 15: HC\ 3 Is: Hep	4 / RNA, 4 patitis I	5 quanti 5	6 tative a	7 and/or 7	8 qualita	9 • ative nu 9	10 ucleic a 10	11 • cid	
5678 Hepatitis C virus, nucleic acid detection (RNA) 5 pecimens: 3 lyophilized or liquid plasma samples, 1.2 mL 5 682 Hepatitis E, antibodies 5 pecimens: 3 liquid human plasma samples, 0.5 mL. Authentic commutable	detect	ination	3 • 15: HC\ 3 Is: Hep	4 / RNA, 4 patitis I	5 quanti 5	6 tative a	7 and/or 7	8 qualita	9 • ative nu 9	10 ucleic a 10 st-anal	11 • cid 11 • ytical	12

		1	2	3	4	5	6	7	8	9	10	11	12
	5680 HIV-1, nucleic acid detection (RNA)	*)		•		•				•		•	
	Specimens: 3 lyophilized or liquid plasma samples, 1.2 mL	Exam detec	i <b>nation</b> tion	is: HIV-	1 RNA,	quanti	tative a	and/or	qualit	ative n	ucleic a	acid	
		1	2	3	4	5	6	7	8	9	10	11	12
	5091 HIV, antibodies and antigen detection	)	•			•			•			•	
EQA³	Specimens: 3 liquid human plasma 0.7 mL	Exam confi	i <b>natior</b> matory nclude	tests,	post-a	nalytic			-				ens
	5090 HIV, antibodies and antigen detection, POCT	1	2	3	4	5	6	7	8	9	10	11	12
POCT	Sobo Hiv, antibodies and antigen detection, POCT Specimens: 3 liquid human plasma 0.5 mL Examinations: HIVAb and HIVAgAb primary tests (POCT)		s: Scher	me 509	11 is for	clinical	labora	tories		1			
		1	2	3	4	5	6	7	8	9	10	11	12
	5086 Human papillomavirus, nucleic acid detection	•			•			٠			•		
	Specimens: 2 simulated samples, 1 mL Examinations: High-risk human papillomavirus NAT, hrHPVNAT	Notes	s: Suita	ble for	nucleic	acid m	ethods	s used	in cerv	ical car	ncer sci	eening	
		1	2	3	4	5	6	7	8	9	10	11	12
m	5089 Human T-cell lymphotropic virus, antibodies	)	•			•			•			•	
EQA³	<b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.		i <b>nation</b> al interp										
		1	2	3	4	5	6	7	8	9	10	11	12
	5670 Influenza virus A+B and RS virus, nucleic acid detection 3	)	•									•	
	Specimens: 5 artificial samples. 1 mL Examinations: InfANAT, InfBNAT, RSVNAT	Note: detec	s: See a tion	lso sch	eme 53	300 Res	pirato	ry infe	tions i	multip	lex, nui	cleic aci	d
	5671 Influenza virus A+B, antigen detection	1	2	3	4	5	6	7	8	9	10	11	12
t I	U		-			I							
POCT	Specimens: 3 liquid and/or swab samples. Examinations: InfAAg, InfBAg		s: For cl A or NA								are no	t suital	ole
		1	2	3	4	5	6	7	8	9	10	11	12
~	5668 Measles virus, antibodies				•			•			•		
EQA³	<b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.		i <b>nation</b> al interp			rus IgG	and IgN	4 antil	odies	and po	st-ana	lytical	
_		1	2	3	4	5	6	7	8	9	10	11	12
	5562 Multiple respiratory virus, nucleic acid detection		•					•				•	
	Specimens: The round contains 3 swab samples. Examinations: Influenza A/B virus NAT, RSV NAT and SARS-CoV-2 NAT		s: Scher assay)		ot suit	able for	TMA n	nethoo	ds (e.g.	Holog	ic Pant	her SAI	RS-
		1	2	3	4	5	6	7	8	9	10	11	12
m	5669 Mumps virus, antibodies	•			•			٠			•		
EQA³	<b>Specimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.		i <b>nation</b> al interp			us IgG a	ind IgN	1 antib	odies a	and po	st-anal	ytical	
	5675 Norovirus, nucleic acid detection	1	2	3	4	5	6	7	8	9	10	11	12
	U									1	1		
	Specimens: 3 simulated samples, 1 mL	Exam	ination	is: Nord	ovirus î	vAI, ge	nogrou	ps ul a	na Ull				

		1	2	3		4	5	6	7	8	9	10	11	12
660 Parvovirus B19, antibodies pecimens: 3 liquid human plasma or serum samples, 0.4 mL. Authentic commutable samples: each batch originates from a single numan donor.		<b>Exami</b> i interpr			arvov	irus	lgG, lg	M, IgG	avidity	and p	ost-ana	alytical	clinica	1
		1	2	3		4	5	6	7	8	9	10	11	12
560 Puumala virus, antibodies	(3*)			•				•			•		•	
<b>pecimens:</b> 3 liquid human plasma or serum samples, 0.3 mL. Irief case histories are also provided.		lgG avi	dity a	nd po	ost-a	naly	tical cl	inical i	POC te nterpre T sites	tation		fic anti	bodies	,
		1	2	3		4	5	6	7	8	9	10	11	12
673 Respiratory adenovirus, antigen detection	(3*)			•				•			•			•
pecimens: 3 simulated samples, 1 mL		Examir	nation	s: Ad	enov	rirus	Ag							
		1	2	3		4	5	6	7	8	9	10	11	12
098 Rotavirus and adenovirus, antigen detection	(3*)			•				•			•			•
pecimens: 3 simulated samples, 1 mL		Exami	natior	ıs: Ro	otavi	rus a	and ade	enovirı	is antig	gen det	ection			
		1	2	3		4	5	6	7	8	9	10	11	12
672 RS virus, antigen detection	(3*)_		٠										•	
pecimens: 3 liquid and/or swab samples. xaminations: RSVAg									T sites eme 56			s are no	ot suita	ble
		1	2	3		4	5	6	7	8	9	10	11	12
667 Rubella virus, antibodies	$\bigcirc$	•				•			•			•		
<b>pecimens:</b> 3 liquid human plasma samples, 0.5 mL. Authentic ommutable samples: each batch originates from a single human donor.		<b>Exami</b> i analyti					_	and Ig	M antib	odies,	lgG av	idity ar	ıd post	-
		1	2	3		4	5	6	7	8	9	10	11	12
099 Tick-borne encephalitis virus, antibodies	$\bigcirc$			•				•			•			•
<b>pecimens:</b> 3 liquid human plasma or serum samples, 0.5 mL. authentic commutable samples: each batch originates from a single human onor.		interpr	etatio	n	-	-			oodies a T sites	·	st-ana	lytical o	linical	
		1	2	2		4	-	c	7	0	0	10	11	17
677 SARS-CoV-2, antibodies		•	2	3		4	5	6	•	8	9	10	11	12
pecimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic ommutable samples: each batch originates from a single human donor.	1	SARS-	CoV-2	lgA					oV-2 lg		RS-CoV	′-2 lgM,		1
		1	2	-		٨		6	7	0	9	10	11	17
681 SARS-CoV-2, antigen detection	$\bigcirc$	•	2	3		•	5	6	7	8	5	10	11	12
pecimens: 3 simulated samples xaminations: SARS-CoV-2 Ag		Notes:	For cl	linica	l labo	orato	ories ar	nd POC	T sites	1	1	1		1
		1	2	3		4	5	6	7	8	9	10	11	12
676 SARS-CoV-2, nucleic acid detection	<b>(3)</b>	•	2			•			•			•		12
pecimens: 3 simulated whole genome cDNA samples	$\mathbf{}$	Notor	Inclus	ding	varia	ntc	Schore		ot suital	hle for	τ	nothod	c	
Examinations: SARS-CoV-2 NAT		(e.g. H										u	-	

	1	2	З	4	5	6	7	8	9	10	11	12
5665 Varicella-zoster virus, antibodies	<u>۱</u>	•			•			•			•	
Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic commutable samples: each batch originates from a single human donor.			<b>is:</b> Vario pretatio		ster Ig(	G, IgM,	total a	ntibod	lies and	d post-	analyti	ical
	1	2	3	4	5	6	7	8	9	10	11	12
5636 Zika virus, antibodies	)				•						•	
Specimens: 3 liquid human plasma or serum samples, 0.5 mL. Authentic	Exami	nation	s: Zika \	virus Ig(	i, Zika v	virus Ig	M, clini	cal inte	erpretat	tion		

## 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 for multidrug resistant bacteria, gramnegative rods
- 5071 Surveillance for multidrug resistant bacteria, MRSA
- 5072 Surveillance 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 Clostridioides 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 for multidrug resistant bacteria, MRSA
- 5072 Surveillance for multidrug resistant bacteria, VRE
- 5073 Surveillance 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 HSV162/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
5675 Norovirus, nucleic acid detection
5676 SARS-CoV-2, nucleic acid detection

#### Mycology

5261 Fungal infections, 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.

	1	2	3	4	5	6	7	8	9	10	11	12
5191 Faecal bacterial pathogens multiplex, nucleic acid detection	)			•		•				•		•
pecimens: 3 samples. Either lyophilized mixtures of bacteria and/or		-	g the pe			alenda	r year,	a comp	orehen	sive sel	ection	of
imulated samples, 1 mL.	listed	pathog	ens will	be co	vered.							
Examinations: Direct nucleic acid detection. Pathogens included are Aeromonas, Campylobacter, <i>E. coli</i> EHEC (stx1/stx2), <i>E. coli</i> EAEC, <i>E. coli</i> EIEC,												
<i>E. coli</i> EPEC, <i>E. coli</i> ETEC, Plesiomonas, Salmonella, Shigella and Yersinia.												
			_		_							
472 Faecal parasites multiplex, nucleic acid detection		2	3	4	•	ь		8	9	10	11	12
	Evami	nation	e. Nuclo		l datas	tion of	Crunte	cnorid	lium D	iontom	acha	
specimens: 3 lyophilized samples			<b>s:</b> Nucle <i>moeba l</i>						iurri, D	ientum	оери	
	1	2	3	4	5	6	7	8	9	10	11	12
304 Gastrointestinal viral multiplex, nucleic acid detection	)				•						•	
pecimens: 3 simulated samples, 1 mL.		-	g the pe			alenda	r year,	a comp	orehen	sive sel	ection	of
xaminations: Direct multiplex nucleic acid detection. Pathogens included are:	listed <sub>l</sub>	oathog	ens will	be co	vered.							
denovirus, Astrovirus, Norovirus, Rotavirus, Sapovirus.												
		_	2	4	E	6	7	8	q	10	11	1
	1	- 7								10		
303 Meningitis-encephalitis multiplex, nucleic acid detection	1	2	3	4	•				•		•	
		•	1/10/1	4	•		inus 2 (	(UC)(2)	•	n horn	•	
pecimens: 3 simulated samples, 1 mL.		• •x virus	1 (HSV1)			nplex v						
Specimens: 3 simulated samples, 1 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included	6 (HH\	• x virus /6), Hu		recho	/irus (H	nplex v						
5303 Meningitis-encephalitis multiplex, nucleic acid detection Specimens: 3 simulated samples, 1 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Neisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae,	6 (HH\ Crypto Notes:	• x virus /6), Hu coccus During	man pai <i>neoforn</i> g the pei	rechov nans/ riod o	virus (⊦ gattii. f one c	nplex v IPeV),	Varizel	lla zost	er viru:	s (VZV)	) and	;
pecimens: 3 simulated samples, 1 mL. ixaminations: Direct multiplex nucleic acid detection. Pathogens included re: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, leisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae,	6 (HH\ Crypto Notes:	• x virus /6), Hu coccus During	man pai <i>neoforn</i>	rechov nans/ riod o	virus (⊦ gattii. f one c	nplex v IPeV),	Varizel	lla zost	er viru:	s (VZV)	) and	;
pecimens: 3 simulated samples, 1 mL. xaminations: Direct multiplex nucleic acid detection. Pathogens included re: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, leisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae,	6 (HH\ Crypto Notes:	• x virus /6), Hu coccus During	man pai <i>neoforn</i> g the pei	rechov nans/ riod o	virus (⊦ gattii. f one c	nplex v IPeV),	Varizel	lla zost	er viru:	s (VZV)	) and	of
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<ul> <li>Specimens: 3 simulated samples, 1 mL.</li> <li>Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Jeisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae, Stytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes</li> <li>300 Respiratory infections multiplex, nucleic acid detection (Specimens: 4 simulated samples, 1 mL)</li> <li>Examinations: Direct multiplex nucleic acid detection. Pathogens included</li> </ul>	6 (HHV <i>Crypto</i> <b>Notes:</b> listed j 1 <b>Notes:</b>	virus     v	man pai neoforn g the pei ens will 3	rechov nans/ riod o be co 4 riod o	virus (H gattii. f one c vered. 5 • f one c	nplex v IPeV), alenda 6	Varizel r year, 7	lla zost a comp 8	er viru: prehen: 9	s (VZV)	) and ection 11	; of 1. (
Specimens: 3 simulated samples, 1 mL.  Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Veisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae, Eytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes  300 Respiratory infections multiplex, nucleic acid detection  Specimens: 4 simulated samples, 1 mL  Examinations: Direct multiplex nucleic acid detection. Pathogens included are adenovirus, <i>B. parapertussis, B. pertussis, C. pneumoniae</i> , coronavirus	6 (HHV <i>Crypto</i> <b>Notes:</b> listed j 1 <b>Notes:</b>	virus     v	man pai neoforn g the pei ens will 3 g the pei	rechov nans/ riod o be co 4 riod o	virus (H gattii. f one c vered. 5 • f one c	nplex v IPeV), alenda 6	Varizel r year, 7	lla zost a comp 8	er viru: prehen: 9	s (VZV)	) and ection 11	; of 1. (
Specimens: 3 simulated samples, 1 mL.  Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Veisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae, Exytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes  300 Respiratory infections multiplex, nucleic acid detection  Gpecimens: 4 simulated samples, 1 mL  Examinations: Direct multiplex nucleic acid detection. Pathogens included are adenovirus, <i>B. parapertussis, B. pertussis, C. pneumoniae</i> , coronavirus OC43, 229E, NL63, HKU1), enterovirus, influenzavirus A/B, <i>L. pneumophila</i> ,	6 (HHV <i>Crypto</i> <b>Notes:</b> listed j 1 <b>Notes:</b>	virus     v	man pai neoforn g the pei ens will 3 g the pei	rechov nans/ riod o be co 4 riod o	virus (H gattii. f one c vered. 5 • f one c	nplex v IPeV), alenda 6	Varizel r year, 7	lla zost a comp 8	er viru: prehen: 9	s (VZV)	) and ection 11	of
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<ul> <li>Signature and Signature and Sig</li></ul>	6 (HHV <i>Crypto</i> <b>Notes:</b> listed j 1 <b>Notes:</b>	virus     v	man pai neoforn g the pei ens will 3 g the pei	rechov nans/ riod o be co 4 riod o	virus (H gattii. f one c vered. 5 • f one c	nplex v IPeV), alenda 6	Varizel r year, 7	lla zost a comp 8	er viru: prehen: 9	s (VZV)	) and ection 11	of 1. of
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pecimens: 3 simulated samples, 1 mL. xaminations: Direct multiplex nucleic acid detection. Pathogens included re: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, leisseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae, ytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection pecimens: 4 simulated samples, 1 mL xaminations: Direct multiplex nucleic acid detection. Pathogens included re adenovirus, <i>B. parapertussis, B. pertussis, C. pneumoniae</i> , coronavirus 0C43, 229E, NL63, HKU1), enterovirus, influenzavirus A/B, <i>L. pneumophila</i> , netapneumovirus, <i>M. pneumoniae</i> , parainfluenzavirus 1-4, rhinovirus, RSV v/B, SARS-CoV-2 and <i>S. pneumoniae</i> .	6 (HHV Crypto Notes: listed   Notes: listed	x virus     x virus     x virus     x virus     2     0     coccus     conting     2     0     conting     co	man pai neoform g the per ens will g the per ens will	rechovnans/ riod o be co 4 riod o be co be co	virus (H gattii. f one c s • f one c vered.	nplex v IPeV), alenda alenda	7 r year, r year, r year,	a comp a comp a comp a comp	er viru:	s (VZV)	) and ection 11 ection	of 1: of 1:
Specimens: 3 simulated samples, 1 mL. Examinations: Direct multiplex nucleic acid detection. Pathogens included are: Escherichia coli K1, Haemophilus influenzae, Listeria monocytogenes, Verseria meningitidis, Streptococcus agalactiae, Streptococcus pneumoniae, Stytomegalovirus (CMV), Enterovirus, Epstein-Barr virus (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection (EBV), Herpes 300 Respiratory infections multiplex, nucleic acid detection. Pathogens included are adenovirus, <i>B. parapertussis</i> , <i>B. pertussis</i> , <i>C. pneumoniae</i> , coronavirus 302 Octa3, 229E, NL63, HKU1), enterovirus, influenzavirus A/B, <i>L. pneumophila</i> , netapneumovirus, <i>M. pneumoniae</i> , parainfluenzavirus 1-4, rhinovirus, RSV A/B, SARS-CoV-2 and S. pneumoniae. 302 Sexually transmitted diseases multiplex, nucleic acid detection 303 Sexually transmitted diseases multiplex, nucleic acid detection 304 Action (EBV)	6 (HHV Crypto Notes: listed   Notes: listed   1 Notes: Notes:	x virus     x virus     x virus     x virus     coccus     During     2     •     During     z	man pai neoform g the per ens will g the per ens will	rechovnans/ riod o be co 4 riod o be co 4 riod o be co	virus (H gattii. f one c c vered. 5 • f one c vered. 5 • f one c	nplex v IPeV), alenda alenda	7 r year, r year, r year,	a comp a comp a comp a comp	er viru:	s (VZV)	) and ection 11 ection	of 1: of 1:
Sexually transmitted diseases multiplex, nucleic acid detection. Pathogens included readen over the sector of t	6 (HHV Crypto Notes: listed   Notes: listed   1 Notes: Notes:	x virus     x virus     x virus     x virus     coccus     During     2     •     During     z	man pai neoform g the per ens will g the per ens will 3 g the per ens will 3 g the per	rechovnans/ riod o be co 4 riod o be co 4 riod o be co	virus (H gattii. f one c c vered. 5 • f one c vered. 5 • f one c	nplex v IPeV), alenda alenda	7 r year, r year, r year,	a comp a comp a comp a comp	er viru:	s (VZV)	) and ection 11 ection	of 1: of

## 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 VIRTUAI 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. 10 12 6700 Gynaecological cytology (smear), virtual microscopy VIRTUAL 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 12 6542 Histopathology, virtual microscopy . 5 VIRTUAL Topics 2023: 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. 10 11 12 6702 Non-gynaecological cytology, virtual microscopy 5 VIRTUAL 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

6600, 6600S Immunohistochemical staining methods	
<b>Topics:</b> 1/2023 Unknown tumour: SOX10, Prame, Melan A/Mart-1, CK20, CK7 2/2023 Breast cancer: PR, HER2, ER, Ki-67 and HER2 -ISH* *) also double	<b>Examinations:</b> Staining of the slides. A set of stained slides is returned to Labquality for evaluation by an expert board.
stain accepted, but no FISH 3/2023 Lymphoma: CD23, bcl2, bcl6, CD35, CD138	Notes: Changes in frequency, antibodies and sample type. Three rounds with distinct topics available annually. Multiblock samples are now included.
Specimens: Unstained paraffin embedded tissue from different tissue blocks or from one multiblock	Participants can select 3 or 5 antibodies of their choice in each round (6600S for 3 antibodies, 6600 for 5).

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12

## 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.

281/ HIL-index IDEKSI		2	3	4	5	6	7	8	9	10	11	12
817 HIL-index [DEKS]		•			•					-		
pecimens: 2 serum samples, 2 mL.	Exami sampl						e askec c.	to be	analys	ed. On	e of the	5
	1	2	3	4	5	6	7	8	9	10	11	12
06 Preanalytics and process in anatomic pathology					•						•	
ecimens: 3-5 cases with preanalytical and process error(s) aminations: Participants are asked to find preanalytical or poratoryprocess error(s) in the cases.							borator d out o	·	of			
	1	2	3	4	5	6	7	8	9	10	11	12
300 Preanalytics, clinical chemistry		•							•			
ecimens: 3 cases with preanalytical error(s) caminations: Participants are asked to find preanalytical error(s) in the ses		: The so le is cai				or clinic	al cher	nistry l	aborat	ories. 1	Гhe	
	1	2	3	4	5	6	7	8	9	10	11	12
02 Preanalytics, microbiology				•						•		
Ses												
	1	2	3	4	5	6	7	8	9	10	11	12
807 Preanalytics, Pneumatic Sample Transport	1	2	3	4	5	6	7	8	9	10	11	12
807 Preanalytics, Pneumatic Sample Transport Specimens: Two surrogate blood vials (i.e. measurement devices for recording t-axis acceleration during pneumatic tube system transport (PTS). Examinations: Vials are sent through the PTS as regular blood samples, to laboratory analysis is performed. Rejection probability of LDH, ASAT and C will be calculated using the cumulative vibration level, laboratory defined inayte-specific hemolysis cutoffs, and a hemolysis model.	Octob upon i not inc	: Vials er. Labo receivir	are ser pratorio ng the v ). It is p	it to th es are a vials ar	e parti asked t nd to re	cipatin co perfo	7 g labor orm the e vials 3 differ	atories record using a	• during lings w	g Septe ithin o er (ship	mber- ne wee	k osts
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## Others

## Others » Andrology

		1	2	3	4	5	6	7	8	9	10	11	12
6400 Semen analysis	$(\mathbf{x})$										•		
Specimens: 3-6 digital videos and/or digital images Examinations: Concentration, morphology and motility		Notes:	: Schen	ne is ca	irried o	ut onli	ne						

## Others » Clinical physiology

		1	2	3	4	5	ь	/	8	9	10	- 11	12
	7130 ECG, interpretation				•						•		
EQA³	Specimens: 3 digital ECG registrations (images) Examinations: Technical quality and findings	perso	: Schen nnel in l ical qua	POCT u	nits. P	articipa	ants ar	e evalu					

### Others » **Genetics**

		1	2	3	4	5	6	7	8	9	10	11	12
3865 DNA single nucleotide variation [EQUALIS]	$\bigcirc$			•							•		
<b>Specimens:</b> Whole blood or extracted DNA. Blank samples (water) are sometimes included.	g.: c.1	20210 87C>	)G>A, G; c.84	DNA-F 45G>A	-Apoliț actor 5 , DNA-I educta	(F5) c Lactas	.1691G> e gene	A, DNA (LCT) g	A-Hemo g.139100	ochrom C>T, DN	natosis	(HFE)	

## Others » Laboratory instruments

			1	2	3	4	5	6	7	8	9	10	11	12
8814 ELISA reader photometry control	[DEKS]	$\bigcirc$	Circulation starts in March											
Specimens: An ELISA-plate with built-in gray gla Examinations: Control for the absorbance scale i			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

7800 Preanalytics, clinical chemistry7802 Preanalytics, microbiology7806 Preanalytics and process in anatomic pathology8817 HIL-index [DEKS]

## 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

#### **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
- 5250 Interferon Gamma Release Assay (IGRA) for Mycobacterium tuberculosis

#### 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

- 7807 Preanalytics, Pneumatic sample transport
- 7804 Preanalytics, POCT in chemistry
- 7801 Preanalytics, urine and blood sample collection
- 2200 Lipids and lipoproteins
- 2240 Proteins, electrophoresis
- 2050 Serum B and C (2-level)
- 2480 Vitamin A, E and D metabolites

- 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

### Alphabetical scheme directory

#### Α

ABO and Rh grouping, 16 Acid-base status and electrolytes, 10 ACTH and Cortisol, 9 Activated partial tromboplastin time, INR and fibrinogen, 17 Albumin and creatinine in urine, 13 Alcohol in whole blood: Ethanol + methanol + isopropanol, 10 Alcohol in whole blood: Ethylene glycol, 10 Alcohol in serum: Ethanol + methanol + isopropanol + acetone, 10 Alcohol in serum: Ethylene glycol, 10 Allergen component [UK NEQAS], 6 Allergy in vitro diagnostics [SKML], 6 Allergy in vitro diagnostics [UK NEQAS], 6 Ammonium ion. 10 ANCA and GbmAb, 20 Angiotensin convertase (ACE), 10 Antibody screening and compatibility testing, 16 Anticoagulants: LMW-Heparin/antiFXa, 17 Antiglobulin test, direct, 16 Anti-Müllerian hormone, 13 Antinuclear antibodies. 20 Antistreptolysin, 21 Autoimmune diagnostics, IFA interpretation (digital images),20 Autoimmune liver disease and gastric parietal cell antibodies, 20

#### В

Bacteriological staining, direct (digital images), 22 Basic blood count, 1-level sample, 16 Basic blood count, 2-level sample, 16 Basic chemistry, POCT analyzers, 6 Bile acids, 10 Bilirubin, conjugated, 10 Bilirubin, neonatal, 10 Blood culture, 22 Blood culture, screening, 22 Bordetella pertussis, antibodies, 21 Borrelia burgdorferi, antibodies, European origin, 21

#### С

Cerebrospinal fluid, bacterial culture, Chemokine CXCL13, *Chlamydia pneumoniae*, antibodies, *Chlamydia trachomatis* and *Neisseria gonorrhoeae*, nucleic acid detection, *Clostridioides difficile*, culture and toxin detection, *Clostridioides difficile*, nucleic acid detection, CMV and EBV, nucleic acid detection, quantitative, Coeliac disease, antibodies, Column agglutination methods: grading of reactions and patient cases, C-reactive protein (CRP) for analyzers, C-reactive protein (CRP), POCT, CRP, low concentration, Cystatin C [DEKS], Cytomegalovirus, antibodies,

#### D

DayTrol, human serum, D-dimer, **17** Decialotransferrin [EQUALIS], Dengue virus, antibodies and antigen detection, DNA analysis [EQUALIS], Drug of abuse screening in urine,

#### E

EBV mononucleosis, POCT, EBV mononucleosis, specific antibodies, ECG, interpretation, ELISA reader photometry control [DEKS], Eosinophil cationic protein, Erythrocyte sedimentation rate, Erythrocyte sedimentation rate: Alifax-analyzers; Greiner tube, Erythrocyte sedimentation rate: Alifax-analyzers; Sarstedt tube, Erythrocyte sedimentation rate: SED,

#### F

Faecal bacterial pathogens multiplex, nucleic acid detection, **22**, Faecal calprotectin, Faecal culture, Faecal elastase, Faecal occult blood, qualitative, Faecal occult blood, quantitative, Faecal parasites multiplex, nucleic acid detection, **25**, Flagger program (Noklus), Francisella tularensis, antibodies, Fungal culture, Fungal infections, nucleic acid detection,

#### G

Gastric biomarkers, Gastrointestinal viral multiplex, nucleic acid detection, General Bacteriology 1 (aerobes and anaerobes), General Bacteriology 2 (aerobes), Glucose meters, Gram stain, blood culture, Gram stain, colonies, Gynaecological cytology (liquid based), virtual microscopy, Gynaecological cytology (smear), virtual microscopy,

### Alphabetical scheme directory

#### Н

5-hydroxyindoleacetic Acid (5-HIAA), 11 Haemoglobin A1c, liquid samples, 8 Haemoglobin A1c, liquid samples, POCT, 8 Haemoglobin, 1-level HemoCue 801 and HemoCue 301, 7 Haemoglobin, 1-level, POCT, 7 Haemoglobin, 3-level samples, cell counters and analyzers, 7 Haemoglobin, 3-level samples, POCT, 7 Haemoxymeters, 11 Helicobacter pylori, antibodies, 21 Helicobacter pylori, antigen detection in faeces, 23 Hepatitis A, antibodies, 27 Hepatitis B and C, serology, specimen volume 0.6 mL / 1.2 mL / 2.0 mL, 27 Hepatitis B, s-antigen antibodies, quantitative, 27 Hepatitis B virus, nucleic acid detection (DNA), 27 Hepatitis C virus, nucleic acid detection (RNA), 27 Hepatitis E, antibodies, 27 Herpes simplex 1 and 2, antibodies, 27 HIL-index [DEKS], 33 Histological staining techniques, 32 Histopathology, virtual microscopy, 32 HIV-1, nucleic acid detection (RNA), 28 HIV, antibodies and antigen detection, 28 HIV, antibodies and antigen detection, POCT, 28 Homocysteine [DEKS], 11 Hormones A: Basic analytes of hormone and immunochemistry, 8 Hormones B: Steroid and peptide hormones, 9 HSV1&2/VZV/T. pallidum, nucleic acid detection, 26 Human papillomavirus, nucleic acid detection, 28 Human T-cell lymphotropic virus, antibodies, 28

#### I

Interferon Gamma Release Assay (IGRA) for *Mycobacterium tuberculosis*, **20** Immunohistochemical staining methods, Influenza virus A+B and RS virus, nucleic acid detection, Influenza virus A+B, antigen detection, INR, CoaguChek, i-STAT and Siemens Xprecia, POCT, INR, EuroLyzer, POCT, INR, LabPad, POCT, INR, MicroINR, LumiraDX and CoagSense, POCT, Interleukin-6,

#### Κ

Ketones (beta-hydroxybutyrate), POCT, 8

#### L

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

#### Μ

Malaria, antigen and nucleic acid detection, Malaria screening, Giemsa stain, Malaria screening, MGG stain, Measles virus, antibodies, Meningitis-encephalitis multiplex, nucleic acid detection, Methyl malonate [DEKS], Multiple Respiratory Virus nucleic acid detection, Mumps virus, antibodies, Mycobacterial culture and stain, Mycobacterial nucleic acid detection, Mycobacterial stain, *Mycobacterium tuberculosis*, drug resistance, *Mycoplasma pneumoniae*, antibodies, Myocardial markers, Myocardial markers and CRP, low concentration,

#### Ν

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

#### Ρ

Parasites in blood, Giemsa stain, Parasites in blood, Giemsa stain, virtual microscopy, Parasites in blood, MGG stain, Parasites in faeces, Parasites in faeces, virtual microscopy, Parathyroid hormone, intact, Parvovirus B19, antibodies, Percentiler program (Noklus),

### **Alphabetical scheme directory**

Phospholipid antibodies, Preanalytics and process in anatomic pathology, **32**, Preanalytics, clinical chemistry, Preanalytics, microbiology, Preanalytics, Pneumatic Sample Transport, Preanalytics, POCT in chemistry, Preanalytics, urine and blood sample collection, Pregnancy test, Procalcitonin, Prostate specific antigen, Proteins in cerebrospinal fluid, Proteins, electrophoresis, Proteins, immunochemical determinations, Prothrombin time, Puumala virus, antibodies,

#### R

Respiratory adenovirus, antigen detection, Respiratory infections multiplex, nucleic acid detection, Reticulocyte count, automated, Reticulocyte count, manual methods, Rheumatoid factor and citrullic peptide antibodies, Rotavirus and adenovirus, antigen detection, RS virus, antigen detection, Rubella virus, antibodies,

#### S

Salivary cortisol, 9 Salmonella, culture, 24 SARS-CoV-2, antibodies, 29 SARS-CoV-2, antigen detection, 29 SARS-CoV-2, nucleic acid detection, 29 Semen analysis, 34 Serum A, lyophilized samples, 9 Serum B and C (2-level), 9 Sexually transmitted diseases multiplex, nucleic acid detection, 31 Special coagulation, 18 Sputum cells, 11 Streptococcus agalactiae (GBS), nucleic acid detection, 24 Streptococcus agalactiae (GBS), culture, 24 Streptococcus pneumoniae, antigen detection in urine, 24 Streptococcus pyogenes (Group A), antigen detection in pharyngeal sample, 24 Streptococcus pyogenes (Group A), nucleic acid detection in pharyngeal sample, 24 Surveillance for multidrug resistant bacteria, gramnegative rods, 24 Surveillance for multidrug resistant bacteria, MRSA, 24

Surveillance for multidrug resistant bacteria, VRE, **25** Synovial fluid crystals, **11** Syphilis serology, **21** 

#### Т

Therapeutic drugs, Throat streptococcal culture, Thyroid gland antibodies, Tick-borne encephalitis virus, antibodies, Toxoplasma, antibodies, *Trichomonas vaginalis*, detection, Troponin I and Troponin T, detection, POCT, Tryptase [UK NEQAS], TSH receptor antibodies, Tumour markers,

#### U

Urine bacterial screening with automated analyzers, Urine culture, quantitative screening, Urine culture, quantitative screening, identification and susceptibility, Urine, identification of cells and other particles (digital images), Urine quantitative chemistry, Urine strip test A, Urine strip test B, particle count and estimation of density,

#### V

Varicella-zoster virus, antibodies, **30** Vitamin A, E and D metabolites, **11** 

#### W

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

#### Ζ

Zika virus, antibodies, 30



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