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	Ees- ja perekonnanimi	Ametikoht	kuupäev

### REFERENCE VALUES FOR HAEMATOLOGY TESTS

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
<b>COMPLETE BLOOD CELL COUNT 5-DIFF, B-CBC-5DIFF BLOOD SMEAR MICROSCOPY, B-SMEAR-M PANEL</b>					
RBC B-RBC	≥18y	F	4,1–5,2	10 <sup>12</sup> /L	17
		M	4,5–5,7		
	0d – <7d 7d – <14d 14d – <1m 1m – <2m 2m – <3m 3m – <6m 6m – <1y 1y – <4y	M/F	4,0–6,6		5
			3,9–6,3		
			3,6–6,2		
			3,0–5,4		
			2,7–4,9		
			3,5–5,2		
			3,5–5,6		
			3,9–5,0		
	4y – <14y	M	4,1–5,1		26
		F	4,0–5,0		
	14y – <18y	M	4,3–5,7		
F		4,0–5,4			
WBC B-WBC	≥18y	M/F	4,1–9,7	10 <sup>9</sup> /L	17
			9,0–30,0		
	0h – <12h 12h – <24h 24h – <7d 7d – <14d 14d – <1m 1m – <6m 6m – <1y 1y – <3y 3y – <5y 5y – <18y	M/F	13,0–38,0		
			9,4–34,0		
			5,0–21,0		
			5,0–20,0		
			5,0–19,5		
			6,0–17,5		
			5,8–13,5		
			4,9–11,8		
	4,2–10,0	26			
	≥ 18y		F		121–150
M		134–170			
Hb B-Hb	0d – <7d	M/F	145–225		5
			135–215		
	7d – <14d	M/F	125–205		
			100–180		
	14d – <1m	M/F	90–140		
			110–147		
	1m – <2m	M/F	106–145		
			100–132		
	2m – <3m	M/F	112–141		
			129–167		
3m – <6m	M/F	112–151			
		112–151			
6m – <1y	M/F	112–151			
		112–151			
1y – <4y	M/F	112–151			
		112–151			
4y – <14y	M/F	112–151			
		112–151			
14y – <18y	M/F	112–151			
		112–151			

Analyte Abbreviation	Age	Sex	Value	Unit	Reference	
Hct B-Hct	≥18y	M	40–49	%	17	
		F	37–45			
	0d – <7d 7d – <14d 14d – <1m 1m – <2m 2m – <3m 3m – <6m 6m – <1y	M/F	45–67		5	
			42–66			
			39–63			
			31–55			
			28–42			
			31–45			
			31–44			
			31–39			
	1y – <4y		31–39		26	
	4y – <14y		34–43			
14y – <18y	M	39–50				
	F	35–45				
Plt B-PLT	≥18y	M/F	157–372	10 <sup>9</sup> /L	17	
	0d – <18y		145–390		4	
	1y – <12y		203–431		26	
	12y – <18y		173–361			
MPV B-MPV	≥18y	M/F	9,2–12,3	fL	17	
	1y – <4y		8,3–10,7		26	
	4y – <18y		9,0–12,8			
Pct B-Pct	≥18y	M/F	0,18–0,38	%	17	
LCR B-LCR	≥18y	M/F	17,8–45,1	%	17	
PDW B-PDW	≥18y	M/F	10,1–16,2	fL	17	
IPF B-IPF	≥18y	M/F	1,3–7,0	%	17	
MCV B-MCV	≥18y	M/F	82–95	fL	17	
	0d – <7d		95–121		5	
	7d – <14d		88–126			
	14d – <1m		86–124			
	1m – <2m		85–123			
	2m – <3m		77–115			
	3m – <6m		74–98			
	6m – <1y		71–90			
	1y – <4y		74–84			26
	4y – <14y		M		78–91	
			F		77–92	
	14y – <18y		M/F		80–95	
MCH B-MCH	≥18y	M/F	28–33	pg	17	
	0d – <7d		31–37		8	
	7d – <2m		28–40			
	2m – <3m		26–34			
	3m – <6m		25–35			
	6m – <1y		23–31			
	1y – <4y		23,5–28,2			26

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
	4y – <14y		25,1–30,3		
	14y – <18y		25,6–32,0		
MCHC B-MCHC	≥ 18y	M/F	322–356	g/L	17
	0d – <7d		310–350		5
	7d – <1m		305–355		
	1m – <3m		310–350		
	3m – <6m		305–350		
	6m – <1y		310–350		
	1y – <18y		310–345		26
RDW-CV B-RDW-CV	≥18y	M/F	12–15	%	17
	0d – <1y		11–16		5
	1y – <14y		12–15		26
	14y – <18y		12–16		
RDW-SD B-RDW-SD	≥18y	M/F	38–48	fL	17
	1y – <14y		35–44		26
	14y – <18y	M	36–45		
		F	37–46		
Ret% B-Ret% Ret B-Ret #	≥ 18y	M/F	0,5–2,5	%	3
			50–100	10 <sup>9</sup> /L	
Neut% B-Neut% Neut B-Neut#	≥18y	M/F	42,0–71,0	%	17
	1y – <5y		18,6–68,6		26
	5y – <15y		28,9–67,9		
	15y – <18y		39,6–73,9		
	≥18y		1,9–6,7	10 <sup>9</sup> /L	17
	0h – <12h		6,0–26,0		8
	12h – <24h		6,0–28,0		
	24h – <7d		5,0–21,0		
	7d – <14d		1,5–10,0		
	14d – <1m		1,0–9,5		
	1m – <6m		1,0–9,0		
	6m – <1y		1,0–8,5		
	1y – <18y		1,5–6,8		26
Neutrophils band form% B- Neut Band% *Appears only in B-Smear-m panel	≥ 18y	M/F	0–5,0	%	3
Lymph% B-Lymph% Lymph B-Lymph#	≥18y	M/F	21,0–45,0	%	17
	1y – <5y		20,6–71,6		26
	5y – <15y		21,1–58,8		
	15y – <18y		15,0–45,4		
	≥18y		1,3–3,1	10 <sup>9</sup> /L	17
	0h – <24h		2,0–11,0		8
	24h – <7d		2,0–11,5		
	7d – <1m		2,0–17,0		

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
	1m – <6m		2,5–16,5		
	6m – <1y		4,0–13,5		
	1y – <5y		1,9–6,3		26
	5y – <15y		1,3–4,1		
	15y – <18y		1,3–3,4		
Mono% B-Mono% Mono B-Mono#	≥18y	M/F	4,0–11,0	%	17
	1a – <5a		5,1–12,6		26
	5a – <18a	M	5,1–11,5		
		F	4,3–12,1		
	≥18y	M/F	0,24–0,8	10 <sup>9</sup> /L	17
	0d – <7d		0,5–1,7		5
	7d – <14d		0,3–1,3		
	14d – <3m		0,5–1,8		
	3m – <6m		0,2–1,6		
	6m – <1y		0,2–1,4		
1y – <5y		0,1–1,1		26	
	5y – <18y		0–1,0		
Eo% B-Eo% Eo B-Eo#	≥ 18y	M/F	0,4–6,0	%	17
	1y – <4y		<8,3		26
	4y – <15y		<13		
	15y – <18y		<6,7		
	≥ 18y		0,02–0,4	10 <sup>9</sup> /L	17
	0d – <7d		0,2–0,7		5
	7d – <14d		0,2–0,8		
	14d – <3m		0,2–0,6		
	3m – <6m		0–1,1		
	6m – <1y		0–1,0		
	1y – <4y		<0,8		26
	4y – <15y		<1,0		
	15y – <18y		<0,5		
	Baso% B-Baso% Baso B-Baso#	≥18y	M/F	0,1–1,3	%
1y – <18y			<1,2		26
≥18y			0,01–0,08	10 <sup>9</sup> /L	17
0d – <7d			0–0,3		5
7d – <1y			0–0,2		
1y – <18y			<0,1		26
IG% B-IG% IG B-IG#	≥18y	M/F	0-0,5	%	17
	1y – <18y		<0,8		26
	≥18y		0–0,03	10 <sup>9</sup> /L	17
	1y – <18y		<0,05		26
NRBC% B-NRBC% NRBC# B- NRBC#	1y – <18y	M/N	<1,2	%	26
	1y – <18y		<0,12	10 <sup>9</sup> /L	

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
<b>ERYTHROCYTE SEDIMENTATION RATE B-ESR</b>					
Erythrocyte sedimentation rate B-ESR	17y – <51y	F	<13	mm/h	3
	51y – <61y		<20		
	61y – <70y		<21		
	≥70y		<36		
	17y – <51y	M	<11		
	51y – <61y		<13		
	61y – <70y		<15		
	≥70y		<31		
<b>COAGULATION</b>					
Prothrombin time P-PT%	All	M/F	>70	%	1
International normalized ratio INR	≥ 18y	M/F	0,80–1,20		1
	0d – <3d		1,15–1,35		9
	3d – <1m		1,05–1,35		
	1m – <1y		0,86–1,22		
	1y – <6y		0,92–1,14		
	6y – <11y		0,87–1,20		
	11y – <18y		0,97–1,30		
Activated partial thromboplastin time P-APTT	≥ 18y	M/F	28,9–38,1	sec	1
	0d – <3d		34,3–44,8		9
	3d – <1m		29,5–42,2		
	1m – <1y		35,1–46,3		
	1y – <6y		33,6–43,8		
	6y – <11y		31,8–43,7		
	11y – <18y		33,9–46,1		
Thrombin time P-TT	All	M/F	<21	sec	1
Fibrinogen P-Fibr	≥18y	M/F	2,0–4,0	g/L	1
	0d – <3d		1,92–3,74		9
	3d – <1m		2,83–4,01		
	1m – <1y		0,82–3,83		
	1y – <6y		1,62–4,01		
	6y – <11y		1,99–4,09		
	11y – <18y		2,12–4,33		
Factor VII P-FVII	≥18y	M/F	55 –170	%	1
	0d – <3d		52–88		9
	3d – <1m		67–107		
	1m – <1y		83–160		
	1y – <6y		72–150		
	6y – <11y		70–156		
	11y – <18y		69–200		
Factor VIII	≥ 18y	M/F	60–150	%	1

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
P-FVIII:C	0d – <3d		105–329		9
	3d – <1m		83–274		
	1m – <1y		54–145		
	1y – <6y		36–185		
	6y – <11y		52–182		
	11y – <18y		59–200		
Factor IX P-FIX	≥18y	M/F	60–150	%	1
	0d – <3d		35–56		9
	3d – <1m		44–97		
	1m – <1y		43–121		
	1y – <6y		44–127		
	6y – <11y		48–45		
	11y – <18y		64–216		
Factor XI P-FXI	≥18y	M/F	60–150	%	1
	0d – <3d		7–41		9
	3d – <1m		24–79		
	1m – <1y		62–125		
	1y – <6y		65–162		
	6y – <11y		65–162		
	11a – <18a		65–139		
Factor VIII inhibitor Factor IX inhibitor P-FVIII inh, P-FIX inh	All	M/F	Negative (<0,6)	BU	23
Factor inhibitor screening P-F inh screen	All	M/F	Negative		1
Von Willebrand factor P-vWF	≥18y	M/F	50–160	%	1
	0d – <3d		102–158		9
	3d – <1m		96–152		
	1m – <1y		53–116		
	1y – <6y		62–109		
	6y – <11y		74–111		
	11y – <18y		58–136		
Von Willebrand factor activity P-vWF Act	All	M/F	48–173	%	24
Von Willebrand factor activity ratio P-vWF Act/P-vWF	All	M/F	≥ 0,7		25
Free Protein S P-fPS	≥18y	M	70–148	%	1
		F	50–134		1
	0d – <3d	M/F	37–42		9
			3d – <1m		

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
	1m – <1y		80–116		
	1y – <6y		63–120		
	6y – <11y		83–123		
	11y – <18y		76–127		
Protein C P-PC	≥ 18y	M/F	70–130	%	1
	0d – <3d		24–44		9
	3d – <1m		28–54		
	1m – <1y		31–112		
	1y – <6y		65–127		
	6y – <11y		71–129		
	11y – <18y		66–118		
Activated protein C resistance P-APC-R	All	M/F	≥120	sec	1
Antithrombin III P-AT III	≥ 18y	M/F	80–120	%	1
	0d – <3d		58–90		9
	3d – <1m		60–89		
	1m – <1y		72–134		
	1y – <6y		101–131		
	6y – <11y		95–134		
	11y – <18y		96–126		
D-dimer P-D-Di	≥18y	M/F	<0,5	mg/L	1
	0d – <3d		<2,47		9
	3d – <1m		<2,74		
	1m – <1y		<0,42		
	1y – <6y		<0,53		
	6y – <11y		<0,56		
	11y – <18y		<0,39		
Lupus sensitive APTT P-PTT-LA	All	M/F	Negative (35–48)	sec	1
Lupus anticoagulant (normalized ratio) P-LA normratio	All	M/F	Negative Normratio <1,2		1
Low molecular weight heparin P-LMWH  Unfractionated heparin P-UFH	All	M/F	Missing in normal plasma without treatment (<0,1 kIU/L) Treatment with heparin – result depends on dosage, time of sampling	kIU/L	1

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
Rivaroxaban P-RXN	All	M/F	Missing in normal plasma without treatment (< 25 µg/L) Treatment with rivaroxaban – result depends on renal function, dosage, time of sampling	µg/L	1
Apixaban P-APBN	All	M/F	Missing in normal plasma without treatment (< 23 µg/L) Treatment with apixaban – result depends on renal function, dosage, time of sampling	µg/L	1
Edoxaban P-EDBN	All	M/F	Missing in normal plasma without treatment (< 20 µg/L) Treatment with edoxaban – result depends on renal function, dosage, time of sampling	µg/L	1
Dabigatran P-DBTN	All	M/F	Missing in normal plasma without treatment (< 15 µg/L) Treatment with dabigatran – result depends on renal function, dosage, time of sampling	µg/L	1
Plasminogen P-Plasm	≥18a	M/F	80–120	%	1
Platelet function assay with collagene and epinephrine B-PFA-Col/Epi	All	M/F	82–150	sec	14



Analyte Abbreviation	Age	Sex	Value	Unit	Reference
Platelet function assay with collagene and adenosine diphosphate B-PFA-Col/ADP	All	M/F	62–100	sec	14
Platelet function assay for detection of P2Y12 receptor blockade B-PFA-P2YP12	All	M/F	≤106	sec	11
<b>CEREBROSPINAL FLUID ANALYSIS, CSF-Diff-a</b>					
Leukocytes CSF-WBC	≥16y	M/F	<6	10 <sup>6</sup> /L	6 10
	≤28p		<20		
	29d – <3m		<10		
	3m – <16y		<6		
Erythrocytes CSF-RBC	≥18a		<6		
	Newborn, preterm ≤7d		<1000		
	Newborn, term ≤7d		<800		
	7d – ≤28d		<50		
	29d – <18y		<6		
<b>CEREBROSPINAL FLUID MICROSCOPY, CSF-Diff-m</b>					
Lymphocytes	≥18y	M/F	63–99	%	6
Monocytes			3–37		
Neutrophils			0–2		
Lymphocytes	Neonate (≤28d)		2–38		
Monocytes			50–94		
Neutrophils			0–8		
<b>URINALYSIS DIPSTICK U-strip</b>					
Specific gravity U-SG strip	≥18y	M/F	1,005–1,030		20
pH U-pH strip			5,0–8,0		19
Leukocytes U-WBC strip			Negative		21
Erythrocytes U-RBC strip			Negative		
Nitrite U-Nit strip			Negative		
Protein U-Prot strip			Negative		
Glucose U-Gluc strip			Negative		
Ketone			Negative		

Analyte Abbreviation	Age	Sex	Value	Unit	Reference
U-Ket strip					
Urobilinogen U-Ubg strip			Negative		
Bilirubin U-Bil strip			Negative		
<b>URINE FLOW CYTOMETRY U-Fc</b>					
Erythrocytes U-RBC Fc	≥18a	M/N	Negative (<23)	10 <sup>6</sup> /L	22
Leukocytes U-WBC Fc			Negative (<25)		
Squamous epithelial cells U-SquaEC Fc			Negative (<31)		
Transitional epithelial cells U-TranEC Fc			Negative (<1)		
Tubular epithelial cells U-RTEC FC			Negative (<3)		
Hyaline casts U-HyCAST Fc			Negative (<1)		
Pathological casts U-PathCAST Fc			Negative (<1)		
Bacteria U-BACT Fc			Negative (<1200)		
Crystals U-XTAL Fc			Negative (<10)		
Yeast-like Cells U-YLC Fc			Negative (<1)		
<b>URINE SEDIMENT MICROSCOPY U-Sed-m panel</b>					
Erythrocytes	All	M/F	≤ 1	/hpf	18
Leukocytes		M	≤ 2		
		F	≤ 4		
<b>FECAL OCCULT BLOOD (St-Hb QN)</b>					
National colon cancer screening	All	M/F	<20 (decision limit)	µg/g	15
In clinical indications			<15		16

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