

Setup: all data

AV = assigned value

CVE = consensus of the experts

>>> ... expected result

> ... acceptable result

± ... result not assessed

N_{tot} = total number of the resultsN_{rel} = relative number of the resultsN_{eva} = number of the results assessedN_{suc} = number of successful resultsS_{rel} = relative success

Sample Test Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]

Sample A**(921) WBC - morphology**

All results		1	0,6	No changes			
		3	1,9	Hypergranulation/toxic granulation			
		9	5,6	Giant bands and metamyelocytes			
		27	17	Agranulation			
CVE >>>	158	98		Neutrophil hypersegmentation			
	2	1,2		Hyposegmentation / asegmentation / pelgeroid			
	1	0,6		Döhle bodies			
	2	1,2		Atypical/reactive/pathological monocytes/promono.			
	16	9,9		Denuded nuclei/cells, nuclear shadows / smudge cells			
	1	0,6		Cytoplasmatic fragments			
CVE >>>	79	49		Vacuolisation			
	1	0,6		LGL/big lymphocytes			
	12	7,4		Lymphocytes - reactive forms			
	3	1,9		Lymphocytes - atypical forms (except "hairy")			
	1	0,6		Nucleus fragments of neutrophiles			

(922) WBC - count changes (relative)

All results	CVE >>>	149	92	Neutrophilia			
	CVE >>>	153	94	Lymphocytopenia			
	CVE >>>	113	70	Basophilia			
	>	10	6,2	Monocytopenia			
	CVE >>>	150	93	Left shift			

(923) RBC - morphology

All results	CVE >>>	146	90	Macrocytosis			
	CVE >>>	160	99	Anisocytosis			
		9	5,6	Poikilocytosis			
	>	60	37	Eliptocytes, ovalocytes			
		24	15	Spherocytes			
	CVE >>>	134	83	Stomatocytes			
	>	64	40	Dacryocytes			
		1	0,6	Target cells			
		10	6,2	Schistocytes (and other fragmentocytes)			
	CVE >>>	110	68	Polychromasia			
		4	2,5	Hypochromia			
	>	67	41	Basophilic stippling			
		7	4,3	Howell-Jolly bodies			
		4	2,5	Pappenheimer bodies			

(924) Platelets - morphology

All results		5	3,1	No changes			
	CVE >>>	157	97	Large platelets			
		2	1,2	Small platelets			
		2	1,2	Platelet aggregates			
	>	60	37	Platelets hypogranulation			
		3	1,9	Megakaryocytic nucleus fragments			

(925) Clinical recommendation - smear assessment

All results	CVE >>>	161	99	Blood smear is pathological			
		1	0,6	Blood smear within physiological limits or with reactive changes			

(926) Clinical recommendation - examination

All results		1	0,6	Not specified			
	CVE >>>	160	99	An examination by the specialist/haematologist is recommended			
		1	0,6	An examination by the specialist/haematologist is not necessary			

(927) Estimation of diagnosis

All results		10	6,3	Anemia: Macrocytosis			
		2	1,3	Myelodysplastic syndrome: Myelodysplastic syndrome			
	CVE >>>	108	68	Chronic myeloproliferative disease: Exact determination impossible			
		16	10	Chronic myeloproliferative disease: CML (chronic myelogenous leukaemia)			
		14	8,9	Chronic myeloproliferative disease: Polycythemia vera			

EQA round: DIF4/23 - Peripheral Blood Morphology Evaluation

Deadline: 27.10.2023

Setup: all data

Sample Test Group	Frequency of the results			Result	Success		
	AV	N _{tot}	N _{rel} [%]		N _{eva}	N _{suc}	S _{rel} [%]
	>	40	25	Chronic myeloproliferative disease: Myelofibrosis			
		2	1,3	Platelets disorders: Other			
(928) How do you rate the technical quality of the smear?		160				0	
All results	±	159	99	Acceptable			
	±	1	0,6	Not acceptable (give a reason)			
(929) How do you rate the staining of the smear?		160				0	
All results	±	158	99	Acceptable			
	±	2	1,3	Not acceptable (give a reason)			
(939) Overall assessment		162				162	161 99
Maximum score achievable: 117 points				Criterion (60 % out of the maximum): 71 points			
Minimum score achieved: 70 points (59,8 %)							
Maximum score achieved: 117 points (100 %)							
All results			1	0,6	Unacceptable result		
	>>>	161	99	Correct result			

Sample B

(921) WBC - morphology

All results	>	46	28	No changes			
		5	3,1	Hypergranulation/toxic granulation			
		1	0,6	Agranulation			
		2	1,2	Neutrophil hypersegmentation			
		41	25	Denuded nuclei/cells, nuclear shadows / smudge cells			
		1	0,6	Cytoplasmatic fragments			
	>	39	24	Vacuolisation			
		6	3,7	LGL/big lymphocytes			
	>	83	51	Lymphocytes - reactive forms			
		5	3,1	"Hairy" lymphocytes			
		22	14	Lymphocytes - atypical forms (except "hairy")			

(922) WBC - count changes (relative)

All results			2	1,2	Not specified		
	CVE >>>	152	94	Normal count			
		1	0,6	Neutropenia			
		2	1,2	Lymphocytosis			
		1	0,6	Eosinophilia			
		7	4,3	Basophilia			

(923) RBC - morphology

All results	CVE >>>	106	65	No changes			
		51	31	Normocytosis			
		1	0,6	Anisocytosis			
		2	1,2	Poikilocytosis			
		25	15	Eliptocytes, ovalocytes			
		1	0,6	Spherocytes			
		7	4,3	Stomatocytes			
		4	2,5	Dacryocytes			
		5	3,1	Echinocytes			
		10	6,2	Target cells			
		3	1,9	Schistocytes (and other fragmentocytes)			
		1	0,6	Howell-Jolly bodies			
		6	3,7	Rouleaux formation			
		1	0,6	Pappenheimer bodies			

(924) Platelets - morphology

All results			1	0,6	Not specified		
	CVE >>>	94	58	No changes			
	>	67	41	Large platelets			
		6	3,7	Platelets hypogranulation			

(925) Clinical recommendation - smear assessment

All results			1	0,6	Not specified		
		26	16	Blood smear is pathological			
	CVE >>>	135	83	Blood smear within physiological limits or with reactive changes			

(926) Clinical recommendation - examination

All results		24	15	An examination by the specialist/haematologist is recommended			
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EQA round: DIF4/23 - Peripheral Blood Morphology Evaluation

Deadline: 27.10.2023

Setup: all data

Sample Test Group	AV	N _{tot}	N _{rel} [%]	Frequency of the results Result	Success		
					N _{eva}	N _{suc}	S _{rel} [%]
	CVE >>>	138	85	An examination by the specialist/haematologist is not necessary			
(927) Estimation of diagnosis							
All results	CVE >>>	40	25	Not specified			
		1	0,6	Anaemia: Thalassemia and other congenital anaemias			
		17	11	Mature lymphocytic cells neoplasms: Exact determination impossible			
		2	1,3	Mature lymphocytic cells neoplasms: HCL (hairy cell leukaemia)			
		1	0,6	Mature lymphocytic cells neoplasms: PLL (prolymphocytic leukaemia)			
		1	0,6	Platelets disorders: Thrombocytopenia			
		5	3,2	Other: Viral infection incl. inf. mononucleosis			
		78	49	Other: Other reactive changes			
		1	0,6	Other: Allergy			
		23	15	Other: Other disease			
(928) How do you rate the technical quality of the smear?		160					0
All results	±	157	98	Acceptable			
	±	3	1,9	Not acceptable (give a reason)			
(929) How do you rate the staining of the smear?		160					0
All results	±	159	99	Acceptable			
	±	1	0,6	Not acceptable (give a reason)			
(939) Overall assessment		162					162 146 90
Maximum score achievable: 69 points		Criterion (60 % out of the maximum): 42 points					
Minimum score achieved: 29 points (42 %)							
Maximum score achieved: 69 points (100 %)							
All results		16	9,9	Unacceptable result			
	>>>	146	90	Correct result			

Summary for all samples

(939) Overall assessment	162	162	146	90
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