

SUMMARY STATISTICS

Filter: Slovakia

EQA round: DIF3/22 - Peripheral Blood Morphology Evaluation

Deadline (EQA round closed): 16.09.2022

Key:	ELG ... expert laboratories group	> ... possible result (found by ELG, but consensus not reached)
	AV, >>> ... assigned value type CVE (consensus of ELG)	
	RAR ... range of acceptable results	
	RoM ... robust average of all results	

	Sample A			Sample B		
	AV	RAR	RoM	AV	RAR	RoM
WBC - differential count						
Blasts	0,045	0,021 - 0,084	0,037	0,002	0,000 - 0,018	0,010
Promyelocytes	0	0,000 - 0,018	0,000	0	0,000 - 0,018	0,001
Neutrophil myelocytes	0	0,000 - 0,018	0,001	0,013	0,003 - 0,043	0,013
Neutrophil metamyelocytes	0,003	0,000 - 0,028	0,001	0,015	0,003 - 0,043	0,012
Neutrophil bars	0,008	0,001 - 0,036	0,008	0,022	0,005 - 0,050	0,030
Segmented neutrophil granulocytes	0,748	0,684 - 0,808	0,747	0,186	0,134 - 0,246	0,201
Eosinophils - immature forms	0	0,000 - 0,018	0,000	0	0,000 - 0,018	0,000
Eosinophil segmented granulocytes	0,008	0,000 - 0,036	0,008	0,001	0,000 - 0,018	0,002
Basophilic granulocytes	0,013	0,003 - 0,043	0,013	0,001	0,000 - 0,018	0,001
Monocytes	0,033	0,014 - 0,071	0,032	0,023	0,008 - 0,057	0,020
Lymphocytes	0,145	0,099 - 0,202	0,150	0,426	0,230 - 0,620	0,482
Plasma cells	0	0,000 - 0,018	0,000	0,294	0,140 - 0,480	0,190
Erythroblasts (number)	1,000	0,000 - 4,000	1,048	1,000	0,000 - 4,000	1,498

Sample A

Sample B

WBC - morphology

1	No changes	6,3 %	1	Hypergranulation/toxic granulation	6,3 %		
>>>	7	Agranulation	44 %	1	Atypical/reactive/pathological monocytes/promono.	6,3 %	
>>>	15	Neutrophil hypersegmentation	94 %	>>>	14	Denuded nuclei/cells, nuclear shadows / smudge cells	88 %
1	Auer rods	6,3 %	1	Cytoplasmatic fragments	6,3 %		
>	Döhle bodies		>	2	Vacuolisation	13 %	
1	Atypical/reactive/pathological monocytes/promono.	6,3 %	2	Lymphocytes - reactive forms	13 %		
1	Denuded nuclei/cells, nuclear shadows / smudge cells	6,3 %	3	"Hairy" lymphocytes	19 %		
>	1	Vacuolisation	6,3 %	>>>	7	Lymphocytes - atypical forms (except "hairy")	44 %
2	Lymphocytes - reactive forms	13 %					
1	Lymphocytes - atypical forms (except "hairy")	6,3 %					
1	Abnormal/leukemic promyelocytes	6,3 %					

WBC - relative changes of count

>>>	13	Neutrophilia	81 %	>>>	14	Neutropenia	88 %
>>>	12	Lymphocytopenia	75 %	>>>	6	Lymphocytosis	38 %
>	3	Basophilia	19 %		3	Lymphocytopenia	19 %
	1	Monocytosis	6,3 %		1	Monocytosis	6,3 %
>	6	Left shift	38 %	>	4	Monocytopenia	25 %
				>>>	8	Left shift	50 %

RBC - morphology

1	No changes	6,3 %	1	Macrocytosis	6,3 %		
>>>	12	Macrocytosis	75 %	>>>	13	Anisocytosis	81 %
>>>	13	Anisocytosis	81 %		1	Eliptocytes, ovalocytes	6,3 %
>	7	Poikilocytosis	44 %		2	Spherocytes	13 %
>>>	7	Eliptocytes, ovalocytes	44 %		2	Dacryocytes	13 %
>	4	Spherocytes	25 %		1	Acanthocytes	6,3 %
	1	Stomatocytes	6,3 %		1	Schistocytes (and other fragmentocytes)	6,3 %
>>>	13	Dacryocytes	81 %	>	4	Polychromasia	25 %
>>>	2	Schistocytes (and other fragmentocytes)	13 %		3	Hypochromia	19 %
>>>	8	Polychromasia	50 %		1	Howell-Jolly bodies	6,3 %
	1	Hypochromia	6,3 %	>>>	12	Rouleaux formation	75 %
	1	Basophilic stippling	6,3 %		2	RBC agglutination	13 %
	1	Howell-Jolly bodies	6,3 %				
	4	Rouleaux formation	25 %				

Sample A

Sample B

Platelets - morphology

	8	No changes	50 %	>>>	11	No changes	69 %
>>>	5	Large platelets	31 %		1	Large platelets	6,3 %
	1	Small platelets	6,3 %		2	Small platelets	13 %
>	1	Platelets hypogranulation	6,3 %		1	Platelet aggregates	6,3 %
	2	Megakaryocytic nucleus fragments	13 %		1	Platelets hypogranulation	6,3 %

Clinical recommendation - smear

>>>	14	Blood smear is pathological	88 %	>>>	16	Blood smear is pathological	100 %
	2	Blood smear within physiological limits or with reactive changes	13 %				

Clinical recommendation - examination

>>>	15	An examination by the specialist/haematologist is recommended	94 %	>>>	16	An examination by the specialist/haematologist is recommended	100 %
	1	An examination by the specialist/haematologist is not necessary	6,3 %				

Diagnosis - anaemia

	1	Normocytosis	6,3 %		3	Normocytosis	19 %
	3	Macrocytosis	19 %		1	Hypochromia	6,3 %

Diagnosis - acute leukaemia

	1	AML (acute myeloid leukemia)	6,3 %		4	Without closer determination	25 %
--	---	------------------------------	-------	--	---	------------------------------	------

Diagnosis - myelodysplastic syndrome

	1	Myelodysplastic syndrome	6,3 %				
--	---	--------------------------	-------	--	--	--	--

Diagnosis - chronic myeloproliferative disease

>	1	Exact determination impossible	6,3 %		1	Exact determination impossible	6,3 %
	1	Polycythemia vera	6,3 %				
>>>	11	Myelofibrosis	69 %				

Diagnosis - mature lymphocytic cells neoplasms

	1	Exact determination impossible	6,3 %
	1	HCL (hairy cell leukaemia)	6,3 %
	1	PLL (prolymphocytic leukaemia)	6,3 %
>>>	13	Plasma cell leukaemia	81 %

Diagnosis - other

	2	Other reactive changes	13 %				
--	---	------------------------	------	--	--	--	--

Smear quality

	13	Acceptable	81 %		13	Acceptable	81 %
	3	Not acceptable (give a reason)	19 %		3	Not acceptable (give a reason)	19 %

Staining

	14	Acceptable	88 %		14	Acceptable	88 %
	2	Not acceptable (give a reason)	13 %		2	Not acceptable (give a reason)	13 %

Evaluation of the results - scoring system

DIF3/22

Sample A

Maximal achievable score: 117

Successful participants (success 60 % and more): 12 (it is 75 %)
 Minimal success in this round: 43,6 %
 Maximal success in this round: 98,3 %

Sample B

Maximal achievable score: 99

Successful participants (success 60 % and more): 12 (it is 75 %)
 Minimal success in this round: 43,4 %
 Maximal success in this round: 91,9 %

Number of participants: 16

in both samples: 10 (it is 63 %)

Number of the participants that succeeded: in one sample: 4 (it is 25 %)

in no sample: 2 (it is 13 %)