

SUMMARY STATISTICS

Filter: Slovakia

EQA round: DIF1/21 - Peripheral Blood Morphology Evaluation

Deadline (EQA round closed): 19.03.2021

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	0,000 - 0,018	0,000	0,630	0,550 - 0,700	0,584
Promyelocytes	0	0,000 - 0,018	0,000	0,003	0,000 - 0,028	0,005
Neutrophil myelocytes	0	0,000 - 0,018	0,000	0,020	0,005 - 0,050	0,017
Neutrophil metamyelocytes	0	0,000 - 0,018	0,000	0,009	0,000 - 0,036	0,009
Neutrophil bars	0,008	0,000 - 0,036	0,010	0,013	0,003 - 0,043	0,014
Segmented neutrophil granulocytes	0,423	0,356 - 0,497	0,425	0,073	0,043 - 0,121	0,068
Eosinophils - immature forms	0	0,000 - 0,018	0,000	0	0,000 - 0,018	0,000
Eosinophil segmented granulocytes	0,066	0,035 - 0,109	0,063	0,002	0,000 - 0,018	0,001
Basophilic granulocytes	0,011	0,001 - 0,036	0,011	0,003	0,000 - 0,028	0,003
Monocytes	0,087	0,050 - 0,133	0,076	0,089	0,030 - 0,140	0,077
Lymphocytes	0,404	0,366 - 0,477	0,413	0,144	0,099 - 0,202	0,208
Plasma cells	0	0,000 - 0,018	0,000	0	0,000 - 0,018	0,000
Erythroblasts (number)	0	0,000 - 2,000	0,000	1,000	0,000 - 4,000	1,265

Sample A				Sample B			
WBC - morphology							
10	No changes	42 %	>>> 4	Agranulation		17 %	
3	Agranulation	13 %	> 3	Hyosegmentation / asegmentation / pelgeroid		13 %	
> 4	Vacuolisation	17 %	1	Auer rods		4,2 %	
2	LGL/big lymphocytes	8,3 %	1	Döhle bodies		4,2 %	
>>> 11	Lymphocytes - reactive forms	46 %	> 3	Atypical/reactive/pathological monocytes/promono.		13 %	
1	Lymphocytes - atypical forms (except "hairy")	4,2 %	> 14	Denuded nuclei/cells, nuclear shadows / smudge cells		58 %	
			>>> 9	Vacuolisation		38 %	
			3	LGL/big lymphocytes		13 %	
			2	Lymphocytes - reactive forms		8,3 %	
			1	"Hairy" lymphocytes		4,2 %	
			6	Lymphocytes - atypical forms (except "hairy")		25 %	
			1	Nucleus fragments of neutrophiles		4,2 %	

WBC - relative changes of count							
5	Normal count	21 %	>>> 23	Neutropenia		96 %	
>>> 11	Neutropenia	46 %	2	Lymphocytosis		8,3 %	
6	Lymphocytosis	25 %	>>> 7	Lymphocytopenia		29 %	
> 16	Eosinophilia	67 %	> 4	Monocytosis		17 %	
> 2	Basophilia	8,3 %	1	Monocytopenia		4,2 %	
2	Monocytosis	8,3 %	>>> 18	Left shift		75 %	

RBC - morphology							
>>> 17	No changes	71 %	1	No changes		4,2 %	
9	Normocytosis	38 %	4	Normocytosis		17 %	
1	Microcytosis	4,2 %	1	Microcytosis		4,2 %	
2	Eliptocytes, ovalocytes	8,3 %	1	Macrocytosis		4,2 %	
1	Spherocytes	4,2 %	>>> 21	Anisocytosis		88 %	
1	Echinocytes	4,2 %	> 15	Poikilocytosis		63 %	
1	Target cells	4,2 %	>>> 10	Eliptocytes, ovalocytes		42 %	
1	Parasite inclusions (eg. malaric plasmodia)	4,2 %	> 5	Spherocytes		21 %	
1	RBC agglutination	4,2 %	2	Stomatocytes		8,3 %	
			1	Drepanocytes		4,2 %	
			>>> 21	Dacryocytes		88 %	
			1	Acanthocytes		4,2 %	
			1	Echinocytes		4,2 %	
			1	Target cells		4,2 %	
			>>> 9	Schistocytes (and other fragmentocytes)		38 %	

Sample A			Sample B		
RBC - morphology					
			4	Polychromasia	17 %
			2	Hypochromia	8,3 %
			> 5	Basophilic stippling	21 %
			3	Rouleaux formation	13 %
			1	RBC agglutination	4,2 %
Platelets - morphology					
> 16	No changes	67 %	2	No changes	8,3 %
> 7	Large platelets	29 %	>>> 20	Large platelets	83 %
			5	Small platelets	21 %
			2	Platelet aggregates	8,3 %
			>>> 12	Platelets hypogranulation	50 %
			>>> 8	Megakaryocytic nucleus fragments	33 %
Clinical recommendation - smear					
1	Blood smear is pathological	4,2 %	>>> 24	Blood smear is pathological	100 %
>>> 23	Blood smear within physiological limits or with reactive changes	96 %			
Clinical recommendation - examination					
>>> 24	An examination by the specialist/haematologist is not necessary	100 %	>>> 24	An examination by the specialist/haematologist is recommended	100 %
Diagnosis - anaemia					
			1	Exact determination impossible	4,2 %
			2	Normocytosis	8,3 %
			1	Hypochromia	4,2 %
Diagnosis - acute leukaemia					
2	Without closer determination	8,3 %	>>> 8	Without closer determination	33 %
2	AML (acute myeloid leukemia)	8,3 %	>>> 10	AML (acute myeloid leukemia)	42 %
Diagnosis - myelodysplastic syndrome					
			1	Myelodysplastic syndrome	4,2 %
Diagnosis - chronic myeloproliferative disease					
			11	Myelofibrosis	46 %
Diagnosis - mature lymphocytic cells neoplasms					
			1	Exact determination impossible	4,2 %
Diagnosis - platelets disorders					
			1	Thrombocytopenia	4,2 %
Diagnosis - other					
> 2	Viral infection incl. inf. mononucleosis	8,3 %			
1	Parasitic infection	4,2 %			
>>> 11	Other reactive changes	46 %			
> 9	Allergy	38 %			
2	Other disease	8,3 %			
Smear quality					
24	Acceptable	100 %	24	Acceptable	100 %
Staining					
24	Acceptable	100 %	24	Acceptable	100 %

Evaluation of the results - scoring system

DIF1/21

Sample A		Sample B	
Maximal achievable score: 69		Maximal achievable score: 123	
Successful participants (success 60 % and more): 23 (it is 96 %)		Successful participants (success 60 % and more): 17 (it is 71 %)	
Minimal success in this round: 58,0 %		Minimal success in this round: 20,3 %	
Maximal success in this round: 100,0 %		Maximal success in this round: 89,4 %	
Number of participants: 24			
in both samples: 17 (it is 71 %)			
Number of the participants that succeeded: in one sample: 6 (it is 25 %)			
in no sample: 1 (it is 4 %)			