

# SUMMARY STATISTICS

Filter: Slovakia

## EQA round: DIF2/18 - Peripheral Blood Morphology Evaluation

Dead line (EQA round closed): 25.05.2018

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
<b>WBC - differential count</b>						
Blasts	0,145	0,099 - 0,202	0,111	0	0,000 - 0,018	0,000
Promyelocytes	0	0,000 - 0,018	0,000	0	0,000 - 0,018	0,000
Neutrophil myelocytes	0,009	0,001 - 0,036	0,009	0	0,000 - 0,018	0,000
Neutrophil metamyelocytes	0,008	0,000 - 0,036	0,010	0	0,000 - 0,018	0,000
Neutrophil bars	0,042	0,017 - 0,077	0,043	0,009	0,000 - 0,036	0,011
Segmented neutrophil granulocytes	0,164	0,116 - 0,224	0,178	0,659	0,590 - 0,725	0,646
Eosinophil granulocytes - immature forms	0,001	0,000 - 0,018	0,001	0	0,000 - 0,018	0,000
Eosinophil segmented granulocytes	0,021	0,005 - 0,050	0,021	0,028	0,011 - 0,064	0,029
Basophilic granulocytes	0,017	0,003 - 0,043	0,015	0,006	0,000 - 0,028	0,007
Monocytes	0,263	0,205 - 0,332	0,244	0,047	0,021 - 0,084	0,050
Lymphocytes	0,339	0,275 - 0,410	0,349	0,253	0,196 - 0,321	0,254
Plasma cells	0	0,000 - 0,018	0,000	0	0,000 - 0,018	0,000
Erythroblasts (number)	1,000	0,000 - 4,000	1,891	0	0,000 - 2,000	0,000

Sample A			Sample B		
<b>WBC - morphology</b>					
2	No changes	11 %	> 8	No changes	42 %
1	Hypergranulation/toxic granulation	5,3 %	1	Agranulation	5,3 %
1	Giant bands and metamyelocytes	5,3 %	8	Hypersegmented granulocytes	42 %
7	Agranulation	37 %	4	Denuded nuclei/cells, nuclear shadows / smudge cells	21 %
3	Hyposegmentation or pseudo Pelger anomaly	16 %	2	Vacuolisation	11 %
>>> 10	Atypical/reactive monocytes	53 %	>>> 6	LGL/big lymphocytes	32 %
> 10	Denuded nuclei/cells, nuclear shadows / smudge cells	53 %	2	Lymphocytes - reactive forms	11 %
> 11	Vacuolisation	58 %			
2	LGL/big lymphocytes	11 %			
7	Lymphocytes - reactive forms	37 %			
4	Lymphocytes - atypical forms	21 %			
1	Nucleus fragments of neutrophils	5,3 %			

<b>WBC - relative changes of count</b>					
>>> 18	Neutropenia	95 %	>>> 18	Normal count	95 %
1	Neutrophilia	5,3 %	1	Eosinophilia	5,3 %
1	Lymphocytosis	5,3 %	1	Basophilia	5,3 %
> 10	Basophilia	53 %			
>>> 16	Monocytosis	84 %			
1	Monocytopenia	5,3 %			
>>> 12	Left shift	63 %			

<b>RBC - morphology</b>					
5	No changes	26 %	>>> 14	Microcytosis	74 %
> 9	Normocytosis	47 %	1	Macrocytosis	5,3 %
1	Microcytosis	5,3 %	>>> 19	Anisocytosis	100 %
1	Macrocytosis	5,3 %	> 7	Poikilocytosis	37 %
5	Anisocytosis	26 %	>>> 6	Eliptocytes, ovalocytes	32 %
1	Poikilocytosis	5,3 %	>>> 6	Spherocytes	32 %
1	Eliptocytes, ovalocytes	5,3 %	> 3	Stomatocytes	16 %
>>> 5	Spherocytes	26 %	5	Dacryocytes	26 %
1	Echinocytes	5,3 %	1	Acanthocytes	5,3 %
3	Polychromasia	16 %	>>> 11	Target cells	58 %
2	Hypochromia	11 %	> 5	Schistocytes (and other fragmentocytes)	26 %
> 4	Basophilic stippling	21 %	2	Polychromasia	11 %
1	Howell-Jolly bodies	5,3 %	>>> 18	Hypochromia	95 %
1	Rouleaux formation	5,3 %	1	Basophilic stippling	5,3 %

Sample A			Sample B				
<b>RBC - morphology</b>							
1	Pappenheimer bodies	5,3 %	>	1	Howell-Jolly bodies	5,3 %	
				2	Rouleaux formation	11 %	
				1	Pappenheimer bodies	5,3 %	
<b>Platelets - morphology</b>							
>>>	19	Large platelets	100 %	>	11	No changes	58 %
	3	Small platelets	16 %		3	Large platelets	16 %
>>>	16	Platelet aggregates	84 %		1	Small platelets	5,3 %
>	4	Platelets hypogranulation	21 %	>>>	10	Platelet aggregates	53 %
>	2	Megakaryocytic nucleus fragments	11 %		2	Platelets hypogranulation	11 %
<b>Clinical recommendation - smear</b>							
>>>	19	Blood smear is pathological	100 %	>>>	11	Blood smear is pathological	58 %
					8	Blood smear within physiological limits or with reactive changes	42 %
<b>Clinical recommendation - examination</b>							
>>>	19	An examination by the specialist/haematologist is recommended	100 %	>>>	14	An examination by the specialist/haematologist is recommended	74 %
					5	An examination by the specialist/haematologist is not necessary	26 %
<b>Diagnosis - anaemia</b>							
4	Normocytosis	21 %		4	Exact determination impossible	21 %	
				>>>	14	Microcytosis	74 %
				>>>	15	Hypochromia	79 %
<b>Diagnosis - acute leukaemia</b>							
>	2	Without closer determination	11 %				
>>>	17	AML (acute myeloid leukemia)	89 %				
<b>Diagnosis - myelodysplastic syndrome</b>							
>	4	Myelodysplastic syndrome	21 %				
<b>Diagnosis - chronic myeloproliferative disease</b>							
1	CML (chronic myelogenous leukaemia)	5,3 %					
<b>Diagnosis - platelets disorders</b>							
2	Thrombocytopenia	11 %					
<b>Diagnosis - other</b>							
				1	Other disease	5,3 %	
<b>Smear quality</b>							
15	Acceptable	79 %		16	Acceptable	84 %	
3	Not acceptable (give a reason)	16 %		2	Not acceptable (give a reason)	11 %	
<b>Staining</b>							
16	Acceptable	84 %		16	Acceptable	84 %	
2	Not acceptable (give a reason)	11 %		2	Not acceptable (give a reason)	11 %	

**Evaluation of the results - scoring system****DIF2/18**

Sample A		Sample B	
<b>Maximal achievable score: 93</b>		<b>Maximal achievable score: 105</b>	
Successful participants (success 60 % and more): 15 (it is 79 %)		Successful participants (success 60 % and more): 15 (it is 79 %)	
Minimal success in this round: 52,7 %		Minimal success in this round: 54,3 %	
Maximal success in this round: 94,6 %		Maximal success in this round: 92,4 %	
<b>Number of participants: 19</b>			
in both samples: 13 (it is 68 %)			
<b>Number of participants that succeeded:</b>		in one sample: 4 (it is 21 %)	
		in no sample: 2 (it is 11 %)	