

# SUMMARY STATISTICS

## EQA round: NF2/17 - Peripheral Blood Smears - Photos

Dead line (EQA round closed): 29.09.2017

Professional supervision: Czech Haematological Society  
National Reference Laboratory for Haematology

Key:	>>>	... marks correct (expected) result
	>	... marks conditionally correct (acceptable) result

### Photo 1

Object no.1 WBC and other nucleous elements - types of cells		1	Neutrophil metamyelocyte	1,8 %	
	>>>	52	Neutrophil bar	95 %	
		2	Neutrophil segment	3,6 %	
	WBC - morphology		6	No changes	11 %
	>>>	39	Hypergranulation/toxic granulation	71 %	
		5	Giant bands and metamyelocytes	9,1 %	
	>>>	17	Döhle bodies	31 %	
	>>>	29	Vacuolisation	53 %	
Object no.2 WBC and other nucleous elements - types of cells	>>>	55	Neutrophil segment	100 %	
WBC - morphology	>>>	43	No changes	78 %	
		6	Hypergranulation/toxic granulation	11 %	
		5	Hypersegmented granulocytes	9,1 %	
		1	Nucleocytoplasmatic asynchrony	1,8 %	
	RBC - morphology		3	Microcytosis	5,5 %
			7	Macrocytosis	13 %
>>>		54	Anisocytosis	98 %	
		3	Poikilocytosis	5,5 %	
		1	Eliptocytes, ovalocytes	1,8 %	
>>>		52	Spherocytes	95 %	
>>>		40	Stomatocytes	73 %	
>>>		53	Dacryocytes	96 %	
		1	Target cells	1,8 %	
		2	Schistocytes (and other fragmentocytes)	3,6 %	
		4	Polychromasia	7,3 %	
>		22	Basophilic stippling	40 %	
>		39	Howell-Jolly bodies	71 %	
		1	Rouleaux formation	1,8 %	
>	20	Pappenheimer bodies	36 %		
	>>>	26	Anisochromia	47 %	
		1	Knizocytes	1,8 %	
Platelets - morphology		10	Anisocytosis	18 %	
	>>>	55	Platelet aggregates	100 %	
		1	Platelet satellitism	1,8 %	
		5	Platelets hypogranulation	9,1 %	

### Photo 2

Object no.1 WBC and other nucleous elements - types of cells		3	Blast	5,5 %	
		4	Lymphocyte	7,3 %	
	>>>	45	Bare nuclei, smudge cell	82 %	
		1	Erythroblast	1,8 %	
	WBC - morphology		7	No changes	13 %
		1	Nucleocytoplasmatic asynchrony	1,8 %	
		5	Lymphocytes - atypical forms	9,1 %	
Object no.2 WBC and other nucleous elements - types of cells		1	Blast	1,8 %	
WBC - morphology	>>>	54	Lymphocyte	98 %	
	>>>	26	No changes	47 %	
		2	Lymphocytes - reactive forms	3,6 %	
		25	Lymphocytes - atypical forms	45 %	
	RBC - morphology		1	Normocytosis	1,8 %
		7	Microcytosis	13 %	
		1	Macrocytosis	1,8 %	

**Photo 2**

RBC - morphology	>>>	31	Anisocytosis	56 %
	>>>	46	Poikilocytosis	84 %
	>>>	54	Eliptocytes, ovalocytes	98 %
		1	Spherocytes	1,8 %
	>>>	51	Dacryocytes	93 %
	>>>	16	Acanthocytes	29 %
	>>>	28	Echinocytes	51 %
	>>>	51	Schistocytes (and other fragmentocytes)	93 %
		3	Polychromasia	5,5 %
	>>>	26	Hypochromia	47 %
		4	Basophilic stippling	7,3 %
		1	Rouleaux formation	1,8 %
		9	Anisochromia	16 %
		1	Knizocytes	1,8 %
	Platelets - morphology	>>>	48	Large platelets
		1	Small platelets	1,8 %
>>>		52	Anisocytosis	95 %
>>>		52	Platelets hypogranulation	95 %
>		18	Megakaryocytic nucleus fragments	33 %

**Photo 3**

Object no.1 WBC and other nucleous elements - types of cells		1	Blast	1,8 %
	>>>	54	Lymphocyte	98 %
WBC - morphology		1	Atypical/reactive monocytes	1,8 %
	>	28	Vacuolisation	51 %
		3	LGL/big lymphocytes	5,5 %
	>>>	36	Lymphocytes - reactive forms	65 %
		5	Lymphocytes - atypical forms	9,1 %
Object no.2 WBC and other nucleous elements - types of cells	>>>	55	Neutrophil segment	100 %
	WBC - morphology	>>>	39	No changes
		13	Hypergranulation/toxic granulation	24 %
		1	Hypersegmented granulocytes	1,8 %
		1	Döhle bodies	1,8 %
		1	Nucleus fragments of neutrophiles	1,8 %
RBC - morphology		7	Normocytosis	13 %
		3	Microcytosis	5,5 %
	>>>	13	Anisocytosis	24 %
		12	Poikilocytosis	22 %
	>>>	48	Eliptocytes, ovalocytes	87 %
	>>>	43	Stomatocytes	78 %
		13	Dacryocytes	24 %
	>>>	12	Acanthocytes	22 %
	>	35	Echinocytes	64 %
	>>>	35	Target cells	64 %
	>>>	30	Schistocytes (and other fragmentocytes)	55 %
	>>>	49	Hypochromia	89 %
		2	Howell-Jolly bodies	3,6 %
		4	Pappenheimer bodies	7,3 %
		>	33	Knizocytes
Platelets - morphology	>>>	43	No changes	78 %
		2	Small platelets	3,6 %
		5	Anisocytosis	9,1 %
		7	Platelets hypogranulation	13 %

**Photo 4**

Object no.1 WBC and other nucleous elements - types of cells	>>>	55	Bare nuclei, smudge cell	100 %
	WBC - morphology		9	No changes
		1	Hypogranulation/agranulation	1,8 %
	2	Nucleus fragments of neutrophiles	3,6 %	
Object no.2 WBC and other nucleous elements - types of cells	>>>	55	Neutrophil segment	100 %
	WBC - morphology		6	No changes
>>>		47	Hypogranulation/agranulation	85 %
		4	Hypersegmented granulocytes	7,3 %
		2	Vacuolisation	3,6 %
Object no.3 WBC and other nucleous elements - types of cells	>>>	55	Monocyte	100 %
	WBC - morphology	>>>	49	No changes

## Photo 4

Object no.3 WBC - morphology		1	Atypical/reactive monocytes	1,8 %	
		4	Vacuolisation	7,3 %	
Object no.4 WBC and other nucleous elements - types of cells		1	Neutrophil bar	1,8 %	
	>>>	54	Neutrophil segment	98 %	
	WBC - morphology		8	No changes	15 %
		>>>	46	Hypogranulation/agranulation	84 %
			1	Hyposegmentation or pseudo Pelger anomaly	1,8 %
			1	Nucleus fragments of neutrophiles	1,8 %
RBC - morphology		3	Microcytosis	5,5 %	
		14	Macrocytosis	25 %	
	>>>	53	Anisocytosis	96 %	
		12	Poikilocytosis	22 %	
	>>>	32	Spherocytes	58 %	
	>>>	53	Stomatocytes	96 %	
		2	Drepanocytes	3,6 %	
		1	Acanthocytes	1,8 %	
		7	Target cells	13 %	
	>>>	55	Schistocytes (and other fragmentocytes)	100 %	
	>>>	50	Polychromasia	91 %	
		2	Hypochromia	3,6 %	
		2	Basophilic stippling	3,6 %	
		4	Howell-Jolly bodies	7,3 %	
		1	Cabot rings	1,8 %	
		1	Malarial plasmodias	1,8 %	
	>>>	40	Pappenheimer bodies	73 %	
		5	Anisochromia	9,1 %	
	>>>	46	Knizocytes	84 %	
	Platelets - morphology		41	No changes	75 %
		2	Anisocytosis	3,6 %	
>>>		16	Platelets hypogranulation	29 %	

## Evaluation of the results - scoring system

## NF2/17

	Photo 1 60	Photo 2 70	Photo 3 60	Photo 4 75
<b>Maximal achievable score:</b>				
Successful participants (success 60 % and more):	50 (it is 91 %)	45 (it is 82 %)	39 (it is 71 %)	51 (it is 93 %)
Minimal success in this round:	46,7 %	45,7 %	35,0 %	52,0 %
Maximal success in this round:	98,3 %	100,0 %	100,0 %	100,0 %
<b>Number of participants: 55</b>				
<b>Number of participants that succeeded:</b>	}	in all 4 photos:	33 (it is 60 %)	
		in 3 photos:	12 (it is 22 %)	
		in 2 photos:	8 (it is 15 %)	
		in 1 photo:	1 (it is 2 %)	
		in no photo:	1 (it is 2 %)	