Summary statistics - qualitative results

EQA round: NKDF2/26 - Bone Marrow Aspirate Film

Deadline: 25.9.2026

Setup: all data

AV = assigned value
CVE = consensus of the experts
>>> ... expected result
> ... acceptable result
± ... result not assessed

N_{tot} = total number of the results
N_{rel} = relative number of the results

N_{eva} = number of the results assessed
N_{suc} = number of successful results
S_{rel} = relative success

Sample / Test / Group	AV	N_{tot}	N_{rel} [%]	Result	N_{eva}	N_{suc}	S_{rel} [%]
Photo							
Photo A1							
(941) **Object no. 1: type of cell**							
All results	CVE >>>	49	82	Lymphocyte pop.: Plasmocyte			
		4	6,7	Other cells: Macrophage			
		7	12	Other cells: Osteoblast			
(942) **Object no. 1: morphology**							
All results		11	18	Not specified			
	CVE >>>	38	63	Lymphocyte pop.: Normal lymphocyte/plasmocyte			
	>	11	18	Lymphocyte pop.: Patological plasmocyte/plasmablast			
(943) **Object no. 2: type of cell**							
All results	CVE >>>	60	100	Granulopoiesis: Eosinophil segment			
(944) **Object no. 2: morphology**							
All results	>	16	27	Granulopoiesis: Normal finding			
		3	5	Granulopoiesis: Hypergranularity/toxic granulation			
	>	43	72	Granulopoiesis: Cytoplasmatic vacuolisation			
		1	1,7	Erythropoiesis: Cytoplasmatic vacuolisation			
(945) **Object no. 3: type of cell**							
All results	CVE >>>	60	100	Erythropoiesis: Polychromatophil erythroblast			
(946) **Object no. 3: morphology**							
All results		1	1,7	Granulopoiesis: Normal finding			
	>	31	52	Erythropoiesis: Normal finding			
	>	24	40	Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
		4	6,7	Erythropoiesis: Cytoplasmatic vacuolisation			
(947) **Object no. 4: type of cell**							
All results		2	3,3	Granulopoiesis: Myeloblast			
	CVE >>>	36	60	Lymphocyte pop.: Lymphoblast			
	>	22	37	Other cells: Blast, unclassifiable			
(948) **Object no. 4: morphology**							
All results	CVE >>>	59	98	Not specified			
		1	1,7	Lymphocyte pop.: Patological lymphocyte			
(949) **Object no. 5: type of cell**							
All results		1	1,7	Other cells: Macrophage			
	CVE >>>	59	98	Other cells: Bare nuclei / smudge cell			
(950) **Object no. 5: morphology**							
All results	CVE >>>	60	100	Not specified			
(951) **Overall assessment (photos - score)**		60			60	57	95
Maximum score achievable: 52 points — Criterion (60 % out of the maximum): 32 points							
Minimum score achieved: 22 points (42,3 %)							
Maximum score achieved: 52 points (100 %)							
All results		3	5	Unacceptable result			
	>>>	57	95	Satisfactory result			
Photo A2							
(941) **Object no. 1: type of cell**							
All results		18	30	Erythropoiesis: Polychromatophil erythroblast			
	CVE >>>	42	70	Erythropoiesis: Orthochromatic erythroblast			
(942) **Object no. 1: morphology**							
All results		1	1,7	Granulopoiesis: Normal finding			
		11	18	Erythropoiesis: Normal finding			
	CVE >>>	46	77	Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
		4	6,7	Erythropoiesis: Cytoplasmatic vacuolisation			
		10	17	Erythropoiesis: Nucleocytoplasmatic asynchrony			
		1	1,7	Erythropoiesis: Macroerythroblast			
(943) **Object no. 2: type of cell**							
All results	CVE >>>	60	100	Granulopoiesis: Eosinophil segment			
(944) **Object no. 2: morphology**							
All results	>	16	27	Granulopoiesis: Normal finding			
		2	3,3	Granulopoiesis: Hypergranularity/toxic granulation			

Summary statistics - qualitative results

EQA round: NKDF2/26 - Bone Marrow Aspirate Film

Deadline: 25.9.2026

Setup: all data

Sample / Test / Group		AV	N_{tot}	N_{rel} [%]	Result	N_{eva}	N_{suc}	S_{rel} [%]
			1	1,7	Granulopoiesis: Neutrophil disgranularity			
	CVE	>>>	41	68	Granulopoiesis: Cytoplasmatic vacuolisation			
			14	23	Granulopoiesis: Eosinophil hypersegmentation			
(945) **Object no. 3: type of cell**								
All results			4	6,7	Granulopoiesis: Myeloblast			
	CVE	>>>	36	60	Lymphocyte pop.: Lymphoblast			
		>	20	33	Other cells: Blast, unclassifiable			
(946) **Object no. 3: morphology**								
All results	CVE	>>>	53	88	Not specified			
			1	1,7	Granulopoiesis: Normal finding			
			2	3,3	Granulopoiesis: Cytoplasmatic vacuolisation			
			1	1,7	Lymphocyte pop.: Patological lymphocyte			
		>	3	5	Lymphocyte pop.: Cytoplasmatic vacuolisation			
(947) **Object no. 4: type of cell**								
All results	CVE	>>>	60	100	Granulopoiesis: Neutrophil segment			
(948) **Object no. 4: morphology**								
All results			8	13	Granulopoiesis: Normal finding			
	CVE	>>>	46	77	Granulopoiesis: Hypo-/agranularity			
			1	1,7	Granulopoiesis: Nucleocytoplasmatic asynchrony			
		>	17	28	Granulopoiesis: Neutrophil hypersegmentation			
		>	7	12	Granulopoiesis: Abnormal chromatin clumping			
(949) **Object no. 5: type of cell**								
All results			1	1,7	Granulopoiesis: Neutrophil myelocyte			
	CVE	>>>	58	97	Granulopoiesis: Eosinophil myelocyte			
			1	1,7	Granulopoiesis: Eosinophil metamyelocyte			
(950) **Object no. 5: morphology**								
All results			4	6,7	Not specified			
		>	13	22	Granulopoiesis: Normal finding			
		>	18	30	Granulopoiesis: Hypergranularity/toxic granulation			
			3	5	Granulopoiesis: Neutrophil disgranularity			
		>	19	32	Granulopoiesis: Nucleocytoplasmatic asynchrony			
			4	6,7	Granulopoiesis: Abnormal chromatin clumping			
(951) **Overall assessment (photos - score)**			60			60	51	85
Maximum score achievable: 56 points		Criterion (60 % out of the maximum): 34 points						
Minimum score achieved: 20 points (35,7 %)								
Maximum score achieved: 56 points (100 %)								
All results			9	15	Unacceptable result			
		>>>	51	85	Satisfactory result			

Photo B1

(941) **Object no. 1: type of cell**								
All results	CVE	>>>	42	70	Erythropoiesis: Polychromatophil erythroblast			
		>	18	30	Erythropoiesis: Orthochromatic erythroblast			
(942) **Object no. 1: morphology**								
All results			1	1,7	Granulopoiesis: Normal finding			
	CVE	>>>	43	72	Erythropoiesis: Normal finding			
		>	14	23	Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
			2	3,3	Erythropoiesis: Nucleocytoplasmatic asynchrony			
			1	1,7	Erythropoiesis: Intercytoplasmatic bridges			
(943) **Object no. 2: type of cell**								
All results			2	3,3	Lymphocyte pop.: Lymphoblast			
		>	2	3,3	Lymphocyte pop.: Prolymphocyte			
	CVE	>>>	55	92	Lymphocyte pop.: Lymphocyte			
			1	1,7	Other cells: Blast, unclassifiable			
(944) **Object no. 2: morphology**								
All results			1	1,7	Not specified			
			1	1,7	Granulopoiesis: Cytoplasmatic vacuolisation			
	CVE	>>>	58	97	Lymphocyte pop.: Patological lymphocyte			
	CVE	>>>	31	52	Lymphocyte pop.: Cytoplasmatic vacuolisation			
(945) **Object no. 3: type of cell**								
All results	CVE	>>>	60	100	Granulopoiesis: Neutrophil bar			
(946) **Object no. 3: morphology**								
All results		>	16	27	Granulopoiesis: Normal finding			
			7	12	Granulopoiesis: Hypergranularity/toxic granulation			
			1	1,7	Granulopoiesis: Neutrophil disgranularity			
	CVE	>>>	39	65	Granulopoiesis: Cytoplasmatic vacuolisation			

Summary statistics - qualitative results

EQA round: NKDF2/26 - Bone Marrow Aspirate Film

Deadline: 25.9.2026

Setup: all data

Sample / Test / Group	AV	N_{tot}	N_{rel} [%]	Result	N_{eva}	N_{suc}	S_{rel} [%]
		2	3,3	Granulopoiesis: Megalostabs and megalometamyelocytes			
		1	1,7	Granulopoiesis: Döhle bodies			
		2	3,3	Granulopoiesis: Abnormal chromatin clumping			
(947) **Object no. 4: type of cell**							
All results	CVE >>>	56	93	Lymphocyte pop.: Lymphocyte			
		4	6,7	Lymphocyte pop.: LGL (large granular lymphocyte)			
(948) **Object no. 4: morphology**							
All results		3	5	Lymphocyte pop.: Normal lymphocyte/plasmocyte			
	CVE >>>	54	90	Lymphocyte pop.: Reactive lymphocyte			
		3	5	Lymphocyte pop.: Patological lymphocyte			
(949) **Object no. 5: type of cell**							
All results		3	5	Granulopoiesis: Promyelocyte			
	CVE >>>	55	92	Granulopoiesis: Neutrophil myelocyte			
		2	3,3	Granulopoiesis: Eosinophil myelocyte			
(950) **Object no. 5: morphology**							
All results		7	12	Granulopoiesis: Normal finding			
		1	1,7	Granulopoiesis: Hypo-/agranularity			
		6	10	Granulopoiesis: Hypergranularity/toxic granulation			
	CVE >>>	13	22	Granulopoiesis: Neutrophil disgranularity			
	CVE >>>	45	75	Granulopoiesis: Cytoplasmatic vacuolisation			
		8	13	Granulopoiesis: Nucleocytoplasmatic asynchrony			
(951) **Overall assessment (photos - score)**		60			60	51	85
Maximum score achievable: 68 points	Criterion (60 % out of the maximum): 41 points						
Minimum score achieved: 16 points (23,5 %)							
Maximum score achieved: 68 points (100 %)							
All results		9	15	Unacceptable result			
	>>>	51	85	Satisfactory result			

Photo B2

(941) **Object no. 1: type of cell**							
All results	>	17	28	Erythropoiesis: Polychromatophil erythroblast			
	CVE >>>	43	72	Erythropoiesis: Orthochromatic erythroblast			
(942) **Object no. 1: morphology**							
All results		1	1,7	Granulopoiesis: Normal finding			
	CVE >>>	32	53	Erythropoiesis: Normal finding			
	>	20	33	Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
		1	1,7	Erythropoiesis: Cytoplasmatic vacuolisation			
		4	6,7	Erythropoiesis: Nucleocytoplasmatic asynchrony			
		1	1,7	Erythropoiesis: Microerythroblast			
		1	1,7	Erythropoiesis: Intercytoplasmatic bridges			
(943) **Object no. 2: type of cell**							
All results		7	12	Granulopoiesis: Promyelocyte			
	CVE >>>	51	85	Granulopoiesis: Neutrophil myelocyte			
		1	1,7	Granulopoiesis: Neutrophil metamyelocyte			
		1	1,7	Granulopoiesis: Eosinophil myelocyte			
(944) **Object no. 2: morphology**							
All results	>	30	50	Granulopoiesis: Normal finding			
	CVE >>>	22	37	Granulopoiesis: Hypergranularity/toxic granulation			
		1	1,7	Granulopoiesis: Cytoplasmatic vacuolisation			
		8	13	Granulopoiesis: Nucleocytoplasmatic asynchrony			
(945) **Object no. 3: type of cell**							
All results		6	10	Granulopoiesis: Promyelocyte			
	CVE >>>	40	67	Granulopoiesis: Neutrophil myelocyte			
		14	23	Granulopoiesis: Neutrophil metamyelocyte			
(946) **Object no. 3: morphology**							
All results	>	20	33	Granulopoiesis: Normal finding			
		4	6,7	Granulopoiesis: Hypergranularity/toxic granulation			
	CVE >>>	23	38	Granulopoiesis: Neutrophil disgranularity			
		10	17	Granulopoiesis: Cytoplasmatic vacuolisation			
		19	32	Granulopoiesis: Nucleocytoplasmatic asynchrony			
(947) **Object no. 4: type of cell**							
All results	CVE >>>	54	90	Granulopoiesis: Neutrophil bar			
		6	10	Granulopoiesis: Neutrophil segment			
(948) **Object no. 4: morphology**							
All results	CVE >>>	52	87	Granulopoiesis: Normal finding			

Summary statistics - qualitative results

EQA round: NKDF2/26 - Bone Marrow Aspirate Film

Deadline: 25.9.2026

Setup: all data

Sample / Test / Group		AV	N_{tot}	N_{rel} [%]	Result	N_{eva}	N_{suc}	S_{rel} [%]
			4	6,7	Granulopoiesis: Hypo-/agranularity			
			1	1,7	Granulopoiesis: Hypergranularity/toxic granulation			
			1	1,7	Granulopoiesis: Neutrophil disgranularity			
			1	1,7	Granulopoiesis: Neutrophil and eosinophil hyposegmentation and acquired Pelger-Huët anomaly			
			1	1,7	Granulopoiesis: Abnormal chromatin clumping			
(949) **Object no. 5: type of cell**								
All results	CVE	>>>	60	100	Lymphocyte pop.: Lymphocyte			
(950) **Object no. 5: morphology**								
All results	CVE	>>>	18	30	Lymphocyte pop.: Normal lymphocyte/plasmocyte			
		>	42	70	Lymphocyte pop.: Patological lymphocyte			
(951) **Overall assessment (photos - score)**			60			60	37	62
Maximum score achievable: 60 points		Criterion (60 % out of the maximum): 36 points						
Minimum score achieved: 10 points (16,7 %)								
Maximum score achieved: 58 points (96,7 %)								
All results			23	38	Unacceptable result			
		>>>	37	62	Satisfactory result			

General view

Patient A

(955) **Cellularity**								
All results	CVE	>>>	60	100	Hypercellular			
(956) **Granulopoiesis - count**								
All results	CVE	>>>	60	100	Decreased			
(957) **Granulopoiesis - morphology**								
All results	CVE	>>>	28	47	No significant changes			
			11	18	Dyspalstic granulopoiesis			
		>	15	25	Atypical/toxic granulopoiesis			
			6	10	Pathological (clonal) granulopoiesis			
(958) **Erythropoiesis - count**								
All results			6	10	Within physiological limits			
	CVE	>>>	54	90	Decreased			
(959) **Erythropoiesis - morphology**								
All results	CVE	>>>	51	85	No significant changes			
			6	10	Dysplastic erythropoiesis			
			3	5	Atypical erythropoiesis			
(960) **Lymphopoiesis - count**								
All results			4	6,7	Within physiological limits			
	CVE	>>>	33	55	Increased			
		>	23	38	Decreased			
(961) **Lymphopoiesis - morphology**								
All results		>	19	32	No significant changes			
	CVE	>>>	41	68	Pathological lymphopoiesis			
(966) **Estimation of diagnosis**								
All results			3	5	Acute myeloid leukaemia - all types according to WHO (excl. APL)			
	CVE	>>>	41	68	Precursor B a T lymfoblastic neoplasmata			
		>	15	25	Acute leukaemia, unclassifiable			
			1	1,7	DLBCL (diffuse large B-cell lymphoma)			
(967) **Overall assessment (description - score)**			60			60	41	68
Maximum score achievable: 18 points		Criterion (60 % out of the maximum): 11 points						
Minimum score achieved: 2 points (11,1 %)								
Maximum score achieved: 18 points (100 %)								
All results			19	32	Unacceptable result			
		>>>	41	68	Satisfactory result			

Patient B

(955) **Cellularity**								
All results	CVE	>>>	34	57	Normocellular			
		>	26	43	Hypocellular			
(956) **Granulopoiesis - count**								
All results			4	6,7	Within physiological limits			
	CVE	>>>	56	93	Decreased			
(957) **Granulopoiesis - morphology**								
All results		>	40	67	No significant changes			
			7	12	Dyspalstic granulopoiesis			
	CVE	>>>	13	22	Atypical/toxic granulopoiesis			

Summary statistics - qualitative results

EQA round: NKDF2/26 - Bone Marrow Aspirate Film

Deadline: 25.9.2026

Setup: all data

Sample / Test / Group		AV	N_{tot}	N_{rel} [%]	Result	N_{eva}	N_{suc}	S_{rel} [%]
					Frequency of the results			**Success**
(958) **Erythropoiesis - count**								
All results		>	35	58	Within physiological limits			
	CVE	>>>	25	42	Decreased			
(959) **Erythropoiesis - morphology**								
All results	CVE	>>>	53	88	No significant changes			
			3	5	Dysplastic erythropoiesis			
			1	1,7	Macroerythroblastic erythropoiesis			
			3	5	Atypical erythropoiesis			
(960) **Lymphopoiesis - count**								
All results	CVE	>>>	60	100	Increased			
(961) **Lymphopoiesis - morphology**								
All results	CVE	>>>	60	100	Pathological lymphopoiesis			
(964) **Megakaryopoiesis - count**								
All results	CVE	>>>	60	100	Within physiological limits			
(965) **Megakaryopoiesis - morphology**								
All results	CVE	>>>	49	82	No significant changes			
			6	10	Dysplastic megakaryopoiesis			
			5	8,3	Atypical megakaryopoiesis			
(966) **Estimation of diagnosis**								
All results			1	1,7	Precursor B a T lymfoblastic neoplasmata			
			6	10	DLBCL (diffuse large B-cell lymphoma)			
	CVE	>>>	34	57	Marginal zone lymphoma			
	CVE	>>>	19	32	Mature B and T lymphocytes neoplasms (unclassifiable)			
(967) **Overall assessment (description - score)**			60			60	51	85
Maximum score achievable: 22 points		Criterion (60 % out of the maximum): 14 points						
Minimum score achieved: 8 points (36,4 %)								
Maximum score achieved: 22 points (100 %)								
All results			9	15	Unacceptable result			
		>>>	51	85	Satisfactory result			

Summary for all samples

(951) **Overall assessment (photos - score)**			60			60	53	88
(967) **Overall assessment (description - score)**			60			60	37	62