

Setup: all data

AV = assigned value

CVE = consensus of the experts

>>> ... expected result

> ... acceptable result

± ... result not assessed

N_{tot} = total number of the resultsN_{rel} = relative number of the resultsN_{eva} = number of the results assessedN_{suc} = number of successful resultsS_{rel} = relative success

Sample Test Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]

Photo**Photo A1****(941) Object no. 1: type of cell**

All results

1	2,2	Granulopoiesis: Promyelocyte
2	4,3	Granulopoiesis: Neutrophil myelocyte
2	4,3	Granulopoiesis: Neutrophil metamyelocyte
2	4,3	Granulopoiesis: Atypical granulocyte / myelomonocyte
3	6,5	Lymphocyte pop.: Lymphocyte
1	2,2	Lymphocyte pop.: LGL (large granular lymphocyte)
2	4,3	Monocyte pop: Promonocyte
CVE >>>	33	72 Monocyte pop: Monocyte

(942) Object no. 1: morphology

All results

1	2,2	Not specified
1	2,2	Granulopoiesis: Normal finding
6	13	Granulopoiesis: Hypo-/agranularity
1	2,2	Granulopoiesis: Nucleocytoplasmatic asynchrony
1	2,2	Lymphocyte pop.: Reactive lymphocyte
3	6,5	Lymphocyte pop.: Patological lymphocyte
CVE >>>	31	67 Monocyte pop: Normal finding
3	6,5	Monocyte pop: Atypical/reactive monocyte

(943) Object no. 2: type of cell

All results

CVE >>>	20	43 Granulopoiesis: Promyelocyte
CVE >>>	24	52 Granulopoiesis: Neutrophil myelocyte
1	2,2	Granulopoiesis: Eosinophil myelocyte
1	2,2	Granulopoiesis: Basophil myelocyte

(944) Object no. 2: morphology

All results

>	20	43 Granulopoiesis: Normal finding
2	4,3	Granulopoiesis: Hypo-/agranularity
7	15	Granulopoiesis: Hypergranularity/toxic granulation
>	18	39 Granulopoiesis: Neutrophil disgranularity
1	2,2	Granulopoiesis: Cytoplasmatic vacuolisation
CVE >>>	10	22 Granulopoiesis: Nucleocytoplasmatic asynchrony
1	2,2	Granulopoiesis: Döhle bodies

(945) Object no. 3: type of cell

All results

15	33	Erythropoiesis: Polychromatophil erythroblast
CVE >>>	31	67 Erythropoiesis: Orthochromatic erythroblast

(946) Object no. 3: morphology

All results

1	2,2	Granulopoiesis: Nucleocytoplasmatic asynchrony
2	4,3	Erythropoiesis: Normal finding
CVE >>>	41	89 Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation
>	7	15 Erythropoiesis: Cytoplasmatic vacuolisation
2	4,3	Erythropoiesis: Nucleocytoplasmatic asynchrony

(947) Object no. 4: type of cell

All results

2	4,3	Granulopoiesis: Myeloblast
3	6,5	Lymphocyte pop.: Lymphoblast
CVE >>>	39	85 Other cells: Blast, unclassifiable
2	4,3	Other cells: Nonhaematopoetic malignant cell

(949) Object no. 5: type of cell

All results

>	6	13 Granulopoiesis: Promyelocyte
CVE >>>	38	83 Granulopoiesis: Neutrophil myelocyte
2	4,3	Granulopoiesis: Eosinophil myelocyte

(950) Object no. 5: morphology

All results

>	19	41 Granulopoiesis: Normal finding
4	8,7	Granulopoiesis: Hypo-/agranularity
5	11	Granulopoiesis: Hypergranularity/toxic granulation
>	14	30 Granulopoiesis: Neutrophil disgranularity
>	14	30 Granulopoiesis: Nucleocytoplasmatic asynchrony
1	2,2	Granulopoiesis: Döhle bodies

Setup: all data

Sample Test Group	Frequency of the results			Success			
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
(951) Overall assessment (photo)		46			46	29	63
Maximum score achievable: 52 points				Criterion (60 % out of the maximum): 32 points			
Minimum score achieved: -14 points (-26,9 %)							
Maximum score achieved: 52 points (100 %)							
All results		17	37	Unacceptable result			
	>>>	29	63	Correct result			

Photo A2

(941) Object no. 1: type of cell

All results		4	8,7	Lymphocyte pop.: Lymphoblast
		3	6,5	Lymphocyte pop.: Lymphocyte
	CVE >>>	36	78	Other cells: Blast, unclassifiable
		2	4,3	Other cells: Nonhaematopoietic malignant cell
		1	2,2	Other cells: Bare nuclei / smudge cell

(943) Object no. 2: type of cell

All results	CVE >>>	46	100	Granulopoiesis: Neutrophil segment
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(944) Object no. 2: morphology

All results	CVE >>>	36	78	Granulopoiesis: Normal finding
		4	8,7	Granulopoiesis: Hypo-/agranularity
		2	4,3	Granulopoiesis: Hypergranularity/toxic granulation
		1	2,2	Granulopoiesis: Neutrophil disgranularity
		1	2,2	Granulopoiesis: Neutrophil hypersegmentation
		4	8,7	Granulopoiesis: Abnormal chromatin clumping

(945) Object no. 3: type of cell

All results		3	6,5	Granulopoiesis: Neutrophil myelocyte
		1	2,2	Granulopoiesis: Atypical granulocyte / myelomonocyte
		6	13	Lymphocyte pop.: Lymphocyte
		3	6,5	Monocyte pop: Promonocyte
	CVE >>>	33	72	Monocyte pop: Monocyte

(946) Object no. 3: morphology

All results		4	8,7	Granulopoiesis: Hypo-/agranularity
		1	2,2	Lymphocyte pop.: Reactive lymphocyte
		5	11	Lymphocyte pop.: Pathological lymphocyte
	CVE >>>	28	61	Monocyte pop: Normal finding
		8	17	Monocyte pop: Atypical/reactive monocyte

(947) Object no. 4: type of cell

All results		1	2,2	Granulopoiesis: Neutrophil segment
	CVE >>>	45	98	Granulopoiesis: Eosinophil segment

(948) Object no. 4: morphology

All results	CVE >>>	26	57	Granulopoiesis: Normal finding
		1	2,2	Granulopoiesis: Hypo-/agranularity
		1	2,2	Granulopoiesis: Hypergranularity/toxic granulation
		1	2,2	Granulopoiesis: Neutrophil disgranularity
	>	17	37	Granulopoiesis: Cytoplasmatic vacuolisation
		2	4,3	Granulopoiesis: Neutrophil and eosinophil hyposegmentation and acquired Pelger-Huët anomaly

(949) Object no. 5: type of cell

All results		3	6,5	Erythropoiesis: Proerythroblast
	CVE >>>	33	72	Erythropoiesis: Basophilic erythroblast
		9	20	Erythropoiesis: Polychromatophil erythroblast
		1	2,2	Erythropoiesis: Orthochromatic erythroblast

(950) Object no. 5: morphology

All results	CVE >>>	31	67	Erythropoiesis: Normal finding
		1	2,2	Erythropoiesis: Pycnosis of nucleus
		2	4,3	Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation
		4	8,7	Erythropoiesis: Nucleocytoplasmatic asynchrony
	>	6	13	Erythropoiesis: Macroerythroblast
		1	2,2	Erythropoiesis: Megaloerythroblast
		2	4,3	Erythropoiesis: Abnormal chromatin clumping
		1	2,2	Megakaryopoiesis: Normal finding

(951) Overall assessment (photo)		46			46	36	78
Maximum score achievable: 56 points				Criterion (60 % out of the maximum): 34 points			
Minimum score achieved: 2 points (3,6 %)							
Maximum score achieved: 56 points (100 %)							
All results		10	22	Unacceptable result			
	>>>	36	78	Correct result			

Setup: all data

Sample Test Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
Photo B1							
(941) Object no. 1: type of cell							
All results	CVE >>>	46	100	Granulopoiesis: Neutrophil segment			
(942) Object no. 1: morphology							
All results	CVE >>>	28	61	Granulopoiesis: Normal finding			
		6	13	Granulopoiesis: Hypo-/agranularity			
		4	8,7	Granulopoiesis: Neutrophil disgranularity			
		3	6,5	Granulopoiesis: Cytoplasmatic vacuolisation			
		2	4,3	Granulopoiesis: Nucleocytoplasmatic asynchrony			
		2	4,3	Granulopoiesis: Neutrophil hypersegmentation			
		3	6,5	Granulopoiesis: Neutrophil and eosinophil hyposegmentation and acquired Pelger-Huët anomaly			
		1	2,2	Granulopoiesis: Döhle bodies			
		1	2,2	Granulopoiesis: Abnormal chromatin clumping			
(943) Object no. 2: type of cell							
All results		1	2,2	Granulopoiesis: Promyelocyte			
	CVE >>>	36	78	Granulopoiesis: Neutrophil myelocyte			
	>	9	20	Granulopoiesis: Neutrophil metamyelocyte			
(944) Object no. 2: morphology							
All results	CVE >>>	27	59	Granulopoiesis: Normal finding			
		7	15	Granulopoiesis: Hypergranularity/toxic granulation			
		4	8,7	Granulopoiesis: Neutrophil disgranularity			
		2	4,3	Granulopoiesis: Cytoplasmatic vacuolisation			
	>	11	24	Granulopoiesis: Nucleocytoplasmatic asynchrony			
		2	4,3	Granulopoiesis: Döhle bodies			
		2	4,3	Granulopoiesis: Abnormal chromatin clumping			
(945) Object no. 3: type of cell							
All results	CVE >>>	46	100	Granulopoiesis: Neutrophil bar			
(946) Object no. 3: morphology							
All results		7	15	Granulopoiesis: Normal finding			
	>	18	39	Granulopoiesis: Hypergranularity/toxic granulation			
		5	11	Granulopoiesis: Neutrophil disgranularity			
	CVE >>>	19	41	Granulopoiesis: Cytoplasmatic vacuolisation			
	>	10	22	Granulopoiesis: Nucleocytoplasmatic asynchrony			
		6	13	Granulopoiesis: Döhle bodies			
		1	2,2	Granulopoiesis: Abnormal chromatin clumping			
(947) Object no. 4: type of cell							
All results	CVE >>>	46	100	Erythropoiesis: Orthochromatic erythroblast			
(948) Object no. 4: morphology							
All results		1	2,2	Granulopoiesis: Normal finding			
	CVE >>>	25	54	Erythropoiesis: Normal finding			
	>	11	24	Erythropoiesis: Pycnosis of nucleus			
		9	20	Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
		2	4,3	Erythropoiesis: Nucleocytoplasmatic asynchrony			
		2	4,3	Erythropoiesis: Microerythroblast			
		1	2,2	Erythropoiesis: Pappenheimer bodies			
(949) Object no. 5: type of cell							
All results		5	11	Granulopoiesis: Neutrophil bar			
	CVE >>>	40	87	Granulopoiesis: Neutrophil segment			
		1	2,2	Granulopoiesis: Eosinophil segment			
(950) Object no. 5: morphology							
All results		5	11	Granulopoiesis: Hypo-/agranularity			
		2	4,3	Granulopoiesis: Hypergranularity/toxic granulation			
	>	9	20	Granulopoiesis: Neutrophil disgranularity			
	CVE >>>	46	100	Granulopoiesis: Cytoplasmatic vacuolisation			
	>	8	17	Granulopoiesis: Nucleocytoplasmatic asynchrony			
		2	4,3	Granulopoiesis: Döhle bodies			
		1	2,2	Granulopoiesis: Abnormal chromatin clumping			
(951) Overall assessment (photo)							
		46		46	41	89	
Maximum score achievable: 60 points		Criterion (60 % out of the maximum): 36 points					
Minimum score achieved: 30 points (50 %)							
Maximum score achieved: 60 points (100 %)							
All results		5	11	Unacceptable result			
	>>>	41	89	Correct result			

Setup: all data

Sample Test Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]

Photo B2**(941) Object no. 1: type of cell**

All results			1	2,2	Erythropoiesis: Polychromatophil erythroblast			
	CVE >>>	45	98		Erythropoiesis: Orthochromatic erythroblast			

(942) Object no. 1: morphology

All results			1	2,2	Granulopoiesis: Normal finding			
	CVE >>>	17	37		Erythropoiesis: Normal finding			
	>	10	22		Erythropoiesis: Pycnosis of nucleus			
	>	18	39		Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
			4	8,7	Erythropoiesis: Cytoplasmatic vacuolisation			
			2	4,3	Erythropoiesis: Nucleocytoplasmatic asynchrony			
			2	4,3	Erythropoiesis: Microerythroblast			

(943) Object no. 2: type of cell

All results			26	57	Granulopoiesis: Neutrophil bar			
	CVE >>>	20	43		Granulopoiesis: Neutrophil segment			

(944) Object no. 2: morphology

All results			7	15	Granulopoiesis: Normal finding			
	CVE >>>	12	26		Granulopoiesis: Hypo-/agranularity			
			5	11	Granulopoiesis: Neutrophil disgranularity			
			4	8,7	Granulopoiesis: Cytoplasmatic vacuolisation			
	>	11	24		Granulopoiesis: Nucleocytoplasmatic asynchrony			
			6	13	Granulopoiesis: Neutrophil and eosinophil hyposegmentation and acquired Pelger-Huët anomaly			
	>	16	35		Granulopoiesis: Döhle bodies			
			3	6,5	Granulopoiesis: Abnormal chromatin clumping			

(945) Object no. 3: type of cell

All results			46	100	Erythropoiesis: Orthochromatic erythroblast			
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(946) Object no. 3: morphology

All results			12	26	Erythropoiesis: Pycnosis of nucleus			
	CVE >>>	31	67		Erythropoiesis: Disturbance of cytoplasmatic haemoglobinisation			
			1	2,2	Erythropoiesis: Cytoplasmatic vacuolisation			
	CVE >>>	46	100		Erythropoiesis: Basophilic stippling			
			1	2,2	Erythropoiesis: Nucleocytoplasmatic asynchrony			
			2	4,3	Erythropoiesis: Microerythroblast			

(947) Object no. 4: type of cell

All results			1	2,2	Granulopoiesis: Neutrophil myelocyte			
	CVE >>>	44	96		Granulopoiesis: Neutrophil metamyelocyte			
			1	2,2	Granulopoiesis: Eosinophil metamyelocyte			

(948) Object no. 4: morphology

All results			16	35	Granulopoiesis: Normal finding			
	>	15	33		Granulopoiesis: Hypergranularity/toxic granulation			
			1	2,2	Granulopoiesis: Neutrophil disgranularity			
	CVE >>>	13	28		Granulopoiesis: Cytoplasmatic vacuolisation			
	CVE >>>	18	39		Granulopoiesis: Nucleocytoplasmatic asynchrony			
			1	2,2	Granulopoiesis: Döhle bodies			
			1	2,2	Granulopoiesis: Abnormal chromatin clumping			

(949) Object no. 5: type of cell

All results			45	98	Granulopoiesis: Neutrophil bar			
	CVE >>>	1	2,2		Granulopoiesis: Neutrophil segment			

(950) Object no. 5: morphology

All results			16	35	Granulopoiesis: Normal finding			
	CVE >>>	17	37		Granulopoiesis: Hypergranularity/toxic granulation			
	>	5	11		Granulopoiesis: Neutrophil disgranularity			
			5	11	Granulopoiesis: Cytoplasmatic vacuolisation			
	>	11	24		Granulopoiesis: Nucleocytoplasmatic asynchrony			
			10	22	Granulopoiesis: Döhle bodies			
	>	2	4,3		Granulopoiesis: Abnormal chromatin clumping			

(951) Overall assessment (photo)

			46			46	36	78
Maximum score achievable:	68 points	Criterion (60 % out of the maximum):	41 points					
Minimum score achieved:	34 points (50 %)							
Maximum score achieved:	60 points (88,2 %)							

All results			10	22	Unacceptable result			
	>>>	36	78		Correct result			

Setup: all data

Sample Test Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]

General view**Patient A****(955) Cellularity**

All results	CVE >>>	31	67	Normocellular
		2	4,3	Hypercellular
		> 13	28	Hypocellular

(956) Granulopoiesis - count

All results	>	22	48	Within physiological limits
		1	2,2	Increased
		> 23	50	Decreased

(957) Granulopoiesis - morphology

All results	CVE >>>	31	67	No significant changes
		10	22	Dysplastic granulopoiesis
		2	4,3	Atypical/toxic granulopoiesis
		3	6,5	Pathological (clonal) granulopoiesis

(958) Erythroipoiesis - count

All results	CVE >>>	45	98	Within physiological limits
		1	2,2	Decreased

(959) Erythroipoiesis - morphology

All results	CVE >>>	37	80	No significant changes
		> 9	20	Dysplastic erythroipoiesis

(960) Lymphopoiesis - count

All results	>	19	41	Within physiological limits
		8	17	Increased
		> 19	41	Decreased

(961) Lymphopoiesis - morphology

All results	CVE >>>	33	72	No significant changes
		13	28	Pathological lymphopoiesis

(962) Monocytopoiesis - count

All results	>	39	85	Within physiological limits
		> 7	15	Increased

(963) Monocytopoiesis - morphology

All results	CVE >>>	44	96	No significant changes / reactive changes
		2	4,3	Pathological monocytopoiesis

(964) Megakaryopoiesis - count

All results	CVE >>>	46	100	Within physiological limits
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(965) Megakaryopoiesis - morphology

All results	CVE >>>	43	93	No significant changes
		3	6,5	Dysplastic megakaryopoiesis

(966) Estimation of diagnosis

All results	>	3	6,5	Unable to determine the diagnosis
		1	2,2	MDS-MLD (MDS with multilineage dysplasia)
		6	13	Acute myeloid leukaemia - all types according to WHO (excl. APL)
		4	8,7	Precursor B a T lymphoblastic neoplasms
		> 23	50	Acute leukaemia, unclassifiable
		1	2,2	Mycosis fungoides / Sézary syndrome
		6	13	Mature B and T lymphocytes neoplasms (unclassifiable)
		2	4,3	Metastatic impairment of bone marrow

(967) Summary assessment (description)

		46			46	36	78
Maximum score achievable: 16 points		Criterion (60 % out of the maximum): 10 points					
Minimum score achieved: 0 points (0 %)							
Maximum score achieved: 16 points (100 %)							
All results	>>>	10	22	Unacceptable result			
		36	78	Correct result			

Patient B**(955) Cellularity**

All results	CVE >>>	27	59	Normocellular
		2	4,3	Hypercellular
		> 17	37	Hypocellular

(956) Granulopoiesis - count

All results	>	12	26	Within physiological limits
		7	15	Increased
		CVE >>>	27	59

Setup: all data

Sample Test Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
(957) Granulopoiesis - morphology							
All results		1	2,2	Not specified			
		13	28	No significant changes			
	>	10	22	Dysplastic granulopoiesis			
	CVE >>>	22	48	Atypical/toxic granulopoiesis			
(958) Erythroipoiesis - count							
All results		7	15	Within physiological limits			
	CVE >>>	35	76	Increased			
		4	8,7	Decreased			
(959) Erythroipoiesis - morphology							
All results		5	11	No significant changes			
	CVE >>>	27	59	Dysplastic erythroipoiesis			
		1	2,2	Macroerythroblastic erythroipoiesis			
		5	11	Microerythroblastic erythroipoiesis			
		8	17	Atypical erythroipoiesis			
(960) Lymphopoiesis - count							
All results		>	18	39	Within physiological limits		
	CVE >>>	28	61	Decreased			
(961) Lymphopoiesis - morphology							
All results		1	2,2	Not specified			
	CVE >>>	41	89	No significant changes			
		3	6,5	Reactive changes/irritations			
		1	2,2	Pathological lymphopoiesis			
(964) Megakaryopoiesis - count							
All results	CVE >>>	46	100	Within physiological limits			
(965) Megakaryopoiesis - morphology							
All results	CVE >>>	41	89	No significant changes			
		4	8,7	Dysplastic megakaryopoiesis			
		1	2,2	Atypical megakaryopoiesis			
(966) Estimation of diagnosis							
All results		1	2,2	Post therapeutic/post infectious changes			
		1	2,2	Metastatic impairment of bone marrow			
	CVE >>>	44	96	Haemophagocytic syndrome (primary, secondary)			
(967) Summary assessment (description)							
		46			46	36	78
	Maximum score achievable: 22 points	Criterion (60 % out of the maximum): 14 points					
	Minimum score achieved: 0 points (0 %)						
	Maximum score achieved: 22 points (100 %)						
All results		10	22	Unacceptable result			
	>>>	36	78	Correct result			

Summary for all samples

(951) Overall assessment (photo)	46	46	33	72
(967) Summary assessment (description)	46	46	30	65