

EQA round: RET1/25 - Reticulocytes

Deadline: 18.4.2025

Setup: groups - S (measuring system); minimal size of the groups n = 5

RoM = robust average	AV = assigned value	D _{max} = acceptable difference
SD = standard deviation	CVP = consensus of all participants	LL = lower limit
CV = coefficient of variation	CVPG = consensus of the participants' groups	UL = upper limit
N _{tot} = total number of the results	U _{AV} = expanded uncertainty of the assigned value (k = 2)	N _{eva} = number of the results assessed
N _{out} = number of the results removed before calculation		N _{suc} = number of successful results
		S _{rel} = relative success

Test Sample Group	[unit]	RoM	SD	CV [%]	N _{tot}	N _{out}	Comparability					N _{eva}	N _{suc}	S _{rel} [%]	
							AV	U _{AV}	D _{max}	LL	UL				
(120) Reticulocyte count (analyser)	[·10 ⁹ /L]				198							198	174	88	
Sample A		70,4	13	18	198		CVP	70,4	2,2	40%	42,2	98,6	198	180	91
(737) Siemens Advia 120, 2120, 2120i		75,8	8,5	11	9	0							9		
(765) Abbott CELL-DYN Ruby		33,6	6,5	19	5	0							5		
(771) MINDRAY BC 6xxx, 7xx series		84,3	8,5	10	42	1							42		
(772) Sysmex XN, XR series		70,5	5,1	7,3	116	0							116		
(773) Beckman Coulter DxH 600/800/900, HMX series, LH series		44,9	7,1	16	19	0							19		
Other					7	0							7		
								1x 749, 4x 763, 2x 999							
Sample B		48,5	9	19	198		CVP	48,5	1,6	40%	29,1	67,9	198	184	93
(737) Siemens Advia 120, 2120, 2120i		58,2	2,7	4,6	9	0							9		
(765) Abbott CELL-DYN Ruby		26,3	2,5	9,6	5	0							5		
(771) MINDRAY BC 6xxx, 7xx series		44,8	8	18	42	0							42		
(772) Sysmex XN, XR series		52,5	4,1	7,7	116	0							116		
(773) Beckman Coulter DxH 600/800/900, HMX series, LH series		30,6	4,3	14	19	0							19		
Other					7	0							7		
								1x 749, 4x 763, 2x 999							
(138) Reticulocyte count (microscope)	[·10 ⁹ /L]				47							47	40	85	
Sample A												47	43	91	
(0) not specified		63,1	15	24	47	2	CVP	63,1	5,5	45%	34,7	91,5	47		
Sample B												47	44	94	
(0) not specified		45,7	13	28	47	0	CVP	45,7	4,5	45%	25,1	66,3	47		
(126) Immature reticulocyte fraction	[%]				133							129	122	95	
Sample A		9,66	2,2	23	133							129	125	97	
(12) Beckman Coulter; (773) Beckman Coulter DxH 600/800/900, HMX series, LH series		33,4	4,5	13	12	0	CVPG	33,4	3,2	45%	18,3	48,5	12		
(63) Sysmex; (772) Sysmex XN, XR series		9,56	1,7	18	87	0	CVPG	9,56	0,44	45%	5,25	13,9	87		
(177) Mindray; (771) MINDRAY BC 6xxx, 7xx series		8,45	2,1	25	30	0	CVPG	8,45	0,94	45%	4,64	12,3	30		
Other					4	0							0		
								2x 1/763, 1x 46/999, 1x 179/772							
Sample B		6,51	1,8	27	133							129	125	97	
(12) Beckman Coulter; (773) Beckman Coulter DxH 600/800/900, HMX series, LH series		28,8	3,2	11	12	0	CVPG	28,8	2,2	45%	15,8	41,8	12		
(63) Sysmex; (772) Sysmex XN, XR series		6,14	1,3	21	87	0	CVPG	6,14	0,34	45%	3,37	8,91	87		
(177) Mindray; (771) MINDRAY BC 6xxx, 7xx series		6,45	1,9	29	30	1	CVPG	6,45	0,87	45%	3,54	9,36	30		
Other					4	0							0		
								2x 1/763, 1x 46/999, 1x 179/772							
(128) Mean amount of hemoglobin in reticulocytes	[pg]				133							130	126	97	
Sample A		34,5	2,2	6,3	133							130	126	97	
(63) Sysmex; (772) Sysmex XN, XR series		35,5	0,91	2,6	94	0	CVPG	35,5	0,23	10%	31,9	39,1	94		
(177) Mindray; (771) MINDRAY BC 6xxx, 7xx series		29	1,8	6,1	28	0	CVPG	29	0,82	10%	26,1	31,9	28		
(179) Siemens; (737) Siemens Advia 120, 2120, 2120i		33,3	1,2	3,6	7	0	CVPG	33,6	1,2	10%	30,2	37	7		
Other					4	0							1		
								2x 1/763, 1x 46/999, 1x 179/772							
Sample B		32,6	2	6,3	133							130	127	98	
(63) Sysmex; (772) Sysmex XN, XR series		33,6	0,84	2,5	94	0	CVPG	33,6	0,21	10%	30,2	37	94		
(177) Mindray; (771) MINDRAY BC 6xxx, 7xx series		27,9	1,3	4,8	28	0	CVPG	27,9	0,62	10%	25,1	30,7	28		
(179) Siemens; (737) Siemens Advia 120, 2120, 2120i		31,2	0,89	2,9	7	0	CVPG	31,5	0,96	10%	28,3	34,7	7		
Other					4	0							1		
								2x 1/763, 1x 46/999, 1x 179/772							
(127) Mean reticulocyte volume	[fL]				31							31	26	84	
Sample A		106	6,4	6	31		CVP	106	2,8	10%	95,4	117	31	27	87
(771) MINDRAY BC 6xxx, 7xx series		102	6,1	5,9	14	0							14		
(773) Beckman Coulter DxH 600/800/900, HMX series, LH series		108	2,9	2,6	13	0							13		
Other					4	0							4		
								2x 737, 1x 772, 1x 999							

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							AV	U _{AV}	D _{max}	LL	UL				
Sample B		102	5	4,9	31		CVP	102	2,2	10%	91,8	113	31	29	94
(771) MINDRAY BC 6xxx, 7xx series		99,5	4,4	4,5	14	0							14		
(773) Beckman Coulter DxH 600/800/900, HMX series, LH series		104	2,1	2	13	0							13		
Other					4	0							4		
							2x 737, 1x 772, 1x 999								