

EQA round: IH1/23 - Blood Group Serology

Deadline: 10.3.2023

Setup: groups - measurement principle

AV = assigned value
 RV = reference value
 >>> ... 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

Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
Set 1 and 2								
(700) ABO blood group		189			189	189	100	
Samples E1 and S1		189			189	189	100	
(1) Tube test	RV >>>	57	30	Blood group: A				
(2) Microplate - aut.	RV >>>	8	4,2	Blood group: A				
(3) Microplate - man.	RV >>>	6	3,2	Blood group: A				
(6) Microplate - without centrifug.	RV >>>	1	0,5	Blood group: A				
(7) Column agglutination - automat	RV >>>	47	25	Blood group: A				
(9) Column agglutination - manual	RV >>>	69	37	Blood group: A				
(10) Solid phase	RV >>>	1	0,5	Blood group: A				
Samples E2 and S2		189			189	189	100	
(1) Tube test	RV >>>	57	30	Blood group: 0				
(2) Microplate - aut.	RV >>>	8	4,2	Blood group: 0				
(3) Microplate - man.	RV >>>	6	3,2	Blood group: 0				
(6) Microplate - without centrifug.	RV >>>	1	0,5	Blood group: 0				
(7) Column agglutination - automat	RV >>>	47	25	Blood group: 0				
(9) Column agglutination - manual	RV >>>	69	37	Blood group: 0				
(10) Solid phase	RV >>>	1	0,5	Blood group: 0				
(703) A subgroup		49			49	48	98	
Samples E1 and S1		49			49	48	98	
(0) Not specified	RV >>>	48	98	A subgroup A1				
		1	2	A subgroup A2				
Samples E2 and S2		49			49	49	100	
(0) Not specified	RV >>>	49	100	Not specified				
(705) Rh D antigen (blood-donor)		113			113	111	98	
Samples E1 and S1		113			113	111	98	
(0) Not specified		1	0,9	Not specified				
(1) Tube test	RV >>>	39	35	Negative (RhD-)				
(2) Microplate - aut.	RV >>>	8	7,1	Negative (RhD-)				
(3) Microplate - man.	RV >>>	3	2,7	Negative (RhD-)				
(7) Column agglutination - automat		1	0,9	Not specified				
	RV >>>	26	23	Negative (RhD-)				
(9) Column agglutination - manual	RV >>>	34	30	Negative (RhD-)				
(10) Solid phase	RV >>>	1	0,9	Negative (RhD-)				
Samples E2 and S2		113			113	113	100	
(0) Not specified	RV >>>	1	0,9	Positive (RhD+)				
(1) Tube test	RV >>>	39	35	Positive (RhD+)				
(2) Microplate - aut.	RV >>>	8	7,1	Positive (RhD+)				
(3) Microplate - man.	RV >>>	3	2,7	Positive (RhD+)				
(7) Column agglutination - automat	RV >>>	27	24	Positive (RhD+)				
(9) Column agglutination - manual	RV >>>	34	30	Positive (RhD+)				
(10) Solid phase	RV >>>	1	0,9	Positive (RhD+)				
(709) Rh D antigen (recipient/ pregnant/ newborn)		182			182	181	99	
Samples E1 and S1		182			182	182	100	
(1) Tube test	RV >>>	64	35	Negative (RhD-)				
(2) Microplate - aut.	RV >>>	6	3,3	Negative (RhD-)				
(3) Microplate - man.	RV >>>	3	1,6	Negative (RhD-)				
(7) Column agglutination - automat	RV >>>	42	23	Negative (RhD-)				
(9) Column agglutination - manual	RV >>>	66	36	Negative (RhD-)				
(10) Solid phase	RV >>>	1	0,5	Negative (RhD-)				
Samples E2 and S2		182			182	181	99	
(1) Tube test		1	0,5	Negative (RhD-)				
	RV >>>	63	35	Positive (RhD+)				
(2) Microplate - aut.	RV >>>	6	3,3	Positive (RhD+)				
(3) Microplate - man.	RV >>>	3	1,6	Positive (RhD+)				
(7) Column agglutination - automat	RV >>>	42	23	Positive (RhD+)				
(9) Column agglutination - manual	RV >>>	66	36	Positive (RhD+)				
(10) Solid phase	RV >>>	1	0,5	Positive (RhD+)				
(715) Antigen C		95			95	95	100	
Samples E1 and S1		95			95	95	100	
(1) Tube test	RV >>>	18	19	Negative				
(2) Microplate - aut.	RV >>>	4	4,2	Negative				
(7) Column agglutination - automat	RV >>>	22	23	Negative				

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(9) Column agglutination - manual	RV	>>>	50	53	Negative			
(10) Solid phase	RV	>>>	1	1,1	Negative			
Samples E2 and S2			95			95	95	100
(1) Tube test	RV	>>>	18	19	Positive			
(2) Microplate - aut.	RV	>>>	4	4,2	Positive			
(7) Column agglutination - automat	RV	>>>	22	23	Positive			
(9) Column agglutination - manual	RV	>>>	50	53	Positive			
(10) Solid phase	RV	>>>	1	1,1	Positive			
(716) Antigen c			95			95	94	99
Samples E1 and S1			95			95	94	99
(1) Tube test	RV	>>>	18	19	Positive			
(2) Microplate - aut.	RV	>>>	4	4,2	Positive			
(7) Column agglutination - automat			1	1,1	Negative			
	RV	>>>	21	22	Positive			
(9) Column agglutination - manual	RV	>>>	50	53	Positive			
(10) Solid phase	RV	>>>	1	1,1	Positive			
Samples E2 and S2			95			95	95	100
(1) Tube test	RV	>>>	18	19	Negative			
(2) Microplate - aut.	RV	>>>	4	4,2	Negative			
(7) Column agglutination - automat	RV	>>>	22	23	Negative			
(9) Column agglutination - manual	RV	>>>	50	53	Negative			
(10) Solid phase	RV	>>>	1	1,1	Negative			
(718) Antigen E			96			96	96	100
Samples E1 and S1			96			96	96	100
(1) Tube test	RV	>>>	19	20	Negative			
(2) Microplate - aut.	RV	>>>	4	4,2	Negative			
(7) Column agglutination - automat	RV	>>>	22	23	Negative			
(9) Column agglutination - manual	RV	>>>	50	52	Negative			
(10) Solid phase	RV	>>>	1	1	Negative			
Samples E2 and S2			96			96	96	100
(1) Tube test	RV	>>>	19	20	Negative			
(2) Microplate - aut.	RV	>>>	4	4,2	Negative			
(7) Column agglutination - automat	RV	>>>	22	23	Negative			
(9) Column agglutination - manual	RV	>>>	50	52	Negative			
(10) Solid phase	RV	>>>	1	1	Negative			
(719) Antigen e			95			95	95	100
Samples E1 and S1			95			95	95	100
(1) Tube test	RV	>>>	18	19	Positive			
(2) Microplate - aut.	RV	>>>	4	4,2	Positive			
(7) Column agglutination - automat	RV	>>>	22	23	Positive			
(9) Column agglutination - manual	RV	>>>	50	53	Positive			
(10) Solid phase	RV	>>>	1	1,1	Positive			
Samples E2 and S2			95			95	95	100
(1) Tube test	RV	>>>	18	19	Positive			
(2) Microplate - aut.	RV	>>>	4	4,2	Positive			
(7) Column agglutination - automat	RV	>>>	22	23	Positive			
(9) Column agglutination - manual	RV	>>>	50	53	Positive			
(10) Solid phase	RV	>>>	1	1,1	Positive			
(717) Antigen C^w			79			79	79	100
Samples E1 and S1			79			79	79	100
(1) Tube test	RV	>>>	18	23	Negative			
(2) Microplate - aut.	RV	>>>	4	5,1	Negative			
(7) Column agglutination - automat	RV	>>>	19	24	Negative			
(9) Column agglutination - manual	RV	>>>	38	48	Negative			
Samples E2 and S2			79			79	79	100
(1) Tube test	RV	>>>	18	23	Negative			
(2) Microplate - aut.	RV	>>>	4	5,1	Negative			
(7) Column agglutination - automat	RV	>>>	19	24	Negative			
(9) Column agglutination - manual	RV	>>>	38	48	Negative			
(720) Antigen K			103			103	103	100
Samples E1 and S1			103			103	103	100
(1) Tube test	RV	>>>	19	18	Negative			
(2) Microplate - aut.	RV	>>>	4	3,9	Negative			
(5) Microplate reagent kit - man.	RV	>>>	1	1	Negative			
(7) Column agglutination - automat	RV	>>>	23	22	Negative			
(9) Column agglutination - manual	RV	>>>	55	53	Negative			
(10) Solid phase	RV	>>>	1	1	Negative			
Samples E2 and S2			103			103	103	100
(1) Tube test	RV	>>>	19	18	Negative			

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(2) Microplate - aut.	RV	>>>	4	3,9	Negative			
(5) Microplate reagent kit - man.	RV	>>>	1	1	Negative			
(7) Column agglutination - automat	RV	>>>	23	22	Negative			
(9) Column agglutination - manual	RV	>>>	55	53	Negative			
(10) Solid phase	RV	>>>	1	1	Negative			
(721) Antigen k			43			43	43	100
Samples E1 and S1			43			43	43	100
(1) Tube test	RV	>>>	23	53	Positive			
(7) Column agglutination - automat	RV	>>>	1	2,3	Positive			
(9) Column agglutination - manual	RV	>>>	16	37	Positive			
(10) Solid phase	RV	>>>	3	7	Positive			
Samples E2 and S2			43			43	43	100
(1) Tube test	RV	>>>	23	53	Positive			
(7) Column agglutination - automat	RV	>>>	1	2,3	Positive			
(9) Column agglutination - manual	RV	>>>	16	37	Positive			
(10) Solid phase	RV	>>>	3	7	Positive			
(738) Antigen Kp^a			19			19	17	89
Samples E1 and S1			19			19	19	100
(0) Not specified	RV	>>>	3	16	Negative			
(1) Tube test	RV	>>>	4	21	Negative			
(9) Column agglutination - manual	RV	>>>	12	63	Negative			
Samples E2 and S2			19			19	17	89
(0) Not specified			1	5,3	Not specified			
	RV	>>>	2	11	Negative			
(1) Tube test	RV	>>>	4	21	Negative			
(9) Column agglutination - manual			1	5,3	Not specified			
	RV	>>>	11	58	Negative			
(739) Antigen Kp^b			10			10	8	80
Samples E1 and S1			10			10	10	100
(0) Not specified	RV	>>>	2	20	Positive			
(1) Tube test	RV	>>>	2	20	Positive			
(9) Column agglutination - manual	RV	>>>	6	60	Positive			
Samples E2 and S2			10			10	8	80
(0) Not specified			1	10	Not specified			
	RV	>>>	1	10	Positive			
(1) Tube test	RV	>>>	2	20	Positive			
(9) Column agglutination - manual			1	10	Not specified			
	RV	>>>	5	50	Positive			
(729) Antigen Jk^a			48			48	47	98
Samples E1 and S1			48			48	47	98
(0) Not specified	RV	>>>	1	2,1	Positive			
(1) Tube test			1	2,1	Negative			
	RV	>>>	20	42	Positive			
(2) Microplate - aut.	RV	>>>	1	2,1	Positive			
(7) Column agglutination - automat	RV	>>>	3	6,3	Positive			
(8) Lateral diffusion	RV	>>>	1	2,1	Positive			
(9) Column agglutination - manual	RV	>>>	21	44	Positive			
Samples E2 and S2			48			48	48	100
(0) Not specified	RV	>>>	1	2,1	Positive			
(1) Tube test	RV	>>>	21	44	Positive			
(2) Microplate - aut.	RV	>>>	1	2,1	Positive			
(7) Column agglutination - automat	RV	>>>	3	6,3	Positive			
(8) Lateral diffusion	RV	>>>	1	2,1	Positive			
(9) Column agglutination - manual	RV	>>>	21	44	Positive			
(730) Antigen Jk^b			47			47	47	100
Samples E1 and S1			47			47	47	100
(0) Not specified	RV	>>>	1	2,1	Negative			
(1) Tube test	RV	>>>	20	43	Negative			
(2) Microplate - aut.	RV	>>>	1	2,1	Negative			
(7) Column agglutination - automat	RV	>>>	3	6,4	Negative			
(8) Lateral diffusion	RV	>>>	1	2,1	Negative			
(9) Column agglutination - manual	RV	>>>	21	45	Negative			
Samples E2 and S2			47			47	47	100
(0) Not specified	RV	>>>	1	2,1	Negative			
(1) Tube test	RV	>>>	20	43	Negative			
(2) Microplate - aut.	RV	>>>	1	2,1	Negative			
(7) Column agglutination - automat	RV	>>>	3	6,4	Negative			
(8) Lateral diffusion	RV	>>>	1	2,1	Negative			
(9) Column agglutination - manual	RV	>>>	21	45	Negative			

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(727) Antigen Fy^a		48			48	47	98	
Samples E1 and S1		48			48	47	98	
(0) Not specified		1	2,1	Not specified				
(1) Tube test	RV >>>	14	29	Positive				
(7) Column agglutination - automat	RV >>>	5	10	Positive				
(8) Lateral diffusion	RV >>>	1	2,1	Positive				
(9) Column agglutination - manual	RV >>>	26	54	Positive				
(10) Solid phase	RV >>>	1	2,1	Positive				
Samples E2 and S2		48			48	48	100	
(0) Not specified	RV >>>	1	2,1	Negative				
(1) Tube test	RV >>>	14	29	Negative				
(7) Column agglutination - automat	RV >>>	5	10	Negative				
(8) Lateral diffusion	RV >>>	1	2,1	Negative				
(9) Column agglutination - manual	RV >>>	26	54	Negative				
(10) Solid phase	RV >>>	1	2,1	Negative				
(728) Antigen Fy^b		48			48	47	98	
Samples E1 and S1		48			48	47	98	
(0) Not specified		1	2,1	Not specified				
(1) Tube test	RV >>>	15	31	Positive				
(7) Column agglutination - automat	RV >>>	5	10	Positive				
(8) Lateral diffusion	RV >>>	1	2,1	Positive				
(9) Column agglutination - manual	RV >>>	25	52	Positive				
(10) Solid phase	RV >>>	1	2,1	Positive				
Samples E2 and S2		48			48	48	100	
(0) Not specified	RV >>>	1	2,1	Positive				
(1) Tube test	RV >>>	15	31	Positive				
(7) Column agglutination - automat	RV >>>	5	10	Positive				
(8) Lateral diffusion	RV >>>	1	2,1	Positive				
(9) Column agglutination - manual	RV >>>	25	52	Positive				
(10) Solid phase	RV >>>	1	2,1	Positive				
(722) Antigen M		46			46	46	100	
Samples E1 and S1		46			46	46	100	
(1) Tube test	RV >>>	23	50	Positive				
(2) Microplate - aut.	RV >>>	1	2,2	Positive				
(7) Column agglutination - automat	RV >>>	4	8,7	Positive				
(9) Column agglutination - manual	RV >>>	18	39	Positive				
Samples E2 and S2		46			46	46	100	
(1) Tube test	RV >>>	23	50	Positive				
(2) Microplate - aut.	RV >>>	1	2,2	Positive				
(7) Column agglutination - automat	RV >>>	4	8,7	Positive				
(9) Column agglutination - manual	RV >>>	18	39	Positive				
(723) Antigen N		44			44	43	98	
Samples E1 and S1		44			44	43	98	
(1) Tube test	RV >>>	22	50	Positive				
(7) Column agglutination - automat	RV >>>	4	9,1	Positive				
(9) Column agglutination - manual	RV >>>	1	2,3	Negative				
	RV >>>	17	39	Positive				
Samples E2 and S2		44			44	43	98	
(1) Tube test	RV >>>	22	50	Positive				
(7) Column agglutination - automat	RV >>>	4	9,1	Positive				
(9) Column agglutination - manual	RV >>>	1	2,3	Negative				
	RV >>>	17	39	Positive				
(724) Antigen S		47			47	47	100	
Samples E1 and S1		47			47	47	100	
(1) Tube test	RV >>>	21	45	Negative				
(7) Column agglutination - automat	RV >>>	4	8,5	Negative				
(8) Lateral diffusion	RV >>>	1	2,1	Negative				
(9) Column agglutination - manual	RV >>>	20	43	Negative				
(10) Solid phase	RV >>>	1	2,1	Negative				
Samples E2 and S2		47			47	47	100	
(1) Tube test	RV >>>	21	45	Negative				
(7) Column agglutination - automat	RV >>>	4	8,5	Negative				
(8) Lateral diffusion	RV >>>	1	2,1	Negative				
(9) Column agglutination - manual	RV >>>	20	43	Negative				
(10) Solid phase	RV >>>	1	2,1	Negative				
(725) Antigen s		47			47	47	100	
Samples E1 and S1		47			47	47	100	
(1) Tube test	RV >>>	20	43	Positive				
(7) Column agglutination - automat	RV >>>	4	8,5	Positive				

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Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(8) Lateral diffusion	RV	>>>	1	2,1	Positive			
(9) Column agglutination - manual	RV	>>>	21	45	Positive			
(10) Solid phase	RV	>>>	1	2,1	Positive			
Samples E2 and S2			47			47	47	100
(1) Tube test	RV	>>>	20	43	Positive			
(7) Column agglutination - automat	RV	>>>	4	8,5	Positive			
(8) Lateral diffusion	RV	>>>	1	2,1	Positive			
(9) Column agglutination - manual	RV	>>>	21	45	Positive			
(10) Solid phase	RV	>>>	1	2,1	Positive			
(733) Antigen Le^a			37			37	37	100
Samples E1 and S1			37			37	37	100
(0) Not specified	RV	>>>	1	2,7	Negative			
(1) Tube test	RV	>>>	19	51	Negative			
(7) Column agglutination - automat	RV	>>>	2	5,4	Negative			
(9) Column agglutination - manual	RV	>>>	15	41	Negative			
Samples E2 and S2			37			37	37	100
(0) Not specified	RV	>>>	1	2,7	Negative			
(1) Tube test	RV	>>>	19	51	Negative			
(7) Column agglutination - automat	RV	>>>	2	5,4	Negative			
(9) Column agglutination - manual	RV	>>>	15	41	Negative			
(734) Antigen Le^b			37			37	32	86
Samples E1 and S1			37			37	32	86
(0) Not specified			1	2,7	Negative			
(1) Tube test			2	5,4	Negative			
	RV	>>>	17	46	Positive			
(7) Column agglutination - automat	RV	>>>	2	5,4	Positive			
(9) Column agglutination - manual			2	5,4	Negative			
	RV	>>>	13	35	Positive			
Samples E2 and S2			37			37	37	100
(0) Not specified	RV	>>>	1	2,7	Positive			
(1) Tube test	RV	>>>	19	51	Positive			
(7) Column agglutination - automat	RV	>>>	2	5,4	Positive			
(9) Column agglutination - manual	RV	>>>	15	41	Positive			
(731) Antigen Lu^a			33			33	32	97
Samples E1 and S1			33			33	33	100
(1) Tube test	RV	>>>	12	36	Negative			
(7) Column agglutination - automat	RV	>>>	2	6,1	Negative			
(9) Column agglutination - manual	RV	>>>	19	58	Negative			
Samples E2 and S2			33			33	32	97
(1) Tube test	RV	>>>	12	36	Positive			
(7) Column agglutination - automat	RV	>>>	2	6,1	Positive			
(9) Column agglutination - manual			1	3	Negative			
	RV	>>>	18	55	Positive			
(732) Antigen Lu^b			31			31	30	97
Samples E1 and S1			31			31	30	97
(1) Tube test			1	3,2	Negative			
	RV	>>>	14	45	Positive			
(7) Column agglutination - automat	RV	>>>	2	6,5	Positive			
(9) Column agglutination - manual	RV	>>>	14	45	Positive			
Samples E2 and S2			31			31	31	100
(1) Tube test	RV	>>>	15	48	Positive			
(7) Column agglutination - automat	RV	>>>	2	6,5	Positive			
(9) Column agglutination - manual	RV	>>>	14	45	Positive			
(726) Antigen P1			35			35	34	97
Samples E1 and S1			35			35	34	97
(1) Tube test			1	2,9	Negative			
	RV	>>>	21	60	Positive			
(7) Column agglutination - automat	RV	>>>	2	5,7	Positive			
(9) Column agglutination - manual	RV	>>>	11	31	Positive			
Samples E2 and S2			35			35	35	100
(1) Tube test	RV	>>>	22	63	Positive			
(7) Column agglutination - automat	RV	>>>	2	5,7	Positive			
(9) Column agglutination - manual	RV	>>>	11	31	Positive			
(740) Antigen Wr^a			5			5	5	100
Samples E1 and S1			5			5	5	100
(1) Tube test	RV	>>>	2	40	Negative			
(9) Column agglutination - manual	RV	>>>	3	60	Negative			
Samples E2 and S2			5			5	5	100
(1) Tube test	RV	>>>	2	40	Negative			

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Setup: groups - measurement principle

Test Sample Group	Frequency of the results					Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]	
(9) Column agglutination - manual	RV	>>>	3	60	Negative			
(737) Direct Coombs (antiglobulin) test			147			147	144	98
Samples E1 and S1			147			147	144	98
(1) Tube test: IAT	RV	>>>	4	2,7	Negative			
(3) Column agglut.: IAT - automat	RV	>>>	28	19	Negative			
			2	1,4	Positive			
(5) Solid phase	RV	>>>	1	0,7	Negative			
(8) Column agglut.: IAT - manual	RV	>>>	107	73	Negative			
			1	0,7	Positive			
(9) Column agglut.: enzyme - manual	RV	>>>	3	2	Negative			
(99) Another measurement principle	RV	>>>	1	0,7	Negative			
Samples E2 and S2			147			147	146	99
(1) Tube test: IAT	RV	>>>	4	2,7	Negative			
(3) Column agglut.: IAT - automat	RV	>>>	29	20	Negative			
			1	0,7	Positive			
(5) Solid phase	RV	>>>	1	0,7	Negative			
(8) Column agglut.: IAT - manual	RV	>>>	108	73	Negative			
(9) Column agglut.: enzyme - manual	RV	>>>	3	2	Negative			
(99) Another measurement principle	RV	>>>	1	0,7	Negative			
(741) Antibody screening (IAT, blood donor)			93			93	92	99
Samples E1 and S1			93			93	92	99
(0) Not specified			1	1,1	Not specified			
(1) Tube test: IAT	RV	>>>	2	2,2	Positive			
(3) Column agglut.: IAT - automat	RV	>>>	26	28	Positive			
(5) Solid phase	RV	>>>	8	8,6	Positive			
(6) Microplate: IAT	RV	>>>	3	3,2	Positive			
(8) Column agglut.: IAT - manual	RV	>>>	53	57	Positive			
Samples E2 and S2			93			93	93	100
(0) Not specified	RV	>>>	1	1,1	Positive			
(1) Tube test: IAT		>	1	1,1	Negative			
	RV	>>>	1	1,1	Positive			
(3) Column agglut.: IAT - automat		>	14	15	Negative			
	RV	>>>	12	13	Positive			
(5) Solid phase	RV	>>>	8	8,6	Positive			
(6) Microplate: IAT	RV	>>>	3	3,2	Positive			
(8) Column agglut.: IAT - manual		>	25	27	Negative			
	RV	>>>	28	30	Positive			
(743) Antibody screening (IAT, recipient)			166			166	166	100
Samples E1 and S1			166			166	166	100
(3) Column agglut.: IAT - automat	RV	>>>	42	25	Positive			
(4) Column agglut.: enzyme - automat	RV	>>>	1	0,6	Positive			
(5) Solid phase	RV	>>>	2	1,2	Positive			
(6) Microplate: IAT	RV	>>>	1	0,6	Positive			
(8) Column agglut.: IAT - manual	RV	>>>	119	72	Positive			
(9) Column agglut.: enzyme - manual	RV	>>>	1	0,6	Positive			
Samples E2 and S2			166			166	166	100
(3) Column agglut.: IAT - automat		>	12	7,2	Negative			
	RV	>>>	30	18	Positive			
(4) Column agglut.: enzyme - automat	RV	>>>	1	0,6	Positive			
(5) Solid phase	RV	>>>	2	1,2	Positive			
(6) Microplate: IAT	RV	>>>	1	0,6	Positive			
(8) Column agglut.: IAT - manual		>	41	25	Negative			
	RV	>>>	78	47	Positive			
(9) Column agglut.: enzyme - manual		>	1	0,6	Negative			
(745) Antibody screening (IAT, pregnant)			135			135	135	100
Samples E1 and S1			135			135	135	100
(0) Not specified	RV	>>>	1	0,7	Positive			
(1) Tube test: IAT	RV	>>>	1	0,7	Positive			
(3) Column agglut.: IAT - automat	RV	>>>	40	30	Positive			
(4) Column agglut.: enzyme - automat	RV	>>>	1	0,7	Positive			
(5) Solid phase	RV	>>>	3	2,2	Positive			
(8) Column agglut.: IAT - manual	RV	>>>	89	66	Positive			
Samples E2 and S2			135			135	135	100
(0) Not specified	RV	>>>	1	0,7	Positive			
(1) Tube test: IAT	RV	>>>	1	0,7	Positive			
(3) Column agglut.: IAT - automat		>	11	8,1	Negative			
	RV	>>>	29	21	Positive			
(4) Column agglut.: enzyme - automat	RV	>>>	1	0,7	Positive			
(5) Solid phase	RV	>>>	3	2,2	Positive			

EQA round: IH1/23 - Blood Group Serology

Deadline: 10.3.2023

Setup: groups - measurement principle

Test Sample Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
(8) Column agglut.: IAT - manual		> 28	21	Negative			
	RV >>>	61	45	Positive			
(747) Antibody screening (enzyme test)		104			104	103	99
Samples E1 and S1		104			104	103	99
(0) Not specified	RV >>>	1	1	Positive			
(2) Tube test: enzyme	RV >>>	1	1	Positive			
(3) Column agglut.: IAT - automat	RV >>>	1	1	Positive			
(4) Column agglut.: enzyme - automat	RV >>>	22	21	Positive			
(8) Column agglut.: IAT - manual		1	1	Negative			
	RV >>>	8	7,7	Positive			
(9) Column agglut.: enzyme - manual	RV >>>	70	67	Positive			
Samples E2 and S2		104			104	104	100
(0) Not specified		> 1	1	Negative			
(2) Tube test: enzyme		> 1	1	Negative			
(3) Column agglut.: IAT - automat	RV >>>	1	1	Positive			
(4) Column agglut.: enzyme - automat		> 5	4,8	Negative			
	RV >>>	17	16	Positive			
(8) Column agglut.: IAT - manual		> 4	3,8	Negative			
	RV >>>	5	4,8	Positive			
(9) Column agglut.: enzyme - manual		> 16	15	Negative			
	RV >>>	54	52	Positive			
(750) Antibody identification		51			51	48	94
Samples E1 and S1		51			51	51	100
(0) Not specified		> 12	24	anti-D			
	RV >>>	39	76	anti-D; anti-Kpa			
Samples E2 and S2		51			51	48	94
(0) Not specified		2	3,9	Not specified			
	RV >>>	48	94	anti-Jkb			
		1	2	anti-Lua			
(752) Antibody titre, Sample 1: 1st antibody		43			0		
Samples E1 and S1		43			0		
(1) Tube + homozyg. expression		± 2	4,7	titre 16			
		± 3	7	titre 64			
		± 1	2,3	titre 128			
(2) Tube + heterozyg. expression		± 1	2,3	titre 32			
		± 1	2,3	titre 128			
(3) Column agglut.+ homozyg. expres.		± 1	2,3	titre 8			
		± 7	16	titre 16			
		± 6	14	titre 32			
		± 5	12	titre 64			
		± 1	2,3	titre 128			
(4) Column agglut.+ heterozyg. expres.		± 3	7	titre 16			
		± 3	7	titre 32			
		± 7	16	titre 64			
		± 1	2,3	titre 128			
(99) Another measurement principle		± 1	2,3	titre 16			
(753) Antibody titre, Sample 1: 2nd antibody		30			0		
Samples E1 and S1		30			0		
(0) Not specified		± 1	3,3	titre 1			
(2) Tube + heterozyg. expression		± 3	10	titre 1			
(3) Column agglut.+ homozyg. expres.		± 4	13	titre 1			
		± 1	3,3	titre 2			
(4) Column agglut.+ heterozyg. expres.		± 4	13	titre 0 (not measurable)			
		± 15	50	titre 1			
		± 2	6,7	titre 2			
(756) Antibody titre, Sample 2: 1st antibody		37			0		
Samples E2 and S2		37			0		
(1) Tube + homozyg. expression		± 2	5,4	titre 0 (not measurable)			
		± 3	8,1	titre 1			
(2) Tube + heterozyg. expression		± 1	2,7	titre 0 (not measurable)			
(3) Column agglut.+ homozyg. expres.		± 1	2,7	titre 0 (not measurable)			
		± 12	32	titre 1			
		± 3	8,1	titre 2			
		± 1	2,7	titre 4			
(4) Column agglut.+ heterozyg. expres.		± 6	16	titre 0 (not measurable)			
		± 4	11	titre 1			
		± 4	11	titre 2			

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Deadline: 10.3.2023

Setup: groups - measurement principle

Test Sample Group	Frequency of the results				Success		
	AV	N _{tot}	N _{rel} [%]	Result	N _{eva}	N _{suc}	S _{rel} [%]
Set 3							
(760) Crossmatch		137			137	117	85
Sample S1		137			137	117	85
All results		20	15	Crossmatch not successful			
	RV >>>	117	85	Crossmatch successful			
Sample S2		137			137	137	100
All results	RV >>>	137	100	Crossmatch successful			
(761) Crossmatch (segment K1)		137			137	117	85
Sample S1		137			137	117	85
(3) Column agglut.: IAT - automat		3	2,2	Negative test			
	RV >>>	22	16	Positive test			
(5) Solid phase	RV >>>	1	0,7	Positive test			
(8) Column agglut.: IAT - manual		16	12	Negative test			
	RV >>>	94	69	Positive test			
(9) Column agglut.: enzyme - manual		1	0,7	Negative test			
Sample S2		137			137	137	100
(3) Column agglut.: IAT - automat	RV >>>	23	17	Negative test			
	RV >>>	2	1,5	Positive test			
(5) Solid phase	RV >>>	1	0,7	Positive test			
(8) Column agglut.: IAT - manual	RV >>>	98	72	Negative test			
	RV >>>	12	8,8	Positive test			
(9) Column agglut.: enzyme - manual	RV >>>	1	0,7	Negative test			
(762) Serve transfusion product? (segment K1)		137					0
(transfusion in non-emergency mode)							
Sample S1		137					0
(0) Not specified	±	114	83	Impossible, risk of haemolysis			
	±	11	8	Decision depends on results of other tests not performed in our laboratory			
	±	6	4,4	Only if more suitable products are not available			
	±	6	4,4	Possible			
Sample S2		137					0
(0) Not specified	±	45	33	Impossible, risk of haemolysis			
	±	52	38	Decision depends on results of other tests not performed in our laboratory			
	±	6	4,4	Only if more suitable products are not available			
	±	34	25	Possible			
(764) Crossmatch (segment K2)		137			137	137	100
Sample S1		137			137	137	100
(3) Column agglut.: IAT - automat	RV >>>	27	20	Positive test			
(5) Solid phase	RV >>>	1	0,7	Positive test			
(8) Column agglut.: IAT - manual	RV >>>	108	79	Positive test			
(9) Column agglut.: enzyme - manual	RV >>>	1	0,7	Positive test			
Sample S2		137			137	137	100
(3) Column agglut.: IAT - automat	RV >>>	27	20	Negative test			
(5) Solid phase	RV >>>	1	0,7	Negative test			
(8) Column agglut.: IAT - manual	RV >>>	108	79	Negative test			
(9) Column agglut.: enzyme - manual	RV >>>	1	0,7	Negative test			
(765) Serve transfusion product? (segment K2)		137					0
(transfusion in non-emergency mode)							
Sample S1		137					0
(0) Not specified	±	136	99	Impossible, risk of haemolysis			
	±	1	0,7	Decision depends on results of other tests not performed in our laboratory			
Sample S2		137					0
(0) Not specified	±	3	2,2	Impossible, risk of haemolysis			
	±	54	39	Decision depends on results of other tests not performed in our laboratory			
	±	17	12	Only if more suitable products are not available			
	±	63	46	Possible			