

EQA round: DGP2/18 - Urine Strip Tests Analysis

Dead line: 22.06.2018

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

> ... marks conditionally correct (acceptable) result

± ... marks the result not evaluated

N ... number of the results

Nrel ... relative number of the results

Test

Sample	Group		N	Result	N _{rel}
(261) Glucose					
A	(12) Beckman Coulter	>>>	4	Negative, normal, <= 2,8 mmol/L	6,2%
	(18) Cormay	>	1	2,81 - 11 mmol/L	1,5%
	(46) Erba Lachema	>>>	10	Negative, normal, <= 2,8 mmol/L	15%
		>	9	2,81 - 11 mmol/L	14%
	(60) Roche	>>>	3	Negative, normal, <= 2,8 mmol/L	4,6%
		>	1	2,81 - 11 mmol/L	1,5%
	(63) Sysmex	>>>	2	Negative, normal, <= 2,8 mmol/L	3,1%
		>	1	2,81 - 11 mmol/L	1,5%
	(109) Alere / Axis-Shield	>>>	2	Negative, normal, <= 2,8 mmol/L	3,1%
		>	1	2,81 - 11 mmol/L	1,5%
	(113) SEKK	>	1	2,81 - 11 mmol/L	1,5%
	(150) Arkray	>>>	14	Negative, normal, <= 2,8 mmol/L	22%
	(179) Siemens (Bayer)	>>>	3	Negative, normal, <= 2,8 mmol/L	4,6%
	(201) Iris Diagnostics	>	1	2,81 - 11 mmol/L	1,5%
	(202) Dirui	>>>	8	Negative, normal, <= 2,8 mmol/L	12%
		>	2	2,81 - 11 mmol/L	3,1%
	(207) 77 Elektronika Kft.	>>>	1	Negative, normal, <= 2,8 mmol/L	1,5%
	(999) another manufacturer	>>>	1	Negative, normal, <= 2,8 mmol/L	1,5%
----- Total per sample: n = 65		-----	Success: 100 %	-----	
B	(12) Beckman Coulter	>	2	11,1 - 28 mmol/L	3,1%
		>>>	2	> 28 mmol/L	3,1%
	(18) Cormay	>>>	1	> 28 mmol/L	1,5%
	(46) Erba Lachema	>	6	11,1 - 28 mmol/L	9,2%
		>>>	13	> 28 mmol/L	20%
	(60) Roche	>>>	4	> 28 mmol/L	6,2%
	(63) Sysmex	>>>	3	> 28 mmol/L	4,6%
	(109) Alere / Axis-Shield	>>>	3	> 28 mmol/L	4,6%
	(113) SEKK	>>>	1	> 28 mmol/L	1,5%
	(150) Arkray	>	3	11,1 - 28 mmol/L	4,6%
		>>>	11	> 28 mmol/L	17%
	(179) Siemens (Bayer)	>	3	11,1 - 28 mmol/L	4,6%
	(201) Iris Diagnostics	>>>	1	> 28 mmol/L	1,5%
	(202) Dirui	>	2	11,1 - 28 mmol/L	3,1%
		>>>	8	> 28 mmol/L	12%
	(207) 77 Elektronika Kft.	>>>	1	> 28 mmol/L	1,5%
	(999) another manufacturer	>>>	1	> 28 mmol/L	1,5%
----- Total per sample: n = 65		-----	Success: 100 %	-----	
Total success: 100 %					

(263) Ketone bodies

A	(12) Beckman Coulter	>>>	4	Negative, <= 0,5 mmol/L	6,2%
	(18) Cormay	>>>	1	Negative, <= 0,5 mmol/L	1,5%
	(46) Erba Lachema	>>>	19	Negative, <= 0,5 mmol/L	29%
	(60) Roche	>>>	4	Negative, <= 0,5 mmol/L	6,2%
	(63) Sysmex	>>>	3	Negative, <= 0,5 mmol/L	4,6%
	(109) Alere / Axis-Shield	>>>	3	Negative, <= 0,5 mmol/L	4,6%
	(113) SEKK	>>>	1	Negative, <= 0,5 mmol/L	1,5%
	(150) Arkray	>>>	14	Negative, <= 0,5 mmol/L	22%
	(179) Siemens (Bayer)	>>>	3	Negative, <= 0,5 mmol/L	4,6%
	(201) Iris Diagnostics	>>>	1	Negative, <= 0,5 mmol/L	1,5%
	(202) Dirui	>>>	10	Negative, <= 0,5 mmol/L	15%
	(207) 77 Elektronika Kft.	>>>	1	Negative, <= 0,5 mmol/L	1,5%
	(999) another manufacturer	>>>	1	Negative, <= 0,5 mmol/L	1,5%
----- Total per sample: n = 65		-----	Success: 100 %	-----	
B	(12) Beckman Coulter	>>>	4	1+, 2+	6,2%
	(18) Cormay	>>>	1	Negative, <= 0,5 mmol/L	1,5%
	(46) Erba Lachema	>>>	17	1+, 2+	26%
		>	2	3+, 4+	3,1%
	(60) Roche	>	4	3+, 4+	6,2%
	(63) Sysmex		1	Negative, <= 0,5 mmol/L	1,5%
		>>>	1	1+, 2+	1,5%
		>	1	3+, 4+	1,5%
	(109) Alere / Axis-Shield	>>>	3	1+, 2+	4,6%
	(113) SEKK	>>>	1	1+, 2+	1,5%
	(150) Arkray	>>>	10	1+, 2+	15%
		>	4	3+, 4+	6,2%

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Sample	Group	N	Result	N _{rel}
B	(179) Siemens (Bayer)	>>> 2	1+, 2+	3,1 %
		> 1	3+, 4+	1,5 %
	(201) Iris Diagnostics	>>> 1	1+, 2+	1,5 %
	(202) Dirui	>>> 7	1+, 2+	11 %
		> 3	3+, 4+	4,6 %
	(207) 77 Elektronika Kft.	>>> 1	1+, 2+	1,5 %
	(999) another manufacturer	>>> 1	1+, 2+	1,5 %
----- Total per sample: n = 65 -----		Success: 97 %		
Total success: 97 %				

(264) Total protein

A	(12) Beckman Coulter	>>> 3	Negative, < 0,3 g/L	4,6 %
		1	0,3 - 0,5 g/L	1,5 %
	(18) Cormay	>>> 1	Negative, < 0,3 g/L	1,5 %
	(46) Erba Lachema	>>> 16	Negative, < 0,3 g/L	25 %
		3	0,3 - 0,5 g/L	4,6 %
	(60) Roche	>>> 3	Negative, < 0,3 g/L	4,6 %
		1	0,3 - 0,5 g/L	1,5 %
	(63) Sysmex	>>> 3	Negative, < 0,3 g/L	4,6 %
	(109) Alere / Axis-Shield	>>> 3	Negative, < 0,3 g/L	4,6 %
	(113) SEKK	>>> 1	Negative, < 0,3 g/L	1,5 %
	(150) Arkray	>>> 14	Negative, < 0,3 g/L	22 %
	(179) Siemens (Bayer)	>>> 3	Negative, < 0,3 g/L	4,6 %
	(201) Iris Diagnostics	>>> 1	Negative, < 0,3 g/L	1,5 %
	(202) Dirui	>>> 10	Negative, < 0,3 g/L	15 %
	(207) 77 Elektronika Kft.	>>> 1	Negative, < 0,3 g/L	1,5 %
	(999) another manufacturer	>>> 1	Negative, < 0,3 g/L	1,5 %
----- Total per sample: n = 65 -----		Success: 92 %		
B	(12) Beckman Coulter	>>> 4	0,51 - 2,5 g/L	6,2 %
	(18) Cormay	>>> 1	> 2,5 g/L	1,5 %
	(46) Erba Lachema	>>> 10	0,51 - 2,5 g/L	15 %
		>>> 9	> 2,5 g/L	14 %
	(60) Roche	>>> 1	0,51 - 2,5 g/L	1,5 %
		>>> 3	> 2,5 g/L	4,6 %
	(63) Sysmex	>>> 3	0,51 - 2,5 g/L	4,6 %
	(109) Alere / Axis-Shield	>>> 1	0,51 - 2,5 g/L	1,5 %
		>>> 2	> 2,5 g/L	3,1 %
	(113) SEKK	>>> 1	> 2,5 g/L	1,5 %
	(150) Arkray	>>> 1	0,3 - 0,5 g/L	1,5 %
		>>> 7	0,51 - 2,5 g/L	11 %
		>>> 6	> 2,5 g/L	9,2 %
	(179) Siemens (Bayer)	>>> 1	0,51 - 2,5 g/L	1,5 %
		>>> 2	> 2,5 g/L	3,1 %
	(201) Iris Diagnostics	>>> 1	0,51 - 2,5 g/L	1,5 %
	(202) Dirui	>>> 4	0,51 - 2,5 g/L	6,2 %
		>>> 6	> 2,5 g/L	9,2 %
	(207) 77 Elektronika Kft.	>>> 1	0,51 - 2,5 g/L	1,5 %
	(999) another manufacturer	>>> 1	> 2,5 g/L	1,5 %
----- Total per sample: n = 65 -----		Success: 98 %		
Total success: 91 %				

(266) Urobilinogen

A	(12) Beckman Coulter	>>> 4	Negative, < 17 µmol/L	6,2 %
	(18) Cormay	>>> 1	Negative, < 17 µmol/L	1,5 %
	(46) Erba Lachema	>>> 19	Negative, < 17 µmol/L	29 %
	(60) Roche	>>> 4	Negative, < 17 µmol/L	6,2 %
	(63) Sysmex	>>> 3	Negative, < 17 µmol/L	4,6 %
	(109) Alere / Axis-Shield	>>> 3	Negative, < 17 µmol/L	4,6 %
	(113) SEKK	>>> 1	Negative, < 17 µmol/L	1,5 %
	(150) Arkray	>>> 14	Negative, < 17 µmol/L	22 %
	(179) Siemens (Bayer)	>>> 3	Negative, < 17 µmol/L	4,6 %
	(201) Iris Diagnostics	>>> 1	Negative, < 17 µmol/L	1,5 %
	(202) Dirui	>>> 10	Negative, < 17 µmol/L	15 %
	(207) 77 Elektronika Kft.	>>> 1	Negative, < 17 µmol/L	1,5 %
	(999) another manufacturer	>>> 1	Negative, < 17 µmol/L	1,5 %
----- Total per sample: n = 65 -----		Success: 100 %		
B	(12) Beckman Coulter	>>> 1	1+, 2+	1,5 %
		>>> 3	3+, 4+	4,6 %
	(18) Cormay	>>> 1	3+, 4+	1,5 %
	(46) Erba Lachema	>>> 1	1+, 2+	1,5 %
		>>> 18	3+, 4+	28 %

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Test						
Sample	Group		N	Result	N _{rel}	
B	(60) Roche	>>>	4	3+, 4+	6,2 %	
	(63) Sysmex	>>>	2	1+, 2+	3,1 %	
		>>>	1	3+, 4+	1,5 %	
	(109) Alere / Axis-Shield	>>>	2	1+, 2+	3,1 %	
		>>>	1	3+, 4+	1,5 %	
	(113) SEKK	>>>	1	3+, 4+	1,5 %	
	(150) Arkray	>>>	12	1+, 2+	18 %	
		>>>	2	3+, 4+	3,1 %	
	(179) Siemens (Bayer)	>>>	3	3+, 4+	4,6 %	
	(201) Iris Diagnostics	>>>	1	3+, 4+	1,5 %	
	(202) Dirui	>>>	8	1+, 2+	12 %	
		>>>	2	3+, 4+	3,1 %	
	(207) 77 Elektronika Kft.	>>>	1	3+, 4+	1,5 %	
	(999) another manufacturer	>>>	1	3+, 4+	1,5 %	
	Total per sample: n = 65			Success: 100 %		

Total success: 100 %

(268) Bilirubin

A	(12) Beckman Coulter	>>>	4	Negative	6,3 %
	(18) Cormay	>>>	1	Negative	1,6 %
	(46) Erba Lachema	>>>	17	Negative	27 %
	(60) Roche	>>>	4	Negative	6,3 %
	(63) Sysmex	>>>	3	Negative	4,8 %
	(109) Alere / Axis-Shield	>>>	3	Negative	4,8 %
	(113) SEKK	>>>	1	Negative	1,6 %
	(150) Arkray	>>>	14	Negative	22 %
	(179) Siemens (Bayer)	>>>	3	Negative	4,8 %
	(201) Iris Diagnostics	>>>	1	Negative	1,6 %
	(202) Dirui	>>>	10	Negative	16 %
	(207) 77 Elektronika Kft.	>>>	1	Negative	1,6 %
	(999) another manufacturer	>>>	1	Negative	1,6 %
	Total per sample: n = 63			Success: 100 %	
B	(12) Beckman Coulter	>	4	1+, 2+	6,3 %
	(18) Cormay	>>>	1	3+, 4+	1,6 %
	(46) Erba Lachema	>>>	17	3+, 4+	27 %
	(60) Roche	>>>	4	3+, 4+	6,3 %
	(63) Sysmex	>>>	3	3+, 4+	4,8 %
	(109) Alere / Axis-Shield	>>>	3	3+, 4+	4,8 %
	(113) SEKK	>>>	1	3+, 4+	1,6 %
	(150) Arkray	>>>	14	3+, 4+	22 %
	(179) Siemens (Bayer)	>>>	3	3+, 4+	4,8 %
	(201) Iris Diagnostics	>>>	1	3+, 4+	1,6 %
	(202) Dirui	>>>	10	3+, 4+	16 %
	(207) 77 Elektronika Kft.	>>>	1	3+, 4+	1,6 %
	(999) another manufacturer	>>>	1	3+, 4+	1,6 %
	Total per sample: n = 63			Success: 100 %	

Total success: 100 %

(270) WBC

A	(12) Beckman Coulter	>>>	4	Negative	7,5 %	
	(18) Cormay	>>>	1	Negative	1,9 %	
	(46) Erba Lachema	>>>	8	Negative	15 %	
	(60) Roche	>>>	4	Negative	7,5 %	
	(63) Sysmex	>>>	3	Negative	5,7 %	
	(109) Alere / Axis-Shield	>>>	1	Negative	1,9 %	
				1	10 - 50 leu/μL	1,9 %
				1	51 - 250 leu/μL	1,9 %
	(113) SEKK	>>>	1	Negative	1,9 %	
	(150) Arkray	>>>	14	Negative	26 %	
	(179) Siemens (Bayer)	>>>	3	Negative	5,7 %	
	(202) Dirui	>>>	10	Negative	19 %	
	(207) 77 Elektronika Kft.	>>>	1	Negative	1,9 %	
	(999) another manufacturer	>>>	1	Negative	1,9 %	
	Total per sample: n = 53			Success: 96 %		
	B	(12) Beckman Coulter; (223) Iris iChem Velocity	±	3	Negative	5,7 %
		±	1	10 - 50 leu/μL	1,9 %	
(18) Cormay		>	1	51 - 250 leu/μL	1,9 %	
(46) Erba Lachema		>	2	51 - 250 leu/μL	3,8 %	
		>>>	6	> 250 leu/μL	11 %	

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Test	Sample	Group	N	Result	N _{rel}	
B	(60) Roche		>	1	51 - 250 leu/μL	1,9 %
			>>>	3	> 250 leu/μL	5,7 %
			>	1	10 - 50 leu/μL	1,9 %
	(63) Sysmex		>>>	2	> 250 leu/μL	3,8 %
			>>>	3	> 250 leu/μL	5,7 %
	(109) Alere / Axis-Shield		>	1	51 - 250 leu/μL	1,9 %
	(113) SEKK		>	1	10 - 50 leu/μL	1,9 %
	(150) Arkray		>	6	51 - 250 leu/μL	11 %
			>>>	7	> 250 leu/μL	13 %
			>	3	51 - 250 leu/μL	5,7 %
	(179) Siemens (Bayer)		>	3	51 - 250 leu/μL	5,7 %
	(202) Dirui		>	3	51 - 250 leu/μL	5,7 %
			>>>	7	> 250 leu/μL	13 %
	(207) 77 Elektronika Kft.		>>>	1	> 250 leu/μL	1,9 %
	(999) another manufacturer		>>>	1	> 250 leu/μL	1,9 %
	Total per sample: n = 53			Success (only evaluated results): 100 %		
	Total success (only evaluated tests): 96 %					

(272) Blood

A	(12) Beckman Coulter		>>>	4	Negative	6,3 %
	(18) Cormay		>>>	1	Negative	1,6 %
	(46) Erba Lachema		>>>	18	Negative	28 %
	(60) Roche		>>>	4	Negative	6,3 %
	(63) Sysmex		>>>	3	Negative	4,7 %
	(109) Alere / Axis-Shield		>>>	3	Negative	4,7 %
	(113) SEKK		>>>	1	Negative	1,6 %
	(150) Arkray		>>>	14	Negative	22 %
	(179) Siemens (Bayer)		>>>	3	Negative	4,7 %
	(201) Iris Diagnostics		>>>	1	Negative	1,6 %
	(202) Dirui		>>>	9	Negative	14 %
				1	5 - 12 ery/μL	1,6 %
	(207) 77 Elektronika Kft.		>>>	1	Negative	1,6 %
(999) another manufacturer		>>>	1	Negative	1,6 %	
Total per sample: n = 64			Success: 98 %			
B	(12) Beckman Coulter		>>>	4	> 50 ery/μL	6,3 %
	(18) Cormay		>>>	1	> 50 ery/μL	1,6 %
	(46) Erba Lachema		>>>	18	> 50 ery/μL	28 %
	(60) Roche		>>>	4	> 50 ery/μL	6,3 %
	(63) Sysmex		>>>	3	> 50 ery/μL	4,7 %
	(109) Alere / Axis-Shield		>>>	3	> 50 ery/μL	4,7 %
	(113) SEKK		>>>	1	> 50 ery/μL	1,6 %
	(150) Arkray		>	2	13 - 50 ery/μL	3,1 %
			>>>	12	> 50 ery/μL	19 %
	(179) Siemens (Bayer)		>>>	3	> 50 ery/μL	4,7 %
	(201) Iris Diagnostics		>>>	1	> 50 ery/μL	1,6 %
	(202) Dirui		>>>	10	> 50 ery/μL	16 %
	(207) 77 Elektronika Kft.		>>>	1	> 50 ery/μL	1,6 %
	(999) another manufacturer		>>>	1	> 50 ery/μL	1,6 %
Total per sample: n = 64			Success: 100 %			
Total success: 98 %						

(273) pH

A	(12) Beckman Coulter		>>>	3	6,5	4,7 %	
			>	1	7,0	1,6 %	
			>	1	6,0	1,6 %	
	(46) Erba Lachema				1	5,0	1,6 %
			>	1	5,5	1,6 %	
			>	7	6,0	11 %	
			>>>	9	6,5	14 %	
	(60) Roche		>>>	3	6,5	4,7 %	
			>	1	7,0	1,6 %	
	(63) Sysmex		>>>	3	6,5	4,7 %	
	(109) Alere / Axis-Shield		>	3	6,0	4,7 %	
	(113) SEKK		>	1	6,0	1,6 %	
	(150) Arkray		>>>	12	6,5	19 %	
			>	2	7,0	3,1 %	
	(179) Siemens (Bayer)		>>>	1	6,5	1,6 %	
			>	2	7,0	3,1 %	
	(201) Iris Diagnostics		>>>	1	6,5	1,6 %	
(202) Dirui		>	1	5,5	1,6 %		
		>	3	6,0	4,7 %		
		>>>	6	6,5	9,4 %		

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Test			N	Result	N _{rel}
Sample	Group				
A	(207) 77 Elektronika Kft.	>>>	1	6,5	1,6%
	(999) another manufacturer	>	1	6,0	1,6%
	Total per sample: n = 64		Success: 98 %		
B	(12) Beckman Coulter	>>>	4	7,0	6,3%
	(18) Cormay	>	1	6,5	1,6%
	(46) Erba Lachema	>	3	6,5	4,7%
		>>>	15	7,0	23%
	(60) Roche	>>>	4	7,0	6,3%
	(63) Sysmex	>>>	3	7,0	4,7%
	(109) Alere / Axis-Shield	>	1	6,5	1,6%
		>>>	2	7,0	3,1%
	(113) SEKK	>	1	6,5	1,6%
	(150) Arkray	>>>	8	7,0	13%
		>	6	7,5	9,4%
	(179) Siemens (Bayer)	>>>	2	7,0	3,1%
		>	1	7,5	1,6%
	(201) Iris Diagnostics	>>>	1	7,0	1,6%
	(202) Dirui		1	5,5	1,6%
		>	1	6,0	1,6%
		>	4	6,5	6,3%
	>>>	4	7,0	6,3%	
	(207) 77 Elektronika Kft.	>	1	6,5	1,6%
	(999) another manufacturer	>>>	1	7,0	1,6%
Total per sample: n = 64		Success: 98 %			
Total success: 97 %					

(274) Nitrite

A	(12) Beckman Coulter	>>>	4	Negative	7,3%
	(18) Cormay	>>>	1	Negative	1,8%
	(46) Erba Lachema	>>>	9	Negative	16%
	(60) Roche	>>>	4	Negative	7,3%
	(63) Sysmex	>>>	3	Negative	5,5%
	(109) Alere / Axis-Shield	>>>	3	Negative	5,5%
	(113) SEKK	>>>	1	Negative	1,8%
	(150) Arkray	>>>	14	Negative	25%
	(179) Siemens (Bayer)	>>>	3	Negative	5,5%
	(201) Iris Diagnostics	>>>	1	Negative	1,8%
	(202) Dirui	>>>	10	Negative	18%
	(207) 77 Elektronika Kft.	>>>	1	Negative	1,8%
	(999) another manufacturer	>>>	1	Negative	1,8%
Total per sample: n = 55		Success: 100 %			
B	(12) Beckman Coulter	>>>	4	Positive	7,3%
	(18) Cormay	>>>	1	Positive	1,8%
	(46) Erba Lachema	>>>	9	Positive	16%
	(60) Roche	>>>	4	Positive	7,3%
	(63) Sysmex	>>>	3	Positive	5,5%
	(109) Alere / Axis-Shield	>>>	3	Positive	5,5%
	(113) SEKK	>>>	1	Positive	1,8%
	(150) Arkray	>>>	14	Positive	25%
	(179) Siemens (Bayer)	>>>	3	Positive	5,5%
	(201) Iris Diagnostics	>>>	1	Positive	1,8%
	(202) Dirui	>>>	10	Positive	18%
	(207) 77 Elektronika Kft.	>>>	1	Positive	1,8%
	(999) another manufacturer	>>>	1	Positive	1,8%
Total per sample: n = 55		Success: 100 %			
Total success: 100 %					

(275) hCG

A	(5) Dialab	>>>	3	Negative	43%
	(32) Human	>>>	1	Negative	14%
	(116) Sentinel Diagnostics	>>>	1	Negative	14%
	(179) Siemens (Bayer)	>>>	1	Negative	14%
	(999) another manufacturer	>>>	1	Negative	14%
	Total per sample: n = 7		Success: 100 %		
B	(5) Dialab	>>>	3	Positive	43%
	(32) Human	>>>	1	Positive	14%
	(116) Sentinel Diagnostics	>>>	1	Positive	14%
	(179) Siemens (Bayer)	>>>	1	Positive	14%
	(999) another manufacturer	>>>	1	Positive	14%
	Total per sample: n = 7		Success: 100 %		

Summary statistics - qualitative results

(Groups: manufacturer of kit)

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Test

Sample	Group	N	Result	N _{rel}
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Total success: 100 %

st_kl

End of report

Printed: 29.06.2018