Supplementary material

Supplementary table 1. Linearity for Siemens Advia 2120i haematology analyser

Parameter	Initial value	Coefficient of correlation (95%CI)	P value	Intercept (95%CI)	Slope (95%CI)	P value	Linearity declared by manufacturer
Leukocytes, $\times 10^9$/L	90	1.00 (0.99 to 1.00)	< 0.001	-0.33 (-2.47 to 0.48)	0.98 (0.94 to 1.07)	0.930	0.02-400 $\times 10^9$/L
Erythrocytes, $\times 10^{12}$/L	7.06	1.00 (0.99 to 1.00)	< 0.001	-0.02 (-0.07 to 0.01)	1.00 (0.99 to 1.03)	0.190	0.0-7.0 $\times 10^{12}$/L
Haemoglobin, g/L	220	1.00 (0.99 to 1.00)	< 0.001	-0.93 (-3.02 to 0.12)	1.02 (0.97 to 1.05)	0.930	0-225 g/L
Platelets, $\times 10^9$/L	970	0.99 (0.99 to 1.00)	< 0.001	7.52 (-13.50 to 18.50)	1.00 (0.97 to 1.11)	0.930	5.0-3500 $\times 10^9$/L

Supplementary table 2. Carryover assessment on patient samples for Siemens Advia 2120i haematology analyser

Parameter	Sample H	Sample L	$\frac{L1-L3}{H3-L3} * 100, \%$	Acceptance criteria, %	
				SOTA	**Manufacturer**
Leukocytes, x10^9/L	72.08	3.1	0.8	< 0.2	≤ 1
	84.60	1.65	0.3	< 0.2	≤ 1
	58.14	0.53	0.4	< 0.2	≤ 1
Erythrocytes, x10^{12}/L	6.46	1.01	0.6	< 0.5	≤ 1
	7.11	0.69	0.3	< 0.5	≤ 1
	6.77	0.84	0.3	< 0.5	≤ 1
Haemoglobin, g/L	186	31	0.6	< 0.4	≤ 1
	177	16	0	< 0.4	≤ 1
	208	31	0.6	< 0.4	≤ 1
Platelets, x10^9/L	1007	7	0.1	< 0.5	≤ 1
	725	9	0	< 0.5	≤ 1
	871	20	0.3	< 0.5	≤ 1

Grey area – within manufacturer's criteria. Sample H – sample with higher concentration. Sample L – sample with lower concentration. SOTA – State-of-the-Art acceptance criteria.

Supplementary table 3. Estimated limit of detection and quantification for Siemens Advia 2120i haematology analyser

WBC	LoD $(\times10^9/L)$	Mean value $(\times10^9/L)$	SD	CV (%)	CLSI criterion	Platelets $(\times10^9/L)$	LoD $(\times10^9/L)$	Mean values	SD	CV (%)	CLSI criterion
Sample 1	0.05	0.13	0.019	14.97	15%	Sample 1	2	3.00	0.378	12.03	25%
Sample 2		0.10	0.013	13.26		Sample 2		2.14	0.690	32.20	
Sample 3		0.15	0.018	11.77		Sample 3		9.43	1.272	13.50	
Sample 4		0.12	0.017	13.82		Sample 4		6.00	1.00	16.67	
Sample 5		0.17	0.014	8.04		Sample 5		5.5	0.756	13.74	
Sample 6		0.12	0.014	11.32		Sample 6		4.9	0.568	11.58	

The grey area shows estimated LoQ. WBC – white blood cell. SD – standard of deviation. CV – coefficient of variation. CLSI – clinical and laboratory standard institute. LoD – limit of detection. LoQ – limit of quantification.