



TRUNG TÂM KIỂM CHUẨN CHẤT LƯỢNG XÉT NGHIỆM Y HỌC
ĐẠI HỌC Y DƯỢC THÀNH PHỐ HỒ CHÍ MINH
QUALITY CONTROL CENTER FOR MEDICAL LABORATORY
UNIVERSITY OF MEDICINE AND PHARMACY AT HCMC

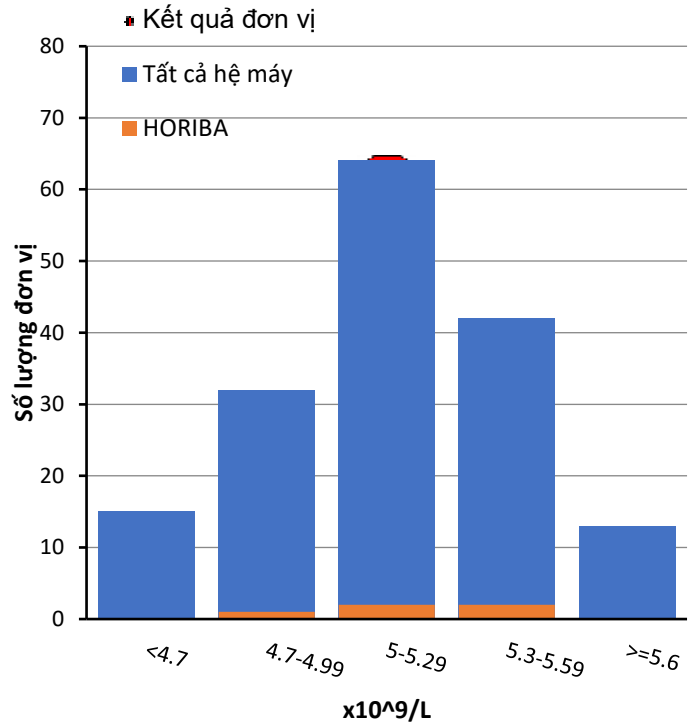
BÁO CÁO PHÂN TÍCH KẾT QUẢ NGOẠI KIỂM
PROFICIENCY TESTING REPORT

CHƯƠNG TRÌNH
CÔNG THỨC MÁU QCC
HAEMATOLOGY QCC

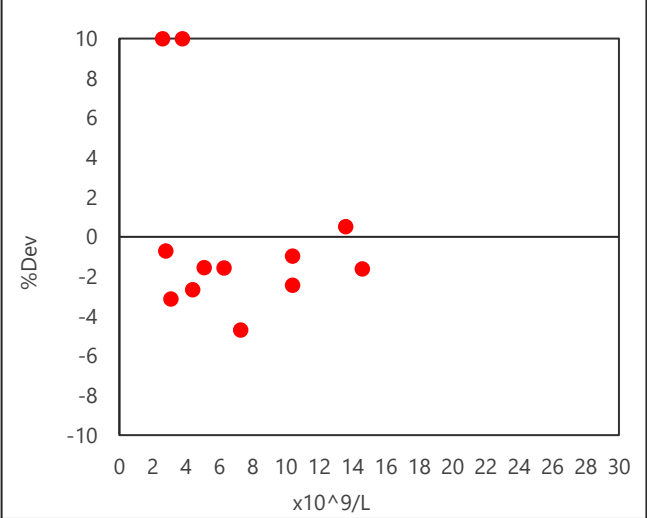
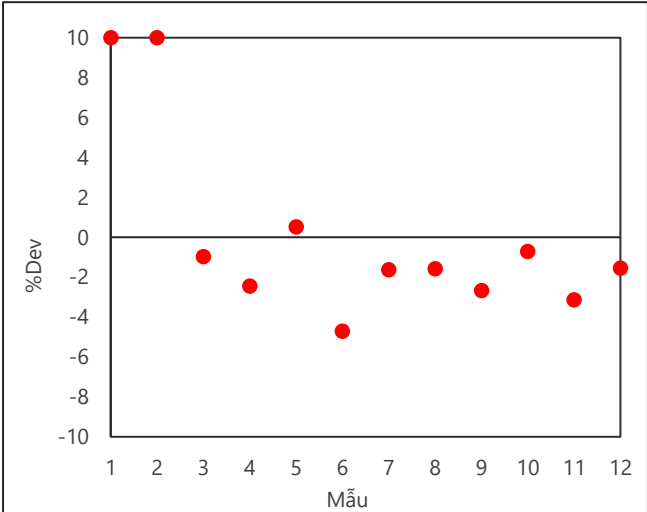
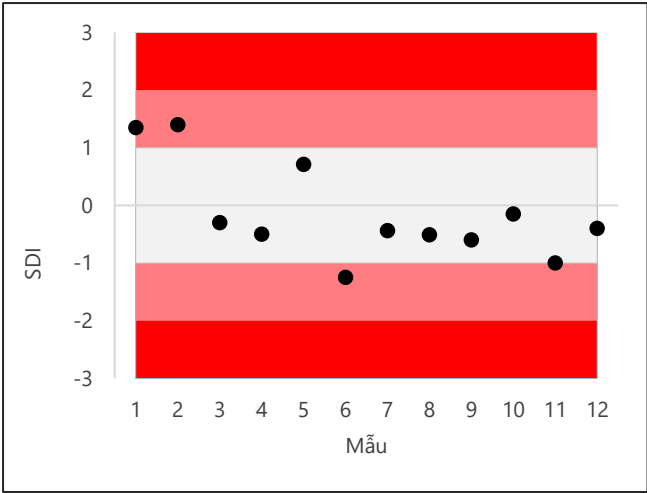
MÃ ĐƠN VỊ/PARTICIPANT CODE: BDG206
MÃ NGOẠI KIỂM/PT CODE: CBC093/B
CHU KỲ - ĐỢT – MẪU/
CYCLE – ROUND – SAMPLE: 3 – 6 – 230612

Total White Blood Cell (WBC), đơn vị: x10^9/L

Kết quả đơn vị	5,1	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	-0,4	Tất cả	187	5,12	5,47	9
% DEV	-1,55	HORIBA	8	5,18	3,87	0



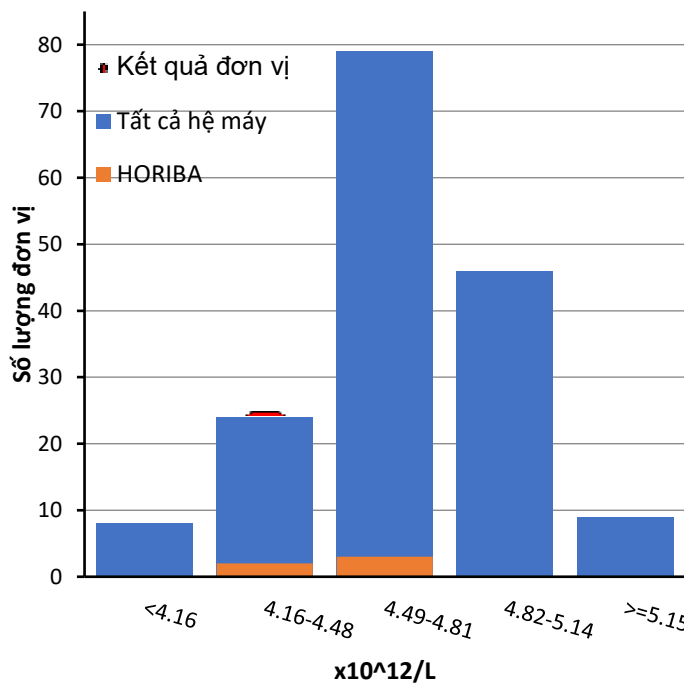
	N	Khoảng giá trị	M
Tất cả hệ máy	165	3.2-46.2	5.12
SYSMEX XN/XP/XS	39	4.5-5.4	5.08
NIHON KOHDEN	43	4.6-5.6	5.19
MINDRAY	33	4.8-5.9	5.24
ABBOTT	9	3.44-5.64	5.09
HORIBA	5	4.9-5.4	5.18
BOULE	5	4.8-46.2	4.95
AGAPPE	4	3.2-46.2	5.12
BECKMAN COULTER	2	3.2-46.2	5.12
ERBA LACHEMA	5	3.2-46.2	5.12
MYTHIC	2	3.2-46.2	5.12
HUMAN	1	3.2-46.2	5.12
CONVERGENT	1	3.2-46.2	5.12
ABACUS	2	3.2-46.2	5.12
DIRUI	2	3.2-46.2	5.12
URIT	3	3.2-46.2	5.12
NEOMEDICA	1	3.2-46.2	5.12
MTI	1	3.2-46.2	5.12
ACCOS	1	3.2-46.2	5.12
BT PRODUCTS	1	3.2-46.2	5.12
FORTRESS	1	3.2-46.2	5.12
PROKANMED	1	3.2-46.2	5.12
SFRI	1	3.2-46.2	5.12
TECO - DIAGNOSTICS	1	3.2-46.2	5.12
ZYBIO	1	3.2-46.2	5.12



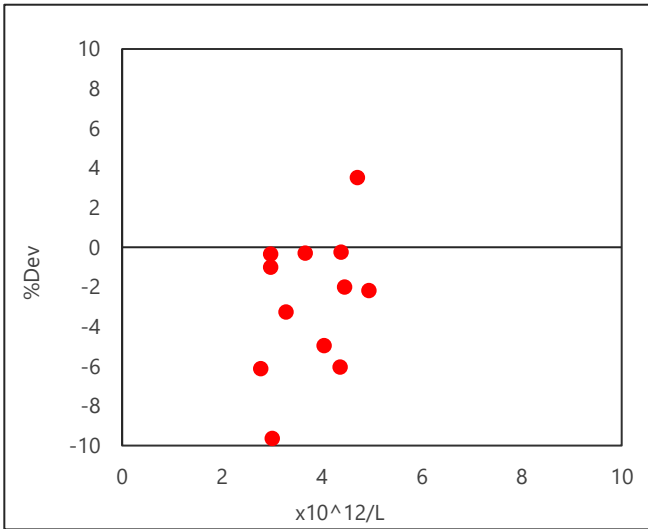
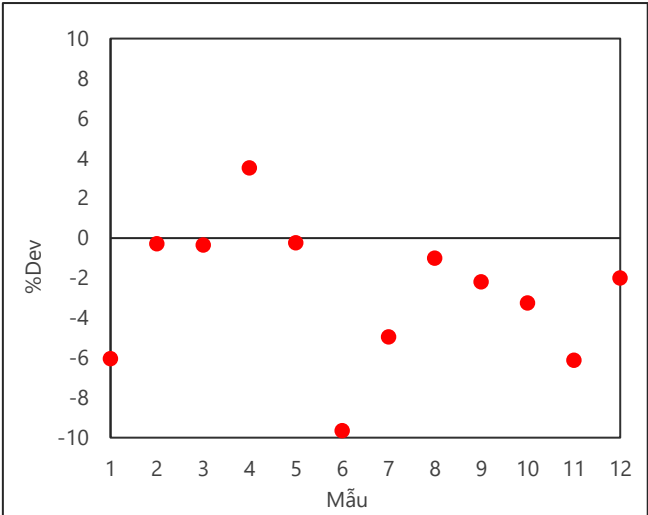
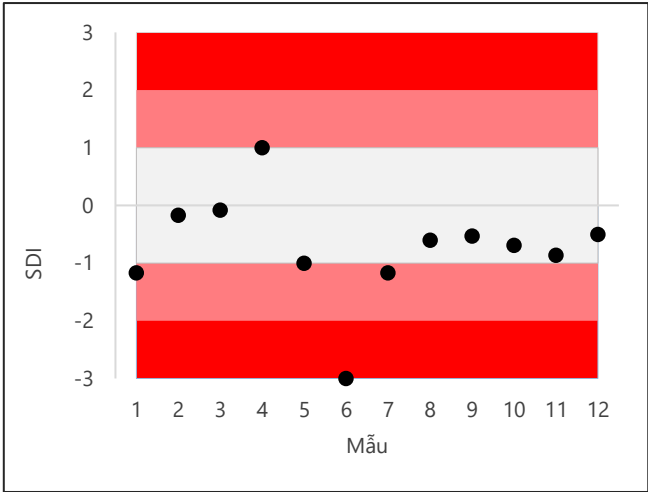
%DEV (Criteria for Acceptable Performance (theo CLIA năm 2019): ± 15%

Red Blood Cell (RBC), đơn vị: x10¹²/L

Kết quả đơn vị	4,45	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	-0,5	Tất cả	187	4,71	4,68	9
% DEV	-1,99	HORIBA	8	4,54	3,97	0



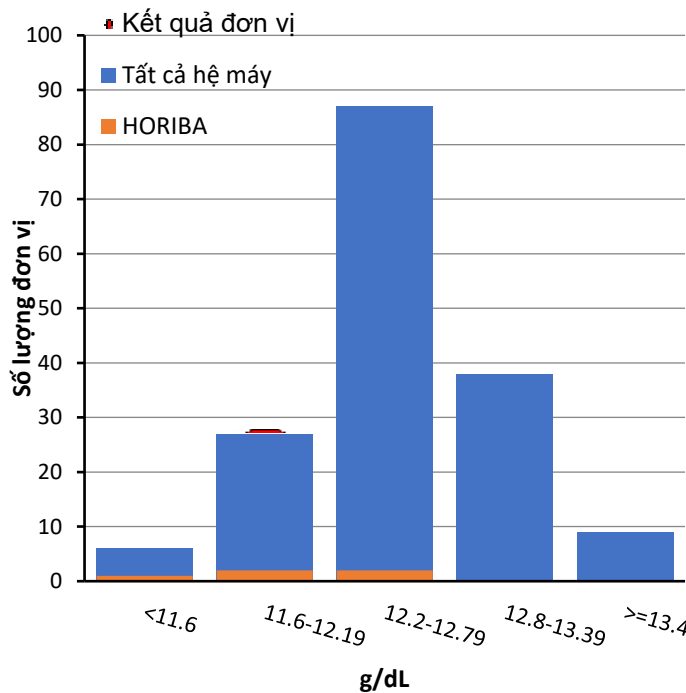
	N	Khoảng giá trị	M
Tất cả hệ máy	165	2.83-10	4.71
SYSMEX XN/XP/XS	39	4.29-5.16	4.71
NIHON KOHDEN	44	4.09-5.57	4.65
MINDRAY	32	2.83-10	4.77
ABBOTT	9	4.6-5.03	4.82
HORIBA	5	4.3-4.73	4.54
BOULE	5	4.31-4.85	4.77
AGAPPE	4	2.83-10	4.71
BECKMAN COULTER	2	2.83-10	4.71
ERBA LACHEMA	5	2.83-10	4.71
MYTHIC	2	2.83-10	4.71
HUMAN	1	2.83-10	4.71
CONVERGENT	1	2.83-10	4.71
ABACUS	2	2.83-10	4.71
DIRUI	2	2.83-10	4.71
URIT	3	2.83-10	4.71
NEOMEDICA	1	2.83-10	4.71
MTI	1	2.83-10	4.71
ACCOS	1	2.83-10	4.71
BT PRODUCTS	1	2.83-10	4.71
FORTRESS	1	2.83-10	4.71
PROKANMED	1	2.83-10	4.71
SFRI	1	2.83-10	4.71
TECO - DIAGNOSTICS	1	2.83-10	4.71



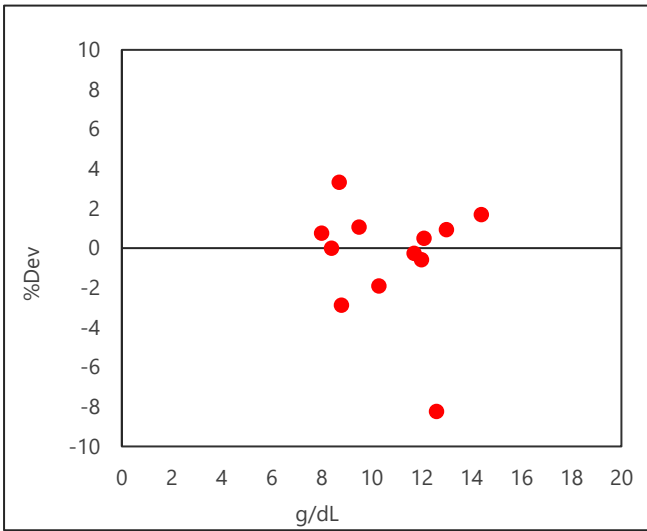
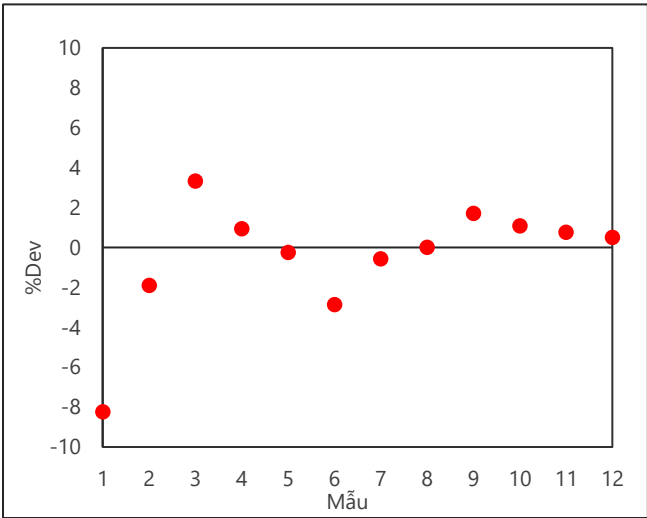
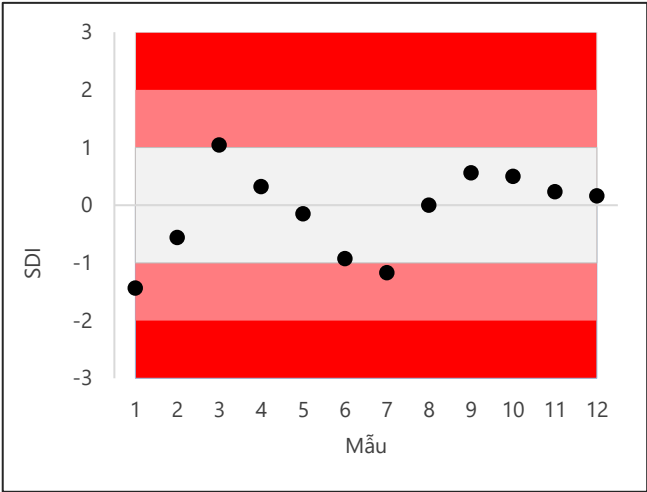
%DEV (Criteria for Acceptable Performance (theo CLIA năm 2019): ± 6%

Haemoglobin (HGB), đơn vị: g/dL

Kết quả đơn vị	12,1	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	0,16	Tất cả	187	12,51	3,52	7
% DEV	0,5	HORIBA	8	12,04	3,33	0



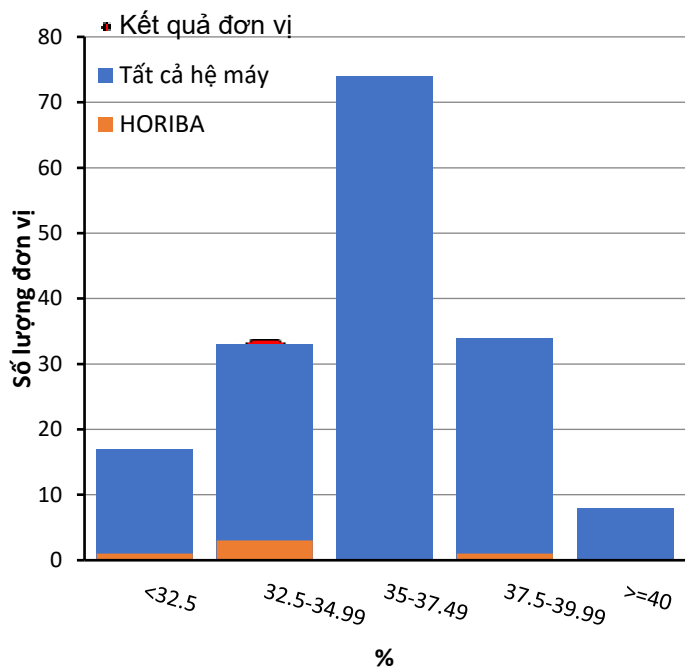
	N	Khoảng giá trị	M
Tất cả hệ máy	166	4.7-14.6	12.51
SYSMEX XN/XP/XS	39	11.7-13.3	12.37
NIHON KOHDEN	44	11.6-14	12.65
MINDRAY	33	11.8-14.5	12.54
ABBOTT	9	11.1-13.8	12.74
HORIBA	5	11.5-12.5	12.04
BOULE	5	12.3-14.6	12.35
AGAPPE	4	4.7-14.6	12.51
BECKMAN COULTER	2	4.7-14.6	12.51
ERBA LACHEMA	5	4.7-14.6	12.51
MYTHIC	2	4.7-14.6	12.51
HUMAN	1	4.7-14.6	12.51
CONVERGENT	1	4.7-14.6	12.51
ABACUS	2	4.7-14.6	12.51
DIRUI	2	4.7-14.6	12.51
URIT	3	4.7-14.6	12.51
NEOMEDICA	1	4.7-14.6	12.51
MTI	1	4.7-14.6	12.51
ACCOS	1	4.7-14.6	12.51
BT PRODUCTS	1	4.7-14.6	12.51
FORTRESS	1	4.7-14.6	12.51
PROKANMED	1	4.7-14.6	12.51
SFRI	1	4.7-14.6	12.51
TECO - DIAGNOSTICS	1	4.7-14.6	12.51
ZYBIO	1	4.7-14.6	12.51



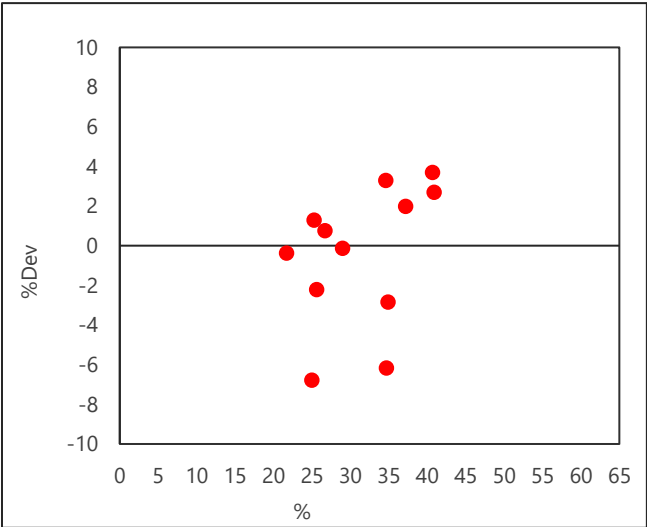
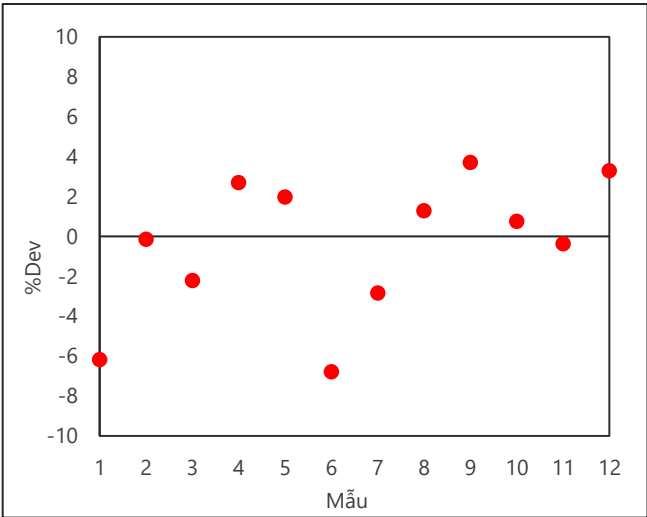
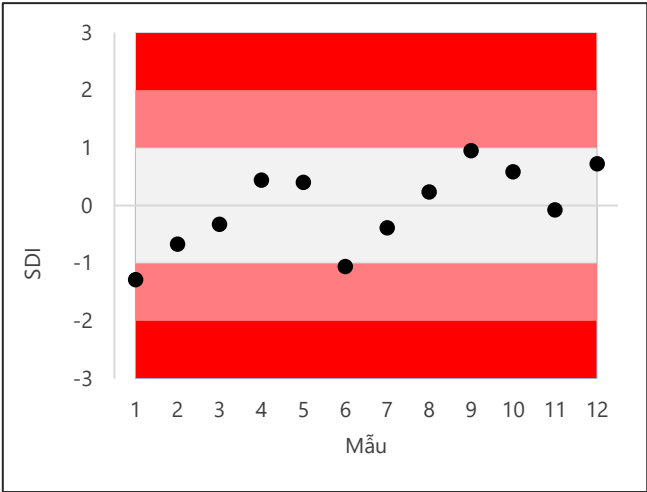
%DEV (Criteria for Acceptable Performance (theo CLIA năm 2019): ± 7%

Haematocrit (HCT), đơn vị: %

Kết quả đơn vị	34,6	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	0,72	Tất cả	187	36,1	5,93	10
% DEV	3,29	HORIBA	8	33,5	4,6	1



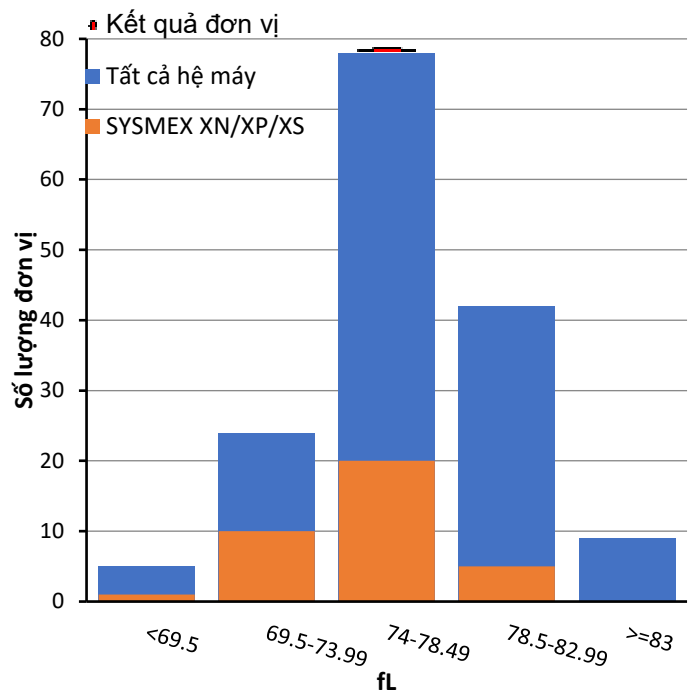
	N	Khoảng giá trị	M
Tất cả hệ máy	166	18.2-3500	36.1
SYSMEX XN/XP/XS	39	27.6-3500	35.44
NIHON KOHDEN	44	26.7-40.6	36.42
MINDRAY	33	18.2-42.5	35.85
ABBOTT	9	33.6-39.4	36.4
HORIBA	5	31.4-38.5	33.5
BOULE	5	27.3-37.1	35.68
AGAPPE	4	18.2-3500	36.1
BECKMAN COULTER	2	18.2-3500	36.1
ERBA LACHEMA	5	18.2-3500	36.1
MYTHIC	2	18.2-3500	36.1
HUMAN	1	18.2-3500	36.1
CONVERGENT	1	18.2-3500	36.1
ABACUS	2	18.2-3500	36.1
DIRUI	2	18.2-3500	36.1
URIT	3	18.2-3500	36.1
NEOMEDICA	1	18.2-3500	36.1
MTI	1	18.2-3500	36.1
ACCOS	1	18.2-3500	36.1
BT PRODUCTS	1	18.2-3500	36.1
FORTRESS	1	18.2-3500	36.1
PROKANMED	1	18.2-3500	36.1
SFRI	1	18.2-3500	36.1
TECO - DIAGNOSTICS	1	18.2-3500	36.1



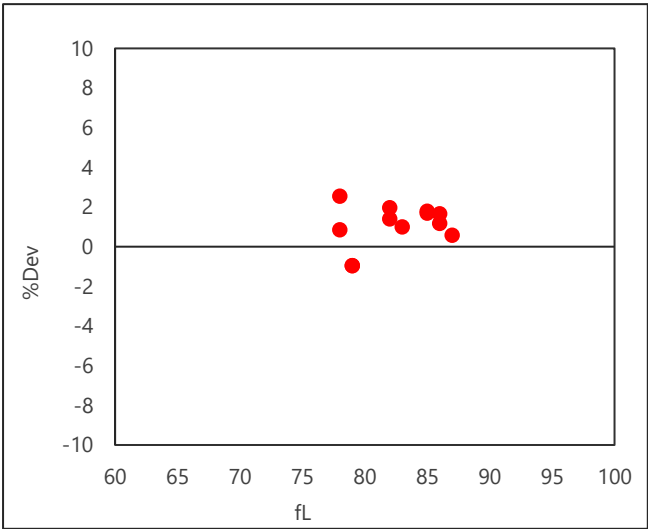
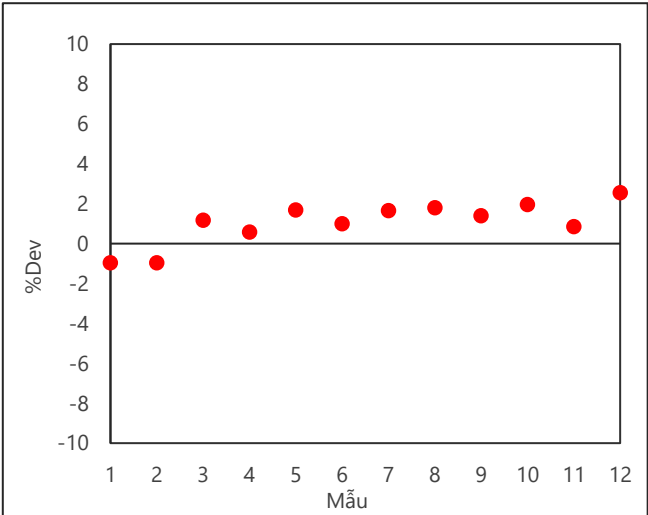
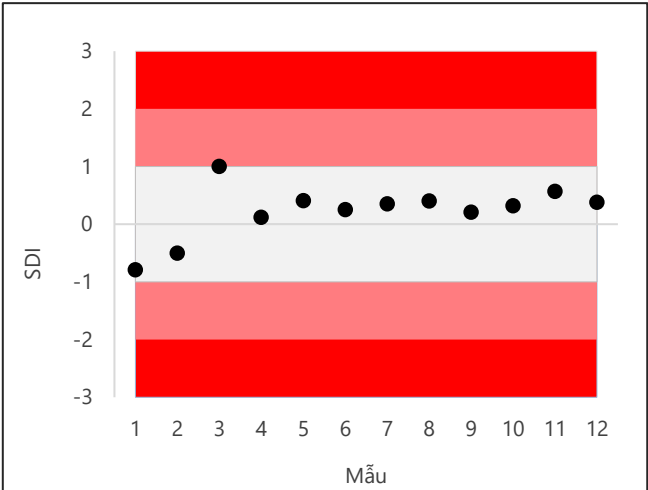
%DEV (Criteria for Acceptable Performance (theo CLIA năm 2019): ± 6%

Mean Corpuscular Volume (MCV), đơn vị: fL

Kết quả đơn vị	78	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	0,38	Tất cả	187	77,09	4,52	5
% DEV	2,56	HORIBA	8	76,06	6,76	0

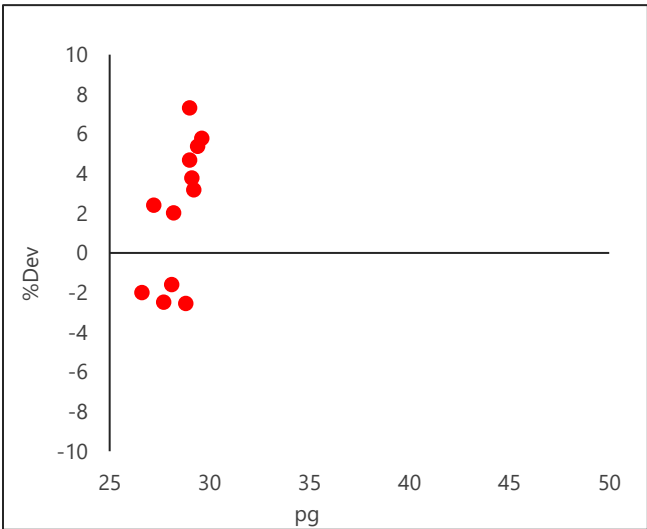
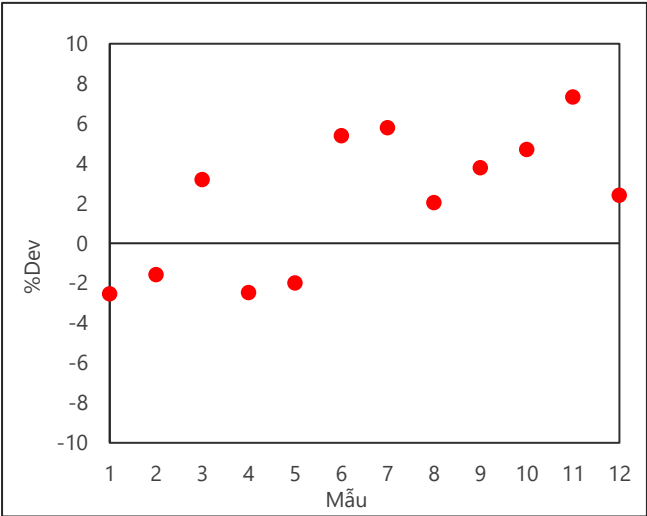
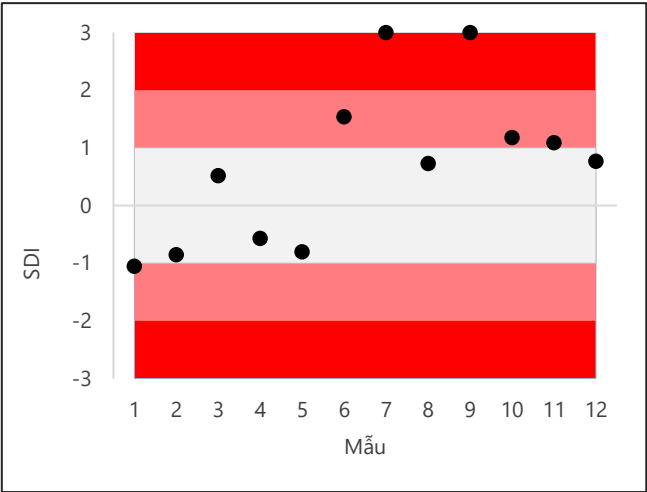
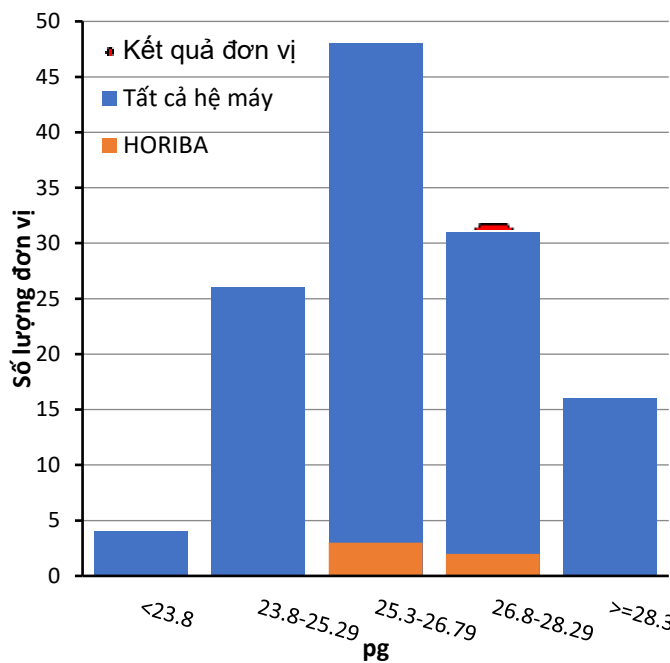


	N	Khoảng giá trị	M
Tất cả hệ máy	157	15.2-88.5	77.09
SYSMEX XN/XP/XS	36	62.3-82.8	75.17
NIHON KOHDEN	43	70.7-84.7	78.8
MINDRAY	32	15.2-82.5	76.83
ABBOTT	9	70.9-83.2	76.67
HORIBA	5	69-82.3	76.06
BOULE	5	63.3-77.8	72.5
AGAPPE	4	15.2-88.5	77.09
BECKMAN COULTER	2	15.2-88.5	77.09
ERBA LACHEMA	5	15.2-88.5	77.09
MYTHIC	2	15.2-88.5	77.09
HUMAN	1	15.2-88.5	77.09
CONVERGENT	1	15.2-88.5	77.09
ABACUS	2	15.2-88.5	77.09
DIRUI	1	15.2-88.5	77.09
URIT	1	15.2-88.5	77.09
NEOMEDICA	1	15.2-88.5	77.09
MTI	1	15.2-88.5	77.09
BT PRODUCTS	1	15.2-88.5	77.09
FORTRESS	1	15.2-88.5	77.09
PROKANMED	1	15.2-88.5	77.09
SFRI	1	15.2-88.5	77.09
TECO - DIAGNOSTICS	1	15.2-88.5	77.09



Mean Corpuscular Haemoglobin (MCH), đơn vị: pg

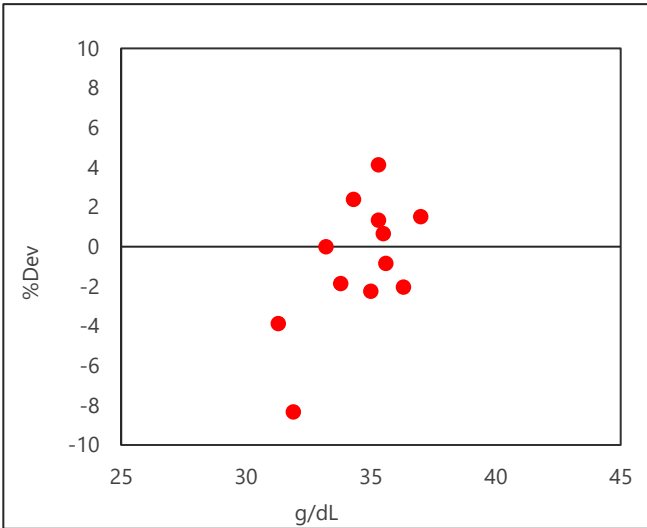
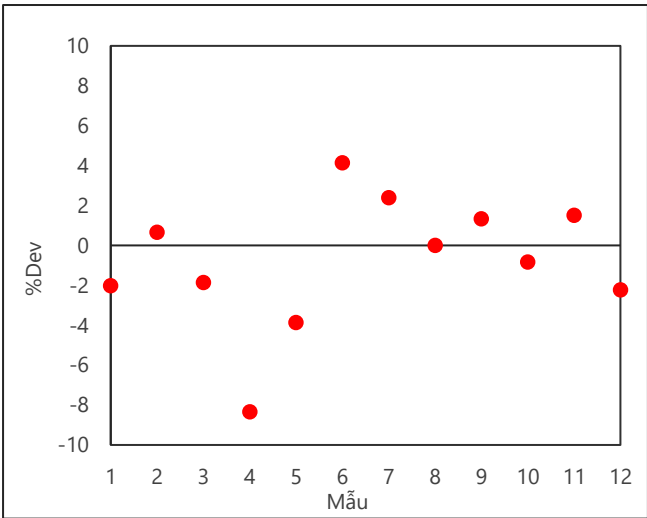
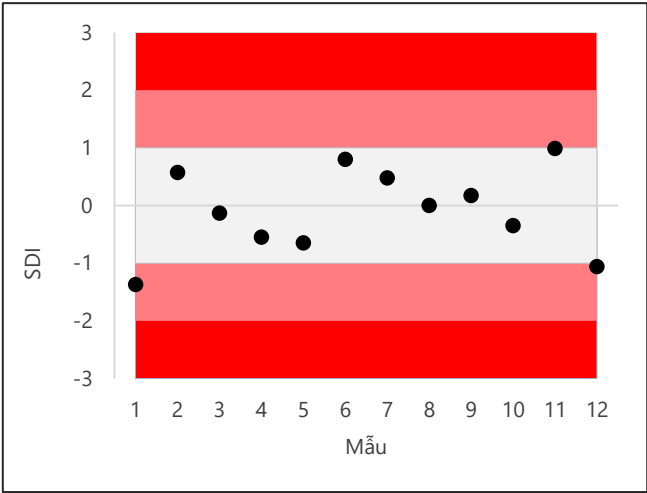
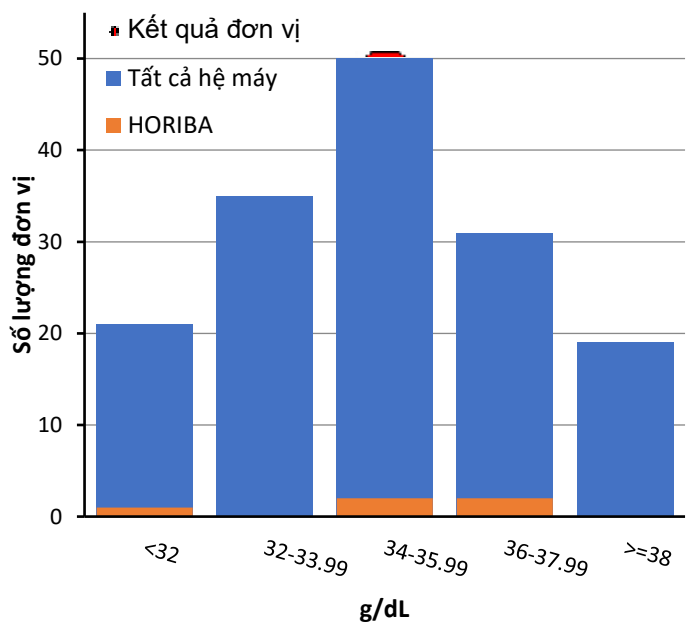
Kết quả đơn vị	27,2	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	0,77	Tất cả	187	26,78	6,13	2
% DEV	2,41	HORIBA	8	26,56	3,17	0



	N	Khoảng giá trị	M
Tất cả hệ máy	156	22.1-78.1	26.78
SYSMEX XN/XP/XS	36	23.7-30	26.48
NIHON KOHDEN	42	25-78.1	27.2
MINDRAY	33	24.2-42.4	27
ABBOTT	9	22.1-29.5	26.72
HORIBA	5	25.4-27.5	26.56
BOULE	5	25.6-30.6	27.38
AGAPPE	4	22.1-78.1	26.78
BECKMAN COULTER	2	22.1-78.1	26.78
ERBA LACHEMA	5	22.1-78.1	26.78
MYTHIC	2	22.1-78.1	26.78
HUMAN	1	22.1-78.1	26.78
CONVERGENT	1	22.1-78.1	26.78
ABACUS	2	22.1-78.1	26.78
DIRUI	1	22.1-78.1	26.78
URIT	1	22.1-78.1	26.78
NEOMEDICA	1	22.1-78.1	26.78
MTI	1	22.1-78.1	26.78
BT PRODUCTS	1	22.1-78.1	26.78
FORTRESS	1	22.1-78.1	26.78
PROKANMED	1	22.1-78.1	26.78
SFRI	1	22.1-78.1	26.78
ZYBIO	1	22.1-78.1	26.78

Mean Corpuscular Haemoglobin Concentration (MCHC), đơn vị: g/dL

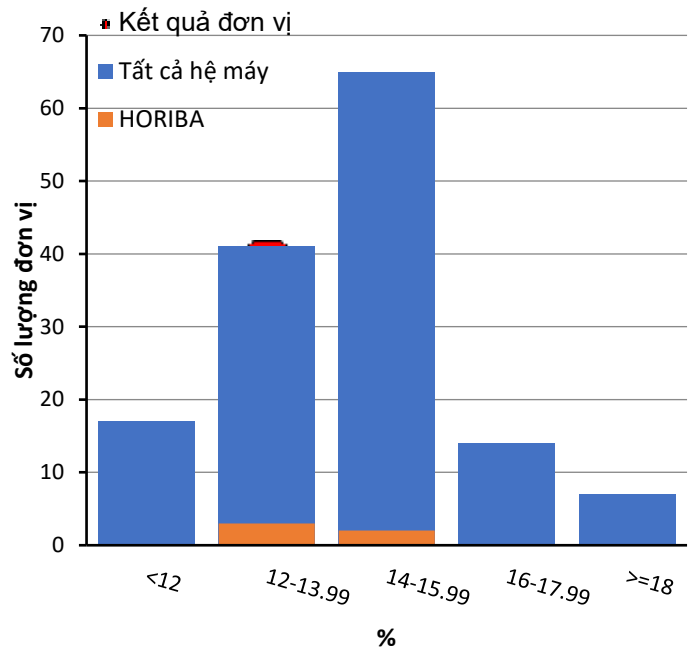
Kết quả đơn vị	35	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	-1,06	Tất cả	187	34,75	6,65	8
% DEV	-2,24	HORIBA	8	35,8	2,13	1



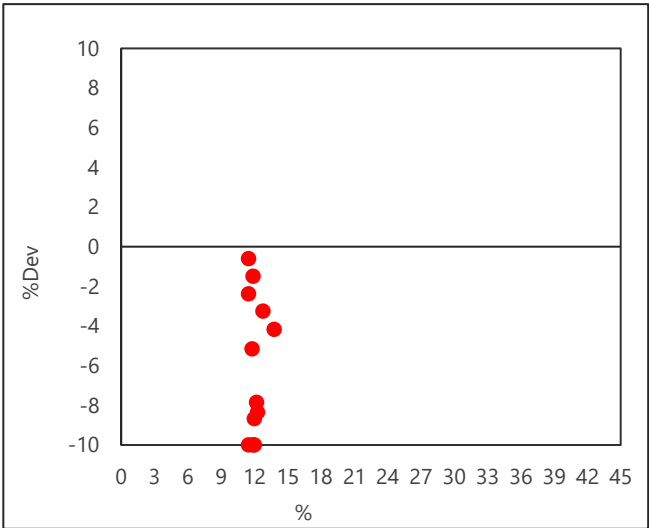
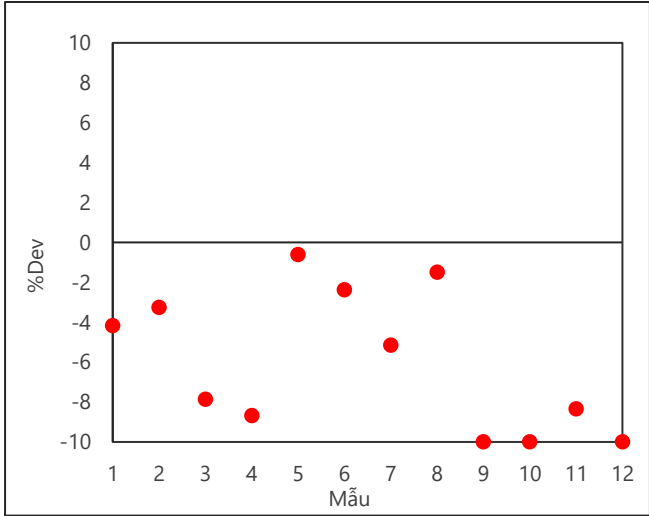
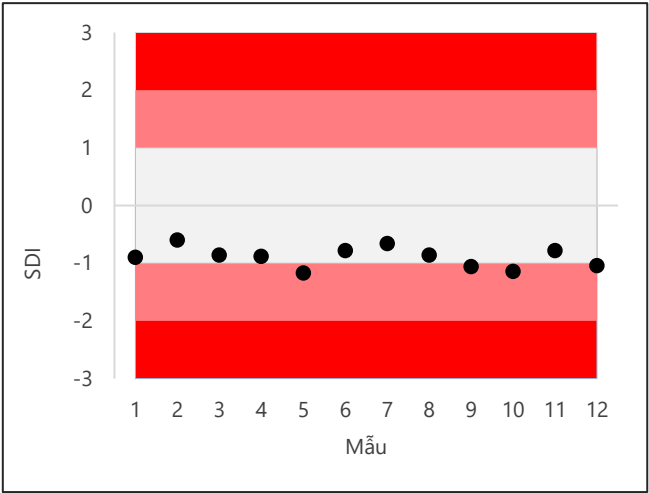
	N	Khoảng giá trị	M
Tất cả hệ máy	155	3.31-325	34.75
SYSMEX XN/XP/XS	35	30.4-48.2	35.02
NIHON KOHDEN	42	31.7-40.8	34.66
MINDRAY	32	6.59-39.7	34.91
ABBOTT	9	28.2-38.7	34.87
HORIBA	5	31.9-36.7	35.8
BOULE	5	33.1-45.3	38.4
AGAPPE	4	3.31-325	34.75
BECKMAN COULTER	2	3.31-325	34.75
ERBA LACHEMA	5	3.31-325	34.75
MYTHIC	2	3.31-325	34.75
HUMAN	1	3.31-325	34.75
CONVERGENT	1	3.31-325	34.75
ABACUS	2	3.31-325	34.75
DIRUI	1	3.31-325	34.75
URIT	1	3.31-325	34.75
NEOMEDICA	1	3.31-325	34.75
MTI	1	3.31-325	34.75
BT PRODUCTS	1	3.31-325	34.75
FORTRESS	1	3.31-325	34.75
PROKANMED	1	3.31-325	34.75
SFRI	1	3.31-325	34.75
TECO - DIAGNOSTICS	1	3.31-325	34.75
ZYBIO	1	3.31-325	34.75

Red Cell Distribution Width (RDW-CV), đơn vị: %

Kết quả đơn vị	12	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	-1,04	Tất cả	187	14,09	13,13	5
% DEV	-10,32	HORIBA	8	13,38	9,95	0

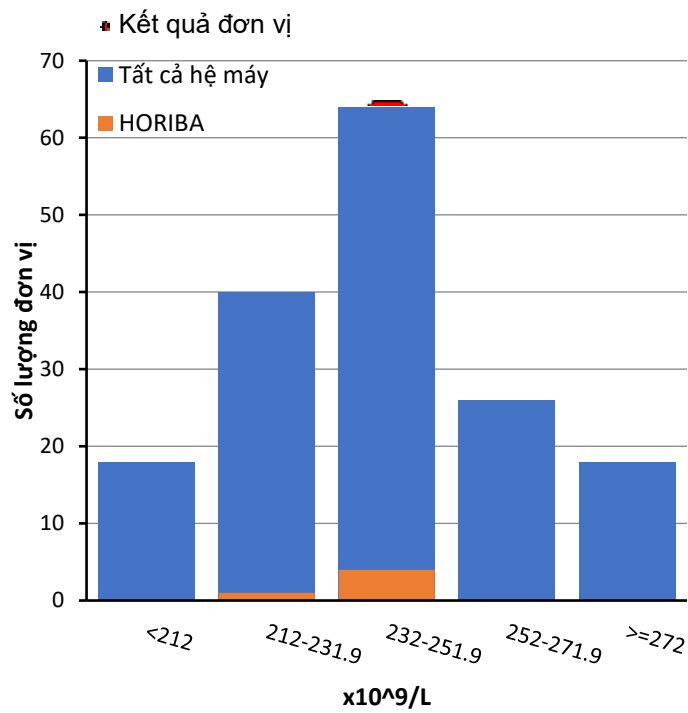


	N	Khoảng giá trị	M
Tất cả hệ máy	143	9.5-53.9	14.09
SYSMEX XN/XP/XS	32	9.5-49	13.01
NIHON KOHDEN	40	11.3-17.1	14.15
MINDRAY	32	11.9-15.7	14.49
ABBOTT	7	13.2-17.1	15.52
HORIBA	5	12-15.2	13.38
BOULE	3	12.2-29.6	18.1
AGAPPE	4	9.5-53.9	14.09
BECKMAN COULTER	2	9.5-53.9	14.09
ERBA LACHEMA	5	9.5-53.9	14.09
MYTHIC	1	9.5-53.9	14.09
HUMAN	1	9.5-53.9	14.09
CONVERGENT	1	9.5-53.9	14.09
ABACUS	2	9.5-53.9	14.09
DIRUI	1	9.5-53.9	14.09
URIT	1	9.5-53.9	14.09
MTI	1	9.5-53.9	14.09
BT PRODUCTS	1	9.5-53.9	14.09
FORTRESS	1	9.5-53.9	14.09
SFRI	1	9.5-53.9	14.09
TECO - DIAGNOSTICS	1	9.5-53.9	14.09
ZYBIO	1	9.5-53.9	14.09

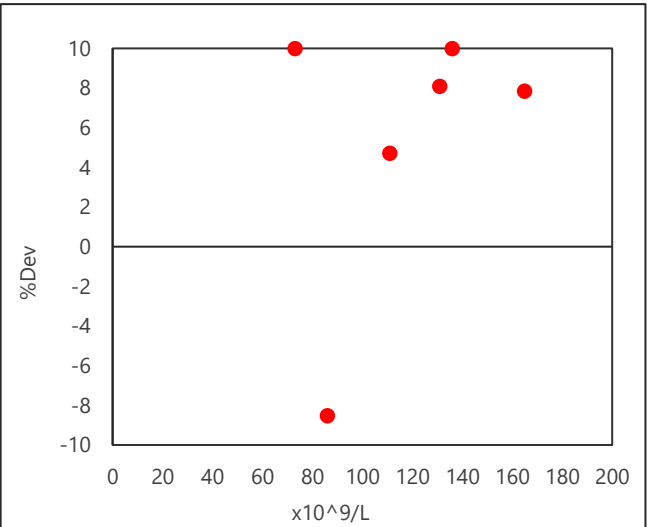
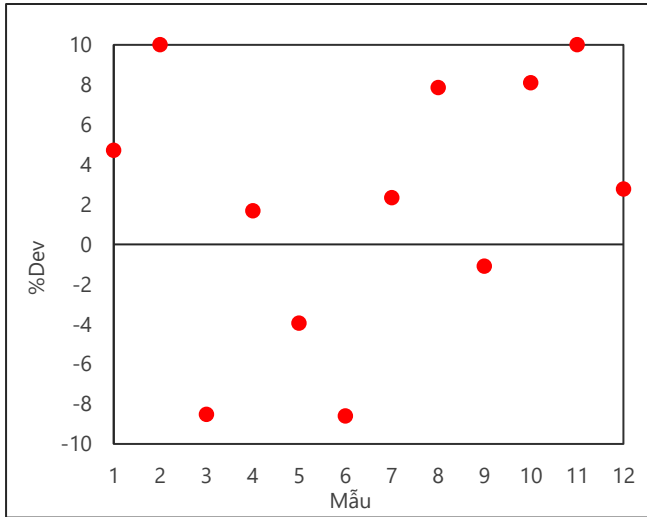
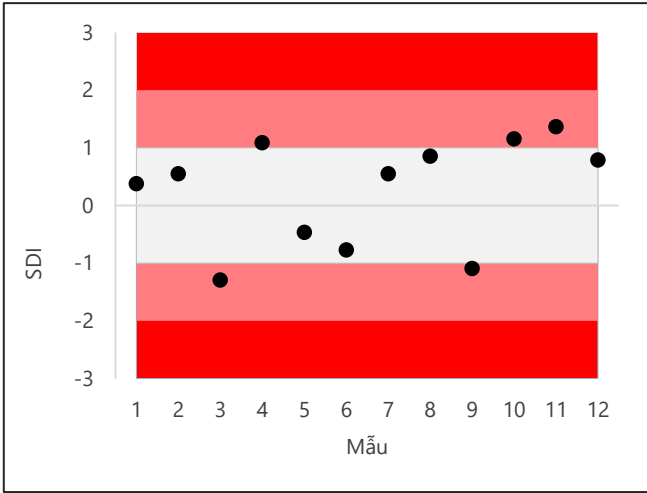


Platelets (PLT) , đơn vị: x10^9/L

Kết quả đơn vị	245	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	0,79	Tất cả	187	238,04	8,04	8
% DEV	2,77	HORIBA	8	238,4	3,54	0



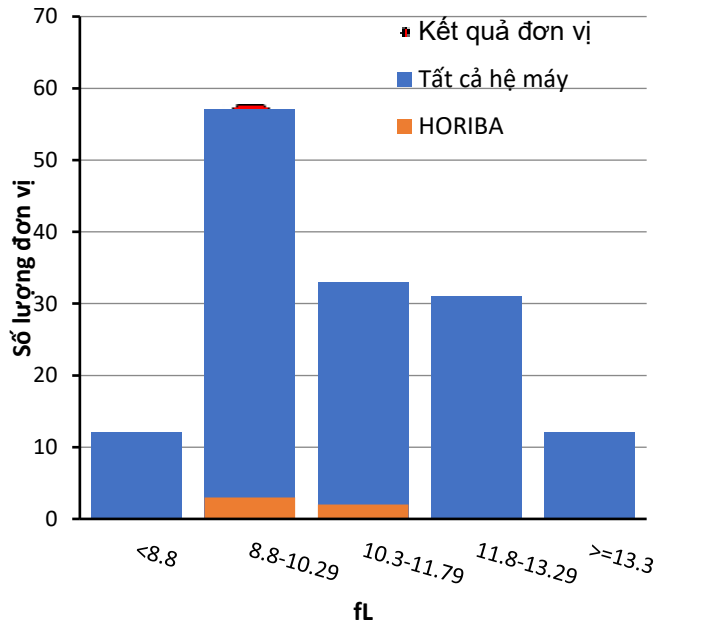
	N	Khoảng giá trị	M
Tất cả hệ máy	165	192-1516	238.04
SYSMEX XN/XP/XS	39	200-350	242.26
NIHON KOHDEN	44	196-324	239.6
MINDRAY	32	192-1516	235.79
ABBOTT	9	220-277	247.56
HORIBA	5	225-246	238.4
BOULE	5	230-346	242.5
AGAPPE	4	192-1516	238.04
BECKMAN COULTER	2	192-1516	238.04
ERBA LACHEMA	5	192-1516	238.04
MYTHIC	2	192-1516	238.04
HUMAN	1	192-1516	238.04
CONVERGENT	1	192-1516	238.04
ABACUS	2	192-1516	238.04
DIRUI	2	192-1516	238.04
URIT	3	192-1516	238.04
NEOMEDICA	1	192-1516	238.04
MTI	1	192-1516	238.04
ACCOS	1	192-1516	238.04
BT PRODUCTS	1	192-1516	238.04
FORTRESS	1	192-1516	238.04
PROKANMED	1	192-1516	238.04
SFRI	1	192-1516	238.04
TECO - DIAGNOSTICS	1	192-1516	238.04



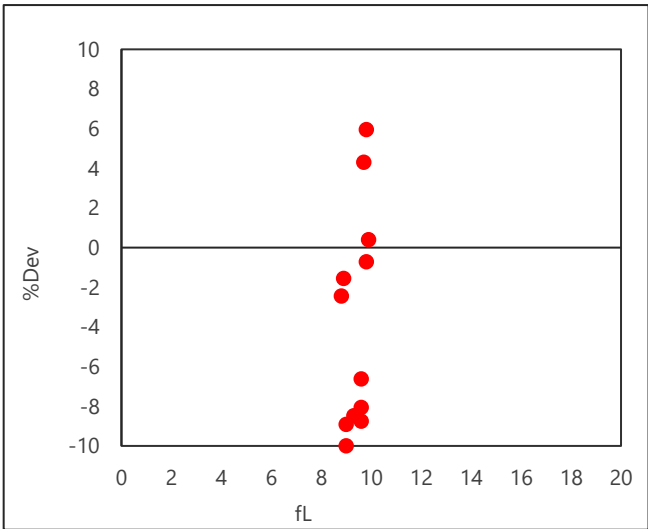
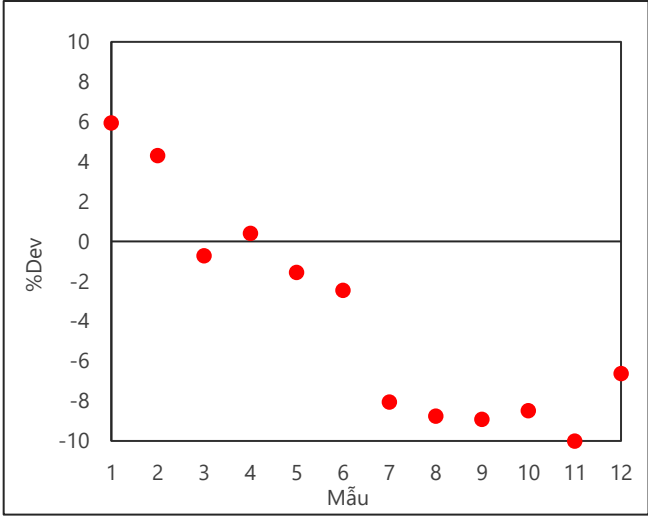
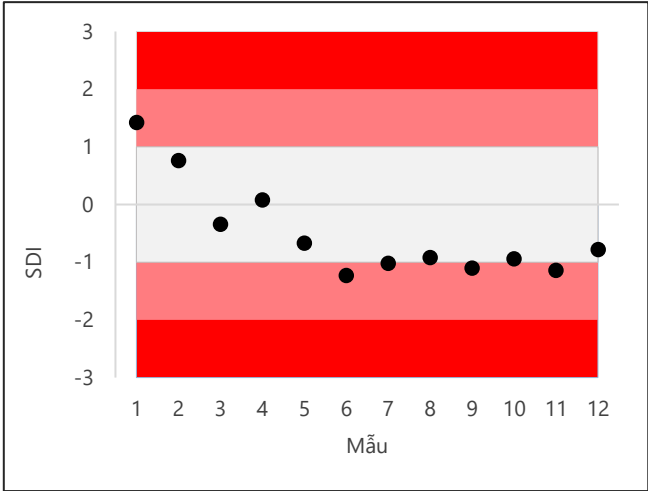
%DEV (Criteria for Acceptable Performance (theo CLIA năm 1919): ± 25%

Mean Platelet Volume (MPV), đơn vị: fL

Kết quả đơn vị	9,6	Phương pháp	Số lượng (N)	Trung bình (M)	CV%	Số giá trị ngoại lai
SDI	-0,78	Tất cả	187	10,7	14,86	0
% DEV	-6,62	HORIBA	8	10,28	8,57	0



	N	Khoảng giá trị	M
Tất cả hệ máy	144	7.3-14	10.7
SYSMEX XN/XP/XS	32	10.4-14	12.8
NIHON KOHDEN	39	7.7-11.6	9.19
MINDRAY	30	7.3-12.1	10.45
ABBOTT	8	10.7-13.9	11.76
HORIBA	5	9.3-11.4	10.28
BOULE	5	7.9-11.8	10.98
AGAPPE	4	7.3-14	10.7
BECKMAN COULTER	1	7.3-14	10.7
ERBA LACHEMA	5	7.3-14	10.7
MYTHIC	2	7.3-14	10.7
HUMAN	1	7.3-14	10.7
ABACUS	2	7.3-14	10.7
DIRUI	1	7.3-14	10.7
URIT	2	7.3-14	10.7
MTI	1	7.3-14	10.7
BT PRODUCTS	1	7.3-14	10.7
FORTRESS	1	7.3-14	10.7
PROKANMED	1	7.3-14	10.7
SFRI	1	7.3-14	10.7
TECO - DIAGNOSTICS	1	7.3-14	10.7
ZYBIO	1	7.3-14	10.7



Thông số	M	Kết quả đơn vị	SDI	CV%	%DEV
WBC	5,18	5,1	-0,4	3,87	-1,55
RBC	4,54	4,45	-0,5	3,97	-1,99
HGB	12,04	12,1	0,16	3,33	0,5
HCT	33,5	34,6	0,72	4,6	3,29
MCV	76,06	78	0,38	6,76	2,56
MCH	26,56	27,2	0,77	3,17	2,41
MCHC	35,8	35	-1,06	2,13	-2,24
RDW-CV	13,38	12	-1,04	9,95	-10,32
PLT	238,4	245	0,79	3,54	2,77
MPV	10,28	9,6	-0,78	8,57	-6,62

KẾT THÚC BÁO CÁO