Measurable Residual Disease for ALL by Flow Cytometry Programme

All Participant Report

Distribution - 252602 | Sample - 142 | Participant ID -

Date Issued - 21 October 2025 | Closing Date - 10 November 2025 | Machine Used - FACSLyric

Trial Comments

This exercise was issued to 180 participants of which 165 (91.7%) returned results at the time of report generation. Of the non-returning centres, seven had requested an extension to the exercise deadline but no pre-notified non-returns.

For samples 142 and 143, a single participant (0.6%) reported a result of MRD Absent. However, this participant reported quantitative results of 0.19% and 0.04%, respectively, both of which exceeded their stated lower limits of detection and quantification, indicative of a transcription error.

For sample 143, four participants (2.4%) reported their results as MRD detected below quantifiable limits. Of these, two participants reported quantitative MRD levels below their lower limits of quantification; however, the remaining two reported quantitative MRD levels above their quoted lower limit of quantification. There was no methodological correlation between these laboratories.

Sample Comments

The sample was manufactured by UK NEQAS using a B-ALL patient sample and a stabilised whole blood unit

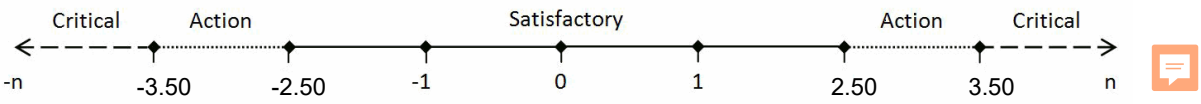
Results and Performance

Percentage MRD Population	Your Results (%)	Robust Mean (%)	Robust SD (%)	Uncertainty of the Assigned Value (Robust Mean)
	0.0710	0.0894	0.0281	± 0.0028

Percentage MRD Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Perio		
			Satisfactory	Action	Critical
	-0.65	Satisfactory	12	0	0

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



	Your Result	Consensus*
Interpretation	MRD Present	MRD Present
Total Denominator Events	1837944	577,129
Total Number of MRD Events	1,313	532
Percentage MRD	0.0710	0.0894
Total Number of Events Acquired	4,017,481	829,653

* consensus data shown are median values for events acquired and robust mean for percentage MRD

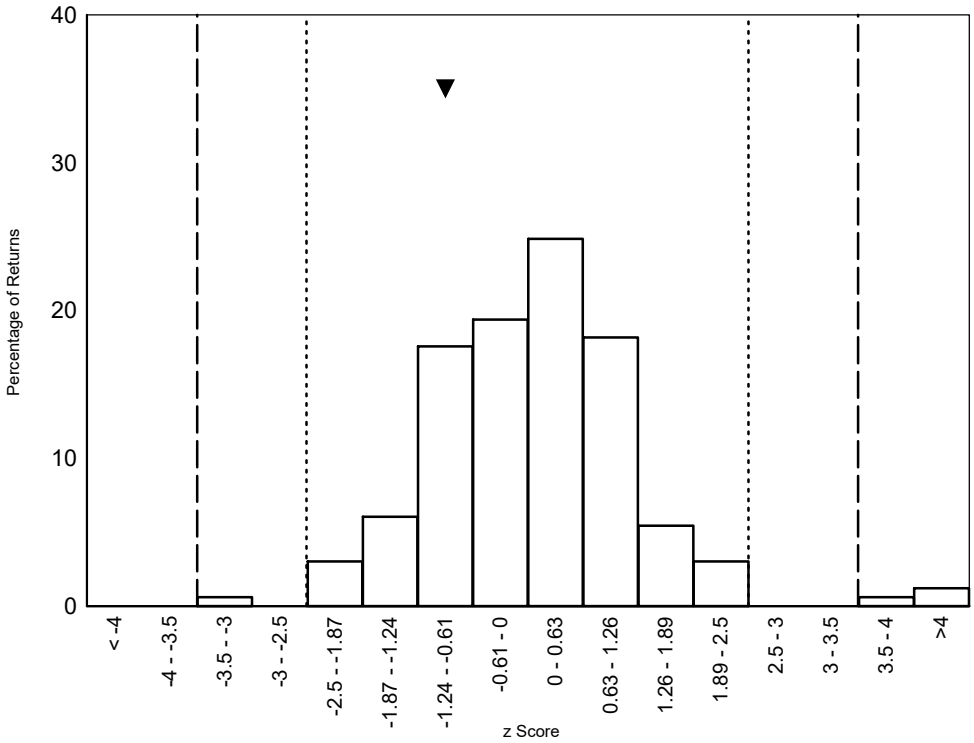
	Your Technique	Returns (n)
Lysis Method	Stain Lyse Wash	86
Doublets Excluded	Yes	134
Number of MRD Events to Define a Population	20	60
Denominator Used	Total Leucocytes	68
Stated Limit of Detection of Assay	0.0010%	
Stated Limit of Quantification of Assay	0.0027%	
Calculated Limit of Detection Based on Events Collected	0.0011%	

Measurable Residual Disease for ALL by Flow Cytometry Programme

Histograms of Participant z Scores

Percentage MRD Population -

Please note ▼ denotes your result

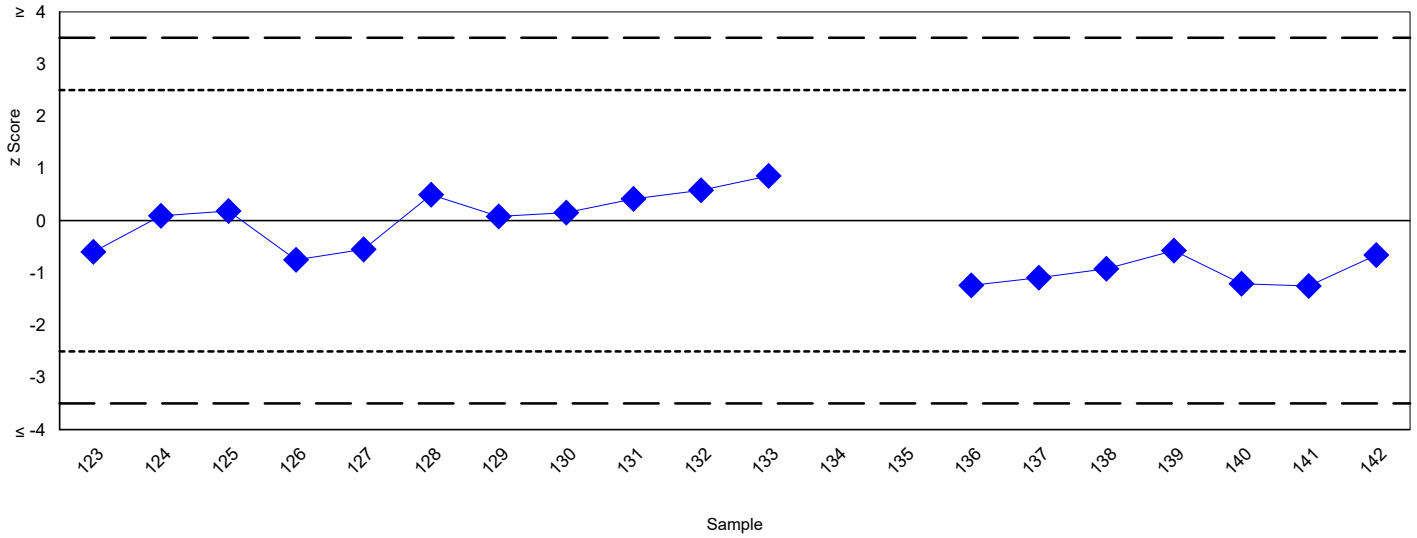


Measurable Residual Disease for ALL by Flow Cytometry Programme

Shewhart Control Charts

(Please note each data point represents a single sample)

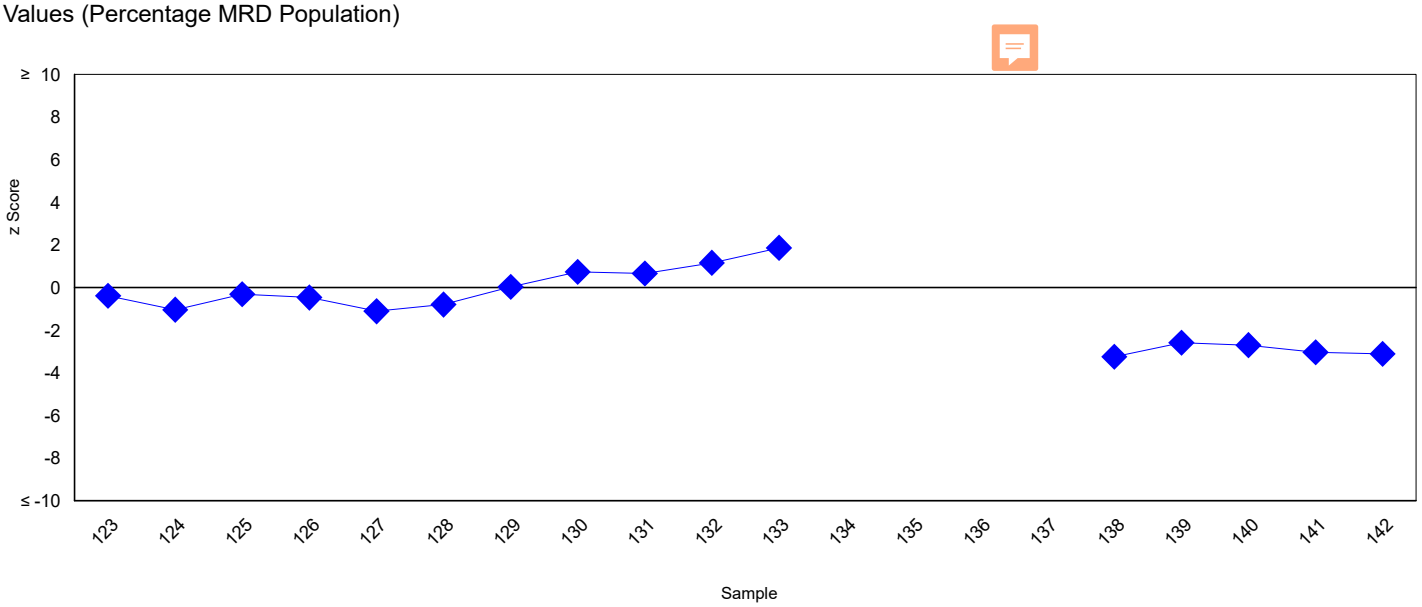
Values (Percentage MRD Population)



Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Values (Percentage MRD Population)



Measurable Residual Disease for ALL by Flow Cytometry Programme

(Please note robust stats are only displayed for groups of 20 or more)

Flow Cytometer Specific Statistics	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
BriCyte E6	1	-	-	-	-	-
CytoFlex	2	-	-	-	-	-
DxFLEX	22	0.0904	0.0335	0.0900	0.0666	0.1128
FACScan	1	-	-	-	-	-
FACSCanto	2	-	-	-	-	-
FACSCanto II	28	0.0853	0.0226	0.0842	0.0700	0.1005
FACSLyric	67	0.0914	0.0276	0.0912	0.0730	0.1100
FACSSymphony A5	1	-	-	-	-	-
FACSymphony A3	1	-	-	-	-	-
FC-500	2	-	-	-	-	-
Gallios	1	-	-	-	-	-
LSRFortessa	1	-	-	-	-	-
Navios	23	0.0838	0.0312	0.0860	0.0695	0.1000
Northern Lights	5	-	-	-	-	-
NovoCyte	2	-	-	-	-	-

(Please note robust stats are only displayed for groups of 20 or more)

MRD Group Specific Statistics	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
IBFM	26	0.0892	0.0312	0.0940	0.0718	0.1085
Non-Affiliated	84	0.0904	0.0285	0.0910	0.0700	0.1085
NOPHO	16	-	-	-	-	-
Other	27	0.0910	0.0343	0.0912	0.0662	0.1145
UK MRD Group	3	-	-	-	-	-

(Please note robust stats are only displayed for groups of 20 or more)

Technique Specific Statistics

Lysis Technique	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
Lyse Stain No Wash	4	-	-	-	-	-
Lyse Stain Wash	67	0.0835	0.0282	0.0830	0.0640	0.1000
Stain Lyse No Wash	3	-	-	-	-	-
Stain Lyse Wash	86	0.0929	0.0256	0.0938	0.0749	0.1100

(Please note robust stats are only displayed for groups of 20 or more)

Doublet Exclusion	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
No	24	0.0854	0.0158	0.0847	0.0782	0.0951
Yes	134	0.0904	0.0295	0.0926	0.0700	0.1100

Measurable Residual Disease for ALL by Flow Cytometry Programme

(Please note robust stats are only displayed for groups of 20 or more)

Denominator	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
All BM Nucleated Cells	86	0.0880	0.0280	0.0910	0.0700	0.1038
Other	2	-	-	-	-	-
PBMCs	2	-	-	-	-	-
Total Leucocytes	68	0.0898	0.0288	0.0860	0.0700	0.1100

Measurable Residual Disease for ALL by Flow Cytometry Programme

Reported Staining Intensity (numbers differ from antibody usage table as not all centres submitted full results)

Antigen	Absent		Weak		Strong		Total
	n	%	n	%	n	%	
CD10	2	1.4	14	9.6	111	76.0	146
CD19	2	1.4	30	21.6	88	63.3	139
CD34	21	15.7	57	42.5	37	27.6	134
CD45	1	0.8	88	66.7	23	17.4	132
CD20	25	19.1	65	49.6	23	17.6	131
CD38	24	18.8	68	53.1	19	14.8	128
CD81	2	2.8	38	53.5	19	26.8	71
CD58	4	6.2	18	27.7	37	56.9	65
CD73	5	10.9	8	17.4	22	47.8	46
CD123	14	30.4	20	43.5	3	6.5	46
CD22	2	4.7	26	60.5	12	27.9	43
CD66c	10	25.6	17	43.6	4	10.3	39
CD304	4	12.1	7	21.2	13	39.4	33
CD24	0	0.0	4	16.7	18	75.0	24
CD73/CD304	2	10.0	2	10.0	16	80.0	20
CD33	10	55.6	5	27.8	1	5.6	18
CD13	4	28.6	7	50.0	1	7.1	14
CD66c/CD123	1	7.1	8	57.1	5	35.7	14
CD9	3	30.0	0	0.0	6	60.0	10
CD3	7	87.5	0	0.0	0	0.0	8
HLADR	0	0.0	0	0.0	6	100.0	6

Measurable Residual Disease for ALL by Flow Cytometry Programme

Table showing the breakdown of participant returns according to antibody manufacturer

N.B. To allow for concise reports only antigens tested by >=25% of participants and with manufacturer group >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	BD Biosciences	Beckman Coulter	Cytognos	BioLegend	exbio	Cytek Bioscience	Pharmingen	Miltenyi Biotec	Other	invitrogen	Immunotech	Dako	Life Technologies	eBioscience	Immunostep
CD10	Negative (-)	Absent	2	2														
	Positive (+)	Weak	14	5	6	1			2									
		Strong	111	63	25	11	7	2				1			2			
CD19	Negative (-)	Absent	2	1	1													
	Positive (+)	Weak	30	8	16	3	1		1									
		Strong	88	25	42	9	3	4	1		1	1		2				
CD34	Negative (-)	Absent	21	6	11	1			2									
		Weak	1		1													
		Strong	1		1													
	Positive (+)	Weak	56	35	11	6	1	2				1						
		Strong	36	22	5	6		3										
CD45	Negative (-)	Absent	1		1													
		Weak	2	1				1										
	Positive (+)	Weak	86	41	20	12	3		2				4			2		2
		Strong	23	7	8	1	2	2					2			1		
CD38	Negative (-)	Absent	23	9	9	1	1	1	2									
		Weak	1		1													
	Positive (+)	Absent	1	1														
		Weak	67	32	19	11	2	1		2								
		Strong	19	12	2	2	2					1						
CD20	Negative (-)	Absent	25	12	11			1	1									
		Weak	1	1														
		Strong	1				1											
	Positive (+)	Weak	64	24	10	12	12	1	1			1		2	1			
		Strong	22	10	5		5	1			1							
CD58	Negative (-)	Absent	4		3				1									
		Weak	1					1										
	Positive (+)	Weak	17	7	3		1			4				2				
		Strong	37	14	17					4		1					1	
CD123	Negative (-)	Absent	14	4	5				2		3							
	Positive (+)	Weak	20	10	3		2				5							
		Strong	3	2							1							
CD22	Negative (-)	Absent	2	1	1													
		Strong	1		1													
	Positive (+)	Weak	26	8	9		1	2	1			1	2				2	
		Strong	11	7	4													
CD66c	Negative (-)	Absent	10	2	5				1					1	1			
	Positive (+)	Weak	17	6	9					2								
		Strong	4	2	2													
CD73	Negative (-)	Absent	5	2	2		1											
	Positive (+)	Weak	8	5					1	2								
		Strong	22	15	3		1			2		1						
CD81	Negative (-)	Absent	2	2														
		Weak	1	1														
	Positive (+)	Weak	37	22	5	5	1	2	1	1								

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Table showing the breakdown of participant returns according to antibody manufacturer

N.B. To allow for concise reports only antigens tested by >=25% of participants and with manufacturer group >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	BD Biosciences	Beckman Coulter	Cytognos	BioLegend	exbio	Cytek Bioscience	Pharmingen	Miltenyi Biotec	Other	invitrogen	Immunotech	Dako	Life Technologies	eBioscience	Immunostep
CD81		Strong	19	7	3	8		1										

Measurable Residual Disease for ALL by Flow Cytometry Programme

Table showing the breakdown of participant returns according to antibody fluorochrome

N.B. To allow for concise reports only antigens tested by >=25% of participants and with groups >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	APC	PE	FITC	PE-CY7	PerCP-CY5.5	APC-H7	Pacific Blue	ECD	V450	APC-Alexa 750	PC7	APC-Alexa 700	PerCP-CY5	V500	BV421
CD10	Negative (-)	Absent	2	1														
	Positive (+)	Weak	14	5	1								1		1			1
		Strong	111	50	17	2	7	1	1		4			3	4	1		6
CD19	Negative (-)	Absent	2				1								1			
	Positive (+)	Weak	30	2			17	1			2			4	1	1		
		Strong	88	9			50	1		1	4		2	12	2			2
CD34	Negative (-)	Absent	21	2			4	3			3			2	1	2		
		Weak	1	1														
		Strong	1								1							
	Positive (+)	Weak	56	8	4		3	26			4		1		1	4		
		Strong	36	1	1		2	18			2				2	8		
CD45	Negative (-)	Absent	1															
		Weak	2														1	
	Positive (+)	Weak	86					1	10			1				1	14	
		Strong	23								1			1			2	
CD38	Negative (-)	Absent	23	1		2	1		5		1		3		1			
		Weak	1				1											
	Positive (+)	Absent	1						1									
		Weak	67	2	2	4		7	16	3			8		5			
		Strong	19			1		1	5			1			1			1
CD20	Negative (-)	Absent	25	1		4			1	5	1	5	2					
		Weak	1															
		Strong	1							1								
	Positive (+)	Weak	64	1		5	3	2	2	27	1	11	3		1			
		Strong	22			3			2	8		3	1					1
CD58	Negative (-)	Absent	4	2		1												
		Weak	1		1													
	Positive (+)	Weak	17	2	2	11	1											
		Strong	37	6	3	25												
CD123	Negative (-)	Absent	14	2	4		1								1	1		
	Positive (+)	Weak	20	2	13			1										1
		Strong	3		3													
CD22	Negative (-)	Absent	2										1					1
		Strong	1															
	Positive (+)	Weak	26	4	12	1				1	2							1
		Strong	11	2	4	1												1
CD66c	Negative (-)	Absent	10		8	1												
	Positive (+)	Weak	17		14	1												
		Strong	4		4													
CD73	Negative (-)	Absent	5	1	2													
	Positive (+)	Weak	8		4							2						
		Strong	22	2	13	1						1						2
CD81	Negative (-)	Absent	2						1									
		Weak	1			1												
	Positive (+)	Weak	37	3		24			4							1		

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Table showing the breakdown of participant returns according to antibody fluorochrome

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Antigen	Result	Intensity	Total Results (All Data)	APC	PE	FITC	PE-CY7	PerCP-CY5.5	APC-H7	Pacific Blue	ECD	V450	APC-Alexa 750	PC7	APC-Alexa 700	PerCP-CY5	V500	BV421
CD81		Strong	19			17			1									

Measurable Residual Disease for ALL by Flow Cytometry Programme

Distribution - 252602 | Sample - 143 | Participant ID -

Date Issued - 21 October 2025 | Closing Date - 10 November 2025 | Machine Used - FACSLyric

Trial Comments

This exercise was issued to 180 participants of which 165 (91.7%) returned results at the time of report generation. Of the non-returning centres, seven had requested an extension to the exercise deadline but no pre-notified non-returns.

For samples 142 and 143, a single participant (0.6%) reported a result of MRD Absent. However, this participant reported quantitative results of 0.19% and 0.04%, respectively, both of which exceeded their stated lower limits of detection and quantification, indicative of a transcription error.

For sample 143, four participants (2.4%) reported their results as MRD detected below quantifiable limits. Of these, two participants reported quantitative MRD levels below their lower limits of quantification; however, the remaining two reported quantitative MRD levels above their quoted lower limit of quantification. There was no methodological correlation between these laboratories.

Sample Comments

The sample was manufactured by UK NEQAS using a B-ALL patient sample and a stabilised whole blood unit.

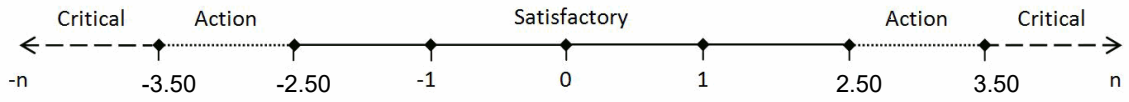
Results and Performance

Percentage MRD Population	Your Results (%)	Robust Mean (%)	Robust SD (%)	Uncertainty of the Assigned Value (Robust Mean)
	0.0290	0.0306	0.0105	± 0.0010

Percentage MRD Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
	-0.15	Satisfactory	12	0	0

***z Score Limits Definitions**

Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



	Your Result	Consensus*
Interpretation	MRD Present	MRD Present
Total Denominator Events	1385913	581,768
Total Number of MRD Events	408	184
Percentage MRD	0.0290	0.0306
Total Number of Events Acquired	2,953,821	894,557

* consensus data shown are median values for events acquired and robust mean for percentage MRD

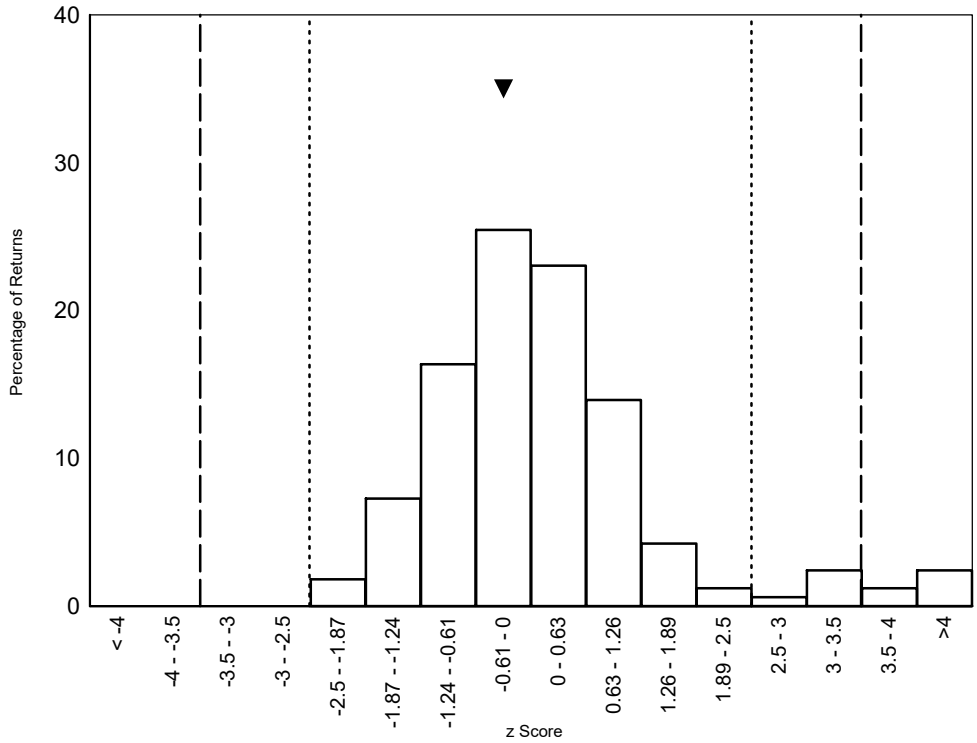
	Your Technique	Returns (n)
Lysis Method	Stain Lyse Wash	82
Doublets Excluded	Yes	133
Number of MRD Events to Define a Population	20	60
Denominator Used	PBMCs	3
Stated Limit of Detection of Assay	0.0014%	
Stated Limit of Quantification of Assay	0.0036%	
Calculated Limit of Detection Based on Events Collected	0.0014%	

Measurable Residual Disease for ALL by Flow Cytometry Programme

Histograms of Participant z Scores

Percentage MRD Population -

Please note ▼ denotes your result

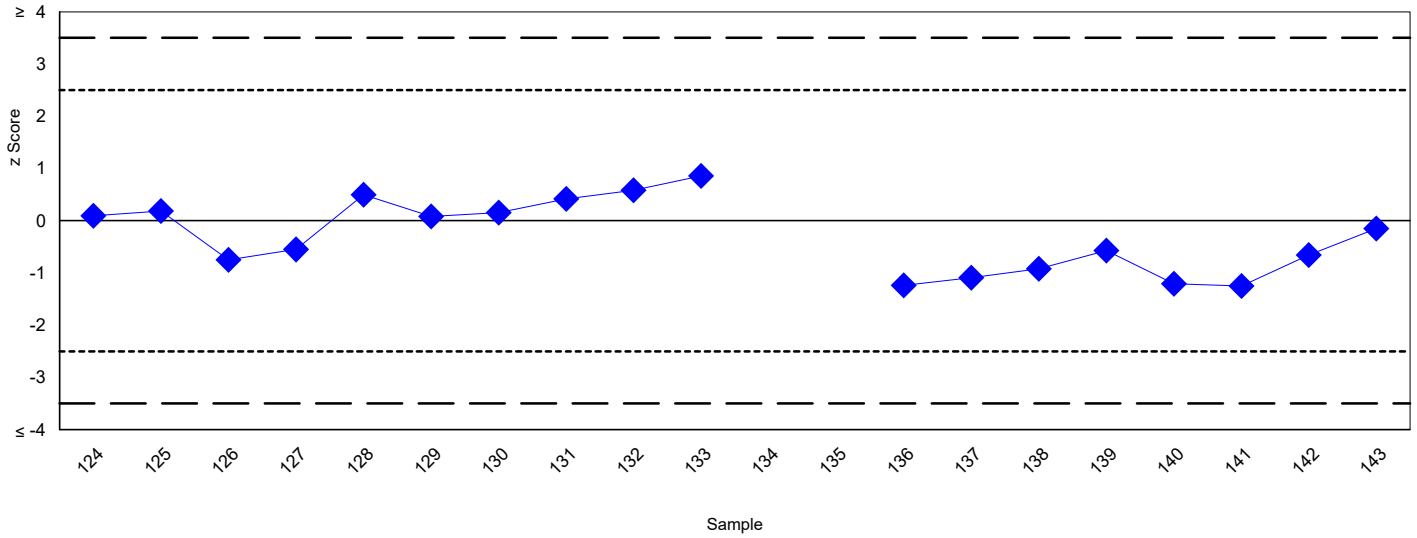


Measurable Residual Disease for ALL by Flow Cytometry Programme

Shewhart Control Charts

(Please note each data point represents a single sample)

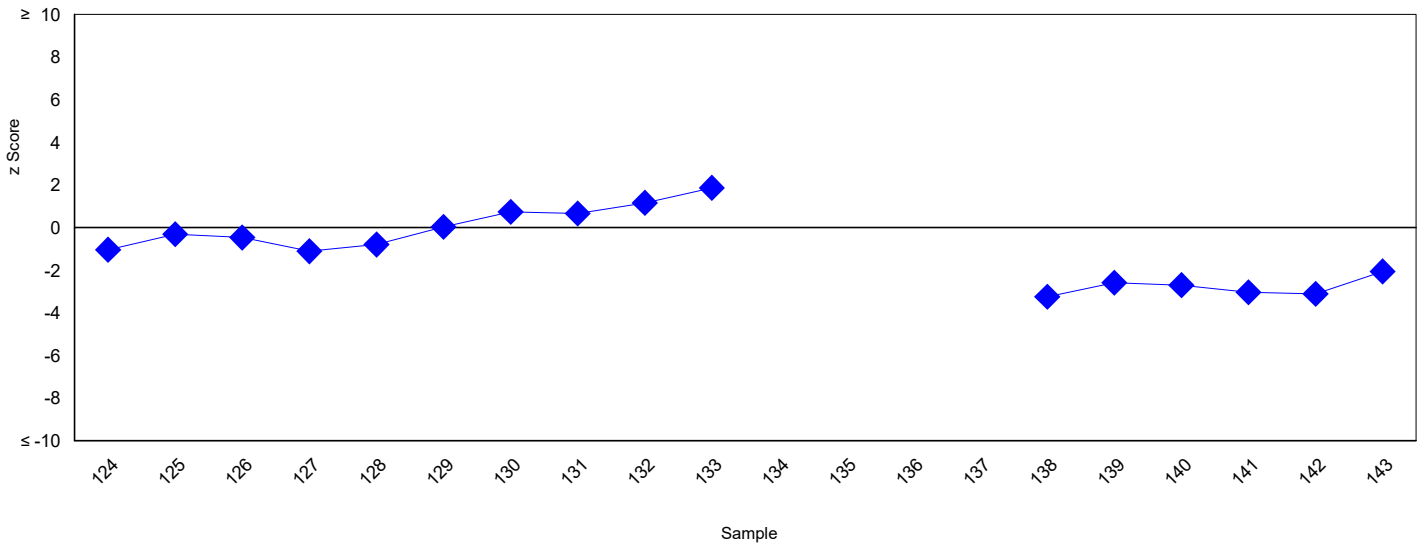
Values (Percentage MRD Population)



Cusum Control Charts

(Please note each data point represents the sum of the z scores of the current sample and the two previous samples)

Values (Percentage MRD Population)



Measurable Residual Disease for ALL by Flow Cytometry Programme

(Please note robust stats are only displayed for groups of 20 or more)

Flow Cytometer Specific Statistics	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
BriCyte E6	1	-	-	-	-	-
CytoFlex	2	-	-	-	-	-
DxFLEX	20	0.0322	0.0185	0.0300	0.0200	0.0368
FACScan	1	-	-	-	-	-
FACSCanto	2	-	-	-	-	-
FACSCanto II	28	0.0280	0.0077	0.0294	0.0226	0.0316
FACSLyric	64	0.0308	0.0102	0.0305	0.0240	0.0380
FACSSymphony A5	1	-	-	-	-	-
FACSymphony A3	1	-	-	-	-	-
FC-500	2	-	-	-	-	-
Gallios	1	-	-	-	-	-
LSRFortessa	1	-	-	-	-	-
Navios	23	0.0310	0.0130	0.0327	0.0227	0.0385
Northern Lights	5	-	-	-	-	-
NovoCyte	2	-	-	-	-	-

(Please note robust stats are only displayed for groups of 20 or more)

MRD Group Specific Statistics	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
IBFM	25	0.0322	0.0103	0.0328	0.0269	0.0373
Non-Affiliated	82	0.0307	0.0111	0.0300	0.0237	0.0388
NOPHO	15	-	-	-	-	-
Other	26	0.0293	0.0105	0.0300	0.0239	0.0367
UK MRD Group	3	-	-	-	-	-

(Please note robust stats are only displayed for groups of 20 or more)

Technique Specific Statistics

Lysis Technique	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
Lyse Stain No Wash	4	-	-	-	-	-
Lyse Stain Wash	68	0.0281	0.0105	0.0295	0.0200	0.0342
Stain Lyse No Wash	5	-	-	-	-	-
Stain Lyse Wash	82	0.0321	0.0100	0.0310	0.0260	0.0388

(Please note robust stats are only displayed for groups of 20 or more)

Doublet Exclusion	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
No	24	0.0327	0.0129	0.0320	0.0250	0.0400
Yes	133	0.0304	0.0103	0.0300	0.0238	0.0370

Measurable Residual Disease for ALL by Flow Cytometry Programme

(Please note robust stats are only displayed for groups of 20 or more)

Denominator	Percentage MRD					
Method	Returns	Robust Mean	Robust SD	Median	Lower Quartile	Upper Quartile
All BM Nucleated Cells	83	0.0301	0.0098	0.0300	0.0250	0.0360
Other	3	-	-	-	-	-
PBMCs	3	-	-	-	-	-
Total Leucocytes	68	0.0310	0.0110	0.0328	0.0228	0.0371

Measurable Residual Disease for ALL by Flow Cytometry Programme

Reported Staining Intensity (numbers differ from antibody usage table as not all centres submitted full results)

Antigen	Absent		Weak		Strong		Total
	n	%	n	%	n	%	
CD10	2	1.4	15	10.3	109	75.2	145
CD19	2	1.4	32	23.0	85	61.2	139
CD34	20	14.9	59	44.0	36	26.9	134
CD45	1	0.8	87	66.4	23	17.6	131
CD20	25	19.2	64	49.2	23	17.7	130
CD38	24	18.9	66	52.0	20	15.8	127
CD81	2	2.9	35	50.0	20	28.6	70
CD58	6	9.1	15	22.7	38	57.6	66
CD123	14	29.8	20	42.6	3	6.4	47
CD73	5	11.1	8	17.8	20	44.4	45
CD22	2	4.7	27	62.8	11	25.6	43
CD66c	11	26.8	17	41.5	4	9.8	41
CD304	4	12.5	8	25.0	10	31.3	32
CD24	0	0.0	4	16.7	18	75.0	24
CD73/CD304	2	10.0	2	10.0	16	80.0	20
CD33	9	56.3	4	25.0	1	6.3	16
CD13	5	35.7	6	42.9	1	7.1	14
CD66c/CD123	1	7.1	9	64.3	4	28.6	14
CD9	3	33.3	0	0.0	5	55.6	9
CD3	7	100.0	0	0.0	0	0.0	7
HLADR	0	0.0	0	0.0	6	100.0	6

Measurable Residual Disease for ALL by Flow Cytometry Programme

Table showing the breakdown of participant returns according to antibody manufacturer

N.B. To allow for concise reports only antigens tested by >=25% of participants and with manufacturer group >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	BD Biosciences	Beckman Coulter	Cytognos	BioLegend	exbio	Cytek Bioscience	Pharmingen	Miltenyi Biotec	Other	invitrogen	Immunotech	Dako	Life Technologies	eBioscience	Immunostep
CD10	Negative (-)	Absent	2	2														
	Positive (+)	Weak	15	7	5	1			2									
		Strong	109	59	27	11	7	2				1			2			
CD19	Negative (-)	Absent	2	1	1													
	Positive (+)	Weak	32	8	16	3	2	1	1			1						
		Strong	85	26	41	9	2	3	1		1	1		1				
CD34	Negative (-)	Absent	20	6	10	1			2									
		Weak	2	1	1													
		Strong	1		1													
	Positive (+)	Weak	57	34	12	7	1	2				1						
		Strong	35	21	6	5		3										
CD45	Negative (-)	Absent	1		1													
		Weak	2	1				1										
	Positive (+)	Weak	85	41	20	12	2		2				4			2		2
		Strong	23	7	8	1	2	2					2			1		
CD38	Negative (-)	Absent	23	9	9	1	1	1	2									
		Weak	2		1			1										
	Positive (+)	Absent	1	1														
		Weak	64	31	19	10	2			2								
		Strong	20	10	3	3	2			1		1						
CD20	Negative (-)	Absent	25	12	11			1	1									
		Weak	3	1		1	1											
		Strong	1				1											
	Positive (+)	Weak	61	23	11	11	11	1	1			1		1	1			
		Strong	22	10	5		5	1			1							
CD58	Negative (-)	Absent	6	1	4				1									
	Positive (+)	Weak	15	7	2		1			4				1				
		Strong	38	14	17			1		4		1					1	
CD123	Negative (-)	Absent	14	4	5				2		3							
	Positive (+)	Weak	20	10	4		1				5							
		Strong	3	2							1							
CD22	Negative (-)	Absent	2	1	1													
		Strong	1		1													
	Positive (+)	Weak	27	8	11		1	2	1			1	2				1	
		Strong	10	7	3													
CD66c	Negative (-)	Absent	11	3	5				1					1	1			
		Weak	1		1													
	Positive (+)	Weak	16	6	8					2								
		Strong	4	2	2													
CD73	Negative (-)	Absent	5	2	2		1											
	Positive (+)	Weak	8	5					1	2								
		Strong	20	14	2		1			2		1						
CD81	Negative (-)	Absent	2	2														
		Weak	1	1														
	Positive (+)	Weak	34	21	3	5	1	2	1	1								

Measurable Residual Disease for ALL by Flow Cytometry Programme

Table showing the breakdown of participant returns according to antibody manufacturer

N.B. To allow for concise reports only antigens tested by >=25% of participants and with manufacturer group >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	BD Biosciences	Beckman Coulter	Cytognos	BioLegend	exbio	Cytek Bioscience	Pharmingen	Miltenyi Biotec	Other	invitrogen	Immunotech	Dako	Life Technologies	eBioscience	Immunostep
CD81		Strong	20	7	4	8		1										

Measurable Residual Disease for ALL by Flow Cytometry Programme

Table showing the breakdown of participant returns according to antibody fluorochrome

N.B. To allow for concise reports only antigens tested by >=25% of participants and with groups >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	APC	PE	FITC	PE-CY7	PerCP-CY5.5	APC-H7	Pacific Blue	ECD	V450	APC-Alexa 750	PC7	APC-Alexa 700	PerCP-CY5	V500	BV421
CD10	Negative (-)	Absent	2	1														
	Positive (+)	Weak	15	6	1								1		1			2
		Strong	109	48	17	2	7		1		4		1	3	4	1		4
CD19	Negative (-)	Absent	2				1								1			
	Positive (+)	Weak	32	2			18	1			2			4	1	1		
		Strong	85	9			48	1		1	4		2	13	1			2
CD34	Negative (-)	Absent	20	2			4	4			2			2	1	2		
		Weak	2	1														
		Strong	1								1							
	Positive (+)	Weak	57	9	4		3	27			4				1	4		
		Strong	35	1	2		2	16			2		1		2	7		
CD45	Negative (-)	Absent	1															
		Weak	2														1	
	Positive (+)	Weak	85	1				1	9			1				1	13	
		Strong	23								1			1			3	
CD38	Negative (-)	Absent	23	1		1	1		5		1		3		1			
		Weak	2			1	1											
	Positive (+)	Absent	1						1									
		Weak	64	2	2	3		6	17	3			8		5			
		Strong	20	1		1		1	4			1			1			1
CD20	Negative (-)	Absent	25	1		3			1	6	1	5	2					
		Weak	3							2								
		Strong	1							1								
	Positive (+)	Weak	61	1		4	2	2	2	25	1	11	4		1			
		Strong	22			3			2	8		3	1					1
CD58	Negative (-)	Absent	6	2		3												
	Positive (+)	Weak	15	1	2	10	1											
		Strong	38	6	3	26												
CD123	Negative (-)	Absent	14	2	4		1	1							1			
	Positive (+)	Weak	20	2	13			1										1
		Strong	3		3													
CD22	Negative (-)	Absent	2										1					1
		Strong	1															
	Positive (+)	Weak	27	5	12	1				1	2				1			1
		Strong	10	2	3	1												1
CD66c	Negative (-)	Absent	11		9	1												
		Weak	1		1													
	Positive (+)	Weak	16		12	2												
		Strong	4		4													
CD73	Negative (-)	Absent	5	1	2													
	Positive (+)	Weak	8		4							2						
		Strong	20	2	11	1						1						2
CD81	Negative (-)	Absent	2						1									
		Weak	1			1												
	Positive (+)	Weak	34	2		22			4							1		

Measurable Residual Disease for ALL by Flow Cytometry Programme

Table showing the breakdown of participant returns according to antibody fluorochrome

N.B. To allow for concise reports only antigens tested by >=25% of participants and with groups >20 users across all reagents are shown. Please note, numbers in all tables may not equal the number of participants due to not all participants providing all information or to some participants performing multiple combinations of techniques. The 'Total Results' column reflects all results returned, as small user groups are not shown on the table individual row totals may differ from that shown in 'Total Results'.

Antigen	Result	Intensity	Total Results (All Data)	APC	PE	FITC	PE-CY7	PerCP-CY5.5	APC-H7	Pacific Blue	ECD	V450	APC-Alexa 750	PC7	APC-Alexa 700	PerCP-CY5	V500	BV421
CD81		Strong	20	1		17			1									

Information with respect to compliance with standards BS EN ISO/IEC 17043:2010

4.8.2 a) The proficiency testing provider for this programme is:
UK NEQAS for Leucocyte Immunophenotyping
Pegasus House, 4th Floor Suite
463A Glossop Road
Sheffield, S10 2QD
United Kingdom
Tel: +44 (0) 114 267 3600
e-mail: amanda.newbould@ukneqasli.co.uk

4.8.2 b) The coordinator(s) of UK NEQAS LI programmes: Mr Stuart Scott (acting Director).

4.8.2 c) Person(s) authorising this report: Mr Stuart Scott (acting Director) of UK NEQAS LI.

4.8.2 d) Administration and shipping for this programme is provided by EQA International Limited. No other activities in relation to this EQA exercise were subcontracted.

4.8.2 d) Where externally provided products or services are used in the delivery of EQA, a competent supplier is used, the EQA provider is responsible for this work and participants are informed accordingly.

4.8.2 g) The UK NEQAS LI Privacy Policy can be found at the following link: https://sheffield-ukneqas.ipassportqms.com/document_download/NjRlNTgxYzctMTI4ZS00MTg4LWI2ZDMtZDdkYzJhMTFlZTg3
Participant details, their results and their performance data remain confidential unless we are required by law to share this information. Where required by law or authorised by contractual arrangements to release confidential information, UK NEQAS LI will notify those concerned of the information released, unless prohibited by law. For UK participants, the relevant National Quality Assessment Advisory Panel is informed when a UK participant is identified as having performance issues.

4.8.2 i) All EQA samples are prepared in accordance with strict standard operating procedures by trained personnel proven to ensure homogeneity and stability. Where appropriate/possible EQA samples are tested prior to issue. Where the sample(s) issued is stabilised blood or platelets, pre and post stability testing will have proved sample suitability prior to issue.

4.8.2 l), n), o), r) & s) Please refer to the UK NEQAS LI website at www.ukneqasli.co.uk for detailed information on each programme including the scoring systems applied to assess performance (for BS EN ISO/IEC 17043:2010 accredited programmes only). Where a scoring system refers to the 'consensus result' this means the result reported by the majority of participants for that trial issue. Advice on the interpretation of statistical analyses and the criteria on which performance is measured is also given. Please note that where different methods/procedures are used by different groups of participants these may be displayed within your report, but the same scoring system is applied to all participants irrespective of method/procedure used.

4.8.2 m) We do not assign values against reference materials or calibrants.

4.8.2 q) Details of the programme designs as authorised by The Steering Committee and Specialist Advisory Group can be found on our website at www.ukneqasli.co.uk. The proposed trial issue schedule for each programme is also available.

4.8.2 t) If you would like to discuss the outcomes of this trial issue, please contact UK NEQAS LI using the contact details provided. Alternatively, if you are unhappy with your performance classification for this trial, please find the appeals procedure at www.ukneqasli.co.uk/contact-us/appeals-and-complaints/

4.8.4) The UK NEQAS LI Policy for the Use of Reports by Individuals and Organisations states that all EQA reports are subject to copyright, and, as such, permission must be sought from UK NEQAS LI for the use of any data and/or reports in any media prior to use. See associated policy on the UK NEQAS LI website: http://www.ukneqasli.co.uk/eqa-pt-programmes/new-participant-information/