

Leukaemia Immunophenotyping (Part 1) Programme
All Participant Report

Sample - 161706

Distribution - 161706

Closing Date - 07 April 2017

Participant ID - 4XXXX

Date Issued - 20 March 2017

Trial Comments

This trial was issued to 284 participants.

Sample Comments

The sample was manufactured by UK NEQAS using a sample of blood from a leukaemia patient which was stabilised and added to a stabilised unit of whole blood.

Results and Performance

Overall Performance Grade (Core Antigens Only)	Performance Status for this Sample	Performance Status Classification Over 6 Sample Period	
		Satisfactory (Grades A-C)	Critical (Grades D-G)
B	Satisfactory	6	0

Please note performance monitoring for this programme is semi-qualitative and is based on the overall performance grade obtained from the consensus immunophenotype on the core antigens. **The robust statistics and z-scores provided below are related to technical performance on individual antigens and are not used for performance monitoring.** Derivation of z-scores requires normally distributed data and the results for this programme vary between normal and abnormal distribution based on the antigens and on a sample to sample basis. Therefore z-scores for antigens with expressions at the extremes of the results scale (around 0% and 100%) may not truly reflect the performance of the antigen and **all z-scores should be viewed as for information purposes only.**

Antigen	Your Results (%)	Your Result Antigen Expression (Positive/Negative)	Consensus Antigen Expression (Positive/Negative)	Robust Mean (%)	Robust SD (%)
CD2	0.00	-	-	0.48	0.54
CD3	0.00	-	-	0.37	0.43
CD5	90.00	+	+	98.55	1.31
CD13	83.00	+	-	9.00	10.11
CD19	90.00	+	+	97.68	2.59
CD20	87.00	+	+	91.51	8.17
CD10	3.00	-	-	0.00	0.00
CD22	91.00	+	+	89.31	10.35
CD79b	0.00	-	-	3.27	3.16
FMC7	3.00	-	-	0.98	1.14
CD25	43.00	+	-	2.69	3.02
HLADR	98.00	+	+	96.38	3.75
CD43			+	90.66	9.13
CD200			+	96.92	3.10
CD23	75.00	+	+	69.13	24.11
Kappa			-		
Lambda			+	35.76	42.36
CD11c			-	10.91	9.93
CD45			+	100.00	0.00
CD103	0.00	-	-	0.00	0.00
CD38			-	0.88	0.99

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Antigen	z Score*	Performance Status for this Sample	Performance Status Classification Over 6 Sample Period		
			Satisfactory	Action	Critical
CD13	7.32	Critical	4	1	1
CD19	-2.97	Action	3	1	2
CD5	-6.53	Critical	5	0	1
CD25	13.35	Critical			
FMC7	1.77	Satisfactory			
HLADR	0.43	Satisfactory			
CD45		Action			
CD23	0.24	Satisfactory			
CD3	-0.86	Satisfactory	6	0	0
Kappa		Action			
CD38		Action			
CD43		Action			
CD11c		Action			
CD200		Action			
Lambda		Action			
CD2	-0.89	Satisfactory	6	0	0
CD103	0.00	Satisfactory			
CD79b	-1.03	Satisfactory			
CD10		Action			
CD20	-0.55	Satisfactory	6	0	0
CD22	0.16	Satisfactory			

***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.



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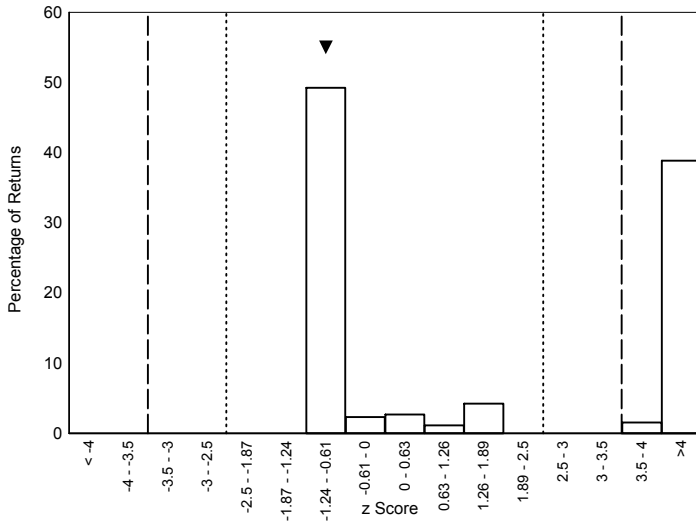
Sample - 161706

Histograms of Participant z Scores

Percentage Values (%) - CD3

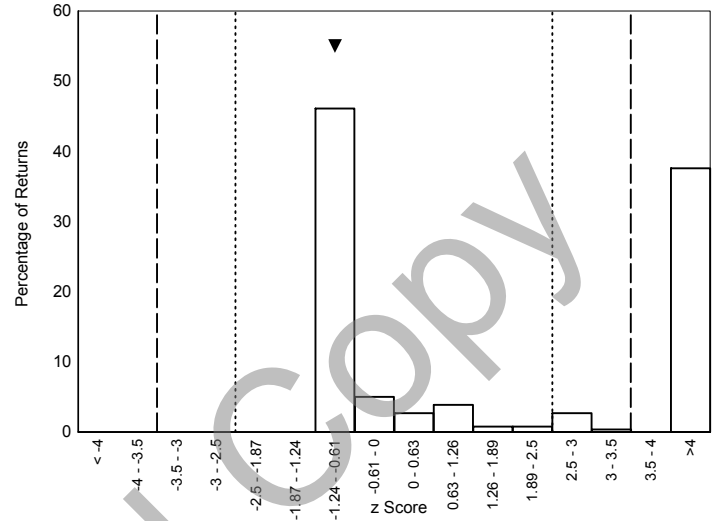


Please note ▼ denotes your result



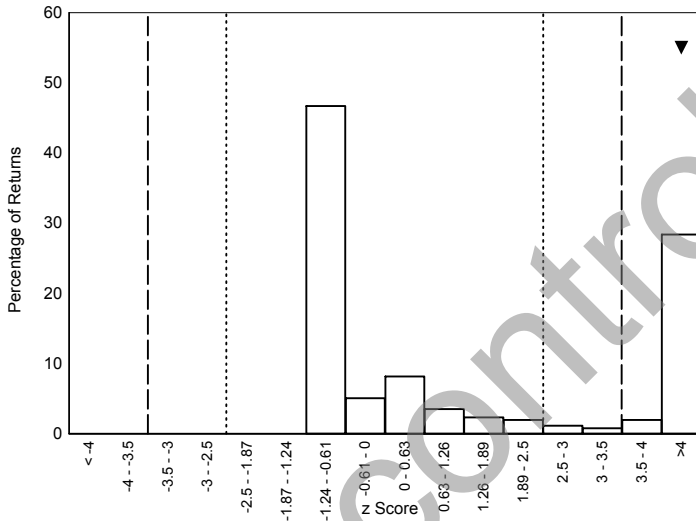
Percentage Values (%) - CD2

Please note ▼ denotes your result



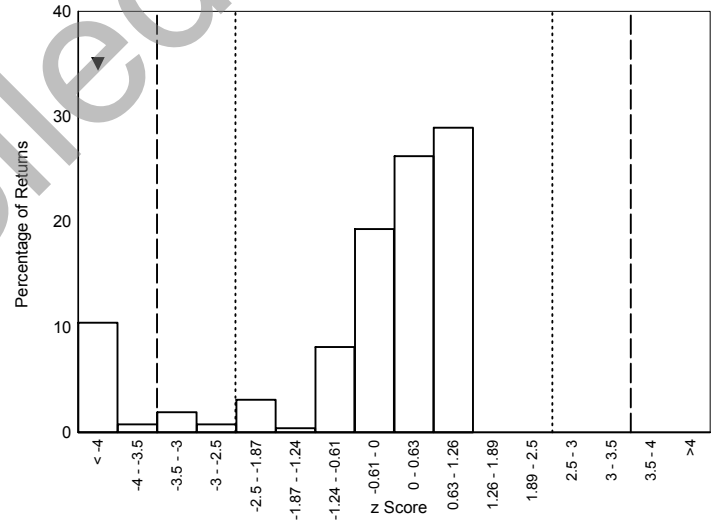
Percentage Values (%) - CD13

Please note ▼ denotes your result



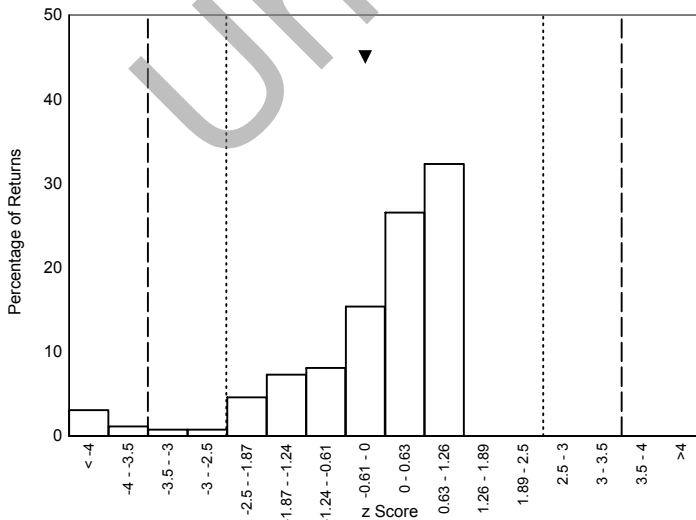
Percentage Values (%) - CD5

Please note ▼ denotes your result



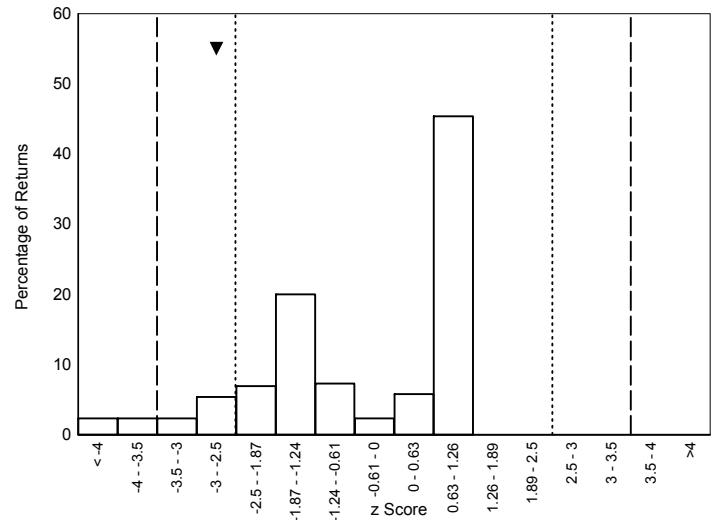
Percentage Values (%) - CD20

Please note ▼ denotes your result



Percentage Values (%) - CD19

Please note ▼ denotes your result



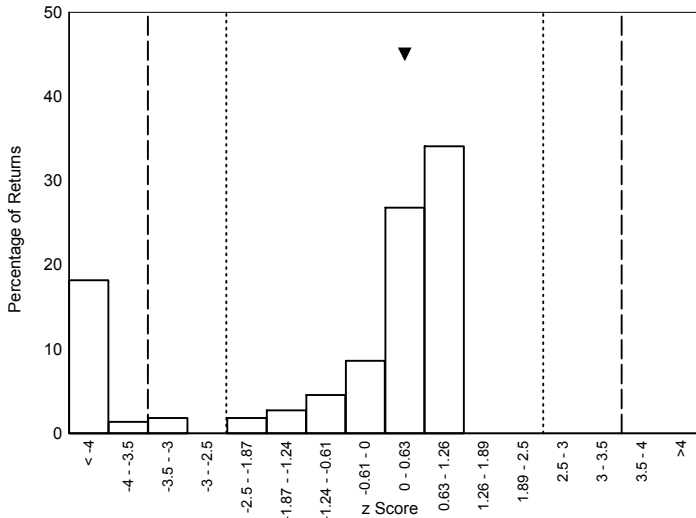
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Histograms of Participant z Scores

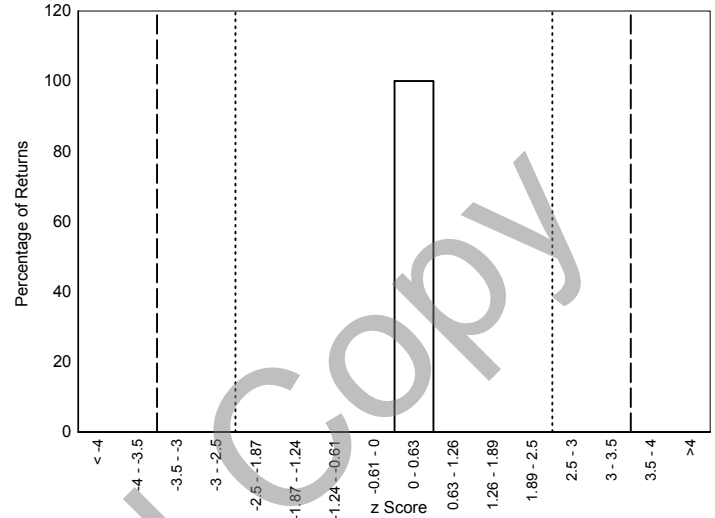
Percentage Values (%) - CD22

Please note ▼ denotes your result



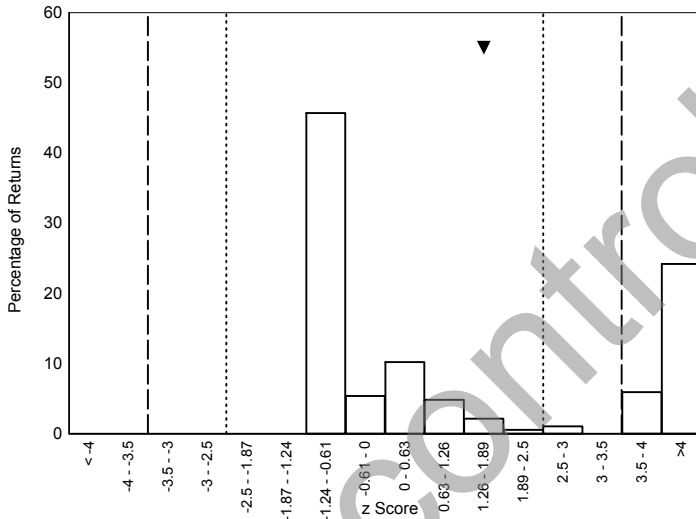
Percentage Values (%) - CD10

Please note ▼ denotes your result



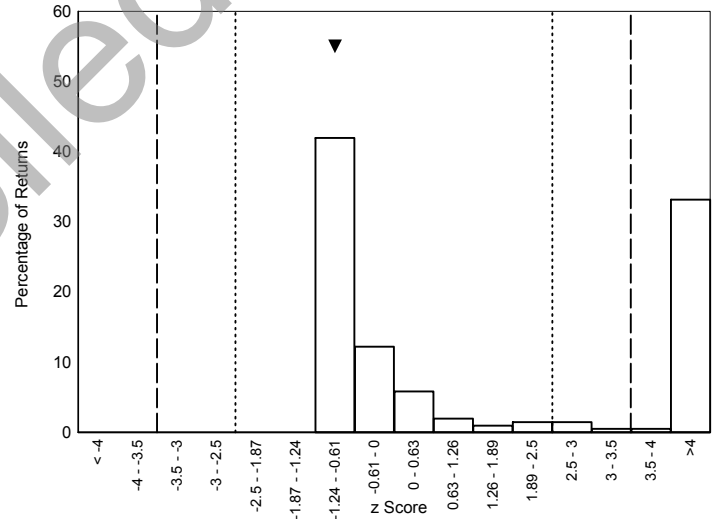
Percentage Values (%) - FMC7

Please note ▼ denotes your result



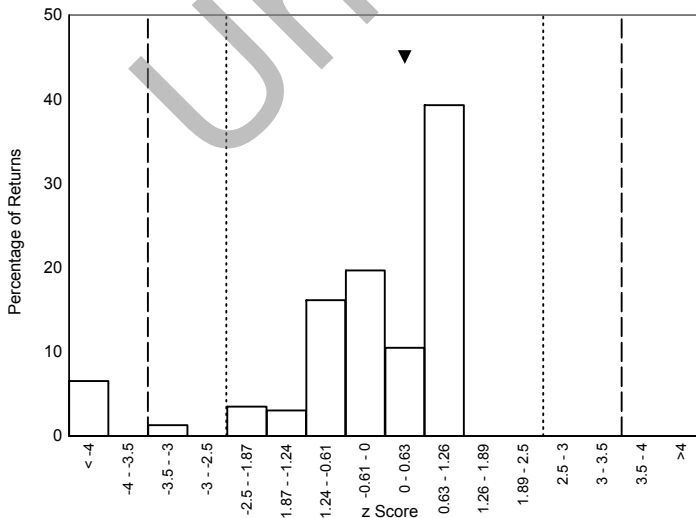
Percentage Values (%) - CD79b

Please note ▼ denotes your result



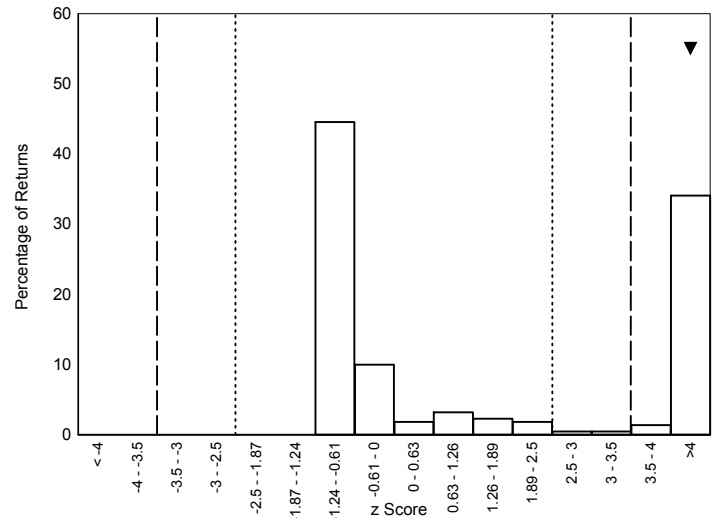
Percentage Values (%) - HLADR

Please note ▼ denotes your result



Percentage Values (%) - CD25

Please note ▼ denotes your result



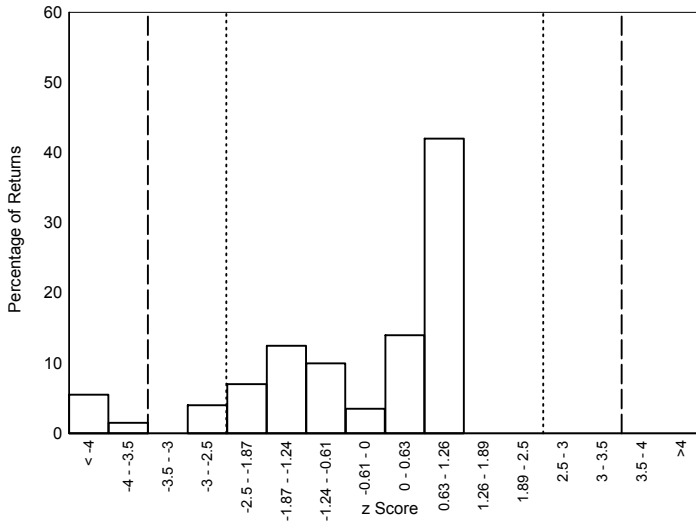
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Histograms of Participant z Scores

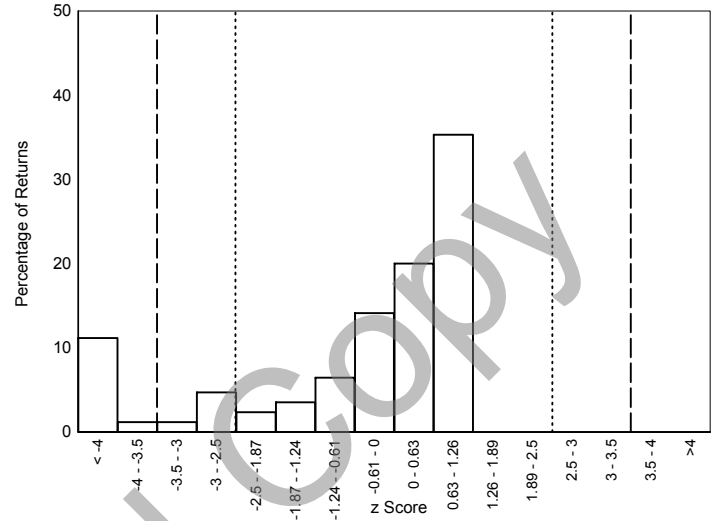
Percentage Values (%) - CD200

Please note ▼ denotes your result



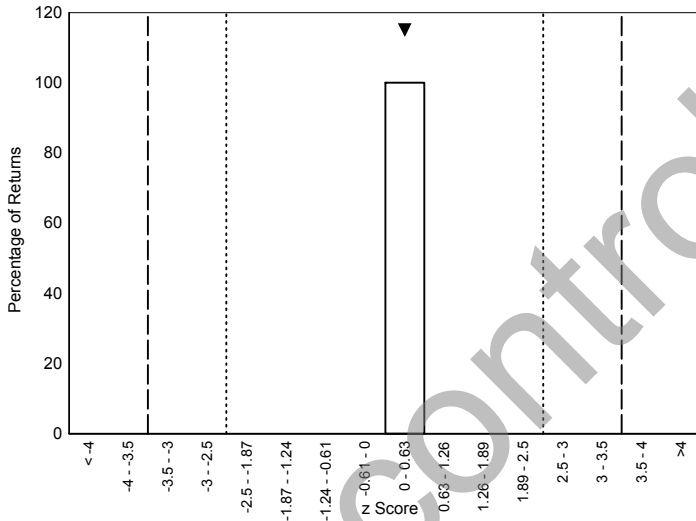
Percentage Values (%) - CD43

Please note ▼ denotes your result



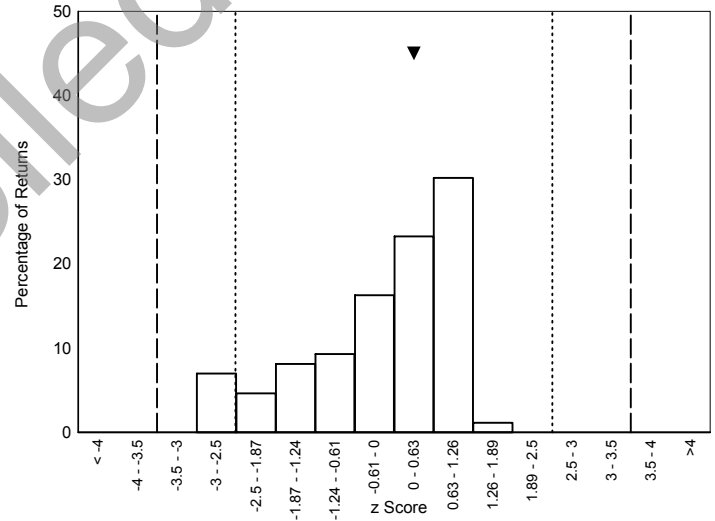
Percentage Values (%) - CD103

Please note ▼ denotes your result



Percentage Values (%) - CD23

Please note ▼ denotes your result



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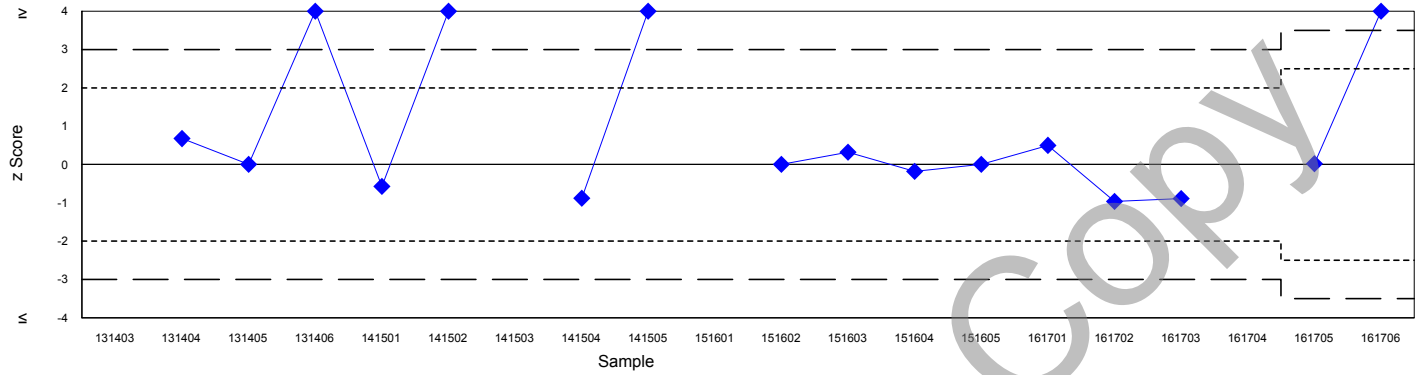
Shewhart Control Charts



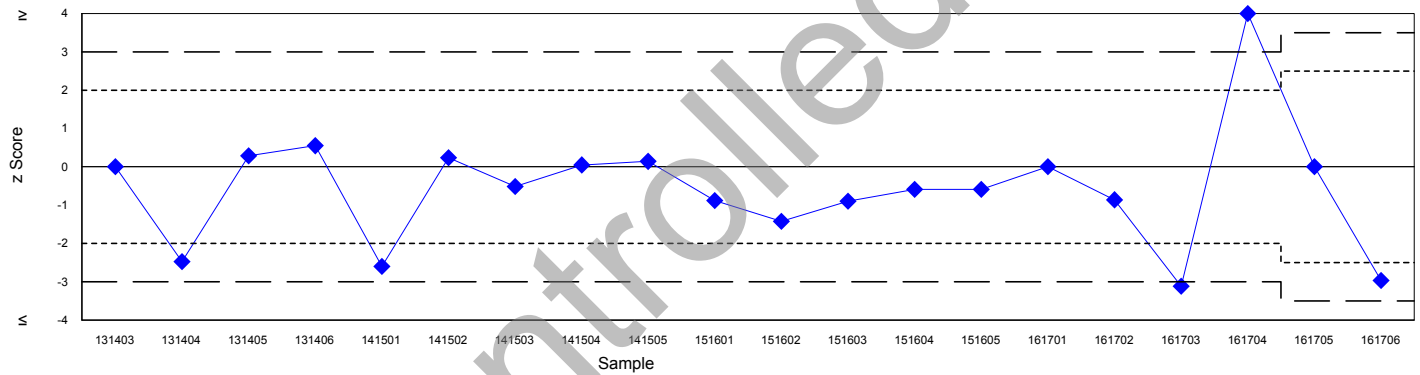
(Please note each data point represents a single sample)

Percentage Values (%)

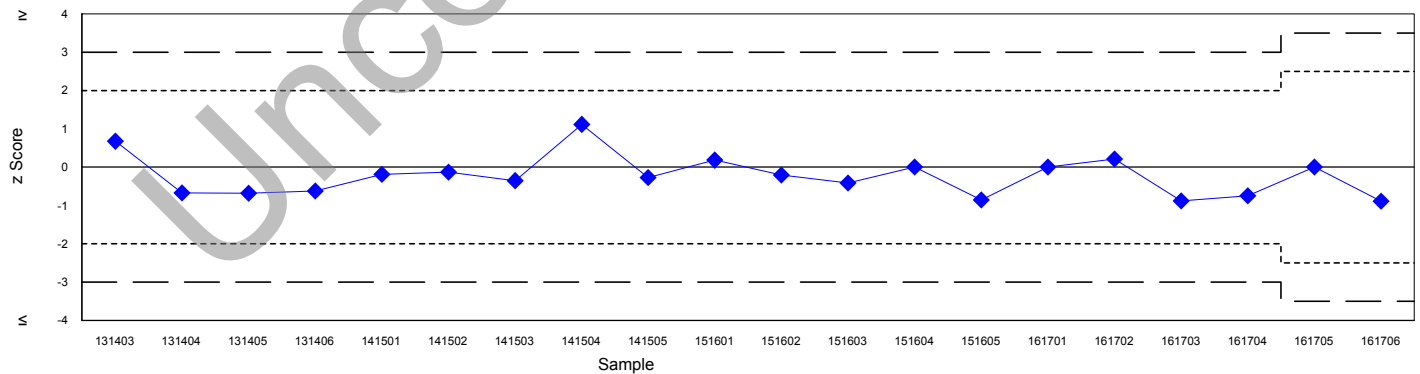
CD13



CD19

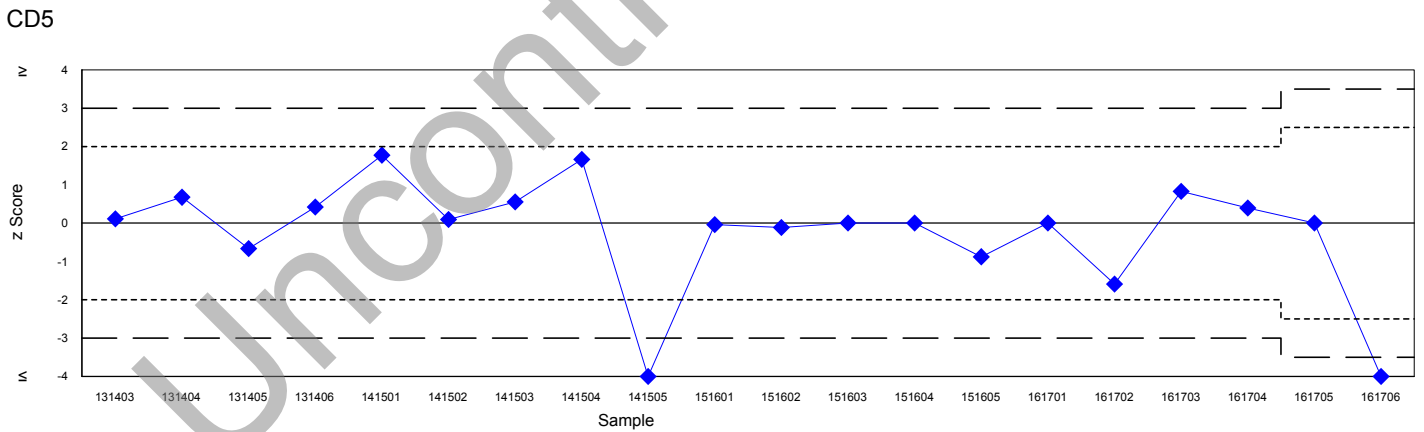
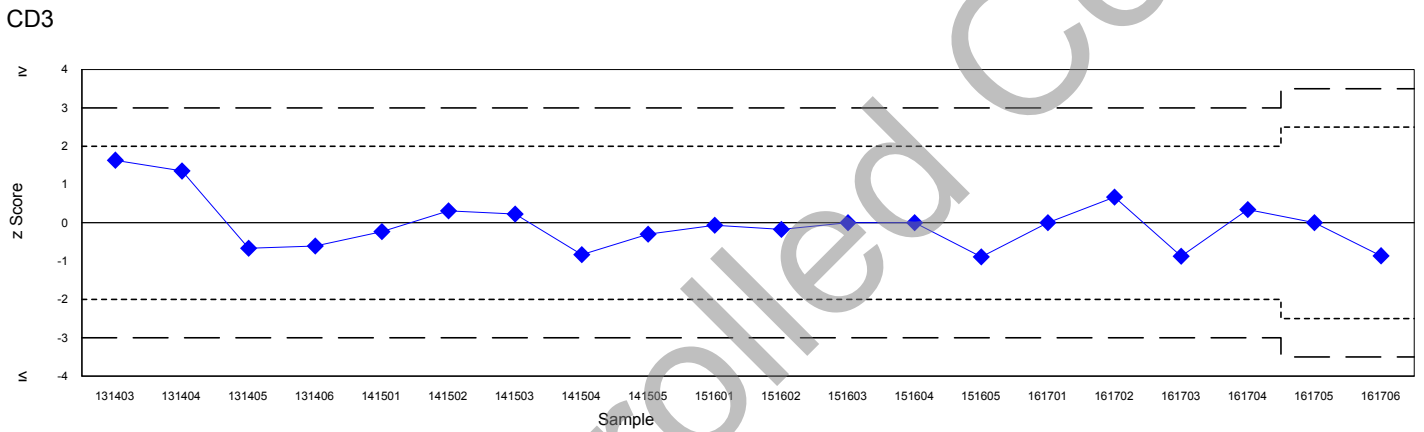
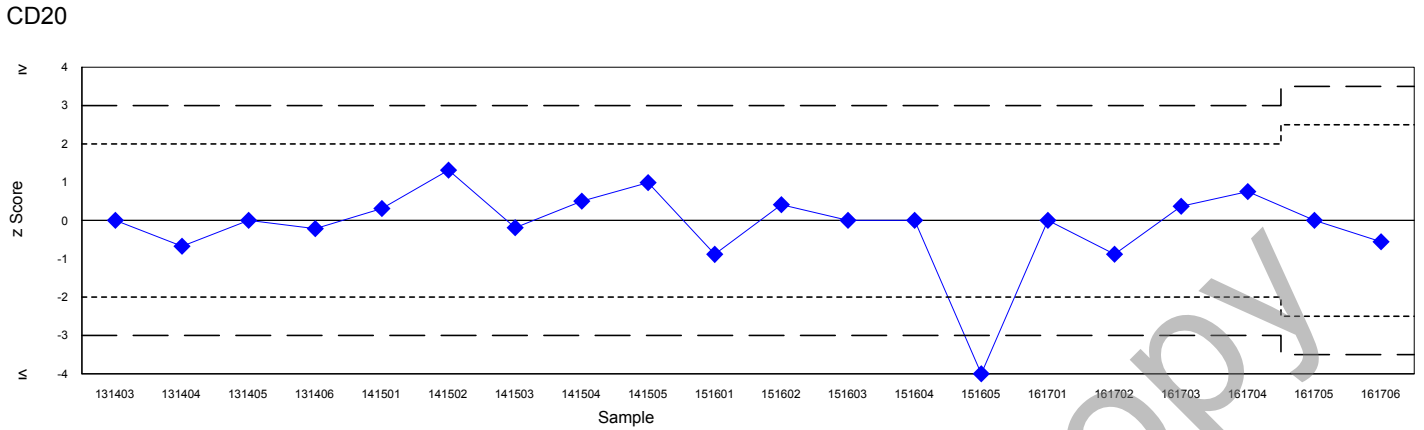


CD2



Leukaemia Immunophenotyping (Part 1) Programme

Sample - 161706



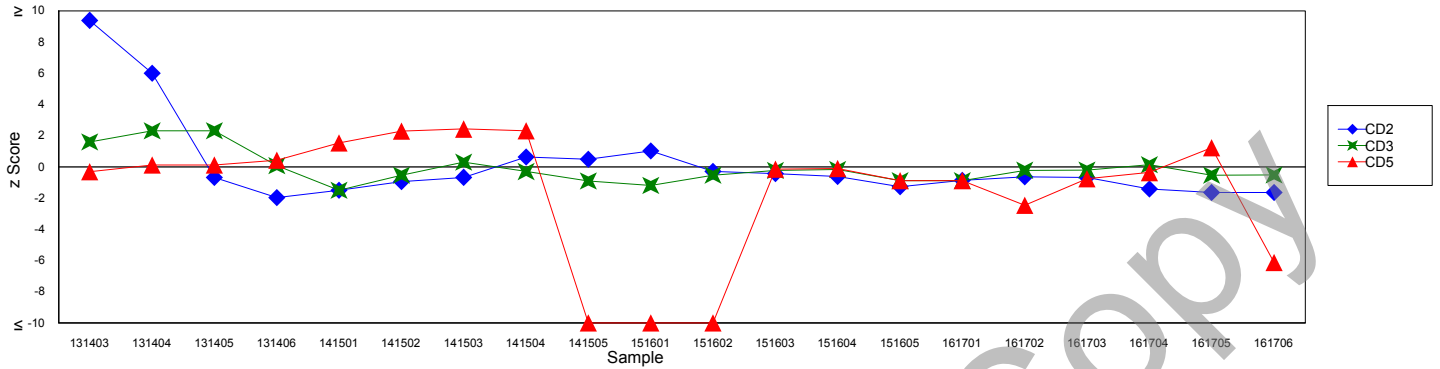
Leukaemia Immunophenotyping (Part 1) Programme

Sample - 161706

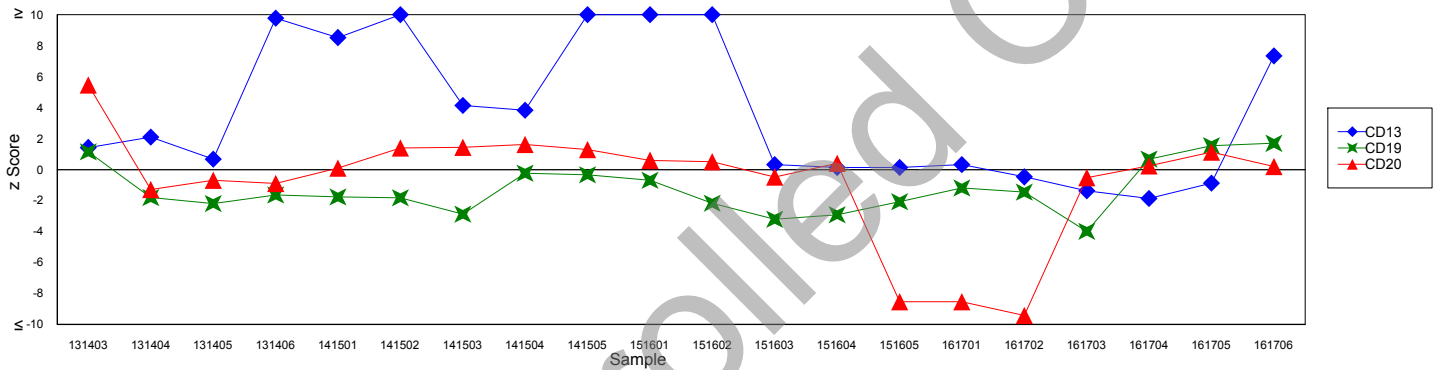
Cusum Control Charts

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

Percentage Values (%)



Percentage Values (%)



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Leukaemia Immunophenotyping (Part 1) Programme

Sample - 161706

Antibody Manufacturer Specific Statistics 

(Please note only groups of >20 returns are displayed)

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	145	0.5	0.5
Beckman Coulter	83	0.6	0.7

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	148	0.0	0.0
Beckman Coulter	86	1.0	1.1

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	149	98.5	1.4
Beckman Coulter	85	98.7	1.1

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	125	0.0	0.0
Beckman Coulter	89	0.0	0.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	145	26.1	28.1
Beckman Coulter	81	1.5	1.7

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	121	96.1	4.2
Beckman Coulter	115	99.8	0.2

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	131	92.9	6.9
Beckman Coulter	68	71.6	27.9

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	42	78.9	15.7
Beckman Coulter	24	63.9	30.5

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	124	1.5	1.5
Beckman Coulter	49	46.4	37.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	90	0.0	0.0
Beckman Coulter	62	6.6	7.6

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	134	10.5	11.8
Beckman Coulter	62	1.2	1.4

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	26	100.0	0.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	132	96.7	3.5
Beckman Coulter	63	95.5	4.2

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	149	92.8	7.3
Beckman Coulter	76	90.5	8.3

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Manufacturer Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	36	0.7	0.8

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	90	89.9	10.0
Beckman Coulter	47	91.3	9.3

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
BD Biosciences	102	97.3	3.0
Beckman Coulter	40	95.9	4.0
eBioscience	28	98.6	1.5

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Antibody Fluorochrome Specific Statistics 

(Please note only groups of >20 returns are displayed)

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	27	2.9	3.1
FITC	109	0.3	0.3
PE	50	0.3	0.4
PE-CY7	46	1.8	2.1

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
Alexa 750	20	0.0	0.0
APC	46	0.0	0.0
ECD	21	3.3	3.0
FITC	46	3.3	3.3
PerCP-CY5.5	20	0.0	0.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	37	98.5	1.5
FITC	59	98.0	1.5
PE	30	98.0	1.6
PE-CY7	26	98.6	1.4
PerCP-CY5.5	47	98.9	1.2

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	46	0.0	0.0
PE	112	0.0	0.0
PE-CY7	33	0.0	0.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
FITC	20	0.9	1.1
PE	173	18.4	19.7

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	32	95.3	4.8
ECD	20	96.0	4.2
PE	31	93.9	1.8
PE-CY7	92	100.0	0.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	62	93.5	6.2
FITC	29	48.2	43.4
PE	70	93.0	6.5

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	20	77.4	18.2
PE	38	78.0	15.8

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	41	15.5	16.6
FITC	30	1.2	1.2
PE	76	22.2	23.9
PerCP-CY5.5	30	0.7	0.9

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
FITC	159	0.9	1.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	28	3.1	3.5
FITC	29	0.0	0.0
PE	87	25.4	29.1
PE-CY7	29	3.0	3.5

Leukaemia Immunophenotyping (Part 1) Programme

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Antibody Fluorochrome Specific Statistics

(Please note only groups of >20 returns are displayed)

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
FITC	20	0.0	0.0

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	20	95.2	1.8
FITC	67	96.0	3.8
Pacific Orange	30	98.4	1.6
PC5.5	23	99.2	1.0
PE	20	92.7	6.4

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	24	95.0	5.0
FITC	52	91.2	6.7
Pacific Orange	37	90.8	10.6
PC5.5	28	84.2	16.8
PE	27	91.8	6.6

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
Alexa 750	41	91.9	8.7
FITC	72	86.3	13.2

Method	Percentage Values (%)		
	Returns	Robust Mean	Robust SD
APC	68	98.8	1.5
PE	76	95.7	4.0
PE-CY7	26	93.8	6.2

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, Fax: +44 (0) 114 267 3601
e-mail: nicola.rose@ukneqasli.co.uk

4.8.2 b) The coordinators of UK NEQAS LI programmes are Prof David Barnett and Mr Liam Whitby.

4.8.2 c) Person(s) authorizing this report:

Prof David Barnett, Director or Mr Liam Whitby, Operations Manager of UK NEQAS LI

4.8.2 d) No activities in relation to this EQA exercise were subcontracted.

4.8.2 g) The UK NEQAS LI Confidentiality Policy can be found in the Quality Manual which is available by contacting the UK NEQAS LI office. Participant details, their results and their performance data remain confidential unless revealed to the relevant NQAAP when a UK participant is identified as having performance issues.

4.8.2 i) All EQA samples are prepared in accordance with strict Standard Operational 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 authorized 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/