### Leucocyte Immunophenotyping

## **Low Level Leucocyte Enumeration Programme**

### **All Participant Report**

Distribution - 232405 Sample - RBC727 Participant ID -

Date Issued - 04 December 2023 Closing Date - 05 January 2024 Machine Used -

#### **Trial Comments**

This exercise was issued to 109 participants of which 103 (95%) returned results at the time of report generation.

### **Sample Comments**

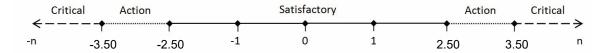
The sample was manufactured by UK NEQAS using a sample of filtered blood from an anonymous donor which was stabilised and spiked with stabilised buffy coat.

#### **Results and Performance**

Cell Population	Your Results	Robust Mean	Robust SD
	(cells/µL)	(cells/µL)	(cells/µL)
Machine 1 FACSLyric	16.11	16.40	2.08

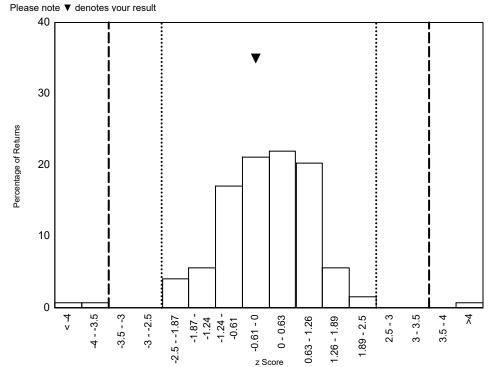
Cell Population	z Score*	Performance Status for this	Performance	Status Classifica Sample Period	tion Over 12
		Sample	Satisfactory	Action	Critical
Machine 1 FACSLyric	-0.14	Satisfactory	12	0	0

#### \*z Score Limits Definitions





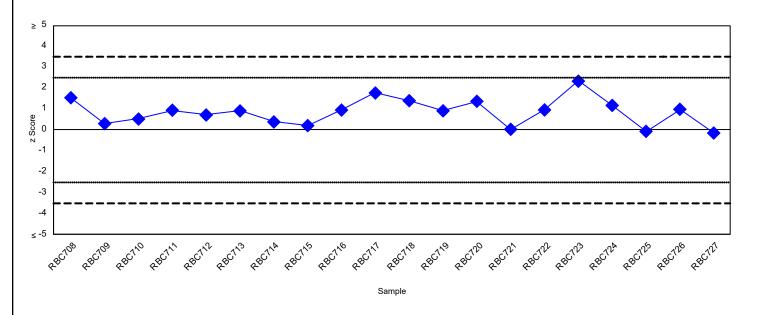
### **Histograms of Participant z Scores**



#### **Shewhart Control Charts**

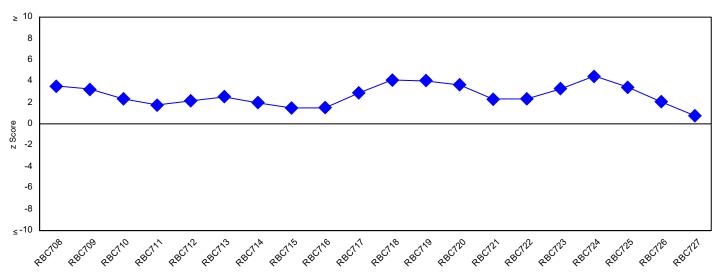
(Please note each data point represents a single sample)

Absolute Values (cells/µL) - Machine 1 FACSLyric



#### **Cusum Control Charts**

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



### **Staining Method Specific Statistics**

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

	Absolute Count Values (cells/µL)			
Method	Returns Robust Robus			
		Mean	SD	
BD Leucocount	88	16.82	1.74	
Leukosure	22	14.97	1.50	

## Flow Cytometer Specific Statistics

	Absolute Count Values (cells/µL)		
Method	Returns	Robust Mean	Robust SD
FACSCanto II	24	16.91	1.58
FACSLyric	25	17.60	1.77
Navios	25	15.67	2.49

Distribution - 232405 Sample - RBC728 Participant ID -

Date Issued - 04 December 2023 Closing Date - 05 January 2024 Machine Used -

#### **Trial Comments**

This exercise was issued to 109 participants of which 103 (95%) returned results at the time of report generation.

### **Sample Comments**

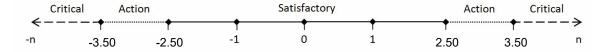
The sample was manufactured by UK NEQAS using a sample of filtered blood from an anonymous donor which was stabilised and spiked with stabilised buffy coat.

#### **Results and Performance**

Cell Population	Your Results	Robust Mean	Robust SD
	(cells/µL)	(cells/µL)	(cells/µL)
Machine 1 FACSLyric	22.41	17.52	2.88

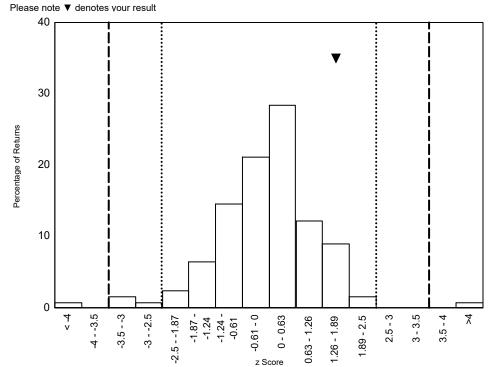
Cell Population	z Score*	Performance Status for this	Performance Status Classifica Sample Period		tion Over 12
		Sample	Satisfactory	Action	Critical
Machine 1 FACSLyric	1.70	Satisfactory	12	0	0

#### \*z Score Limits Definitions





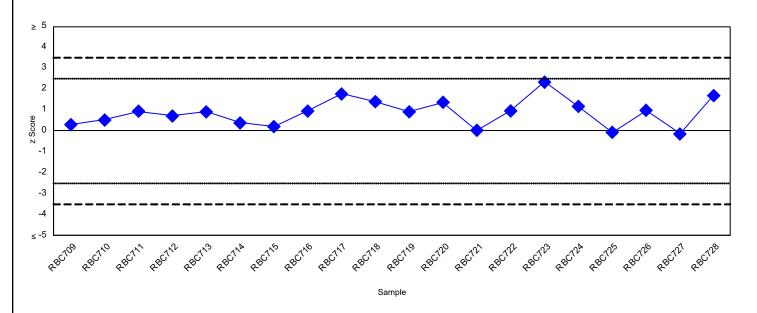
### **Histograms of Participant z Scores**



#### **Shewhart Control Charts**

(Please note each data point represents a single sample)

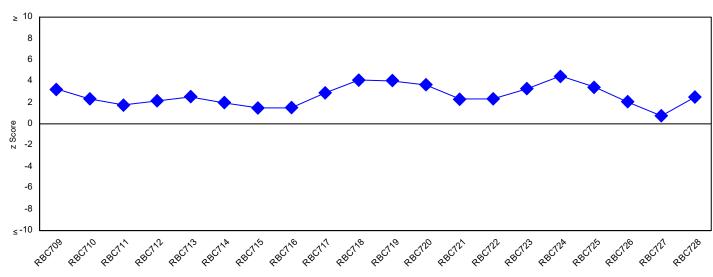
Absolute Values (cells/µL) - Machine 1 FACSLyric



#### **Cusum Control Charts**

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

Absolute Values (cells/µL) - Machine 1 FACSLyric



Sample



### **Staining Method Specific Statistics**

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

	Absolute Count Values (cells/µL)		
Method	Returns Robust Robust		
		Mean	SD
BD Leucocount	88	17.91	2.50
Leukosure	22	16.58	3.57

## Flow Cytometer Specific Statistics

	Absolute Count Values (cells/µL)		
Method	Returns	Robust Mean	Robust SD
FACSCanto II	24	17.99	2.03
FACSLyric	25	18.66	2.34
Navios	25	17.28	3.23

Distribution - 232405 Sample - RBC729 Participant ID -

Date Issued - 04 December 2023 Closing Date - 05 January 2024 Machine Used -

#### **Trial Comments**

This exercise was issued to 109 participants of which 103 (95%) returned results at the time of report generation.

### **Sample Comments**

The sample was manufactured by UK NEQAS using a sample of filtered blood from an anonymous donor which was stabilised and spiked with stabilised buffy coat.

#### **Results and Performance**

Cell Population	Your Results	Robust Mean	Robust SD
	(cells/µL)	(cells/µL)	(cells/µL)
Machine 1 FACSLyric	3.80	3.17	0.58

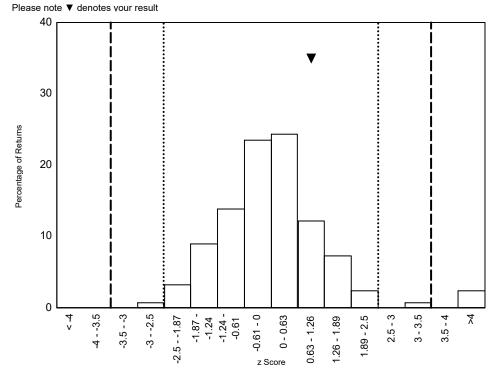
Cell Population	z Score*	Performance Status for this	Performance	Status Classifica Sample Period	tion Over 12
		Sample	Satisfactory	Action	Critical
Machine 1 FACSLyric	1.09	Satisfactory	12	0	0

#### \*z Score Limits Definitions





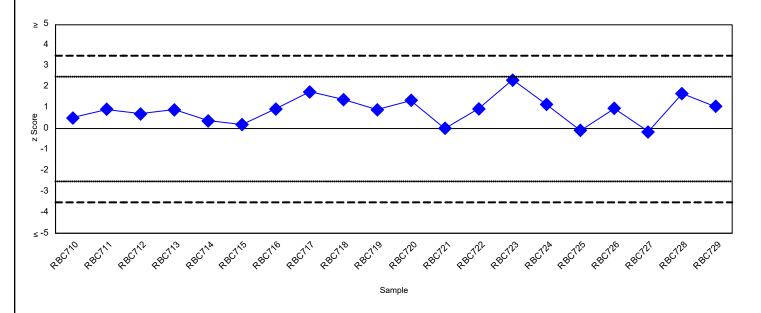
### **Histograms of Participant z Scores**



#### **Shewhart Control Charts**

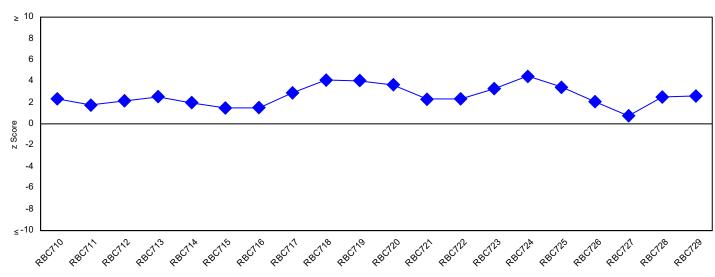
(Please note each data point represents a single sample)

Absolute Values (cells/µL) - Machine 1 FACSLyric



#### **Cusum Control Charts**

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





### **Staining Method Specific Statistics**

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

	Absolute Count Values (cells/µL)			
Method	Returns Robust Robust			
		Mean	SD	
BD Leucocount	88	3.24	0.49	
Leukosure	22	2.95	0.61	

## Flow Cytometer Specific Statistics

	Absolute Count Values (cells/µL)		
Method	Returns	Robust Mean	Robust SD
FACSCanto II	24	3.24	0.63
FACSLyric	25	3.28	0.33
Navios	25	3.19	0.73

## Leucocyte Immunophenotyping

## **Low Level Leucocyte Enumeration Programme**

Distribution - 232405 Sample - PLT727 Participant ID -

Date Issued - 04 December 2023 Closing Date - 05 January 2024 Machine Used -

#### **Trial Comments**

This exercise was issued to 109 participants of which 103 (95%) returned results at the time of report generation.

### **Sample Comments**

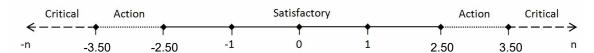
The sample was manufactured by UK NEQAS using a sample of platelets from an anonymous donor which was stabilised and spiked with stabilised buffy coat.

#### **Results and Performance**

Cell Population	Your Results	Your Results Robust Mean	
	(cells/µL)	(cells/µL)	(cells/µL)
Machine 1 FACSLyric	0.95	0.92	0.26

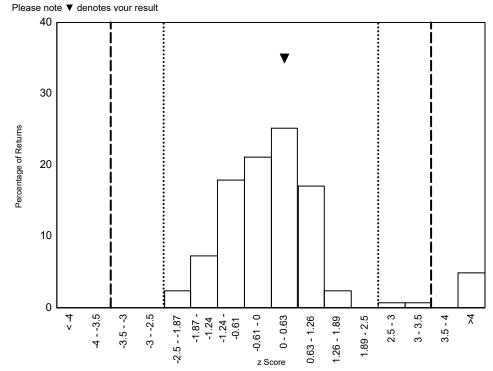
Cell Population	z Score*	Performance Status for this	Performance	Status Classificat Sample Period	tion Over 12
		Sample	Satisfactory	Action	Critical
Machine 1 FACSLyric	0.15	Satisfactory	12	0	0

#### \*z Score Limits Definitions





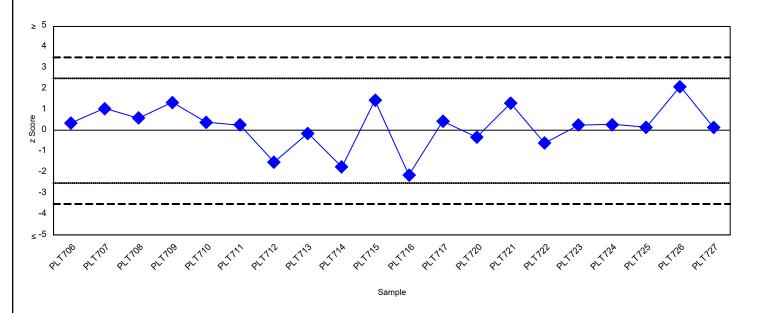
### **Histograms of Participant z Scores**



#### **Shewhart Control Charts**

(Please note each data point represents a single sample)

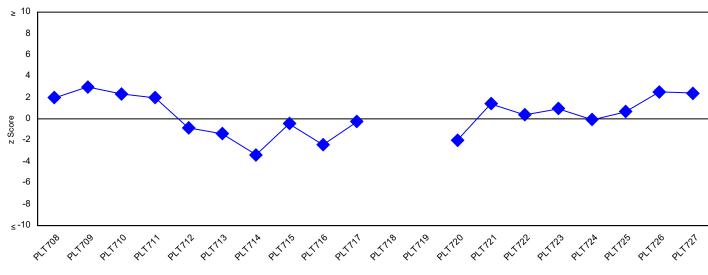
Absolute Values (cells/µL) - Machine 1 FACSLyric



#### **Cusum Control Charts**

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

Absolute Values (cells/µL) - Machine 1 FACSLyric



Sample



### **Staining Method Specific Statistics**

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

	Absolute Count Values (cells/µL)		
Method	Returns	Robust	Robust
		Mean	SD
BD Leucocount	88	0.90	0.22
Leukosure	22	0.88	0.38

## Flow Cytometer Specific Statistics

	Absolute Count Values (cells/μL)		
Method	Returns	Robust Mean	Robust SD
FACSCanto II	24	0.93	0.24
FACSLyric	25	0.88	0.20
Navios	25	0.94	0.40

## Leucocyte Immunophenotyping

### **Low Level Leucocyte Enumeration Programme**

Distribution - 232405 Sample - PLT728 Participant ID -

Date Issued - 04 December 2023 Closing Date - 05 January 2024 Machine Used -

#### **Trial Comments**

This exercise was issued to 109 participants of which 103 (95%) returned results at the time of report generation.

### **Sample Comments**

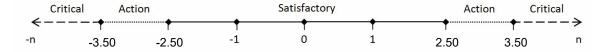
The sample was manufactured by UK NEQAS using a sample of platelets from an anonymous donor which was stabilised and spiked with stabilised buffy coat.

#### **Results and Performance**

Cell Population	Your Results	Your Results Robust Mean	
	(cells/µL)	(cells/µL)	(cells/µL)
Machine 1 FACSLyric	26.74	25.02	2.15

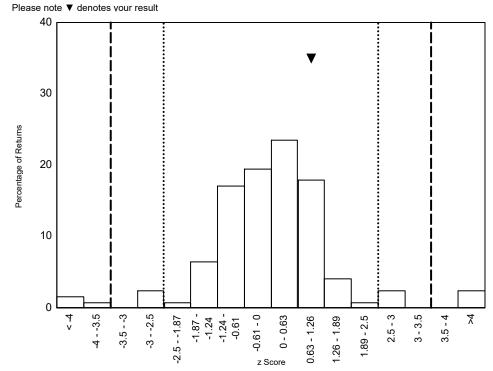
Cell Population	z Score*	Performance Status for this	Performance	Status Classificat Sample Period	tion Over 12
		Sample	Satisfactory	Action	Critical
Machine 1 FACSLyric	0.80	Satisfactory	12	0	0

#### \*z Score Limits Definitions





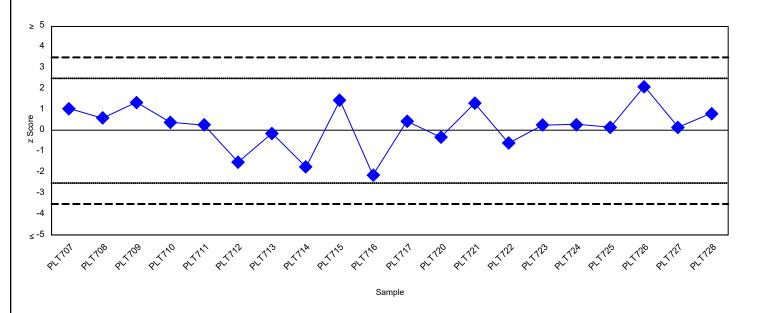
### **Histograms of Participant z Scores**



#### **Shewhart Control Charts**

(Please note each data point represents a single sample)

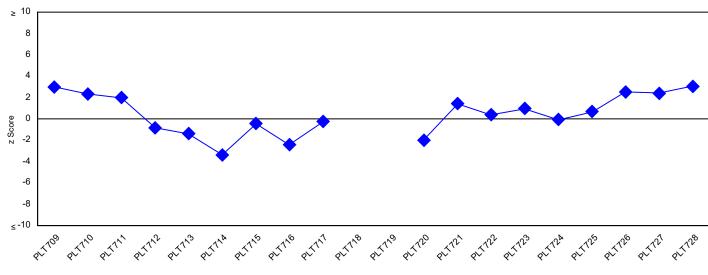
Absolute Values (cells/µL) - Machine 1 FACSLyric



#### **Cusum Control Charts**

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

Absolute Values (cells/µL) - Machine 1 FACSLyric



Sample



### **Staining Method Specific Statistics**

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

	Absolute Count Values (cells/µL)		
Method	Returns Robust Robus		
		Mean	SD
BD Leucocount	88	25.29	1.73
Leukosure	22	23.56	2.27

## Flow Cytometer Specific Statistics

	Absolute Count Values (cells/µL)		
Method	Returns	Robust Mean	Robust SD
FACSCanto II	24	25.47	1.57
FACSLyric	25	24.68	2.24
Navios	25	25.25	2.51

Distribution - 232405 Sample - PLT729 Participant ID -

Date Issued - 04 December 2023 Closing Date - 05 January 2024 Machine Used -

#### **Trial Comments**

This exercise was issued to 109 participants of which 103 (95%) returned results at the time of report generation.

### **Sample Comments**

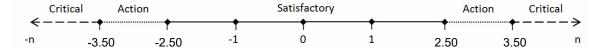
The sample was manufactured by UK NEQAS using a sample of platelets from an anonymous donor which was stabilised and spiked with stabilised buffy coat.

#### **Results and Performance**

Cell Population	Your Results	Your Results Robust Mean	
	(cells/µL)	(cells/µL)	(cells/µL)
Machine 1 FACSLyric	6.29	5.29	0.87

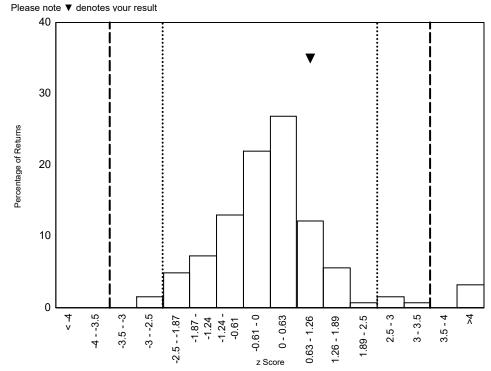
Cell Population	z Score*	Performance Status for this	Performance	Status Classifica Sample Period	tion Over 12
		Sample	Satisfactory	Action	Critical
Machine 1 FACSLyric	1.15	Satisfactory	12	0	0

#### \*z Score Limits Definitions





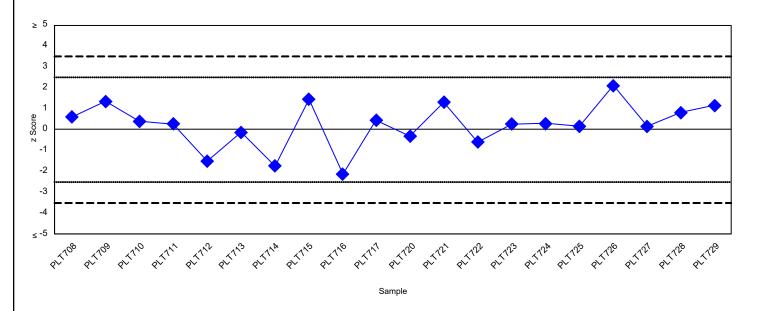
### **Histograms of Participant z Scores**



#### **Shewhart Control Charts**

(Please note each data point represents a single sample)

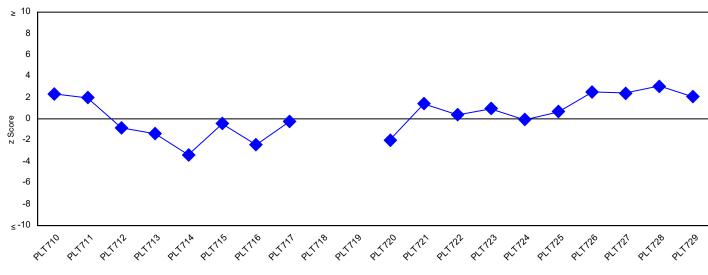
Absolute Values (cells/µL) - Machine 1 FACSLyric



#### **Cusum Control Charts**

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

Absolute Values (cells/µL) - Machine 1 FACSLyric



Sample



### **Staining Method Specific Statistics**

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

	Absolute Count Values (cells/µL)			
Method	Returns Robust Robust			
		Mean	SD	
BD Leucocount	88	5.32	0.81	
Leukosure	22	5.18	1.14	

## Flow Cytometer Specific Statistics

	Absolute Count Values (cells/µL)		
Method	Returns	Robust Mean	Robust SD
FACSCanto II	24	5.59	1.02
FACSLyric	25	5.27	0.37
Navios	25	5.28	0.89

#### 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, 4<sup>th</sup> Floor Suite 463A Glossop Road Sheffield, S10 2QD United Kingdom Tel: +44 (0) 114 267 3600

e-mail: amanda.newbould@uknegasli.co.uk

- 4.8.2 b) The coordinators of UK NEQAS LI programmes are Mr Liam Whitby (Director) and Mr Stuart Scott (Centre Manager).
- 4.8.2 c) Person(s) authorizing this report:
  Mr Liam Whitby (Director) or Mr Stuart Scott (Centre 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 I), n), o), r) & s) Please refer to the UK NEQAS LI website at <a href="www.ukneqasli.co.uk">www.ukneqasli.co.uk</a> 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 <a href="www.ukneqasli.co.uk">www.ukneqasli.co.uk</a>. 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 <a href="https://www.ukneqasli.co.uk/contact-us/appeals-and-complaints/">www.ukneqasli.co.uk/contact-us/appeals-and-complaints/</a>
- 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/ega-pt-programmes/new-participant-information/