

## CD34+ Stem Cell Enumeration Programme

### All Participant Report

Distribution - 232405

Sample - 316

Participant ID -

Date Issued - 09 January 2024

Closing Date - 29 January 2024

Machine Used -

### Trial Comments

This exercise was issued to 364 participants of which 346 (95.1%) returned results. Of the non returning centres 10 had requested an extension to the exercise deadline.

### Sample Comments

The sample was manufactured by UK NEQAS LI using stabilised CD34+ samples and stabilised leucodepleted blood

### Absolute Values Results and Performance

Please note: Performance monitoring for this programme is on absolute values only. Percentage results are shown for information purposes only.

Cell Population	Your Results (cells/ $\mu$ L)	Robust Mean (cells/ $\mu$ L)	Robust SD (cells/ $\mu$ L)
CD34 Absolute Values	28.00	29.68	3.00

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Absolute Values	-0.56	Satisfactory	12	0	0

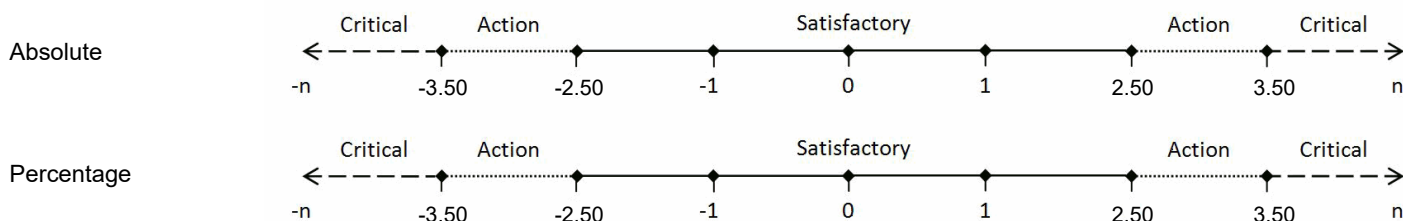
### Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD34 Percentage Values	0.30	0.31	0.04

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Percentage Values	-0.68	Satisfactory	12	0	0

### \*z Score Limits Definitions

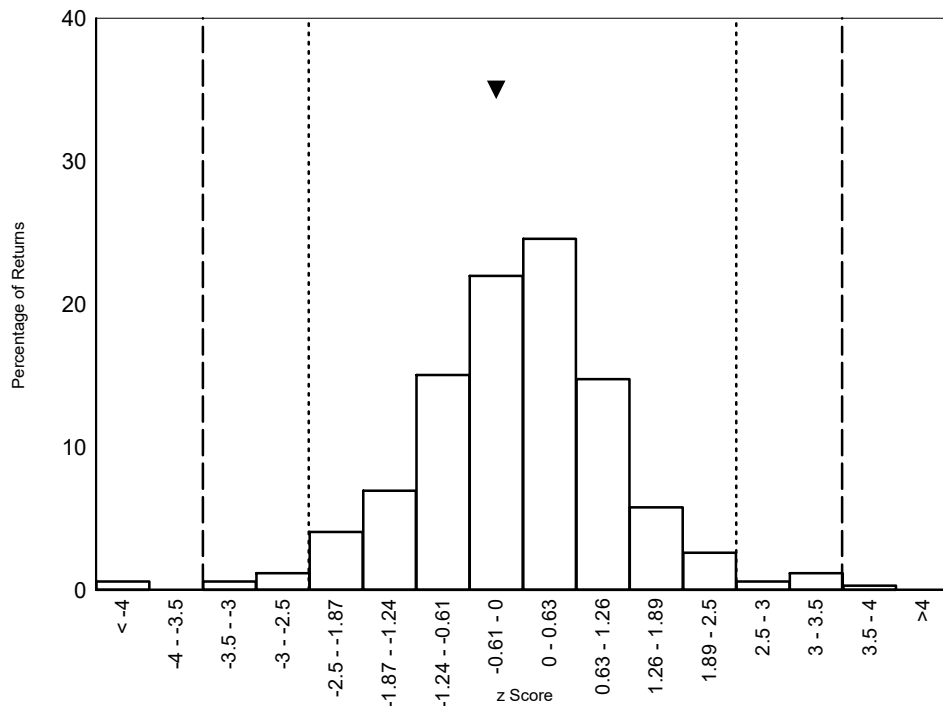
Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



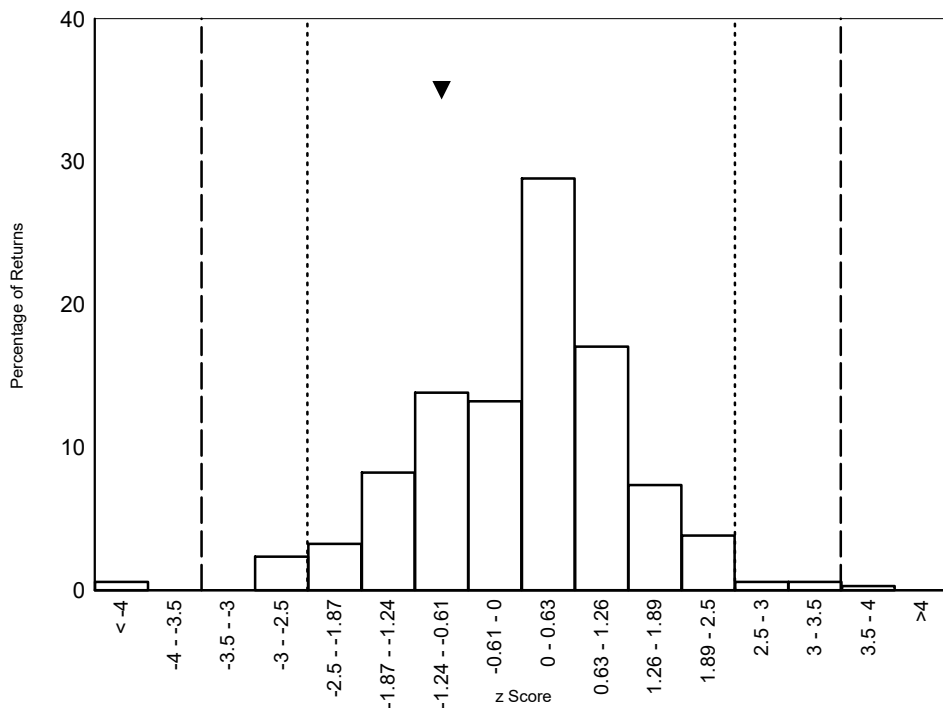
## CD34+ Stem Cell Enumeration Programme

### Histograms of Participant z Scores

Absolute Values (cells/ $\mu$ L)  
Please note ▼ denotes your result



Percentage Values (%)  
Please note ▼ denotes your result

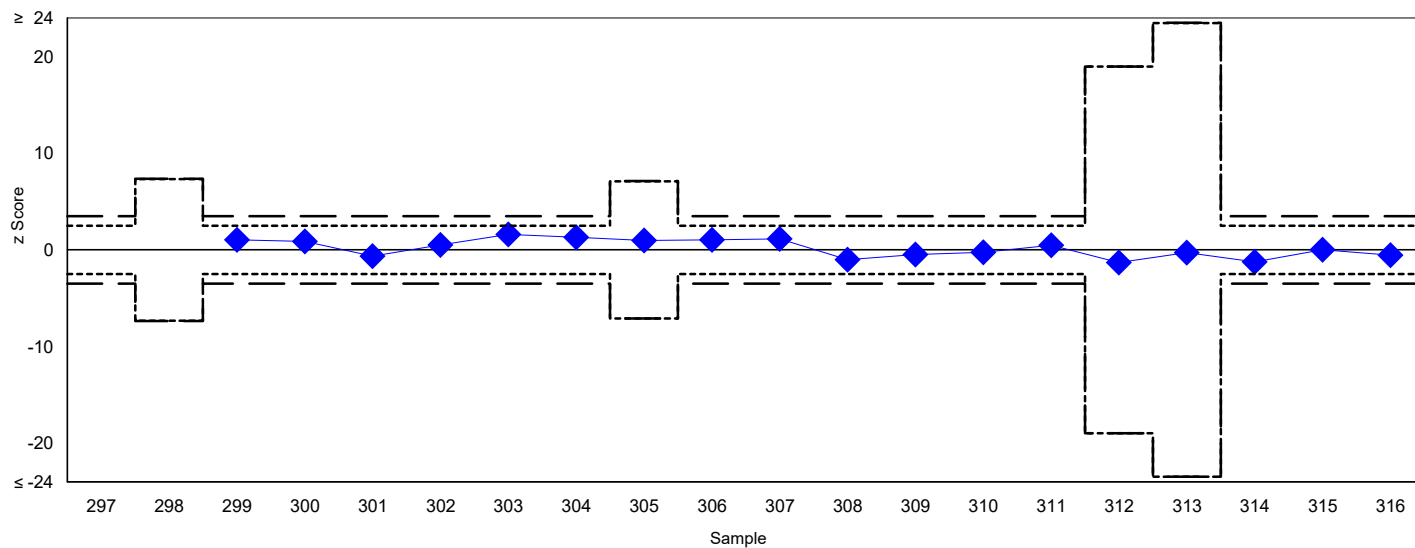


## CD34+ Stem Cell Enumeration Programme

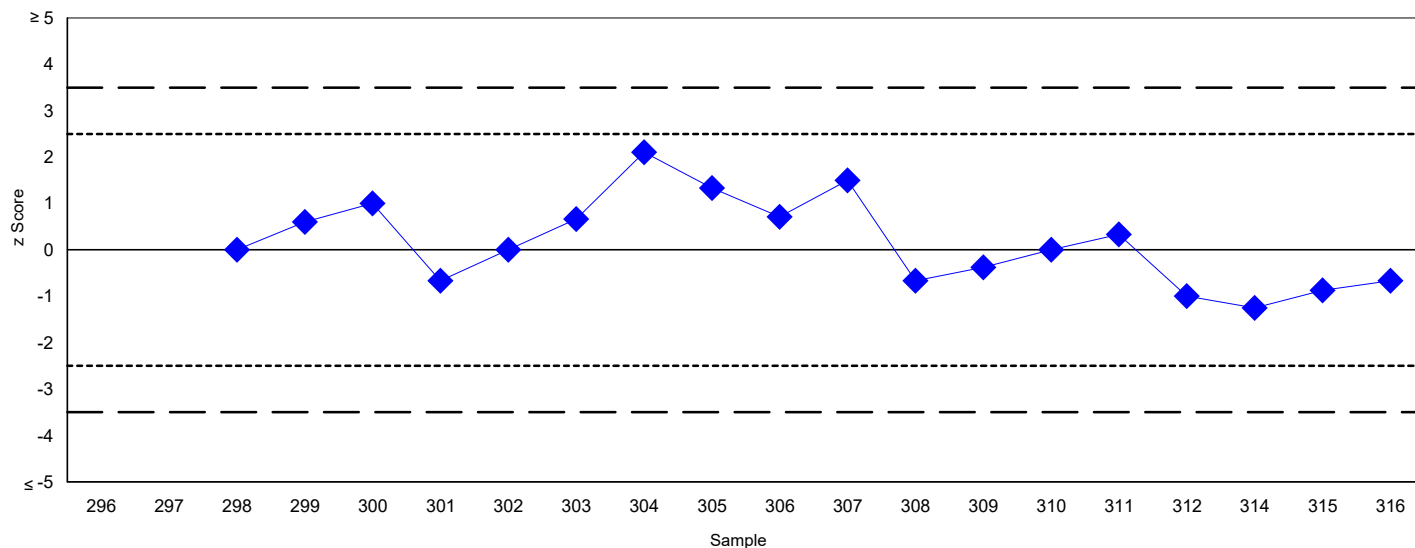
### Shewhart Control Charts

(Please note each data point represents a single sample)

Absolute Values (cells/ $\mu$ L)



Percentage Values (%)

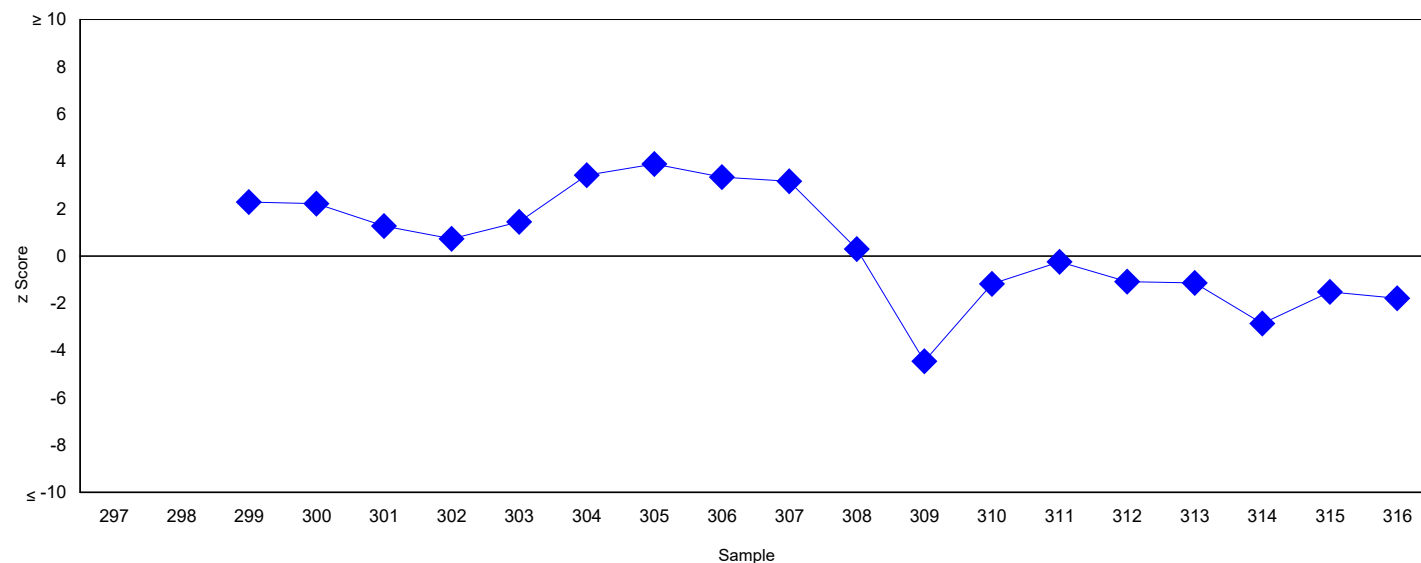


## CD34+ Stem Cell Enumeration Programme

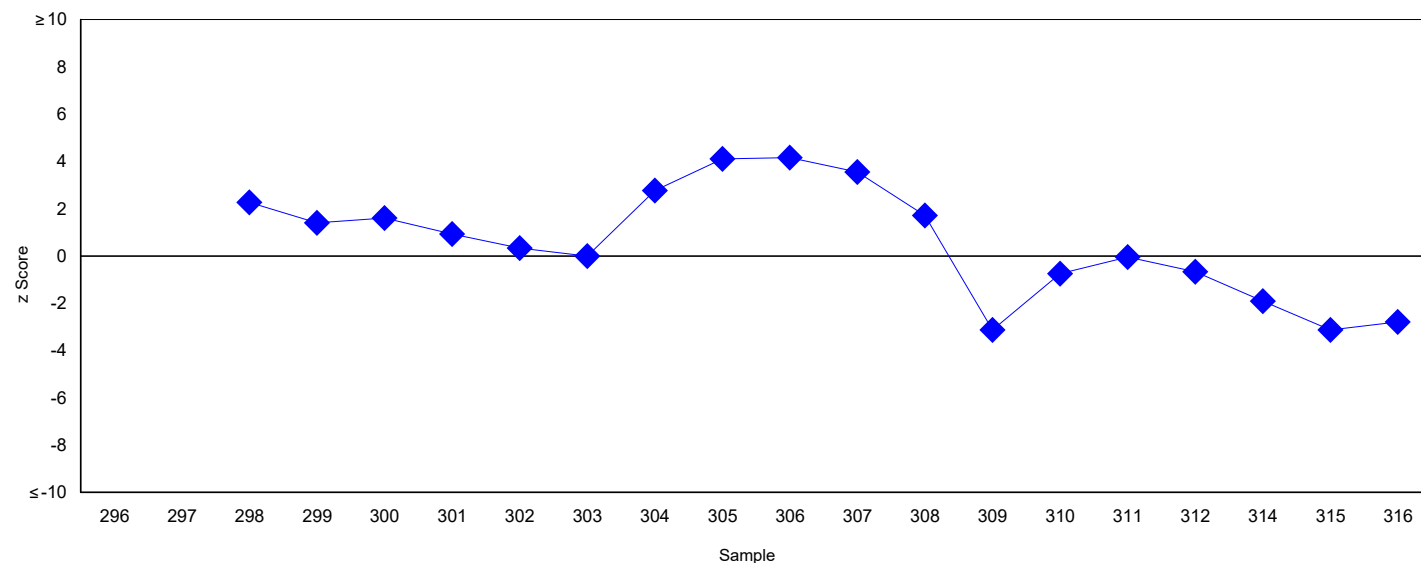
### Cusum Control Charts

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

#### Absolute Values (cells/ $\mu$ L)



#### Percentage Values (%)



## CD34+ Stem Cell Enumeration Programme

### Platform Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	88	29.39	3.10	87	0.32	0.03
HAEMATOLOGY ANALYSER WBC	35	28.57	3.85	34	0.31	0.04
TRUCOUNT	187	29.89	2.71	185	0.31	0.03

### Lysing Method Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Ammonium Chloride (NH <sub>4</sub> CL)	154	30.05	3.12	152	0.31	0.03
Facslyse	29	28.80	2.54	28	0.30	0.03
Pharmlyse	48	29.60	2.64	46	0.31	0.02
Stem Kit Lyse	87	28.89	3.30	86	0.31	0.03

### Antibody Fluorochrome Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
PE	340	29.52	3.19	334	0.31	0.03

### Flow Cytometer Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
DxFLEX	31	29.28	3.43	31	0.31	0.03
FACSCanto II	93	29.18	3.09	93	0.30	0.03
FACSLytic	100	30.42	2.60	97	0.31	0.03
Navios	70	29.22	2.92	68	0.31	0.02

### Gating Strategy Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD STEM CELL ENUMERATION KIT	98	29.97	2.42	98	0.31	0.03
ISHAGE	191	29.39	3.48	185	0.31	0.03
STEM KIT	54	29.20	2.98	54	0.31	0.03

## CD34+ Stem Cell Enumeration Programme

Distribution - 232405

Sample - 317

Participant ID -

Date Issued - 09 January 2024

Closing Date - 29 January 2024

Machine Used -

### Trial Comments

This exercise was issued to 364 participants of which 346 (95.1%) returned results. Of the non returning centres 10 had requested an extension to the exercise deadline.

### Sample Comments

The sample was manufactured by UK NEQAS LI using stabilised CD34+ samples and stabilised leucodepleted blood

### Absolute Values Results and Performance

Please note: Performance monitoring for this programme is on absolute values only. Percentage results are shown for information purposes only.

Cell Population	Your Results (cells/ $\mu$ L)	Robust Mean (cells/ $\mu$ L)	Robust SD (cells/ $\mu$ L)
CD34 Absolute Values	18.90	17.21	1.84

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Absolute Values	0.93	Satisfactory	12	0	0

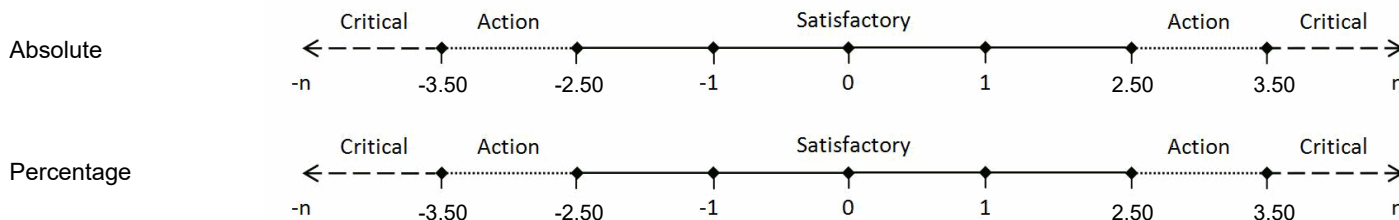
### Percentage Values Results and Performance

Cell Population	Your Results %	Robust Mean %	Robust SD %
CD34 Percentage Values	0.25	0.23	0.03

Cell Population	z Score*	Performance Status for this Sample	Performance Status Classification Over 12 Sample Period		
			Satisfactory	Action	Critical
CD34 Percentage Values	0.67	Satisfactory	12	0	0

### \*z Score Limits Definitions

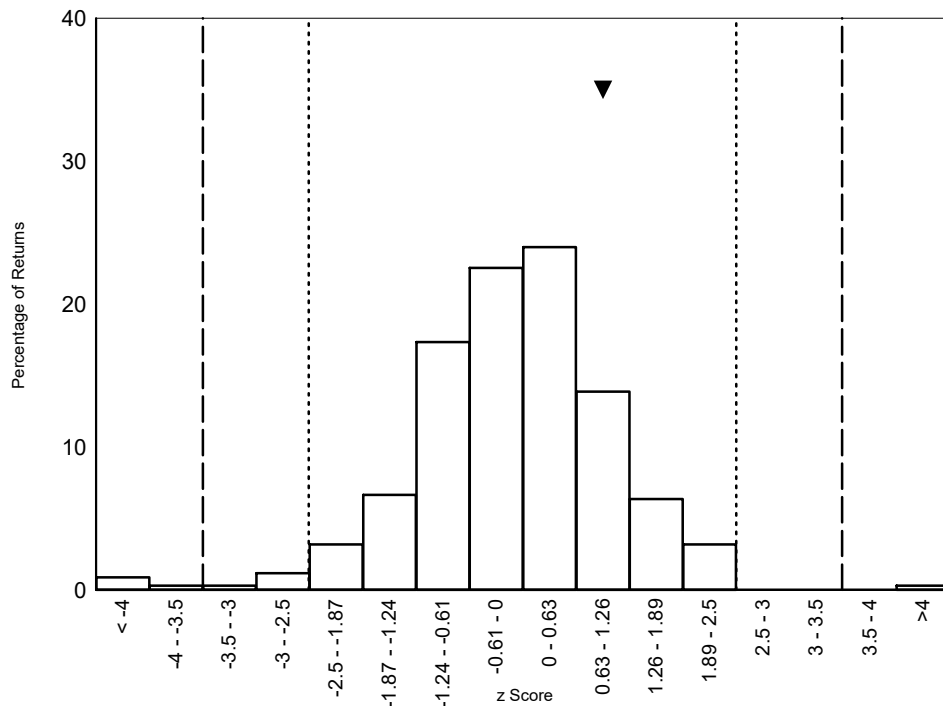
Please note the scale below is applicable to the tables above and to the z score histograms and Shewhart control charts that follow. It is not applicable to the Cusum control charts.



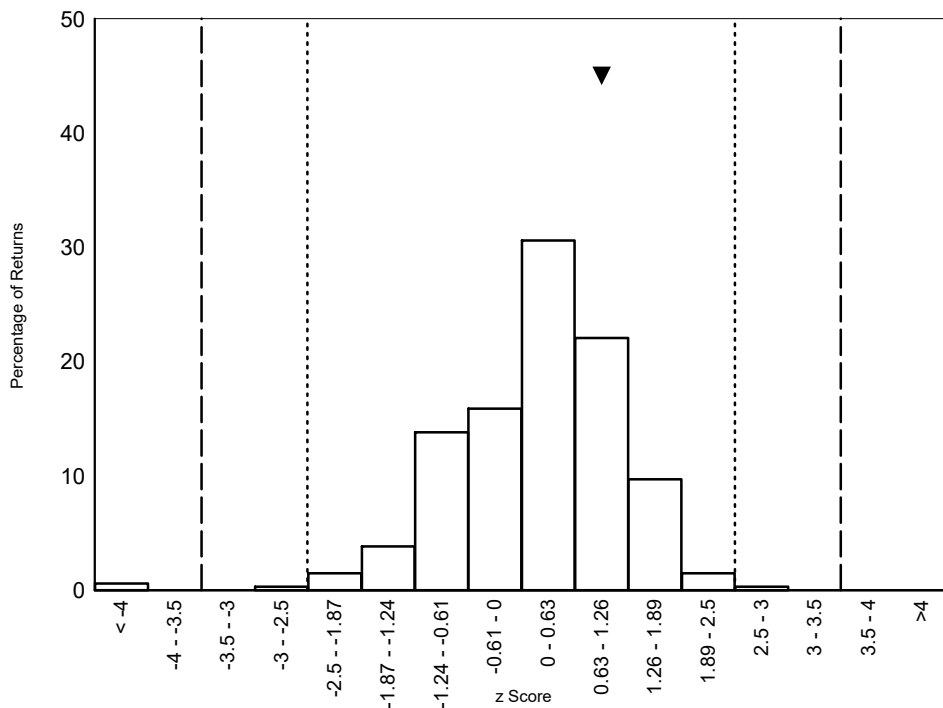
## CD34+ Stem Cell Enumeration Programme

### Histograms of Participant z Scores

Absolute Values (cells/ $\mu$ L)  
Please note ▼ denotes your result



Percentage Values (%)  
Please note ▼ denotes your result

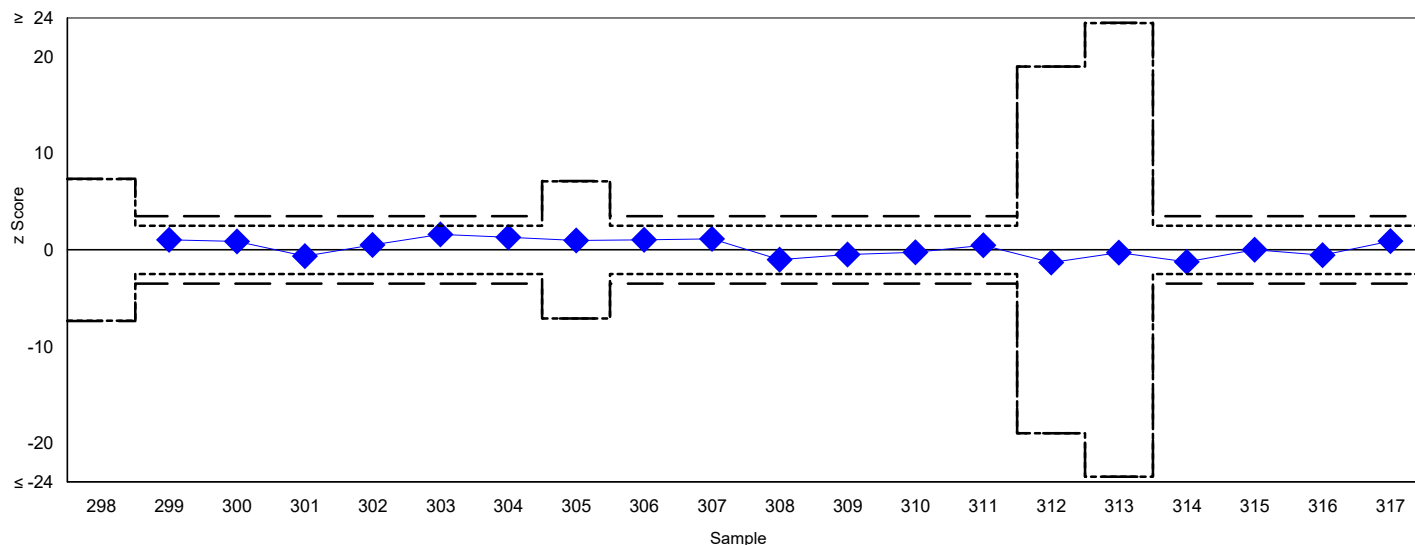


## CD34+ Stem Cell Enumeration Programme

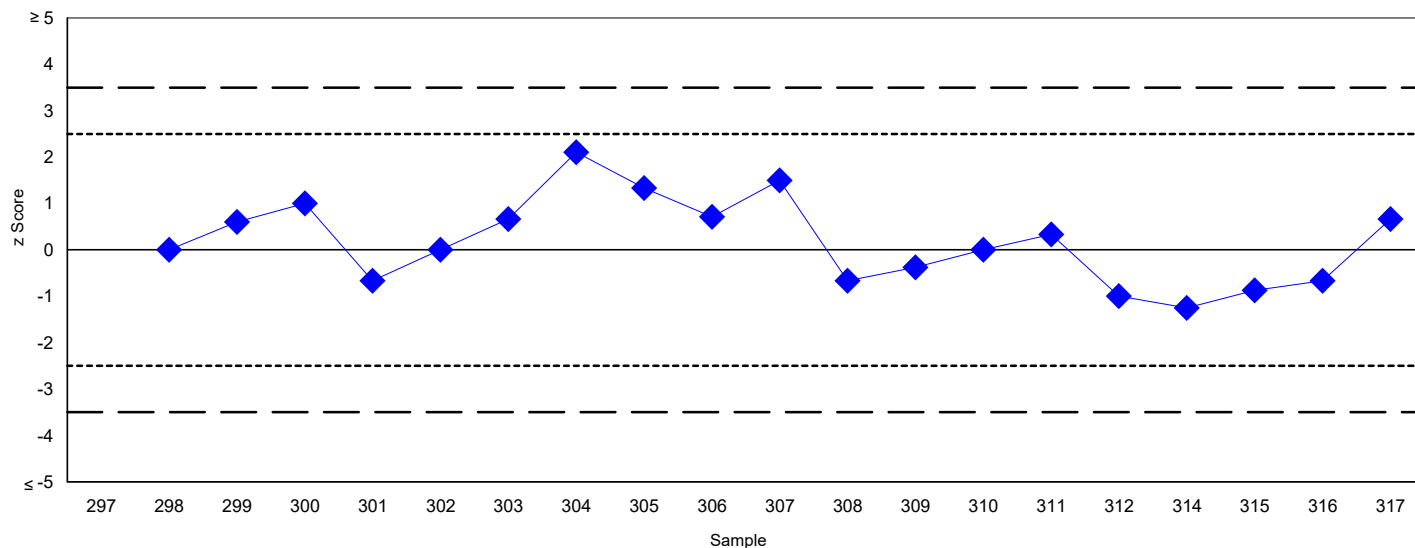
### Shewhart Control Charts

(Please note each data point represents a single sample)

Absolute Values (cells/ $\mu$ L)



Percentage Values (%)



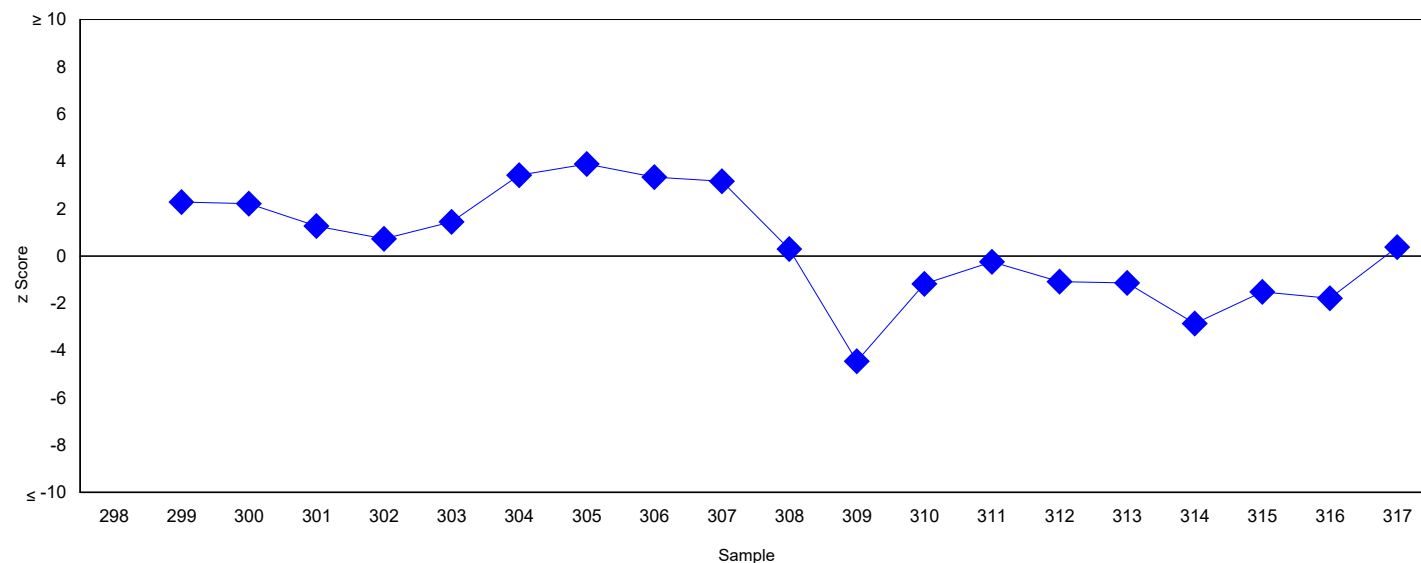


## CD34+ Stem Cell Enumeration Programme

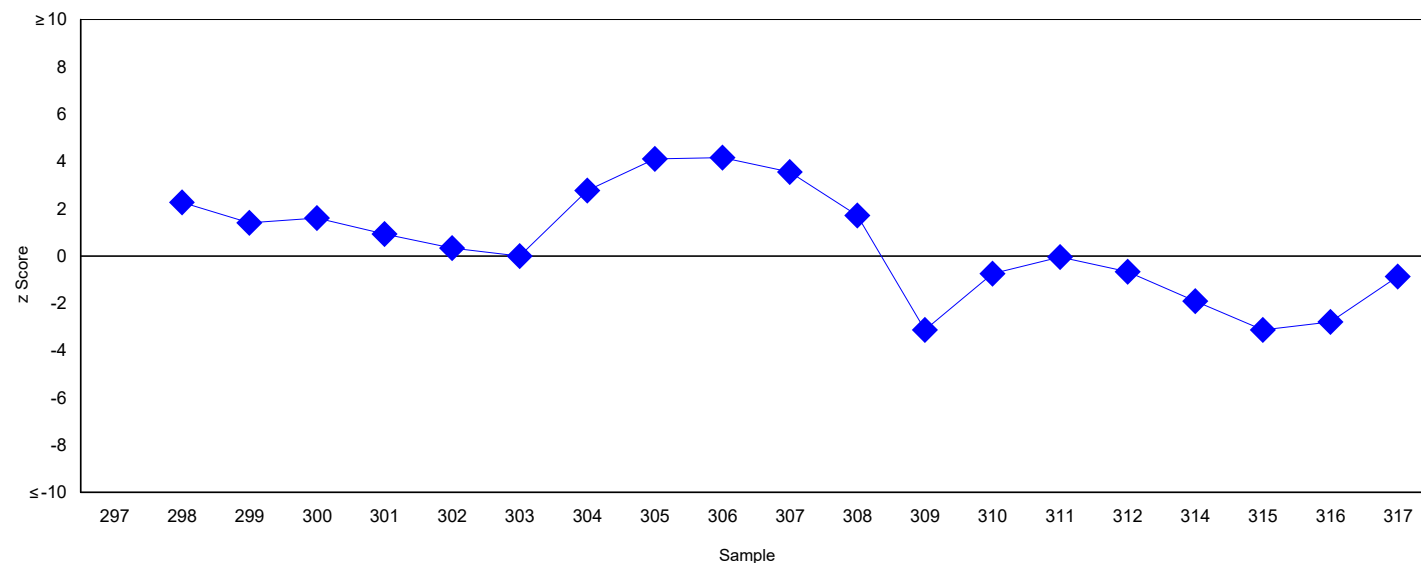
### Cusum Control Charts

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

#### Absolute Values (cells/ $\mu$ L)



#### Percentage Values (%)



## CD34+ Stem Cell Enumeration Programme

### Platform Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
FLOW COUNT	88	16.98	1.87	87	0.24	0.03
HAEMATOLOGY ANALYSER WBC	35	16.70	1.27	34	0.23	0.02
TRUCOUNT	187	17.38	1.85	185	0.23	0.02

### Lysing Method Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
Ammonium Chloride (NH <sub>4</sub> CL)	154	17.33	1.93	152	0.24	0.03
Facslyse	29	17.02	1.51	28	0.23	0.02
Pharmlyse	48	17.05	2.02	46	0.23	0.02
Stem Kit Lyse	87	16.87	1.60	86	0.24	0.02

### Antibody Fluorochrome Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
PE	340	17.12	1.77	334	0.24	0.02

### Flow Cytometer Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
DxFLEX	31	17.27	2.22	31	0.24	0.02
FACSCanto II	93	16.89	1.84	93	0.23	0.03
FACSLytic	100	17.83	1.60	97	0.24	0.02
Navios	70	16.93	1.65	68	0.24	0.02

### Gating Strategy Specific Statistics

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

Method	Absolute Count Values (cells/ $\mu$ L)			Percentage Values		
	Returns	Robust Mean	Robust SD	Returns	Robust Mean	Robust SD
BD STEM CELL ENUMERATION KIT	98	17.57	1.71	98	0.24	0.02
ISHAGE	191	17.00	2.04	185	0.23	0.03
STEM KIT	54	16.83	1.62	54	0.24	0.02

## 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@ukneqasli.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 l), n), o), r) & s) Please refer to the UK NEQAS LI website at [www.ukneqasli.co.uk](http://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](http://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/](http://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/>