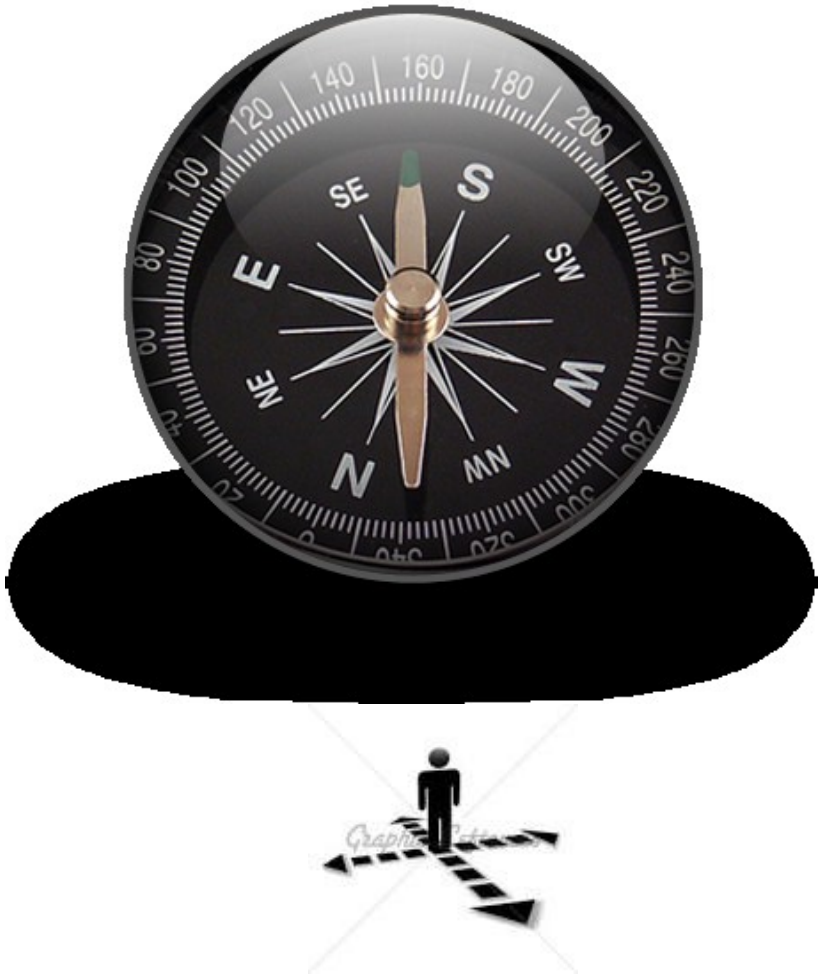
UK NEQAS (H)

Ian Mellors

Chairman UK NEQAS (H) GSAG

UK NEQAS (H) Feedback & Directions



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UK NEQAS (H) Scheme Registration

October 2014

Scheme	FBC	ADLC	Retics	Hb only	Plasma Viscosity
Surveys / Annum	***12***	***6***	***6***	***12***	***12***
UK	**676**	**642**	**285**	**106**	**46**
Non-UK	**371**	**268**	**161**	**20**	**4**
Total	**1047**	**910**	**446**	**126**	**50**

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UK NEQAS (H) Registration-Instruments

October 2014

Scheme	FBC	ADLC	Retics	Hb only	Plasma Viscosity
UK	1312	1222	589	286	50
Non-UK	811	579	238	46	4
Total	2123	1801	917	332	54

Returns and Reports

October 2014

Scheme	FBC	ADLC	Retics	Hb only	Plasma Viscosity
Web Based	Yes	Yes	Yes	Yes	No
Participant Use	96%	96%	99%	98%	-

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Developments and Updates

- **ESR & nRBC - Full pilots**
- **Measurement Uncertainty – (Poster/Hand outs)**
- **Working Group on Performance Assessment**
  - *(Members from GSAG)*

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Performance Assessment Tools

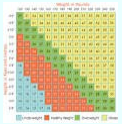
Monitoring Performance Trends

Traffic Lighting

- Deciding on colour limits
- Work on-going

Laboratory Index Chart

- Linking EQA/IQC
  (Brendan Fitzpatrick)



CAPA

- Generic Format -All NEQAS schemes
- Standard data return for PUP letters
- Introduced from January 2015

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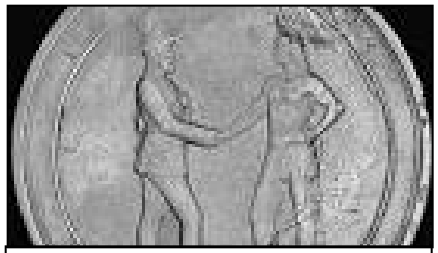
Quality Trend Monitoring in Blood Sciences

A personal Reflection

Blood Sciences- In the Beginning!



The Treaty

Haematology

Biochemistry

Immunology

Build the Fleet

Sail for the Promised Land

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Quality Challenges – Blood Sciences

- Blood Sciences created January 2013
- 3 Former departments 1 department
- 1 Management/Quality Management/Governance
- 14 New sections - 2 Large Hospital sites
- Hybridisation/Rationalisation of former services
- Staff rotation and training - Cross discipline working

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Hernán Cortés (1485-1547)

Occupation - Conquistador

- No Turning Back
- Embrace the Indigenous Population
- Merge the best of cultures
- Ease the passing over
- Establish governance
- Nurse the wounded
- Create a multicultural society
- Found a new dynasty
- Childs play!

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Quality Drivers in Blood Sciences

- Blood Sciences itself
- Pathology Quality Assurance Review
- ISO 15189:2012
- NHS Improving Quality – NHS England (2013)
- KPI's – RCPath
- Local KPI's for Newcastle Laboratory Medicine

Quality Challenge - Trend Analysis

Trend Identification

Monitor - Improvement

Governance

Investigation

Root Cause

Corrective Actions

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Trend Monitoring Approach

- **Traffic Light**
  - ***Alert and warning***
  - ***Bias data –where available***

- **Real time EQA Report viewing**
  - ***Current Reports***
  - ***Past Reports***

- **Electronic Distribution**
  - ***Shared drive***
  - ***Q-Pulse***

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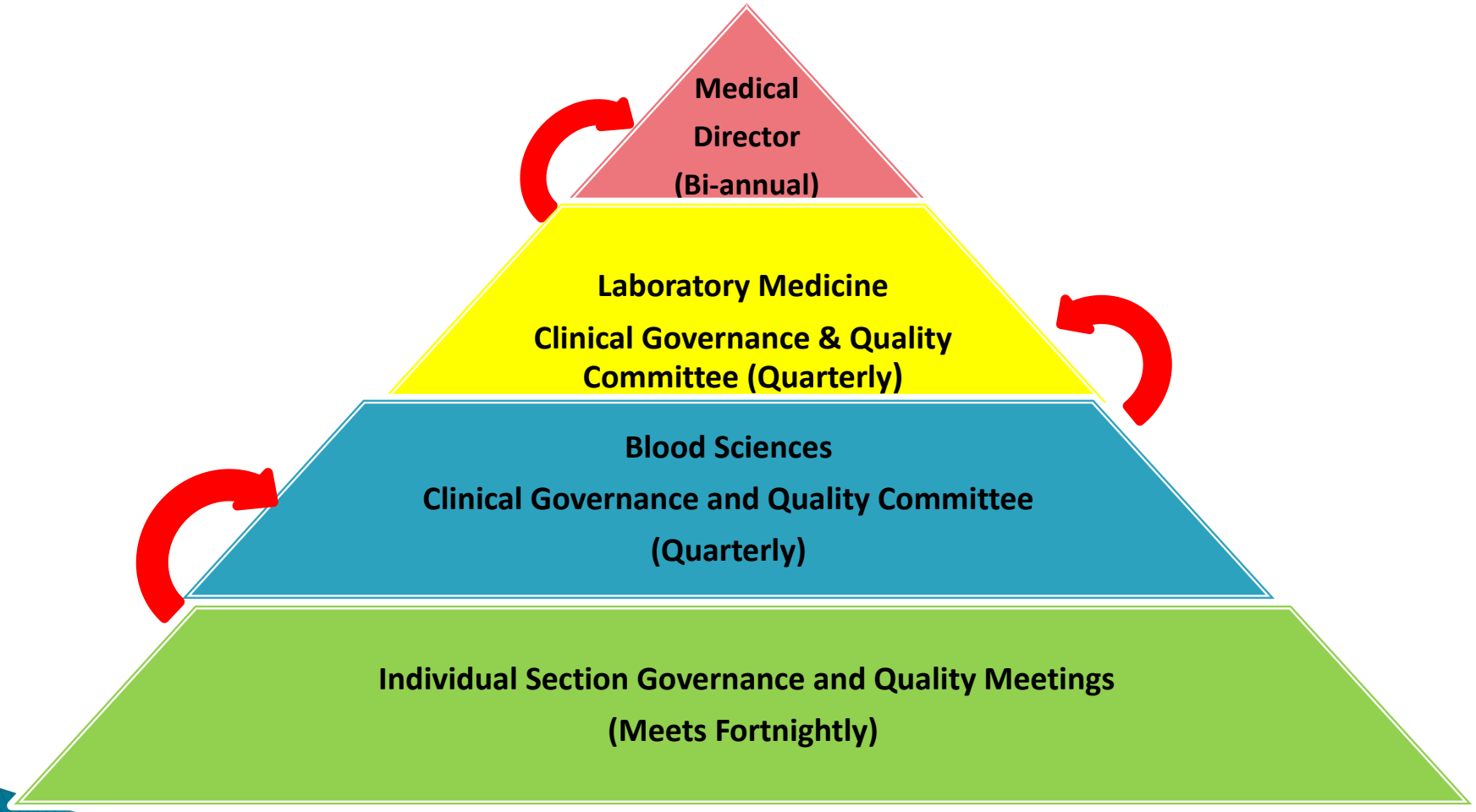
Governance-Quality Escalation

(Blood Sciences)



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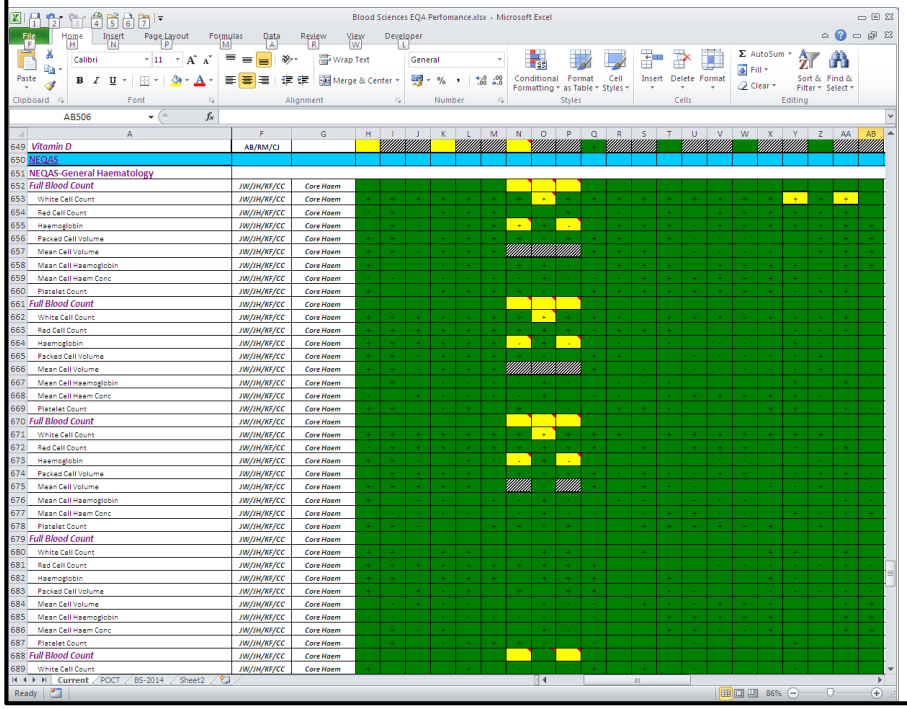
Blood Sciences Approach

1. Traffic Light Data Base	2. EQA –Report distribution (Q-Pulse)



Trend Analysis Tools

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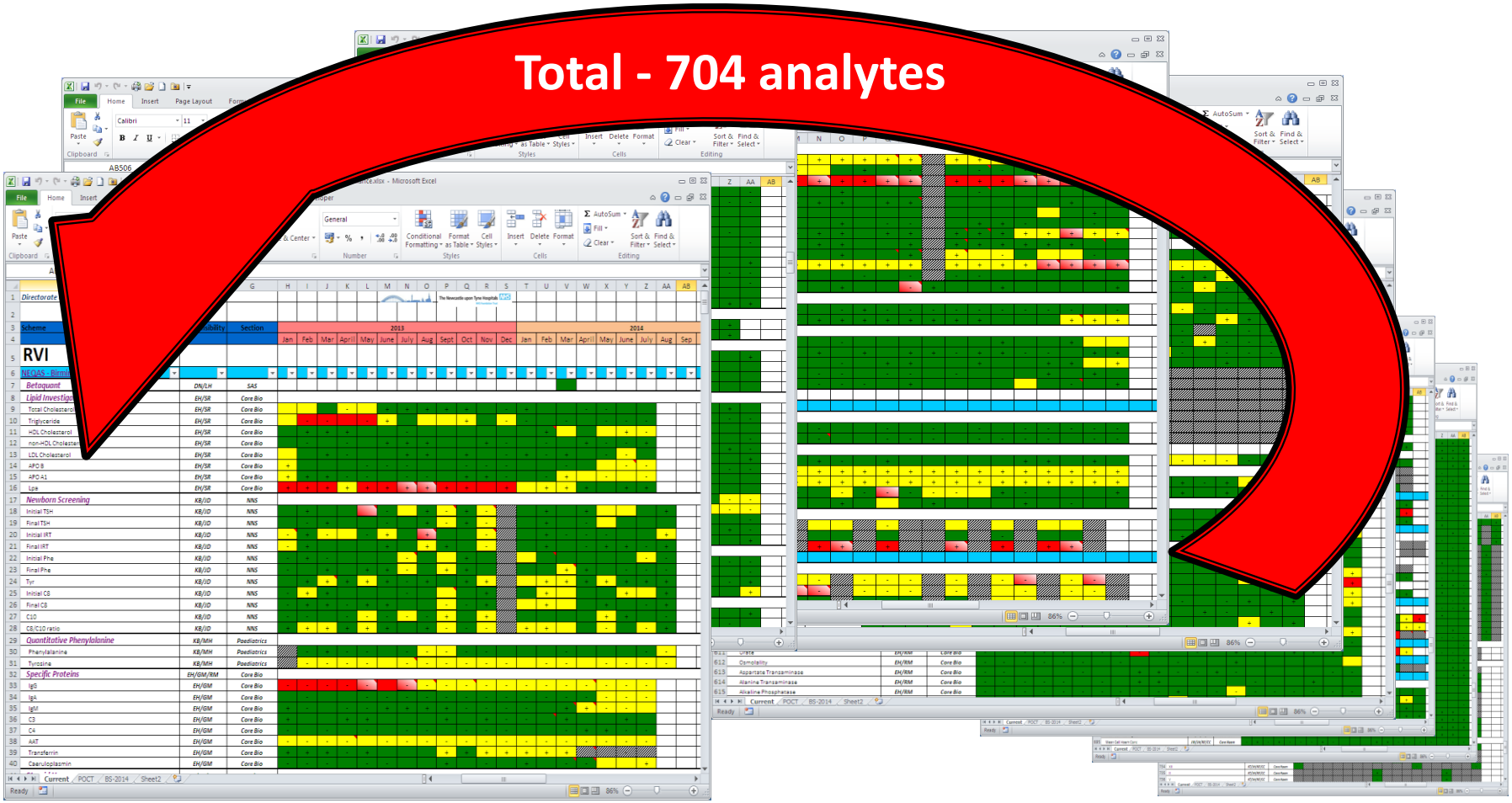
EQA- Analytes, Parameters Results



157 EQA Records across 2 sites

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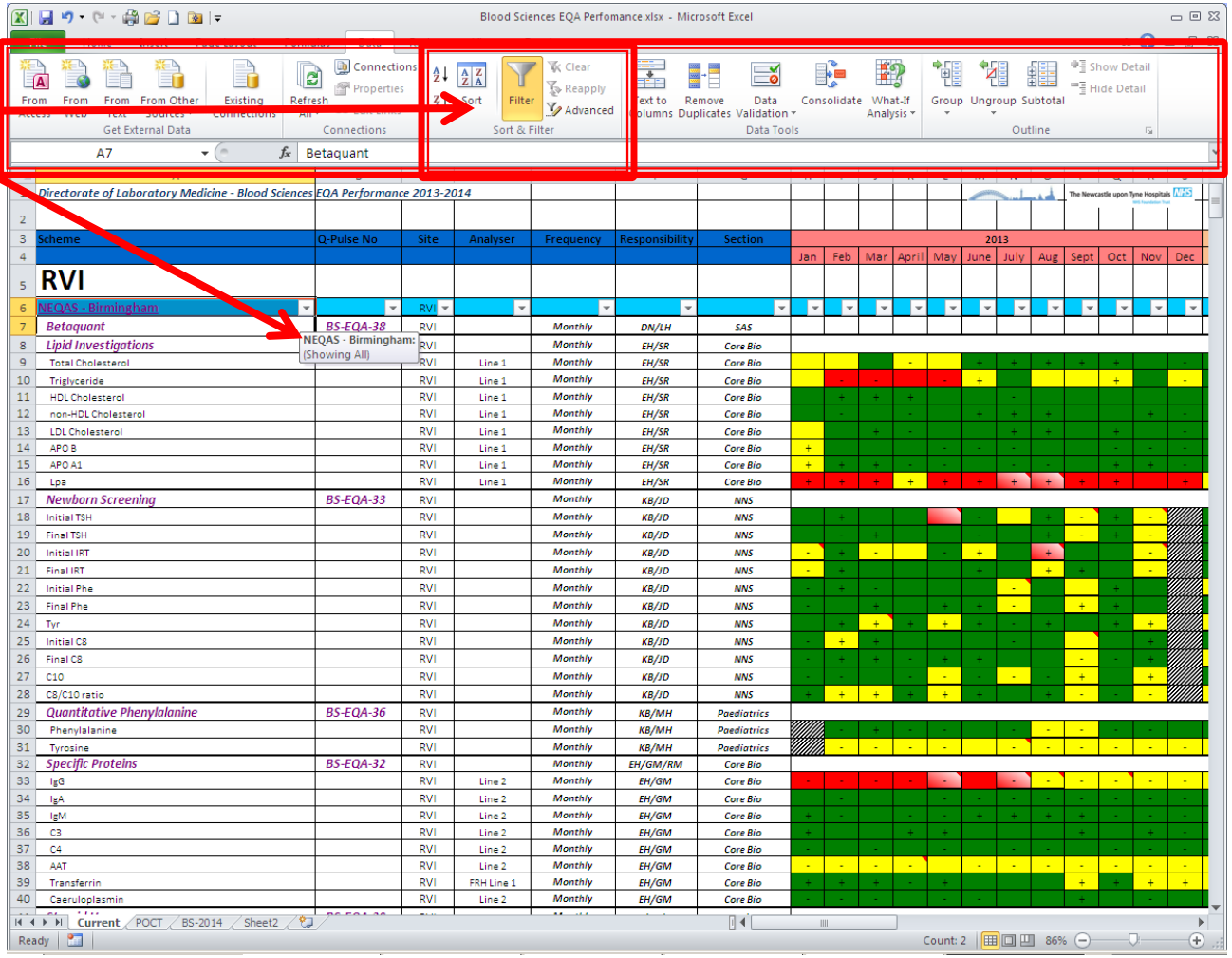
Filters and Tools

- Site
- Section
- Instrument
- Parameter
  (Analyte)
- Responsibility
- Add comments



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EQA Flagging notes

Scheme	Site	Analyse	Frequency	Responsibil	Section	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Final C8	RVI		Monthly	KB/JD	NNS	-	+	+	-	+	+						
C10	RVI		Monthly	KB/JD	NNS	-	-		-	-	-	-	-				
C8/C10 ratio	RVI		Monthly	KB/JD	NNS	+	+	+	+	+	+		+				
Quantitative Phenylalanine	RVI		Monthly	KB/MH	Paediatrics												
Phenylalanine	RVI		Monthly	KB/MH	Paediatrics		-	+	-	-		-	-				
Tyrosine	RVI		Monthly	KB/MH	Paediatrics		-	-	-	-		-	-				
Specific Proteins	RVI		Monthly	EH/GM/RM	Core Bio												
IgG	RVI	Line 2	Monthly	EH/GM	Core Bio	-	-	-	-	-							
IgA	RVI	Line 2	Monthly	EH/GM	Core Bio		-			-							
IgM	RVI	Line 2	Monthly	EH/GM	Core Bio	+	-		-	-							
C3	RVI	Line 2	Monthly	EH/GM	Core Bio	+			+	+							
C4	RVI	Line 2	Monthly	EH/GM	Core Bio	-		-		-							
AAT	RVI	Line 2	Monthly	EH/GM	Core Bio	-	-	-	-		-	-	-	-			
Transferrin	RVI	FRH Line 1	Monthly	EH/GM	Core Bio	+	+	+	-					+			
Caeruloplasmin	RVI	Line 2	Monthly	EH/GM	Core Bio	-	-	-		-	-			+			
Steroid Hormones	RVI		Monthly	AB/LH/GM	Core/SAS												
Cortisol (Serum)	RVI	Line 1	Monthly	AB/GM	Core Bio	+	+	+	+	+	+	+	+				
Cortisol (Urine)	RVI	Line 1	Monthly	AB/LH/GM	Core Bio	+	+	+		+	+						
Progesterone	RVI	Line 2	Monthly	AB/GM	Core Bio	-							+				
Oestradiol	RVI	Line 2	Monthly	AB/GM	Core Bio			+			+	+	+				
High Oestradiol	RVI	Line 2	Monthly	AB/GM	Core Bio				-								
Testo Female	RVI	Line 2	Monthly	AB/GM	Core Bio	-	-	-	-	-	-		+				
Testo Male	RVI	Line 2	Monthly	AB/GM	Core Bio			+	+	+	+	+	+				
SHBG	RVI	Line 2	Monthly	AB/GM	Core Bio		+			-		+	+				
Androstenedione	RVI	Immulite	Monthly	AB/GM	Core Bio	+			+	+	+		+				
Dheas	RVI	Line 2	Monthly	AB/GM	Core Bio	+	+	+	+	+	+	+	+				
Aldosterone	RVI	Line 2	Monthly	AB/LH	SAS		-			-	-						
Sweat Testing	RVI		Monthly	KB/CJ/MH	Paediatrics			+	+	+			+				

MusgroveL:
Method Change to Roche Modular

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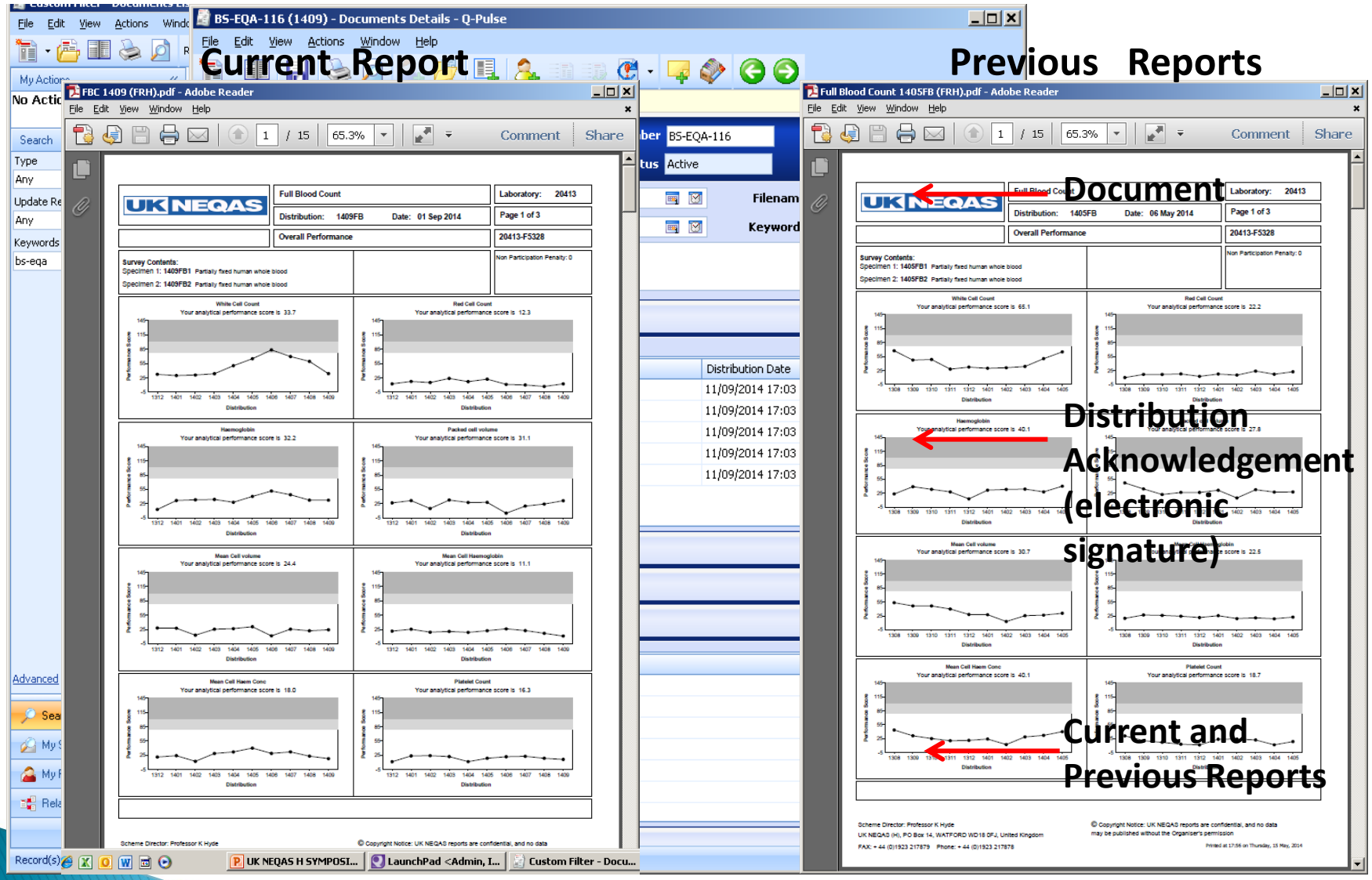
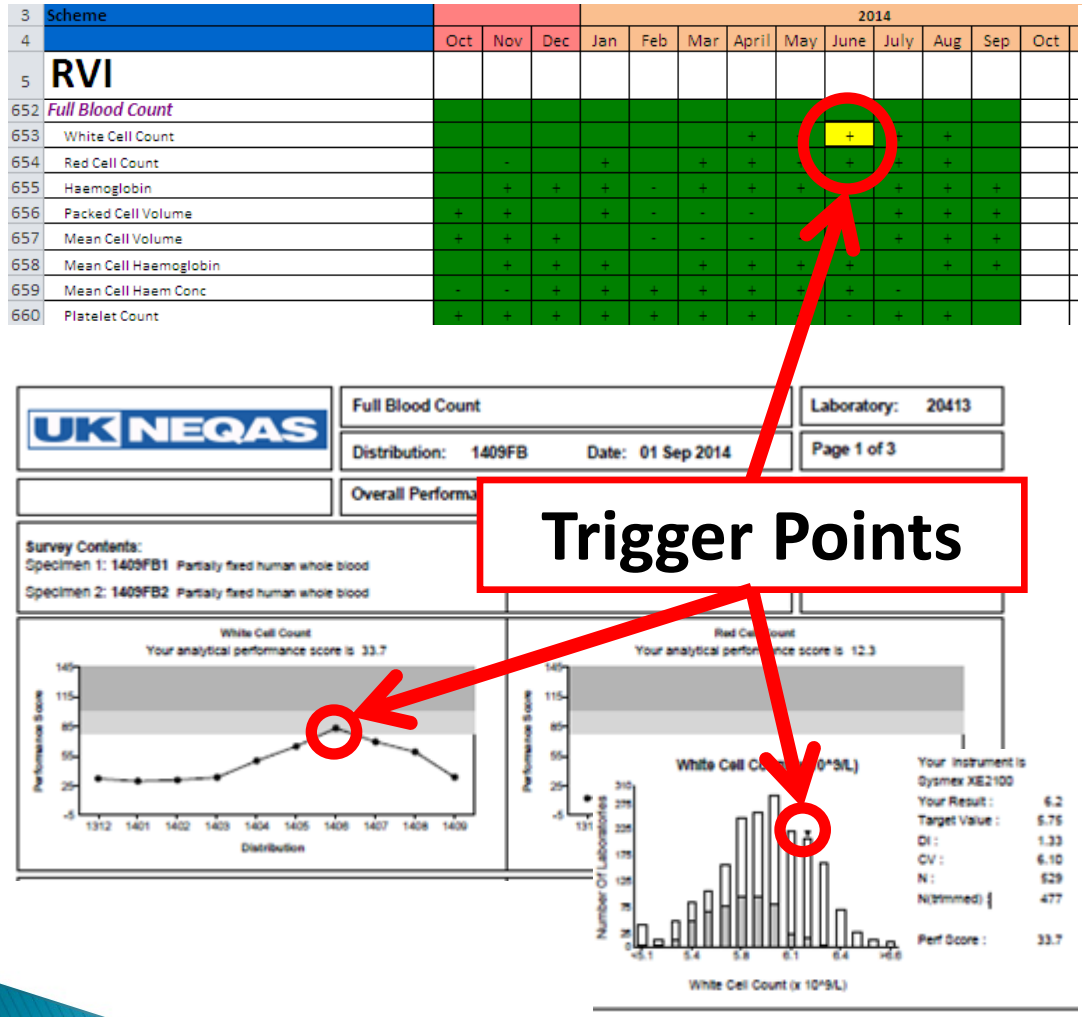
EQA Distribution Blood Sciences



Trend Monitor Example - WBC



- Trend - 3 months
- Trigger Points
- IQC – good
- Manufacturer called
- Fault identified/corrected
- EQA monitored/improved
- Preventative action – (before problem)

Challenges to Laboratories

- **Trend recognition-Investigation and root cause**
- **Pre-emptive alerts and actions**
- **Joining the dots (EQA,IQC, Complaints, incidents, system, equipment failure etc.)**
- **Corrective and remedial actions**
- **Monitoring effectiveness**

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Veni, Vidi, Vici

Achieve The Objectives (Hopefully)