Weqas

GLOBAL PROVIDER OF QUALITY
IN DIAGNOSTIC MEDICINE

INTERPRETATION OF POCT EQA REPORTS

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Contents

1. Statistical Analysis – Quantitative Programmes

THE FOLLOWING APPLIES TO ALL POCT PROGRAMMES LISTED IN THE FOLLOWING TABLE. THE LABORATORY PROGRAMMES ARE COVERED IN A SEPARATE DOCUMENT. QUALITATIVE PROGRAMMES ARE COVERED IN SECTION 2.

Table 1 - POCT Programmes

Weqas Programme
POCT Glucose & Ketones
POCT Urinalysis
POCT Lipids

1.1 Target value assignment

Outlier exclusion

Any gross outliers such as transcription, transposition or unit errors are minimised by using a minimum and maximum allowable value (in default unit) that can be entered for a particular sample via the website. This range spans approximately ± 4 SD from the indicative target value calculated using laboratory methods. Participants will not be allowed to enter results outside this range and will be prompted to contact the Group Administrator for assistance.

For most POCT Programmes assessment is against a peer group target value

Methods are classified into categories based on:

Hierachy

- the principle of the method e.g. Electrochemical
- the device manufacturer e.g. Roche
- the platform (meter) type e.g. inform II.
- in some instances there is a further grouping based on the cartridge (strip) type.

Assessment against the higher order is preferred, however, where there are known differences between the different devices, the most appropriate peer group is selected.

Results outside ± 3 SD from the peer group mean are excluded from the target value calculation and a new group mean and standard deviation is recalculated.

Target value

Reference target – this is rarely used for POCT Programmes, as a number of devices are affected to varying degrees by haematocrit.

Peer group Median – this is the default target value and is used in the majority of Programmes.

Peer group Mean – this is also calculated and can be selected as the target value.

For each analyte for each sample the peer group mean and standard deviation is calculated.

$$SD = \sqrt{\frac{\sum(x-\bar{x})^2}{(n-1)}}$$

Where x = arithmetic mean.

1.1.1 Uncertainty

An estimate of the uncertainty of the peer group mean is calculated from:

Estimated Uncertainty = $\frac{SD}{\sqrt{n}}$

1.2 Standard Report (user report)

The Report outlines the Site details, contact name, Distribution Code. The following table outlines the parameters covered in the Weqas report.

Table 2 - Standard user report definitions

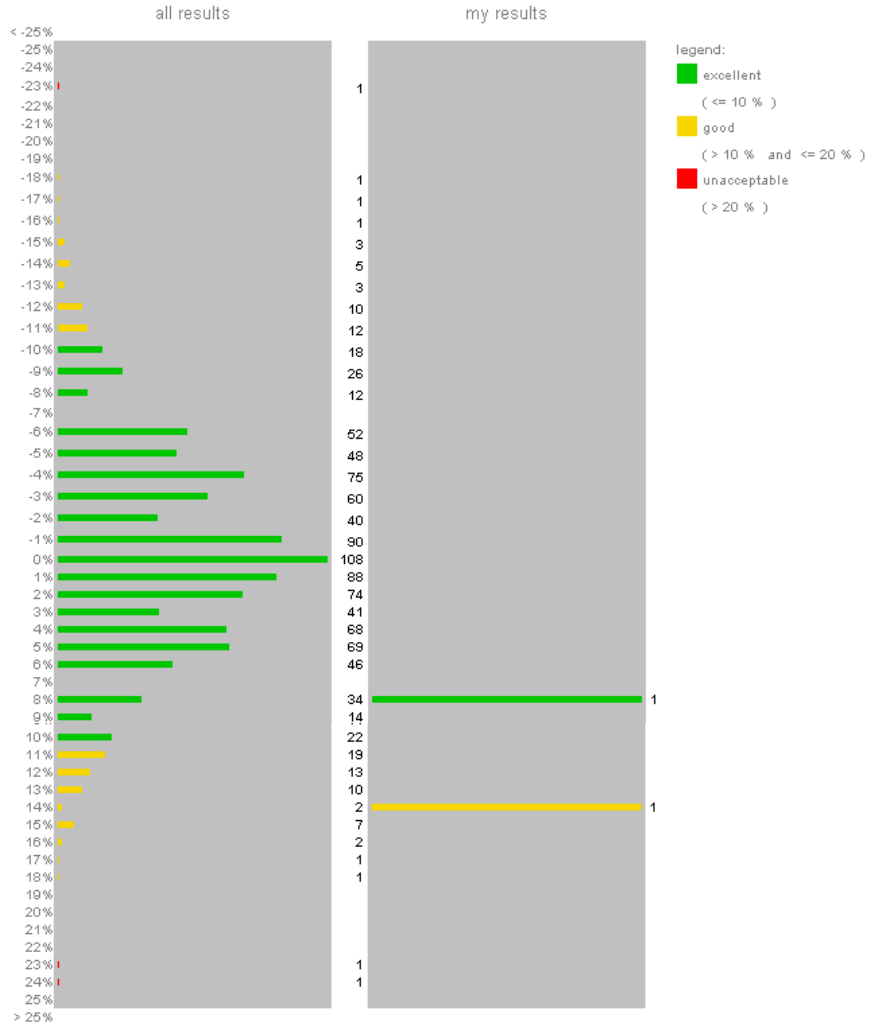
Report settings	sample	The Distribution Code
	analyte	The test
	reporting in	The units of measurement for reporting
	deviation	How the deviation of the results to the target value is reported, this can be either relative (%) or absolute value (0.1 mmol/l)
	reference method	The method used to assign the target value , usually median or average
	reference value	The target value
	comparison	The group selected for comparison
All results	n	The number of results in the peer group selected
	minimum	The lowest result from the peer group
	maximum	The highest result from the peer group
	average	The mean of the peer group selected
	median	The median of the peer group selected
	SD	The standard deviation of the peer group selected
	CV	Standard deviation / Average X 100%
My results	n	The number of results from your site
	minimum	The lowest result from your site
	maximum	The highest result from your site
	average	The mean of the results obtained from your site
	median	The median of the results obtained from your site
	SD	The standard deviation for your site
	CV	Standard deviation / Average X 100% for your site

Fig 1 - Example POCT Glucose Report

Report Settings	
sample	Weqas 0711
analyte	glu
reporting in	mmol/l
deviation	relative (resolution 1%)
reference method	median
reference value	9.30 mmol/l
comparison	all results and my results

All Results	
n	1079
minimum	7.20
maximum	11.50
average	9.34
median	9.30
SD	0.50
CV	5.9 %

My Results	
n	2
minimum	10.00
maximum	10.60
average	10.30
median	10.30
SD	0.40
CV	4.1%



my results

#	instrument	instrument ID	result ID	result
1	Statstrip Glucose (Connectivity)	00002010137	0310270249	10.00
2	Statstrip Glucose (Connectivity)	140002310071	0310270249	10.60

The left hand graph illustrates the deviation from the target value (median) for all results received for the peer group, in this example it is the Nova StatStrip Gluc meter. The right hand graph illustrated the deviation from the target value for results received for the POCT user site. The scale for the deviation can be set at absolute (in mmol/l) or relative (%). The default is relative.

On the left hand graph, ALL RESULTS, 1079 sites returned results for this device, giving a range of results from 7.20 mmol/l (min) to 11.05 mmol/l (max). The average result was 9.34 mmol/l and the median result was 9.30 mmol/l. Any difference in these values gives an indication to the degree of skewness. 985 produced good results (green bars), 91 produced fair results (yellow bars) and 3 produced poor results (red bars).

The right hand graph, MY RESULT, (the POCT user's individual results), shows that this site had returned 2 results, with glucose results of 10.0 and 10.6 mmol/l. These results are +8% and +14%, from the Median and are therefore denoted by green and yellow bars respectively.

1.3 Performance Criteria

POCT users must ensure that the analytical quality attained is appropriate for the needs of the clinical service. It is therefore essential that EQA performance criteria should also reflect clinical need. A hierarchical strategy to establish analytical goals was proposed at the European Federation of Laboratory Medicine in Milan in 2014 and is summarized below.

- **Model 1. Based on the effect of analytical performance on clinical outcomes.** This model is the most rationale since it is based on the actual clinical outcome; however, in practice it is applicable only to a few tests since it is difficult to show the direct effect of laboratory tests on medical outcome.
- **Model 2. Based on components of biological variation of the measurand.** This model seeks to minimize the ratio of the analytical noise to the biological signal. Its applicability can however be limited by the validity and robustness of the data on biological variation.
- **Model 3. Based on the state of the art.** This model is the one where data is most easily available. It is linked to the highest level of analytical quality achievable with the currently available techniques**.**

The models higher in the hierarchy are to be preferred to those at the lower level. Different strategies have been applied to the different programmes. Where no Model 1 or 2 data is available (or appropriate), the analytical performance criterion is based on a pragmatic approach of current "state of the art" of the methods. These "state of the art" performance criteria are calculated over several batches over a wide pathological range. The relationship between SD (or CV%) and the analytical concentration is calculated from the line of best fit (often polynomial). Figure 3 shows an example for Cholesterol. These performance criteria are reviewed every 2 years and approved by the Steering Committee.

Fig 2 - POCT Cholesterol precision profile

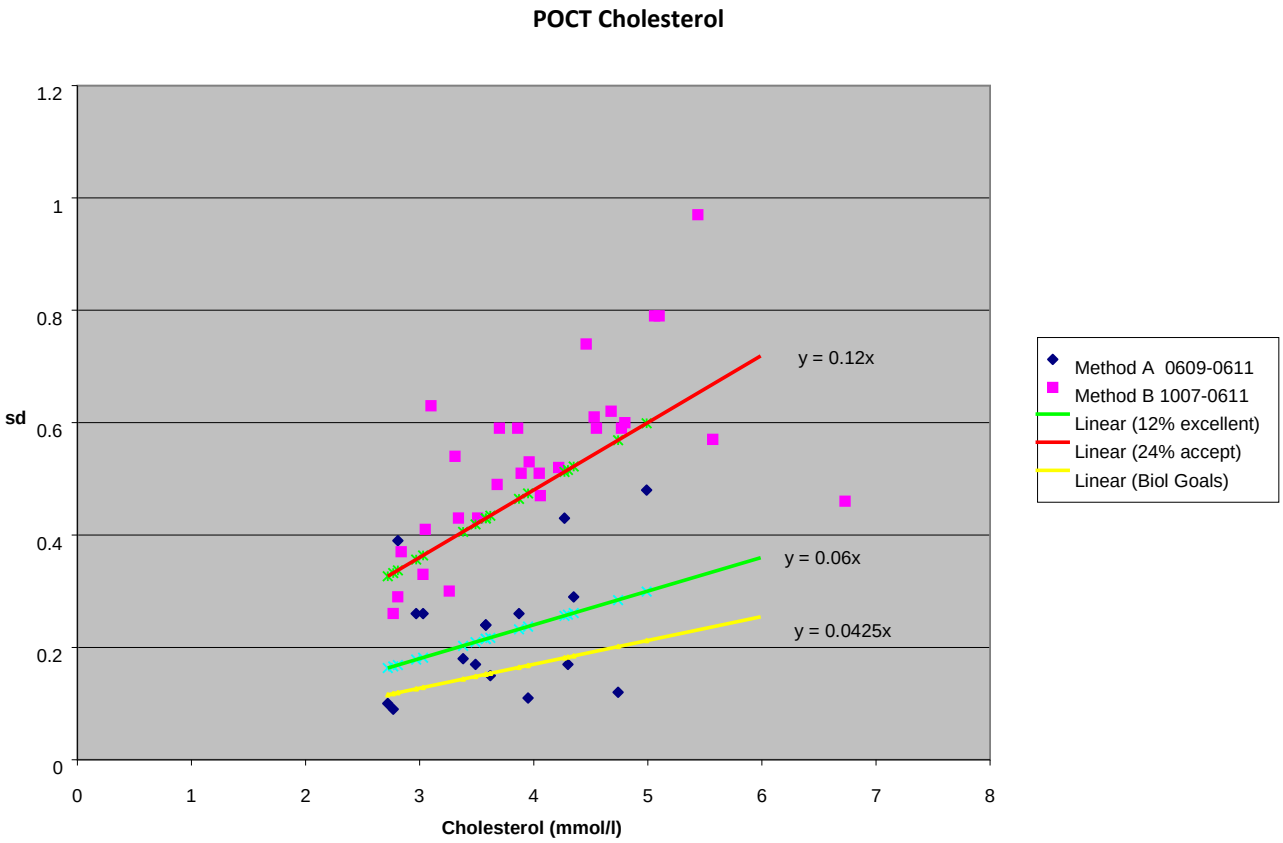


Table 3 - Example Performance criteria - POCT Lipid Programme

The scores are colour coded for ease of identification.

Analyte	Deviation	Interpretation	Colour
Chol and Triglyceride	<12%	Good	
	12 – 24%	Fair (Acceptable)	
	> 24%	Poor (Unacceptable)	
HDL and Glucose	<15%	Good	
	15 – 30%	Fair (Acceptable)	
	> 30%	Poor (Unacceptable)	

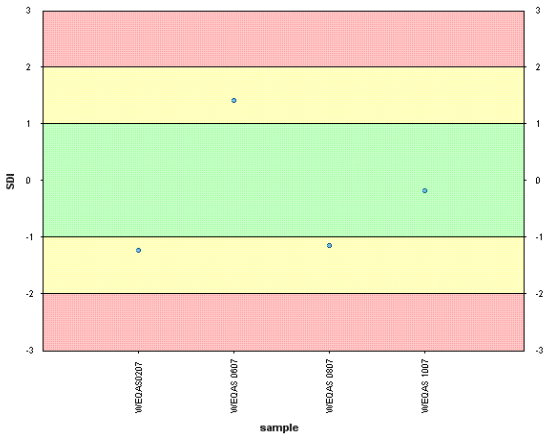
1.4 Long Term Levey Jennings User Report

Performance is expressed as a Standard deviation index (SDI) where the SDI is calculated as total error (relative bias) from the Target value / Standard Deviation.

For example, for cholesterol and triglyceride an SDI of 0-1 is approximately equivalent to a deviation of ≤12% (green area), 1 -2 SDI a deviation of 12≤ 24% (yellow area), and SDI > 2 the results are outside the recommended target limits of 24% (red area).

The following graph gives an overview of performance over time. The example relates to the performance of one POCT site for one meter over a 12 month period.

Fig 3 - Cumulative graph for POCT Lipid Programme - Cholesterol



report settings	
sample date range	1/1/2007 - 1/1/2008
your instrument(s)	all instruments
reference value	median
instruments	all instruments
principles	all principles
families	all families
countries	all countries
groups	all

individual results	reference mmol/l	your result mmol/l	bias absolute mmol/l	SD mmol/l	SDI
WEQAS0207	6.42	5.72	-0.700	0.566	-1.2
WEQAS 0607	3.20	3.60	0.400	0.284	1.4
WEQAS 0807	3.74	3.19	-0.550	0.479	-1.1
WEQAS 1007	4.95	4.81	-0.140	0.776	-0.2

Table 4 - Interpretation of Scoring System Based on SD Index

less than 1	Good - all points within ± 1 SD	
1 – 2	Acceptable	
greater than 2	Unacceptable	

The SDI is an index of Total error and will include components of both inaccuracy and imprecision.

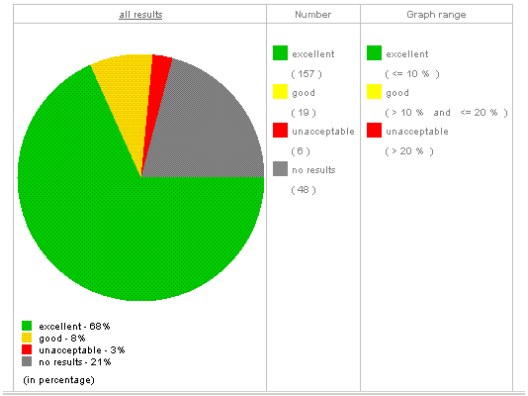
1.5 Group Administrator Reports (POCT Co-ordinator Reports)

A number of additional reports are provided for the POCT Co-ordinator which can be accessed on line.

Fig 4 - Example of "All results" pie chart - POCT glucose Programme

report settings	
sample	WEQAS 0110
analyte	glu
reporting in	mmol/l
deviation	relative (%)
reference method	median
reference value	7.60 mmol/l
calibration	standard

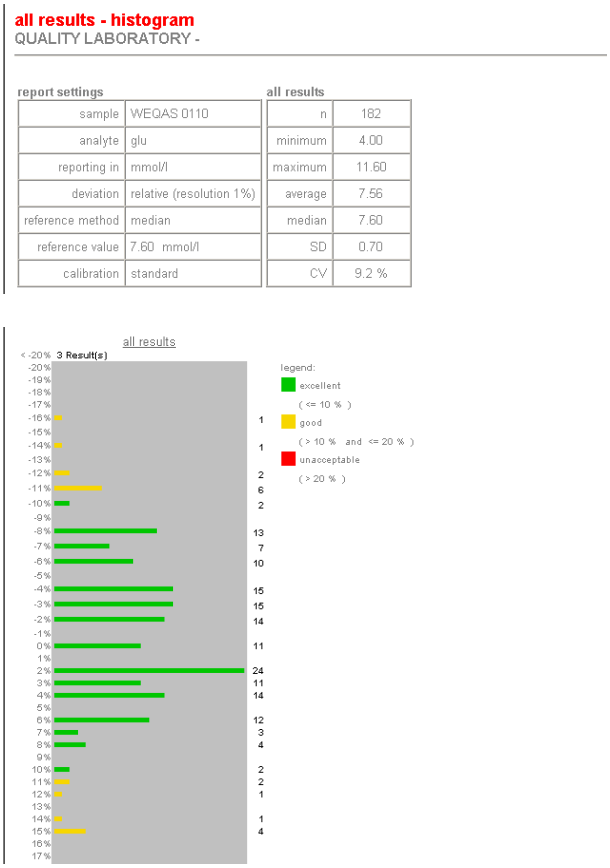
all results	
n	182
minimum	4.00
maximum	11.60
average	7.56
median	7.60
SD	0.70
CV	9.2 %



This provides a quick overview of the group's performance, the number of results returned, the number that failed to return, and the number of results in each category.

Fig 5 - Example of “All result” histogram - POCT glucose Programme

The same data can also be expressed as an overview Histogram chart and as a table.



The results in the table can be sorted into unacceptable, good and poor categories and either saved or printed.

Table 5 - Example of Performance Table – POCT Glucose Programme

instrument	instrument ID	result ID	result	participant contact person	deviation from reference value		ranking
Accu-Check Advantage III	8548307546	0110	4.00	OPD Suite	**-48 %**	**unacceptable**	181.0
Accu-Check Advantage III	8547374420	0110	4.80	Paeds Ward	**-37 %**	**unacceptable**	180.0
Accu-Check Advantage III	8548421221	0110	4.90	Endoscopy Unit	**-36 %**	**unacceptable**	179.0
Accu-Check Advantage III	8541456251	0110	6.40	THEATRE 4	**-16 %**	**good**	175.0
Accu-Check Advantage III	8542451290	0110	6.60	A4 South	**-14 %**	**good**	169.5
Accu-Check Advantage III	8547261406	0110	6.70	Teenage Cancer Unit	**-12 %**	**good**	167.0
Accu-Check Advantage III	8549087265	0110	6.70	Ward 6 Nursing Staff	**-12 %**	**good**	167.0
Accu-Check Advantage III	8542487205	0110	6.80	THEATRE	**-11 %**	**good**	161.5
Accu-Check Advantage III	8546631983	0110	6.80	WARD	**-11 %**	**good**	161.5

1.6 Method Summaries and Other Reports

Performance summaries of all methods and instruments are also provided and additional information and reports can be downloaded using the query function.

Table 6 – Method Summary Report

Method Summary Report – POCT Lipid Programme Dist 0412								
Analyte	**Reporting in**	**Manufacturer**	**Instruments**	**Result**	**n**	**SD**	**CV**	**Uncertainty**
Chol	mmol/l	Roche	Accutrend Plus - Cholesterol	4.22	12	0.24	5.7	0.069
		Cardiochek	Cardiocheck Chol & Glucose	4.29	21	0.3	7	0.065
			Cardiochek Chol, HDL & Glucose	4.08	158	0.4	9.8	0.032
		Alere	LDX - Chol & HDL	4.35	140	0.23	5.3	0.019
			LDX - Chol, HDL & Glucose	4.48	23	0.44	9.7	0.092
HDL	mmol/l	Cardiochek	Cardiochek Chol, HDL & Glucose	1.68	154	0.39	23.1	0.031
		Alere	LDX - Chol & HDL	0.74	140	0.15	19.9	0.013
			LDX - Chol, HDL & Glucose	0.76	22	0.08	10.4	0.017
Gluc	mmol/l	Roche	Accutrend Plus - Glucose	8.73	12	0.41	4.7	0.118
		Cardiochek	Cardiocheck Chol & Glucose	10.78	21	1.03	9.6	0.225
			Cardiocheck Glucose	10.8	99	1.23	11.4	0.124
			Cardiochek Chol, HDL & Glucose	10.05	155	1.37	13.6	0.110
		Alere	LDX - Chol, HDL & Glucose	10.12	20	0.46	4.5	0.103

2. PERFORMANCE SURVEILLANCE

Weqas is responsible for notifying the regulatory bodies within the UK of any persistent poor performance. For certain Poct programmes, Weqas does not monitor the performance of individual users but looks at the overall performance of the organisation to provide a Poct service. Weqas monitors the monthly CV's for each Organisation and the worst performing Trusts are reported to the Panel. Surveillance and notification of individual users or sites is usually devolved to the POCT Co-ordinator (local Trust laboratory or third party organisation).

2.1 Weqas Contracted Performance Surveillance

For some organisations where there is no POCT Co-ordinator, Weqas will undertake performance surveillance of the POCT user site. Non compliance and poor performance reports and letters will be generated after each distribution. Poor performance notification will also be followed up with a telephone call to the site.

Sites that have not returned results will be e-mailed 1 week before the submission deadline. If sites fail to return by the “return by date” a non-compliance letter will be generated. Copies of all non compliant sites will be reported to the organisation’s head office on a 6 monthly basis.

2.2 Non Compliance and Poor Performance Reports

Non compliance and poor performance reports and letters can be generated for each distribution. The non compliance reports can be generated at any time and you do not have to wait until the end of the distribution. All group reports can also be saved as an Excel file. Instructions are available to download from the resource

page at http://www.weqas.com/resources.html Please enter Part 3 – How to generate reports in the search field.

Table 7 - Example of Poor performance Report –POCT Lipid Programme

Table 8 – Example of Non Compliance Report (No results booked)

instrument	instrument ID	result ID	result	participant contact person	city country	deviation from reference value	
CardioCheck Chol & HDL	ID	Chol010308	2.96			-1.0 mmol/l	unacceptable
CardioCheck Chol & HDL	SN745794	ID	3			-1.0 mmol/l	unacceptable
CardioCheck Chol & HDL	SN749008	ID	2.98			-1.0 mmol/l	unacceptable
CardioCheck Chol & HDL	SN527906	G662	4.91			1.0 mmol/l	unacceptable
CardioCheck Chol & HDL	526609	g763	5.05			1.1 mmol/l	unacceptable
CardioCheck Chol & HDL	ID526434	ID	5.25			1.3 mmol/l	unacceptable

Lipid Programme Dist WEQAS 1216					
	contact person		**institute**	**instrument ID**	**instrument**
1	Pharmacist in charge		LB001 - Store 707	SN920967	BHR - Cardiochek Chol & Glucose
				SN920967	BHR - Cardiochek Chol, HDL & Glucose
2	Pharmacist in charge		LB002 - Store 323	2014655	BHR - Cardiochek Chol & Glucose
				3019318	BHR - Cardiochek Chol & Glucose
				2014655	BHR - Cardiochek Chol, HDL & Glucose
				3019318	BHR - Cardiochek Chol, HDL & Glucose
3	Pharmacist in charge		LB003 - Store 61	920503	BHR - Cardiochek Chol & Glucose
				920503	BHR - Cardiochek Chol, HDL & Glucose

Fig 6 - Example of Non-Compliance Letter – POCT Lipid Programme

Pharmacist in Charge

Group Administrator Address

Store 746

Date: 01-3-2008

Weqas POCT Lipid Programme

Distribution: **Dist 0208** Return date: **28-02-2008**

Meter ID :SN527849 Meter Type: BHR Cardiocheck

Dear Colleague,

No results were received for the above meter / location for the current distribution. To comply with current guidelines, participants should please ensure that at least 75% of their EQA results are returned.

Fig 7 - Example of Poor performance Letter – POCT Lipid Programme

Pharmacist in charge Group Administrator Address

Store 1000

Date: 30-02-2008

Weqas POCT Lipid Programme

Distribution: **Dist 0208** Return date: **15-02-2008**

Meter ID: SN745794 Result: 3.00

Meter Type: BHR CardioCheck Deviation from reference value: -1.0 mmol/l (-24%)

Chol & HDL strip

Dear Colleague,

Your results for the above Distribution are outside the limits of acceptable analytical performance. Please contact me as soon as possible to discuss these results.

3. STATISTICAL ANALYSIS –QUALITATIVE POCT PROGRAMMES

3.1 Target value assignment

The spiked values are used to determine the target value, verified whenever possible by quantitative analysis. For endogenous samples the result from quantitative analysis is used. When quantitative data is not available, interpretation is based on the majority percentage of responses from participants.

3.2 Scoring (All Programmes apart from Urinalysis)

The scores broadly reflect clinical importance. A correct result (in agreement with interpretive comment) is given a score of 0.

A sliding scale score of between 1 and 5 is assigned for incorrectly identified results, where 5 represented a gross misclassification of the result.

A negative result for a positive sample is given a score of 3 to 5 depending on the concentration of the positive sample.

A positive result for a negative sample is given a score of 2 or 3.

Equivocal comments (for further investigation) for a positive sample are given a score of 1 to 3 depending on the concentration of the positive sample.

An equivocal comment (for further investigation) for a negative sample is given a score of 1.

The sensitivities of the methods, the intended purpose of the kits, whether “rule in” or “rule out” are also taken into account in the scoring. In general, a missed positive sample is given a larger penalty than a misclassified negative as this could lead to missed diagnosis or inappropriate treatment whilst an incorrect negative tends to lead to less severe clinical consequences such as inappropriate further investigation.

Table 9 - Matrix Grid for qualitative scoring

Lab Result	Target value	Score
+ve	+ ve	0
equivocal	+ve	1, 2 or 3
-ve	+ve	3, 4 or 5
-ve	-ve	0
equivocal	-ve	1
+ve	-ve	2 or 3

These Scores are treated in the same way as SDI scores for Performance surveillance. The report shows individual sample scores, plus an average score across the 3 samples. Where a true negative (non spiked) sample has been distributed, and a negative result has been returned, this individual score is not included in the average.

3.2.1 Interpretation of Scoring System

Table 10 - Interpretation of Individual Score

Score	Interpretation
0	good
1	acceptable
2	warning
>2	unacceptable

3.3 The Weqas Qualitative Report

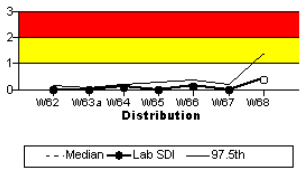
An example of a typical participant's report for the Pregnancy Testing Programme is given below. Each report includes the scoring criteria, a summary of the qualitative results, the broad method used (manufacturer), and method specific performance.

Fig 8 - Manager's Summary Report

office@weqas.com
Scheme Organiser:
Annette Thomas

Lab: AE . Scheme: Urine Pregnancy Testing. Distribution Code: W68.
Final. Report Issued: 5/10/11

This Distribution	
Overall Lab SDI:	0.40
Median All Laboratory:	0.00
97.5th centile:	1.33



All SDI Ranges	
< 1	Good
1 - 2	Acceptable
> 2	Poor

Section SDI scores for this distribution

Section	2TB2	Clinical Research Facility	Dermatology	EAU - Lisa Waters	EAU - Medical A1 Link	EAU - Surgery	Emergency Gynae	FP Broad Street	FP Butetown
Overall	**1.00**	**0.00**	**0.00**				**0.00**	**0.00**	
Qualitative HCG (High Sensitivity)	1.00 (avg)	0.00 (avg)	0.00 (avg)	?	?	?	0.00 (avg)	0.00 (avg)	?
Section	**FP Cardiff Royal**	**FP Gabalfa**	**FP Grangetown**	**FP Heath, C/O ANC**	**FP Llanrumney**	**FP Llantwit**	**FP Park View**	**FP Penarth**	**FP Roath**
Overall	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**
Qualitative HCG (High Sensitivity)	0.00 (avg)	1.00 (avg)	0.00 (avg)	0.00 (avg)	0.00 (avg)	0.00 (avg)	?	0.00 (avg)	0.00 (avg)

SDI Code	Meaning
N/A	Not enrolled for this analyte
?	Analyte enrolled but no results returned
N/S	This analyte not scored
**	SDI score greater than 2

Please note: Method and Instrument Summary reports are available to download via the 'Lab Stats' or 'Section Stats' menu.

If you don't currently have interactive access , please contact WEQAS for a registration form on 02920 314750.

Comments:

	Sample 1	Sample 2	Sample 3
Urine Source	Urine from non pregnant donor	Urine from pregnant donor diluted to approx 29iu	Urine from pregnant donor diluted to approx 336iu
Interpretation	Negative	Weak Positive	Positive

For interpretation purposes, a sample is regarded negative at a concentration less than 20 IU/L (equivocal results may be produced at a concentration range of 10-20 IU/L and therefore no penalty is given for returning a positive or weak positive result in this equivocal range.) However reporting positive results for a concentration of < 10 IU/L will incur a penalty.

A sample is regarded positive at a concentration >20 IU/L.

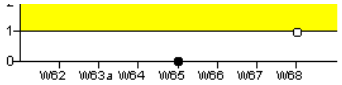
Fig 9 - Example of Individual Section Report

The Individual Section report includes a graphical representation of the participant's results compared with other participants using the same method (white bar), results for all methods (grey bar) and the correct interpretation based on the quantitative result (green bar) . In the absence of a quantitative result the correct interpretation is based on the majority percentage of responses from participants.

Qualitative Report

Lab Code: AE Section: 2TB2

Qualitative HCG (High Sensitivity) Results



Lab Code	Section	Method	Instrument	Sample Number			Sample Score			Average Score
				1	2	3	1	2	3	(Average)
AE	2TB2	Unipath	Clearview HCG (3min)	Negative	Negative	Positive	0	2	0	1.00
Interpretation				Negative	Wk Positive	Positive				
Spiked Value				Urine from non pregnant donor	Pregnant donor urine diluted to approx 29iu	Pregnant donor urine diluted to approx 336iu				

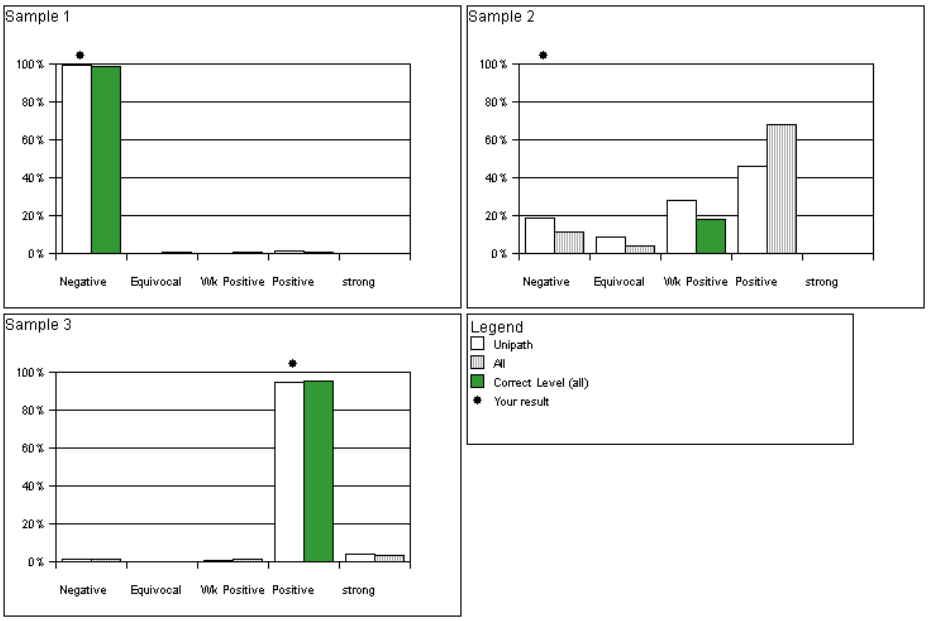


Fig 10- Example of Method Summary Report

Qualitative Report

Distribution W75

Qualitative HCG (High Sensitivity) Results

Lab Code	Method	Instrument	Sample Number			Sample Score			Average Score
			1	2	3	1	2	3	(Average)
ABE	Alere (Unipath)	Clearview Easy HCG	Positive	Wk Positive	Negative	0	0	0	0
ED	Alere (Unipath)	Clearview Easy HCG	Positive	Positive	Negative	0	0	0	0
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Negative	Negative	0	**3**	0	1.5
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Positive	Negative	0	0	0	0
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Positive	Negative	0	0	0	0
JO	Alere (Unipath)	Clearview Easy HCG							
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Negative	Negative	0	**3**	0	1.5
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Positive	Negative	0	0	0	0
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Negative	Positive	0	**3**	**2**	1.67
JO	Alere (Unipath)	Clearview Easy HCG							
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Negative	Negative	0	**3**	0	1.5
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Wk Positive	Negative	0	0	0	0
JO	Alere (Unipath)	Clearview Easy HCG	Positive	Positive	Negative	0	0	0	0
LA	BioSign hCG DXexpress	BioSign HCG DXexpress	Positive	Positive	Negative	0	0	0	0
SM	BioSign hCG DXexpress	BioSign HCG DXexpress	Positive	Positive	Negative	0	0	0	0
ZY	BioSign hCG DXexpress	BioSign HCG DXexpress	strong positive	Wk Positive	Negative	0	0	0	0
AW	AIDE Diagnostic	AIDE Diag One Step Device	Positive	Positive	Negative	0	0	0	0
AW	AIDE Diagnostic	AIDE Diag One Step Device	Positive	Negative	Negative	0	**3**	0	1.5
AW	AIDE Diagnostic	AIDE Diag One Step Device	strong positive	Wk Positive	Negative	0	0	0	*
AFB	Operon	Operon							
AFB	Operon	Operon							
AFB	Operon	Operon	Positive	Wk Positive	Negative	0	0	0	0
RJ	bioNexia	bioNexia	Positive	Wk Positive	Negative	0	0	0	0
RJ	bioNexia	bioNexia	strong positive	Wk Positive	Negative	0	0	0	0
RJ	bioNexia	bioNexia	Positive	Positive	Negative	0	0	0	0

Interpretation	Positive	Positive	Negative
Spiked Value	**Urine from pregnant donor diluted to 2000 IU/L**	**Urine from pregnant donor diluted to 30IU/L**	**Non spiked pooled urine**

3.4 Urinalysis Scoring

A sliding scale score of between 1 and 5 is assigned for an incorrectly identified concentration range, where 5 represented a gross misclassification of the result (negative for a strong positive). As a general indication, the score reflects the number of blocks away from the target block. A negative result for a positive sample is given a score of 3, 4 or 5 depending on the concentration of the positive sample.

The sensitivities of the test strips and the interpretation of each colour block are also taken into account in calculating the scoring.

3.4.1 Interpretation

The scores are colour coded for ease of identification.

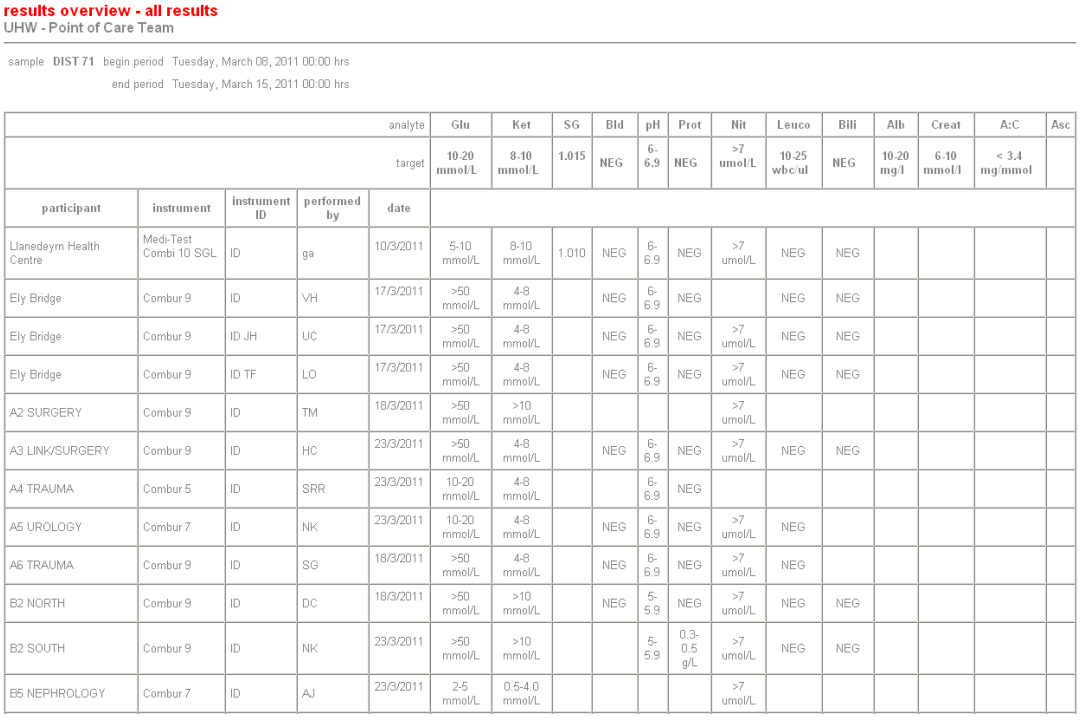
Table 11 - Urinalysis scoring

Interpretation		Colour
0-1	Good	Green
2-3	Acceptable	Yellow
>3	Unacceptable	Red

3.5 Group Reports

Group administrators can select two types of report the results overview or scores report.

Fig 11 - Urinalysis Overview report



results overview - all results
UHW - Point of Care Team

sample **DIST 71** begin period Tuesday, March 08, 2011 00:00 hrs
end period Tuesday, March 15, 2011 00:00 hrs

				analyte	Glu	Ket	SG	Bld	pH	Prot	Nit	Leuco	Bili	Alb	Creat	A:C	Asc
				target	10-20 mmol/L	8-10 mmol/L	1.015	NEG	6-6.9	NEG	>7 umol/L	10-25 wbc/ul	NEG	10-20 mg/l	6-10 mmol/l	< 3.4 mg/mmol	
participant	instrument	instrument ID	performed by	date													
Llanedeyrn Health Centre	Medi-Test Combi 10 SGL	ID	ga	10/3/2011	5-10 mmol/L	8-10 mmol/L	1.010	NEG	6-6.9	NEG	>7 umol/L	NEG	NEG				
Ely Bridge	Combur 9	ID	VH	17/3/2011	>50 mmol/L	4-8 mmol/L		NEG	6-6.9	NEG		NEG	NEG				
Ely Bridge	Combur 9	ID JH	UC	17/3/2011	>50 mmol/L	4-8 mmol/L		NEG	6-6.9	NEG	>7 umol/L	NEG	NEG				
Ely Bridge	Combur 9	ID TF	LO	17/3/2011	>50 mmol/L	4-8 mmol/L		NEG	6-6.9	NEG	>7 umol/L	NEG	NEG				
A2 SURGERY	Combur 9	ID	TM	18/3/2011	>50 mmol/L	>10 mmol/L					>7 umol/L						
A3 LINK/SURGERY	Combur 9	ID	HC	23/3/2011	>50 mmol/L	4-8 mmol/L		NEG	6-6.9	NEG	>7 umol/L	NEG	NEG				
A4 TRAUMA	Combur 5	ID	SRR	23/3/2011	10-20 mmol/L	4-8 mmol/L			6-6.9	NEG							
A5 UROLOGY	Combur 7	ID	NK	23/3/2011	10-20 mmol/L	4-8 mmol/L		NEG	6-6.9	NEG	>7 umol/L	NEG					
A6 TRAUMA	Combur 9	ID	SG	18/3/2011	>50 mmol/L	4-8 mmol/L		NEG	6-6.9	NEG	>7 umol/L	NEG					
B2 NORTH	Combur 9	ID	DC	18/3/2011	>50 mmol/L	>10 mmol/L		NEG	5-5.9	NEG	>7 umol/L	NEG	NEG				
B2 SOUTH	Combur 9	ID	NK	23/3/2011	>50 mmol/L	>10 mmol/L			5-5.9	0.3-0.5 g/L	>7 umol/L	NEG	NEG				
B5 NEPHROLOGY	Combur 7	ID	AJ	23/3/2011	2-5 mmol/L	0.5-4.0 mmol/L					>7 umol/L						

This provides the target value and the actual result band reported for each user (site) converted into the corresponding concentration range for that strip/ meter.

Fig 12 - Result Scores report

result scores - all results
UHW - Point of Care Team

sample **DIST 71**
begin period Tuesday, March 08, 2011 00:00 hrs
end period Tuesday, March 15, 2011 00:00 hrs
scoring system 0-1 good
2-3 warning
> 3 poor

participant	instrument	instrument ID	performed by	date	Glu	Ket	SG	Bld	pH	Prot	Nit	Leuco	Bili	Alb	Creat	A:C	Asc
Llanedeyrn Health Centre	Medi-Test Combi 10 SGL	ID	ga	10/3/2011	1	#	1	#	#	#	0	1	#				
Ely Bridge	Combur 9	ID	VH	17/3/2011	2	1		#	#	#		1	#				
Ely Bridge	Combur 9	ID JH	UC	17/3/2011	2	1		#	#	#	0	1	#				
Ely Bridge	Combur 9	ID TF	LO	17/3/2011	2	1		#	#	#	0	1	#				
A2 SURGERY	Combur 9	ID	TM	18/3/2011	2	1					0						
A3 LINK/SURGERY	Combur 9	ID	HC	23/3/2011	2	1		#	#	#	0	1	#				
A4 TRAUMA	Combur 5	ID	SRR	23/3/2011	#	1			#	#							
A5 UROLOGY	Combur 7	ID	NK	23/3/2011	#	1		#	#	#	0	1					
A6 TRAUMA	Combur 9	ID	SG	18/3/2011	2	1		#	#	#	0	1					
B2 NORTH	Combur 9	ID	DC	18/3/2011	2	1		#	1	#	0	1	#				
B2 SOUTH	Combur 9	ID	NK	23/3/2011	2	1			1	2	0	1	#				
B5 NEPHROLOGY	Combur 7	ID	AJ	23/3/2011	2	2					0						
C5 LINK CARDIFF TRANSPLANT UNIT	Combur 7	ID	RL	18/3/2011	2	1		#	#	2	0	1					
B4 HAEM	Combur 9	ID	NH	24/3/2011	2	1		1	1	2		4					
B4 BMTU	Combur 9	ID	SW	24/3/2011	2	1		#	1	#	0	1	#				
C2 SOUTH	Combur 9	ID	CR	18/3/2011	#	1		#	#	#	0	1	#				
CCU WARD	Combur 9	ID	GG	24/3/2011	2	1		#	#	#	0	1	#				
C3 CARDIOLOGY	Combur 9	ID	CR	18/3/2011	2	1		#	#	4	1	1	#				
C3 LINK ITUC	Combur 9	ID	TP	23/3/2011	2	1		#	#	#	0	1	#				
C4 NEURO	Combur 9	ID	CMB	24/3/2011	2	1		#	1	#	0	1	#				
Dermatology Day Care Unit	Combur 9	ID	JP	24/3/2011	2	1		#	1	#	0	1	#				
C6 WARD	Combur 9	ID	JH	18/3/2011	2	1		#	#	#	0	1	#				

Using the Urinalysis scoring matrix the results are converted to scores based on the interpretation in Table 10.

3.6 Standard user report

The individual user performance is illustrated by a bar graph highlighting the users' results (in colour) compared with all other results for each analyte.

Fig 13 - Standard User report

INTERPRETATION OF POCT EQA REPORTS

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