

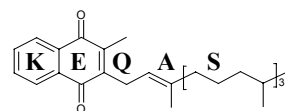
KEQAS Batch 24 Results Report

Analysis period: October: 2003

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Vitamin K External Quality Assurance Scheme Results

Batch: 24



The Vitamin K External Quality Assurance Scheme

Your results, Z score and outlier test

Vitamin K concentration (ng/ml)			
	Serum A	Serum B	Ethanollic standard
ALTM	0.4	na	21.45

Z Scores

- Z < 1.....Good
- 1 < Z < 2.....Satisfactory
- 2 < Z < 3.....Questionable
- Z > 3.....Unsatisfactory

Result of outliers test		
Serum A	Serum B	Ethanollic standard
-	-	-

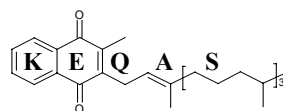
One outlier identified in batch 24

Key to abbreviations

na: not applicable
BLD: Below limit of detection (approximately 30 pg/ml)
SD: Standard deviation
CV: Coefficient of variance
ALTM: All laboratories' trimmed mean

Vitamin K External Quality Assurance Scheme Results

Batch: 24

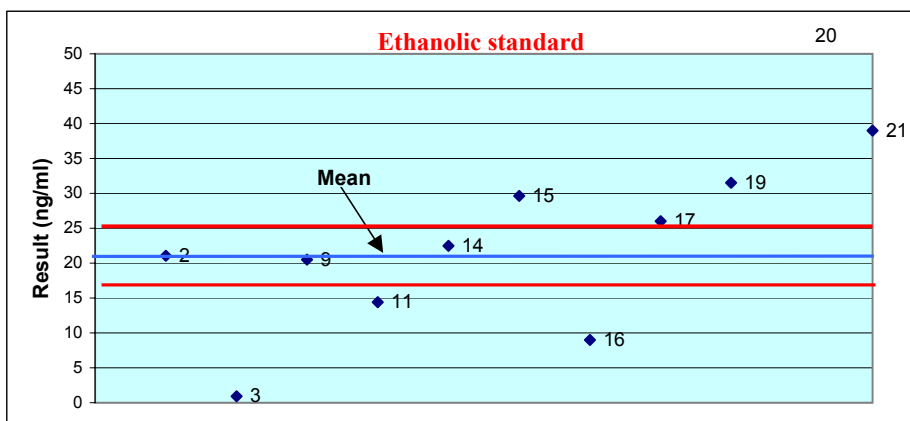
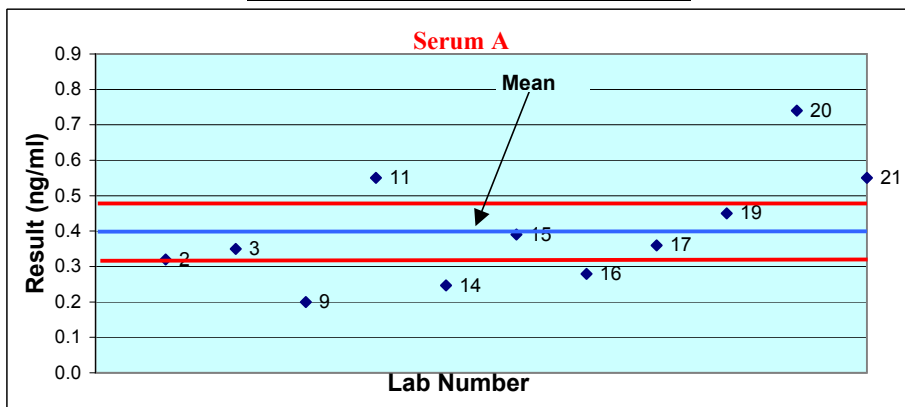


The Vitamin K External Quality Assurance Scheme

All laboratories results and targets

Lab	Serum A (ng/ml)	Serum B (ng/ml)	EtOH std (ng/ml)
2	0.320	Vitamin K depleted Sample	21.060
3	0.350		0.930
9	0.200		20.500
11	0.550		14.400
14	0.247		22.470
15	0.390		29.640
16	0.279		9.000
17	0.360		26.000
19	0.450		31.500
20	0.740		87.200
21	0.550		39.00
ALTM	0.403		21.450
Median	0.360		21.765
SD	0.159		11.179
CV (%)	39.335		52.115

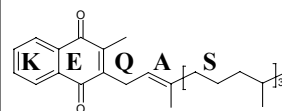
Outlier



Target area = + or - 20% of mean

Vitamin K External Quality Assurance Scheme Results

Batch 24



The Vitamin K External Quality Assurance Scheme

Z scores

Results

Lab	Serum A (ng/ml)	Serum B (ng/ml)	EtOH std (ng/ml)
2	0.320	Vitamin K depleted Sample	21.06
3	0.350		0.93
9	0.200		20.50
11	0.550		14.40
14	0.247		22.47
15	0.390		29.64
16	0.279		9.00
17	0.360		26.00
19	0.450		31.50
20	0.740		87.20
21	0.550		39.00
ALTM	0.403		21.45
Median	0.360		21.77
SD	0.159		11.18
CV	39.335		52.11

Outlier

Z scores (Target SD = 20%)

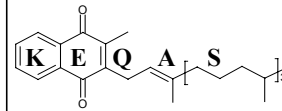
Lab	Serum A	Serum B	EtOH std
2	1.03	Vitamin K depleted Sample	0.09
3	0.66		4.78
9	2.52		0.22
11	1.82		1.64
14	1.94		0.24
15	0.16		1.91
16	1.54		2.90
17	0.54		1.06
19	0.58		2.34
20	4.17		15.33
21	1.82		4.09

Z scores

Z < 1 Good
 1 < Z < 2 Satisfactory
 2 < Z < 3 Questionable
 Z > 3 Unsatisfactory

Vitamin K External Quality Assurance Scheme Results

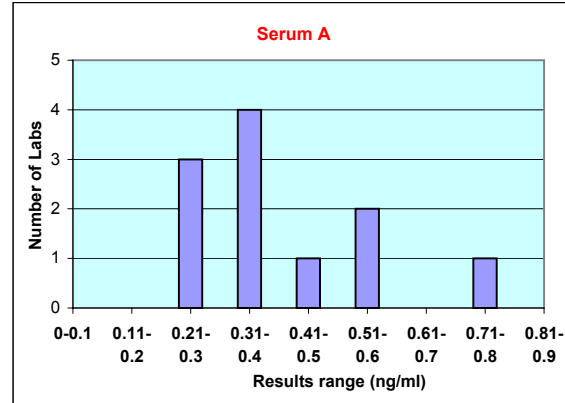
Batch 24



The Vitamin K External Quality Assurance Scheme

Distribution of results

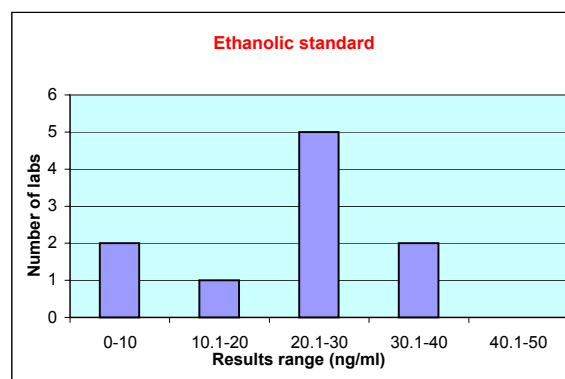
Serum A			
Lab	Result (ng/ml)	SD	CV (%)
2	0.320	0.06	14.60
3	0.350	0.04	9.34
9	0.200	0.14	35.64
11	0.550	0.10	25.73
14	0.247	0.11	27.40
15	0.390	0.01	2.33
16	0.279	0.09	21.79
17	0.360	0.03	8.50
19	0.450	0.03	8.19
20	0.740	0.24	59.04
21	0.550	0.10	25.73
Mean =	0.403	0.09	21.66



Serum B		
Lab	Result (ng/ml)	Vit. K detected?
2	BLD	No
3	0.150	Yes
9	BLD	No
11	1.000	Yes
14	BLD	No
15	0.180	Yes
16	0.051	Borderline
17	0.200	Yes
19	BLD	No
20	2.020	Yes
21	0.120	Yes

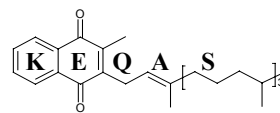
Serum B is a Vitamin K depleted sample. It has been treated with a UV light source for five hours to remove vitamin K.

Ethanollic Standard			
Lab	Result (ng/ml)	SD	CV(%)
2	21.06	4.50	16.42
3	0.93	18.74	68.31
9	20.50	4.90	17.86
11	14.40	9.21	33.59
14	22.47	3.51	12.78
15	29.64	1.56	5.70
16	9.00	13.03	47.51
17	26.00	1.01	3.68
19	31.50	2.88	10.50
20	87.20	42.27	154.10
21	39.00	8.18	29.84
Mean=	27.43	9.98	24.62



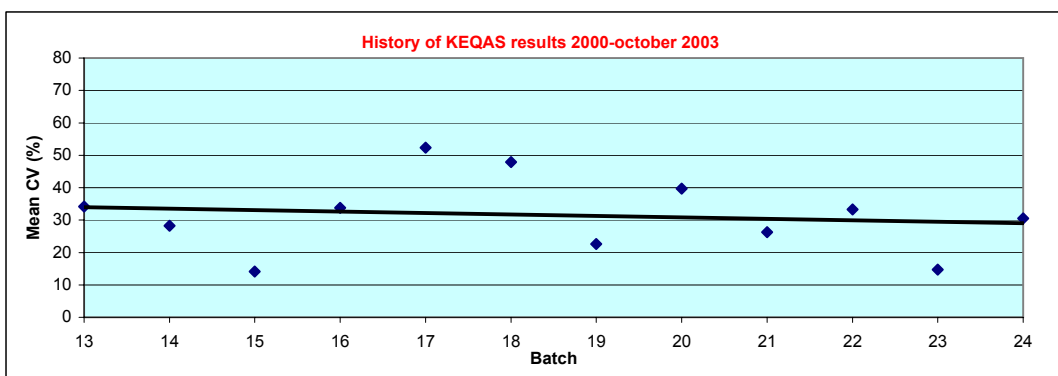
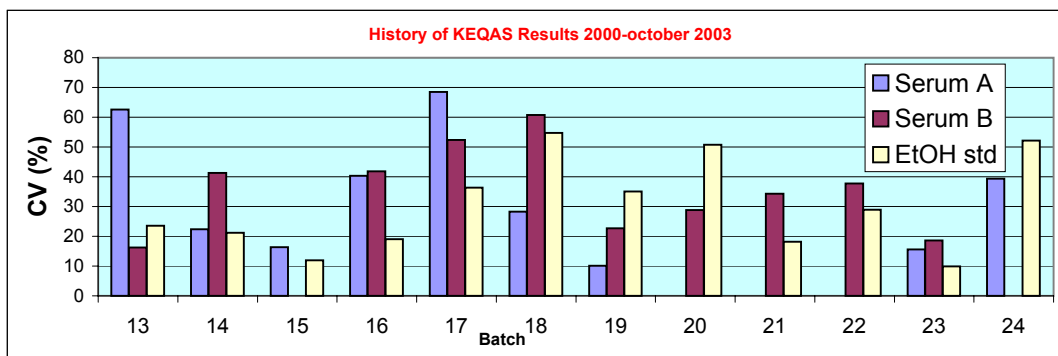
Vitamin K External Quality Assurance Scheme Results

Batch 24



The Vitamin K External Quality Assurance Scheme

All laboratories results history



Overall error (CV) for all labs

Batch	CV (%)			Mean CV (%)
	Serum A	Serum B	Ethanollic Standard	
13	62.58	16.22	23.59	34.13
14	22.32	41.25	21.20	28.26
15	16.37	na	11.92	14.15
16	40.29	41.85	19.05	33.73
17	68.53	52.32	36.33	52.39
18	28.29	60.78	54.75	47.94
19	10.11	22.71	35.02	22.61
20	na	28.77	50.71	39.74
21	na	34.25	18.20	26.23
22	na	37.77	28.88	33.33
23	15.58	18.58	9.87	14.68
24	39.335	na	52.11	30.48