

Watoto

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

- page 1 -

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LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y' 4M Est. Birth: 29.Jan.1969

=====

Collection Information >>
Health Status: Abnormal

Date of Collection: 27.Apr.2008
Time of Collection: 10:30.0
Collected by: TLH

Weight: 3810 Kg on 8.Apr.2008

Sample Collection Site: Mid-stream catch

Analysis Information >>

Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 27.Apr.2008
Time of Analysis: 11:45
Analysis by: TLH
Automated analysis.

Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

AMORPH DEBR	2+
BACTERIA/HPF	0
BILI-URINE	NR
BLOOD-URINE	NEG
CASTS/LPF	0
CRYSTAL ID	AMORPH
CRYSTALS/LPF	3+
EPITH/LPF	RARE
KETONES-URIN	NR
MICRO-URINE	DIRECT
mucus-urine	0
NITRITE-URIN	NEG
PH-URINE	TRACE
PROTEIN-URIN MG/DL	NEG
SP.GRAV.URIN	1.038
GLUCOSE-URIN MG/DL	NEG
urine-clarit	TURBID
urine-color	GOLD
UROBILINOGEN MG/DL	NR
WBC/HPF	0

Comments >>

Colic symptoms.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 27.Apr.2008
Time of Collection: 10:45.0
Collected by: SC
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: Heparin
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 27.Apr.2008
Time of Analysis: 11:45
Analysis by: TLH
Manual analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<	7.4	10.50±	2.648	4.500	22.10	(1544)
HCT	%	>	46	39.5±	4.6	27.0	56.0	(1984)
SEGS	% (*10 ³ /UL)		31 (2.294)	3.146±	1.695	0.000	11.80	(1224)
LYMPHOCYTES	% (*10 ³ /UL)		38 (2.812)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		31 (2.294)	1.513±	1.651	0.000	9.480	(1175)
PLATE. EST.			NORM					

Comments >>

Partial anorexia.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 27.Apr.2008
Time of Collection: 10:45.0
Collected by: SC
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 27.Apr.2008
Time of Analysis: 12:02
Analysis by: TLH
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	<	68	84±	15	38	174	(1437)
BUN	MG/DL	>	13.9	10±	3	0	22	(1458)
CREAT.	MG/DL		1.3	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			10.7					
URIC ACID	MG/DL	<	1.0	0.2±	0.4	0.0	5.1	(466)
CA	MG/DL		10.3	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>>	8.8	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.17					
CHOL	MG/DL	<	50	68±	17	0	234	(1290)
T. PROT. (C)	GM/DL	>>	9.7	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.4	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	>>	6.4	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.531					
AST (SGOT)	IU/L	<	11	24±	10	6	93	(1398)
ALT (SGPT)	IU/L	<	0	7±	6	0	40	(547)
T. BILI.	MG/DL		0.1	0.2±	0.1	0.0	1.0	(1187)
AMYLASE	U/L	<	1176	3075±	1552	0	7918	(241)
ALK. PHOS.	IU/L		99	128±	61	32	441	(1404)
CPK	IU/L		244	256±	196	18	1884	(247)
GGT	IU/L		8	12±	5	0	37	(389)

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 27.Apr.2008
Time of Collection: 10:45.1
Collected by: ELE
Sample Collection Site: EAR

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 27.Apr.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<	7.1	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.51	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL	>	16.2	13.7±	1.6	7.0	26.1	(1522)
HCT	%	>	44.8	39.5±	4.6	27.0	56.0	(1984)
MCV	fL		128	125.8±	8.1	91.1	190.0	(1466)
MCH	uug		46.2	43.6±	3.0	34.8	66.8	(1454)
MCHC	gm/dL		36.2	34.7±	2.0	18.4	57.9	(1501)
SEGS	% (*10 ³ /UL)		24 (1.704)	3.146±	1.695	0.000	11.80	(1224)
BANDS	% (*10 ³ /UL)		DNR	0.843±	0.799	0.000	6.530	(605)
LYMPHOCYTES	% (*10 ³ /UL)		42 (2.982)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		33 (2.343)	1.513±	1.651	0.000	9.480	(1175)
EOSINOPHILS	% (*10 ³ /UL)		DNR	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)		1 (0.071)	0.049±	0.081	0.000	0.525	(464)
PLATE. EST.			ADEQ					
PLATE. CNT.	*10 ³ /UL	>	687	417±	245	74	1380	(215)

Comments >>

Partial anorexia.
PHX# 804270024

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 27.Apr.2008
Time of Collection: 10:45.1
Collected by: ELE
Sample Collection Site: EAR

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 27.Apr.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

			Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	81	84±	15	38	174	(1437)
BUN	MG/DL	> 15	10±	3	0	22	(1458)
CREAT.	MG/DL	1.9	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio		7.89					
CA	MG/DL	10.3	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	4.6	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio		2.24					
NA	MEQ/L	125	129±	4	107	182	(1353)
K	MEQ/L	< 3.9	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio		32.1					
CL	MEQ/L	90	88±	4	67	129	(1323)
anion gap		19.9					
MG	MG/DL	2.1	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL	59	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	> 8.4	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL	3.5	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	> 4.9	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat		0.714					
AST (SGOT)	IU/L	16	24±	10	6	93	(1398)
T. BILI.	MG/DL	0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L	71	128±	61	32	441	(1404)
CPK	IU/L	249	256±	196	18	1884	(247)
ANION GAP	MMOL/L	20					
CO2	MMOL/L	<< 19	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL	300	238±	139	0	600	(70)
GGT	IU/L	7	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG	250					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal

Date of Collection: 28.Apr.2008
Time of Collection: 9:00.0
Collected by: SC
Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

Analysis Information >>

Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 28.Apr.2008
Time of Analysis: 12:00
Analysis by: TLH
Manual analysis.

Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

BILI-URINE	NR
BLOOD-URINE	NEG
KETONES-URIN	NR
WBC-URINE	NEG
MICRO-URINE	NP
NITRITE-URIN	NR
PH-URINE	7.0
PROTEIN-URIN MG/DL	TRACE
SP.GRAV.URIN	1.029
GLUCOSE-URIN MG/DL	NEG
urine-clarit	TURBID
urine-color	GOLD
UROBILINOGEN MG/DL	NR

Comments >>

Recheck; anorexia.
Urine color caused no result on some strip tests.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 28.Apr.2008
Time of Collection: 9:05.0
Collected by: SC
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 28.Apr.2008
Time of Analysis: 11:41
Analysis by: TLH
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	<	65	84±	15	38	174	(1437)
BUN	MG/DL	>	14.6	10±	3	0	22	(1458)
CREAT.	MG/DL		1.2	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			12.2					
URIC ACID	MG/DL	<	1.0	0.2±	0.4	0.0	5.1	(466)
CA	MG/DL	>	11.7	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>>	8.0	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.46					
CHOL	MG/DL	<	50	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	>>	10.2	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.5	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	>>	6.7	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.522					
AST (SGOT)	IU/L	<	9	24±	10	6	93	(1398)
ALT (SGPT)	IU/L	<	0	7±	6	0	40	(547)
T. BILI.	MG/DL		0.1	0.2±	0.1	0.0	1.0	(1187)
AMYLASE	U/L	<	1267	3075±	1552	0	7918	(241)
ALK.PHOS.	IU/L		108	128±	61	32	441	(1404)
CPK	IU/L		386	256±	196	18	1884	(247)
GGT	IU/L		9	12±	5	0	37	(389)

Comments >>

Recheck; anorexia.
Edta tube clotted; redrawn later in the morning.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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=====
LOXODONTA AFRICANA KNOCHENHAUERI      Sex: Female      Acc. #: 20132
East African bush elephant           Age: 39Y 4M Est. Birth: 29.Jan.1969
Name: WATOTO
=====

```

Collection Information >>

```

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

```

```

Date of Collection: 28.Apr.2008
Time of Collection: 9:45.0
Collected by: SC
Sample Collection Site: EAR VEIN

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Hematology >>

Analysis Information >>

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Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

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Laboratory: PHOENIX
Date of Analysis: 28.Apr.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

```

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<	7.5	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.39	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL		15.2	13.7±	1.6	7.0	26.1	(1522)
HCT	%		40.5	39.5±	4.6	27.0	56.0	(1984)
MCV	fL		119	125.8±	8.1	91.1	190.0	(1466)
MCH	uug		44.8	43.6±	3.0	34.8	66.8	(1454)
MCHC	gm/dL	>	37.5	34.7±	2.0	18.4	57.9	(1501)
SEGS	% (*10 ³ /UL)		47 (3.525)	3.146±	1.695	0.000	11.80	(1224)
BANDS	% (*10 ³ /UL)		DNR	0.843±	0.799	0.000	6.530	(605)
LYMPHOCYTES	% (*10 ³ /UL)	<	29 (2.175)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		24 (1.800)	1.513±	1.651	0.000	9.480	(1175)
EOSINOPHILS	% (*10 ³ /UL)		DNR	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)		DNR	0.049±	0.081	0.000	0.525	(464)
PLATE. EST.			ADEQ					
PLATE. CNT.	*10 ³ /UL		495	417±	245	74	1380	(215)

Comments >>

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Phoenix ID# 0804280583
Slide review: no left shift or toxic change Dr. Stevenson

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Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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=====
LOXODONTA AFRICANA KNOCHENHAUERI          Sex: Female          Acc. #: 20132
East African bush elephant              Age: 39Y 4M Est.     Birth: 29.Jan.1969
Name: WATOTO
=====

```

Collection Information >>

```

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

```

```

Date of Collection: 28.Apr.2008
Time of Collection: 9:45.0
Collected by: SC
Sample Collection Site: EAR VEIN

```

Chemistry >>

Analysis Information >>

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Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

```

```

Laboratory: PHOENIX
Date of Analysis: 28.Apr.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

```

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	<	68	84±	15	38	174	(1437)
BUN	MG/DL	>	15	10±	3	0	22	(1458)
CREAT.	MG/DL		1.8	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			8.33					
CA	MG/DL		11.1	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL		5.1	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			2.18					
NA	MEQ/L		130	129±	4	107	182	(1353)
K	MEQ/L		4.8	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio			27.1					
CL	MEQ/L		89	88±	4	67	129	(1323)
anion gap			22.8					
MG	MG/DL		2.4	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL		53	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	>	8.8	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.7	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	>	5.1	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.725					
AST (SGOT)	IU/L		19	24±	10	6	93	(1398)
T. BILI.	MG/DL		0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L		77	128±	61	32	441	(1404)
CPK	IU/L		383	256±	196	18	1884	(247)
A/G RATIO	GM/DL		0.7					
ANION GAP	MMOL/L		23					
CO2	MMOL/L	<	23	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL		200	238±	139	0	600	(70)
GGT	IU/L		7	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG		260					
NA/K RATIO	MG/DL		27					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

=====

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Active
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 28.Apr.2008
Time of Collection: 9:45.0
Collected by: SC
Sample Collection Site: EAR VEIN

Chemistry >>

Tests and Results >>

ISIS Reference Values >>

Comments >>

Phoenix ID#: 0804280583

Mild dehydration and elevation in inflammatory proteins. -- KH

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 29.Apr.2008
Time of Collection: 8:30.0
Collected by: PM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 29.Apr.2008
Time of Analysis: 9:30
Analysis by: TLH
Manual analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<	5.5	10.50±	2.648	4.500	22.10	(1544)
HCT	%		41	39.5±	4.6	27.0	56.0	(1984)
SEGS	% (*10 ³ /UL)		27	(1.485)	3.146±	1.695	0.000	11.80 (1224)
LYMPHOCYTES	% (*10 ³ /UL)	<	22	(1.210)	4.913±	2.532	0.022	17.40 (1236)
MONOCYTES	% (*10 ³ /UL)		51	(2.805)	1.513±	1.651	0.000	9.480 (1175)
PLATE. EST.			NORM					
TOTAL SOLIDS	G/DL		8.2					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 29.Apr.2008
Time of Collection: 8:30.1
Collected by: PM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>
Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 29.Apr.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

				ISIS Reference Values >>				
				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<	5.97	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.34	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL		14.8	13.7±	1.6	7.0	26.1	(1522)
HCT	%		39.6	39.5±	4.6	27.0	56.0	(1984)
MCV	fL		119	125.8±	8.1	91.1	190.0	(1466)
MCH	uug		44.3	43.6±	3.0	34.8	66.8	(1454)
MCHC	gm/dL	>	37.4	34.7±	2.0	18.4	57.9	(1501)
SEGS	% (*10 ³ /UL)		32 (1.910)	3.146±	1.695	0.000	11.80	(1224)
BANDS	% (*10 ³ /UL)		1 (0.060)	0.843±	0.799	0.000	6.530	(605)
LYMPHOCYTES	% (*10 ³ /UL)	<	31 (1.851)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		35 (2.090)	1.513±	1.651	0.000	9.480	(1175)
EOSINOPHILS	% (*10 ³ /UL)		0	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)		1 (0.060)	0.049±	0.081	0.000	0.525	(464)
PLATE. EST.			ADEQ					
PLATE. CNT.	*10 ³ /UL		524	417±	245	74	1380	(215)
FIBRINOGEN	MG/DL	>	500	238±	139	0	600	(70)

Comments >>

Bands are now present which is concerning for inflammation even though they are in low numbers, but there is no evidence of toxic change at this time. The fibrinogen has also started to increase suggesting inflammation. Hematocrit is holding/Dr. Stevenson.
PHX# 804290122

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 29.Apr.2008
Time of Collection: 8:30.1
Collected by: PM
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 29.Apr.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL		94	84±	15	38	174	(1437)
BUN	MG/DL	>	14	10±	3	0	22	(1458)
CREAT.	MG/DL		1.7	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			8.24					
CA	MG/DL		11.0	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>	5.9	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.86					
NA	MEQ/L		133	129±	4	107	182	(1353)
K	MEQ/L		4.4	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio			30.2					
CL	MEQ/L		92	88±	4	67	129	(1323)
anion gap			17.4					
MG	MG/DL		2.7	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL		54	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	>	8.5	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.6	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	>	4.9	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.735					
AST (SGOT)	IU/L		23	24±	10	6	93	(1398)
T. BILI.	MG/DL		0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L		86	128±	61	32	441	(1404)
CPK	IU/L		377	256±	196	18	1884	(247)
ANION GAP	MMOL/L		17					
CO2	MMOL/L		28	27.0±	3.1	12.0	61.4	(840)
GGT	IU/L		7	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG		266					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

=====
Collection Information >>
Health Status: Abnormal

Date of Collection: 29.Apr.2008
Time of Collection: 11:00.0
Collected by: BU
Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

=====
Analysis Information >>

Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 29.Apr.2008
Time of Analysis: 13:00
Analysis by: TLH
Automated analysis.

=====
Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

BILI-URINE NR
BLOOD-URINE NEG
KETONES-URIN NR
WBC-URINE NEG
MICRO-URINE NR
NITRITE-URIN +
PH-URINE 8.0
PROTEIN-URIN MG/DL TRACE
SP.GRAV.URIN 1.028
GLUCOSE-URIN MG/DL NEG
urine-clarit TURBID
urine-color GOLD
UROBILINOGEN MG/DL NEG

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal

Date of Collection: 30.Apr.2008
Time of Collection: 8:00.0
Collected by: SC
Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

Analysis Information >>

Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 30.Apr.2008
Time of Analysis: 12:00
Analysis by: TLH
Automated analysis.

Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

MICRO-URINE NR
SP.GRAV.URIN 1.033
urine-clarit TURBID
urine-color GOLD

Clinical Pathology Records - Specimen Report

WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI

Sex: Female

Acc. #: 20132

East African bush elephant

Age: 39Y 4M Est.

Birth: 29.Jan.1969

Name: WATOTO

Collection Information >>

Health Status: Abnormal

Fasting Time: < 8 hours

Activity: Calm

Weight: 3810 Kg on 8.Apr.2008

Manual restraint used.

Date of Collection: 1.May.2008

Time of Collection: 8:10.0

Collected by: SC

Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA

Storage: Fresh

Sample Quality: No quality problems.

Laboratory: WPZ

Date of Analysis: 1.May.2008

Time of Analysis: 10:00

Analysis by: TLH

Manual analysis.

Tests and Results >>

ISIS Reference Values >>

					Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<<	4.0		10.50±	2.648	4.500	22.10	(1544)
HCT	%		42		39.5±	4.6	27.0	56.0	(1984)
SEGS	% (*10 ³ /UL)	<	18	(0.720)	3.146±	1.695	0.000	11.80	(1224)
BANDS	% (*10 ³ /UL)	<	0		0.843±	0.799	0.000	6.530	(605)
LYMPHOCYTES	% (*10 ³ /UL)	<	45	(1.800)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		35	(1.400)	1.513±	1.651	0.000	9.480	(1175)
EOSINOPHILS	% (*10 ³ /UL)		2	(0.080)	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)		0		0.049±	0.081	0.000	0.525	(464)
NRBC	/100 WBC		1		0±	1	0	3	(92)
TOTAL SOLIDS	G/DL		7.8						

Comments >>

Differential done in house and sent to PHX with ruminant panel

Comment from Teri

I agree (with PHX comment) that there ar some reactive lymphs and the basic differential I don't see a pronounced degranulation in hets and do observ that the neut cell walls are degenerating.

Positive Dohle bodies (few) are seen, significance is unknown (to in elephants). I also see tiny threads between two red cells, occational / rare, but wonder if trned if toward autoagglutination

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 1.May.2008
Time of Collection: 8:10.1
Collected by: SC
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 1.May.2008
Time of Analysis: 13:37
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<<	4.1	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.51	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL	>	15.7	13.7±	1.6	7.0	26.1	(1522)
HCT	%		42.2	39.5±	4.6	27.0	56.0	(1984)
MCV	fL		120	125.8±	8.1	91.1	190.0	(1466)
MCH	uug		44.7	43.6±	3.0	34.8	66.8	(1454)
MCHC	gm/dL	>	37.2	34.7±	2.0	18.4	57.9	(1501)
SEGS	% (*10 ³ /UL)	<	19 (0.779)	3.146±	1.695	0.000	11.80	(1224)
BANDS	% (*10 ³ /UL)	<	1 (0.041)	0.843±	0.799	0.000	6.530	(605)
LYMPHOCYTES	% (*10 ³ /UL)	<	39 (1.599)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		35 (1.435)	1.513±	1.651	0.000	9.480	(1175)
EOSINOPHILS	% (*10 ³ /UL)		2 (0.082)	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)	>	4 (0.164)	0.049±	0.081	0.000	0.525	(464)
PLATE. EST.			ADQ					
PLATE. CNT.	*10 ³ /UL		553	417±	245	74		

Comments >>

The continued decline in neutrophils is very concerning for significant overwhelming inflammation - there is now occasional bodies and egranulation in the neutrophils indicating some toxic change. Await culture results. Some of the lymphocytes now hav samll pink granules (NK cells or T-cells) and can be seen with antigenic stimulation. (Dr. Stevenson)
PHX# 805010054

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est.
Acc. #: 20132
Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 1.May.2008
Time of Collection: 8:10.1
Collected by: SC
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 1.May.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	>	100	84±	15	38	174	(1437)
BUN	MG/DL	>	14	10±	3	0	22	(1458)
CREAT.	MG/DL		1.5	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			9.33					
CA	MG/DL		10.7	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>	6.1	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.75					
NA	MEQ/L		133	129±	4	107	182	(1353)
K	MEQ/L		4.9	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio			27.1					
CL	MEQ/L		91	88±	4	67	129	(1323)
anion gap			19.9					
MG	MG/DL	>	2.8	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL		54	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL		8.2	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.4	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	>	4.8	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.708					
AST (SGOT)	IU/L		30	24±	10	6	93	(1398)
T. BILI.	MG/DL		0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L		99	128±	61	32	441	(1404)
CPK	IU/L	>>	1399	256±	196	18	1884	(247)
ANION GAP	MMOL/L		20					
CO2	MMOL/L		27	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL		200	238±	139	0	600	(70)
GGT	IU/L	<	6	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG		267					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal

Date of Collection: 1.May.2008.
Time of Collection: 8:40.0
Collected by: BU
Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

Analysis Information >>

Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 1.May.2008
Time of Analysis: 11:00
Analysis by: TLH
Manual analysis.

Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

SP.GRAV.URIN 1.031
urine-clarit TURBID
urine-color BROWN

Comments >>

no microscopic exam done

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est.
Acc. #: 20132
Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 2.May.2008
Time of Collection: : 8.1
Collected by: PAT
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 2.May.2008
Time of Analysis: 14:49
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<<	3.96	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.26	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL		14.6	13.7±	1.6	7.0	26.1	(1522)
HCT	%		39.6	39.5±	4.6	27.0	56.0	(1984)
MCV	fL	121		125.8±	8.1	91.1	190.0	(1466)
MCH	uug		44.8	43.6±	3.0	34.8	66.8	(1454)
MCHC	gm/dL	>	36.9	34.7±	2.0	18.4	57.9	(1501)
SEGS	% (*10 ³ /UL)	<	19 (0.752)	3.146±	1.695	0.000	11.80	(1224)
BANDS	% (*10 ³ /UL)	<	1 (0.040)	0.843±	0.799	0.000	6.530	(605)
LYMPHOCYTES	% (*10 ³ /UL)	<	50 (1.980)	4.913±	2.532	0.022	17.40	(1236)
MONOCYTES	% (*10 ³ /UL)		30 (1.188)	1.513±	1.651	0.000	9.480	(1175)
EOSINOPHILS	% (*10 ³ /UL)		0	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)		0	0.049±	0.081	0.000	0	
PLATE. EST.		ADEQ						
PLATE. CNT.	*10 ³ /UL		528	417±	245	74		
FIBRINOGEN	MG/DL		200	238±	139	0		

Comments >>

Low white cell count according to published ranges, occasional b cells seen. Concerned for acute inflammation, neutropenia can be with viral infection./PHX
Phoenix # 805020340

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 2.May.2008
Time of Collection: : 8.1
Collected by: PAT
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh
Sample Quality: insufficient volume

Laboratory: PHOENIX
Date of Analysis: 2.May.2008
Time of Analysis: 14:50
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

			Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	90	84±	15	38	174	(1437)
BUN	MG/DL	13	10±	3	0	22	(1458)
CREAT.	MG/DL	1.4	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio		9.29					
URIC ACID	MG/DL	>> 2.6	0.2±	0.4	0.0	5.1	(466)
CA	MG/DL	< 10.2	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>> 6.7	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio		1.52					
NA	MEQ/L	132	129±	4	107	182	(1353)
K	MEQ/L	4.9	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio		26.9					
CL	MEQ/L	91	88±	4	67	129	(1323)
anion gap		18.9					
MG	MG/DL	2.6	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL	< 50	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	7.6	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL	3.3	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	4.3	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat		0.767					
AST (SGOT)	IU/L	> 39	24±	10	6	93	(1398)
T. BILI.	MG/DL	0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L	94	128±	61	32	441	(1404)
CPK	IU/L	>> 2213	256±	196	18	1884	(247)
ANION GAP	MMOL/L	19					
CO2	MMOL/L	27	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL	200	238±	139	0	600	(70)
GGT	IU/L	7	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG	264					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 2.May.2008
Time of Collection: 8:10.0
Collected by: PAT
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 2.May.2008
Time of Analysis: 10:20
Analysis by: LM
Manual analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<<	4.45	10.50±	2.648	4.500	22.10	(1544)
HCT	%		40	39.5±	4.6	27.0	56.0	(1984)
SEGS	% (*10 ³ /UL)	<	15	(0.668)	3.146±	1.695	0.000	11.80 (1224)
BANDS	% (*10 ³ /UL)	<	0		0.843±	0.799	0.000	6.530 (605)
LYMPHOCYTES	% (*10 ³ /UL)		63	(2.804)	4.913±	2.532	0.022	17.40 (1236)
MONOCYTES	% (*10 ³ /UL)		21	(0.935)	1.513±	1.651	0.000	9.480 (1175)
EOSINOPHILS	% (*10 ³ /UL)		1	(0.045)	0.225±	0.273	0.000	2.898 (885)
BASOPHILS	% (*10 ³ /UL)		1	(0.045)	0.049±	0.081	0.000	0.525 (464)
TOTAL SOLIDS	G/DL		7.0					

Morphology Results >>

ANISOCYTOSIS MOD, SPHEROCYTES FEW, HYPERSEGMENT YES, ROULEAUX NO
stomatocytes FEW, TARGET CELLS 1+

Comments >>

Leukopenia with heteropenia still present. Began systemic antibi.
One Rbc inclusion seen. Some degeneration seen in neutrophils.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

Collection Information >>
Health Status: Abnormal

Date of Collection: 2.May.2008
Time of Collection: 8:10.1
Collected by: PAT

Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

Analysis Information >>

Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 2.May.2008
Time of Analysis: 14:50
Analysis by: PHX
Manual analysis.

Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

APPEARANCE CLOUDY
BILI-URINE NEG
BLOOD-URINE NEG
CAST ID NEG
CASTS/LPF NEG
COLOR AMBER
CRYSTALS/LPF CA+ OX
EPITH/LPF FEW
KETONES-URIN NEG
PH-URINE 9
PROTEIN-URIN MG/DL NEG
RBC/HPF NEG
SP.GRAV.URIN 1027
GLUCOSE-URIN MG/DL NEG
WBC/HPF NEG

Comments >>

Many Calcuim oxalate crystals seen.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 3.May.2008
Time of Collection: 8:00.0
Collected by: PAT
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 3.May.2008
Time of Analysis: 10:35
Analysis by: HF
Manual analysis.

Tests and Results >>

WBC *10³/UL < 6.27
HCT % 38
TOTAL SOLIDS G/DL 6.8

ISIS Reference Values >>

Mean	S.D.	Min.	Max.	(N)
10.50±	2.648	4.500	22.10	(1544)
39.5±	4.6	27.0	56.0	(1984)

Comments >>

Brief wbc count and pcv/total solids.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 3.May.2008
Time of Collection: 8:00.1
Collected by: PAT
Sample Collection Site: EAR VEIN

Hematology >>
Analysis Information >>
Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 3.May.2008
Time of Analysis: 11:31
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<<	5.00	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.08	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL		13.6	13.7±	1.6	7.0	26.1	(1522)
HCT	%		37.3	39.5±	4.6	27.0	56.0	(1984)
MCV	fL		121	125.8±	8.1	91.1	190.0	(1466)
MCH	uug		44.2	43.6±	3.0	34.8	66.0	(1454)
MCHC	gm/dL		36.5	34.7±	2.0	18.4		
SEGS	% (*10 ³ /UL)	<	25	3.146±	1.695	0.000		
BANDS	% (*10 ³ /UL)		1	0.843±	0.799	0.000		
LYMPHOCYTES	% (*10 ³ /UL)	<	34	4.913±	2.532	0.022		
MONOCYTES	% (*10 ³ /UL)		37	1.513±	1.651	0.000		
EOSINOPHILS	% (*10 ³ /UL)		1	0.225±	0.273	0.000		
BASOPHILS	% (*10 ³ /UL)		2	0.049±	0.081	0.000		
PLATE. EST.			ADEQU					
PLATE. CNT.	*10 ³ /UL		638	417±	245	74		
FIBRINOGEN	MG/DL	>	500	238±	139	0		

Comments >>

The neutrophils are starting to recover but there is still a left shift and mild increased basophilia and mild decreased granules suggesting toxic change (compared to prior morphologies)./PHX
PHX# 805030075

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 3.May.2008
Time of Collection: 8:00.1
Collected by: PAT
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 3.May.2008
Time of Analysis: 11:31
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	>	105	84±	15	38	174	(1437)
BUN	MG/DL		13	10±	3	0	22	(1458)
CREAT.	MG/DL		1.4	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			9.29					
CA	MG/DL		10.5	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>>	6.8	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.54					
NA	MEQ/L		131	129±	4	107	182	(1353)
K	MEQ/L		5.1	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio			25.7					
CL	MEQ/L	>	93	88±	4	67	129	(1323)
anion gap			18.1					
MG	MG/DL		2.7	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL	<	46	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL		7.5	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.2	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL		4.3	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.744					
AST (SGOT)	IU/L		30	24±	10	6	93	(1398)
T. BILI.	MG/DL		0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L		100	128±	61	32	441	(1404)
CPK	IU/L	>>	1887	256±	196	18	1884	(247)
ANION GAP	MMOL/L		18					
CO2	MMOL/L		25	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL	>	500	238±	139	0	600	(70)
GGT	IU/L	<	5	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG		264					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal

Date of Collection: 3.May.2008
Time of Collection: 11:35.0
Collected by: PAT
Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

Analysis Information >>
Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 3.May.2008
Time of Analysis: 11:35
Analysis by: PHX
Manual analysis.

Tests and Results >>

ISIS Reference Values >>
Mean S.D. Min. Max. (N)

APPEARANCE	CLOUDY
BILI-URINE	NEG
BLOOD-URINE	NEG
CASTS/LPF	NONE
COLOR	AMBER
CRYSTALS/LPF	TRIPLE
EPITH/LPF	FEW
KETONES-URIN	NEG
PH-URINE	9
PROTEIN-URIN MG/DL	NEG
RBC/HPF	0-4
SP.GRAV.URIN	1.029
GLUCOSE-URIN MG/DL	NEG
WBC/HPF	0-4

Comments >>

Many fat droplets present, few TrPO4 crystals seen.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 4.May.2008
Time of Collection: 8:15.0
Collected by:
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 4.May.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

			Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL	98	84±	15	38	174	(1437)
BUN	MG/DL	13	10±	3	0	22	(1458)
CREAT.	MG/DL	1.4	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio		9.29					
CA	MG/DL	10.4	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>> 6.8	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio		1.53					
NA	MEQ/L	128	129±	4	107	182	(1353)
K	MEQ/L	4.9	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio		26.1					
CL	MEQ/L	92	88±	4	67	129	(1323)
anion gap		18.9					
MG	MG/DL	2.7	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL	< 49	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	7.3	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL	3.2	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	4.1	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat		0.780					
AST (SGOT)	IU/L	26	24±	10	6	93	(1398)
T. BILI.	MG/DL	0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L	98	128±	61	32	441	(1404)
CPK	IU/L	>> 1519	256±	196	18	1884	(247)
ANION GAP	MMOL/L	19					
CO2	MMOL/L	< 22	27.0±	3.1	12.0	61.4	(840)
GGT	IU/L	< 5	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG	257					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

Collection Information >> Date of Collection: 4.May.2008
Health Status: Abnormal Time of Collection: 8:15.1
Fasting Time: < 8 hours Collected by:
Activity: Calm Sample Collection Site: EAR VEIN
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Hematology >> Laboratory: WPZ
Analysis Information >> Date of Analysis: 4.May.2008
Anticoagulant: EDTA Time of Analysis: 10:30
Storage: Fresh Analysis by: TLH
Sample Quality: No quality problems. Manual analysis.

Tests and Results >>				ISIS Reference Values >>				
				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<<	4.8	10.50±	2.648	4.500	22	
HCT	%		39	39.5±	4.6	27.0	5	
SEGS	% (*10 ³ /UL)	<	28 (1.344)	3.146±	1.695	0.000	11	
BANDS	% (*10 ³ /UL)	<	0	0.843±	0.799	0.000	6.	
LYMPHOCYTES	% (*10 ³ /UL)	<	33 (1.584)	4.913±	2.532	0.022	17	
MONOCYTES	% (*10 ³ /UL)		37 (1.776)	1.513±	1.651	0.000	9.	
EOSINOPHILS	% (*10 ³ /UL)		2 (0.096)	0.225±	0.273	0.000	2.	
BASOPHILS	% (*10 ³ /UL)		0	0.049±	0.081	0.000	0.	
PLATE. EST.			NORM					
TOTAL SOLIDS	G/DL		6.8					

Comments >>
Cytoplasm basophilia is increased since 5/1 sample. Neutrophil cell walls appear weakened. Neutrophil granulation is decreased. Few reactive lymphs and left shift evident.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

```

=====
LOXODONTA AFRICANA KNOCHENHAUERI      Sex: Female      Acc. #: 20132
East African bush elephant           Age: 39Y 4M Est. Birth: 29.Jan.1969
Name: WATOTO
=====

```

```

Collection Information >>
Health Status: Abnormal
Date of Collection: 4.May.2008
Time of Collection: 10:00.0
Collected by:
Sample Collection Site: Mid-stream catch

Weight: 3810 Kg on 8.Apr.2008

```

```

Analysis Information >>
Sample type: Urine
Storage: Fresh
Sample Quality: No quality problems.
Laboratory: WPZ
Date of Analysis: 4.May.2008
Time of Analysis: 16:00
Analysis by: TLH
Manual analysis.

```

```

Tests and Results >>
SP.GRAV.URIN      1.027
urine-clarit     TURBID
urine-color       BROWN

ISIS Reference Values >>
Mean  S.D.  Min.  Max.  (N)

```

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

=====
Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 5.May.2008
Time of Collection: 8:20.0
Collected by:
Sample Collection Site: EAR VEIN

Hematology >>
Analysis Information >>
Anticoagulant:
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 5.May.2008
Time of Analysis: 12:00
Analysis by: TLH
Manual analysis.

Tests and Results >>

WBC *10³/UL < 5.3
HCT % 38
TOTAL SOLIDS G/DL 6.7

ISIS Reference Values >>

Mean	S.D.	Min.	Max.	(N)
10.50±	2.648	4.500	22.10	(1544)
39.5±	4.6	27.0	56.0	(1984)

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 5.May.2008
Time of Collection: 8:20.1
Collected by:
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant:
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 5.May.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Ma	
WBC	*10 ³ /UL	<<	5.1	10.50±	2.648	4.500	22	
RBC	*10 ⁶ /UL		3.09	3.15±	0.40	2.05	4	
HGB	GM/DL		13.7	13.7±	1.6	7.0	2	
HCT	%		37.8	39.5±	4.6	27.0	5	
MCV	fL		122	125.8±	8.1	91.1	15	
MCH	uug		44.3	43.6±	3.0	34.8	6	
MCHC	gm/dL		36.2	34.7±	2.0	18.4	1	
SEGS	% (*10 ³ /UL)	<	17 (0.867)	3.146±	1.695	0.000	1	
BANDS	% (*10 ³ /UL)		1 (0.051)	0.843±	0.799	0.000	6	
LYMPHOCYTES	% (*10 ³ /UL)	<	38 (1.938)	4.913±	2.532	0.022	1	
MONOCYTES	% (*10 ³ /UL)		40 (2.040)	1.513±	1.651	0.000	9	
EOSINOPHILS	% (*10 ³ /UL)		1 (0.051)	0.225±	0.273	0.000	2.898	(885)
BASOPHILS	% (*10 ³ /UL)	>	3 (0.153)	0.049±	0.081	0.000	0.525	(464)
PLATE. EST.			ADEQ					
PLATE. CNT.	*10 ³ /UL		593	417±	245	74	1380	(215)

Comments >>

Phoenix: 0805051001
Slide review: Neutropenia persists, as does the mild left shift - there is still toxic change with mild increase in basophilia but increased vacuolation and decreased granulation from the last sample I examined. There are now scattered reactive, deeply basophilic, larger lymphocytes present (low numbers). Dr. Stevenson

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est.
Acc. #: 20132
Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 5.May.2008
Time of Collection: 8:20.1
Collected by:
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 5.May.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL		89	84±	15	38	174	(1437)
BUN	MG/DL		13	10±	3	0	22	(1458)
CREAT.	MG/DL		1.4	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			9.29					
CA	MG/DL	<	10.2	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>	6.5	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.57					
NA	MEQ/L		130	129±	4	107	182	(1353)
K	MEQ/L		4.9	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio			26.5					
CL	MEQ/L		92	88±	4	67	129	(1323)
anion gap			18.9					
MG	MG/DL		2.6	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL	<	48	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL	<	7.0	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL	<	3.1	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL		3.9	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.795					
AST (SGOT)	IU/L		25	24±	10	6	93	(1398)
T. BILI.	MG/DL		0.2	0.2±	0.1	0.0	1.0	(1187)
ALK.PHOS.	IU/L		93	128±	61	32	441	(1404)
CPK	IU/L	>>	1142	256±	196	18	1884	(247)
A/G RATIO	GM/DL		0.8					
ANION GAP	MMOL/L		19					
CO2	MMOL/L		24	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL		100	238±	139	0	600	(70)
GGT	IU/L	<	6	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG		261					
NA/K RATIO	MG/DL		27					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

=====
Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 6.May.2008
Time of Collection: 8:10.0
Collected by: RR
Sample Collection Site: EAR VEIN

Hematology >>
Analysis Information >>
Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: WPZ
Date of Analysis: 6.May.2008
Time of Analysis: 12:30
Analysis by: TLH
Manual analysis.

Tests and Results >>

WBC *10³/UL < 5.7
HCT % 40

ISIS Reference Values >>
Mean S.D. Min. Max. (N)
10.50± 2.648 4.500 22.10 (1544)
39.5± 4.6 27.0 56.0 (1984)

Comments >>
Ruminant Screen sent to Phoenix Lab.

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est.
Acc. #: 20132
Birth: 29.Jan.1969

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 6.May.2008
Time of Collection: 8:10.1
Collected by: RR
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 6.May.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	<	5.48	10.50±	2.648	4.500	22.10	(1544)
RBC	*10 ⁶ /UL		3.15	3.15±	0.40	2.05	4.80	(1480)
HGB	GM/DL		14.0	13.7±	1.6	7.0	2	
HCT	%		38.7	39.5±	4.6	27.0	5	
MCV	fL		123	125.8±	8.1	91.1	15	
MCH	uug		44.4	43.6±	3.0	34.8	6	
MCHC	gm/dL		36.2	34.7±	2.0	18.4	5	
SEGS	% (*10 ³ /UL)	<	25	3.146±	1.695	0.000	11	
BANDS	% (*10 ³ /UL)		1	0.843±	0.799	0.000	6.	
LYMPHOCYTES	% (*10 ³ /UL)	<	40	4.913±	2.532	0.022	17	
MONOCYTES	% (*10 ³ /UL)		30	1.513±	1.651	0.000	9.	
EOSINOPHILS	% (*10 ³ /UL)		3	0.225±	0.273	0.000	2.	
BASOPHILS	% (*10 ³ /UL)		1	0.049±	0.081	0.000	0.	
PLATE. EST.			ADEQ					
PLATE. CNT.	*10 ³ /UL		651	417±	245	74	1380	(215)

Comments >>

Phoenix: 0805060456
Slide Review: Please note change to the differential - there are still low numbers of bands present and mild toxic change (increased cytoplasmic basophilia and decreased granulation with occasional clear vacuoles). Dr. Stevenson

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est.
Acc. #: 20132
Birth: 29.Jan.1969

Collection Information >>
Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 6.May.2008
Time of Collection: 8:10.1
Collected by: RR
Sample Collection Site: EAR VEIN

Chemistry >>
Analysis Information >>
Chemistry Sample: Serum
Storage: Fresh
Sample Quality: No quality problems.

Laboratory: PHOENIX
Date of Analysis: 6.May.2008
Time of Analysis:
Analysis by: PHX
Automated analysis.

Tests and Results >>

ISIS Reference Values >>

				Mean	S.D.	Min.	Max.	(N)
GLUCOSE	MG/DL		95	84±	15	38	174	(1437)
BUN	MG/DL		13	10±	3	0	22	(1458)
CREAT.	MG/DL		1.4	1.5±	0.5	0.0	11.0	(1405)
BUN/Cr ratio			9.29					
CA	MG/DL	<	10.1	10.9±	0.6	8.1	15.3	(1434)
PHOS	MG/DL	>	6.4	4.9±	0.8	2.8	8.2	(1291)
Ca/P ratio			1.58					
NA	MEQ/L		129	129±	4	107	182	(1353)
K	MEQ/L		4.7	4.8±	0.5	3.3	7.6	(1368)
Na/K ratio			27.4					
CL	MEQ/L	>	93	88±	4	67	129	(1323)
anion gap			15.7					
MG	MG/DL		2.6	1.97±	0.75	0.65	4.20	(98)
CHOL	MG/DL	<	48	68±	17	0	234	(1290)
T.PROT. (C)	GM/DL		7.1	7.7±	0.6	5.8	10.5	(1261)
ALBUMIN (C)	GM/DL		3.2	3.6±	0.4	2.4	5.2	(1145)
GLOBULIN (C)	GM/DL		3.9	4.1±	0.5	2.6	6.4	(1135)
Alb/Glob rat			0.821					
AST (SGOT)	IU/L		23	24±	10	6	93	(1398)
T. BILI.	MG/DL		00.2	0.2±	0.1	0.0	1.0	(1187)
ALK. PHOS.	IU/L		93	128±	61	32	441	(1404)
CPK	IU/L	>>	871	256±	196	18	1884	(247)
A/G RATIO	GM/DL		0.8					
ANION GAP	MMOL/L		16					
CO2	MMOL/L		25	27.0±	3.1	12.0	61.4	(840)
FIBRINOGEN	MG/DL		200	238±	139	0	600	(70)
GGT	IU/L		7	12±	5	0	37	(389)
OSMOLALITY	MOSMOL/KG		259					
NA/K RATIO	MG/DL		27					

Clinical Pathology Records - Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

Collection Information >>

Health Status: Abnormal
Fasting Time: < 8 hours
Activity: Calm
Weight: 3810 Kg on 8.Apr.2008
Manual restraint used.

Date of Collection: 6.May.2008
Time of Collection: 8:10.1
Collected by: RR
Sample Collection Site: EAR VEIN

Chemistry >>

Tests and Results >>

ISIS Reference Values >>

Comments >>

Phoenix 0805060456

WPZ comments: WBC continues to improve; otherwise normal CBC/panel.

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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=====
LOXODONTA AFRICANA KNOCHENHAUERI      Sex: Female      Acc. #: 20132
East African bush elephant           Age: 39Y 4M Est. Birth: 29.Jan.1969
Name: WATOTO
=====

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.....2008....

29.Apr.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
 RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
 MICROBIOLOGY REPORT
 CULTURE; ID ONLY

Date collected: 29 Apr 2008
 Date submitted: 29 Apr 2008
 Date reported: 03 May 2008
 Laboratory: Phoenix
 Lab ID #: 804291038

SOURCE: feces

BACTERIA ID: Anaerobic: Moderate mixed enteric flora, no Clostridium perfringens isolated.

Aerobic: Moderate mixed enteric flora including Enterococcus species, Kelbsiella/Enterobacter group, two types.

```

NO SALMONELLA      [x ]
NO CAMPYLOBACTER  [x ]
NO SHIGELLA        [  ]
NO YERSINIA        [  ] (*MI)

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Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

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=====
LOXODONTA AFRICANA KNOCHENHAUERI           Sex: Female           Acc. #: 20132
East African bush elephant                Age: 39Y 4M Est.     Birth: 29.Jan.1969
Name: WATOTO
=====

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.....2008....

30.Apr.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
 RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
 MICROBIOLOGY REPORT
 CULTURE; ID ONLY

Date collected: 30 Apr 2008
 Date submitted: 30 Apr 2008
 Date reported: 03 May 2008
 Laboratory: Phoenix
 Lab ID #: 804300272

SOURCE: feces

BACTERIA ID: Anaerobic:No Clostridium perfringens isolated.
 Aerobic:Heavy mixed enteric flora.

NO SALMONELLA]
 NO CAMPYLOBACTER]
 NO SHIGELLA]
 NO YERSINIA] (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

.....2008....

1.May.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
MICROBIOLOGY REPORT
CULTURE; ID ONLY

Date collected: 01 May 2008
Date submitted: 01 May 2008
Date reported: 04 May 2008
Laboratory: Phoenix
Lab ID #: 805010061

SOURCE: feces

BACTERIA ID: Anaerobic:
 Aerobic:Heavy mixed enteric flora.

NO SALMONELLA [x]
NO CAMPYLOBACTER [x]
NO SHIGELLA []
NO YERSINIA [] (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

.....2008...

2.May.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
MICROBIOLOGY REPORT
CULTURE; ID ONLY

Date collected: 02 May 2008
Date submitted: 02 May 2008
Date reported: 07 May 2008
Laboratory: PHX
Lab ID #: 805020380

SOURCE: mucous found on ground

BACTERIA ID: Anaerobic: No anaerobes isolated.
Culture & Sensi, Aerobic
Date: 5/7/2008

1 Source MUCOUS

Microscopic GRAM STAIN RESULTS:

Debris, moderate

No organisms seen

Organism Mixed flora

Quantity Light growth

Comment No Salmonella or Campylobacter isolated

Organism The mixed flora includes:

Comment Enterobacter cloacae

Staph. coagulase negative

Coryneform gram positive rods

Escherichia coli

NO SALMONELLA [x]
NO CAMPYLOBACTER [x]
NO SHIGELLA []
NO YERSINIA []

MICROBIOLOGY REPORT
CULTURE; ID ONLY

Date collected: 02 May 2008
Date submitted: 02 May 2008
Date reported: 06 May 2008
Laboratory: PHX
Lab ID #: 805020378

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

2.May.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE

SOURCE: feces

BACTERIA ID: Anaerobic: Mixed anaerobic flora, heavy growth. No
Clostridium perfringens isolated.

Aerobic: Moderate mixed enteric flora, including an
Enterococcus species, Escherichia coli, and a Klebsiella species (all
id's presumptive)

NO SALMONELLA [x]
NO CAMPYLOBACTER [x]
NO SHIGELLA []
NO YERSINIA [] (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

.....2008...

2.May.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINA
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
Cytology Report
Outside Laboratory

Submitted 5/2/2008:

SAMPLE SUBMITTED: 6 ml yellow, opaque, viscous fluid in a red
tube

SITE OR SOURCE: fluid/mucus found on floor

MICROSCOPIC DESCRIPTION: Moderately cellular with marked cellular
distegration but mild hemodilution. The vast majority of cells are
neutrophils (nondegenerate, degenerate and disintegrated) with
occasional eosinophils. Superficial anuclear squamous cells coated in
bacteria are also present. Mixed bacteria are in low to moderate
numbers and include short rods, filamentous rods and rare cocci.
Shorter rods are occasionally present within neutrophils. Amorphous
debris is scattered in the sample with an abundant mucin background.
No overtly neoplastic cells are found.

INTERPRETATION: SEPTIC NEUTROPHILIC INFLAMMATION

COMMENT: I suspect that this sample is fecal in origin given the mixed
bacteria that are present. Is there any nasal discharge to suggest
that this could be nasal origin? No identifiable tissue cells are
present to confirm the site. I have seen clear mucoid diarrhea in
cases of severe cholestasis and Salmonella sepsis. There is
significant neutrophilic
inflammation with mostly the short rods being ingested. I will get
them to start a culture, as indicated on the form, to characterise the
bacterial populations present.

Connie Stevenson, D.V.M., M.Vet.Sc., Diplomate, A.C.V.P.
May 2, 2008 (*CY)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

.....2008...

4.May.2008

Problem: colic (Suspected); EXAMINATION, RECHECK ; URINE COLLECTION -
FREE-CATCH; VENIPUNCTURE
MICROBIOLOGY FORM

DATE COLLECTED: 04 May 2008
DATE SUBMITTED: 04 May 2008
SAMPLE SOURCE: feces
LAB: Phoenix
LAB ID#: 805040028

RESULTS: Culture, Anaerobic
Date: 5/7/2008
1 Source FECES
Organism No Clostridium perfringens isolated
Comment PLEASE NOTE THAT THIS IS A FINAL REPORT.
Culture & Sensi, Aerobic
Date: 5/8/2008
1 Source FECES
Organism Moderate mixed enteric flora
Comment The mixed flora includes:
Escherichia coli, presumptive identification
| Klebsiella species
Enterobacter cloacae
Enterococcus species
Bacillus species
No Salmonella or Campylobacter isolated

NO SALMONELLA ISOLATED []
NO SHIGELLA ISOLATED []
NO CAMPYLOBACTER ISOLATED []

COMMENTS: (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

.....2008...

5.May.2008

Problem: colic (Suspected); EXAMINATION, RECHECK ; URINE COLLECTION -
FREE-CATCH; VENIPUNCTURE
MICROBIOLOGY FORM

DATE COLLECTED: 05 May 2008
DATE SUBMITTED: 05 May 2008
SAMPLE SOURCE: feces
LAB: Phoenix
LAB ID#: 805050845

RESULTS: Culture, Anaerobic
Date: 5/19/2008
1 Source FECES
Organism No Clostridium perfringens isolated

Culture & Sensi, Aerobic
Date: 5/9/2008
Source FECES
Organism Moderate mixed enteric flora
Organism The mixed flora includes:
Comment Klebsiella species, PRESUMPTIVE IDENTIFICATION
*
Escherichia coli, PRESUMPTIVE IDENTIFICATION
*
Bacillus species
*
Alpha streptococcus
*
No Salmonella or Campylobacter isolated

Viral isolation: negative
Viral identification by EM: POSITIVE; Coronavirus.
Viral testing performed at WADDL. (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

.....2008...

6.May.2008

Problem: colic (Suspected); EXAMINATION, RECHECK
MICROBIOLOGY REPORT
CULTURE; ID ONLY

Date collected: 06 May 2008
Date submitted: 06 May 2008
Date reported: 19 May 2008
Laboratory: PHX
Lab ID #: 805060953

Culture, Anaerobic
Date: 5/10/2008
Source: FECES, STOOL
Organism: Moderate mixed enteric flora
Comment No Clostridium perfringens isolated

Culture & Sensi, Aerobic
Date: 5/10/2008
Source FECES, STOOL
Organism Moderate mixed enteric flora
Comment The mixed flora includes:
Enterococcus species (predominant organism)
Escherichia coli
Bacillus species
Klebsiella/Enterobacter group
Enterobacter cloacae

No Salmonella or Campylobacter isolated

Viral isolation: negative
Viral identification by EM: negative
Viral testing performed by WADDL (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969

=====

6.May.2008

Problem: colic (Suspected); EXAMINATION, RECHECK
SECOND FECAL CULTURE SUBMITTED IN PM on 5/6:
phx# 805060905

Culture, Anaerobic
Organism Heavy mixed enteric flora
Comment No Clostridium perfringens isolated
PLEASE NOTE THAT THIS IS A FINAL REPORT.
Culture & Sensi, Aerobic
Organism Heavy mixed enteric flora
Comment The mixed flora includes:
Escherichia coli, presumptive ID
Klebsiella/Enterobacter group
Enterobacter cloacae
No Salmonella or Campylobacter isolated (*MI)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

<i>LOXODONTA AFRICANA KNOCHENHAUERI</i>	Sex: Female	Acc. #: 20132
East African bush elephant	Age: 39Y 4M Est.	Birth: 29.Jan.1969
Name: WATOTO		

=====

.....2008....

30.Apr.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
Recheck exam and treatment for partial anorexia and lethargy.

Exam, recheck: Improvement overnight in regards to food intake and
stool production. Ate almost 100% of hay and browse. Drank water
last night (approx. 10 gallons). Attitude also appears improved.
Recheck PCV (40), TS (8.2), and USG (1.033) remain stable.

Blood sample collected - EDTA for in-house PCV/TS.

Urine collection/free catch - for in-house USG

Feces - to PHX for aerobic C&S (day 2/5)

For the DKR:

Continue banamine administration and rectal fluids through today.
Recheck CBC/panel/fibrinogen and UA tomorrow. Lab reports EEHV PCR
negative; DNA sequencing of a band at 3A pending. Will reassess
tomorrow for continued treatment based on patient observations today
and tonight.

Rx: FLUNIXIN MEGLUMINE 3750 mg IM BID for 7 days.
Rx: VITAMIN B COMPLEX 40 ml SQ for 1 dose. (KEH)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO

Sex: Female
Age: 39Y 4M Est. Birth: 29.Jan.1969
Acc. #: 20132

.....2008...

3.May.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMINATION,
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
Recheck exam and treatment for partial anorexia and lethargy.

Exam, recheck (0830 hrs): Consumed approximately 80-90% of hay overnight and about 5 gallons of water. Attitude and activity are good with a more alert and responsive patient this morning. Stool character continues to improve and is normal in size and consistency today- there were 3 normal sized fecal piles from overnight and early this morning (normal is 12 piles)

Blood sample collected - EDTA and serum to PHX for CBC/panel/fibrinogen.

In-house CBC- WBC count 6270, increased from yesterday, Hct TS=6.8

Urine collection/free catch - to PHX for UA.

Feces - to PHX for aerobic C&S (day 5/5)

Feces - to PHX for Salmonella PCR

Feces - to WADDL for viral isolation and EM (day 2/5)

Phone report from EEHV lab- additional DNA sequencing has detected that patient is weak positive for EEHV-3a. This test needs to be repeated for confirmation with results to be available next week.

PM update- appetite and attitude have been good all day with good food consumption (~75% of hay), drank water from hose and water barrel several times today. Stool output increased to 7-8 piles of normal size and fecal consistency
CBC/Chemistry results from PHX lab show increasing WBC count (5000) and heterophils (1250) from the previous two days, but are still below normal. Hct= 37.3%.

Treatment plan:

1. Continue parenteral antibiotic treatment (Ceftiofur) SID
2. Continue famciclovir per rectum BID- drug is in limited quantity and more will be arriving from multiple sources. Only had enough for two doses- more to arrive late in the day or tomorrow.
3. rectal fluid therapy pending patients clinical status and daily laboratory test results
4. See case summary entry by KEH

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

LOXODONTA AFRICANA KNOCHENHAUERI	Sex: Female	Acc. #: 20132
East African bush elephant	Age: 39Y 4M Est.	Birth: 29
Name: WATOTO		

=====

3.May.2008

Problem: colic (Suspected); CULTURE, DIAGNOSTIC - FECES ; EXAMIN
RECHECK; URINE COLLECTION - FREE-CATCH ; VENIPUNCTURE
Rx: FAMCICLOVIR 32.9 gm rectally BID for 1 day.

For the DKR: The WBC count and heterophil numbers improved to
Hydration status is improved over yesterday as the Hct is at
level for her. Other blood parameters are within normal limits.
Elephant herpesvirus lab reported this afternoon that additional DNA
sequencing has determined that this elephant is weakly positive for
EEHV-3a virus in her blood on a banked sample from 24April08. This
test will be repeated by the lab to make certain that this is a true
result. The anti-herpesviral treatment with famciclovir started
yesterday is to continue, along with daily antibiotic injections and
rectal fluids as needed. Additional famciclovir medication has been
secured. Collect serum and whole blood on all three elephants today
and repeat every 48 hours for additional EEHV testing. (JEO)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====
LOXODONTA AFRICANA KNOCHENHAUERI
East African bush elephant
Name: WATOTO
=====

Sex: Female Acc. #: 20132
Age: 39Y 4M Est. Birth: 29.Jan.1969
=====

.....2008....

4.May.2008

Problem: colic (Suspected); EXAMINATION, RECHECK ; URINE COLLECTION -
FREE-CATCH; VENIPUNCTURE

Recheck exam for improving symptoms consistent with colic.

Exam, recheck: Continued improvement in attitude and appetite.
Keeper staff report the patient is consuming about 90% normal diet.
WBC remains around 5 but is stable, HCT remains normal, globulins are
returning to normal, fibrinogen remains high but that is normal to see
an elevation in this parameter continuing past clinical resolution.
Stool production is normal in appearance and amount per defecation,
but number of defecations remain reduced. Barn remains closed to
provide this patient with RR during start of busy season and the
remainder of the recuperation process.

Results of additional EEHV testing remain equivocal in this patient;
PCR is negative to date in all 3 elephants (20132, 20073, 21113) with
small amount of EEHV 3A on DNA sequencing (20132 only) from a
previously banked sample that was submitted at the time of illness.
Continue to monitor all elephants and continue testing. Will obtain
additional samples from all elephants to see if results are repeatable
or confirmable. Other Asian conspecifics continue to be normal in
attitude, activity, appetite.

Rx: FAMCICLOVIR 37 gm rectally BID for 11 doses. (KEH)

Clinical Notes - Individual Specimen Report
WOODLAND PARK ZOOLOGICAL GARDENS

=====

<i>LOXODONTA AFRICANA KNOCHENHAUERI</i>	Sex: Female	Acc. #: 20132
East African bush elephant	Age: 39Y 4M Est.	Birth: 29:Jan.1969
Name: WATOTO		

=====

.....2008....

6.May.2008

Problem: colic (Suspected); EXAMINATION, RECHECK
Recheck exam for resolved recent colic.

Exam, recheck: Clinical symptoms are resolved, WBC continues increase daily (5.7) and will be monitored. Appetite and atit normal, stool production is also normalizing. Rectal fluids been needed in several days due to fluid intake and hydration parameters remain normal. Response to supportive care and a of antiinfectives seems good, although it is interesting to note that there was improvement before starting antiinfective drugs. Continue to recheck CBC/panel, will submit follow-up EEHV testing.

Confirmed with lab that all EEHV test results to date from this patient obtained during the course of illness has been negative. Historical banked samples also submitted; one historical sample positive for 3A but levels were too low to be detected with pan primers. EEHV not likely to have played a role in recent symptoms. Will look for other historical banked samples to submit.

From the EEHV Lab:

Watoto samples tested from 4/24/08 and 4/29/08 had bands; the 04/24/08 sample sequenced positive for EEHV 3A. Per the lab, the test is not quantitative, so the amount of virus cannot be determined; only its presence is detected on the 04/24/08 sample.

Cytology results of mucous suggest bacterial enteritis; cultures are pending. Review of hematologist's comments show some early toxic changes prior to antibiotic administration and suggest bacterial sepsis as a cause for the clinical symptoms and leukopenia.

For the DKR:

WBC continues to return to normal and all other clinical and diagnostic parameters remain WNL. While this patient appears to have made almost a complete recovery, completion of the 7-day prescribed course of therapy is still recommended before reopening the barn.
(KEH)

Chai