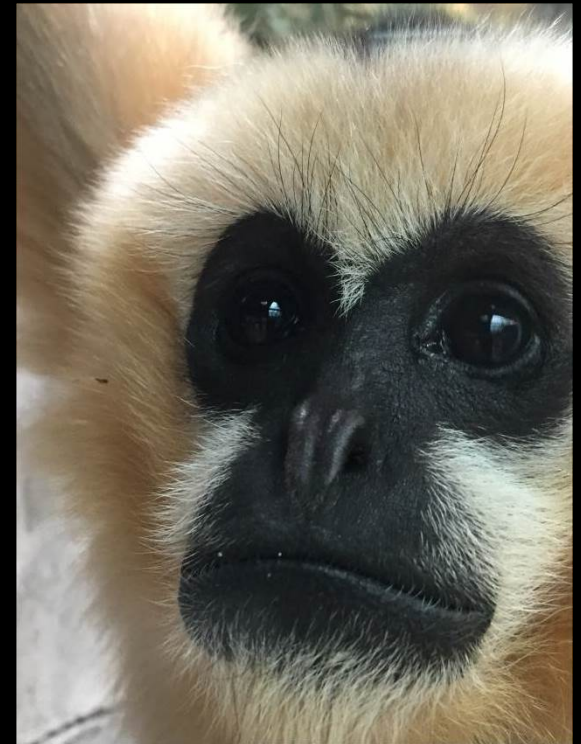


Geriatric Care of Primates

Wm. Kirk Suedmeyer, DVM, Dipl.
ACZM



Kansas City Zoo

Introduction

- Geriatric care is a relatively new focus of animal welfare in captive care of exotic animals including primates
 - Longstanding cornerstone of veterinary care in domestic animals



Kansas City Zoo

Introduction

- Captive animals living longer
 - Shift in societal conscience
 - 80% of zoo animals live longer than wild counterparts
 - University of Lyon, University of Zurich 2016 (Sci Rep)
 - Difficult to define “geriatric”
 - Wild vs Captive animal longevity

50



25

Kansas City Zoo

Introduction

- Geriatric person
 - Middle age
 - A person 45-61 years of age
 - Life expectancy 71 years
 - A person who is past middle age
 - >61 and under health care
 - An animal that is past middle age
 - Chimpanzee >45 (50-55)
 - Polar bear >25 (30)
 - Elephant >40 (50)



Introduction

- Geriatric Care
 - Goal
 - Management factors to consider
 - Breeding status



Introduction

- Geriatric Care
 - Goal
 - Management factors to consider
 - Breeding status
 - Social status



Kansas City Zoo

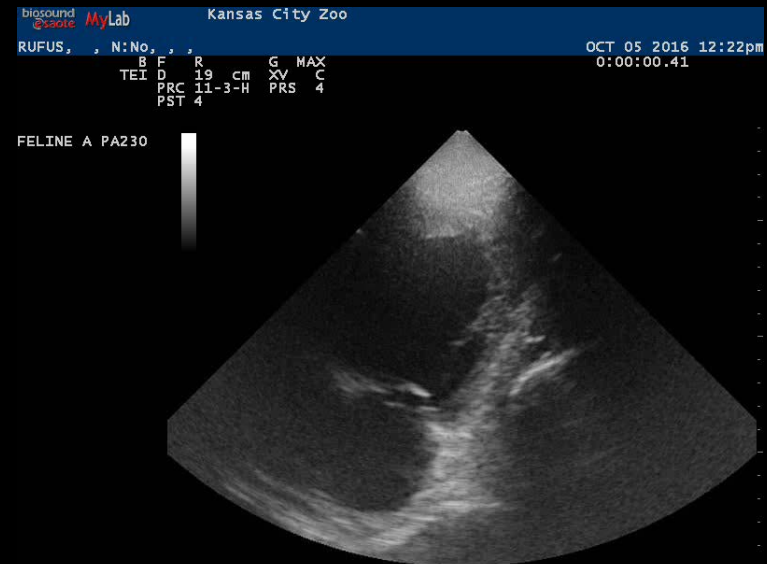
Introduction

- Geriatric Care
 - Goal
 - Management factors to consider
 - Breeding status
 - Social status
 - Exhibit status (zoos)



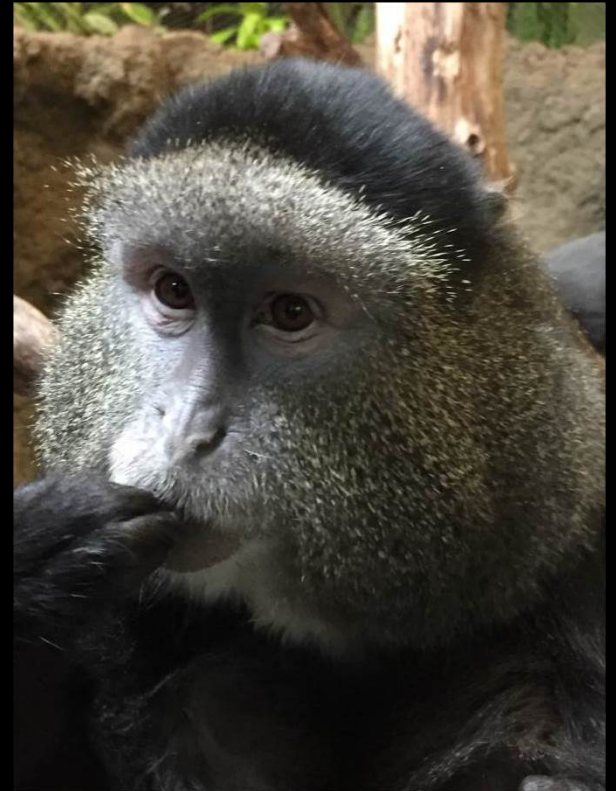
Introduction

- Geriatric Care
 - Goal
 - Management factors to consider
 - Breeding status
 - Social status
 - Exhibit status
 - Medical status



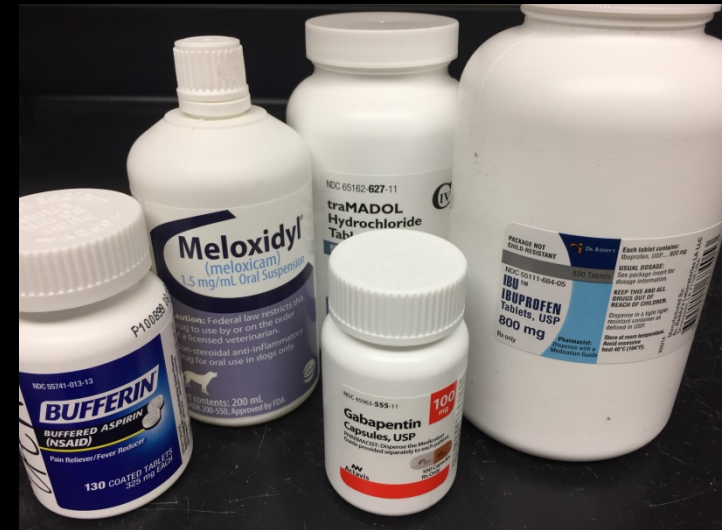
Introduction

- Geriatric Care
 - Goal
 - Management factors to consider
 - Animal welfare/Quality of life



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition
 - Hygiene
 - Behavior and Social needs/status



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition
 - Hygiene
 - Behavior and Social needs/status
 - Mobility



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition
 - Hygiene
 - Behavior and Social needs/status
 - Mobility



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition
 - Hygiene
 - Behavior and Social needs/status
 - Mobility
 - Medical condition



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition
 - Hygiene
 - Behavior and Social needs/status
 - Mobility
 - Medical condition
 - More good days than bad



Introduction

- Geriatric Care
 - Goal
 - Quality of Life
 - Pain management
 - Weight and body condition
 - Hygiene
 - Behavior and Social needs/status
 - Mobility
 - Medical condition
 - More good days than bad





Quality of Life Plan

Updated:

Animal:

History:

Pain Management

Are any of the following parameters present.....Y or N

Diagnosis of an illness or injury that is deemed life threatening and no treatment options are available/feasible.

Maxed out on pain meds and still appears painful- describe what that would look for this animal.

Example: vocalizing in pain, shaking, laying down excessively, holding/propping herself up when standing or sitting, limited mobility, etc.

Chronic painful urination or defecation- describe what that would look like for this animal.

Example: straining, shaking, vocalizing in pain

Weight and Body Condition

Are any of the following parameters present.....Y or N

Losing weight even though maintaining a normal appetite for ___ months in a row.

Cannot go below ___ pounds

Will weigh weekly if goes below ___pounds

Loses appetite- does not eat anything for more than ___ despite being offered high value items

Body condition score of ___

Hygiene

Are any of the following parameters present.....Y or N

Fecal soiled back legs and no attempt to clean them or be groomed

Laying in feces or urine

Urine bum on back legs

Behavior/Social Needs

Are any of the following parameters present.....Y or N

Appears to be "normal"- describe what that looks like for this animal. Example: social with other baboons, some interaction with keepers, eye flashes or displays if threatened

Are social/psychological needs met?, describe what that looks like for this animal. Example: grooms others and is groomed by others, interacts with other baboons, explores enrichment appropriately

Mobility

Are any of the following parameters present.....Y or N

Inability to shift for more than ___

Struggling to get over shift stoops and in/out steps despite modifications

Stumbling, ataxic, or weak in the back legs that does not resolve with medications for ___

Unable to navigate environment due to vision loss- unable to find food and/or water

Unresponsive or unable to get up for ___ despite extreme efforts to get her to move- physically trying to move/poke, loud noises, etc.

Unable to navigate environment to find shelter and bedding

Unable to find keepers at mesh to take food/meds as necessary

Unable to defend self

More good days than bad days

Are any of the following parameters present.....Y or N

An overall decline in a specific or combination of medical parameters with no

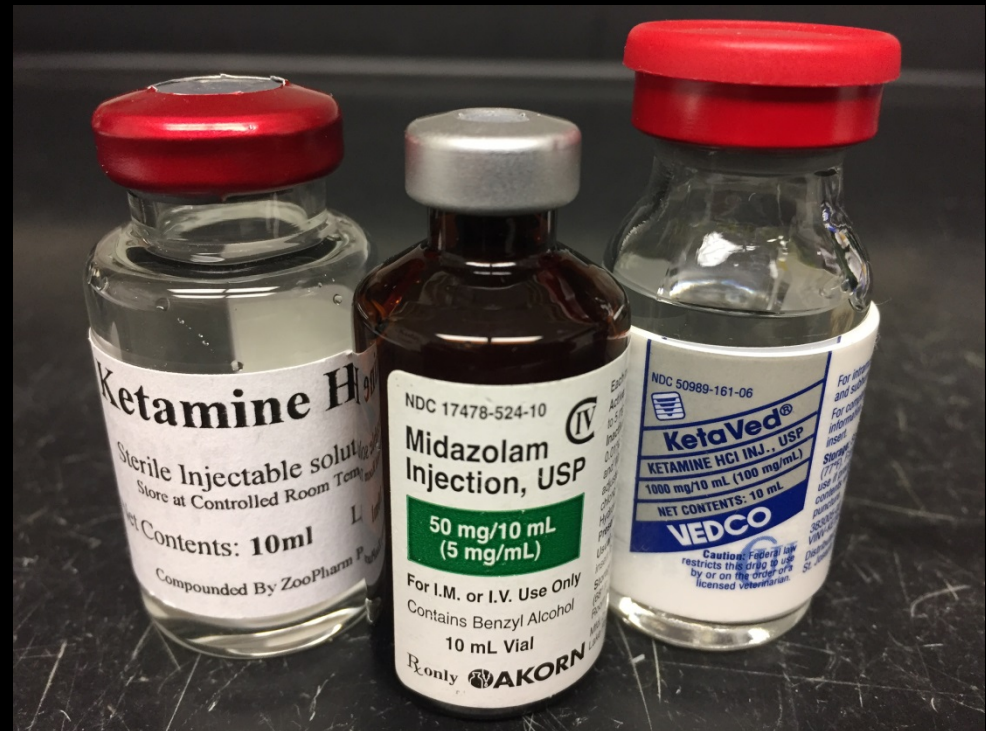
*Please keep in mind these are just guidelines and may need to be reevaluated and/or changed if deemed necessary by management and/or veterinary staff. Open communication between keepers and management is necessary to ensure all information is available so an informed decision can be made.

*It should be noted that the veterinary staff may deem euthanasia necessary at some point before the staff feels that any of these specific criteria are met. It should be known that, although it is extremely important for the animal staff to be involved with monitoring the health of the animals, the ultimate decision in these matters lies with the veterinarians.

Rev 10/2016

Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Safe



Kansas City Zoo

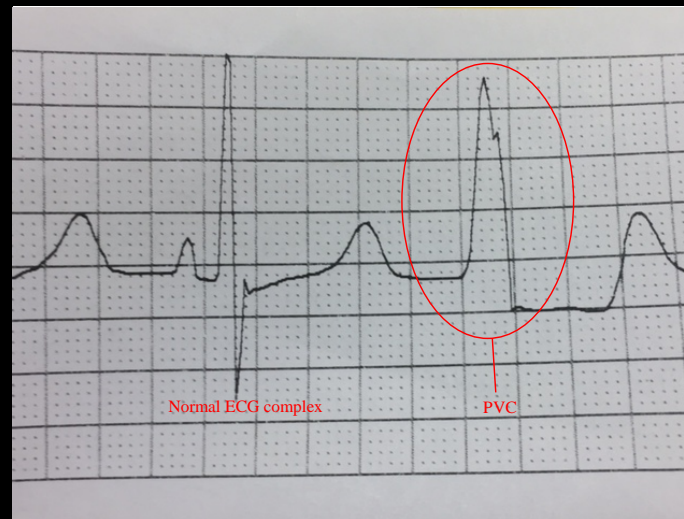
Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Dental evaluation



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Dental assessment



Kansas City Zoo



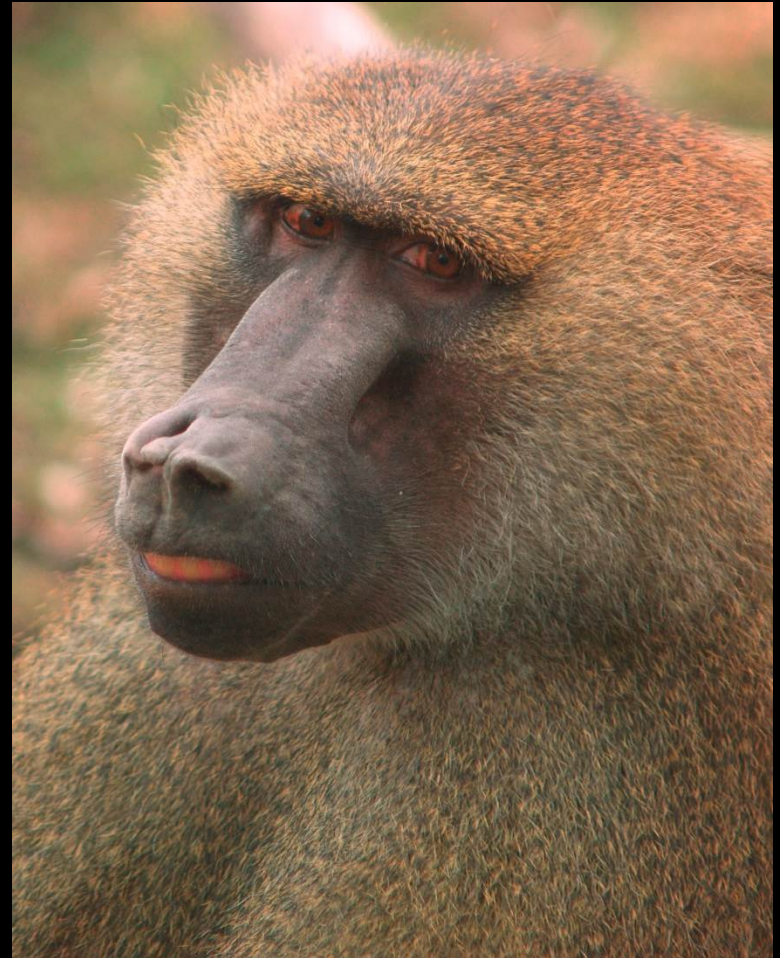
Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Evaluation of organ function
 - » Ultrasound
 - » Laboratory evaluation
 - » Colonoscopy
 - » Gastroscopy
 - » CT/MRI



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment



MK5550109

Ex: 8113

R LAT Abdomen

Se: 1/8

Im: 1/1

Kansas City Zoo
GUINEA BABOON SABURI

1990 May 18 M M0004

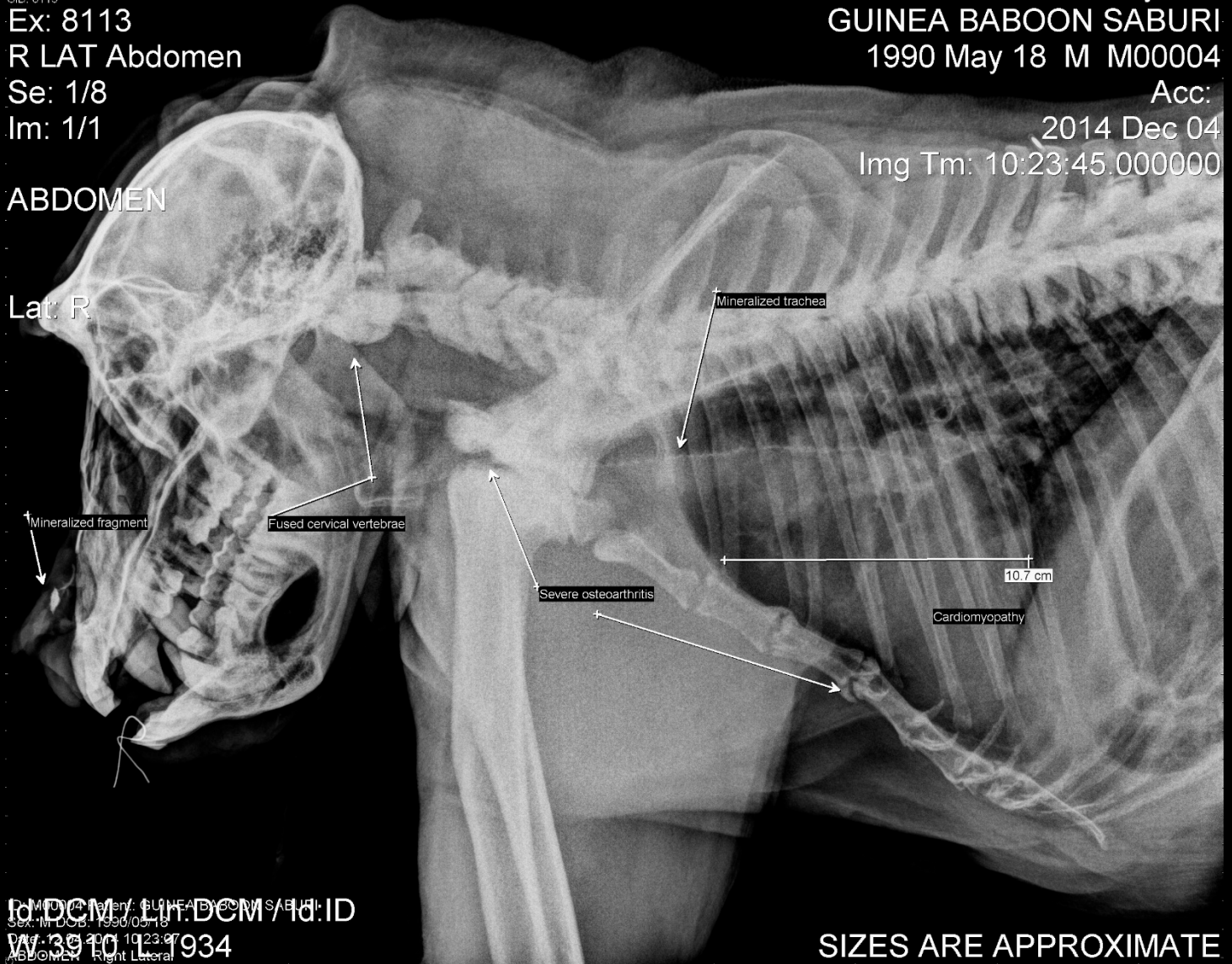
Acc:

2014 Dec 04

Img Tm: 10:23:45.000000

ABDOMEN

Lat: R



Id: DCM / Ln: DCM / Id: ID
Sex: M / DOB: 1990/05/18
W: 3910 / H: 934
ABDOMEN, Right Lateral

SIZES ARE APPROXIMATE

Kansas City Zoo

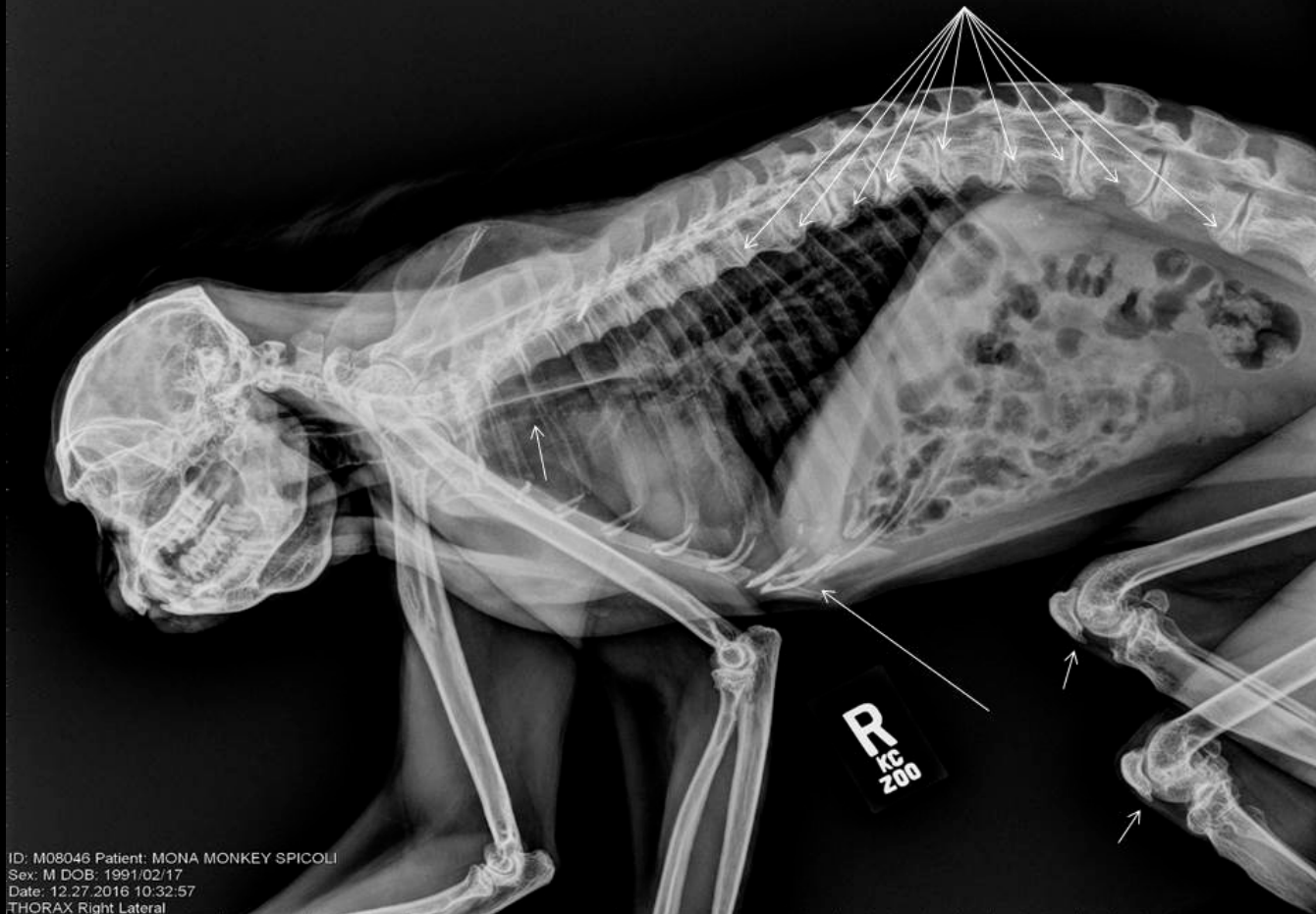
Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Mona monkey



Geriatric Management

Kansas City Zoo
Sound-Eklin Mark V Digital System
SID: 8758



ID: M08046 Patient: MONA MONKEY SPICOLI
Sex: M DOB: 1991/02/17
Date: 12.27.2016 10:32:57
THORAX Right Lateral

Kansas City Zoo

Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Gorilla



Kansas City Zoo

WANTO, , N:No, , ID: 102657,

APR 29 2013 12:38pm

B	F	G	G	61%	
TEI	D	17	cm	XV	C
	PRC	6-5-H	PRS	4	
	PST	4			

0:00:00.28

WKS

PA230



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Orangutan

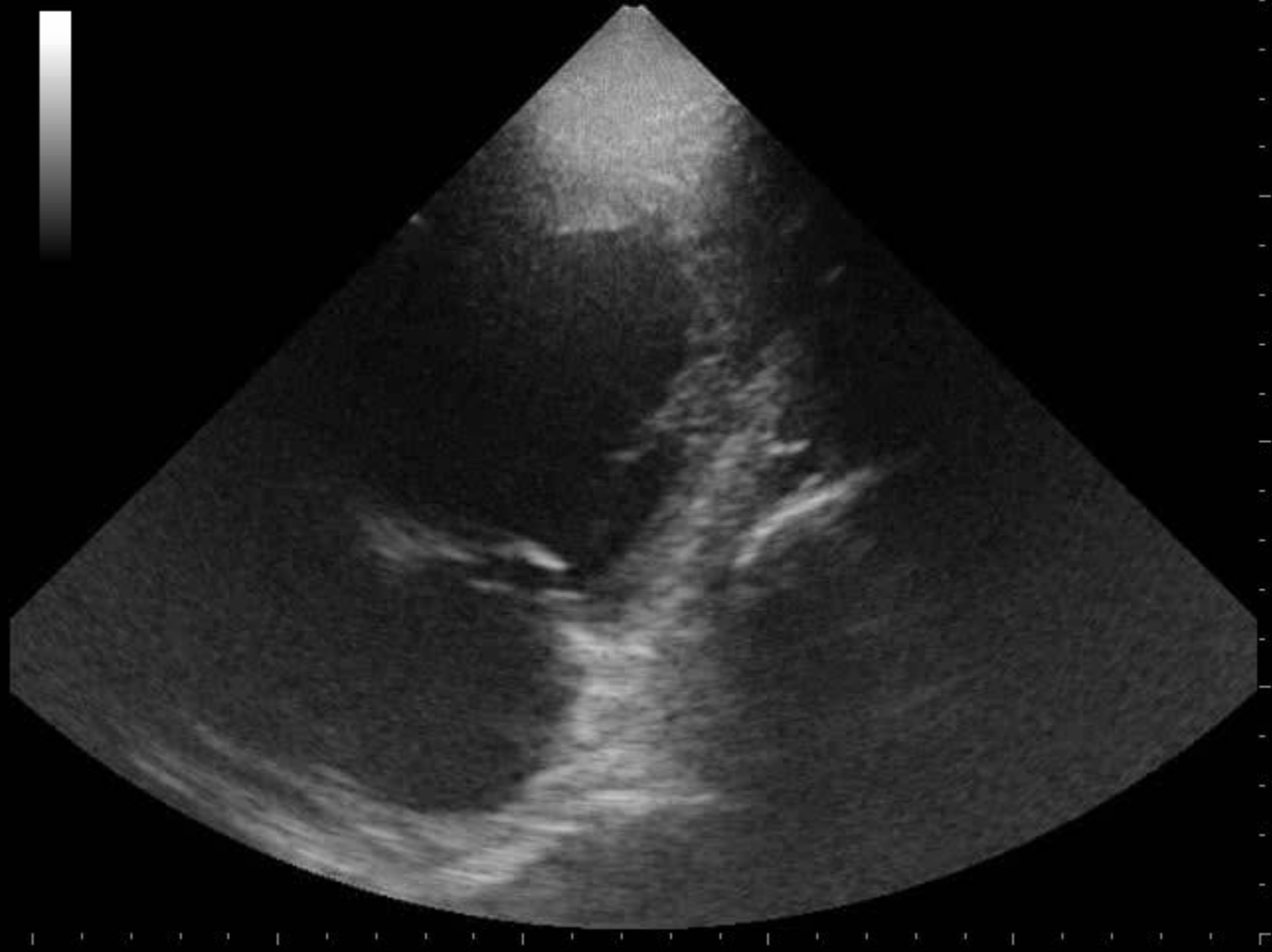


RUFUS, , N:No, , ,

OCT 05 2016 12:22pm
0:00:00.41

B	F	R	G	MAX
TEI	D	19 cm	XV	C
	PRC	11-3-H	PRS	4
	PST	4		

FELINE A PA230



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Ophthalmic exam
 - » Eye pressures



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Health assessment
 - » Body condition-



Geriatric Management

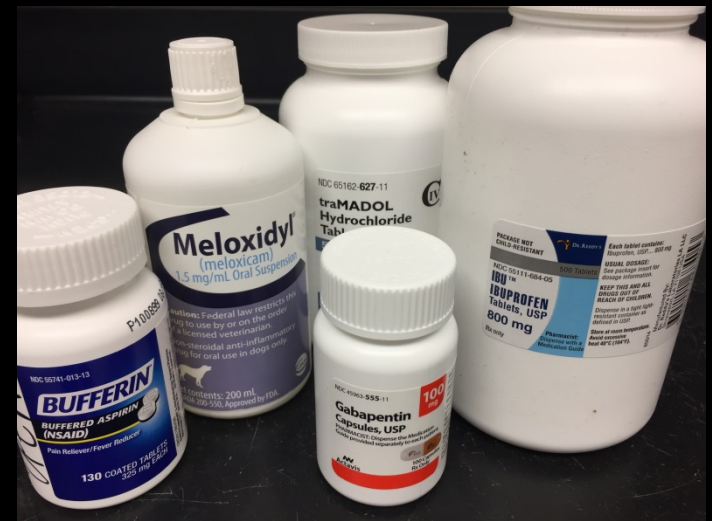
- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition



Kansas City Zoo

Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Chondroprotectants



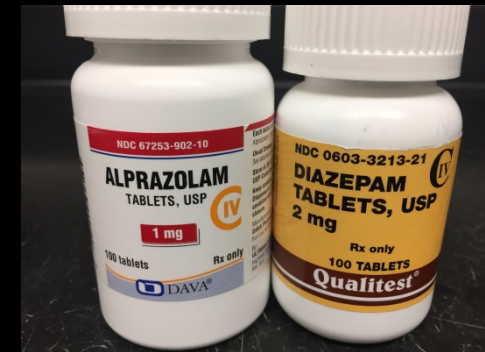
Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status



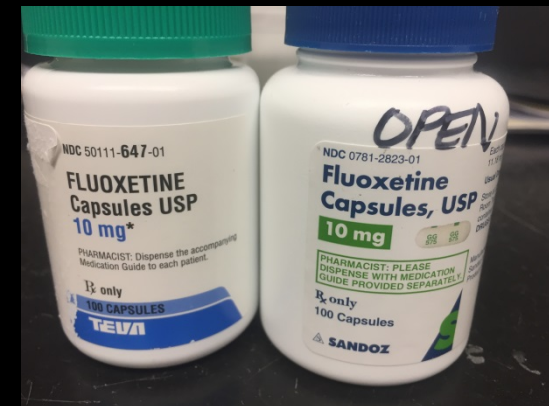
Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - » Single primate
 - » Additional enrichment
 - » Anxiolytics?



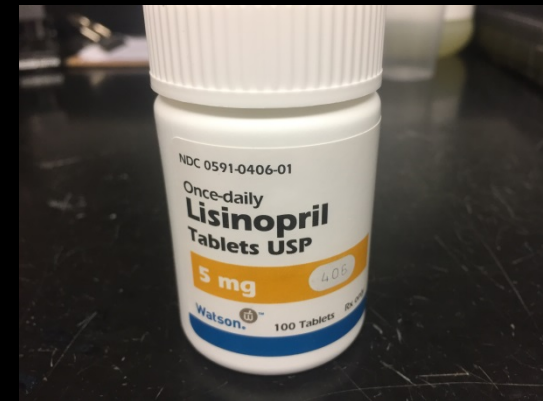
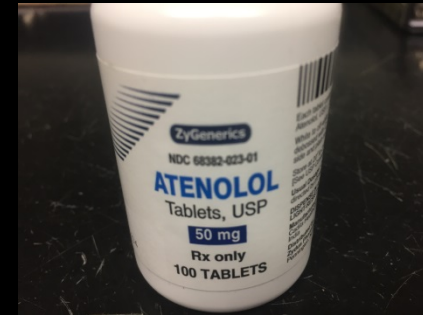
Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - » Single primate
 - » Additional enrichment
 - » Anxiolytics?



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - Medical treatment
 - » Dependent on condition



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - Medical treatment
 - Change in husbandry



Geriatric Management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - Medical treatment
 - Change in husbandry



Geriatric management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - Medical treatment
 - Change in husbandry
 - Euthanasia
 - Complex culmination in quality of life decline



Geriatric management

- Geriatric Care
 - Management
 - Case evaluation
 - Therapeutic approach
 - Nutrition
 - Analgesics/anti-inflammatories
 - Social interaction/status
 - Medical treatment
 - Change in husbandry
 - Euthanasia
 - Necropsy used to learn and help future management of geriatric animals

Discussion

- Geriatric care is a rapidly expanding field of exotic animal medicine
- Many of the preventative and therapeutic modalities can be used in geriatric primate care
- It is essential to initiate a Quality of Life plan for every geriatric animal



Conclusion

- Every animal, regardless of its perceived value or cost of care deserves appropriate geriatric management and support.



The End



Kansas City Zoo