

Top Tips for surviving the blocked cat

Susan Little, DVM, DABVP (Feline)
Bytown Cat Hospital, Ottawa, ON, Canada
@catvetsusan
catvet@vin.com



1

6 evenings all about cats
Feline Inspiration Days - Webinar Series
Join us in March and April 2021

Boehringer Ingelheim

THANK YOU!

The slide features a purple header bar with three circular cat photos. Below the header, there's text about the webinar series, followed by the Boehringer Ingelheim logo and a large "THANK YOU!" sign with a small plant at the base.

2

My top tips

01

Assess & stabilize first!

02

Consider decompressive
cystocentesis

03

Try a sacrococcygeal block

04

Use the best catheter & good
technique

05

Don't prescribe antibiotics
without good reason

06

Have a long term prevention
strategy



susan little
dvm, dabvp
-@CATVETSUSAN-

3

01

Assess & stabilize
first!



susan little
dvm, dabvp
-@CATVETSUSAN-

4

High potential for bad things

- Hyperkalemia
- Azotemia
- Metabolic acidosis
- Cardiovascular compromise
- Arrhythmias
- Uremia
- Acute kidney injury



susan little
dvm, dabvp
-@CATVETSUSAN-

5

Minimum database

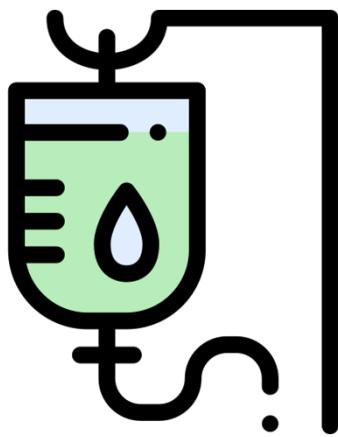
- Hematocrit
- Total protein
- Electrolytes
- +/- (ionized) calcium
- BUN & creatinine



susan little
dvm, dabvp
-@CATVETSUSAN-

6

To treat shock



Weight (kg) x 10 =
1/4 of shock dose,
give as a bolus

• • •

4.5 kg cat x 10 =
45 mL bolus
(1/4 of shock dose)



susan little
dvm, dabvp
-@CATVETSUSAN-

7

Calculating fluid needs



To get started:

- 4-6 mL/kg/hour
- Up to 8-10 mL/kg/hour if needed

Do the math later:

- Fluid deficit = % dehydration x 1000 mL x weight (kg)
 - Replace 80% in 1st 24 hours
- Maintenance = [weight (kg) x 30] + 70
- Deficit + maintenance = needs in 1st 24 hours



susan little
dvm, dabvp
-@CATVETSUSAN-

8

Avoid overhydration!

Early signs

Trembling, restlessness,
excitation
Vocalization
Panting, tachypnea
Vomiting, nausea
Polyuria



susan little
dvm, dabvp
-@CATVETSUSAN-

9



IV fluid choices

1. **Balanced electrolyte solution (lactated Ringers, Hartmann's)**
 - 4 mEq/L potassium, 3 mEq/L calcium
2. Replacement solution
 - 5 mEq/L K+
3. Avoid normal saline when possible
 - It's acidifying



susan little
dvm, dabvp
-@CATVETSUSAN-

10

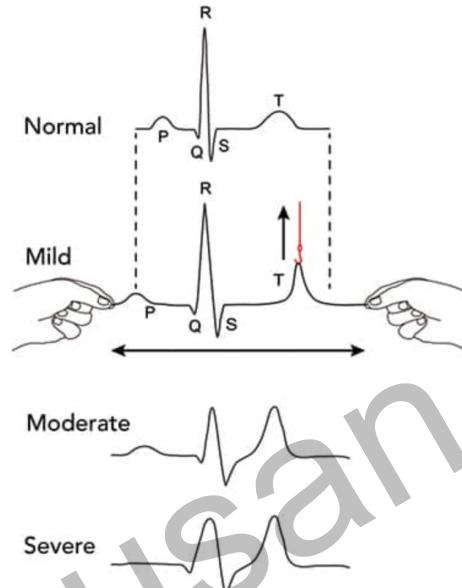
Feline Urethral Obstruction: Diagnosis & Management

SCAN ME



TVP
TODAY'S VETERINARY PRACTICE

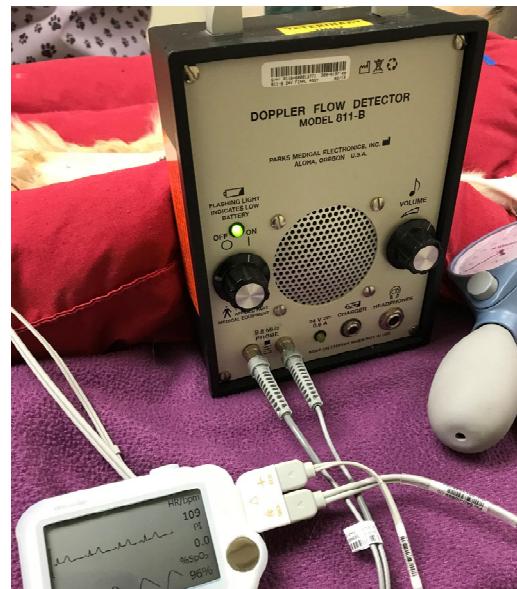
Effects of Hyperkalemia on a Lead II ECG Rhythm Strip



11

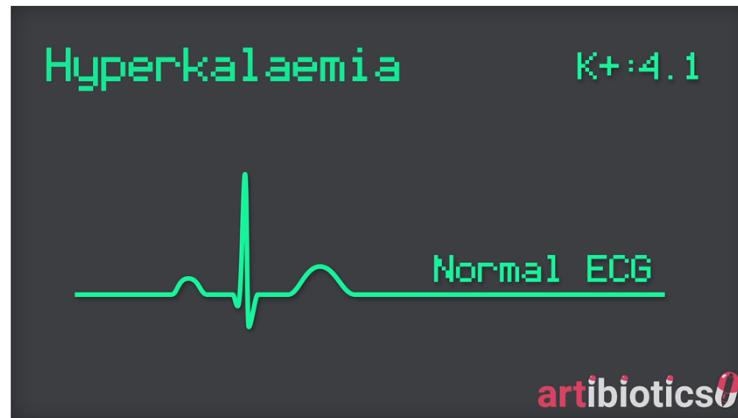
Predictors of hyperkalemia

- Hypothermia 35.0–35.6°C (95–96°F)
- Heart rate <120 bpm
- Weak pulses
- Increased respiratory rate
- Cardiac arrhythmia
- Vomiting
- 1st time obstruction



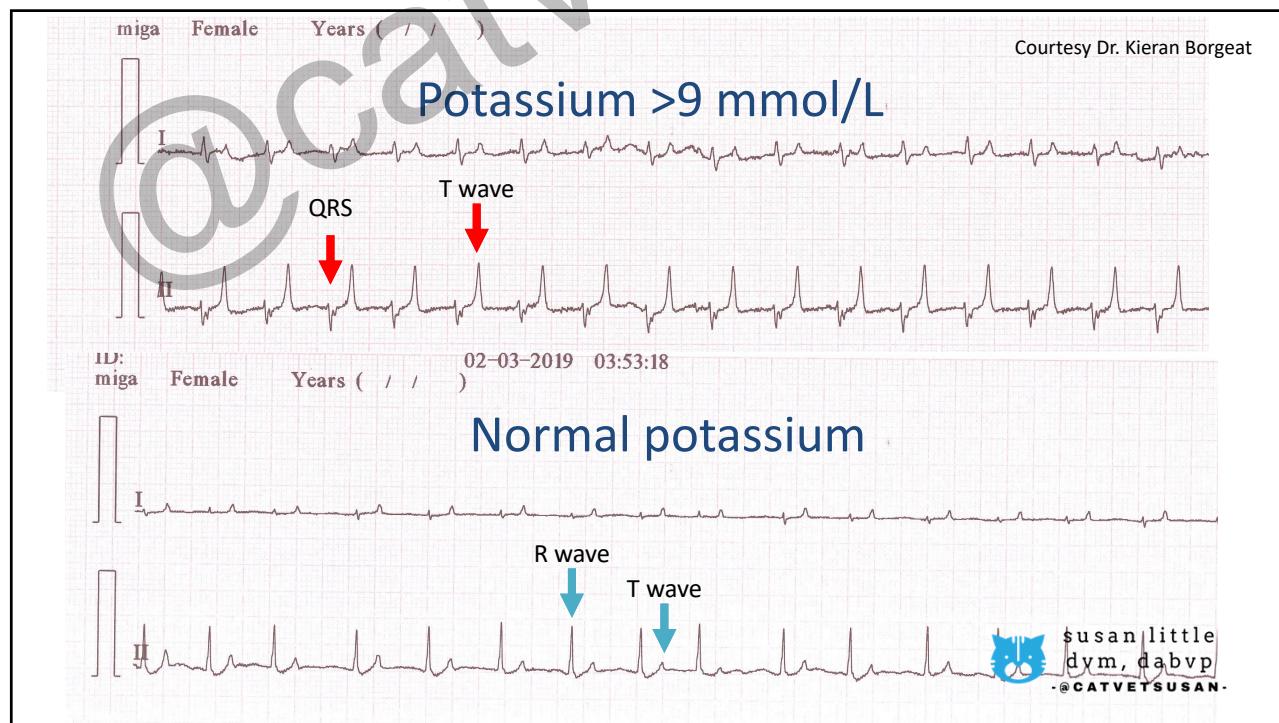
12

Facebook.com/artibiotics



susan little
dvm, dabvp
-@CATVETSUSAN-

13



14

Treatment options for hyperkalemia

	Potassium mEq/L	Treatment options
MILD	<6	Fluid therapy for dilution
MODERATE	6-8	Sodium bicarbonate: 1-2 mEq/kg IV over 10-15 min, repeat if needed, maximum 4 mEq/kg Dextrose (50%): 1 mL/kg IV, dilute to 10-20% Regular insulin: 1 unit IV with dextrose
SEVERE	>8	Calcium gluconate (10%): 0.5 mL/kg IV, over 5-10 min, monitor ECG Followed by regular insulin with dextrose.



susan little
dvm, dabvp
-@CATVETSUSAN-

15

02

Consider decompressive
cystocentesis



susan little
dvm, dabvp
-@CATVETSUSAN-

16

Benefits of decompressive cystocentesis



17

Outcome of male cats managed for urethral obstruction with decompressive cystocentesis & urinary catheterization



47 male cats with urethral obstruction



Decompressive cystocentesis before catheterization



No adverse effects!

Hall et al, J Vet Emerg Crit Care, 2015

susan little
dvm, dabvp
-@CATVETSUSAN-

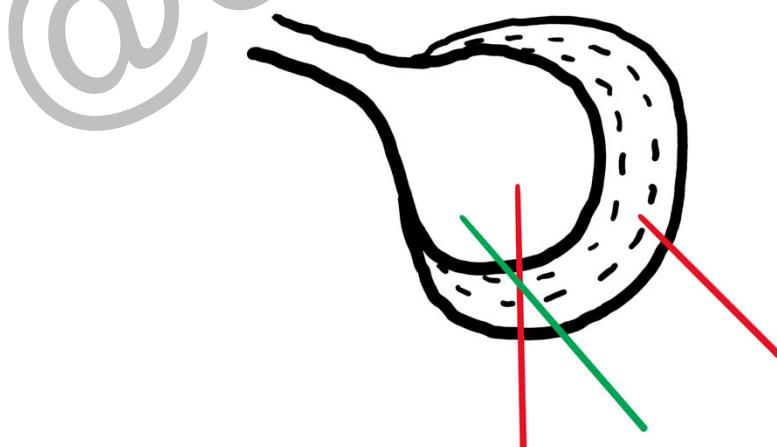
18

Decompressing the bladder safely

- 22g butterfly or needle/extension set
- Stopcock + 20 mL syringe
- Insert needle once and prevent movement



19



susan little
dvm, dabvp
-@CATVETSUSAN-

20

03

Try a sacrococcygeal block

susan little
dvm, dabvp
-@CATVETSUSAN-

21

Sacrococcygeal block



Blocks caudal urogenital tract, colon, anus, perineum, tail



Takes effect in <10 min



Duration is 60 min for lidocaine & 180 min for bupivacaine

Sedate cat with benzodiazepine & opioid

Sternal recumbency & surgical prep of sacrococcygeal area

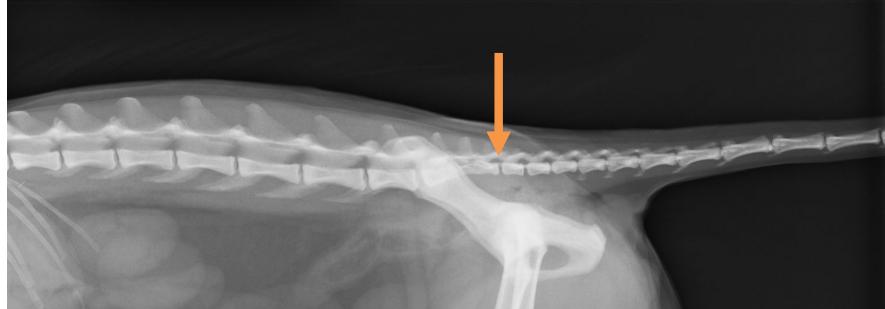
25G x 1" needle with 0.5 mL 2% lidocaine

Sacrococcygeal space or 1st-2nd coccygeal space



susan little
dvm, dabvp
-@CATVETSUSAN-

22



susan little
dvm, dabvp
-@CATVETSUSAN-

23

Potential benefits of a sacrococcygeal block



- Perform under sedation
- General anesthesia not needed



- Easier to extrude penis
- Reduces resistance to flushing



- Takes less time to unblock (?)



susan little
dvm, dabvp
-@CATVETSUSAN-

24



- ✓ Blocks caudal urogenital tract, colon, anus, perineum, tail
- ✓ Takes effect in <10 minutes
- ✓ Lidocaine: 60 minutes
Bupivacaine: 180 minutes

 susan little
dvm, dabvp
-@CATVETSUSAN-

25

 YouTube Sacrococcygeal block, Angie O'Hearn,
Robin Van Metre




 Scan me

 susan little
dvm, dabvp
-@CATVETSUSAN-

26

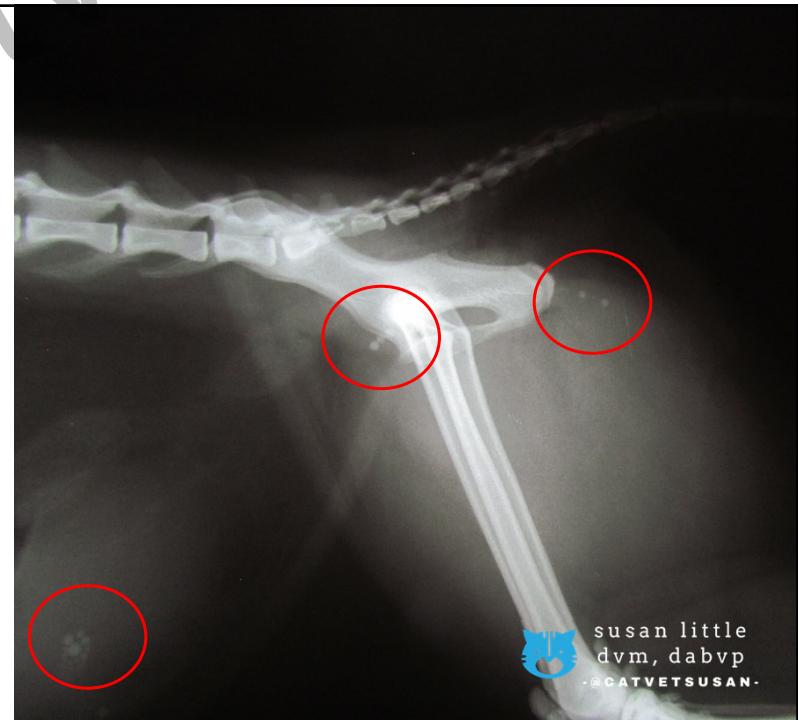
04

The best catheter
& good technique

susan little
dvm, dabvp
-@CATVETSUSAN-

27

@Catvetsusan
Radiograph
the entire
urinary
tract!



susan little
dvm, dabvp
-@CATVETSUSAN-

28

14

The scoop on urethral catheters



Use the least traumatic catheter available



Use the right length of catheter



Apply lidocaine gel to the catheter



Use warm saline for flushing



susan little
dvm, dabvp
-@CATVETSUSAN-

29

MILA tomcat catheters with stylet
milainternational.com

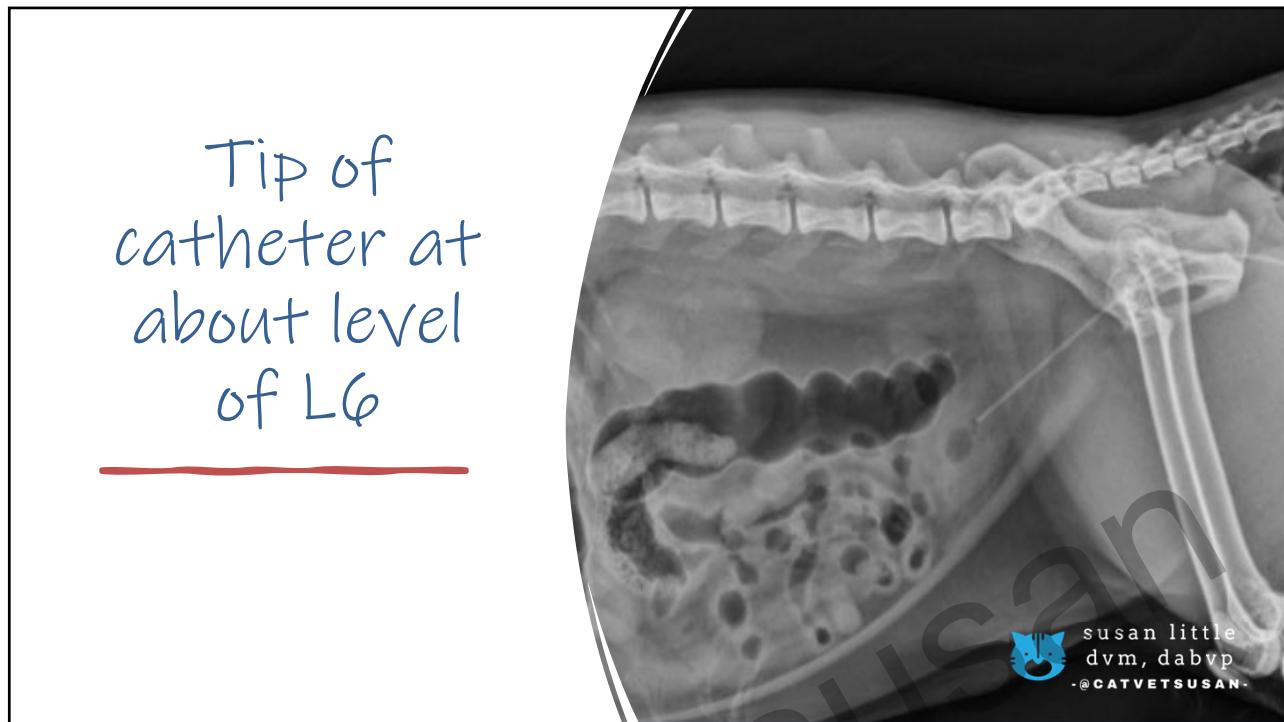
- Use to unblock & for indwelling
- Flush through stylet
- Length-adjustable
- Rigid to insert, softens at body temperature
- 3.5 and 5Fr
 - 6 in (15 cm) & 10 in (25 cm)



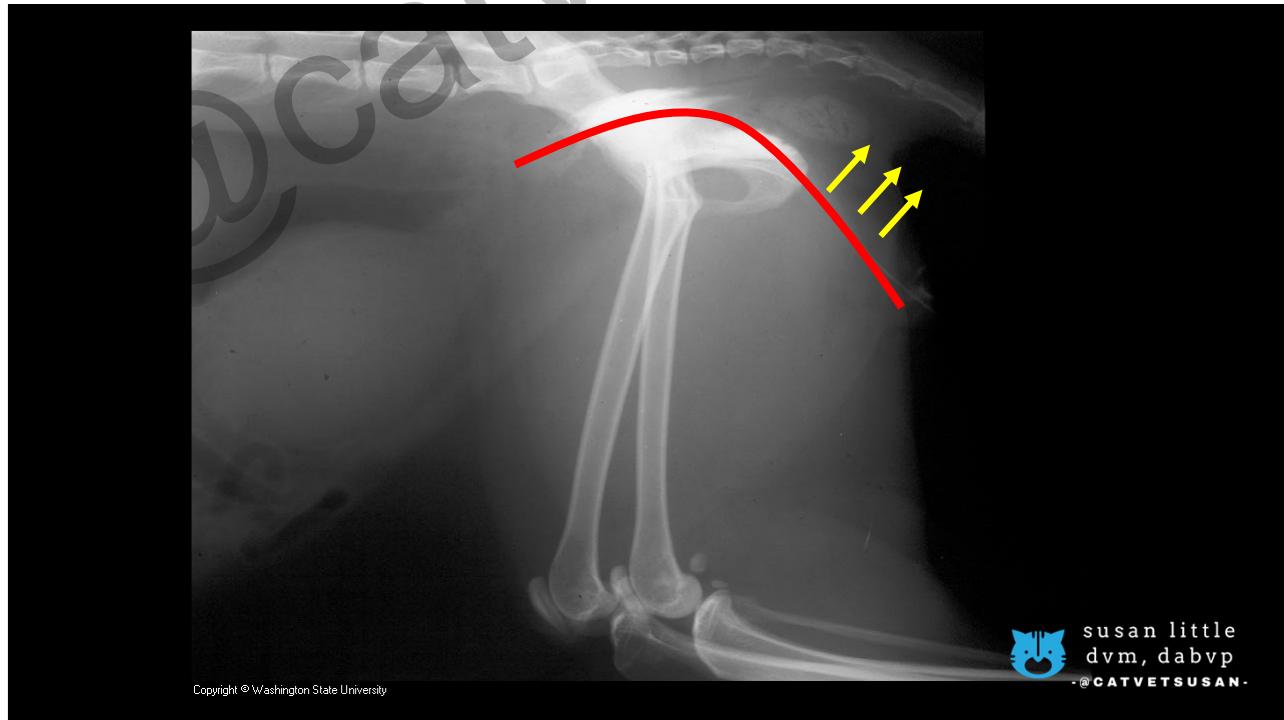
SCAN ME



30

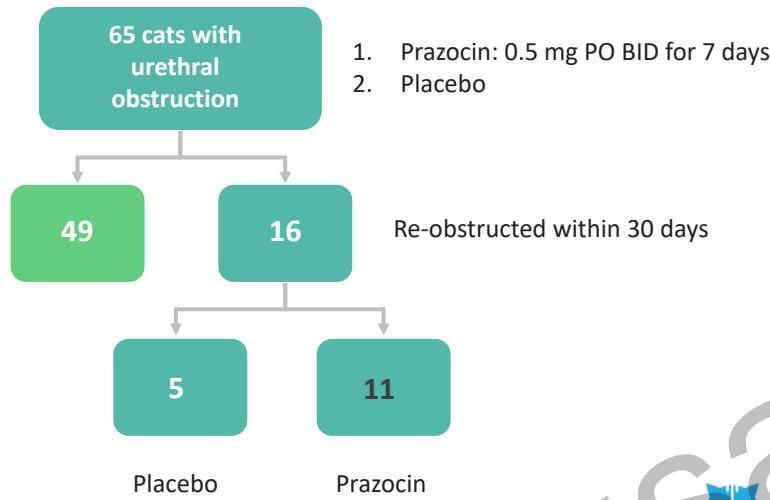


31



32

Can we treat urethral spasm? Maybe not ...



Hanson, et al. J Feline Med Surg, 2021

 susan little
dvm, dabvp
-@CATVETSUSAN-

33



34

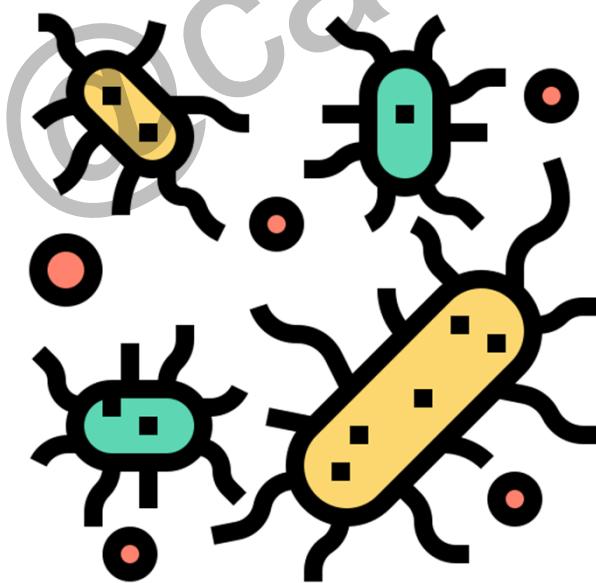
05

Antibiotics only
when necessary



susan little
dvm, dabvp
-@CATVETSUSAN-

35



Prevalence of
bacteriuria in
catheterized dogs
and cats is high
(10–55%)

Most cases are
subclinical



susan little
dvm, dabvp
-@CATVETSUSAN-

36

18

What about antibiotics?



Don't prescribe prophylactic antibiotics without a good reason



Don't culture urine without a good reason



Don't do urine cytology routinely



Don't treat subclinical bacteriuria unless the patient is at risk



susan little
dvm, dabvp
-@CATVETSUSAN-

37

why?
@CatVetSUSAN



Poor catheter management



susan little
dvm, dabvp
-@CATVETSUSAN-

38

19



International Society for
Companion Animal Infectious
Diseases (ISCAID) guidelines
for the diagnosis and
management of bacterial
urinary tract infections in
dogs and cats.



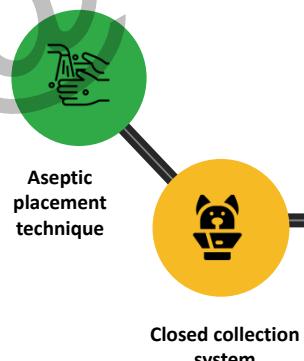
Weese, et al. *The Veterinary Journal*, 2019

OPEN ACCESS

susan little
dvm, dabvp
-@CATVETSUSAN-

39

Here's what IS recommended



Inspect daily for
breaks, fecal
contamination

Remove catheter as
soon as possible

susan little
dvm, dabvp
-@CATVETSUSAN-

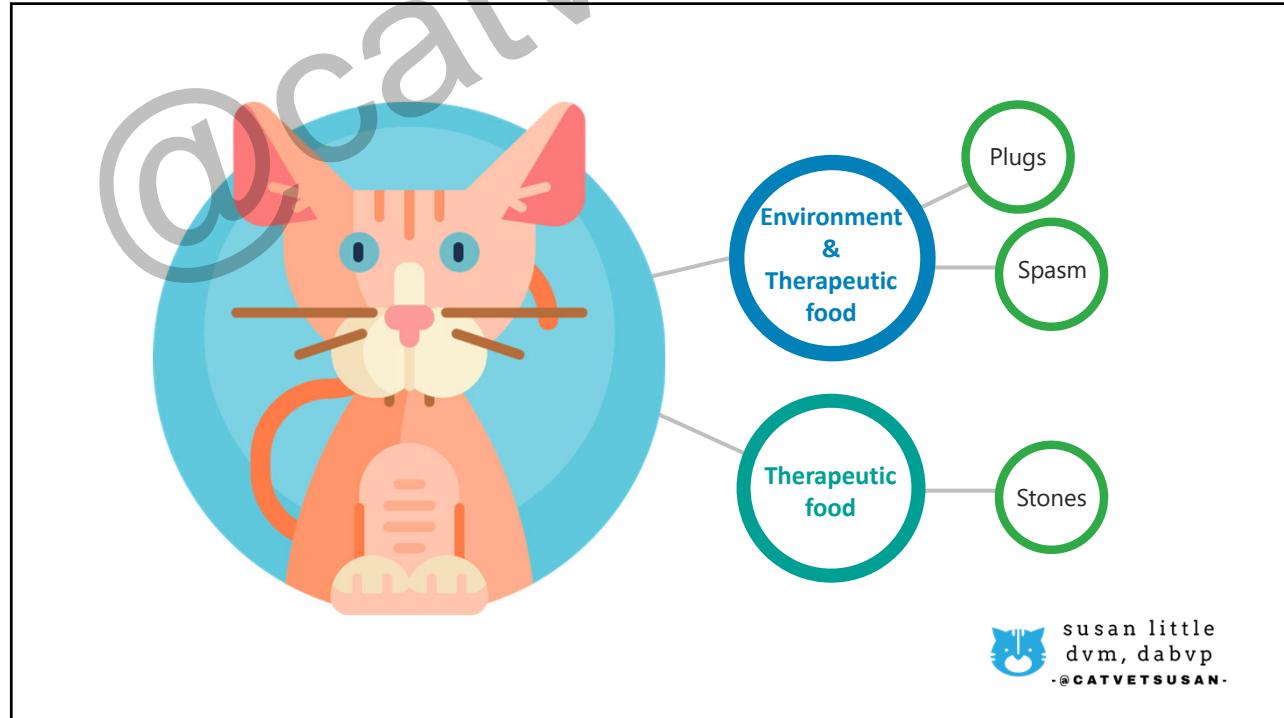
40

06

Have a preventive strategy

susan little
dvm, dabvp
-@CATVETSUSAN-

41



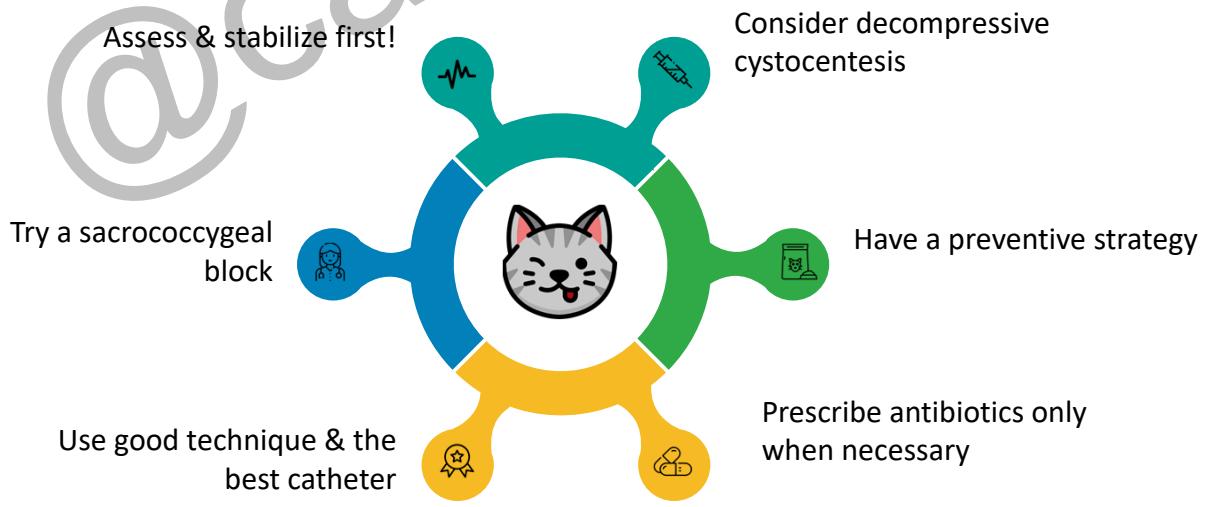
42

But don't start a new food while the cat is hospitalized!



susan little
dvm, dabvp
-@CATVETSUSAN-

43



susan little
dvm, dabvp
-@CATVETSUSAN-

44



catvet@vin.com



@catvetsusan



@purrpodcast



purrpodcast.net

bit.ly/CatBites



drsusanlittle.net