LAB USE ONLY
Date Rec'd_____
# Submitted_____

# MINNESOTA UROLITH CENTER
# QUANTITATIVE UROLITH ANALYSIS FORM

PLEASE SUBMIT STONES **DRY** IN **UNBREAKABLE** CONTAINER (FOR PLUGS SEE BELOW)
**Please copy this form**

Date submitted _____

DOCTOR NAME:

CLINIC NAME:

ADDRESS:

PHONE NUMBER:

FAX NUMBER:

Owner's Name _____

Patient's Name/ID# _____

Species _____

Breed _____

Birth Date _____

Gender: (circle one) M MC F FS Unk

Source: (check all areas samples obtained from)

Upper Urinary Tract
(___) Kidneys
(___) Ureters

Lower Urinary Tract
(___) Bladder
(___) Urethra
(___) Voided

Other _____

Date retrieved or voided_____

What brand of diet was fed prior to urolith retrieval/diagnosis?

_____

How long was this diet fed? _____

Was a prescription diet fed? Yes No

If yes, which one? (check one)

| | | |
|---|---|---|
| c/d(s) | dry (___) | canned (_____) |
| c/d$^{oxl}$ | dry (___) | canned (_____) |
| k/d | dry (___) | canned (_____) |
| l/d | dry (___) | canned (_____) |
| s/d | dry (___) | canned (_____) |
| u/d | dry (___) | canned (_____) |
| w/d | dry (___) | canned (_____) |
| z/d | dry (___) | canned (_____) |

Other_____

How long was this diet fed?_____

Previous Uroliths? . . . . . .Yes No Unk

If yes, date of detection: _____

Mineral composition?_____

Was the urine cultured before/during stone retrieval? . . . . . .

. . . . .Yes No

Bacterial growth? . . . . . Yes No

Isolates: _____

Were antibiotics given prior to stone retrieval? . . . . . .

Yes No

Type/dosage: _____

Were urine acidifiers or alkalinizers given prior to stone retrieval? Yes No

Type/dosage: _____

Was allopurinol given prior to stone retrieval? . . . . . .

Yes No

Dosage and duration: _____

Previous illness or injury:

Dx: _____; Date _____

Dx: _____; Date _____

## FOR FELINE URETHRAL PLUGS ONLY

Preferred method for plug submission:
1/2 dry, 1/2 in formalin

How was the plug preserved? (check)
1. No preservative (___)
2. 10% buffered formalin (___)
3. Other_____

If sample is very small, please submit dry.

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# MINNESOTA UROLITH CENTER

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## WHAT PREVENTATIVE MEASURES SHOULD I TAKE UNTIL I RECEIVE QUANTITATIVE MINERAL ANALYSIS RESULTS?

Urolith formation is a process that typically takes several weeks (eg. infection induced struvite), to months (eg. calcium oxalate)rather than days. The most common "cause" of rapid recurrence of uroliths is incomplete removal at the time of surgery.

Until quantitative mineral analysis on the urolith is completed, we recommend the following steps.

-Perform post-operative radiographs of patients with multiple urocystoliths. Double contrast cystography may be necessary if the urocystoliths were not easily observed on pre-operative survey films.

-If small stones are detected on post-operative films, they may be able to be removed non-surgically either by catheter retrieval[1], or voiding urohydropropulsion[2] after healing takes place.

-Feed a diet unlikely to enhance urolith formation. We typically feed a diet that avoids mineral excess, and promotes a neutral urine pH. We often feed a diet designed for mild to moderate renal insufficiency. If possible, feed a canned diet to promote dilute urine. Once urolith results are received, refer to accompanying recommendation sheets.

-Obtain cystocentesis urine samples to monitor for, and prevent secondary urinary tract infections.


[1]Osborne CA, Lulich JP, Unger LK: Nonsurgical retrieval of uroliths for mineral analysis. In Current Veterinary Therapy XI. pp 886-889, 1992.

[2]Lulich JP, Osborne CA, Unger LK, et al: Nonsurgical removal of urocystoliths by voiding urohydropropulsion. In Journal of the American Veterinary Medical Association. Vol 203, pp. 660-663, 1993.

Osborne CA, et al.: Canine and Feline Urolithiases: Relationship of Etiopathogenesis to Treatment and Prevention. In Canine and Feline Nephrology and Urology, Osborne and Finco 1995, pp 798-888