

## A FEW COMING ATTRACTIONS from ASPCApro

[www.aspcapro.org/webinars](http://www.aspcapro.org/webinars)

- **Let's Talk Fungus** (10/24 – 5-6:30pm ET)  
*New Q&A session tomorrow!*
- **After the Grant Award** (11/07)
- **Canine Assessment: SAFER Overview & Research** (11/28)
- **Helping Adopted Dogs Adjust to New Homes** (12/06)
- **Building a Better Website** (12/11)



**Sandra Newbury, DVM**

Koret Shelter Medicine Program  
Center for Companion Animal Health  
U C Davis School of Veterinary Medicine  
[www.sheltermedicine.com](http://www.sheltermedicine.com)  
[www.facebook/sheltermedicine.com](https://www.facebook.com/sheltermedicine.com)

Adjunct Assistant Professor of Shelter Animal Medicine  
Department of Pathobiological Sciences  
University of Wisconsin-School of Veterinary Medicine



## Beating Ringworm? Yes You Can!



DCHS Graduates



## Two Case Studies



SF SPCA  
San Francisco, CA



Dane County  
Humane Society  
Madison, WI



## Is it worth it?

“Taking on ringworm with a **logical** screening, diagnostic and treatment program – rather than just fretting about it – is well worth the effort. Not only does it save a lot of lives through screening and treatment, it can be a great way to develop and give confidence to your medical and adoption staff. We respect ringworm and the damage it can do to an adoption program but we know how to handle it so, for us, it only enhances our life saving efforts. Thanks RW!”

–Dr. Jennifer Scarlett Co-President The San Francisco SPCA



## Is it worth it?

“Dane County Humane Society is proud and grateful to participate in operating a high quality standards of care life-saving ringworm treatment program for cats along with the compassion and expertise given by UC Davis and UW Veterinary School of Medicine. This partnership has truly impacted our shelter operations and has been an inspiration to staff, volunteers, our community and donors. We look forward to continuing to grow the program in the future to help save even more cats.”

–Pam McCloud Smith Director Dane County Humane Society



## Program set up

### **Dane County Humane Society- Madison, WI**

- ❖ First program of its kind in 2003
- ❖ Initiated by an amazing group of volunteers seeking change led by Sally Green
- ❖ Previous recognize and euthanize policy failed to control disease problems
- ❖ Designed by two veterinarians with diverse expertise
  - ❖ Dr. Sandra Newbury - Shelter Medicine
    - ❖ DCHS Director of Medical Services in 2003
  - ❖ Dr. Karen Moriello- Dermatology
    - ❖ Research focus on ringworm



## Program set up

### **SF SPCA**

- ❖ Staff Driven
- ❖ Followed model from DCHS / UC Davis
- ❖ Staff veterinarians
- ❖ Staff technicians



## Program supervision

### DCHS

- ❖ UC Davis KSMP / University of Wisconsin
- ❖ **Staff Veterinarians**
- ❖ Clinic Manager
- ❖ Programs Supervisor
- ❖ Ringworm program coordinator



## Program supervision

### SF SPCA

SPORE (Shelters Preventing Outbreaks of Ringworm through Education)

- ❖ **Staff Veterinarians**
- ❖ Shelter Director – DVM
- ❖ Foster Associate – Ringworm program coordinator
- ❖ Advice from UC Davis KSMP



## Program staffing

### DCHS - Primarily volunteer staffing

- ❖ Staff veterinarians
- ❖ Medical Services Supervisor
- ❖ Staff coordinator
  - ❖ 10 hours a week
- ❖ **Incredible volunteers**
  - ❖ Culture reading
  - ❖ Daily treatment
  - ❖ Cleaning and feeding
  - ❖ Topical treatment
- ❖ Treatment cultures - UW



ASPCA  
ASPCA.org

## Program staffing

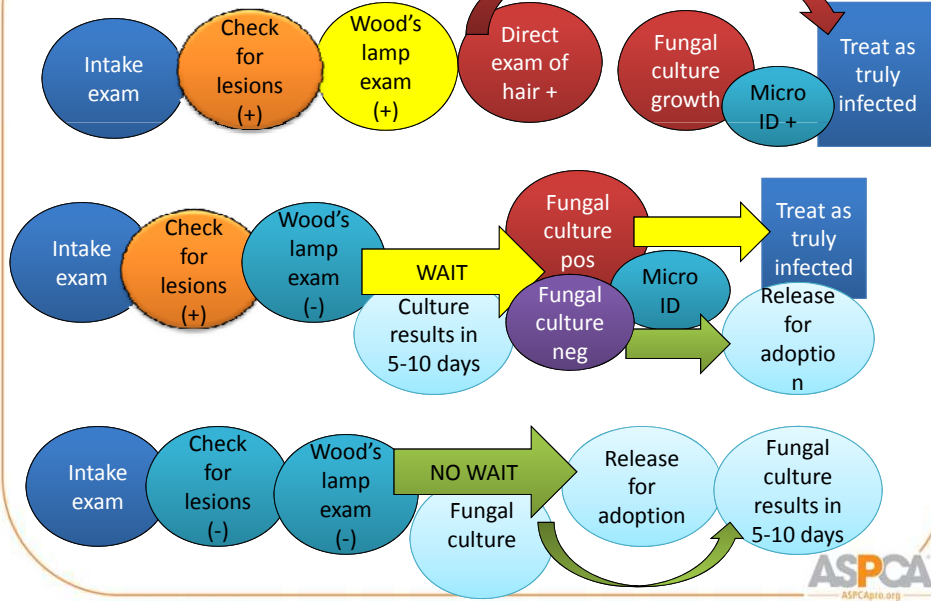
### SF SPCA – Primarily paid staff

- ❖ Staff Veterinarians
- ❖ Technician staff
  - ❖ Culture reading
  - ❖ Daily treatment
  - ❖ Cleaning and feeding
  - ❖ Topical treatment

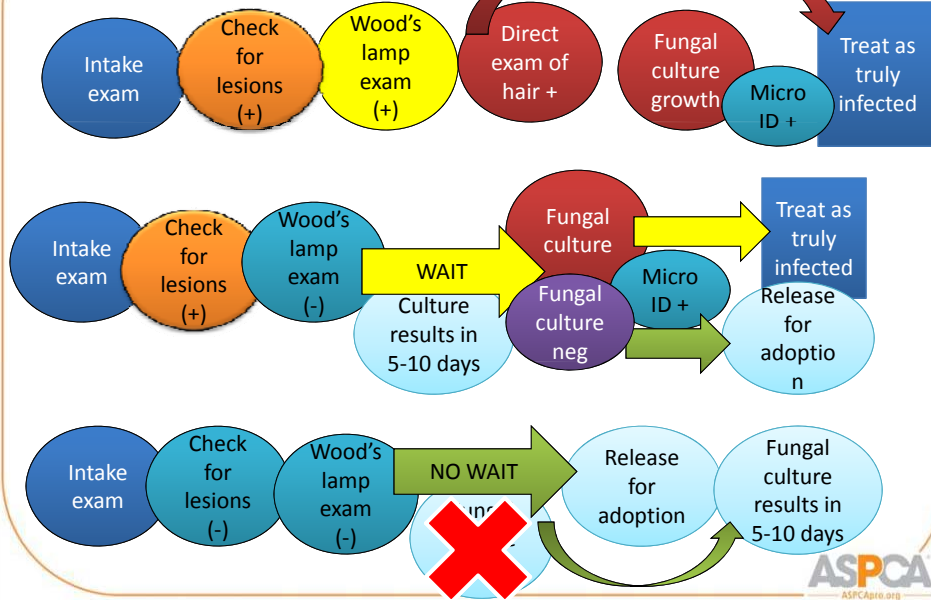


ASPCA  
ASPCA.org

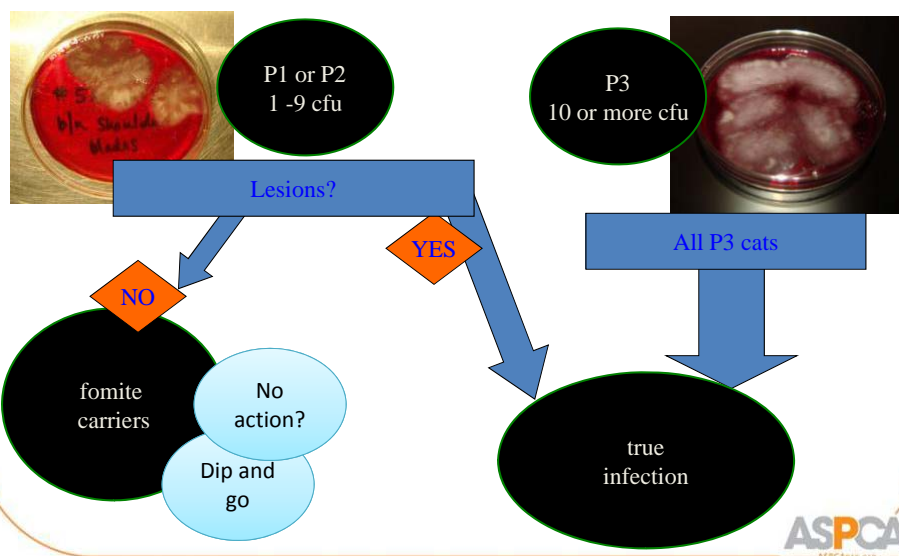
## DCHS Program Flow Through



## SF SPCA Program Flow Through



## Assessment of Non-Lesional Cats Based on Pathogen Score Results



## Bonded pairs and littermates Non-Lesional – Culture negative

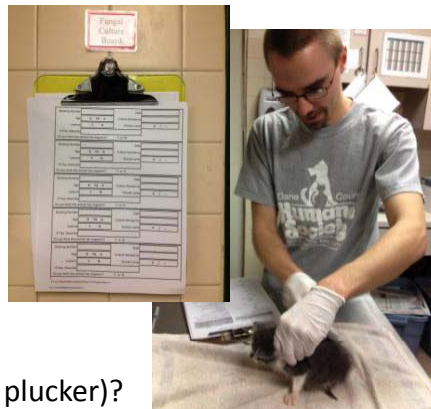
- ❖ Judgment call
  - ❖ Risk
  - ❖ Socialization
  - ❖ LOS
- ❖ Topical treatment and co-housing
- ❖ Dip and go
- ❖ Subdivide orphan litters by status





## Intake – Set up and training

- ❖ Where's the outlet?
- ❖ Where's the switch?
- ❖ Where's the Wood's lamp?
- ❖ Where's the training?
- ❖ Where are the gloves?
- ❖ Where is the gown?
- ❖ Where's the towel?
- ❖ Where's the toothbrush?
- ❖ Where's the hemostat (hair plucker)?
- ❖ Where's the mineral oil?
- ❖ Where's the slide
- ❖ Where's the microscope?



ASPCA  
ASPCA.org

## Reception

- ❖ Intake culture
- ❖ Dip before entry
- ❖ No clipping necessary
  - ❖ Persians or truly long haired cats – exception
  - ❖ Control the spread of hair!
  - ❖ **Cool clippers frequently!**
- ❖ Last one in / last one cleaned
- ❖ 2-3 kittens per housing unit
- ❖ Singles need more love
  - ❖ Balance socialization with time to cure
  - ❖ Other infectious disease concerns
- ❖ Identify needs
- ❖ Identify other infectious disease concerns



ASPCA  
ASPCA.org

## Fungal Culture Management

- ❖ Warm room or incubator
  - ❖ 78-80 degrees F
- ❖ Cultures in bins by week
- ❖ Record keeping
  - ❖ Paper notebook
  - ❖ Excel sheet
  - ❖ Database
- ❖ Move bins on the same day each week
- ❖ **Quick** visual exam of each culture every day until finalized
- ❖ Micro Id for suspect cultures



ASPCA  
ASPCA.org

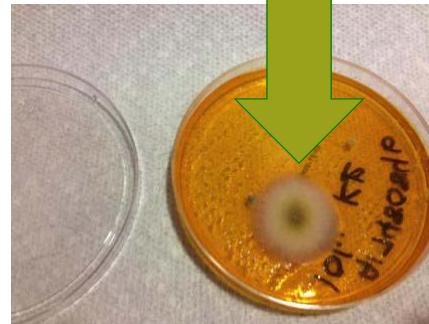
## Fungal Culture Management

- ❖ No growth
- ❖ Suspect
- ❖ Contaminate
- ❖ Heavy contaminate
- ❖ Can't say positive without a microscope



ASPCA  
ASPCA.org

## DO I NEED TO LOOK AT THIS CULTURE UNDER A MICROSCOPE?



ASPCA  
ASPCA.org

## Microscopic Identification



*M. canis*



*M. gypseum*

ASPCA  
ASPCA.org

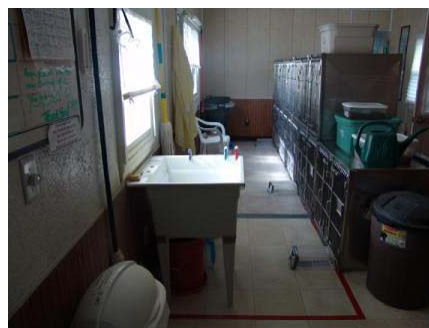
## Fungal Culture Lab Management

- ❖ Cleanliness\*\*\*
- ❖ Paper towels on work counter under all fungal cultures
- ❖ Regularly clean work surfaces
- ❖ Cultures only open long enough to sample
- ❖ Dispose of cultures as biohazard
- ❖ Supplies organized
  - ❖ Microscope
  - ❖ Slides
  - ❖ Stain
  - ❖ Camera



ASPCA  
ASPCApre.org

## DCHS isolation facility



- ❖ Two dedicated wards within treatment area
- ❖ Each ward has stainless steel
  - ❖ 9 general treatment
  - ❖ 6 ringworm + URI

ASPCA  
ASPCApre.org

## Treatment Housing – DCHS



ASPCA  
ASPCA.org

## DCHS isolation facility

- ❖ Still...
- ❖ Two dedicated wards within treatment area
- ❖ Each ward has stainless steel
  - ❖ 9 general treatment
  - ❖ 6 ringworm + URI



ASPCA  
ASPCA.org



## Treatment Housing – SF SPCA

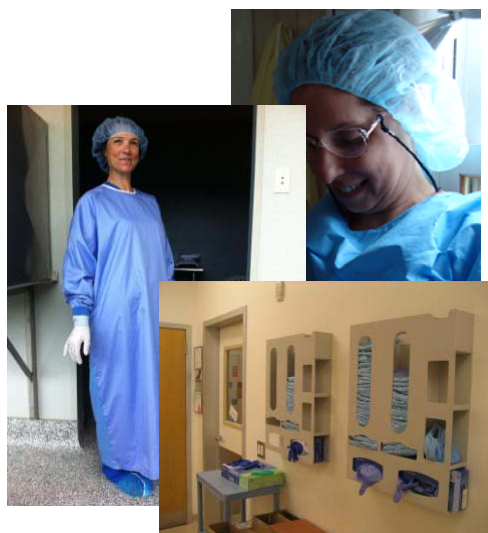
- ❖ Three dedicated wards within treatment area
- ❖ Each ward has stainless steel
  - ❖ 3 single sided “dog run” type
  - ❖ 2 large cages
- ❖ Additional overflow / flexible wards



ASPCA  
ASPCA.org

## Protection for humans

- ❖ Disposable gowns
  - ❖ Washable gowns save on landfill
- ❖ Gloves
- ❖ Shoe covers
  - ❖ Dedicated easy to remove shoes
    - ❖ Crocs
    - ❖ Rubber boots
- ❖ Optional (but attractive) cap



ASPCA  
ASPCA.org

## Sanitation

- ❖ Current research on minimum daily disruption in a managed treatment center
- ❖ Dip prior to entry dramatically reduces environmental contamination



*Special thanks to Eileen Ribbens of The Wisconsin Puppy Mill Project for the new DCHS cleaning carts*



## Sanitation

- ❖ Stress reduction
- ❖ Control kicking up dust
- ❖ High level of general room cleaning
  - ❖ Clear surfaces
  - ❖ Storage in closed bins
- ❖ Mechanical removal of spores is most important
- ❖ Frequent bedding changes
- ❖ Prevent cross contamination



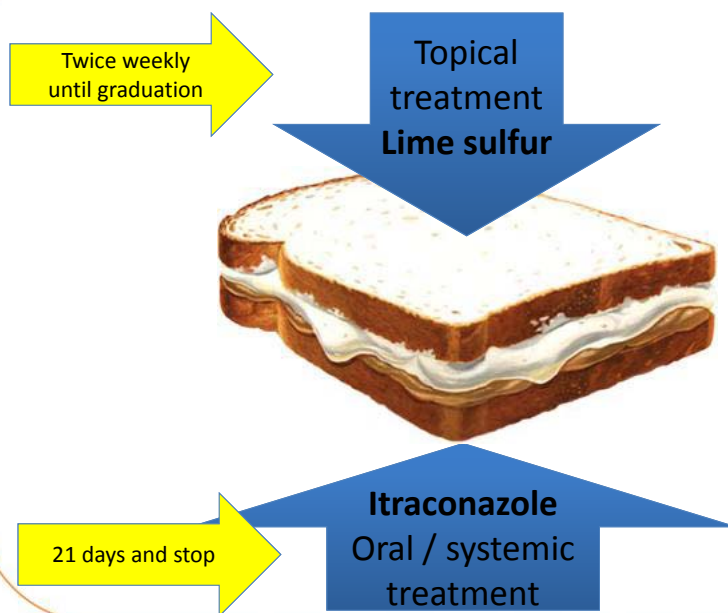
## Laundry

- ❖ Bag as it is removed from the cage
- ❖ Laundered just after cleaning
- ❖ Don't overload the wash
- ❖ Use dryer at high heat
- ❖ Clean laundry stored in closed bins



ASPCA  
ASPCA.org

## Both programs: Treatment



ASPCA  
ASPCA.org



## What about pulse treatment with itraconazole?

- ❖ Confusing (less simple) protocol
- ❖ More expensive
- ❖ Many cats have likely cured by 3 weeks although additional time is needed to finalize cultures
- ❖ Itraconazole has residual activity
- ❖ All our shelter studies have used 21 days only



ASPCA  
ASPCApre.org

## Treatment sheets

- ❖ Standardized protocol
- ❖ Standardized forms
- ❖ Consistency helps staff

ASPCA  
ASPCApre.org

## Topical Treatment Garden Sprayers

- Tuesdays and Fridays
- Sundays and Thursdays
- Half gallon sprayer is preferred.
- Easily lifted when full.
- Solution stays warm.
- Short stubby spray nozzle helps with control.
- Clean thoroughly after each use.
- Fill with hot water and allow to discharge completely to prevent clogging of nozzle and valve.



ASPCA  
ASPCA.org

## Portable "Dip" sink

- Cheap
- Portable
- No need to call a plumber.



ASPCA  
ASPCA.org

## The Dyp Show

- Use gentle but firm handling.
- Keep the spray close to the skin.
- Allow most cats to find a secure place to hold on.



ASPCA  
ASPCA.org

## The Dyp Show



- A small sponge or raglet should be used for the face and ears.
- The face and ears are the most difficult places to clear of infection.

ASPCA  
ASPCA.org

## Monitoring treatment

- ❖ Weekly treatment cultures
- ❖ Best to sample just before dipping
- ❖ Re-number cage cleaning each week



Ghoul	no growth	Y	9/30/11	10/4/11	ng	ng	ng	0	0	0
	no growth	Y	9/16/11	9/20/11	ng	ng	ng	0	0	0
	no growth	Y	9/10/11	9/16/11	ng	ng	ng	0	0	0
	no growth	Y	9/2/11	9/13/11	ng	ng	ng	0	0	0
	no growth	Y	8/27/11	9/13/11	ng	ng	ng	0	0	0
	no growth	Y	8/19/11	8/26/11	ng	ng	ng	0	0	m.s.a, no lesions
	negative	Y	8/12/11	8/26/11	ng	c	c	0	0	0
	no growth	Y	8/9/11	8/12/11	ng	ng	ng	0	0	0
	M canis	Y	7/23/11	7/29/11	suspect	M canis	0	1	0	3 large colonies
	M canis	Y	7/9/11	7/19/11	M canis	0	0	3	0	TMTC



## Graduation – with this protocol only

- ❖ 2 negative cultures
- ❖ Taken 1 week apart
- ❖ Verified by micro ID if any growth is present

	Week 1	Week 2	Week 3
Entry culture	M. Canis p3		
Treatment Week 1	M. Canis p2		
Treatment Week 2	Suspect	M. Canis p1	
Treatment Week 3	No growth	No growth	No growth
Treatment Week 4	No growth	No growth	No growth



## Challenges

- ❖ Resources
  - ❖ Time
  - ❖ Money
- ❖ Coordination / supervision
- ❖ Intake staff exams
  - ❖ Intake area set up
    - ❖ Supplies
    - ❖ Physical layout
  - ❖ Training
- ❖ Volunteer recruitment
- ❖ Seasonal capacity demands
- ❖ “Cage crazies” (rare)



ASPCA  
ASPCA.org

## The Pay Offs

- ❖ Saving lives
- ❖ Outbreak prevention
- ❖ Helping other shelters
- ❖ Public health
- ❖ Community trust
- ❖ Charting new territory
- ❖ Veterinary education



ASPCA  
ASPCA.org

## Resources / expenses

### Dane County Humane Society

- ❖ Intake time and training
- ❖ Fungal cultures for **every** animal
- ❖ Medication costs
- ❖ Supervision costs
  - ❖ Volunteers\*\*
  - ❖ Staff
- ❖ Minimal care / treatment staffing costs

### San Francisco SPCA

- ❖ Intake time and training
- ❖ Fungal cultures for **lesional** animals
- ❖ Medication costs
- ❖ Supervision costs
  - ❖ Staff only
- ❖ Care / treatment staffing costs



## Thanks!

### Dane County Humane Society

- ❖ ALL the volunteers in the program
- ❖ Pam McCloud-Smith
- ❖ Drs. Smedberg and Kuehl
- ❖ Jennifer Pratt
- ❖ Beth Rodgers

### San Francisco SPCA

- ❖ Laura Mullens
- ❖ Dr. Kazminski
- ❖ Dr. Scarlett



## Thanks!

To Dr. Karen Moriello

- ❖ For caring about cat hair
- ❖ For willingly and enthusiastically following me to a shelter (10 years ago) and for everyday we work together to help shelter people save lives.



Moriello aka "Jello Queen"  
with Ken – our first customer



## Thanks!

"We have had a terrible year with ringworm in our shelter and in the community. We have participated in both of the recent ringworm webinars and were inspired to rent a trailer so that we can start treating ringworm in our shelter"

**Even better than a click and a treat!**

To all of you for the work amazing that you do.  
Your enthusiasm is our reward!



## A FEW COMING ATTRACTIONS from ASPCApro

[www.aspcapro.org/webinars](http://www.aspcapro.org/webinars)

- **Let's Talk Fungus** (10/24 – 5-6:30pm ET)  
*New Q&A session tomorrow!*
- **After the Grant Award** (11/07)
- **Canine Assessment: SAFER Overview & Research** (11/28)
- **Helping Adopted Dogs Adjust to New Homes** (12/06)
- **Building a Better Website** (12/11)

