Shelter Sanitation Best Practices: Part 2 (Case Studies)





Thank you for joining me today! Feel free to contact me at:

Chumkee Aziz, DVM
Senior Director, Shelter Medicine
ASPCA

sheltermedicine@aspca.org





Case 1: Ringworm in Foster Home





Context

3 week old kittens sent to foster



2 weeks later, hair loss noticed & ringworm confirmed



Contaminated bathroom & bedroom



Photo: Fixnation.org



The Good News!

"Environmental decontamination is to prevent fomite contamination...[but] infection from the environment alone is rare..."

"Diagnosis and treatment of dermatophytosis in dogs and cats." Clinical Consensus Guidelines of the World Association for Veterinary Dermatology. Moriello et al. Vet Derm 2017.28:266-e68



Challenges

Contaminated foster home

Decon hard surfaces

Decon

Decon laundry



Strategies: Hard Surfaces

Many over-the-counter disinfectant products with antifungal label against *Trichophyton mentagrophytes* are effective when the surface is properly prepared.

Mechanically remove debris, including hairs & spores____



Wash with a detergent until visibly clean & rinse



Follow up with a disinfectant – apply liberally for 10 min

Most important part of decon

"Efficacy of eight commercial disinfectants against *Microsporum canis* and *Trichophyton* spp. Infective spores on an experimentally contaminated textile Surface." Moriello et al. Vet Derm.2013:24.21-e152.



Strategies: Daily Spot Cleaning

Less stressful

Reduced fomite transmission

Increased safety & efficiency

Reduced use of irritating disinfectants



http://aspcapro.org/resource/videospot-cleaning-cat-kennels

Thorough sanitizing once vacated



Strategies: Carpet

Vacuum



Carpet shampooer w/ detergent (twice)

or

hot water extraction w/ detergent

For heavy contamination: pretreat w/ disinfectant

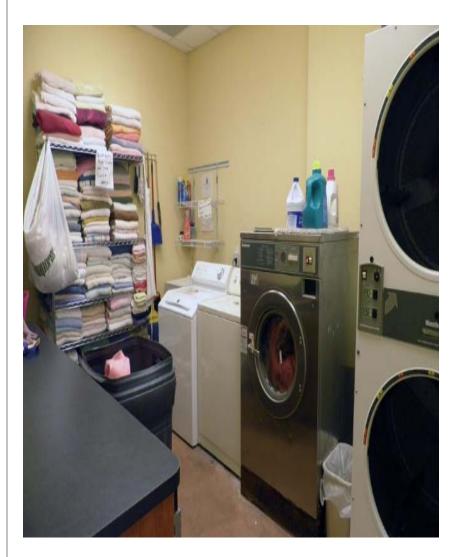


Photo: homeadvisor.com

"Decontamination of carpet exposed to *Microsporum canis* hairs and spores." Moriello, K. JFMS.2017:19(4).435-439.



Strategies: Laundry



- 1. Separate exposed laundry
- Don't overload → want maximal agitation
- 3. Any temperature
- 4. Two washes, longest cycle
- Bleach doesn't matter

"Decontamination of laundry exposed to *Microsporum canis* hairs and spores." Moriello, K. JFMS.2016:18(6).457-461.



Lessons Learned: Foster Home Biosecurity

Designated area

PPE

Plastic toys

Cont. to socialize via proper handling

- Remove hair daily & clean
- Twice weekly sanitation

Training & protocols on disease transmission & zoonosis potential



Case 2: Parvovirus in the Shelter





Context

Using quat & bleach as 1- step process

Guillotine doors down & co-housing dogs Holding cages not sanitized between animals

Parvovirus Outbreak



Challenges

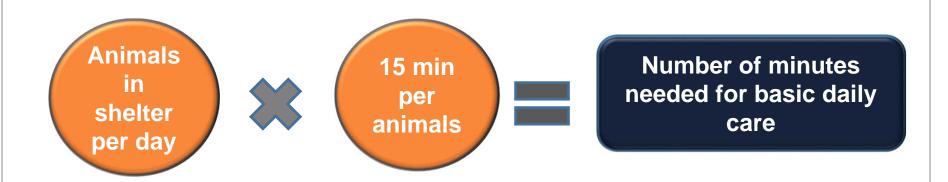
Not able to use housing ideally

Not sanitizing common points of contact

Lack of compliance with two-step sanitation process



Strategies: Optimize Staffing Capacity

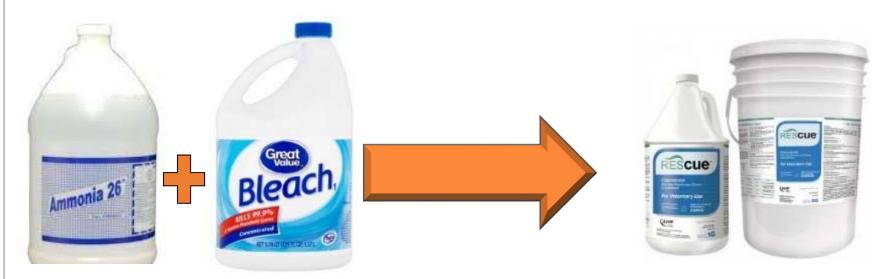


50 animals daily x 15 min care = 12.5 hrs daily care With 4 staff → 12.5 hrs/4 staff = 3.1 hours of care daily

100 animals daily x 15 min care = 25 hrs daily care With 4 staff \rightarrow 25 hrs/4 staff = 6.25 hours of care daily



Strategies: Disinfectant Change



Requires strict protocol adherence

Requires two distinct products

Quat ineffective against parvo

Quat may inactivate the bleach

Confidence in efficacy & staff compliance

Two-in-one product

5 minute contact time when used at 1:16 (8oz/gal)

Non-toxic





Avoid Grassy Areas



Use Areas Easily Disinfected





Photo: Pirtek



Use Scrub
Brushes & Low
Pressure
(90-120 psi)

Photo: Global Industrial





Avoid Single-sided Housing





Use Double- sided Housing

Photos: Koret SMP











Photo: CDC

Use Hand Sanitizer

Use Gloves & Wash Hands





Avoid Foot Baths



Photo: Koret SMP



Photo: Koret SMP



Photo: Galeton

Use Dedicated Booties & Additional PPE





Photo: Moontech K9



Avoid Mops



Use Drainage
System &
Dedicated
Equipment







Avoid Congestion





Limit Traffic

Photos: Koret SMP





Photo: Dr. Stephanie Janeczko

Avoid Prolonged Closures





Use SOPs & Checklists for Confidence



Lessons Learned: Parvovirus Sanitation

Product selection that optimizes compliance & reduces workload

Extra attention to common points of contact

Confidence in your protocol

Training & protocols on infection control



Disinfectant Selection

Non-enveloped viruses (parvo, panleuk, calici):	Organic matter (wood, yards, porous surfaces):	Ringworm	Respiratory pathogens (including canine distemper):
Accelerated hydrogen peroxide	Accelerated hydrogen peroxide	Accelerated hydrogen peroxide	Any**
Potassium peroxymonosulfate	Potassium peroxymonosulfate	Potassium peroxymonosulfate	**calicivirus &
Bleach		Bleach	adenovirus-2 are non- enveloped respiratory
Calcium Hypochlorite		Quaternary ammoniums*	viruses requiring a selective disinfectant
		*over-the-counter quats prove effective WITH thorough cleaning	



Thank you for joining!



Photo: Dr. J. Lamb

