

Disease Outbreak Management 101



Your Presenter



Brian A. DiGangi, DVM, MS

Diplomate ABVP (Canine & Feline Practice, Shelter Medicine Practice)

sheltermedicine@aspca.org

ASPCApro

Outline



Facilities

- Holding
- Quarantine
- Isolation

Outbreak Management

- Stop the spread!
- Diagnosis & isolation
- Risk assessment
- Decontamination
- Communication
- Documentation

Holding

What?

- Housing for animals awaiting next steps

Who?

- Healthy animals
- Not immediately available for adoption
- \pm animals with non-contagious illness

Holding

Why?

- Awaiting examination, spay-neuter, behavior evaluation, etc.

When?

- Legal requirements
- Intake housing

Holding

Where?

In Shelter

Out of Shelter

Hold in
place

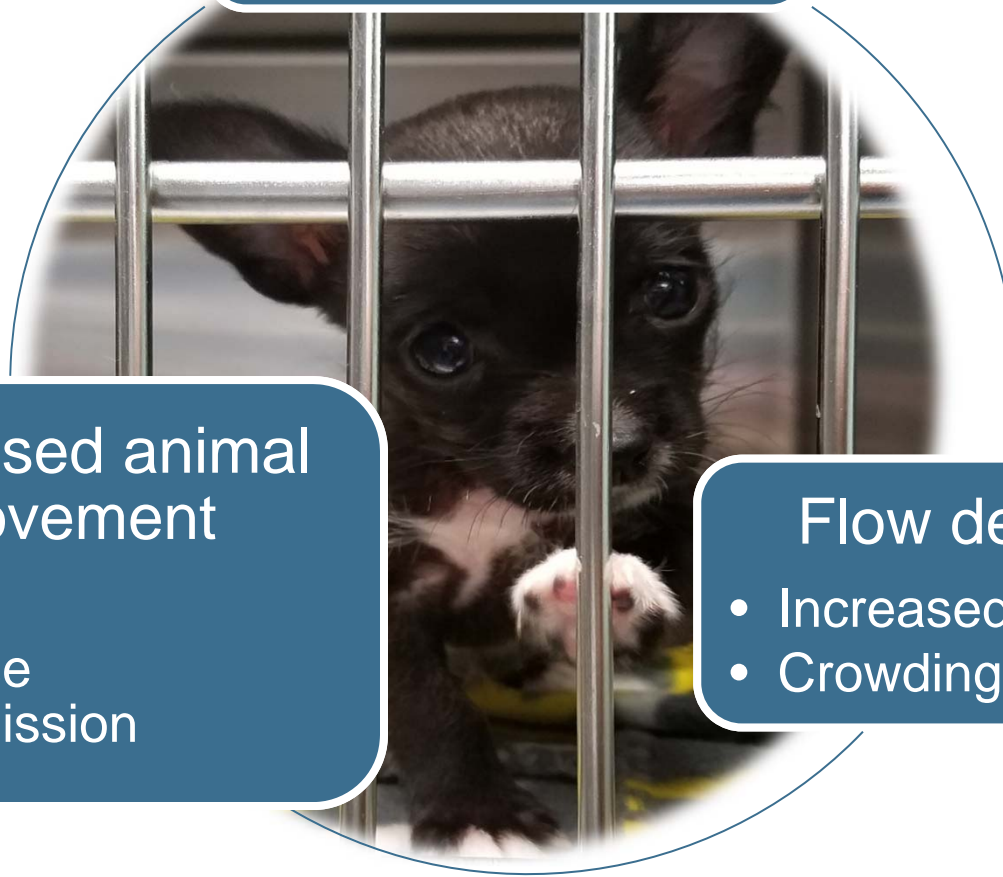
Designated
area

Foster
home

Veterinary
clinic

Do we need a “holding area”?

If it's there,
you'll use it!



Increased animal movement

- Stress
- Disease transmission

Flow delays

- Increased LOS
- Crowding

Holding

How?



Quarantine

What?

- Housing for animals that may have been exposed to infectious disease

Who?

- Appear healthy - no clinical signs
- Most susceptible animals

Quarantine

Why?

- Separation for observation
- Allows response to vaccination

When?

- Legal mandate (rabies)
- During disease outbreak
- Intake? Pre/post transport?

Quarantine

Where?

In Shelter

Out of Shelter

Quarantine
in place

Designated
area

Veterinary
clinic

Boarding
kennel

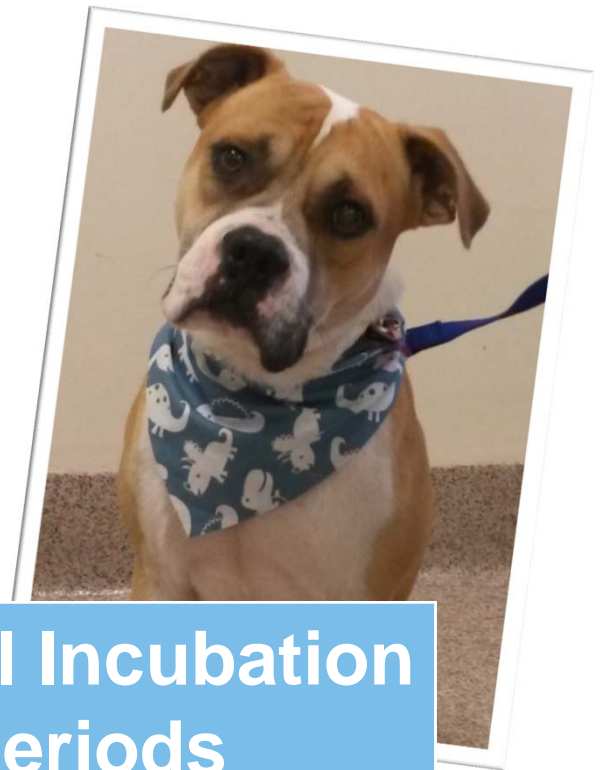
Foster
home

Quarantine

How?

- Basic biosecurity needed
 - *Assess mode of transmission*
 - *Observe traffic flow patterns*
- Incubation period
 - *Time from infection to the development of clinical signs*
- All-in, all-out
 - *Reset clock with every new addition or signs of disease*

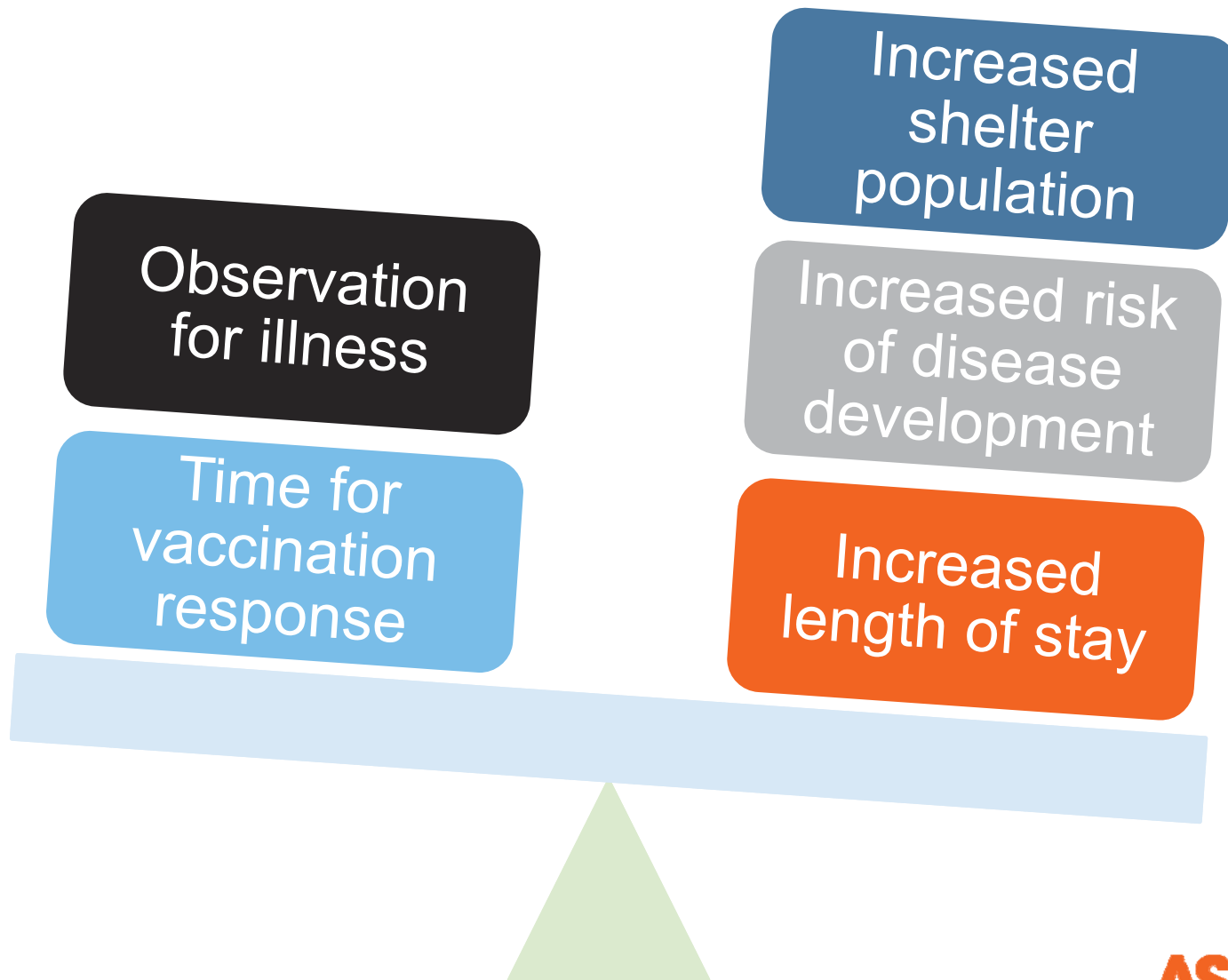
Quarantine



Disease	Typical Incubation Periods
Feline respiratory	<1 week
Canine respiratory*	10-14 days
Parvoviruses	14 days
Ringworm	2-4 weeks

*Longer for canine distemper virus

Quarantine...or not?



Isolation

What?

- Housing for animals with contagious disease

Who?

- Animals with visible signs of illness

Isolation

Why?

- Prevent further transmission
- Allow individual observation and treatment

When?

- Signs of illness: nasal discharge, coughing, sneezing, vomiting, diarrhea, hair loss, etc.

Isolation

Where?

In Shelter

Aerosols

Fomite and vector

Physically
separate
area

Designated
areas

Isolate in
place

Out of Shelter

Veterinary
clinic

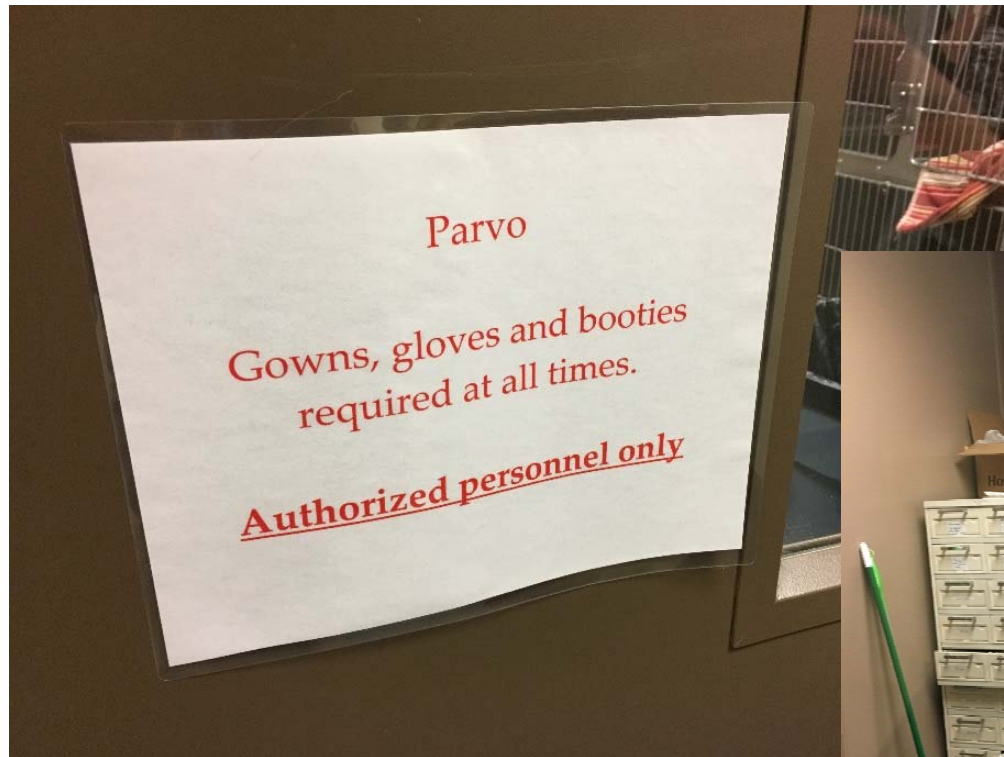
Foster
home

Isolation

How?

- **Strict biosecurity**
 - *Designated staff, equipment, supplies*
- **Isolate by mode of transmission**
 - **Respiratory** (Aerosol – dogs; Fomites – cats)
 - **Gastrointestinal** (Fomites, vectors)
 - **Dermatologic** (Fomites, vectors, environment)

Isolation – Plan A



Isolation – Plan A



L.Guyton



K.Walsh

Isolation – Plan B



Isolation – Plan C



Outbreak Management

Is it an outbreak?

- Increase in frequency
- Increase in severity
- New disease
- Multiple cases
- Active transmission



Outbreak Management

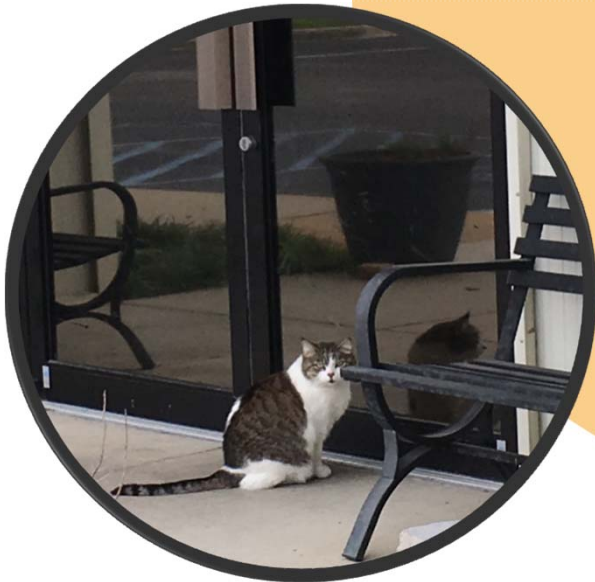
- Stop the spread!
- Diagnose & Isolate
- Assess Risk
- Decontaminate
- Communicate
- Document

Stop the spread!

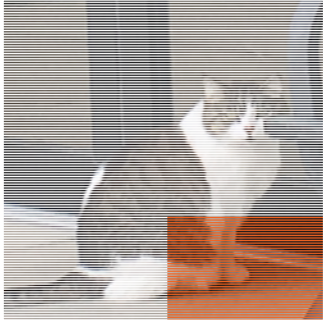
Goals

- Minimize further cases

- Prevent new exposures



Stop the spread!



Tactics

- Suspend intake
- Divert intake
- Vaccinate before intake
- Identify uncontaminated area

Diagnose & Isolate

Goals

Care for affected animals

- Prevent further exposure and disease spread



Diagnose & Isolate



Tactics

- Establish criteria for diagnosis
- Test clinically ill animals
- Remove sick animals from population
- Cease movement of animals
- Monitor for new cases

Assess Risk

Goals

Establish level of risk for exposed animals

- Make management decisions



Assess Risk



Tactics

- Measure antibody titers
- Evaluate clinical factors
 - Low risk = adopt/transfer
 - High risk = quarantine

Decontaminate

Goals

Prevent spread

- Eliminate pathogen from environment



Decontaminate



Tactics

- Heighten biosecurity protocols
- Review traffic flow patterns
- Enforce use of PPE
- Discard contaminated items
- Perform thorough sanitation

Communicate

Goals

- Ensure compliance

- Protect community animal health

- Maintain positive relationships



Communicate



Tactics

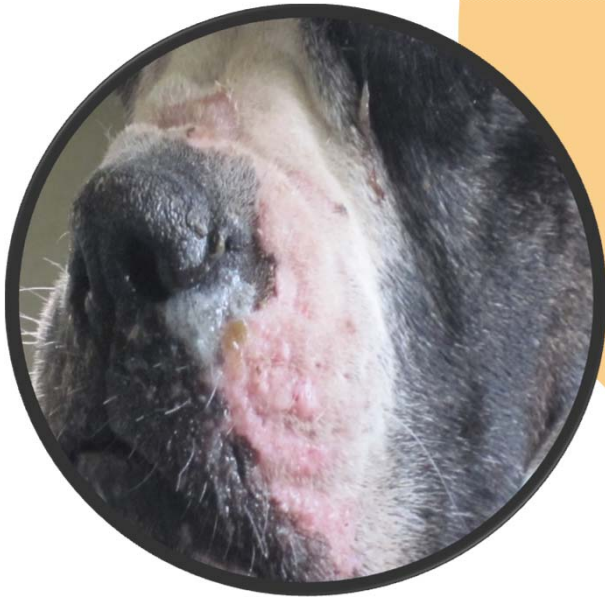
- Train staff & volunteers
- Contact recent adopters
- Reach out to veterinary practitioners
- Local media

Document

Goals

Identify source

Prevent recurrence



Document



Tactics

- Keep individual medical records
- Analyze trends
- Identify who, how, & which control measures were effective
- Review operations to mitigate risk

Next Steps

- Stop the spread!
- Diagnose & Isolate
- Assess Risk
- Decontaminate
- Communicate
- Document

1. Identify the best location for isolation of sick animals.
2. Identify a plan for suspending intake.
3. Create a outbreak response plan for the most common infectious disease in your shelter.

Thank you!



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