

## BC SPCA Shelter Medicine Quick Reference: Treatment of Common Infectious Conditions

This Quick Reference Guide is intended to supplement existing protocols and SOPs and is limited to common bacterial, fungal, parasitic, and viral diseases that can affect individuals and populations entering shelters or in shelters. Additional information can be found on the Staff Portal (Adoptability Guidelines and comprehensive ringworm, sanitation, Idexx testing, and other protocols). Please share this document with community vets providing care for shelter animals, and encourage them to contact our provincial shelter Animal Health team at ah@spca.bc.ca.

Note on the use of prescription medications: With the exception of treatment “per protocol” or in consultation with Animal Health for uncomplicated parasitic diseases and ringworm in animals confirmed or suspected to have these conditions, **all shelter animals requiring medications must be examined by community vet** and have medications prescribed for them. This includes animals with canine cough, URI, and various skin conditions not confirmed as ringworm, because there can be many causes of the same symptoms. **Under no circumstances may shelter staff “prescribe” or stoart antibiotics or pharmaceuticals, including eye and ear medications, without a veterinary exam.** Prescription medications for in-shelter use may not be sent home with adopters, but can be sent home with fosters. If medication is sent home with an adopter, it must be individually prescribed and labelled for that animal by a community vet. For all meds, please use a ear consistent routine that includes low stress handling and canned food/treats given before and after meds.

Condition	Common Clinical Signs (“symptoms”)	Diagnostics	Treatment and Duration	Biosecurity	Follow Up and Notes
<b>Dermatologic</b>					
Demodex (canine)	Patchy hair loss, especially on face and extremities. Usually not crusty or itchy unless secondary infection present. More common in puppies or dogs with underlying medical conditions.	<i>Skin scraping/hair pluck</i> by vet (typically done in-house)  Secondary infections and underlying conditions may be present and may require additional diagnostics  (if a feline case is suspected [rare] contact AH as it’s	First choice: <b>Simparica (must be prescribed by local vet)</b> orally once monthly until two consecutive negative skin scrapes 30 days apart (can be ordered from hospital) (only for dogs over 6 months of age)  Other options: Nexgard orally once monthly (> 8 weeks of age), Bravecto orally once	Not contagious. Standard handling and housing procedures apply.	Can be adopted with waiver and note for adopter to continue treatment at their expense.

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		contagious and treatment is different)	every 3 months (> 6 months of age), Ivermectin daily (caution in herding breeds, check with DVM for dose)		
Ear Mites	Very itchy ears with clumpy red-brown discharge. Most common in kittens, then cats, then rabbits/dogs. Suspicion should increase in groups of young animals with the same symptoms. Very rare in individual dogs- all dogs with itchy/red ears or discharge should see a DVM for exam.	<i>Ear swab</i> , otoscopic examination by vet  If ear mites are strongly suspected or confirmed in a group of animals, all animals don’t have to be swabbed  Secondary infection may be present and require additional testing/treatment	<b>Revolution</b> if > 4 weeks of age. 6 mg/kg (cats), 12 mg/kg (rabbits). Use dosing chart (double volume for rabbits). Repeat in 14 days.  If ears are full of debris, clean gently with OTC ear cleaner or as directed by DVM. <b>DO NOT CLEAN EARS FOR 14 DAYS AFTER APPLYING REVOLUTION.</b>  Alternate treatment for cats: Ivermectin at 300 micrograms per kg once a week for 3 weeks. (Dilute Ivomec 1:9 with propylene glycol (OTC) yielding a solution for in-shelter use of 1000 mcg/ml. 1 ml diluted solution treats 3.3 kg of cat.)	Treatment of in-contact animals without symptoms is covered by the revolution given at intake. Clean/laundry cleanable items and discard noncleanable items at time of each treatment.  Do not house communally with animals from other groups until treatment course complete.	Common in kittens, cats, rabbits. Very rare in dogs. Dogs should never be assumed to have ear mites.  Can be adopted with waiver and note for adopter to continue treatment at their expense.g
Fleas	Itchiness, especially of rear half of body (often concentrated at base of tail/lower	Visual exam by branch staff or DVM, flea combing	<b>Revolution</b> if > 4 weeks of age. Label dose of 6 mg/kg. See dosing chart. All dogs and cats over 6 weeks of age should	Treat all in-contact animals of same species.	Secondary conditions such as flea allergy, rodent ulcers (cats) may

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	<p>back). Cats may have small crusted bumps around face/neck. Live fleas or flea dirt nearly always seen.</p>		<p>receive Revolution at intake. Repeat monthly if fleas persist or ongoing exposure to an outdoor environment with possible fleas/ticks (yards, foster home, etc.)</p> <p>If under 4 weeks of age, can give <i>1 drop</i> of Advantage if 0-0.5 kg and <i>2 drops</i> of Advantage if 0.5 kg- 1.0 kg. Drops can be measured from a standard 1 cc or 3 cc syringe with no needle. Bathing with dilute soap or shampoo and manual removal should be done first if many fleas are present.</p> <p>Alternate medications: many but Revolution is our default. If available, dogs can receive Simparica 2-4 mg/kg orally instead (note that tablets can be combined but not split).</p> <p>Capstar can be used at label dose in animals over 4 weeks of age with a high flea-load at</p>	<p>Clean/laundry cleanable items and discard noncleanable items at time of each treatment.</p>	<p>require additional treatment.</p>

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			intake. This does not replace Revolution.		
Lice	Itchiness (may be mild or minimal). Brownish-white lice or white nits visible on hair shafts. Common in groups of animals and more common in younger animals.	Visual exam by branch staff or DVM  <i>Microscopic exam</i> of hair for nits and/or lice	<b>Revolution</b> if > 4 weeks of age. Repeat 1 month. Label dose of 6 mg/kg. See dosing chart. All cats and dogs over 6 weeks of age should receive Revolution at intake.	Treat all in-contact animals of same species.  Clean/laundry cleanable items and discard noncleanable items at time of each treatment.  Do not house communally with animals from other groups until treatment course complete.  Lice are species-specific and not contagious to humans.	Eggs (nits) will be visible for several weeks after treatment.  Can be adopted with waiver and note for adopter to continue treatment at their expense.
Ringworm	Hair loss and crusting, often around face, ears, and feet. May glow under Woods lamp. However - can look like anything	<i>Fungassay (dermatophyte fungal culture)</i> : through BC SPCA Hospital (see toothbrushing protocol) (all suspect cases)	Lime Dip twice weekly per protocol (note that strength is double what is listed on bottle label).	<b>*Report to Animal Health Immediately*</b>  Infected or suspect animals must be promptly isolated. Highly contagious to	See comprehensive RW protocol on Staff Portal  Infected animals may be fostered out in select

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	including masses, abscesses, allergies etc.	<p><i>Idexx RINR PCR</i>: for new suspects with lesions (see SOP) (sent out through your vet but our account can be used)</p> <p>Weekly toothbrush cultures should be taken at greatest possible lime dip interval (i.e. if lime dipping Tues and Sat, take samples on Sat morning before dipping)</p>	<p>*Do not lime dip puppies/kittens under 2 weeks of age</p> <p><u>Itraconazole</u> (must be brand name Sporanox or Intrafungol, no generic or compounded products)</p> <ul style="list-style-type: none"> <li>Cats, kittens, nursing dogs, puppies, small mammals: 5 mg/kg orally once daily x 21 days, then 1 week on/ 1 week off</li> <li>Dogs, puppies over 12 weeks: 10 mg/kg orally once daily x 21 days, then 1 week on/ 1 week off</li> </ul> <p>*Do not give itraconazole to pregnant animals, puppies/kittens under 6 weeks, nursing cats/dogs with babies under 6 weeks, or nursing rabbits with babies under 3 weeks</p>	<p>humans and other animals.</p> <p>Exposed animals will need to be quarantined and possibly lime dipped.</p> <p>Level 3B PPE must be used (caps, gowns, gloves, shoe covers). Do not use footbaths.</p> <p>Standard AHP dilution applies (1:40)</p> <p>Clean/laundry cleanable items and discard noncleanable items (including HPG and scratch pad) at time of each lime dip.</p>	<p>circumstances (i.e. already in a foster home, under 8 weeks of age, foster to adopt)-contact AH.</p> <p>See waivers for treated and exposed animals on internal site.</p>

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			Treat until two consecutive negative weekly fungal cultures		
Scabies (Sarcoptic Mange), Fur Mites	Very itchy especially around ear flaps, face (dogs). May have hair loss, skin irritation, and skin lesions including crusting. Rabbits and rodents with mites may have minimal symptoms or may have itchiness, skin irritation, and scabs.	<i>Skin scraping/hair pluck</i> by vet (typically done in-house)  In rodents fur mites may be diagnosed “on suspicion” after visual exam	<b>Revolution</b> if > 4 weeks of age. 6 mg/kg (Cats, Dogs, Chinchillas and Hedgehogs), 12 mg/kg (Ferrets and Sugar Gliders), 18 mg/kg (Rabbits, Guinea Pigs, Gerbils, Hamsters, Rats and Mice). Use dosing charts (there is one for cats/dogs and one for small animals).  Repeat in 1 month (cats, dogs) and 14 days (small animals).  Alternate meds: Simparica, Advantage Multi, Nexgard, Bravecto (ask DVM or AH for dosing info)	Treat all in-contact animals of same species.  Clean/laundry cleanable items and discard noncleanable items at time of each treatment.  Level 3B PPE for 3 days after treatment, wear gloves for 14 days after treatment.  Do not house communally with animals from other groups until treatment course complete.  May be contagious between species or to humans depending on type.	Can be sent into a home once 3 days have passed after treatment. Can be adopted with waiver.

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Ticks	Adult ticks are clearly visible attached to skin or freely moving in hair coat. Most common in dogs. Immature life stages (nymphs) may not be visible- if there is a history or ticks, animal should be treated even if no visible ticks.	Visual exam  Tick-borne infections may be present or a risk; consult treating DVM regarding prevention or testing.	<i>Remove promptly by grasping tick’s body and pulling straight out.</i>  <i>Because additional tiny ticks may present, treat all animals with visible ticks with medication.</i>  <i><u>Dogs over 6 months:</u> first choice: <b>Simparica</b> (single dose) (can replace Revolution dose at intake or can be given with Revolution). Note that tablets can be combined, but not split. Alternate meds: Nexgard (minimum 8 weeks and 2 kg), Bravecto (minimum 6 months), Advantix (minimum 8 weeks, 2kg; toxic to cats)</i>  <i><u>Cats:</u> <b>Revolution Plus</b> (over 8 weeks, not nursing or pregnant), <i>Feline Bravecto</i> (over 6 months and 2.8 kg, not nursing or pregnant); <i>Revolution</i> (has some activity against ticks)</i>	Treat all animals of same species from same origin.  Do not house communally until 48 hours after treatment.	Inform adopter that ticks were present at intake and to monitor for signs of illness (over next few months) and take to vet if occur
<b>Gastrointestinal</b>					

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Coccidia	<p>Diarrhea, soft stool, gas, abdominal bloating. In severe cases, may have weight loss, vomiting, inappetance. May progress to death in young kittens or compromised animals. Rabbits may have evidence of liver disease (lethargy, liver enlargement).</p> <p>Most common in young or compromised animals regardless of species. Animals, especially adults may have it without showing any signs.</p>	<p><i>Idexx Fecal Flotation with Giardia (FDXGP):</i> see SOP or</p> <p><i>Fecal flotation</i> (in house by vet) (may be less accurate if centrifuge not used)</p> <p>Treat all animals in population once a case is confirmed</p> <p>Sampling for large groups or screening of large scale cases at intake: <i>Idexx Fecal Flotation with Giardia (FDXGP)</i> see SOP</p> <p>Treat all animals in population once a case is confirmed</p> <p>Sampling for large groups or screening of large scale cases at intake:</p> <ul style="list-style-type: none"> <li>• Pooled samples from every litter &lt; 6 months</li> <li>• Test &gt;5 adults (ideally 20-50% of</li> </ul>	<p><b>Baycox</b> 25 mg/kg orally for puppies, kittens, dogs, and cats (use dosing chart). Not safe for use in pregnant or nursing animals.</p> <p>TREATMENT: Symptomatic, confirmed coccidia positive and in-contact animals of the same species: one dose orally once daily for 3 days. Litterboxes should be changed daily while under treatment.</p> <p>PREVENTION: one dose at intake, then repeat 14 days later if still in our system. Best for kittens and puppies aged 4 weeks to 4 months, but the drug can be given starting as young as 2 weeks if needed.</p> <p>Preventive use is optional and should be considered for high risk animals and by branches that often have animals with diarrhea or confirmed coccidia, or that take in large numbers of puppies/kittens.</p>	<p>Treat all in-contact animals of same species.</p> <p>Clean/laundry cleanable items and discard noncleanable items at time of each treatment.</p> <p>Wear level 3B PPE until initial treatment course finishes.</p> <p>Do not house communally or allow direct contact with animals from other groups until treatment course complete.</p> <p>Species-specific, only contagious to same species.</p>	Can be adopted with waiver

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		the population), prioritize those with diarrhea, weight loss, inappetance etc.	High-risk animals - All puppies and kittens. Especially if stray, living outside, from a hoarding case, history of diarrhea or underweight  Bathe on first (if possible) and last (very important) day of treatment.		
Giardia	Diarrhea, soft stool, gas, abdominal bloating. In severe cases, may have weight loss, vomiting, inappetance. Seen only in cats and dogs. Most common in dogs with outdoor access and large scale cases.	<i>Idexx Fecal Flotation with Giardia (FDXGP):</i> see SOP  Treat all animals in population once a case is confirmed (do not need to test all)  Sampling for large groups or screening of large scale cases at intake: <ul style="list-style-type: none"> <li>• Pooled samples from every litter &lt; 6 months</li> <li>• Test &gt;5 adults (ideally 20-50% of the population), prioritize those</li> </ul>	<b>Panacur</b> 50 mg/kg orally once daily x 5 days to animals over 2 weeks of age  Replaces one dose of Strongid  Bathe on first (if possible) and last (very important) day of treatment.  Litterboxes should be changed daily while under treatment.  Note: Panacur available as granules or liquid (see dosing charts). Granules typically easier in cats and small/picky dogs. Granules: Sizes 1 g, 2 g, 4 g packets (note that each g	Treat all in-contact animals of same species.  Clean/laundry cleanable items and discard noncleanable items at time of each treatment.  Wear level 3B PPE until initial treatment course finishes.  Do not house communally or allow direct contact with animals from other	Can be adopted with waiver  Diarrhea from giardia tends to resolve with 2-3 days on panacur; if ongoing animal needs vet exam and may need additional treatment.

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		<p>with diarrhea, weight loss, inappetence etc.</p> <p>Do not retest after treatment unless individual concerns</p>	<p>contains only 222 mg of fenbendazole). Dose to nearest 1/8 of a packet.</p>	<p>groups until treatment course complete.</p> <p>Companion animal strains thought to be fairly species-specific, but theoretical potential exists for transmission to humans or other species.</p>	
Hookworm	<p>Diarrhea, weight loss, pale gums. More rarely can cause vomiting, inappetance, lethargy, bloating, cough, skin lesions (between toes) and death in heavily parasitized puppies/kittens. More common in young animals. Animals, especially adults, can be infested without any clinical signs.</p>	<p><i>Idexx Fecal Flotation with Giardia (FDXGP):</i> see SOP or</p> <p><i>Fecal flotation</i> (in house by vet) (may be less accurate if centrifuge not used)</p> <p>Treat all animals in exposed population once a case is confirmed (do not need to test all)</p>	<p><b>Pyrantel (Strongid)</b> 20 mg/kg (under 25 kg) and 10 mg/kg (over 25 kg) orally once at intake (or at time of diagnosis if not given at intake). Repeat in 2 weeks.</p> <p>IN CATS – Revolution can replace 1 dose of strongid.</p> <p>For puppies and kittens, repeat every 2 weeks until last vaccine at 16-20 weeks of age.</p> <p>Alternative treatments: Panacur, Drontal, Dolpac, others</p>	<p>Treat all in-contact animals of same species.</p> <p>Clean/laundry cleanable items and discard noncleanable items at time of first treatment.</p> <p>Good hygiene: promptly clean up stool, wear gloves/wash hands, bathe if fecal soiling, frequent walks, house in double compartment kennels.</p> <p>Zoonotic potential if bare skin exposed to</p>	<p>Can be adopted with waiver</p>

Condition	Common Clinical Signs (“symptoms”)	Diagnostics	Treatment and Duration	Biosecurity	Follow Up and Notes
				larval worms (walking, sitting where animals have defecated).	
Panleukopenia (feline parvovirus)	Most common cause of sudden death in shelter kittens/young cats. Vomiting, inappetance, weight loss, diarrhea, lethargy, and fever may occur. Death can occur with or without preceding clinical signs. Adults may have a more chronic, less severe presentation. Usually occurs in kittens or unvaccinated adult cats.	<p><i>Idexx Canine Fecal Snap Parvo test</i> (swab tonsils first then feces/rectum). Test can be done post-mortem in unfrozen animals. May have false negative rate up to 50% in cats. Vaccine should not cause false positives on Idexx test.</p> <p>If test negative but panleuk suspected: <i>CBC (complete blood count)</i>: Usually shows low white cell levels, but they may be normal or elevated.</p> <p>Deceased animals with negative test but strong suspicion: <i>necropsy</i></p> <p>See SOP- Management of Panleukopenia Suspects and SOP- Shelter Necropsy Submissions</p>	Infected animals should be promptly euthanized (due to infectious risk, medical budget limitations and inability to treat in-branch). Do not treat.	<p><b>*Report to Animal Health Immediately*</b></p> <p>Infected or suspect infected animals should be promptly isolated. Exposed animals should be quarantined for 14 days. Contact AH immediately for assistance with risk assessment. May require stopping intake or closing branch.</p> <p>Use level 3B PPE for infected/exposed animals.</p> <p>Do not use foot baths.</p>	All branch staff and managers should be familiar with clinical signs of this disease and what to do if suspected. Often first sign is an unassisted death in a kitten 6-20 weeks. See SOP- Management of Panleukopenia Suspects for more information.

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Parvovirus (canine)	Vomiting, inappetance, weight loss, diarrhea (often with blood and foul odour), abdominal pain, lethargy, and fever may occur. May be fatal especially without treatment, but death usually is preceded by clinical signs. More common in puppies and unvaccinated dogs. Rotties, Dobies, and bully breeds thought to be predisposed.	<p><i>Idexx Canine Fecal Snap Parvo test</i> (swab tonsils first then feces/rectum). Test can be done post-mortem in unfrozen animals. False negative rates vary but occur regularly. Vaccine should not cause false positives on Idexx test.</p> <p>If test negative but parvo suspected: <i>CBC (complete blood count)</i></p> <p>Deceased animals with negative test but strong suspicion: <i>necropsy</i></p> <p>See SOP- Shelter Necropsy Submissions</p>	**Protocol pending updates- infected animals no longer require euthanasia- contact AH if case occurs***	<p><b>*Report to Animal Health Immediately*</b></p> <p>Infected or suspect infected animals should be promptly isolated. Exposed animals should be quarantined for 14 days. Contact AH immediately for assistance with risk assessment. May require stopping intake or closing branch.</p> <p>Use level 3B PPE for infected/exposed animals.</p> <p>Do not use foot baths.</p> <p>If an outdoor area of the shelter is known to be contaminated, it cannot be used for puppies under 20 weeks, or dogs &lt; 7 days from intake vaccine, indefinitely. Do not walk suspect dogs. To</p>	All branch staff and managers should be familiar with clinical signs of this disease and what to do if suspected.

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				minimize risk, do not place puppies under 20 weeks or dogs with signs of GI distress in uncleanable outdoor areas.	
Roundworm	Diarrhea, weight loss, vomiting, inappetance, lethargy, bloating (pot belly) and can cause death in heavily parasitized puppies/kittens. More common in young animals. Animals, especially adults, can be infested without any clinical signs.	<i>Idexx Fecal Flotation with Giardia (FDXGP):</i> see SOP or  <i>Fecal flotation</i> (in house by vet) (may be less accurate if centrifuge not used)  Treat all animals in exposed population once a case is confirmed (do not need to test all)	<b>Pyrantel (Strongid)</b> 20 mg/kg (under 25 kg) and 10 mg/kg (over 25 kg) orally once at intake (or at time of diagnosis if not given at intake). Repeat in 2 weeks.  IN CATS – Revolution can replace 1 dose of strongid.  For puppies and kittens, repeat every 2 weeks until last vaccine at 16-20 weeks of age.  See Strongid Dosing Chart  Alternative treatments: Panacur, Drontal, Dolpac, others	Treat all in-contact animals of same species.  Clean/laundry cleanable items and discard noncleanable items at time of first treatment.  Good hygiene: promptly clean up stool, wear gloves/wash hands, bathe if fecal soiling, frequent walks, house in double compartment kennels.  Zoonotic potential via fecal-oral route (eggs take 2-4 weeks to become infective).	Can be adopted with waiver

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Tapeworm	Usually minimal except for possible irritation of anal area.	<p>Visual detection of proglottids (egg packets, flat and about the size of grains of rice) in feces</p> <p>Rarely detected on fecal testing. If fecal is submitted, send visible worm with sample.</p>	<p><b>Drontal (praziquantel/pyrantel pamoate) or Cestex (epsiprantel)</b></p> <p>Cestex Dosing - <u>Cats</u>: 2.75 mg/kg orally once. <u>Dogs</u>: 5.5 mg/kg orally once to animals over 7 weeks of age.</p> <p>Do not need to repeat. Make sure flea treatment is up to date at or before time of treatment.</p> <p>See Cestex Dosing Chart. Drug currently provided free by Zoetis.</p> <p>Drontal/Drontal Plus dosing – See dosing charts on portal.</p> <p>Treat: if observed, in animals with heavy flea burdens at</p>	<p>Treat all animals of same species originating from same source. In-contact animals don’t require treatment if from different sources/location, unless not current on flea meds.</p> <p>No handling precautions</p>	Can be adopted with waiver

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			<p>intake, and cats who are known to hunt rodents.</p> <p>Consider treatment in: animals entering communal housing where stool cannot be individually monitored, animals from areas known to have high tapeworm prevalence</p> <p>Alternative options: Drontal, Milbemax (cats), Profender (cats). These are expensive and Cestex is the first choice.</p>		
Threadworm (Strongyloides)	<p>Diarrhea, soft stool, dehydration. Diarrhea may have blood. More common in young animals. Animals, especially adults, can be infested without any clinical signs. Conditions that favour this parasite include warm, wet, crowded conditions (i.e.</p>	<p><i>Idexx Baermann Test (BAER)</i> Use fecal SOP, search by test code. Test will be listed as a lungworm test but is the preferred test for larval detection if there is concern for this specific parasite.</p> <p>May also be detected on routine fecal testing (FDXGP or in-house fecal at vet).</p>	<p><b>Panacur</b> 50 mg/kg orally once daily x 10 days to animals over 2 weeks of age. Repeat in 3 weeks.</p> <p>Replaces one dose of Strongid</p> <p>Note: Panacur available as granules or liquid (see dosing charts). Granules typically easier in cats and small/picky dogs. Granules: Sizes 1 g, 2 g, 4 g packets (note that each g contains only 222 mg of</p>	<p>Treat all in-contact animals of same species. Level 3B PPE if active diarrhea.</p> <p>Clean/laundry cleanable items and discard noncleanable items at time of first treatment.</p> <p>Good hygiene: promptly clean up stool, wear gloves/wash hands, bathe if fecal</p>	<p>Can be adopted with waiver once initial 10-day meds course has completed.</p>

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	kennels). Relatively rare parasite in BC.	Treat all animals in exposed population once a case is confirmed (do not need to test all)	fenbendazole). Dose to nearest 1/8 of a packet.	soiling, frequent walks, house in double compartment kennels.  Zoonotic potential if bare skin is exposed to larval worms. Can cause cutaneous larval migrans and diarrhea in humans.	
Trichostrongylus axei	Diarrhea, soft stool. Diarrhea may have blood/mucus. Commonly found in cats living in a group setting. Infection can persist for years if left untreated.	<i>Idexx Comprehensive Diarrhea Panel (FDCCD)</i> .  This test should only be run under the direction of a veterinarian.  Treat all symptomatic animals in an exposed population once a case is confirmed (do not test all).	<b>Ronidazole (must be prescribed by a local vet)</b> , 30 mg/kg once a day for 2 weeks.  Bathe on day 1, day 7 and day 14.	Treat all in-contact animals of the same species with symptoms.  Clean/laundry cleanable items and discard noncleanable items at time of each bath.  Wear gloves when administering this treatment, when cleaning the litterbox during and for 3 days after treatment.  Feces should be double bagged.	Adopt with a waiver. Repeat fecal testing may be needed once treatment is complete if symptoms are still present or reoccur.

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				Pregnant women should not handle ronidazole.	
Whipworm	Diarrhea, soft stool, weight loss. Diarrhea may have blood/mucus or involve straining. Can cause pale gums, more severe symptoms, or death in heavily parasitized puppies/kittens. More common in young animals. Animals, especially adults, can be infested without any clinical signs.	<i>Idexx Fecal Flotation with Giardia (FDXGP):</i> see SOP or  <i>Fecal flotation</i> (in house by vet) (may be less accurate if centrifuge not used)  Treat all animals in exposed population once a case is confirmed (do not need to test all)	<b>Drontal Plus</b> , single dose orally once. Repeat in 3 weeks and 3 months.  Alternative protocol: Give panacur 50 mg/kg orally once daily for 3 days. Repeat the same 3 day course in 3 weeks and in 3 months.	Treat all in-contact animals of same species.  Clean/laundry cleanable items and discard noncleanable items at time of first treatment.  Good hygiene: promptly clean up stool, wear gloves/wash hands, bathe if fecal soiling, frequent walks, house in double compartment kennels.  Contagious potential via fecal-oral route (eggs take 2-3 weeks to become infective).	Can be adopted with waiver
<b>Respiratory</b>					

Condition	Common Clinical Signs (“symptoms”)	Diagnostics	Treatment and Duration	Biosecurity	Follow Up and Notes
Canine Cough (Kennel Cough)	Dry, non-productive cough that gets worse with tracheal pressure (collar, leash pulling) or barking. May be accompanied by eye/nasal discharge, sneezing, lethargy, fever, and inappetance. Most cases are not severely ill.	<p>Contact AH- most initial cases should have <i>Idexx CRDD PCR</i> done (see SOP). Zoetis may cover some costs.</p> <p>If many coughing dogs at initial presentation, sample &gt;5 dogs, ideally 20-50% of population.</p> <p>Case definition: tracheal cough with no obvious cardiac cause, may be accompanied by sneezing, congestion, oculonasal discharge</p> <p>Severe cases may require additional dx/tx (chest rads, etc.)</p>	<p><u>If viral (*most cases*):</u> Supportive care only (Cough suppressants, Cerenia, etc. as rx by local vet). Minimize stress, barking, and pulling on collar/leash (harness, training).</p> <p><u>If bacterial as determined by local vet: Doxycycline 5-10 mg/kg (must be prescribed by a local vet)</u> orally once-twice daily x 10-14 days to dogs and puppies over 4 weeks</p> <p>Please note: Unless contraindicated, doxycycline is the best first choice antibiotic. Doxycycline should not be used in pregnant or nursing animals without consulting the Animal Health team first.</p>	<p><b>*Report to Animal Health Immediately*</b></p> <p>Affected dogs must be isolated (25 feet airspace from other dogs) and level 3B PPE used. They can still be walked in separate area by separate personnel wearing PPE.</p> <p>Risk assessment should be done to divide population into:</p> <ul style="list-style-type: none"> <li>• Infected (isolate)</li> <li>• At risk/exposed (quarantine x 7 d from exposure)</li> <li>• Not at risk/unexposed</li> </ul> <p>If no designated ISO/quarantine space exists, shelter may have</p>	<p>Contact AH about all cases of canine cough.</p> <p>Exposed animals who are not sick may be able to be adopted or fostered out with a Canine Cough-Exposed waiver after consultation with AH.</p> <p>Animals not responding to tx within a few days should be rechecked by a vet.</p>

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				to close to dog intake to create a “clean break.”	
Feline URI	Sneezing, eye/nasal discharge, conjunctivitis (usually bilateral), coughing (less common). May have inappetence, lethargy, or dehydration. Calicivirus cases may have oral ulcers. Severe viral cases may have bloody nasal discharge or sneezing.	<p>No diagnostics- treat cases empirically UNLESS</p> <ul style="list-style-type: none"> <li>• Part of a large group</li> <li>• Individual case not responding to tx</li> <li>• Oral ulcers present</li> </ul> <p><i>Idexx FURD PCR</i> should be done in these cases (See SOP). Population: Sample &gt; 5 animals, ideally 20-50% of the population.</p> <p>Case definition: active congestion, sneezing, eye or nasal discharge, coughing, or puffy/red eyes (conjunctivitis)</p>	<p><b>If viral (*most cases*):</b> Supportive care only (Cerenia, pain meds, SQF, etc. as rx by local vet). Minimize stress. Feed variety of palatable foods including canned. Do not use lysine.</p> <p><b>If bacterial as determined by local vet: Doxycycline liquid (must be prescribed by a local vet):</b> 10 mg/kg orally once daily to cats over 4 weeks of age (safe in kittens) x 14 days, consult vet to extend if not resolved at 14 days.</p> <p>Doxycycline should not be used in pregnant or nursing animals without consulting the Animal Health team first.</p> <p><b>*Do not use doxy pills in cats</b></p> <p>If eye meds needed and not already on doxy:</p>	<p><b>*Report to Animal Health Immediately IF: oral ulcers, suspected calici, coughing, spreading within population, duration/severity greater than usual*</b></p> <p>Individual cases not meeting the above do not have to be reported to AH</p> <p>Mild sneezing, clear discharge: keep in place, minimize stress, handle last with handwashing or gloves</p>	<p>Unless requiring isolation, affected animals can be adopted or fostered out with URI waiver.</p> <p>Animals not responding to tx within a few days should be rechecked by a vet.</p> <p>Cases where URI is spreading within the population or has unusual severity/duration, large scale cases with known URI in the population, or cases of suspected calici must be reported to Animal Health.</p>

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		Chronic cases unresponsive to treatment may require additional dx	<p><u>Erythromycin</u>, <u>chloramphenicol (currently unavailable in Canada)</u>, or <u>tetracycline (may be unavailable)</u> ointment in both eyes twice daily x 10 days (must be prescribed by a local vet).</p> <p>If already on doxy, wait 48- 72 hrs to start eye meds as oral meds will likely be enough for bacterial conjunctivitis</p> <p>Please note: NO other antibiotics will eliminate common bacterial URI pathogens.</p>		
Lungworm	Coughing, wheezing, rapid/difficult breathing. Can also have weight loss, lethargy, abdominal bloating, and death (severe cases, especially in young animals). Some cases can be asymptomatic.	Usually diagnosed on <i>necropsy, fecal floatation, or fecal Baermann</i> . Several species exist.	<p>Treatment or prevention of <i>Aelurostrongylus</i> (most common feline lungworm seen in our animals):</p> <p><b>Revolution</b> at label dose (6 mg/kg) topically. Repeat every 2 weeks for total of 3 doses. Give in am and monitor closely for rapid/difficult breathing or lethargy after first dose.</p>	<p>All animals in contact or from same place as confirmed or suspected case should be treated.</p> <p>Not directly contagious, normal hygiene practices sufficient.</p>	Because three doses required, animals can be fostered or adopted out with a waiver. If adopted, must follow up with community vet for remaining treatments or be sent home with

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			<p>Alternate protocol: Panacur (fenbendazole) 50 mg/kg orally once daily for 5-10 days.</p> <p>For other types of lungworm or lungworm in other species consult AH.</p>		<p>Revolution individually prescribed labelled for that animal by local vet.</p>
<b>Viral- Other</b>					
Feline Immunodeficiency Virus (FIV)	<p>Highly variable. May be asymptomatic.</p> <p>Acute infections: enlarged lymph nodes, mild oral/ eye inflammation. Chronic infections: signs related to decreased immune system (eye, mouth, respiratory, GI infections) or cancers (enlarged lymph nodes, weight loss, anemia, inappetance, lethargy)</p>	<p>Screening test: <i>Idexx Snap FIV/FelV Combo Test</i> on small blood sample (ideally blood should be spun down)</p> <p>If positive: CBC/Chem panel to assess overall health, consider confirmatory test (Western Blot, do not use PCR).</p> <p>Test: Individual suspects, cats with cat bite wounds or history of fighting, animals from multi-cat environments (hoarders, colonies) with known FeLV or FIV in population (test all)</p>	<p>Apparently healthy, positive cats: No ongoing treatment needed. Ok to place for adoption. Ok to adopt to homes with other cats as long as no fighting.</p> <p>Positive cats with signs of FIV-related illness: euthanize. Do not treat.</p>	<p>Not directly contagious, unless fighting or mating, normal hygiene practices sufficient. Infected cats should be housed and handled in a way that minimizes their risk of shelter-acquired infectious disease.</p> <p>Do not group house positive cats with negative cats in shelter due to lack of ability to continuously observe and ensure cats are not fighting.</p>	<p>Use FIV Positive disclosure for adoption.</p>

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		<p>Animals from multi-cat environments (hoarders, colonies) with unknown FeLV or FIV population status (test a subset, contact AH for guidance based on group size and risk)</p>			
<p>Feline Infectious Peritonitis (FIP)</p>	<p>Two forms: <u>Effusive</u>: lethargy, inappetance, weight loss, fluid in abdomen, fever, sometimes difficult breathing (more common in kittens). <u>Noneffusive</u>: lethargy, weight loss, inappetance, fever, possibly enlarged lymph nodes, intestinal/ eye/ neurologic signs (more common form in adult cats). Some purebreds may be predisposed. Often cats develop clinical signs within months after a</p>	<p>No single diagnostic test exists.</p> <p>Dx usually made on basis of clinical signs, history of recent stress, results of veterinary exam, and results of basic bloodwork +/- xrays +/- abdominal fluid sampling.</p> <p>Tests for feline coronavirus such as serology and PCR are NOT generally useful in diagnosing FIP and typically are not a good use of medical budget. Contact AH with questions.</p>	<p>If FIP is highly suspected, the animal should be euthanized. Necropsy will likely provide a definitive diagnosis. The animal may need to be euthanized without a definitive diagnosis.</p> <p>There are some promising treatments for FIP being researched but currently it cannot be treated in shelter.</p>	<p>FIP is not immediately infectious between cats. Standard hygiene and sanitation procedures suffice.</p> <p>There may be a genetic predisposition to develop the mutation that leads to the disease. For this reason, littermates and moms of FIP kittens/cats should be adopted with a disclosure, or if already adopted, their adopters should be contacted and given basic information from the disclosure.</p>	<p>FIP is due to a mutation in a common intestinal virus (feline coronavirus) that most cats get, but most do not get sick.</p>

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	stressful event or change.	Necropsy in deceased animals is nearly always diagnostic.			
Feline Leukemia Virus (FeLV)	Highly variable. May be initially asymptomatic. Infection suppresses the immune system and can cause cancer, infections, and a number of other problems. Signs may include URI or ringworm that won't resolve, GI or neurologic signs, various infections, enlarged lymph nodes, weight loss, anemia, inappetance, lethargy. May be more prone to FIP.	<p>***Please note change to protocol in 2021- for healthy cats testing positive, confirmatory testing should be done***</p> <p>Screening test: <i>Idexx Snap FIV/FeLV Combo Test</i> on small blood sample (ideally blood should be spun down due to potential for false positives on whole blood).</p> <p>If positive: If cat is healthy, ask your vet to do confirmatory testing through Idexx: FeLV Ag and Quant PCR- Code FELVERQ (need 1 ml plasma [preferred] or serum and 2 ml whole blood in lavender top tube, cost \$53.97 if the vet is ok using our shelter account)</p>	<p>Sick adult animals who are positive on Snap test performed on serum/plasma should be euthanized without further testing. Healthy animals- see Diagnostics column for confirmatory test info. Animals who are negative or have infection classified as regressive can be adopted out with waivers. Animals who are progressively infected should be euthanized.</p> <p>Exceptions to euthanasia policy for animals diagnosed after a person is attached to them may be made for SPCA and veterinary staff on a case-by-case basis by the branch manager, as long as there are no other cats in the home.</p>	<p>Not easily transmitted, but can be transmitted by prolonged direct contact (sharing litterboxes, food, etc.).</p> <p>Standard hygiene and sanitation practices should suffice.</p>	<p>See FeLV Exposed, FeLV Positive to Negative, and FeLV Regressive Infection Disclosures for use in negative or regressively infected cats who are being placed for adoption</p>

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		<p>Test: Individual suspects, cats with cat bite wounds or history of fighting, animals from multi-cat environments (hoarders, colonies) with known FeLV or FIV in population (test all)</p> <p>Animals from multi-cat environments (hoarders, colonies) with unknown FeLV or FIV population status (test a subset, contact AH for guidance based on group size and risk)</p>			

## **References**

### **Publications**

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### Textbooks

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Miller L, Zawistowski S, eds. *Shelter Medicine for Veterinarians and Staff*. 2<sup>nd</sup> edition. Blackwell; 2013.

### Websites

Canine Cough (“Kennel Cough”): <http://www.sheltermedicine.com/library/resources/canine-infectious-respiratory-disease-complex-a-k-a-kennel-cough>

Canine Parvovirus: <http://www.sheltermedicine.com/library/guidebooks/canine-parvovirus>

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Lungworm (cats): <http://www.merckvetmanual.com/cat-owners/lung-and-airway-disorders-of-cats/lungworm-infection-in-cats>

Panleukopenia: <http://www.sheltermedicine.com/library/guidebooks/feline-panleukopenia>

Ringworm and Lime Dip Tips (see also: Ringworm documents on Staff Portal): <http://www.sheltermedicine.com/library/resources/ringworm-dermatophytosis> and <http://www.sheltermedicine.com/library/ringworm-dermatophytosis#Treating>

