Dog and cat triage guidance for use during COVID-19 pandemic in the United Kingdom



What and who is this document for?

This document has been created for small animal veterinary surgeons in the United Kingdom to help make decisions about which canine and feline cases should be prioritised during the COVID-19 pandemic. It is designed to be complementary to the Triage Tool for Cats and Dogs (bsava.com/TriageTool), included on page 4 of this document. This guidance should be used in conjunction with that generated by other professional bodies e.g. BVA and RCVS, and MUST be superseded by Government advice as appropriate.

At the time of writing, UK veterinary surgeons should only be physically examining emergencies, and cases that are highly likely to become an emergency if not treated. This is as per RCVS Guidance issued on 25th March 2020. This situation may change, and veterinary surgeons are advised to regularly check latest RCVS updates. [Link for latest updates: https://www.rcvs.org.uk/setting-standards/advice-and-guidance/ coronavirus-covid-19/].

This document covers a range of problems that may present as potential emergencies. We provide likely major differential diagnoses to consider and some guidance on potential actions. A framework is included at the end of this document which may help individual practices or clinicians make their own judgements on what to do with specific cases. Veterinary surgeons should use their clinical judgement when making any decisions about how they manage any case, and both justify and document this clearly in clinical records, including rationale for use of POM-V medicines for cases triaged remotely.

How was this guidance created?

The document has been compiled in a short space of time by UK-based veterinary specialists and shelter medicine experts. The level of evidence included is predominantly expert opinion, rather than higher levels of evidence, and it currently includes no reference to peer reviewed texts. Where a more reliable evidence base exists to guide treatment decision making, it should be used whenever possible.

What this guidance is NOT

This guidance is not a rule book, or prescriptive advice. Differential lists are not exhaustive.

Clinicians should always use their clinical judgement as to what constitutes a case that needs to be seen, and how they manage it. The document does not contain specific advice about procedures, such as provision of vaccinations or regular injections, and does not give guidance on which specific medical and surgical procedures should or should not be done at present.

This guidance is written by, and for, veterinary surgeons in the United Kingdom. It is likely to require adaptation if used in other countries, particularly in relation to potential infectious disease differential diagnoses and common toxins.

If obvious omissions or errors are spotted, please contact Zoe Belshaw via **z.belshaw.97@cantab.net** and we will endeavour to amend them and re-publish.

Contents of this document

Guidance on patient triage	page 3
Triage tool for cats and dogs	page 4
Treating dogs and cats in the clinic – safety and welfare priorities	page 5
Euthanasia	page 5
Chemotherapy, referral and non-life saving surgeries.	page 5
Example problems/presentations:	
 Respiratory distress 	page 6
External bleeding	page 7
Abdominal distension	page 8
Pain	page 9
 Trauma or injury 	page 10
Non-abdominal swelling or mass lesion	page 11
 Paresis, paralysis or collapse 	page 12
Deterioration/change in mental state or mobility.	page 13
Seizures and syncope	page 14
Known or suspected toxin ingestion	page 15
 Vomiting, diarrhoea 	page 16
PUPD	page 17
Jaundice	page 18
Anorexia	page 19
Straining	page 20
Dermatological emergencies	page 21
Decision making tool	pages 23–24
Additional resources	page 25
Authors	page 26



Your aim is to decide whether this animal needs to be seen for a consultation or can be managed remotely. Take as much time as you need by phone and/or video to get a complete and accurate history of severity and chronicity. Thinking through problem and differential lists will help you decide whether you need to see a case in the clinic. Very few cases will suffer adversely for you taking those minutes. Guidance on potential urgent emergencies is provided in the accompanying table.

Try to get photos by Whatsapp, email or text, and/or a video link if concerned or unsure what clients are describing to you. Consider a second triage phone call a few hours later, or calling an experienced colleague or referral specialist if you are unsure how to proceed. Ensure you communicate as clearly and patiently as possible – owners may not be used to providing information or making decisions in this way. Avoid using too many technical terms.

Clearly document all your decisions and ensure consent is as informed as possible. Remember to prioritise public health.

Specific questions you might consider during remote triage

- What is the pet's signalment age, neuter status, breed, vaccine history. Young versus old pets are more likely to get different problems.
- What is the problem? Is there more than one? Write a problem list, and include that in your clinical records.
- Is it a first-time problem or one the pet has had before? Does it relate to any diagnosed comorbidities or current medications?
- When was the pet last normal/how long has this problem been going on for? What was the first change that they noticed? Is it acute or chronic?
- Are the problems getting better, worse or staying the same? If improving, do you need to do anything?
- Can the owner think what might have happened to have precipitated this problem (e.g. change in management)? Is there relevant management history (e.g. outdoor access, number of animals in household, raw feeding)?
- If relevant, is there any risk of trauma, toxin or foreign body ingestion?
- If relevant, are other pets in the house affected?
- Have the owners given the pet any medications or remedies at home?
- Can they safely handle the pet to give you more specific information?
- How worried is the owner about their pet?
- Could they safely transport the pet to you if that was needed?
- What is the COVID-19 risk in this household and/or person bringing the pet?

Further specific questions are included in relevant problem sections. Use your findings to consider the major differential diagnoses for the problem(s) in this case and also to assess the logistics. What tests or treatment would make a difference? Is welfare compromised now, or will it be if left unattended? Does the pet need to be seen or can you post something/leave medications for the owner to collect? Could they administer those treatments to this pet in these circumstances? Is there an increased risk to you and your team?

Discuss costs of likely scenarios. Document your decision making in clinical records.

Triage tool for cats and dogs

URGENCY LEVEL	EXAMPLE PROBLEMS	ACTION SUGGESTED
Urgent Significant risk to life or clear risk to welfare if not seen	 New onset seizuring/fitting for more than 2 minutes OR has seizured more than once in 6 hours when not already on anti-epilepsy drugs Currently collapsed/unable to stand (include paresis and paralysis) Non responsive or rapidly becoming less-responsive Significant breathing difficulties/respiratory distress Bleeding significantly as judged by owner Obvious major injury e.g. obvious fracture, large wound, proptosis, scalding Vomited or had diarrhoea more than 3 times with associated lethargy in the past hour when not normal for that pet to do so Retching repeatedly (triage for "kennel cough") Ingested known toxin (except chocolate; see below) Ingestion of material likely to cause gastrointestinal obstruction Trying repeatedly to urinate and not passing anything Dystocia Significant anaphylactic reaction 	Vet or RVN to do a fast telephone triage as soon as possible to check the pet genuinely does have problems of this severity. Check it hasn't recovered since they called in. Check that the owner could transport the pet, check their household COVID-19 status and advise appropriately on safe transport Client to call practice from carpark, vet takes pet into building for triage, then collects full history from client by phone. For dogs: owner to remove own lead and replace with clean practice lead Consider whether you can justify treating the animal if it will require prolonged hospitalisation, will use significant staff time and/or resources e.g. PPE, and/or if the prognosis is poor.
Potentially urgent Could develop significant welfare compromise or become life threatening in current period of restriction	 Moderate or intermittent breathing difficulty/respiratory distress Non life threatening haemorrhage Acute, progressive abdominal distension Signs of pain Minor injury or trauma e.g. small wound, bite, ocular injury, lame without obvious fracture New, significant, non-abdominal swelling or mass lesion Intermittent/incomplete/recent collapse or inability to stand Chocolate ingestion Vomiting, diarrhoea, anorexia over a less acute timeline Acute onset increase in thirst or urination Producing only small amounts of urine or faeces Pruritus leading to significant skin trauma Angioedema, severe skin ulceration Acute jaundice without previous explanatory diagnosis Purulent vaginal discharge Deterioration in condition of pet with known condition Owner running out of medications known to be essential to pet's welfare e.g. insulin, anti-epilepsy drugs, corticosteroids Owner has called to request euthanasia 	Vet to phone or video call client if not dealing with case in above list. Take complete history to inform decision as to whether this is an emergency that needs to or a problem that can be managed remotely by providing advice, dispensing medications or via a second later triage call to re-assess. See accompanying document for additional guidance on differential diagnoses . Consider whether you can justify treating the animal if it will require prolonged hospitalisation, will use significant staff time and/or resources, or if the prognosis is poor.
Not currently urgent Requires teleconsultation	 Update on progress of existing case Change course of treatment of existing case given current situation (e.g. cancelling or delaying planned procedures) Prescribe repeat medication New but minor problem that could impinge on welfare e.g. conjunctivitis, nasal discharge, new moderate lameness, ruptured cat bite abscess, new skin mass 	Likely to be dealt with through telephone call or video-consultation only. Consider dispensing medication, booking a further telephone catch-up for a subsequent date. Only see cases where there is a clear welfare need.
Delay	Consultations unlikely to have an impact on welfare at present e.g. routine anal gland emptying in absence of clinical signs, booster vaccination in adult animals, routine nail clip	Reception staff to advise clients that these cases are not currently being dealt with. Consider taking details and advise we will call back when service resume. Advise to call back if the pet does develop a problem.

Treating in the clinic

- Currently we are not aware of companion animals being able to transmit the disease to people; the current spread is human to human transmission. However, animals and their associated equipment such as leads, coats and carrying boxes could act as fomites. It is therefore important to continue basic hygiene measures at all times when handling pets and their equipment follow latest Government advice on hand washing and social distancing.
- Consider adopting a treatment option that would make it less likely the pet would need to be seen again in the short term (e.g. amputation versus wet to dry dressings of a large limb wound; use of subcuticular rather than skin sutures).
- Balance resource use with demand for those resources in human healthcare e.g. anaesthetics, catheters, PPE. It may be more appropriate to consider euthanasia for cases requiring complex emergency surgery and/or prolonged hospitalisation than it would be under normal circumstances.
- Consider alternative methods of gaining consent (e.g. electronically signed consent form exchanged by email; consent form read by client and verbally agreed; verbal consent witnessed by two practice members; verbal consent documented in records).
- If you provide care for an animal with a chronic condition, supply their owner with a brief summary of diagnosis, stage, and current treatment on paper or via email in case they need to access alternative care at a different site.

Euthanasia

- Where an animal urgently requires euthanasia, the animal will need to be seen. Although this will be distressing, we suggest you euthanase the pet inside the clinic while the owner waits outside as a default. If you decide to allow the owner and animal to be together during euthanasia, strategies to limit contact include fitting a cannula and long i/v line or drip bag with pentobarbitone, or sedation and intrarenal injection (less reliable).
- Clean potentially contaminated areas following this Government guidance: https://www.gov.uk/ government/publications/covid-19-decontamination-in-non-healthcare-settings
- If owners, friends, relatives and pet taxis are unable to bring in an animal in severe and deteriorating welfare compromise to the clinic, consider whether a home visit to collect the animal from outside the home premises (animal may be placed in a collapsible cage), wearing suitable PPE, *might* be appropriate. Always prioritise human life and public health. Contact the RCVS for guidance if you are unsure of how to proceed.

Chemotherapy, referral and non-life saving surgeries

Individual clinicians and owners must make judgments based on individual animal circumstances and current Government advice. Consider the following to help with decision making:

- If Government advice is to leave home only when absolutely necessary, does this intervention truly pass that threshold or can it be postponed (e.g. provide oral analgesia, oral chemotherapy)?
- Will the client be at increased risk travelling to you (e.g. vulnerable groups, people needing to use public transport including pet taxis)?
- Will the pet require repeated visits to the clinic?
- Is this likely to be preventative, curative, or just palliative?
- Is there an alternative approach that you could use to improve or sustain welfare, even if less ideal than standard practice in the short term (e.g. changing to oral chemotherapy protocols)? Discuss with specialists as relevant for further advice.

Respiratory distress

MAJOR DDX include: pleural fluid (heart failure, neoplastic, pyothorax, haemothorax, chylothorax); pulmonary oedema (heart failure, non-cardiogenic); heat stroke; pneumothorax (trauma, ruptured bulla, neoplasia); lower airway disease (asthma, chronic bronchitis); upper airway obstruction (brachycephalic disorders, laryngeal paralysis, foreign body, tracheal collapse); pneumonia (aspiration, bacterial, parasitic); pulmonary thromboembolism; disseminated pulmonary neoplasia; pericardial effusion; rib fractures; diaphragmatic hernia; pain; labour.

- What is the pet doing does it sound to be in respiratory distress?
- Can they count its resp rate and describe the effort? Use the Cardalis app for rate calculation which helps track changes with time. Localisation: upper airway = long, slow inspiratory phase, often stertor/stridor; lower airway = predominant inspiratory effort with abdominal push; interstitial, alveolar or pleural space disease = rapid, shallow respiratory pattern with even effort on inspiration and expiration.
- Ask owners for mucus membrane colour and capillary refill time.
- If feasible, ask owners to take rectal temperature-particularly in acute cases.
- Is there any history of underlying conditions that may have progressed or recurred, including in your clinical notes from previous visits?
- Is there a relevant signalment in age or breed predisposition that might narrow differentials?
- Is there any evidence or recent history of trauma?
- Is the problem getting worse/better/staying the same?

Action if severe:

If progressive and severe, and welfare compromise is considered significant or deteriorating, consider intervention IF safe for owner and pet to travel. Severe dyspnoea is an urgent emergency and may cause extreme welfare compromise until death if not treated. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do-advise on likely severity of welfare compromise as appropriate.
- Monitor respiratory rate (Cardalis app for smartphones is free to use and keeps graph of trends over time).
- Suspect decompensated cardiac disease: if know MVD (i.e previously staged via echocardiography dispense furosemide (2mg/kg q12h) and pimobendan (0.25mg/kg q12h) over phone and document reasoning.
- Suspect decompensated laryngeal paralysis: contact referral centres running emergency referrals only service if viable, keep calm and cool if possible.
- Suspected heat stroke: running cool water if heat stroke highly likely; if unconfirmed fan, airconditioned car, cooling mats.
- Tracheal collapse: keep cool and calm, consider posting cough suppressants (such as codeine) if classical presentation or corticosteroids.

External bleeding

MAJOR DDX include: trauma including self-trauma and nail clips; coagulopathy (primary vs secondary); tumour erosion. Note that owners may also be concerned about blood in saliva, gums, urine or faeces, or from a normal season if inexperienced, and may struggle to describe severity. Photographs or video would be incredibly useful here.

- Where exactly is the blood coming from? Is it still bleeding? When did it start?
- How much blood over how long? is it soaking a tissue, more than one, how many? Kitchen roll? Face cloth/flannel?
- Is there evidence of gum pallor or a change in mentation, resp rate or effort that might suggest this is a significant problem?
- Is there evidence of petechiae/echymoses that might suggest coagulopathy? Any history of previous surgery or injuries that bled more than expected?
- Can they think what might have caused it? Worming history if relevant?
- Can they stem flow with sustained pressure if safe to do so? Ensure owners do not tourniquet unless definitely indicated.
- Is there any evidence of coagulopathy e.g. rapidly extending bruising, petechiae?

Action if severe:

- If progressive and severe, and welfare compromise is considered significant or deteriorating consider intervention IF safe for owner and pet to travel.
- Consider severity of bleeding vs distance to clinic.
- Many referral centres are still accepting cases; call for information or advice if likely the owner could afford and your clinical assessment is that care might be appropriate, or access the Pet Blood Bank for guidance on transfusions.
- Consider performing further tests only if it will change what you do.
- Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do consider booking a subsequent phone call for a few hours later to reappraise if clinic access impossible or severity uncertain.
- If a dog's bleeding is light and will likely stop but is making a mess in a house which is bothering the owner, consider advising the owner to limit its access to a specific area until it stops, or use a well secured garden.
- If bleeding heavily in an accessible area, apply firm compression for minimum 3–5 minutes +/– bandage if stems.
- Cold peas etc may slow epistaxis if placed on bridge of nose wrapped in towel.

Abdominal distension

MAJOR DDX include: free fluid (blood, urine, bile, chyle, transudate, exudate); faeces; organomegaly (solid organ, gas, fluid); pregnancy; obesity; free gas (rare!).

- Describe the problem, its chronicity and rate of change.
- Can they think what might have caused it? Are there relevant signalment, co-morbidites, toxin access, foreign body access, potential trauma (including delayed), recent abdominal surgery, recent NSAID use, potential pregnancy, female entire signalment with vaginal discharge etc that might help narrow differentials?
- When did the pet last eat, drink, pass urine and faeces and how did they appear?
- Is it female entire? Could it be pregnant or having a pyometra?
- Is there any history of vaginal discharge, stranguria, obstipation, constipation?
- Are there obvious problems in other body systems e.g. changes in demeanour, respiratory rate or effort, unproductive retching, scleral or mucus membrane colour?
- Is the pet in pain or does it seem painful on gentle, instructed abdominal palpation if safe to do so?
- Does abdomen feel soft or hard to the owner?
- Check the neck for jugular distension/pulsation suggests pericardial effusion.
- Check rectal temperature if available.

Action if severe:

If progressive and severe, and welfare compromise is considered significant or deteriorating or too difficult to determine a likely underlying cause, consider intervention IF safe for owner to travel. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Send images if possible.
- Monitor closely for deterioration which would constitute an emergency could they measure or document girth for example, or get a video clip now and one in a few hours/next day to compare? Advise they contact you if distension becomes worse, if the animal develops other signs compatible with an emergency eg retching, severe vomiting or diarrhoea, vaginal discharge etc. Specify what to watch for depending on the potential differential diagnoses you are considering.

MAJOR DDX will depend on specific signs shown. The animal may direct specific behaviours towards the site of pain which can aid localisation. Beware that owners may also consider behaviours associated with a female cat in season, severe flea infestation and normal labour as pain.

- Describe exactly what the pet is doing using video or photo if possible to localise the pain.
 Signalment and management may be particularly important here to narrow differentials.
- When was the pet last normal? When did it start, and how is it progressing? How bad do they think this is? Do you agree?
- Can they think of a potential cause? Recent history of outside access or potential trauma? Progression of an underlying condition?
- Any visible foreign material in feet or lesions on paws if limb lameness?
- Describe visible signs, inc mentation, resp rate and mucus membrane colour.
- Do the hindlimbs feel cooler than the forelimbs? Are the claw beds on the back legs a different colour to the front? If so suspect arterial thromboembolism.

Action if severe:

If progressive and severe and/or if no suitable analgesics at home, consider intervention IF safe for owner to travel. Consider imaging in lameness cases only if the animal is non-weightbearing all the time, or unable to walk. Otherwise advise that imaging at a later date may be appropriate. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do. Advise they contact you if current pain related behaviours become more frequent or severe, particularly in the face of appropriate analgesia, or any new behaviours start.
- Advise owner to rest the pet including crate rest if available and suitable.
- Can use paracetamol in dogs <u>NOT</u> cats (plus consider potential human need for this drug in short supply).
- Proactively warn owners NOT to use other household analgesics.
- Consider posting/requesting collection of licenced NSAIDs or oral opiates as required ensure clear guidance re adverse events and what to do is sent with them, and discussed over the phone. Record this in your clinical notes. Advise that imaging at a later date may be appropriate.
- Corticosteroids may be more analgesic for aural or dermatological pain (see dermatology guidance at end of document).
- Consider prescription of broad spectrum antibiotics if high index of suspicion for abscess (e.g. outdoor cat with localised swelling, discharge or pain) or infective arthritis (e.g. dog with long standing osteoarthritis with sudden, severe deterioration).
- If arterial thromboembolism is suspected (cat with history of heart disease, hindimbs feel cool, etc) then start aspirin quarter of 75mg tablet. Emphasise that cat really needs to see vet for analgesia or euthanasia as soon as possible.

(NB overlaps with other problems on list; see sections on pain, bleeding and skin disease for example)

MAJOR DDX: Trauma or injury vs other condition eg aortic thrombus, spinal disease, osteoarthritis or tumour pain, vestibular disease. Don't forget fleas as a common cause of skin trauma.

- What is the problem and when did it start? Was it acute or chronic onset?
- Can they think of a cause? Could the animal have actually experienced trauma? (e.g. unlikely if indoor cat though don't forget non-accidental injuries will still occur).
- Describe any other concurrent clinical signs or changes.
- How bad is this? Is it an emergency, or might it become one, or could they manage the pet at home?

Action if severe:

Consider intervention IF safe for owner to travel and welfare compromise is considered significant or deteriorating. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do if that happens. Advise they look for signs of pain behaviours, infection, and evidence of cardiorespiratory compromise.
- Advise that deterioration could be slow in conditions like slow internal bleed, subclinical pneumothorax.
- Consider booking a further remote triage consultation for later that day to monitor whether more urgent action may be needed.

(see page 8 for abdominal distension)

MAJOR DDX include: abscess, haematoma, granuloma, tumour, cyst. Again photographs and videos are very useful here.

- What and where is it? How big? Changing? Bothersome to pet?
- Can they think what might have caused it? Does the signalment or pet's access to outside help?
- Describe visible signs now, inc mentation, resp rate and mucus membrane colour.
- Painful vs non painful?

Action if severe:

If progressive and severe, and welfare compromise is considered significant or deteriorating consider intervention IF safe for owner to travel. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Monitor for signs of progression, including follow up phone call. Advise owners to look for changes in size, pain behaviours directed to the site, any discharge, other signs of systemic illness and contact you if these occur.
- Post analgesics and/or antibiotics if considered sufficiently likely to be needed depending on suspected underlying cause.
- Advise on buster collars, bathing etc if the pet is bothering the area.
- If this is likely to be a non-infected mass lesion, consider whether this is likely to become a true emergency before advising examination. Biopsies and FNAs of potential malignancies may not meet this threshold.

MAJOR DDX include: aortic thromboembolus; any spinal cord disease affecting bone, disc, nerves or blood supply; acute polymyositis/polyneuritis; meningitis; myaesthenia gravis; severe osteoarthritis; acute or chronic neurological or joint disease; pain; systemic disease causing change in mentation; tetanus; movement disorders.

- What is the problem, which limb(s) is it affecting? Is it lateralised? When did it start and what is the rate of progression?
- Describe visible signs, inc mentation, resp rate and mucus membrane colour-is this a systemic problem that includes the brain, or something localised?
- Is the animal showing signs of pain?
- Consider age and signalment. Assess underlying problems e.g. muscle atrophy and other signs e.g. scuffed nails that might indicate this is chronic.
- If this is likely to be a neurological problem, are changes compatible with upper or lower motor neurone problems? Is there a reaction to firm palpation of the feet compatible with deep pain?
- Do the hindlimbs feel cooler than the forelimbs? Are the claw beds on the back legs a different colour to the front? If so, strongly suspect arterial thromboembolism in a cat.

Action if severe:

If progressive and severe or very painful consider and welfare compromise is considered significant or deteriorating intervention IF safe for owner to travel. Consider imaging only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on appropriate analgesics +/- immobilisation.
- Advise on signs of deterioration to monitor and advise they contact you urgently if these occur. Such signs include, but are not limited to, changes in:
 - Mental state and/or other systemic signs
 - Voluntary movement in limbs
 - Control of urinary/faecal function
 - Pain
- If arterial thromboembolism is suspected (cat with history of heart disease, hind limbs feel cool etc) then start aspirin quarter of 75mg tablet. Emphasise that cat really needs to see vet for analgesia or euthanasia.

Deterioration/change in mental state or mobility

(see page 12 for paresis and paralysis)

MAJOR DDX include: sepsis; severe pain; intracranial swelling, pressure or herniation; post-ictal; severe metabolic disturbance (inc hyper and hypoglycaemia, electrolytes, hydration status); blood loss; hyper or hypothermia; toxins; major organ dysfunction (e.g. acute kidney disease, portosystemic shunt); significant anaemia; terminal debilitation from chronic disease.

- Describe exactly what the animal is doing. How does the animal respond to stimuli? Is it getting better, getting worse or staying the same?
- Does the signalment help with likely differentials? Any known predisposing causes inc concurrent disease or potential toxin access?
- When was the animal last seen completely normal? What happened between then and now? Any triggers?
- Looking back had anything else changed in the animal's history or management?
- Has this happened before? What happened then?
- Can they take a temperature, including even feeling temperature of lips if safe to do so?

Action if severe:

If progressive and severe, or the animal is deteriorating, consider intervention IF safe for owner to travel. Warn that prognosis may be guarded. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do. These include progression of existing signs, and emergence of any new clinical signs, or lack of improvement over a specified period.
- Feed if suspect hypoglycaemia, or use glucose syrup. If the pet is a known diabetic, review their feeding, injection and insulin storage regime and consider adjusting the insulin dose if appropriate.
- Review medication if known likely comorbidity.
- See later for information on toxins, and seizures.

Seizures and syncope

MAJOR DDX for seizures include: intra-cranial problems (e.g. epilepsy, brain lesion including head trauma and space occupying lesions, meningitis); extra-cranial problems (e.g. toxins, hypoglycaemia, mass lesion, hyperthermia, severe metabolic disturbance)

MAJOR DDX for syncope include: cardiac disease; vasovagal syncope; carotid syncope; situational syncope; severe airway disease; metabolic disease; significant anaemia.

Note owners may consider vestibular disease and pain behaviours to be seizure activity.

- What exactly happened? Describe episode, frequency, pattern (loss of consciousness, passing urine or faeces, movement during episode, time to recover).
- Is it happening right now vs just finished vs three days ago?
- Has it happened before?
- Is this a pet with a known predisposition to a cause of to this problem e.g. epileptic, known to have a neurological condition, diabetic, significant heart disease, porto-systemic shunt?
- Describe visible signs, inc mentation, resp rate and mucus membrane colour
- Older than > 6 years of age consider that this is unlikely idiopathic epilepsy

Action if severe:

If progressive and severe, and welfare compromise is considered severe or deteriorating consider intervention IF safe for owner to travel. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

If this is a single seizure from which the animal has recovered, monitor the pet remotely initially. Ask owners to report any further seizure activity and describe red flag signs when they should contact you as an emergency; a second seizure may not occur for a considerable time.

- Advise on signs of deterioration and what to do. Specify what to call about eg. cluster seizures, prolonged tonic-clonic seizure activity, increasing frequency of any episodes.
- If episodic, advise on collecting useful observations at home.
- Take care themselves not to get injured.
- Feed if suspect hypoglycaemic, and review insulin if diabetic.
- Dispense anti-epileptic drugs +/- rectal diazepam if appropriate.

Establish toxin type, amount ingested and time (window) of ingestion then consult appropriate texts, VPIS (see below) or referral support to determine whether the case needs to be seen and emesis induced or supportive care started (see below for resources).

Action if severe:

If the toxin at the dose ingested constitutes a risk to the animal's health from not inducing emesis or administering an antidote, or if there are now clinical signs that require hospitalisation, advise the owner to bring the pet IF safe to do so. Refer to appropriate texts, VPIS or referral support for case management advice.

- VPIS for owners: 01202 509000
- VPIS for member veterinary surgeons: 0207 3055055 or 0203 282 3781
- Toxin specific advice if agent known: https://www.vpisglobal.com/common-poisons/
- Emergency drug supply antidotes toxbox and elixir: https://www.vpisglobal.com/toxbox/

The list of most common toxins may include (canine and feline UK):

- NSAIDs (non-steroidal anti-inflammatory drugs): Leads to acute kidney injury, GI ulceration, vomiting and diarrhoea)
- Anticoagulant rodenticides (haemorrhage)
- Chocolate: (excitability, tachycardia, GI signs most common, most likely canine patients)
- Paracetamol: (liver failure more likely in feline patients)
- Permethrin: (tremors, seizure like activity, hyperthermia; most likely feline patients)
- Metaldehyde: (tremors, seizures; most likely canine patients)
- Lilies: Acute kidney injury (feline patients)
- Grapes, raisins, currants and sultanas: acute kidney injury (canine patients)
- Adder: pain local and or system swelling, local infection, systemic disease: multiple organ dysfunction, myocardial injury etc, hepatic, renal injury, thrombocytopaenia
- Benzalkonium chloride: (patio cleaners and some detergents); local oral and oesophageal burns (less life threatening but may cause pain from significant oral ulceration, resolves with symptomatic treatment and analgesia; most likely feline patients)
- Others toxins of frequent concern may include ethylene glycol, xylitol and human antidepressants (SSRIs)

Vomiting/diarrhoea

MAJOR DDX include: foreign body; intussusception; intestinal torsion; pancreatitis, GDV; toxin ingestion; peritonitis; gastrointestinal infection including parvovirus, leptospirosis, infection from raw feeding; gastrointestinal inflammation; acute or chronic kidney disease; pyometra; endocrinopathy e.g. addisonian crisis, hyperthyroidism.

- Is this a problem the animal has had before, or has a known predisposition to?
- When did it start, and can you think of any triggers e.g. diet changes, toxin or foreign body access?
- Getting better/worse/same?
- When did it last eat or drink? Able to keep water down?
- Upper vs lower GI signs if diarrhoea (lower GI = straining, colitis, fresh blood, little and often faeces vs upper = large volume less often, signs of colitis and straining rare)
- What is the animal's demeanour? Does it remain bright and happy, or is it starting to become dull, lethargic or depressed?
- Abdominal pain on instructed palpation?
- Vaginal discharge in female entire dogs?
- Change in body condition that might suggest chronicity?
- Confused with regurgitation?

Action if severe:

If progressive and severe, or may need acute medical or surgical intervention consider face to face consultation IF safe for owner to travel. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do. This may include progression or non-cessation of clinical signs, and emergence of new clinical signs, particularly changes in demeanour or behaviour. Advise them to monitor what the pet eats and drinks, and the frequency of episodes of vomiting and diarrhoea. Consider booking a second remote triage appointment, even if just for your own peace of mind.
- Starve for minimal period of time then bland diet if consider likely simple GI upset.
- Encourage water intake.
- Carefully consider posting anti-emetics (such as maropitant) if appropriate (i.e. clinically normal dog aside from low-severity vomiting with minimal chance of foreign body, not appropriate for more severe presentations).
- If potentially infectious cause check for other susceptible animals in the household and advise re hygiene and isolation if possible.
- If there is potential for a zoonotic infection e.g. animal has a raw food diet, stress the importance of excellent hygiene, washing hands after handling the animal and keeping the animal apart from particularly vulnerable family members.



MAJOR DDX for significant PUPD include: pyometra; diabetes mellitus; acute kidney disease (including toxins); hypercalcemia of malignancy; acute hepatic disease; acute or chronic endocrine/neoplastic problem.

- Any known predisposing cause including toxin access in cats, pyometra, current unstable diabetic.
- Is it true PUPD (vs pollakauria vs urinary incontinence)?
- Severity (whole water bowl being drained vs more subtle increase).
- Any other concomitant signs that might suggest a primary cause? (e.g. weight loss, vaginal discharge if relevant, icterus, lymphadenopathy, halitosis).
- Rate of onset (e.g. acute kidney injury will be relatively rapid).
- Describe visible signs, inc mentation, resp rate and mucus membrane colour, change in body weight/BCS (may indicate chronicity).

Action if severe:

If acute in onset and progressive and severe, and you consider the differential diagnosis to be something that could turn into a true emergency, consider intervention IF safe for owner to travel. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do. These may include the onset of new clinical signs compatible with potential differential diagnoses, or a progression of the current PUPD. Consider booking a follow up telephone call, even just for your own peace of mind.
- Measure water intake over 24h (isolate pet from others for this period if possible).
- Video/photo of any visible changes.
- Consider posting or leaving for collection a urine dipstick to owner and asking them to photograph the result (these can also be purchased online).
- Ensure animal remains well hydrated with adequate water access, make plan for when a visit to the clinic is possible.
- Diagnosing and stabilising a new diabetic could be particularly challenging in the current situation. Assuming clinically well and not ketotic then a pragmatic approach might include introduction of a low-dose insulin plus a degree of home monitoring (such as use of urine dip-sticks or home glucose monitoring) with follow-up by telephone. Monitor on appetite, PUPD and weight as well as urine/ glucose. Signpost owner to online resources e.g. www.caninsulin.co.uk which has dog and cat owner sections.
- Pets with suspected endocrinopathies including hyperthyroidism and hyperadrenocorticism should be monitored remotely in the first instance until travel restrictions are lifted. Only if their welfare is significantly compromised should they be seen for diagnostic blood tests at present.

Jaundice

MAJOR DDX include: pre-hepatic (red cell lysis of any cause including IMHA, toxins); hepatic disease (infection including leptospirosis and ascending bacterial cholangiohepatitis; inflammation; tumour; toxins; acute or chronic failure; feline hepatic lipidosis); post-hepatic (biliary tract obstruction from liver to duodenum, gall bladder rupture, severe pancreatitis).

- Does the animal's signalment help with limiting differentials? Does the animal have any known predisposing causes, or recent access to toxins/medications which could have this adverse event?
- When did it start and did anything happen just before e.g. diet change, access to novel environment, period of vomiting? How long has it been going on for?
- If this is a dog, is its leptospirosis vaccine up to date?
- What has the owner noticed, e.g. change in colour of urine, sclera, gums, urine? Get a photo or video link if possible.
- Are there other systemic changes e.g. increased respiratory rate or effort, pallor, weakness, altered mentation that might suggest significant anaemia?
- Are there systemic changes e.g. vomiting or signs of abdominal pain that might suggest pancreatitis?
- Are there other systemic changes that might suggest this is acute or chronic hepatic disease e.g. significant weight loss?

Action if severe:

If the jaundice is verifiable and new, consider intervention IF safe for owner to travel. Consider performing further tests only if it will change what you do. In cases of suspected or confirmed leptospirosis, consider whether the time and resources to treat this pet intensively in a hospital setting can be justified (i.e volume of PPE required). Refer to appropriate texts or referral support for case management advice.

- Advise on clinical signs to monitor and what to do if deteriorates. This should include other clinical signs compatible with your main differential diagnoses.
- Withdraw/withhold any medications that might be hepatotoxic.

MAJOR DDX: inability to smell or taste food (nasopharyngeal disease); inability to pick up or chew food (dental or jaw disease, oral ulceration or trauma, oral mass lesions); inability to swallow food (neurological disease, oesophageal disease); nausea (central vs peripheral); gastrointestinal disease or obstruction; doesn't like current food; fear associated with feeding; generalised metabolic disease affecting mentation; eating elsewhere(!).

- Is it definitely anorexic, or just picky today? Is it losing weight? Is it eating anything at all? Drinking?
- Are there other clinical signs or behaviours suggestive of an underlying cause?
- Are there known underlying causes or current medications that could be causing this?
- Ask the owner to describe the animal's interest in and behaviour around food trying to eat vs avoiding? Video may help here.
- Any other signs that might help narrow the differential diagnoses e.g. nasal discharge and sneezing in cat flu, halitosis in dental or renal disease? Any signalment help (e.g. dental disease, tumours more likely in older pets)?

Action if severe:

Anorexia is unlikely to be life threatening in the short term if not combined with other clinical signs that suggest more severe underlying problems. Consider intervention only IF safe for owner to travel and you consider the welfare need sufficient. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Video clips can be really useful in these cases ask the owner to film the pet's behaviour when offered food.
- Consider use of NSAIDs if potentially pain related reduction in appetite, including for pets with significant dental disease, though beware GI or renal disease as potential co-morbidities. Ensure owners always give with food and are aware of what adverse events may occur and what to do.
- Consider appropriate antibiotics if there is evidence of dental abscessation.
- Consider offering different foods, warming food to make more smelly, feeding in a different location if relevant.
- Consider asking the owner to weigh the pet, if feasible to get a baseline for this episode.

MAJOR DDX include: Blocked bladder (vs cystitis/FLUTD); constipation; colitis; prostatic mass lesion; perineal hernia; large intestinal foreign body or mass lesion; intussusception; dystocia.

- Signalment inc neuter status.
- Describe straining-stance, effort, frequency and triggers (e.g. in litter tray or on walk vs all the time) and chronicity.
- Previous history of GI or urinary tract disease? Diet change? Foreign body access?
- Has this happened before? If so, what happened?
- Any new stressors for cats e.g. people at home when not usually, new pet?
- Are they passing urine, faeces or anything from the vagina? How much in what space of time?
- Colour of faeces i.e. tar like?
- Frequency, colour and volume of urine?
- Describe other visible signs, inc mentation, resp rate and mucus membrane colour and distress level of pet.
- Bladder large or small, painful or not on instructed abdominal palpation if safe to do so?
- If whelping, duration of unproductive straining? Presence of green vaginal discharge?

Action if severe:

If progressive and severe, consider intervention IF safe for owner to travel. Consider performing further tests only if it will change what you do. Refer to appropriate texts or referral support for case management advice.

- Advise on signs of deterioration and what to do. This should be specific to the most likely differential diagnoses for this pet. Consider booking a follow up triage call, even if just for your own peace of mind.
- If apparently normal whelping, give advice and monitor.
- Consider posting appropriate therapy for FLUTD and giving behavioural advice if confident not blocked.
- Provide advice if this sounds like a normal whelping including red flags for what to look for if dystocia occurs.

Dermatological emergencies

Extreme pruritus leading to skin trauma

Known history of allergic skin disease or history suggestive of ectoparasite.

Action if severe:

If progressive and severe, consider intervention IF safe for owner to travel.

Advice for owner if clinic access impractical or unnecessary (including medications that could be given from home, or posted, or issued by prescription or follow up):

- Apply buster collar/t-shirt if available and appropriate.
- Consider (depending on general health status and known comorbidities) posting/collection of prednisolone, oclacitinib and ectoparasiticide meds (isoxazolines drugs of choice, for all pets in house) and/ or a buster collar!
- Scissor clip fur on any lesion (NOT if risk of getting bitten).
- Bathe in salt water if appropriate and apply calamine lotion and supply chlorhexidine 4% for use on lesions undiluted with 10 minute contact time.

Urticaria and Angioedema

Reaction to a medication, food, insect sting, snake bite.

Action if severe:

If progressive and severe, consider intervention IF safe for owner to travel. Refer to appropriate texts or referral support for case management advice

- Animal really needs veterinary intervention as these are severe life-threatening conditions that require therapy with glucocorticoids.
- Consider a prescription for oral human prednisolone emailed to clients nearest pharmacy.
- As a poor substitute client may consider chlorpheniramine 0.5mg/kg every 8 to 12 hours. Consider using paediatric solution as an over the counter drug.

Dermatological emergencies

Severe generalised ulcerative disease (including but not exclusively erythema multiforme, toxic epidermal necrolysis, vasculitis)

Reaction to medication, infection, autoimmune skin disease.

Action if severe:

If progressive and severe, consider intervention IF safe for owner to travel.

These are severe life-threatening diseases and verbal advice based on photographs and history may be useful from a dermatology specialist.

- Consider home cooked food and withdrawal of all drugs.
- Consider (depending on general health status and known comorbidities) posting/collection of prednisolone or ciclosporine.
- Consider a prescription for oral human prednisolone emailed to clients nearest pharmacy.

Decision making tool for prioritisation of companion animals for veterinary care during COVID-19 emergency

This document is conceptually based on the Asilomar Accords, which were similarly established to enable prioritisation of veterinary care under conditions of limited resources, although under very different circumstances. It also borrows from an ethical decision-making matrix as described by James Yeates and Dorothy McKeegan in the BSAVA Manual of Shelter Medicine.

The guiding principles of this document are:

- 1. We all have a personal and professional responsibility to limit spread of COVID-19. This means limiting person to person interaction unless unavoidable. This also means generating a need for resources such as oxygen and personal protective equipment should be weighed against their availability for human healthcare.
- 2. Veterinary professionals are the guardians of animal welfare. Our role in preventing and relieving suffering is a unique and binding responsibility.

The present circumstances may cause tension between 1 and 2. Our drive to relieve and prevent animal suffering may inadvertently negatively impact human healthcare by requiring social contact, risking infection of staff or clients, or utilising resources which may be needed elsewhere. Conversely, by interpreting the social restrictions at their most stringent, animal suffering will inevitably occur. This document provides a framework for a practice to work together to negotiate a way of working which they feel appropriate to the present crisis.

We suggest patients presented during this crisis can be usefully divided into 4 groups:

1. Non-urgent

- Examples may include a booster of an adult animal; routine nail clip; routine expression of anal sacs.
- These should not be seen whilst the risk to human health is high.
- 2. Non-urgent but if not seen but may cause more severe problems in near future
 - Examples may include any chronic conditions that are progressing, or new problems that don't appear to be compromising animal welfare but have potential to do so (e.g. a new soft cough). These may be seen if medication for a working diagnosis cannot be dispensed remotely and if considered safe (i.e. non-infected household, sufficient staff capacity).
 - Efforts to minimise the risk of COVID-19 transmission should be made (e.g. remote prescribing of POM-V).
 - Efforts to minimise the utilisation of resources needed for human health should be made (e.g. using injectable anaesthesia vs inhalant, reducing PPE use (masks, gloves).
- 3. Remote triage and prescription of medication could be carried out
 - We would suggest this be the default option for most non urgent presentations
 - Although not ideal, in the short term this may be used to balance the need to ameliorate animal suffering and the need to protect human/public health.
 - The accompanying document provides specific guidance for triage to common presentations.
 - If this proves unsuccessful, it may be appropriate to move to 4.
- 4. Conditions requiring veterinary treatment on site at the clinic
 - As above, the need to balance resource use with demand for those resources in human healthcare should be considered.
 - It may be more appropriate to consider euthanasia for cases requiring emergency surgery and prolonged hospitalisation than it would be under normal circumstances.
 - When animals are brought to the clinic, precautions should be followed:
 - i. Only one owner or agent to accompany
 - ii. Owner to wait outside/in car and give history over telephone
 - iii. Minimise physical contact with owner (2 meters distance)
 - iv. Remember the pet, along with its lead/ carrier etc could be a fomite and handle accordingly i.e. swap to practice clean lead and collar in carpark, apply anti-viral wipes to outside of carrier prior to transferring to clean practice cat carrier.

Which category does each patient fall into?

We present the tool below with the hope that each practice can, as a team, decide what is right for them. It is adapted from Yeates & McKeegan. It can either be used on a case-by-case basis (see example on next page), or in advance to develop practice protocols around how each type of case should be addressed. Each option is scored from 0-10 from the perspective of each stakeholder. A score of 0 means that option is completely unacceptable or impossible, whilst a score of 10 means this is the best possible option. For example, if treatment of an animal would require a ventilator which is being loaned for human use, that option might be scored as a 0. Likewise, staff may feel that for an animal in severe and unremitting pain, phone triage is unacceptable and score it a 0. Where all scores are above 0, a total should be calculated and the highest scoring option may be considered the best. However, some team members may prioritise some stakeholders' interests over others and this should be taken into account. This is a framework for decision-making, but ultimately the decision lies with the veterinary team making it.

	Animal	Owner	Veterinary staff (e.g. infection risk)	Wider society	Total
Option 1 (e.g. treat at clinic)					
Option 2 (e.g. phone triage and post medication)					
Option 3 (e.g. euthanase animal)					
Total					

As the pandemic progresses, it is to be hoped that the risks to public health will decrease. At this point, and in the light of updated Government guidance, the weightings given to public health concerns may change, and therefore it may become appropriate to extend the range of cases seen.

As an example, consider the case of Reggie, a 9yo CKCS. He has a known history of myxomatous mitral valve disease and a 2/6 cranial LHS murmur. He was previously asymptomatic but the owner has called to say he is very lethargic and struggling to breathe. He is panting so the owner cannot obtain a RR. On video you see his mucous membranes are pale pink and he has an abdominal component to his breathing. The scores below are examples and other practitioners may score this differently. His owner is very concerned and would like him to be seen. She is 65 years old, has COPD and has her own car.

Using the example below, the conclusion would be to support a decision to remote prescribe, with the owner to report any deterioration, at which point the scores would be re-evaluated.

	Animal	Owner	Veterinary staff (e.g. infection risk)	Wider society	Total
Option 1 (e.g. bring to clinic for examination and GFAST scan)	10	3	4	3	20
Option 2 (e.g. phone triage and post medication)	5	5 (she is more concerned about the dog but safer from COVID)	8 (safer from COVID but concerned this is not their usual standard of care)	10	28
Option 3 (e.g. euthanase animal)	1	1	1	10	13

Additional resources

RCVS guidance on COVID-19: https://www.rcvs.org.uk/setting-standards/advice-and-guidance/coronavirus-covid-19/

Practical (NHS) advice for conducting video consultations: https://bjgplife.com/2020/03/18/video-consultations-guide-for-practice/

Guidance on obtaining consent if client unable to sign a consent form https://www.bsava.com/adviceforCOVID19

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