

# Overcoming potential barriers to investigating and treating myxomatous mitral valve disease

Zoe Belshaw

**Achieving a diagnosis of mitral valve disease (MMVD) can be relatively straightforward. Persuading owners to investigate and treat, and then maintaining adherence to a therapeutic regimen can be significantly more challenging. While heart murmurs are most likely to be detected during the annual health check or booster consultation, recent evidence suggests this might not be an ideal time to discuss MMVD. This article reviews some of the potential barriers to owners following practitioners' recommendations, and suggests some solutions.**

Diagnosis of any chronic, potentially progressive condition can be a cause of great concern to owners. Some describe feelings of guilt: 'Is this my fault? Did I do something wrong?'. While others describe a sense of helplessness: 'I just didn't know what to do when my vet told me...'. Detection of a heart murmur can come as a big shock to an animal's owner when it is made at the preclinical stage before any overt signs of illness. In these circumstances, the routine annual health check or booster consultation unexpectedly becomes something quite different.

How an owner is communicated with is pivotal to what follows. Whether the recommendation is watchful waiting, investigation or treatment, the owner is now aware that the dog has something wrong with its heart that probably cannot be fixed. For some owners, the relationship with their dog may be irrevocably changed. While many owners will opt for investigation and treatment, others decline. This can be incredibly frustrating for vets, and can be associated with a sense of failure as an advocate for that dog's welfare.

Recent research describing owner perspectives on managing ill pets has highlighted reasons that owners do not, or cannot, follow recommendations. The rest of this article builds on these data using common scenarios to explore why owners might not wish to investigate or treat a cardiac condition, and suggests alternative approaches.

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## Scenario 1

### Owner not engaged in discussion

Mrs Jones, a first-time dog owner, presents her six-year-old female cavalier King Charles spaniel, Poppy, for a routine annual health check and booster. Mrs Jones reports no concerns. During the clinical examination, you detect a loud mitral murmur that is not described in Poppy's clinical records. You explain to Mrs Jones what you have found and make recommendations for further investigation. Mrs Jones does not seem to engage with this and answers that she will have to think about it. Why might this have happened and what could have been done differently?

### Mismatched expectations

Recent evidence (Belshaw and others 2018) suggests that owners use prior experience to form expectations of what will happen during the annual health check/booster consultation. Some with little previous pet ownership experience may expect discussion to always focus on preventative healthcare. In addition, different vets include different content in these consultations. If the focus in all previous health checks had been on disease prevention, Mrs Jones might have been unaware that other topics could be discussed.

**Communication tip:** First time pet owners may have little idea about how veterinary practices work. Ensure your practice website or leaflets, and reception staff, provide clear information about the function and content of annual health check/booster consultations to ensure owners' expectations match your own. Summarise briefly what you are going to do at the beginning of a health check consultation for a client new to you. Read owners' body language as well as listening to gauge how your words are being received and tailor them accordingly.

### Too little time

The average adult dog or cat health check/booster consultation in the UK is allocated 10 to 15 minutes but these consultations might be under considerable time pressure (Robinson and others 2014, Robinson and others 2016). The multitude of topics to cover can necessitate a more paternalistic consultation style where information is delivered without eliciting the owner's perspectives or concerns. Mrs Jones might have had questions but perhaps she sensed you were running behind and had a busy waiting room or she herself was already late to collect her children.

**Communication tip:** Invite the owner to book a separate consultation specifically to discuss your findings in detail rather than trying to deliver a huge amount of information in a short space of time at the end of a health check/booster consultation. The murmur might have been there months so doesn't need immediate action and taking more time to explain and discuss options can improve the likelihood of a successful outcome. Reassure the owner that there is no need to worry, that this is a common problem but that there are several options for what to do next and you would like to have time to go through them in a proper discussion. Give them some reading material or direct them to a website, and ask them to generate a list of questions to bring to the following consultation. You can also suggest they bring a family member to this second consultation if that would be useful for them. By explaining what the consultation will include, owners are likely to be more inclined to rebook, and to not argue with being charged a second consultation fee. If you feel you cannot charge for the consultation, it's still worth rebooking: if the owner agrees to investigate and treat as a result, the profit will far outweigh any loss.

### Unaware of the problem


Heart murmurs are something that even the most vigilant owner cannot easily spot for themselves. If Mrs Jones did not know that Poppy was at risk of developing MMVD, your diagnosis will have come as a total surprise (Fig 1), and lack of knowledge is a significant factor in decision making by owners of ill dogs (Christiansen and others 2016). Some owners can go into sheer panic at the thought their dog might die. Read the owner's body language to



Credit: Victor Fitzpatrick

**Fig 1: Owners may be unprepared for their dog being diagnosed with a heart murmur if they are unaware of certain breeds being at risk of mitral valve disease and have not noticed any signs themselves**

see if the information has shocked or panicked them, and reassure appropriately.

**Communication tip:** This consultation might have gone much better and the information been better received had Mrs Jones known Poppy's breed was at risk of MMVD. To raise awareness among owners, consider developing a series of social media posts or newsletter articles that are clearly marked as relevant for owners of at-risk breeds providing information on MMVD, its cause, diagnosis and management. Consider running client evenings for owners of susceptible breeds, and perhaps invite some owners of affected dogs to answer questions from the audience. These questions will help develop further social media posts. **By introducing wider knowledge to pet owners it will come as less of a surprise to them should a heart murmur be detected.** <Added. OK?> 

### Not their usual vet

Continuity of care isn't always prioritised for annual health check/booster consultations, so you might be seeing a client for the first time. Some owners will have built a strong relationship with one of your colleagues. Mrs Jones might have preferred to talk to another vet who she knows and trusts.

**Communication tip:** This can be a tricky one to navigate without undermining your own authority, but if the owner seems disengaged and your records suggest that they often see a colleague, offer to book an appointment with them to discuss the findings and next steps.

### Didn't understand the explanation

It is easy for us to forget how much we have been taught, so we sometimes expect owners to understand relatively complex anatomical and physiological terms. In reality, many will have thought little about science since their school-days. Mrs Jones might have had no idea what you were talking about.

**Communication tip:** Ask owners if they have any experience of heart problems in people

or animals. This will help you to gauge their medical literacy and prior experiences. If not, start with the basics, such as asking if they have ever heard of a heart valve and build from there, regularly checking that they are still following. If you have a whiteboard or heart model in your room, use it (Fig 2).

### Fear of anaesthesia or sedation during investigation

People can be particularly risk averse when making decisions on behalf of others (Wroe and others 2005), and this might well extend to pets (Belshaw and others 2016). Owners are often concerned about the risk of sedation or anaesthesia, particularly in a dog that they now know has a heart problem. Mrs Jones might be thinking about how she would feel if Poppy died under an anaesthetic.

**Communication tip:** If you are recommending sedation or anaesthesia as part of the investigation, proactively ask owners if they have any concerns about this so you can reassure them or seek alternatives.

### Costs

The PDSA's PAW report (PDSA 2017) identifies that owners grossly underestimate the lifetime cost of dog ownership. Poppy's MMVD is likely to be an unanticipated cost at a time of widespread austerity in the UK. As Poppy had been previously well, Mrs Jones might have been worried about the cost of the investigations being suggested.

**Communication tip:** Discuss costs honestly and openly, describing the benefit to the dog's treatment that the planned investigations will allow you to make. Decisions about what corners you can cut to save costs can be ethically challenging. Ensure you record fully in your clinical notes anything that was offered and declined.

### Not the key decision maker

The person who presents the dog to you for examination could be one of multiple decision makers for that pet. Perhaps Mrs Jones needed to talk to other family members about the decision to investigate Poppy's murmur further.

**Communication tip:** Often the person in the consultation room will need to remember what you have said to tell someone else. Summarising in writing a few key points, giving them a leaflet, or referring them to a website can help them with this and the multiple owners making a positive decision to investigate further.

### Having a bad day

Broken sleep, worry about other matters and hidden disabilities are just some reasons that make it hard for owners to concentrate on the information they are given. Sometimes it is just not the right time to have a difficult discussion. One of these might have applied on that day to Mrs Jones.

**Communication tip:** Ask the owner whether this is a good time for them to discuss the heart murmur, and offer to book them in for another consultation if not. They may then disclose some information that enables you to better understand why they were not engaged in what you were trying to say. Be sensitive, and accept that sometimes a dog ends up being low down on a long list of priorities. If that's the case, ensure the owner knows your door is open for when things get better, and that it won't be too late to start medications, then.

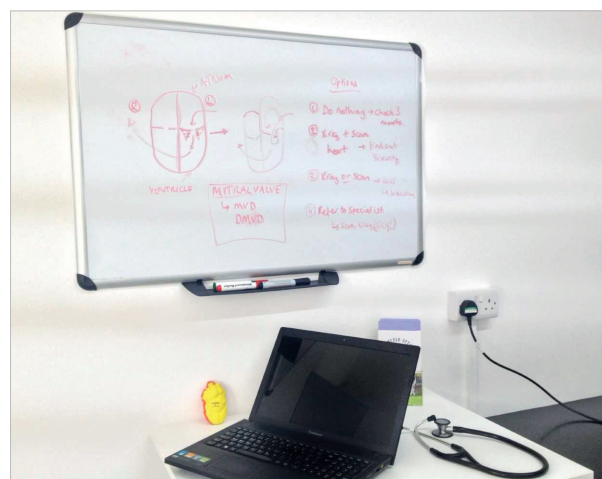
## Scenario 2

### Owner says yes to medication but never collects it

You have investigated Colin Skelly the eight-year-old Chihuahua for MMVD. You have diagnosed him to be in stage B2 of the disease. Based on the results of the EPIC trial, he meets the criteria for treatment with pimobendan despite being asymptomatic. Mr Skelly was happy to pay for the investigation, but now seems concerned about starting treatment.

Based on reports describing the decisions owners made about accepting treatment for their dogs (Adams and others 2005, Belshaw and others 2016, Christiansen and others 2016, Locock 2017, Perry 2017, Belshaw and others 2018), here are some thoughts Mr Skelly could be having:

- Is it really necessary? You have said Colin's heart is working fine.



(Credit: Pinfold Vets)

**Fig 2: Whiteboards in consulting rooms can be incredibly useful. Use them both to illustrate your explanation and to summarise the plan or options, then encourage owners to take a photograph with their phone so they remember what was said.**

- My last dog with valve problems didn't have treatment like this.
- I'm not a fan of drugs. There are always side effects. How can I be sure it's not doing more harm than good?
- Are there any alternatives to drugs that I can use instead?"
- How am I going to know if it's making a difference?
- How much is that going to cost? You've said he could live years!
- I work shifts. I don't know if I can get tablets into him at the same time every day.
- Colin's a fussy little monkey. How am I going to get the medication inside him?
- How often will I need to come back and what will it involve?
- What happens if I decide not to treat?

These questions fall into four broad groups: necessity and efficacy; safety; practicality; and treatment alternatives. This is a useful way to think about the range of information that you aim to provide for any owner when you are suggesting that their pet is started on long-term medication. As with giving information about a clinical condition, try to make sure: that there is enough time for the discussion; that you are using terminology appropriate for that owner; that you regularly check they understand; that you give them the opportunity to ask questions; and, ideally, that you summarise the key information for them in writing. If you spend time now ensuring the owner knows exactly what they are meant to be doing and why, there is evidence (Grave and Tanem 1999) that there is a greater chance that they will persist with adhering to the recommended treatment.

### Treatment necessity and efficacy

The articles in this supplement discuss the evidence base for treating MMVD and provide the key information on treatment necessity and efficacy. People who own one dog at a time might have had previous experience of treating a dog with MMVD, and might consider themselves knowledgeable without being aware that more research has been done. Reassure them that their previous dog was not mistreated and explain why you are recommending something different.

Again, be sensitive when discussing the costs of treatment, and try to provide data for roughly how much per week/month each treatment will cost. Be honest about what we do and don't know about the management and prognosis of this condition and the necessity of treatment, particularly in preclinical disease. If you are asked questions to which you don't know the answer, most owners will be very happy for you to give them this information by phone or email at a later date. Ensure owners know what they should be doing at home, when they need to come back, and what will happen when they do.

It is imperative that owners of dogs with stage B2 disease treated before they develop clinical signs understand that they will not see any signs of improvement from this treatment, and that they know treatment will not prevent

their dog's heart disease from progressing. Ensure that this advice is clearly given, and that it is recorded in the clinical notes. ~~These are unusual concepts in veterinary medicine, but many older people will be aware of statins which work on similar principles, so this could be a useful analogy.~~ Owners into the habit of counting their dog's resting breathing rate, and consider asking them to routinely take video clips of their dog while out on a walk so both you and they can spot any subtle signs of exercise intolerance. Owners of dogs with cardiac disease are fearful of not recognising that their dog is suffering (Oyama and others 2008) so they are likely to be receptive to having both things to look out for, and a method of home monitoring.

### Treatment safety

Owners' concerns about the risks of treatment seem to be underestimated by vets, and they might not be willing to introduce the subject themselves (Belshaw and others 2016, Belshaw and others 2018). It is important to openly discuss adverse events, particularly as owners often think they will be much worse than they are, and are likely to search for this information online if it is not provided. Try to proactively provide information about:

- The relative risks and benefits of treatment, particularly the most common side effects and their likelihood (the product datasheets will contain some of this and the Veterinary Medicines Directorate can provide updated surveillance data if needed), as well as what would happen if the dog was not treated.
- How the owner will recognise any side effects.
- What they should do if they occur. For example, should they stop the medications or not. Ensure they know to bring the dog as an emergency if certain things occur. Write this advice in the clinical notes in a place clearly visible to the reception team who would be the people most likely to field any worried phone calls.

■ Whether experiencing side effects will mean that they cannot continue the treatment.

### Treatment practicality

Vets treating their own pets may develop rapid sympathy with struggling owners. Adams and others (2005) identified that asking owners whether a dosage schedule fitted in with their work/domestic situation was a powerful predictor of compliance. Ask owners to describe specific concerns, for example an animal's fussy eating habits or unpredictable work patterns. Sometimes it helps to go through a typical day with the owner to get them to think about practicalities, such as how they will remember to give the medications. If they are still concerned, encourage them to try for a day, then call you to discuss how they are getting on so that you can help them work through any unanticipated challenges. This should make the prospect of long-term medication seem much less daunting. Practice nurses very often have a whole range of great tips and tricks that can be helpful. Ensure you

discuss what the owner should do if a dose is missed, whether they need to adjust the timing of a medication within the day and what to do if the animal is sick after receiving the treatment. Again, provide this information in writing or encourage them to write it down.

### Treatment alternatives

The internet is awash with stories of pets purportedly harmed by a whole range of treatments, and there are a plethora of plausible but scientifically dubious alternatives. Research suggests that owners are very interested in non-pharmaceutical alternatives as these are often sold as being side-effect free. Engage with owners in this, proactively warning them that they will read about miracle drugs but that many don't work and some can be harmful. Encourage them to come to you with anything that they may have read about and are considering trying so you can look into it for them. Educating owners about how to fact-check websites for themselves using tools such as [www.trustortrash.org](http://www.trustortrash.org) would be a useful practice newsletter or social media post.

## Scenario 3

### Owner stops giving medication

Miss Carter picked up a month's worth of medication for her dog Freddo but that was three months ago and she has not been back in. You know Freddo is alive and well because one of your nurses sees him in the park each morning.

### Relationship with vet

There are a huge range of reasons that owners might stop giving medications, both purposeful and not (Ho and others 2009). Even where owners deliberately withdraw treatment, this can be with the best intentions for their pet's health (Belshaw and others 2016).

Communication, relationship and time spent with the clinician during the initial consultations have been demonstrated to be important factors in adherence in both human and veterinary medicine (Grave and Tanem 1999, Ho and others 2009, Adams and others 2005, Butow and Sharpe 2013). This evidence suggests that many adherence problems could be mitigated if sufficient time is allocated to discussion before treatment begins, as described in the scenario above. It seems much more difficult to persuade owners to try again once they have stopped. <AQ: this scenario feels short and rushed. I have added subhead above. Please briefly recap the advice on treatment and maximising adherence here in bullet points>

## Summary

There is no such thing as a 'typical' owner. It is important to ensure that your communication style and consultation content is tailored to the person in front of you as much as possible, that you ascertain their knowledge and views, and actively listen to what they are saying. This inevitably takes time. While it is likely that many heart murmurs will be diagnosed during the annual health check/booster consultation, it is unlikely that you will have enough time for a

thorough discussion about MMVD. Particularly for dogs with no clinical signs, it is not imperative to rush into diagnostics immediately. If possible, rebook to allow as much time as possible for discussing the situation with owners. Similarly, ensure that the results of any investigations are not rushed and that the necessity, safety, practicalities and alternatives to any treatment are covered in detail. Spending time here should help to minimise the risk of common adherence problems. Finally, vets must accept that for a whole range of reasons, some owners cannot, or will not, follow our recommendations. It is rarely your fault and it is often not theirs.

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