Viewpoint articles represent the opinions of the authors and do not represent AVMA endorsement of such statements.

# Do it yourself or send for help? Considering specialty referral from a general practitioner perspective

Brennen McKenzie, MA, MSc, VMD[1,2*]

[1]Adobe Animal Hospital, Los Altos, CA
[2]Loyal/Cellular Longevity Inc, San Francisco, CA

*Corresponding author: Dr. McKenzie (mckenzievmd@gmail.com)

**ABSTRACT**

General practice veterinarians (GPs) are often faced with the question of which services they should provide themselves and which are more appropriately the province of board-certified specialists. The growing availability of specialty care, the expectations of many pet owners for advanced care resembling that which they receive, the expanding availability of new and more technologically sophisticated interventions, and many less easily defined shifts in the economic and cultural context of veterinary medicine all add to the pressure to limit services in general practice and refer more patients to specialists. However, the criteria for making decisions about referral are often ill-defined and controversial. Furthermore, most GPs are trained by specialists in secondary or tertiary care institutions, providing them with a perspective that may not reflect the realities of the general practice environment.While each referral decision for a specific patient must be made in the unique context of that case, reflection and discussion concerning relevant general principles can help GPs build a rational foundation for making such decisions. The principles and methods of evidence-based medicine and the expanding concept of a spectrum of care can usefully inform decision-making about referral. It is also critical that all stakeholders contribute to discussion of these questions and to the training of veterinarians so that the next generation will be prepared to shape and embody the role of GP in a manner that best meets the needs of patients, pet owners, and veterinarians themselves.

**Keywords:** general practice, specialty referral, evidence-based medicine, spectrum of care, small animal medicine

The vast majority of small animal patient care is provided by general practitioners (GP). Board-certified specialists make up < 15% of practicing veterinarians in the US,[1,2] and the availability of secondary care (local specialists) or tertiary care (academic specialists) is not evenly distributed. In sufficiently populous and affluent areas, specialty care may be readily accessible and considered affordable for many clients, while in rural or economically disadvantaged areas, such care may be out of reach, both logistically and economically. In this context, GPs are frequently called upon to perform diagnostic and treatment tasks that in human medicine would be considered the exclusive province of specialists.

However, the boundaries between primary and specialty care are not always clear in veterinary medicine, and the context is always changing. The number of specialties and specialists has grown, and expensive, technologically advanced diagnostic and treatment options are more available than ever before. Pet owners seem increasingly interested in pursuing care that requires expertise and material not always available to GPs.

On the other hand, many pet owners struggle to find and afford veterinary care of any kind, much less the most advanced. The concept of a spectrum of care has gained momentum in veterinary medicine largely in acknowledgment of this and in recognition of the fact that intensive, technologically sophisticated, and expensive healthcare may not always be available and may not even the best option for a given patient and client. One element to the spectrum-of-care concept is allowing flexibility in what care is provided and by whom while still maintaining a reasonable and evidence-based minimum standard.

The culture of veterinary medicine also influences the ever-changing borders between primary and specialty care. Established GPs who have been in practice for decades may have a different perspective than recent graduates on what is appropriate to do themselves or to refer to a specialist. Different generations may have different goals and expectations for their professional lives, and these can influence what services they offer in-house and when they refer.

Received November 8, 2023
Accepted December 6, 2023

doi.org/10.2460/javma.23.11.0612

Veterinary students are still trained predominantly by specialists in tertiary care facilities, often learning their craft from the least representative exemplars of the profession and seeing patients and interventions very different from those common in general practice. This creates a clash of expectations and perspectives that must be resolved once new graduates enter a primary care practice environment.

The concepts of evidence-based medicine and spectrum of care are important tools that can help GPs to make the best possible decisions around the question of referral. Evidence-based medicine is the thoughtful and intentional integration of clinic expertise, client values, and controlled research evidence to inform decisions about the care of individual patients.[3] The tools of evidence-based medicine can support GPs in providing treatment and also deciding when referral may be more appropriate.

There is also growing recognition that making effective care available to as many pet owners as possible involves providing options along a "continuum of acceptable care that considers available evidence-based medicine while remaining responsive to client expectations and financial limitations."[4] The development of guidelines and consensus around the concept of such a spectrum of care can also support decision-making concerning specialty referral.

The decision to manage a case in-house or to recommend referral will always be contextual and must be made by each clinician for each patient and client individually. Rigid classification of procedures or conditions that "should" or "cannot" be managed by GPs is the least appropriate way to respond to this issue. Instead, it may be more useful to consider key factors that form the context for this decision **(Figure 1)** and to formulate some general guidelines that can be applied with appropriate flexibility **(Table 1)**.

## Factors Influencing Referral Decisions

### Patient needs

The overarching factor that sets the parameters for referral decision-making is the needs of the patient. How these needs can best be met to achieve the desired medical outcome should be central to this process because that is, in the end, the primary purpose of veterinary care. Of course, veterinarians also serve pet owners, and the clients' needs are relevant. Care would not be sought in the first place if the owner did not have a goal they hoped such care would meet. However, while the client necessarily imposes constraints and guidelines for the care

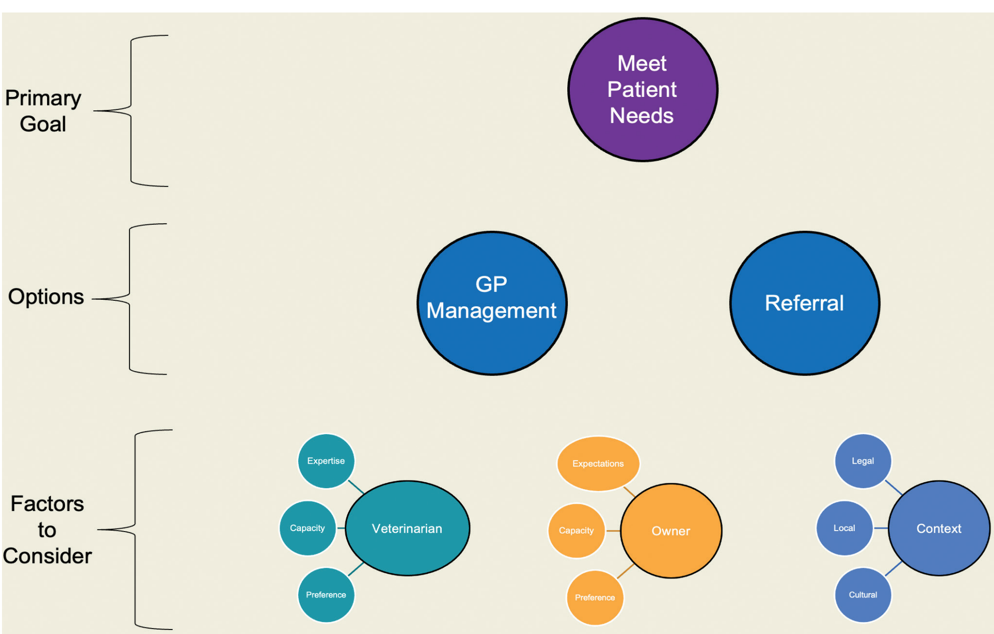


**Figure 1**—The main elements of referral decision-making, including the primary goal (meeting the needs of the patient), the options (management by the general practitioner [GP] or specialty referral), and important considerations related to the main stakeholders (veterinarians and pet owners) and the general context.

**Table 1**—Guidelines when considering specialty referral or management by the general practitioner (GP).

| Consider referral | Consider management by the GP |
|---|---|
| The GP clearly lacks the knowledge, skills, or capacity to manage a case | The GP has, or can readily acquire, the necessary knowledge, skills, and matériel |
| This would best fit the client's goals and expectations | The condition is common and there are accepted, evidence-based guidelines to guide diagnosis and treatment |
| For unusual or atypical cases | The GP has a more effective VCPR than available specialty practices |
| The existing VCPR is ineffective | The client prefers management by the GP |
| The GP prefers not to manage the case (as long as this does not leave the patient and client without acceptable alternatives for care) | Specialty care is unavailable or perceived as unaffordable or unacceptable for the client |

VCPR = Veterinarian-client-patient relationship.

veterinarians can provide, ideally the veterinarian should at least begin any discussion of referral by proposing what is most appropriate under the circumstances for meeting the needs of the patient.

## Veterinarian

The unique characteristics of each clinician influence their decision-making around referral. These include their expertise, capacity, and personal preferences.

**Expertise**—A critical reason to consider referral is when we lack the knowledge or expertise to manage a specific case. A lack of knowledge about a particular condition or the relevant diagnostic and treatment options necessarily means that we are not properly prepared to manage that condition. Likewise, if we lack the technical skill to perform necessary procedures or are not confident we have sufficient experience, we should not manage cases that need expertise we lack. Referral to a specialist or to another GP with appropriate expertise and skill is preferable in this situation.

Insufficient expertise is not necessarily a permanent or insurmountable barrier to retaining similar cases in the future, as knowledge and technical skill can be developed. An important core value of the veterinary profession is to grow and maintain our knowledge and skills, and this can allow us to manage a greater range of cases as we progress through our career.

There may also be inconsistency between what a GP feels they are capable of and what they can actually do effectively. Overconfidence is not unknown and may disproportionately affect older, more experienced clinicians accustomed to a time and context when specialty care was less available and less frequently sought. Younger, early-career veterinarians, in contrast, may well underestimate their capabilities, and they may have been recently presented by academic specialists with a model of general practice that is not always accurate or realistic.

While each clinician must ultimately determine their own capabilities, broad, ongoing discussion within the profession concerning the indistinct boundaries between general practice and specialty care, as well as the promulgation of guidelines based in evidence-based medicine and spectrum-of-care principles, can be a useful aid to preventing the errors of overconfidence and unjustified self-doubt.

**Capacity**—A GP may also be unable to adequately manage a given case due to external constraints, such as the lack of necessary equipment or materials, support staff, or an appropriate facility. As an example, performing echocardiograms to stage myxomatous mitral valve disease (MMVD) requires relatively expensive imaging equipment, and offering CHOP chemotherapy for dogs with diffuse B-cell lymphoma requires specialized infrastructure for proper storage and handling of the necessary drugs. Neither of these services is inherently impossible for a GP to offer, but necessary resources and matériel may not always be available.

Obtaining needed equipment, building appropriate infrastructure, hiring and training staff, and other elements of establishing the capacity needed to offer certain services may not always be economically feasible. This will depend on how much demand there will be for the service, which is related to how common the condition is, the ability and willingness of clients to pay for the service, and other factors.

Time is often another critical limiting factor in which cases can be properly managed in general practice. Complex behavioral problems, chronic internal medicine cases, hospice patients, and many other types of cases could potentially be handled by GPs, but if the time necessary to manage these cases appropriately is not available, referral may be a more appropriate option.

**Preferences**—Individual clinician preference can play a role in selecting cases for referral. We may be capable of managing, or learning to manage, cases that we would prefer not to handle, and specialty care can be a reasonable alternative. Not every GP enjoys providing meticulous, high-quality dental care, managing intensive chronic dermatopathy patients, or handling exotic mammals. When referral is available and accessible for clients, patients and their owners may receive better care if seen by a specialist with enthusiasm for these types of cases.

However, if referral is not acceptable or possible for a client, GPs arguably have an ethical duty to help these patients as best we can. Simply not wanting to manage certain conditions or patients is not sufficient reason to leave patients without care.

It is also worth considering the potential impact on GPs of limiting their professional domain or discouraging them from providing advanced care. In 1978, equine veterinarian Peter Rossdale[5] eloquently described the importance of admitting GPs to the areas of research and teaching, traditionally associated with academic veterinarians:

> It is this challenge which is recognized by every graduate who turns away from practice, disillusioned by his or her inability to find satisfaction in a situation where . . .
> the expectations of training are dashed by the reality of practice. . . . We must seek to elevate the status of the [general] practitioner, not only . . . in the eyes of the academic but, more importantly, in the minds of [GPs] themselves. Too often we hear that a [GP] cannot be expected to teach or to research. This is the philosophy of despair.

In a time when job satisfaction is often low, many veterinarians are considering leaving the profession,[6] and there is arguably a shortage of primary care veterinarians, the profession should be considering ways to increase the opportunities and positive challenges available to GPs, supporting professional growth and personal satisfaction. Encouraging GPs to provide advanced care where appropriate can be part of such salutary efforts.

## Pet owner

**Expectations, preferences, and relationships**—Owners may explicitly desire specialty care or have an expectation of how their pet's case should be handled based on their own experiences with human medicine. If the expectations of an owner cannot be met in primary care practice, then referral should certainly be considered.

On the other hand, GP and specialty practices can differ dramatically in the type and character of the service provided, and sometimes clients may have preferences for one approach over another. Even if a specialist may be able to offer a higher standard of medical care, a client may be unhappy with the care they receive in the specialty setting if their expectations are inconsistent with how a given referral practice operates.

Finally, the core of any successful veterinarian-client-patient relationship (VCPR) is the communication between client and clinician. The needs of the patient cannot be met if this relationship is dysfunctional, and the expertise and skill of a specialist will not be well utilized if an effective VCPR cannot be established. Some clients may be better able to understand and support the care their pet needed within the context of a relationship with a GP than with a specialist, despite the potentially superior expertise available. Patient outcomes depend not only on the abilities of the clinician but on the effectiveness of the VCPR, and this can influence the potential value of specialty referral.

**Capacity**—Specialty care may often be more expensive than that provided by GPs in the same locale. Specialist expertise requires more time and training to develop and is in shorter supply than that of the GP, and because of this, specialists may charge more for their time and services than GPs in the same area. Specialty care also may involve more services (such as more extensive diagnostic testing) and more complex or technologically advanced interventions, and these may be inherently more expensive to provide than primary care. These additional costs may exceed the resources owners are able or willing to devote to healthcare for their pets, which can limit the use of specialty services. Specialty care may also require a greater investment of time and effort on the part of the owner. For example, a full course of chemotherapy for B-cell lymphoma will require more visits to the hospital, more administration of medications at home, and potentially more management of symptoms caused by the disease or the treatment than conservative palliative care, and certainly more than euthanasia. If the logistical burden of advanced care exceeds the owners' capacity, this may be a reason to eschew specialty referral.

## Context

**Legal**—One of the most contentious aspects of referral decisions is what, if any, legal obligation GPs are under to offer or encourage referral, and when we can safely provide advanced care ourselves. There are no clear, reliable guidelines to help us. Standard of care is a poorly defined concept in veterinary medicine,[7] and most laws make only vague reference to "reasonable" decisions about what we are or are not capable of doing.

While we are fortunate to have relatively minimal legal risk compared to our physician colleagues, clinical decisions are still sometimes driven by concerns about how one's actions will appear to a hypothetical malpractice judge or veterinary medical board. This can come at the cost of what might actually be the best practice from a scientific or ethical perspective.

A GP may refer certain conditions rather than treating them or may choose not to learn specific practices if these are perceived as beyond the scope of general practice. GPs might also refuse to offer treatments other than the perceived "gold standard" taught in academia because they fear legal liability. If these choices make needed care unaffordable or unavailable or lead to unnecessary euthanasia, then they fail to support the availability of safe and effective care for patients and their owners, which ought to be the goal of a professional regulatory system. Ill-defined legal constraints and fear of litigation seem inappropriate determinants of what care should be provided and by whom, but they are still a factor to be considered.

**Locale**—Locale can play an important role in referral decisions. When specialty care is readily available, perceived as affordable, and part of the expectations of one's client population, it is likely to be offered more readily than in circumstances where such care is unavailable, unaffordable, or rarely sought.

**Cultural**—Both the public and individuals in the veterinary profession hold attitudes about veterinary medicine that are likely to influence decision-making around referral. These attitudes are also subject to change over time. For example, as the role of pets in the family has changed from a utilitarian model to one in which pets are somewhat like children in the minds of many owners, the type of care desired and expected has also changed. Taking a pet to a cardiologist or an oncologist may have once seemed bizarre, but cultural shifts have normalized it to some extent.

Differences in age, professional experience, and practice environment also influence how individual clinicians think about specialty referral. New graduates, trained by specialists and part of a generation that grew up with the concept of pets as family members, may be more inclined to refer for advanced care. Older veterinarians, with experience of a time when specialty care was less common, and perhaps with different generational expectations for their work life, may be more inclined to offer services that could be considered the province of specialists.

Clinicians in secondary and tertiary care settings may be accustomed to seeing the failures and deficiencies in the care provided by GPs prior to referral, and they may not be cognizant of the selection bias at work and the likelihood that many similar cases, which they do not see, are successfully managed in primary care practice. This influences their view of what types of cases can be successfully managed in general practice, which in turn influences how they teach veterinary students.

## Evidence-based Medicine and Spectrum of Care

Evidence-based medicine is the thoughtful and intentional integration of clinic expertise, client values, and controlled research evidence to inform decisions about the care of individual patients. Evidence-based medicine facilitates identifying and meeting our information needs, quantifying uncertainty, and providing appropriate informed consent.[3] It can also help GPs make decisions about referral.

When a clinical problem is common and well understood, there are often evidence-based guidelines for diagnosis and management of that condition. Though these must always be interpreted in the context of a specific case, specialists and GPs are likely to handle such cases similarly, and the personal experience of the specialist with the unusual is less likely to be necessary. Though the development of evidence-based clinical practice guidelines, for example, is not as advanced in veterinary medicine as in human medicine, such guidelines as do exist can be invaluable in supportive effective management of common and well-understood health problems in the primary care setting. An evidence-based approach to case management can improve patient care and allow a GP to provide care as effective as that available in specialty practice for many conditions.[8]

For example, MMVD is a ubiquitous and well-characterized condition, and there are clear, evidence-informed guidelines for diagnosis, staging, and management.[4] With proper training and support, any GP can develop the skills and experience needed to manage such cases effectively, including echocardiographic assessment. The depth of expertise of a board-certified cardiologist is likely superfluous for most MMVD cases. However, a GP is less likely to be able to develop appropriate skills and expertise for less common and less standardized cardiac conditions, such as congenital anomalies, and referral is preferable for assessment and management of these.

The concept of a spectrum of care is also a useful framework for helping GPs make referral decisions.[9] There is growing recognition that the needs of patients and clients can be met more effectively by offering a range of diagnostic and treatment options. Rigid insistence upon a single “gold standard” approach, which may be the most intensive, technological, and expensive approach, is not necessarily in the best interest of every patient, and it may force vets and clients to choose between advanced care and no care at all. GPs can often provide effective, beneficial treatment when referral is not available or acceptable. This care is not “lesser” or “substandard”; it is an appropriate element in the spectrum of options available to meet the needs of individual patients and owners.

Evidence-based medicine supports the application of a spectrum-of-care approach, in part by helping to characterize the range of appropriate options along such a spectrum. Evidence concerning patient outcomes with different approaches to the same clinical problem can support informed consent and shared decision-making between GPs and clients about which approach best meets the needs of the patient and owner within existing constraints.[10–12] This reduces the risk of any deviation from an academic level of care being seen as substandard and of owners being offered an unnecessary choice between care they cannot afford and euthanasia.

The spectrum-of-care model is also encouraging changes in the training of veterinary students. These changes may mitigate the dissonance between the vision of primary care students absorbed in tertiary care institutions and the reality they encounter when entering practice.[13] Greater involvement of GPs in teaching would also help better prepare new graduates for the primary care context, including decisions about referral. The deep content knowledge of specialists and their familiarity with the unusual can be integrated with the holistic view and pragmatic decision-making strategies of the successful GP to improve preparation of students for primary care clinical practice.

## General Guidelines When Considering Referral

While all decisions regarding referral for individual patients are unique and must be made in the context of each case, there are some general principles that can help make such decision-making more explicit and rational (Table 1). These follow naturally from the considerations of the interests of patients, veterinarians, and clients already discussed. For example, if a veterinarian lacks and cannot readily acquire the knowledge or skills to manage a specific health problem, then the welfare of the patient is best served by referring that case to someone who has the relevant expertise. This may be another GP within the same practice or area, but it will often be a specialist, especially if the problem is uncommon or lacks a well-accepted, evidence-based diagnostic and treatment approach that a GP can follow. Even when there is such an approach available, it may require matériel not economically practical or readily available for a GP to have on hand, in which case referral may be desirable.

However, the needs of the patient are not best served by referral, or by the refusal of a GP to manage a given problem, if the client is unable to take advantage of specialty services. If the economic or logistical barriers are too great or the client is unable to establish an effective VCPR with available specialists, in-house management by the GP may be a better option for the patient despite the potential benefits of advanced specialty care. Making the perfect the enemy of the good by insisting on a perceived gold-standard of care that is not accessible or acceptable for a client will not truly benefit the patient.

The considerations that determine when a GP should offer referral will inevitably change over time. In addition to the specifics of a particular case, the larger context of veterinary medicine influences these decisions. The availability of specialty care, the economic and legal context, and the expectations and desires of clients all change, and these are all important factors in determining when referral is likely to benefit the patient and other stakeholders and when it is not. It is vital to avoid rigid rules that limit the domains of GPs and specialists and impede thoughtful, flexible decision-making concerning referral. Not only for the sake of our patients and clients but also for the professional and personal well-being of all veterinarians, we should teach veterinary students to think critically about all the relevant considerations, to adopt an evidence-based approach whenever possible, to be mindful of the need for a spectrum of care to meet the needs of all pet owners, and not to impose unnecessarily simplistic or rigid limits on their own professional roles.

## Acknowledgments

None reported.

## Disclosures

The authors have nothing to disclose. No AI-assisted technologies were used in the generation of this manuscript.

## Funding

The authors have nothing to disclose.

## References

1. AVMA. Veterinary specialists 2021. Accessed October 1, 2023. https://www.avma.org/resources-tools/reports-statistics/veterinary-specialists-2021
2. AVMA. U.S. veterinarians 2021. Accessed October 1, 2023. https://www.avma.org/resources-tools/reports-statistics/market-research-statistics-us-veterinarians-21
3. Cockcroft PD, Holmes MA. *Handbook of Evidence-based Veterinary Medicine*. Blackwell Publishing Ltd; 2003.
4. Keene BW, Atkins CE, Bonagura JD, et al. ACVIM consensus guidelines for the diagnosis and treatment of myxomatous mitral valve disease in dogs. *J Vet Intern Med*. 2019;33(3):1127–1140. doi:10.1111/jvim.15488
5. Rossdale PD. Combining research with veterinary practice. *Can Vet J*. 1978;19(12):327–330.
6. Bain B, Hansen C, Ouedraogo F, Radich R, Salois M. *2021 AVMA report on the economic state of the veterinary profession*. AVMA; 2021.
7. Block G. Competency and controversies along the spectrum of care. *Adv Small Anim Care*. 2023;4(1):159–170. doi:10.1016/j.yasa.2023.04.003
8. McKenzie B. Evidence-based veterinary medicine. *Equine Vet Educ*. 2014;26(9):451–452. doi:10.1111/eve.12216
9. Stull JW, Shelby J, Bonnett B, et al. Barriers and next steps to providing a spectrum of effective health care to companion animals. *J Am Vet Med Assoc*. 2018;253(11):1386–1389. doi:10.2460/javma.253.11.1386
10. McCobb E, Dowling-Guyer S, Pailler S, Intarapanich NP, Rozanski EA. Surgery in a veterinary outpatient community medicine setting has a good outcome for dogs with pyometra. *J Am Vet Med Assoc*. 2022;260(S2):S36–S41. doi:10.2460/javma.21.06.0320
11. Venn EC, Preisner K, Boscan PL, Twedt DC, Sullivan LA. Evaluation of an outpatient protocol in the treatment of canine parvoviral enteritis. *J Vet Emerg Crit Care (San Antonio)*. 2017;27(1):52–65. doi:10.1111/vec.12561
12. Cooper ES, Owens TJ, Chew DJ, Buffington CA. A protocol for managing urethral obstruction in male cats without urethral catheterization. *J Am Vet Med Assoc*. 2010;237(11):1261–1266. doi:10.2460/javma.237.11.1261
13. Fingland RB, Stone LR, Read EK, Moore RM. Preparing veterinary students for excellence in general practice: building confidence and competence by focusing on spectrum of care. *J Am Vet Med Assoc*. 2021;259(5):463–470. doi:10.2460/javma.259.5.463