

The SPECIALIST'S ROLE in Veterinary Healthcare

by Debra Channick, PhD



This Portuguese Water Dog suffered hair loss from chemotherapy.

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In 1863, a group of veterinary surgeons gathered together to discuss the formation of a society for veterinary medicine, which then became the United States Veterinary Medical Association (USVMA) with the motto *Non Nobis Solum* (Not for us alone). By 1889, this society was renamed the American Veterinary Medical Association (AVMA), an organization that now boasts over 81,500 members and oversees 21 specialty organizations. The AVMA's mission is "to improve animal and human health and advance the veterinary medical profession." With advancements in veterinary healthcare and the burgeoning role that specialty providers now play, the general veterinarian's role has evolved from one who makes a diagnosis and provides nearly all types of treatment to a primary doctor who offers routine wellness exams, vaccinations, and ensures that their patient receives the very best care available.

In many instances primary care veterinarians are able to provide high quality medical care to sick animals, but there are situations where the level of care may be best delivered by a specialist. So how does a primary veterinarian decide when to make a referral?

According to Dr. Dina Raichel of Windan'Sea in La Jolla, CA, the veterinarian should refer the dog to a specialist when the patient requires advanced testing and diagnostics, such as endoscopy or an ultrasound exam. Financially, it is impractical for a small veterinary facility to buy the necessary equipment for advanced testing, some of which costs \$600,000 and upwards. In some cases, an advanced procedure like orthopedic surgery or the removal of a large mass makes it clear that a board certified surgeon needs to be consulted. But, when a dog becomes ill, the issue of who makes the diagnosis or treats the patient is not always apparent. Some clients want to take a conservative approach and elect minimal diagnostic testing and/or just empirical treatment because they are afraid of incurring exorbitant expenses. What these clients do not realize, however, is that in some instances a specialist can actually save them money with a direct approach and a defined treatment plan.

According to Dr. Kirk Feinberg of Governor Animal Clinic in San Diego, the generalist's attitude towards specialists has changed in veterinary medicine over the years. Since the early 1980s, there have been significant advancements in specialty areas along with an increase in board certified specialists and organizations. Dr. Feinberg explains that two self-oriented fears can inhibit a general practitioner from making a referral. The generalist's first concern is the loss of the patient to another hospital: *If I send my client to them, will they take over the client and take over the dog's care?* The second hesitation comes from the veterinarian's own insecurity: *Am I admitting to the client that I can't solve the problem*

and thus look bad in their eyes? As generalists like Feinberg and others now claim, such egocentric apprehensions should take a back seat to what is best for the pet.

Ideally, general practitioners approach every medical problem with the same question, "How do I provide my patient with the very best healthcare that is available?" Sometimes, the gold standard of veterinary medicine goes beyond the general practitioner's training or their available facilities.

What separates the veterinary general practitioner from the specialist, aside from extra training, is the high volume of cases that the specialist sees that are limited to a specific area.

As Veterinary Specialty Hospital of San Diego Director and internal medicine specialist Dr. Keith Richter says, "You cannot keep up with all of the literature in veterinary medicine. It is just impossible. Specialists are lucky just to keep up in their specialty." Indeed, the specialist provides a refined knowledge of the latest information and technological advances in the field. Ideally, every veterinarian, from specialist to generalist, depends upon a variety of information in order to determine how to treat each patient. More and more veterinarians have embraced the language and methods of evidence-based veterinary medicine to evaluate and treat their patients, a development that has established an essential standard for evaluating different types of information, from personal anecdote to double-blind, controlled experiments.

As physician Sharon Straus and colleagues understand it, evidence-based medicine is "the integration of the best research evidence with our clinical expertise and our patients' unique values and circumstances." On the research side, veterinary clinical trials and journal findings often depend on a small sample size that can be considered statistically insignificant (six or twelve dogs as opposed to thousands). On the clinical side, dependency on a veterinary "cookbook" – a textbook that consists of treatment directives – risks overlooking the immediate patient's presentation. While the language of evidence-based medicine is still relatively new to veterinary medicine (it was first introduced to human medicine in Canada by David Sackett in 1980, but did not start to appear regularly in discussions until the 1990s), most veterinary schools now emphasize its practice because it provides a common vernacular to compare information and cases.

Evidence-based medicine outlines the steps for rational decision-making in which the veterinarian weighs research and the established facts alongside of clinical experience in

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order to determine the best treatment plan for the patient. For the generalist with multiple partners, the practice of evidence-based medicine can include what is commonly referred to as "hallway medicine," a discussion of a difficult case with the other staff veterinarians. In a specialty hospital, "hallway medicine" includes access to experts in other areas, a significant advantage in a complicated case that contains multiple organ involvement.

Every owner expects that their generalist knows their own limitations and will tell the owner when the dog should be referred. Dr. Raichel urges her clients to get a second opinion when the dog's condition has either not improved over a period of time (and the comfort level of how long to wait varies) or deteriorates. As Dr. Feinberg says, "These days if you don't have a good relationship with a specialty hospital or don't feel comfortable referring, you can actually get yourself into more problems because you may have put yourself in a position of trying to solve a problem that is over your head." Generalists like Drs. Feinberg and Raichel both insist that a second set of trained eyes can never hurt and, in most cases, helps. Ideally, the general practitioner alerts the specialist about a case and prepares the client's expectations, including the potential costs.

If a primary care veterinarian hesitates to refer a client, then it is critical to understand the reason why. The owner should feel comfortable enough to discuss whether or not the issue will resolve over time or if they need to go somewhere else.

Some clients hesitate to ask for a referral for fear of offending their primary veterinarian. As San Diego small animal surgeon Dr. Daniel Frankel remarks, "The emphasis of the communication with the generalist should be your concern for your pet and its health and not an attack on the generalist. The specialist should not replace your generalist, but be an extension of their services." The owner should never be afraid of getting a second opinion, even if the primary veterinarian does not offer the referral.

Dr. Richter outlines the difference between what a generalist and a specialist does in what he describes as a mutually respectful relationship. He declares: "There is no vet who sends us a client . . . where we are going to make them look bad; that is not what we do. We support them (the vet) . . . and they do things that I can't do. They can look at the whole patient and I can only look at the internal issues . . . It is erroneously thought that specialists are better; we are just interested and highly trained in our specialty."

What is Specialty Training?

Most graduates of veterinary school go on to practice clinical medicine in private practice. But, a small fraction of graduates apply and are accepted for competitive, one year AMVA approved internships at veterinary hospitals around the country where they have the opportunity to study with specialists in a variety of fields such as oncology, cardiology, small animal surgery, dermatology, neurology and radiology. An internship provides an incredible opportunity to see a large number of diverse cases in just one year under the guidance of experienced veterinary specialists in different fields. Such an opportunity supplements the academic learning of veterinary school and, at the same time, provides practical experience under the direction of specialists in different fields. Indeed, it strengthens the qualifications of the generalist. According to Dr. Richter, "interns are misunderstood in our profession . . . they are the cream of the crop . . . approximately 10% of veterinary students go on to do internships." The competition for internships is fierce. For example, at the Veterinary Specialty Hospital of San Diego, they have about 200 applicants for seven positions. The intern's responsibilities vary depending on the veterinary hospital. Nevertheless, they are regarded as professional students and doctors who actively participate in patient care with a veterinary specialist who oversees all clinical decisions, tests, and treatments. They also attend specialty lectures at the veterinary hospital and undergo regular assessments administered by their mentors. By the program's conclusion, some interns elect to go into private, general practice while others apply for residencies to pursue advanced knowledge and clinical training in a particular specialty.

Veterinary residents are internship-trained veterinarians who choose to specialize, electing to study a particular area for an additional two to four years. They are motivated by a passion to learn and have often been inspired by the expertise of strong mentors and teachers. Each specialty is affiliated with a veterinary specialty college that awards Diplomate status to those who fulfill its requirements and examinations. Together, the specialty group forms a loose consortium of colleges housed and authorized by the American Veterinary Medical Association (AVMA), the umbrella organization. At this time, the AVMA recognizes 21 specialties, which range from internal medicine and its subspecialties (cardiology, neurology, oncology, etc.), to radiology, and emergency and critical care. Most specialties require at least two to three years of training beyond the internship, but the requirements vary. Many areas like dermatology require a publication in a peer reviewed journal or, in the case of oncology, participation in a clinical study.

Since veterinary and human medicine often share commonalities, many residents also study with human specialists.

For example, early in his career, Dr. Richter (an internist) was trained in endoscopy by observing procedures in human patients and then practicing on cadavers in order to develop techniques for scoping dogs, which continue to be used by internists today. As part of her training to become a radiologist, Dr. Mohammadian of California Veterinary Specialists Hospital took classes with the physician radiation oncology residents at Duke and Chapel Hill. In addition, she participated in joint research projects with the radiation oncology departments at NCSU and Duke. Similarly, oncologist Dr. Greg Ogilvie, also at California Veterinary Specialists Hospital, worked with the pediatric oncology team at the Dana Farber Cancer Institute, the adult cancer team at Tufts New England, and was a member of and worked with various oncologists at the University of Colorado Cancer Center. In fact, he continues his work in human medicine as part of the University of California Cancer Center in the Department of Radiation Oncology. Indeed, post-residency collaborative and educational opportunities are abundant for motivated private practice specialists. Oncologist Dr. Brenda Phillips of Veterinary Specialty Hospital of San Diego has had the opportunity to collaborate with San Diego area biotech companies to help develop novel treatments for veterinary cancer patients and has received mentorship from members of the Fred Hutchison Cancer Research Center in Seattle to develop the first bone marrow transplant program for canine lymphoma patients in San Diego.

Diagnostic Benefits

Since establishing a diagnosis can be a frustrating and expensive experience, it is important to understand how a specialist can help before running up a large bill at the generalist's office. Otherwise, a client may find that they pay twice, the generalist and the specialist, before they get an answer.

A major benefit of getting a specialist's opinion is their extensive clinical experience, which can lead to an expedient diagnosis.

Internal medicine issues like Inflammatory Bowel Disease or Addison's disease can be difficult to diagnose. While a general practitioner may only treat an Addisonian dog every year or two, an internist may see up to five such cases on a monthly basis. Dr. Richter explains that he sets aside an hour for his initial consultation. He admits, "My exam would cost more, but the client would get a more focused diagnostic plan on the first visit and may not require multiple visits."

Some clinical findings require both objective and subjective interpretation, like the diagnosis of a heart murmur, done

by auscultation of the heart (listening to the heartbeat with a stethoscope) and interpretation of an echocardiogram (cardiac ultrasound). As cardiologist Dr. William Herndon of California Veterinary Specialists Hospital explains it, the diagnosis of a heart murmur is not only subjective but subtle. Thus, it is ideal to have someone who has spent extra time training in cardiovascular disorders and interpreting echocardiograms.

By contrast, a general veterinarian rarely has the opportunity to learn and to practice how to interpret an echocardiogram in veterinary school. Similarly, internal medicine residents perform a variety of ultrasound exams and develop skills in the use of the endoscope, while veterinary students generally do not have such experience. According to Dr. Lenore Mohammadian, "the radiologist provides state-of-the-art imaging and interpretation. A radiologist does not function alone but as part of a veterinary team (patient, client, veterinarian, veterinary radiologist). . . A trained radiologist supplements and enhances the ability to diagnose a case."

In the case of oncology, a general practitioner often makes a preliminary diagnosis of cancer. According to oncologist Dr. Phillips, "the actual diagnostic procedures are not always technically challenging." Sometimes, the difficulty, Phillips explains, is deciding which diagnostics to perform following the initial evaluation. She says, "[The general practitioner] will test trying to answer a question, such as the severity or subtype of the disease, but may not choose the ideal procedure. For example, they may submit a sample for PCR (a DNA based test) when they should have submitted for flow cytometry (a whole cell based test). Therefore, it is ideal if they utilize their relationship with a specialist to determine the optimal diagnostics for a suspected or confirmed case of cancer." Dr. Jean Spengel in San Diego, CA, recalls a client who took her advice and consulted with an oncologist despite limited funds after her dog was diagnosed with lung cancer. Although the client declined treatment because of the cost and the bad prognosis, Spengel explains, "she felt like she had gotten the best information available and that the money was well spent."

Unlike human medicine, which keeps dermatology and allergy separate, the veterinary dermatologist's focus on skin issues is inseparable from the treatment of allergies. As Dr. Craig Griffin of the Animal Dermatology Clinic in San Diego explains, "dogs' skin issues are often caused by allergies." Even though a general veterinarian can run a blood test for allergies, the results can be controversial and inconclusive. A veterinary dermatologist is trained to test and interpret allergy tests to provide not only the best diagnosis, but the best personalized treatment plan as well.

Treatment Benefits

Some clients look to the veterinary specialist for a diagnosis, but then return to their primary veterinarian for treatment. In some cases, this plan makes sense. Dr. Richter explains that he does not need to recheck an Addisonian dog if the disease is under control and the dog is responding to the proper medication. The primary veterinarian will often run the bloodwork and send copies to Richter to keep him informed. However, there are some instances when the management of a case goes beyond the primary veterinarian's expertise. If a dog continues to suffer from gastrointestinal issues, it may be necessary to determine a rational plan under the guidance of an expert. As Dr. Griffin asserts,

"Veterinary medicine is not just about getting an answer, but how you are going to manage the case." Ideally, the primary veterinarian confers with the specialist to determine who will be able to best care for the dog.

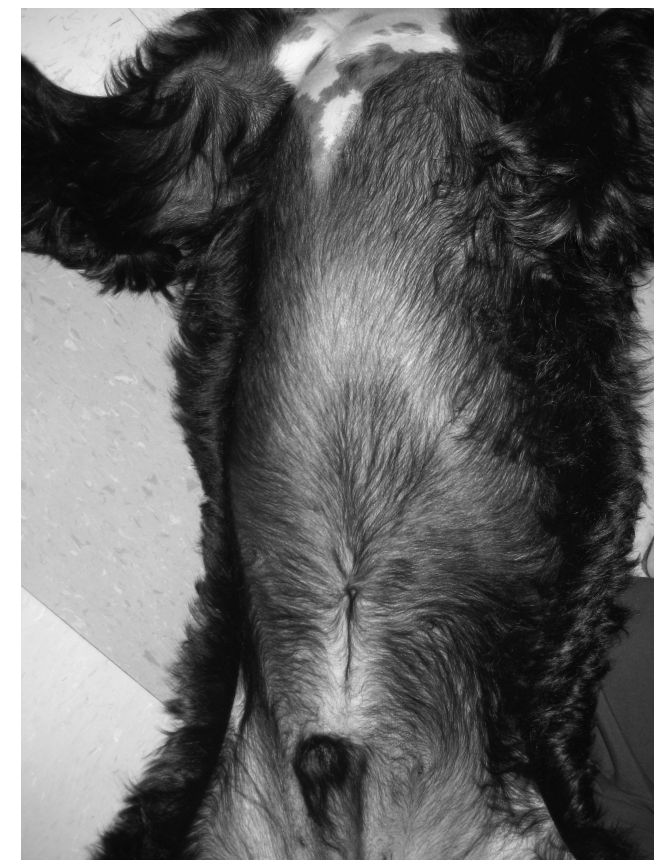
Some clients prefer to let their primary veterinarian treat their dog with chemotherapy because they hope to save money, assuming that they administer the same drugs as the oncologist. But, what an emotional client can overlook when weighing the options is that oncologists have the expertise and experience to deal with complications and to determine whether the complications are due to the disease, the drugs, or other issues.

Indeed, oncology is a specialty that is as much an art as a science because every dog responds differently to treatment. If a general practitioner consults an oncology handbook and simply follows the protocol, they may not have the experience and knowledge to make changes based on the patient's response. Moreover, administering chemotherapy properly is essential; most oncologists insist on a triple-check system to ensure that the proper dose is always administered. Dose alterations, calculation errors, and misinterpretation of bloodwork are some of the risks of an inexperienced doctor and staff overseeing chemotherapy.

While it is ideal to receive chemotherapy and radiation from a veterinary oncologist, it is also important to recognize the value of the extra supportive care they supply when their patients suffer from side-effects. Some oncologists, like Dr. Phillips and Dr. Ogilvie, treat side-effects prophylactically, arming their clients with a variety of medicines to mitigate the side-effects of the drugs and to maintain a high quality of life. If an inexperienced veterinarian is unaware of side-effects, they can miss something that is life-

threatening. For example, when a dog's white blood cell count is lowered after receiving doxorubicin, some oncologists will provide the client with a hormone that stimulates white blood cell production. As Philips explains, "some families sit home with a sick dog because they expect it from chemotherapy . . . we have so many things that we can do to make them feel better! . . . It is not okay to let them ride it out when we have means at our disposal to make them feel better quickly." Knowing when and which antibiotic to give a chemotherapy patient can lead to a rapid turnaround from what could have been a fatal decline.

Many primary care veterinarians maintain a special interest in skin issues and endeavour to stay abreast of the latest developments in the field. Since dermatology issues often affect the dog's quality of life, it is important not just to treat for flare ups, but to figure out the best way to prevent them and manage the patient longterm. Some veterinarians offer a quick-fix, an injection of cortisone, which Dr. Griffin refers to as the "roller coaster approach." While the cortisone may make the dog feel better for 8-10 weeks, the dog will necessarily have to return for another round of tests and treatment. The downside of the quick-fix, in addition to the financial cost of repeated trips to the veterinarian while the dog suffers, is the physical side-effects of the "solution." As Dr. Griffin explains, "A lot of people like



This Portuguese Water Dog suffered hair loss from chemotherapy.

cortisone, but don't factor into the approach [significant complications like]: the potential rupture of the anterior cruciate ligament, bladder stones, urinary tract infections, weakened ligaments, and decreased muscle strength, among many other things." Dr. Griffin explains that some general practitioners follow the "cookbook" route for the treatment of allergies. The blood test and treatment set come from an allergy company with a standard protocol. If the treatment is unsuccessful, the veterinarian will simply say that it did not work. Dr. Griffin says, "probably 70% of my cases don't just stay on my standard protocol. I always have to adjust for the pet, which is the art of using the treatment."

As owners who endeavor to build a team of veterinary experts to ensure that our dogs receive excellent medical care, it is imperative to communicate comfortably with both the specialist and the primary care veterinarian. As Dr. Patricia Ungar, owner of Kensington Veterinary Hospital in San Diego declares, "This is not an ego issue. It's about getting the pet the care it needs, and the owner feeling comfortable." For Dr. Ungar, a primary care veterinarian with a special interest in holistic medicine, her integrative approach does not preclude her from teaming up with veterinary specialists to care for her patients. Similarly, veterinary oncologists and other specialists refer patients to Dr. Ungar because of her expert knowledge of holistic medicine.

What if I don't live near a specialty hospital?

Since not every type of specialist is available in every city, there are alternative ways to seek assistance or to do a consultation, by phone or on the internet. In oncology, many clients travel long-distances for an initial consultation and then return to the primary care veterinarian, who will work closely with the oncologist. However, not every case requires an actual visit to a specialist. For example, Dr. Mahommadian explains, "many veterinarians will submit radiographs to a radiologist off site for interpretation. With many clinics now having digital radiology, a radiologist living half way around the world can still be a part of the veterinary care team for any hospital." In addition, The Veterinary Information Network (VIN) provides general veterinarians with access to specialists in every field, along with a searchable database for articles and conference proceedings.

All veterinarians, specialists and generalists, are required to attend continuing education conferences and seminars in order to keep their licenses current. In addition to hosting various conferences, specialty organizations also facilitate internet discussion lists. Only veterinary specialists, Diplomates of the specialty colleges, participate on such lists, which allow members to pose questions regarding difficult cases and to share new, unpublished research. Thus, if a list-member sees a challenging case and is uncertain of the diagnosis or treatment, the list-serve makes it possible to discuss the case and find out if one of the hundreds of other specialists has had a similar experience.

Regardless of your dog's age or condition, it is important to know where the nearest emergency hospital is located. Do not wait until a life-threatening emergency occurs or it could be too late. When visiting the emergency hospital, find out who is on staff. Is there an emergency and critical care specialist? A specialty only recently awarded full Diplomate status by the AVMA (1996), emergency and critical care emphasizes the management of life-threatening cases with multiple, simultaneous medical issues along with techniques like mechanical ventilation.

The founders of the USVMA took up the motto *Non Nobis Solum* (Not for us alone) incredibly (and ironically) during the American Civil War. The image, the centaur, represented the inextricable bond between man and beast. Today, we embrace our beloved pets as family members who are entitled to benefit from the excellent healthcare that is now available to them. We, too, can say that specialized care is not for us alone.

We are fortunate to be able to draw upon the expertise of both veterinary general practitioners and specialists working as a team in order to ensure the best care for our dogs.