

# Commentary

## Regulatory aspects of complementary and alternative veterinary medicine

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The term **complementary and alternative veterinary medicine (CAVM)** refers to a diverse and unrelated group of treatment modalities that create considerable controversy in the veterinary profession. Proponents of CAVM challenge established veterinary medical practices by asserting that CAVM is holistic and, thereby, considers the whole patient, that it provides possibly beneficial alternatives to standard veterinary practices, and by inference, that standard veterinary practices do not take such things into consideration.

Such assertions may create dilemmas for practitioners who may or may not choose to use such modalities<sup>1</sup>; CAVM also poses regulatory dilemmas for the veterinary profession. Such dilemmas will need to be resolved for the good of clients and patients seeking veterinary care and for the good of the veterinary profession.

### What is the state of regulation and training of practitioners of alternative medicine for humans?

**Acupuncture**—Approximately 40 states have enacted some form of surveillance regulation regarding human acupuncture, but fewer than half of those specify any need for undergraduate education or even biomedical knowledge. The main requirement for licensing is completion of a state-approved acupuncture course, although a few states recognize apprenticeship training. The National Commission for the Certification of Acupuncture and Oriental Medicine offers the course accepted by most states. It is 1,725 hours, approximately 10 times more than that required by most veterinary courses.

In approximately 12 states, acupuncture is termed medical practice, with surveillance provided by medical boards. In 31 states, medical doctors and doctors of osteopathy can practice without any other certification. Other states mandate that physicians who practice acupuncture must have the same training as non-physicians. In three states, chiropractors can practice acupuncture with no training, whereas seven states require 100 hours of training.<sup>2</sup>

**Chiropractic**—Approximately 50% of students enter chiropractic training with a baccalaureate degree.

Chiropractic colleges require four years of education before students can apply for licensure examinations. Forty-six states either recognize or require passage of examinations given by the National Board of Chiropractic Examiners before granting a license to practice. Most states require annual proof of continuing education for license renewal.<sup>3</sup>

**Homeopathy, herbal, and botanical medicine**—Homeopathic practice presently appears to be largely unregulated in the United States. Licensing bodies exist for the practices of massage and naturopathy in some states.

Herbal and botanical medicines appear to be largely unregulated in the United States. The Dietary Supplement Health and Education Act of 1994 limited the role of the FDA and essentially deregulated the herb and dietary supplements industry, creating an economic boom. The act holds herbal medications to a lesser standard than that of prescription drugs.

### What is veterinary medicine?

Most states define veterinary medicine in broad terms designed to ensure that those who provide animal health care services are veterinarians or those directly under veterinary supervision. As such, practicing veterinary medicine generally means to “diagnosis, treat, correct, change, relieve, or prevent animal disease, deformity, defect, injury, or other physical or mental condition”<sup>4</sup> by use of a variety of techniques and devices, generally including CAVM treatments such as acupuncture, chiropractic (also referred to as manual therapy or manipulation), homeopathy, and even magnetic treatment.

### What is the state of regulation and training of veterinarians offering CAVM?

In some states, veterinary practice acts specifically refer to CAVM. For example, in 1999, Oklahoma amended its definition of the practice of veterinary medicine specifically to include alternative medicine, defining alternative medicine as “a variety of therapeutic philosophies, tools, and treatment approaches to veterinary health care delivery, consisting of biochemical, biomechanical, bioenergetic and lifestyle therapies, which include but are not limited to acupuncture and acupunctum, chiropractic, physical therapy, massage therapy, homeopathy, botanical medicine, nutraceuti-

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cal medicine and holistic medicine.”<sup>5</sup> Texas appears to have the most detailed regulations on the use of CAVM.<sup>6</sup>

No minimum training levels presently exist for the practice of any CAVM modality. However, practitioners of CAVM may or may not be certified in their particular area. Certification may be obtained from any number of groups, with various stringencies.

Veterinarians may also certify nonveterinarians in particular fields of interest. Nonveterinarians may provide instruction in certain CAVM modalities as well. For example, the American Veterinary Chiropractic Association certifies doctors of chiropractic to adjust animals, and these doctors may also provide instruction. One-day courses in veterinary chiropractic are offered by Daniel Kamen, DC, author of the “Well Adjusted” series of animal books. Primary instruction in herbal treatments is given by at least one nonveterinarian at Colorado State University’s continuing education class, and the Veterinary Botanical Medicine Association offers certification to veterinarians as a Certified Veterinary Herbalist and laypeople as a Certified Veterinary Herbalism Educator.

### **What is the status of regulation regarding practitioners of alternative human medicine who treat animals?**

Many state acupuncture or chiropractic acts specifically refer to humans, thereby limiting the services of chiropractors and acupuncturists to treatment of humans.<sup>7</sup> The 2001 AVMA Guidelines on the use of CAVM, noting the fact that chiropractic is generally legally defined as being practiced on humans, refers to such manipulations in animals as manual therapy.<sup>8</sup> Conversely, the practice of veterinary medicine is generally limited to veterinarians, and practitioners of human alternative modalities generally cannot legally practice on animals without direct veterinary supervision.<sup>9,10</sup>

### **Regulatory dilemmas**

Complementary and alternative veterinary medicine provides three main challenges to regulation. First, it challenges the concept of standards of care. Second, it challenges the notion that the health care of animals is the sole purview of veterinarians. Finally, CAVM may not be veterinary medicine, even according to some of its proponents and, as such, may be outside of the regulatory domain of veterinary state boards.

**Standards of care**—Regulation of veterinary medicine is generally according to a standard of care; that is, a veterinarian may be liable to charges of substandard practice if care provided is below that which is considered standard veterinary practice. However, with no substantive body of supporting scientific knowledge and application of treatments controlled by individual preference, it is not possible to determine minimum standards of care for CAVM; thus, is it not possible to objectively regulate it. Indeed, notions of standardization, appropriateness, and standard of care, which are inherent in developing and applying professional regulations, are antithetical to CAVM, which

considers many different and unrelated practices as appropriate and encourages different belief systems and divergent theories about the nature of health and disease, as well as having fundamental differences in defining target conditions, appropriate interventions, and outcome measures of effectiveness.<sup>11</sup>

The use of treatment methods selected from such a smorgasbord of approaches may create insoluble paradoxes and irreconcilable contradictions for regulators. There are dozens of alternative medical practices, with innumerable variations. How does one objectively decide which are most appropriate and which to include? How can one apply a standard of practice when there is none in the applicable field? As an example of a regulatory dilemma, how would one decide whether the correct acupuncture point or correct manual maneuver had been chosen in an animal that was unresponsive to, or even harmed by, such treatments?

No CAVM modality has been recognized as a subspecialty by the AVMA. Certification by an organization means only that an individual has met criteria of the certifying body, but this does not also infer that the modality has therapeutic benefit, nor does certification mean that those who are uncertified are necessarily unqualified. For example, chiropractors, with 1,500 hours of training in various manipulations, would conceivably be more qualified to apply those manipulations to animals than certified veterinarians with much less training; a Chinese practitioner of folk medical traditions would presumably be as qualified to apply such practices to animals as would a graduate veterinarian who was recently inspired to investigate them.

Thus, it is impossible to propose legitimate regulations based on certification. If certain CAVM modalities do not have specific actions in the treating of animals, it may be that education or certification in such modalities is pointless. In fact, certification seems mostly useful to promote CAVM practices to the public, implying a certain level of expertise and competence when none may be necessary to perform these practices, questions of efficacy notwithstanding. Recognition of CAVM modalities as legitimate veterinary specialties will require demonstration of a substantial body of scientific knowledge that is presently lacking.

**Must only veterinarians apply CAVM modalities?**—It seems illogical that veterinarians may certify nonveterinarians to diagnose or treat animals and then assert that those same individuals cannot apply their skills to animals unless a veterinarian directly supervises them, or conversely, that a nonveterinarian who teaches a veterinarian how to apply a certain therapy would also be unqualified to do so him- or herself. The facts that veterinarians train laypeople and nonveterinary health professionals to apply certain CAVM modalities to animals, or vice versa, and that some modalities, in my opinion, require no particular expertise in their application, makes specious the claim that individuals who receive such training are then somehow unable to apply it without veterinary oversight. In fact, the American Veterinary Chiropractic Association explicitly states, “Chiropractors and veterinarians cer-

tified by the AVCA are equally qualified to serve as primary gatekeepers for clients seeking entry in the animal health care system for neuromusculoskeletal function or dysfunction.<sup>12</sup>

In 1994, the Maryland Legislature amended Maryland's *Acupuncture Act*, deleting the word human from the Act's definition section.<sup>13</sup> The following year, Maryland's Attorney General issued a legal opinion that acupuncturists in Maryland could treat animals without being licensed veterinarians.<sup>14</sup> After the Maryland Attorney General's opinion, the Maryland Legislature amended *Maryland's Veterinary Practice Act* to allow any acupuncturist to treat animals, subject to some regulation.<sup>15</sup>

Chiropractors, especially, appear interested in modifying veterinary practice acts. At least two states have proposed legislation that would create a separate professional category enabling an animal chiropractor to work without direct veterinary supervision or regulation.<sup>16</sup> Calls for the chiropractic profession to enter the veterinary field have been published in professional chiropractic journals.<sup>17</sup> In addition, the orthopedic section of the American Physical Therapy Association has formed an Animal Physical Therapist Special Interest Group to "explore new fields of practice."<sup>18</sup> Finally, in 2003 in the state of Connecticut, a bill was proposed recommending that the general statutes be changed to "exclude myofascial trigger point therapy performed by persons experienced in such therapy from the definition of the practice of veterinary medicine."<sup>19</sup>

Given that most people providing alternative treatments to humans are not medical doctors, it is difficult to rationalize the position that those providing such treatments to animals must be veterinarians. Protests to the contrary from factions within the veterinary profession may be justifiably criticized as turf protection. Thus, if professionals are unable to demonstrate that CAVM practices must be applied by veterinarians, challenges to the veterinary practice acts should be expected to occur with increasing regularity.

**Is CAVM truly veterinary medicine?**—It is reasonable to consider whether CAVM practices constitute the practice of veterinary medicine. There is a paucity of supportive scientific data for CAVM practices. In addition, a number of CAVM practices are essentially disproved, thoroughly discredited, or contradict a large body of evidence (eg, homeopathy,<sup>20</sup> chiropractic subluxations in which out-of-place vertebrae are proposed to cause disease,<sup>21</sup> magnets to improve blood circulation,<sup>22</sup> and megavitamin treatments for cancer<sup>23</sup>). Such practices would seem to be indefensible, at least from the standpoint of veterinary professional endorsement.

Motivations for use of alternative medicine appear to be largely unrelated to issues of therapeutic efficacy and may not be easily regulated. Such use appears to be driven by unmet desires and peoples' needs to have their fears about health and disease heard and understood.<sup>24-29</sup> However, veterinary professionals should be mindful that psychosocial support, although important, is not the unique purview of their profession. Attempts to regulate such sup-

port seem futile—indeed, they might rather be viewed as shortsighted, potentially inducing conflict between professional and client, and forcing the client to choose between a compassionate layperson and a veterinarian perceived as having poor bedside manner. It might behoove the profession to consider giving more attention to the doctor-client interactions (the art of medicine), but that is not the purview of science or of regulation; rather, it should be part of veterinary education.

Legal defenses of alternative medical or veterinary practices may be based on the premise that they do not constitute the practice of medicine. For example, the constitutionality of the Texas regulations was challenged by a homeopathic veterinarian and one of his clients,<sup>30</sup> who contended that the Texas alternative veterinary medical care regulations were not constitutional because, among other reasons, the practice of homeopathy was different from the practice of "allopathic medicine," and that regulatory veterinary statutes unconstitutionally favored one form of veterinary medicine over another.<sup>a</sup> The suit claimed that the Texas statutes implied that homeopathic treatment "somehow involve[s] risks and potential failure greater than the risks and potential failure one might realize from allopathic cures," and that the Texas rules discriminate among various forms of alternative treatment. The veterinarian's client (also a plaintiff) claimed that the Texas statutes violated her rights to privacy under the due process clause of the 14th Amendment of the United States Constitution and unfairly limited her ability to choose her animal's treatment. The case was dismissed after the death of the plaintiff-veterinarian.

Successful defenses of chiropractic have been mounted on the premise that chiropractic is not medicine and should not be held to the same standards as medicine. Such arguments have been the foundation of successful defenses on behalf of chiropractors since 1907.<sup>31</sup> For example, in 1998 in Wisconsin, an appellate court ruled that a chiropractor was not liable for a man's death from lung cancer, although the fatal tumor was easily seen on initial radiographs taken by the chiropractor because, unlike physicians, chiropractors are not licensed to diagnose medical problems.<sup>32</sup> One can easily formulate and anticipate a similar defense for the misapplication of chiropractic to animals by nonveterinary practitioners. Additionally, the American Veterinary Chiropractic Association clearly states that "animal chiropractic" is not the practice of veterinary medicine, and that they have established "a profession unique unto itself."<sup>13</sup> Obviously, such practices cannot both be and not be veterinary medicine at the same time; it is of paramount importance to regulation of the veterinary profession that this dilemma be reconciled.

### **What might be regulated?**

Unfortunately, it is not possible to conduct a meaningful risk-benefit analysis when neither the potential risks nor the potential benefits of a treatment have been fully examined. However, it would seem that using an unproven or disproven CAVM treatment in animals for which acceptable and effective treatment already exists or where the animal is at risk for greater

suffering if the unproven treatment fails would be unethical,<sup>33</sup> thus subject to regulation. Still, in the absence of clear evidence of effectiveness, it may still be possible to provide some guidance for limited regulation of CAVM; these are my suggestions:

1. It should not be appropriate to administer a CAVM treatment in lieu of an effective standard treatment. For example, a veterinarian may believe that antimicrobials are unnatural or overprescribed; however, for a sick animal, if antimicrobials are the most effective treatment, directing someone to an unproven alternative treatment might cause harm and be below the standard of care.
2. Lack of appropriate conventional documentation in a medical record should be used to help determine failure to provide appropriate care and justify disciplinary action. Regulators should also consider the evidence base supporting the various CAVM treatments and practices.
3. Clients should be informed that CAVM practices are experimental. Clients' express, written informed consent should be recorded prior to administering such treatments, as with any experimental procedure.
4. Concurrent conventional monitoring and follow-up should be mandatory.
5. Complementary and alternative veterinary medicine treatments may be considered harmful, at least indirectly, if they necessitate additional expenditures for interventions of unknown or no benefit or if their cost precludes adequate delivery of appropriate care.<sup>34</sup>

## Conclusions

In my opinion, effective regulation of medical practices can only be based on objective criteria of efficacy. Without an objective standard by which treatments can be evaluated, veterinary medicine becomes a morass of separate but equal approaches in the minds of practitioners and the public and regulation becomes impossible. Meaningful standards of practice can only be established when treatments are evaluated by assessing their effectiveness. To do otherwise may cause direct or indirect harm to animals and clients and erode the basis by which veterinarians can legitimately claim to have the exclusive right to treat animals.

If regulators do not protect the public through the use of objective standards, the privileged status of the veterinary profession will rely on the legislatively granted sanction of professionalism to protect the profession, as well as consumers. That sanction will be, and is being, challenged as the profession tacitly endorses unscientific practices that may be equally well applied by nonveterinarians, some of whom may be trained by veterinarians or vice versa. Without objectively based standards of care, there can be no legitimately privileged status accorded to practitioners of veterinary medicine.

<sup>34</sup>Article XVI, Sec 31, Texas Constitution (1876).

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