

## Informed Consent and CAM

Veterinary medicine is a challenging profession. Two new challenges are rapidly changing the face of animal healthcare delivery: more elaborate requirements for informed consent and the push toward evidence-based medicine. Informed consent pertains to the process of educating clients about available treatment options for their animals. Evidence-based guidance enables clients to make decisions based on concrete information regarding benefits and risks of treatment. Health care providers may also have a duty to include complementary and alternative medical (CAM) approaches in their discussion.<sup>1</sup> Clients want and have the right to receive factual information related to all viable treatment options for their animals, including CAM techniques, which should be held to “the same ethical and evidential standards as conventional medicine”.<sup>2</sup> As such, it is vital for veterinarians to possess a critical awareness of complementary and alternative medical (CAM) therapies in order to properly advise their clients and gain truly informed consent. Systematic reviews provide helpful summaries of the evidence concerning the effectiveness of interventions in certain clinical conditions. However, given the controversial nature of CAM, the conclusion presented in systematic reviews may reflect the bias of the author(s).<sup>3</sup> Inconsistent results in the primary material may lead to the introduction of the reviewers’ prejudices. Thus, systematic reviews themselves require cautious interpretation and critical analysis.

It is neither possible nor prudent to rely on information delivery to clients from CAM practitioners who are unaware of the evidence or mechanisms of action of the modality they practice. First, their opinions of what therapies are effective may be inconsistent with existing evidence.<sup>4</sup> Second, if product sales are involved, conflicts of interest may sway the practitioners’ beliefs in what patients need to be and stay healthy. Furthermore, “[T]he public may not be adequately informed about evidence-based medicine and lack the ability to discriminate between anecdote, vested interest, and therapies that have and have not been tested in adequate randomized placebo-controlled trials.”<sup>5</sup>

The initial step toward meaningful discussion regarding CAM is gaining familiarity with CAM terminology. Table 1 provides a brief description of various CAM techniques. Table 2 addresses potential questions to ask CAM practitioners before making a referral. In essence, navigation through the difficult terrain of

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<sup>1</sup> Brophy E. Does a doctor have a duty to provide information and advice about complementary and alternative medicine? *J Law Med.* 2003;10:271-284.

<sup>2</sup> Fettman MJ and Rollin BE. Modern elements of informed consent for general veterinary practitioners. [Commentary] *JAVMA.* 2002; 221:1386-1393.

<sup>3</sup> Linde K and Willich SN. How objective are systematic reviews? Differences between reviews on complementary medicine. *J R Soc Med.* 2003;96:17-22.

<sup>4</sup> Long L et al. Which complementary and alternative therapies benefit which conditions? A survey of the opinions of 223 professional organizations. *Complement Ther Med.* 2001;9:178-185.

<sup>5</sup> MacLennan AH op. cit.

informed consent and evidence-based medicine guidelines requires an ongoing commitment to stay informed with the latest research, and critical assessment of studies as they become available.

**Table 1, CAM Techniques at a Glance**

| Modality  | Definition   | Acceptable Scientific Evidence of Efficacy  | Safety and Ethical Concerns  |
|---|--|---|--|
| Acupuncture   | Introduction of thin, sterile needles at precise anatomical locations to provide neurologic stimulation and physiologic restoration.   | NIH Consensus Statement on Acupuncture determined efficacy for a number of conditions. <sup>6</sup> | Generally safe with proper training. <sup>7</sup> Risk of organ or major vessel penetration, infection, bleeding.  |
| Applied Kinesiology (AK) including the related techniques of Contact Reflex Analysis (CRA) <sup>8</sup> , Nambudripad's Allergy Elimination Techniques (NAET) <sup>9 10</sup> | AK and related techniques are "pseudoscientific" diagnostic and therapeutic system, popular among chiropractors and now some veterinarians, in which the examiner tests the patient's muscle resistance and thereby makes diagnostic and therapeutic decisions. <sup>11</sup> For animal patient diagnosis and treatment, the practitioner performs "surrogate testing", checking the muscle resistance of the | None. <sup>13</sup>   | Prone to practitioner bias and subjective analysis of muscle strength.<br><br>May delay accurate diagnosis and effective medical treatment.<br><br>The use of surrogate muscle testing to diagnose an animal and make treatment recommendations is difficult to justify. |

<sup>6</sup> Obtained at [http://odp.od.nih.gov/consensus/cons/107/107\\_statement.htm](http://odp.od.nih.gov/consensus/cons/107/107_statement.htm) on 061603.

<sup>7</sup> Lao L et al. Is acupuncture safe? A systematic review of case reports. *Alternative Therapies*. 2003;9:72-83.

<sup>8</sup> Obtained at <http://www.quackwatch.org/01QuackeryRelatedTopics/Tests/cra.html> on 061603.

<sup>9</sup> Obtained at <http://www.naet.com/subscribers/index.html> on 061603.

<sup>10</sup> Obtained at <http://www.chirobase.org/06DD/naet.html> on 061603.

<sup>11</sup> Obtained at <http://www.quackwatch.org/01QuackeryRelatedTopics/Tests/ak.html> on 061603.

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|                                 | client as they simultaneously touch any muscle on the animal. <sup>12</sup>   |  |   |
| Aromatherapy and Essential Oils | Use of essential oils derived from plants to influence psychological and physical health, most commonly administered via olfactory or transdermal routes. | Some evidence is available regarding treatment of alopecia areata, <sup>14</sup> anxiety, <sup>15</sup> influence on smooth muscle, <sup>16</sup> and parasite load. <sup>17</sup> | Toxicity of highly concentrated oils if ingested. May provoke contact dermatitis <sup>18</sup> or allergic reactions or photosensitization. <sup>19</sup> |
| Ayurveda                        | A traditional system of health care from India involving purgatives, exercise, massage, dietary and herbal prescribing.                                   | Evidence supports claims of efficacy for some Ayurvedic herbal products.   | Concerns regarding purity, standardization, and accurate listing of contents of herbs.  |
| Bach Flower Remedies            | Dilutions of “essences” of flowers designed to stimulate psychological and physical recovery.   | Research indicates that psychologic effects are result of placebo. <sup>20 21</sup>  | Essences are preserved in alcohol, which may be distasteful to animals, if not diluted.   |
| Herbs                           | Plant components  | Wide array of  | Lack of regulation  |

<sup>12</sup> Tiekert CG. Applied kinesiology: its use in veterinary diagnosis. *Veterinary Medicine/Small Animal Clinician*. 1981; 1621-1623.

<sup>13</sup> Gin RH and Green BN. George Goodheart, Jr., DC, and a history of applied kinesiology. *J Manipulative Physiol Ther*. 1997;20:331-337.

<sup>14</sup> Hay IC et al. Randomized trial of aromatherapy: successfully treatment for alopecia areata. *Archives of Dermatology*. 1998;134:1349-1352.

<sup>15</sup> Ilmberger J et al. The influence of essential oils on human attention. *Chemical Senses*. 2001;26:239-245.

<sup>16</sup> Lis-Balchin M et al. Jasmine absolute (*Jasminum grandiflora* L.) and its mode of action on guinea-pig ileum *in vitro*. *Phytotherapy Research*. 2002;16:437-439.

<sup>17</sup> Ndumu PA et al. Toxicity of neem seed oil (*Azadiracta indica*) against the larvae of *Amblyomma variegatum* a three-host tick in cattle. *Phytotherapy Research*. 1999;13:532-534.

<sup>18</sup> Anderson C et al. Evaluation of massage with essential oils on childhood atopic eczema. *Phytotherapy Research*. 2000;14:452-456.

<sup>19</sup> Kaddu S et al. Accidental bullous phototoxic reactions to bergamot aromatherapy oil. *J Am Acad Derm*. 2001; 45:458-461.

<sup>20</sup> Walach H et al. Efficacy of Bach-flower remedies in test anxiety: a double-blind, placebo-controlled, randomized trial with partial crossover. *J Anxiety Disord* 2001; 15:359-366.

<sup>21</sup> Ernst E. “Flower remedies”: a systematic review of the clinical evidence. *Wien Klin Wochenschr*. 2002;114:963-966.

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|            | prepared according to ancient (Chinese, Ayurvedic, Japanese, etc.) or more modern (Native American, Western) traditions. | applications with proven efficacy. “Encouraging data support the efficacy of some of these popular herbal medicinal products, and the potential for doing good seems greater than that for doing harm.” <sup>22</sup> | and manufacturing guidelines leads to serious threats to health and safety regarding contents, safety, and efficacy of herbal products.  |
| Homeopathy | Administration of serially agitated dilutions designed to stimulate the individual’s “vital force”.                      | “Despite skepticism about the plausibility of homeopathy, some randomized, placebo-controlled trials and laboratory research report unexpected effects of homeopathic medicines.” <sup>23</sup>                       | Concerns about adverse effects of vaccination leads to promotion of ineffective homeopathic vaccines, or “nosodes” in their stead by some practitioners.   |
| Iridology  | Diagnosis of medical conditions by noting irregularities of pigmentation of the iris                                     | Not useful and potentially harmful. <sup>24</sup>   | Some practitioners base their recommendation for dietary supplements and herbs on the appearance of the iris. May lead to false-positive and false-negative diagnoses, unnecessarily wasting time and money. |

<sup>22</sup> Ernst E. The risk-benefit profile of commonly used herbal therapies: ginkgo, St. John’s wort, ginseng, Echinacea, saw palmetto, and kava. *Ann Intern Med.* 2002; 136:42-53.

<sup>23</sup> Jonas WB et al. A critical overview of homeopathy. *Ann Intern Med.* 2003;138: 393-399.

<sup>24</sup> Ernst E. Iridology. *Arch Ophthalmol.* 2000;118:120-121.

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| Magnet Therapy           | Use of static magnets or pulsed electromagnetic field (PEMF) generators for tissue repair or pain relief   | Post-operative pain control in dogs. <sup>25</sup> stimulation of tissue healing (especially bone and skin), reduction in chronic and osteoarthritic <sup>26</sup> pain. | Safety parameters not yet established for varied conditions and different magnetic field strengths. Normal cells may respond differently from neoplastic cells. <sup>27</sup>                            |
| Manual Therapy           | Manipulative or massage techniques derived from osteopathic, chiropractic, and massage therapy approaches.   | Systematic reviews on manual therapy for various musculoskeletal conditions exist, showing some positive and some inconclusive results.                                  | Stroke in humans following upper cervical chiropractic manipulation a growing concern; <sup>28</sup> veterinary risks unknown. Risk of joint, bone, neurologic injury from excessively forceful thrusts. |
| Therapeutic Touch, Reiki | Practitioners treat the patient's "energy" and "auric field" through channeling universal energy, removing blockages, and directing healing intention. | Research supports the effectiveness of therapeutic touch in wound healing. <sup>29</sup>   | The "laying on of hands" and metaphysical viewpoints of practitioners may spark religious controversy and make some clients uncomfortable.   |

<sup>25</sup> Shafford HL et al. Use of a pulsed electromagnetic field for treatment of post-operative pain in dogs: a pilot study. *Veterinary Anaesthesia and Analgesia*. 2002;29:43-48.

<sup>26</sup> Hulme J et al. Electromagnetic fields for the treatment of osteoarthritis. *Cochrane Database Syst Rev*. 2002(1):CD003523.

<sup>27</sup> DeMattei M et al. Correlation between pulsed electromagnetic fields exposure time and cell proliferation increase in human osteosarcoma cell lines and human normal osteoblast cells in vitro. *Bioelectromagnetics*. 1999;20:177-182.

<sup>28</sup> DiDuro JO. Stroke in a chiropractic patient population. *Cerebrovasc Dis*. 2003;15:156.

<sup>29</sup> Daley B. Therapeutic touch, nursing practice and contemporary cutaneous wound healing research. *J Adv Nurs*. 1997;25:1123-1132.

**Table 2, Questions to Ask CAM Practitioners When Considering Referrals**

1. What are the practitioner qualifications?
  - Veterinarian or non-veterinarian? Licensed or unlicensed?
  - How many hours of training in animal anatomy, physiology, pathology, infectious disease, etc. has the practitioner completed? I.e., how familiar with animal health and disease is the practitioner?
2. What is the legality for making the referral?
  - Does the state practice act allow for referral? Is direct supervision required?
3. What is the practitioner's level of competence and awareness of treatment effects?
  - Can the practitioner describe to you and the client exactly what s/he will be doing, using clear, commonly understood terminology, or is the technique shrouded in mysticism and vague ideas?
  - Is the practitioner familiar with the evidence concerning potential risks and benefits of the treatment, in comparison to conventional approaches?
4. How will the treatment interact with conventional approaches?
5. What are the specific goals and endpoints of treatment?
  - How will one know whether the treatment was a success or not?
  - What is the timeline for the expected or intended outcome to occur?