

Submission
No 5

INQUIRY INTO VETERINARY WORKFORCE SHORTAGE IN NEW SOUTH WALES

Name: Dr James Casey D.V.M., M.S.

Date Received: 17 June 2023

Advances in Equine Medicine and Veterinary Dentistry: Who Should Provide my Horse's Dental Care?

**James M. Casey, D.V.M. M.S.
Equine Sports Medicine, Surgery, & Dentistry**

Both the American Veterinary Medical Association (AVMA) and the American Association of Equine Practitioners (AAEP) have always considered and defined dentistry as veterinary medicine. Today we have an increased awareness of equine dental problems. Veterinary medicine concerning equine dentistry is going through rapid improvements in dental techniques, vastly improved equipment and instruments. Also in veterinary equine dentistry we have ever advancing diagnostic aids, and better understanding of equine dental anatomy, physiology, and pathology.

As a result of these many advances in veterinary medicine, there is a lot more to your horse's dental care than just floating their teeth today. Horses' modern day dental care is vastly better than what it was even a few years ago. So the question comes, who should provide my horse's dental care?

Having education, training and experience as a veterinarian and through my experience as having once been a professional jockey, have exercised, ridden, and trained over the years several thousand horses, I have seen good, poor and even detrimental dental care of horses.

In my opinion, a veterinarian who has built on to their veterinary education with advance knowledge and skills in equine dentistry and also has the modernized equipment to perform the task(s) would be the choice of who should provide my horse's dental care. A veterinarian with advanced training in equine dentistry can readily identify and address abnormalities of horse's teeth far beyond the scope of the "lay horse dentist".

There are some lay people that proclaim themselves to be a "horse dentist". As a professional horseman and what I see in my veterinary practice, only a very small minority of these so called and self proclaimed "horse dentists" do an adequate to good job of the basic floating of horse's teeth. The vast majority of these self proclaimed "horse dentists", in my experience, do extremely poor, often neglectful, and at times outright fraudulent work.

The terms "dentist" and "performing dentistry" to most people refers to some one with at least 8 years of higher (college) education. In the human field of dentistry this would be someone with a Doctor of Dental Science (D.D.S.) or a Dental Medical Doctor (D.M.D.) degree.

Veterinarians usually have 8 or more years of college and professional training. The self proclaimed "horse dentist" does not have this training or education.

Some say that veterinarians get little training in equine dentistry while in veterinary school. There isn't any truth in that statement. Furthermore, today more than ever, equine medicine and veterinary dentistry is undergoing changes in schools of veterinary medicine. Special elective courses in equine dentistry are more often offered. The AAEP even has programs with experienced equine practitioners going into veterinary schools and teaching equine dentistry. What is misunderstood by the non-veterinarians is how a veterinarian's education is structured. First, one must gain entrance into a school of veterinary medicine which is not easy. Most have at least a bachelor's degree, usually in a science, and must excel in courses such as biology, chemistry, physics, and advanced mathematics. Once in veterinary school, doctoral graduate level of intense, detailed study is done in Anatomy, Physiology, Histology, Embryology, Pathology, Toxicology, and nearly every "ology" dealing with animals you can think of. Then veterinary education moves into diagnosis, treatments, surgery, and so on. One who graduates with a Doctor of Veterinary Medicine degree has a base or platform of education and knowledge to build upon.

A Doctor of Veterinary Medicine degree is NOT where a veterinarian's education ends. After graduation from veterinary school one often goes to work with experienced veterinary practitioners, many complete externships, internships, and residencies. Many more veterinarians after graduating from veterinary school complete additional study and research leading to a Master of Veterinary Science or PhD (doctorate) degrees. After graduating from veterinary school a number of veterinarians acquire intense training in a specific area and become board certified in various areas of veterinary medicine.

Then there is continuing education for veterinarians. The requirements vary from state to state. Usually, I complete 80 to 90 hours of continuing education a year and have completed over 150 hours of continuing education in a single year. Of course, most veterinarians subscribe to and read a number of professional veterinary journals to further our educations and keep current.

Equine dentistry, equine dental techniques, and equine dental science are advancing rapidly. The AAEP has state of the art continuing education on equine dentistry at all their National meetings and the AAEP has devoted an entire Focus Meeting to equine dentistry in recent years. Many State organizations (Florida Association of Equine Practitioners, etc) have meetings on equine dentistry. These meetings of advanced continuing education are well attended by veterinarians. Unfortunately, few non-veterinarians attend these meetings.

In deed, part of the veterinary oath is a commitment to life long continuing education. The self proclaimed "horse dentist" often has no formal training or they have attended an unaccredited program for a couple of weeks.

Poor training and lack of the most basic knowledge in equine dental anatomy, physiology, and pathology is dangerous and can be harmful to your horse. For example, I observed a non veterinarian ("lay dentist") floating a horse's teeth. This non-veterinarian

“dentist” got out what appeared to be a bolt cutter device and cut off the horse’s canine teeth. A horror right in front of my eyes! Cutting the canine teeth of a horse in this manner can fracture the teeth, open the pulp chamber (soft area) within the tooth, and cause premature loss of the horse’s teeth. This dangerous procedure could potential cause infection of the bone and soft tissue in the horse’s jaw. I cautioned this person on the dangers of cutting equine teeth with a bolt cutter device. This “horse dentist” told me he was a graduate of the American Academy of Equine Dentistry, and this was how he was taught to address overgrown canine teeth in horses. Furthermore, he was employed by a non-veterinarian, self described “certified equine dentist” of the International Association of Equine Dentistry. He told me that his employer had demonstrated and instructed him to cut off horses’ canine teeth in this manor.

Radical bit seats were another detrimental thing to the horse’s teeth this “lay horse dentist” was doing. This is reducing or grinding away 30% or more of the first cheek teeth. This “lay dentist” told me he was educated by the “Academy of Equine Dentistry” to perform these radical bit seats and that it is also considered standard practice by his employer, again the self described, non-veterinarian “certified equine dentist” of the International Association of Equine Dentistry. I pointed out to this “lay horse dentist” that horses’ teeth are not a block of wood to be chipped and carved up, they are living structures. Reducing teeth or grinding more than 3 - 4 mm (less than ¼ inch) of tooth material at a time risks opening the pulp chamber, is very dangerous to the horse’s dental and overall health.

This is some of what happens when unqualified people work on your horses’ teeth.

Additional things I often find in my veterinary practice are large caudal hooks, overgrowths, and other abnormalities left uncorrected by these self described “horse dentists”. Without proper technique, knowledge, modernized instrumentation, diagnostic equipment, availability of sedation, and anesthetics when needed, it is impossible to gain access to even apply a full mouth speculum and visually and digitally examine every structure in the vast majority of horses’ mouths without endangering the horses, their handlers, and yourself, without the use of proper sedation.

Since both the AVMA, AAEP(true professional organizations), and State Veterinary Practice Acts define dentistry as veterinary medicine, to use the term “equine dentist” and to be performing equine dentistry should be reserved for those who are veterinarians.

The group who calls themselves the International Association of Equine Dentistry is made up of both veterinarians and non veterinarians. The majority of this group are non-veterinarians. This group started out calling themselves the International Association of Equine Dental Technicians (IAEDT). Then they were trying to draw the analogy to a human dentist’s dental technician. However, they did NOT have degrees from an accredited college in dental (equine) technology and usually not employed by a veterinarian. Human dental technicians are employed by and work for human dentists. You can not compare an equine lay dental education (4 weeks max –no prerequisites not even a high school diploma) to a dental hygienist. To become a dental hygienist in United

States, you must graduate from a dental hygiene program, with either an associate's degree (most common), a certificate, a bachelor's degree or a master's degree from a dental hygienist school that is accredited by the American Dental Association (ADA). All dental hygienists in the United States must be licensed by the state in which they practice, after completing a minimum of two years of school.

Now the organization calls itself the International Association of Equine Dentistry (IAED) and not only do the members proclaim to be "equine dentists", but now call themselves "certified equine dentists" and "certified master equine dentists". Keep in mind the non-veterinarian members, the majority, of this group do not have a doctoral level education and haven't spent a day in veterinary school.

If a group formed and called themselves the International Association of Lasik Eye Surgery (IALES) and proclaimed themselves to be Master Lasik Eye Surgeons, NOT having a Medical Doctoral Degree, NOT having years of internship and residency in Ophthalmology, would you allow some one from this group of self proclaimed "Master Lasik Eye Surgeons" to operate on your eyes? I don't think so.

The reason we have practice acts is not to protect the veterinary profession but to protect the public and was demanded by the public. Most practice acts define dentistry as veterinary medicine. In most states only veterinarians can legally perform dentistry on animals. In some states such as New York, a human dentist can only work on animal's teeth when under the supervision of a veterinarian.

The Maryland Practice Act defines equine dentistry as veterinary medicine. However, it does have a clause permitting the floating of equine teeth by non-veterinarians. This clause in the Maryland Practice Act was placed in the law many decades ago. It is my understanding the clause was placed in the practice act chiefly for an individual who was employed by and worked for a group of veterinarians, and NOT for someone proclaiming to be an equine dentist and/or working on their own. In those days equine dentistry had not changed much for 100 or more years. We did not have the knowledge, instrumentation, diagnostic capabilities, sedation and anesthetics, and the many other advances we have today.

Lynn Caldwell, D.V.M., the chair of the AAEP Dentistry Committee, cautioned that wording in Practice Acts need great care to avoid unintended consequences. It is not likely that when the exception was placed in the Maryland Practice Act decades ago it could have foreseen the advances in veterinary medicine, surgery, and dentistry of today; where we can drill and fill equine teeth, perform root canal surgery, have effective motorized instrumentation, portable digital x-rays in the field and so on. If these advances had been foreseen the exception may not have entered the Maryland Practice Act.

Who should provide my horse's dental care?? From my veterinary stand point, the ultimate consumer (you and your horse) are the ones at risk. Another part of the

Veterinary Oath states “The health of my patients, the best interest of owners, and the welfare of my fellow man, will be my primary considerations.” Here is the big dilemma; there are some very well educated, skilled veterinarians available to perform dentistry on your horse and a few non-veterinarians capable of doing basic care (floating teeth). Then there are a number of poorly educated individuals doing you and your horse a disservice.

Some things you need to look for in a good equine veterinary dentist are:



1. Are they looking at what they are doing

They should be using portable surgical grade light (not a flash light), a padded stand, a full mouth speculum, and a veterinary assistant to steady the horse's head. All equine dental procedures are best performed when you can see what you are doing. This work does not need to be done blindly.

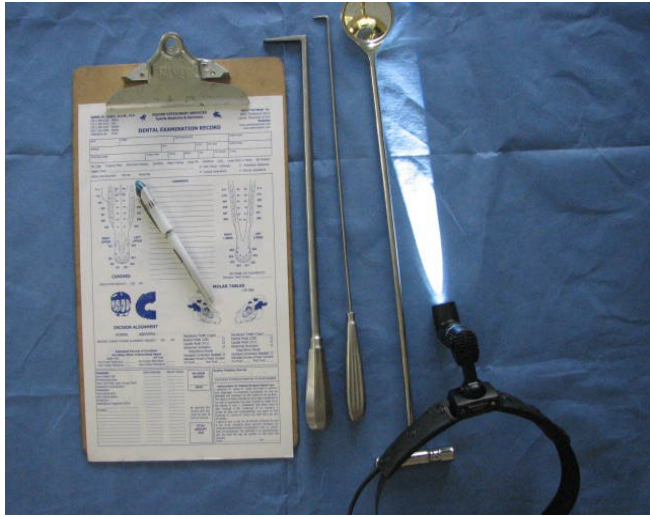
2. Clean and Sanitary

All dental instruments, the speculum (device that holds the horse's mouth open), buckets, etc are all cleaned and washed with an antimicrobial disinfectant (I use Nolvasan Scrub and Solution) between each and every horse. No exceptions!



3. Equipped to do the job

They should be well equipped with good instrumentation, both motorized and non-motorized. I have over 100 different instruments that I use and probably could use more.



4. Examination noting pathology and record keeping

A complete examination with the use of surgical grade lighting, a dental mirror, and other appropriate instruments should be done. A record indicating all teeth in your horse's mouth, noting location and significance of all abnormalities, what work needs to be done, and time of follow up examinations should also be included.

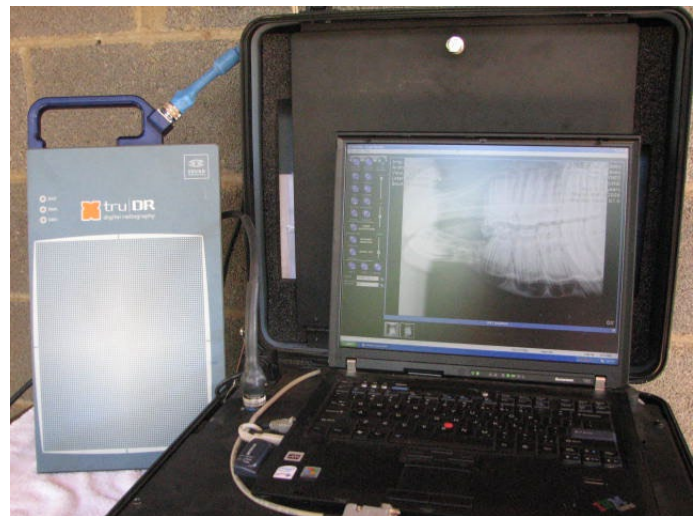
5. Sedation and Anesthesia

This should be done when indicated and needed. An array of medications is available to assist us when we perform dentistry. These medications make your horse more comfortable. When the horse is sedated, it allows us to do a better job in a safer way.



6. Diagnostic Imaging

They should have access to diagnostic imaging equipment such as x-rays, preferably digital x-rays. This allows us to uncover and manage a host of equine dental abnormalities.





7. Sterile Techniques

When any invasive procedure such as wolf teeth extraction is performed, it should be done with sterile instruments under sterile techniques.

I urge horse owners and trainers to regard equine dentistry as a professional service and an important part of horses' healthcare. The services of a qualified Veterinarian also licensed to perform surgical procedures and to administer medication is invaluable.

Any group that would be interested in a presentation/talk (at no charge) on equine dentistry, please contact me.

James M. Casey, D.V.M., M.S.
Equine Veterinary Practitioner and Professional Horseman
Equine Sports Medicine, Surgery, and Dentistry
www.equinehorsevet.com

Dr. Casey is a veterinarian based in Maryland, practicing in the Mid-Atlantic States and Florida