

Telemedicine:What is it?

By Jeff Bowra DVM

There is evidence of technology advances in all aspects of our life and veterinary medicine is no different. It is possible to have a kidney transplant in your cat or a total hip replacement in your dog. One area of advance that is not appreciated in veterinary medicine is the area of telemedicine. Telemedicine is defined as the use of telecommunications technology to provide, enhance, or expedite health care services, as by accessing off-site databases, linking clinics or physicians' offices to central hospitals, or transmitting x-rays or other diagnostic images for examination at another site. Historically your regular veterinarian is your pet's family doctor, surgeon, radiologist, pediatrician, psychiatrist, dermatologist, neurologist etc, etc. The point being that we had to do it all. Now there is just too much knowledge to be able to be good at everything. If you have x-rays or an ultrasound done the radiologist reads them and sends your family doctor the results. The same is occurring in veterinary medicine. We can send your pet to a specialist but telemedicine allows your family veterinarian access to specialists with out sending you anywhere. In my hospital all of our x-rays are captured on a digital camera then transmitted via the internet to radiologists in Oregon. We get a specialist report within several hours and often within 1 hour! Traditionally, to have a specialist read x-rays they have to be sent via courier and it takes several days for a report. A good example of this use happened last week with a very nice 150lb rottweiler named Jazz. He came in wednesday night with a bloated stomach. X-rays were sent to the specialist and a report was in my email thursday morning suggesting a large mass on the spleen. We went to surgery and I removed a 20lb tumour from a 150 lb dog. The story has a happy ending as we sent a sample to the lab and found out that the tumor was benign and so was totally removed. Ultrasound and microscope images can be sent the same way. Another use of digital imaging is simply keeping track of lesions such as lumps. If an animal comes in with a lump I would traditionally tell the owner to watch it and come back if it gets bigger. Now we can take a digital image of the lesion and store it in the patient's medical record which is completely computerized. Next time the pet is in we can compare the changes to the picture on the file. If I am not sure what a skin lesion is I can send a digital picture to a dermatologist. Just like any other interest group or organization, veterinary medicine has chat groups and email lists. I am on several different lists which I use regularly to get help on difficult cases. One of the lists that I am on has 1600 veterinarians around the world. The other 3 relate to alternative, sports and rehabilitation medicine. Another area of telemedicine is using the phone line to send ECG (electrocardiograph) tracings of the heart's electrical activity via phone lines to specialists. Once again a specialist's report arrives within hours! A very simple use of telemedicine is just having internet access in my exam rooms. I remember a client asking me what a shiba inu dog looked like. I punched the name into the search engine and within seconds had an internet site with a picture of the dog. The possibilities are endless. Instead of sending those little reminder cards for your pet's vaccinations through the mail we are starting to use email to communicate with our clients. I realize that not everybody has email or internet and may not want them because nothing can replace the personal touch. Telemedicine will never replace the physical examination but it sure can help it!