I remember very little about large animal medicine from veterinary school, but I do recall 2 facts about rinderpest. First, it was a devastating disease of cattle. Second, it was globally eradicated in 2011, primarily due to a successful worldwide vaccination campaign. Despite the success of this and other vaccine campaigns against formidable diseases in both human and veterinary medicine, a growing portion of the population has concerns about vaccine safety and efficacy.

In 2019, the World Health Organization declared vaccine hesitancy—defined as “the reluctance or refusal to vaccinate despite the availability of vaccines”—to be one of the top 10 threats to global health. Due to the rise of vaccine hesitancy, human diseases that had been rarely seen for years, such as measles, are on the rise around the world. Given the close bond between owners and their pets, it is not surprising that “anti-vaxxer” sentiments have crossed into veterinary medicine as well.

**REASONS FOR VACCINE HESITANCY**

While vaccine hesitancy has been present for decades, the wide availability of information (and misinformation) through the internet and social media has amplified the issue. In the early 21st century, a now-discredited paper linking the measles, mumps, and rubella (MMR) vaccine to autism in children accelerated the anti-vaccination movement in humans. Since then, vaccine hesitancy has grown in human medicine, particularly among parents of young children, and has begun to bleed over into veterinary medicine.

Though scientific studies of vaccine hesitancy are limited in veterinary medicine, several studies in human medicine have investigated reasons for growing hesitancy. Common reasons include concerns around safety of vaccines, specifically related to ingredients and giving too many vaccines at once. Additionally, because many preventable diseases have greatly reduced morbidity and mortality due to the success of vaccinations, some individuals have become complacent about the need for vaccination to continue to prevent recurrence of these diseases. Finally, lack of access to vaccination, lack of knowledge, and religious beliefs can contribute to vaccine hesitancy as well.

**ONE HEALTH IMPLICATIONS**

Vaccination of animals protects both animals and humans. Rabies, for example, kills less than 3 people per year in the United States. Rabies deaths worldwide, however, top 59,000 people annually, with 99% of rabies deaths occurring after dog bites. Critical factors...
in the differences between U.S. and international rabies cases in humans is the presence of ongoing, robust vaccination and control of stray dog populations. Scientists have estimated that about 70% of the canine population needs to be vaccinated to control rabies in an area and prevent human fatalities. If pet owners stop vaccinating their pets against rabies, human cases and mortality will increase.

In canine populations, parvovirus was a devastating virus that emerged in the 1970s, but widespread vaccination has greatly decreased morbidity and mortality from the virus. However, some hospitals saw up to 70% increases in parvovirus cases during the COVID-19 pandemic. While the causes of this increase are being investigated, one theory is that due to the focus on essential services and prioritizing emergency visits during the early months of the pandemic, puppy vaccine schedules were interrupted, leaving a larger portion of the population unprotected. This marked increase in parvovirus demonstrates how quickly a virus can resurge if vaccination schedules are not maintained and herd health is not established.

**DISCUSSING VACCINATION WITH RELUCTANT OWNERS**

Time can be a challenge when discussing vaccinations with owners. In many practices, doctors may have only 10 or 20 minutes allotted per patient to perform an exam, discuss preventive care recommendations, and address owner concerns. In contrast, pet owners can spend hours online doing their own research into vaccine recommendations. Simply typing “should I vaccinate my dog?” into Google produces an initial page of search results filled with conflicting messages. American Animal Hospital Association (AAHA) and American Kennel Club recommendations for vaccinations are listed alongside blog posts from numerous sources stating that vaccines are dangerous. In a world where pets are considered family members by 80% of pet owners, the fear of making a decision that will harm the pet can be a large burden. The conflicting information available online can be further compounded by breeder advice. While many breeders recommend following veterinary advice, I have seen many new puppies come with specific breeder recommendations for avoidance of certain vaccines or delaying core vaccines until after 6 months of age.

How can we combat this misinformation during our brief appointment time? First, we must educate our entire staff on vaccination schedules and preventive care and rely on our front-desk staff and veterinary nurses to start the conversation with owners. In some cases, having consistent, confident messaging from all team members will be enough to overcome owner concerns.

Once our staff lays a foundation, we, as veterinarians, can reinforce that information and have a respectful discussion with the owner to better understand their concerns. While it may be tempting to roll our eyes at some owners’ reasons against vaccination or strict adherence to breeder recommendations that are not based in science, it is essential for the pet’s health that we engage in a dialogue with the owner. For some owners, there is true fear of harming their pet due to previous experiences of severe reactions in prior pets or anecdotes from friends and family members.

To have a successful conversation, go back to the basic communication toolbox and start the conversation with an open-ended question. For example, you can say, “I understand that you have some concerns about vaccinating Bella today. Can you tell me more about that?” Let the owner explain their concerns without interruption. Then, you can respond with scientific facts. During your response, give the owner time to ask further questions and maintain empathy. Taking the time to have these conversations is a way to build trust with owners. This trust will set the foundation for a positive relationship throughout the life of the pet.

Utilize the AAHA canine and AAHA/AAFP feline vaccination guidelines to create an individualized vaccination schedule that includes core vaccines (boosted at appropriate intervals) and non-core vaccines that minimize the risks posed by the pet’s environment and lifestyle. Letting the owner know that you are not following a cookie-cutter protocol for every pet regardless of lifestyle may also increase their confidence in your recommendations.

Finally, for owners whose concerns are the number of vaccines given or the frequency of the vaccines, consider adding additional visits to spread out vaccines. This can be done while maintaining appropriate intervals for boosters by utilizing veterinary nurse appointments. Vaccine titers also offer an alternative to confirm protection for some vaccine-preventable diseases, such as distemper and parvovirus. A recent update to the AAHA guidelines includes a section discussing titers.
Even the most persuasive practitioners won’t be successful in convincing all owners who are hesitant about vaccinations to change their opinion, but each patient that is successfully vaccinated will contribute to herd immunity. By building trust and respect with clients who arrive at their appointment with vaccine hesitancy, we can improve the overall perception of vaccines among our clientele.

References

Kate Boatright
Dr. Boatright is a 2013 graduate of the University of Pennsylvania School of Veterinary Medicine. She currently works as a small animal general practitioner in western Pennsylvania. Her clinical interests include feline practice, surgery, internal medicine, and emergency medicine. As a freelance writer and speaker, Dr. Boatright enjoys educating veterinary students and colleagues about overcoming common stressors in the veterinary profession, including communication, team building, wellness, and the unique challenges facing recent graduates. Outside of the clinic, she is active in organized veterinary medicine at the local, state, and national levels. In her spare time, she enjoys running and spending time with her husband, son, and 2 cats.