How to win clients by taking the right samples and ordering the "best tests" for bovine respiratory disease

Corale Dorn, DVM
Dells Veterinary Services, PC, Dell Rapids, SD 57022

Abstract

Respiratory disease in nursing beef calves presents unique challenges, from recognizing disease to obtaining samples. New graduates need to be able to use a combination of basic knowledge of disease and risks as well as soft skills to advocate for diagnostics and communicate with the client. Utilizing these skills can foster trust with clients. Ultimately, there is opportunity to turn this challenging disease into professional relationships for life.

Key words: beef, calf, necropsy, pneumonia

Introduction

While years of veterinary school have prepared graduates to identify, diagnose, treat, and prevent bovine respiratory disease (BRD), there can be a gap between the graduate's knowledge and the producer's willingness to utilize that knowledge. Added to this conundrum is the fact that BRD in a nursing beef calf can look different than in a feed yard. Because pneumonia is not identified as easily in the nursing calf, the client may not recognize the true problem or at least the scope of the problem.[2,4] This can lead to a situation where a producer is faced with disease outbreak, but does not mention it when the new graduate stops by to treat a different animal. But by utilizing soft skills and being well prepared, a veterinarian can use BRD in nursing beef calves to build lasting relationships with producers. This paper's goal is to shed some light on preparation and soft skills that can be combined with already acquired knowledge to help bridge the gap.

Foundation Knowledge about BRD

Data from the Meat Animal Research Center (MARC) in Nebraska,[2] surveys in the northern Great Plains region[4] and private practitioners experience all point to a greater than 10% morbidity from BRD in nursing beef calves. The causative agents are often the same agents we consider in feedlot workups and are thoroughly discussed in text books.[5] However, up until the last decade, the specific risk factors were rarely studied or reported. When reviewing the classic risk factors for feedlot cattle, many of those risks simply weren't present in cow/calf herds.[4] Since 2015, a series of excellent papers have been published discussing the risk factors at the calf level and herd level, as well as ongoing research into both causes and prevention protocols.[1] All veterinarians working with cow/calf herds can be familiar with these sources through proceedings and recorded sessions in the AABP continuing education portal. New graduates will also benefit by making a crib note of the most common local agents (both viral and bacterial) and what they would look like at necropsy. This additional foundation knowledge will help to form a differential list at the time of necropsy while lab results are pending.

Soft Skills Necessary

Having an abundance of knowledge about causative agents and risk factors will not be enough to generate caseloads for the new graduate. A vital soft skill that every vet can use is to stay in interest with the client. Seek to understand what their daily struggle is, rather than to be understood. As you crawl out of that truck for the last call of the day, look around the farm. Is there a cow/calf pair in the corner of the barn? Why are they there? Is there a pile for the rendering truck to remove? Why are they there? Does the exhausted producer ask you if you have antibiotics on your truck for pneumonia when you arrive to put in a prolapse? That's an interesting question. How does the producer like those calf huts that you saw when you came up the drive? Utilize an open-ended question that allows the producer to tell you what they like, what they hate, and what their current struggle is. This will fill the awkward silence while you struggle to put in a 3-day-old prolapse that "the old vet could have done out the window of his truck while staying in low gear." All the new graduate needs is conversational skills and preparation.

Preparation Necessary

For the topic at hand, preparation involves also having the equipment on your truck to help classify the degree of pneumonia while taking samples to diagnose the causative agent. Once again, there are a wealth of resources that help identify the degree of pneumonia, and instruct any veterinarian about how to take and prepare the samples. Laminated copies of these score cards and sample guides can be stored in the truck and pulled out during those "oh, by the way" moments. A well-stocked vet box will have multiple guarded culture swabs and culturettes for those impromptu nasal sampling requests. Finally, the vet should have a sharp necropsy knife, a hand-held knife sharpener, a gallon plastic bag containing gloves, sample bags, formalin jars and a Sharpie.

This enables the vet to transition from the original procedure to a necropsy with the calf completely laid open in less than 5 minutes. While it may take an afternoon to polish up a kit, it is neither expensive nor complicated. Being able to do the necropsy quickly will remove one of the barriers to having a necropsy done.

Necropsy

The necropsy itself should be systematic and complete. Once again, this foundational knowledge was presented throughout veterinary school and in veterinary literature in various formats. But in order to become proficient at this skill, it needs to be practiced. Do not be afraid to offer follow-up necropsies for cases that you have been working on. While the primary goal of a case is to return it to production, offering a complimentary necropsy when things turn for the worse is a great relationship builder. The veterinarian shows how much they care by calling and following up on the case. The vet also will benefit from seeing the final disease state and looking for co-morbidities. The client, if not overwhelmed by the process, can become an active participant. The animal should be positioned in left lateral recumbency, and opened from larynx to coxofemoral joint with the neck, thoracic cavity and abdomen exposed. This view, regardless of suspected disease, affords the opportunity to discuss both the good and the bad. Good can include things like adequate body fat on ribs, heart, and kidneys. Good may also include a healthy larynx, umbilicus, and gastrointestinal tract. The bad sections help show the degree of severity. If a producer sees pneumonia destroying 95% of the normal lung parenchyma, the conversation shifts from "why didn't this antibiotic that you sold me work" to "what do I do to prevent this?" Finally, the necropsy is the best chance at linking causative agent identified with culture to the histopathological changes in the tissue. If there are multiple animals to necropsy, necropsy every one of them, and choose samples based on gross lesion, treatment state, and condition of the carcass. If the producer has an untreated, acute case, submit diagnostic samples to guide future herd health prevention measures.

The Treatment Plan

For all of the benefits that necropsy and laboratory diagnoses afford, the biggest drawback is the lag time between necropsy and final lab report. This could be viewed as a barrier to getting consent to send lab samples. But, by having a crib sheet of common lesions for each pathogen, veterinarians should be prepared to give a working diagnosis and potential treatment/prevention plan pending lab results. Foundational knowledge found in books and proceedings provide a wealth of information that veterinarians can reference when formulating a plan.[3,5] If a producer has an action plan that they can follow this week and can view the lab results as a playbook to prevent future wrecks, they will be more likely to consent to lab samples. Therefore, the role of the veterinarian is to create a working differential list before sampling and a working treatment plan before driving away. Then, the veterinarian should plan to follow up in 2 and 5 days to see response to treatment as well as update the producer on the lab findings. The veterinarian can also use this time gap to further review risk factors and potential strategies to prevent future outbreaks. Ultimately, when a veterinarian can stay in interest with the client and take the constructive criticism that comes with working up these cases, they can help the producer obtain the product of healthier calves. Any veterinarian that can consistently get the product will be rewarded with more opportunities, regardless of their years of service.

Conclusion

While often frustrating to the producer, BRD in nursing beef calves is an opportunity to develop a long-term professional relationship between the veterinarian and the producer. Veterinarians should possess foundation knowledge and soft skills that result in an invitation to walk the herd and take samples. The valuable final product for the producer is when timely results and treatment plans are utilized in a manner to slow an outbreak and develop herd health plans for the future.

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