

# Practice Tips

Bob LaDue, *Presiding*

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## Use of the Muffly Apparatus for Hardware Disease

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This is the instruction sheet that greeted me when I borrowed Muffly's hardware retriever from a neighboring practitioner to go up and fix a cow that was 10 years old, classified 3, and had given over 200,000 pounds of milk. This instrument has been mentioned in lectures when I was a student at Minnesota and it was essentially written off as messy and ineffective. To start off telling you how we use this, adequate restraint of the cow is needed. I have not tranquilized the cow to use this procedure, but I would if it was needed. It takes two people; a nose lead is a must. We use the rubber tie-down strap usually to anchor that nose lead somewhere so that the cow cannot really hurt herself and yet she is restrained fairly well. The hardware retrieval apparatus consists of two parts. It has a speculum with a handle on it to put in the cow's mouth, through which you pass this Kingman-sized stomach tube. Through this tube is a cable; it runs all the way down, with a large magnet attached. On the veterinarian end of the retriever, you have the end of the cord that also runs all the way through this, exits and hooks to the cow end. This tube is flexible. It is a piece of plastic that is loaded with a string. With proper restraint and someone holding the speculum in the cow's mouth, you pass the stomach tube down the esophagus, and by the way, the first time I used this I put it in the cow's trachea three times. I have not done that since! The cable has to be held tightly at the veterinarian end so that the magnet stays up fairly tight. There is nothing holding it in there other than the cable. It is passed down. When you get close to the area of the ruminal reticular junction, you can flex the end and poke the magnet with the end into the reticulum. That is a procedure that requires some skill and some luck. What should happen is that you latch onto the magnet that is there and pull it out with the offending objects on them. There are two kinds of magnets that should never be used in my opinion in the bovine because of their particular qualities, and also because you won't get these out with the hardware retrieval. They will attach to the magnet because of their different polarity either one way or the other way. I

think the only cow that I have damaged with this retriever was because of this very thing, and it was then, after failing, that I learned that some magnets have their poles in different spots. Typically what we get out of cows are wire that has gone through a forage chopper or an accumulation of garbage. Sometimes we don't get anything either. What I did was I kept track of the first thirty cows that we used this on since, and this was about 7 years ago. I've long since quit writing things down because I became a believer. Of the 30 cows, at least in the eyes of myself and the dairyman who owned the cows, there were 14 cows where the retriever was the key to success in treating that animal—about a 47 percent cure rate. There were 11 cows that we used it on that nothing changed—37 percent. There were 3 cows that we did not get the magnet out of and we did have a magnet as indicated by my Boy Scout compass. We had two cows in which we could not pass the tube on. One had an esophageal abscess which was essentially diagnosed when we tried to use the retriever because I missed it beforehand. If you take the two cows and the three cows you're looking at a failure rate of about 17 percent. You can count these as failures if you want to. If I were to leave you with one thought tonight on the hardware retriever, it would be that we have to pick the cases where we use it very carefully. We have to stack the deck. The best type of case is a cow that is afebrile and off feed. This is probably the most important thing. It should be a repeat episode. In other words, either you are the one that diagnosed her as having hardware disease sometime in the past, whether it be a week ago or six months ago; she is not in acute pain; there is not too much that is remarkable on the physical examination. That's the cow to use it on. I have a little fear of putting it down a cow that will not move because she is in so much pain and driving the stake in the heart. In my opinion if we select only the repeat cases of hardware disease, we can come up with a 50-65 percent success rate. If I took those first thirty cows and culled out those that we should not have used it on, I guess that is retrospective, but I think we can come close to approaching a 50 percent success

rate using it. I have become so sold on this for two reasons. Number one, it taught me a lot of hardware disease, but secondly, I don't like surgery. I think it is important that you understand the prospective at which something is presented. I have come to the point that if the cow needs surgery and the owner is willing to pay the money to do the surgery, we use

the hardware treatment first, unless she is that cow that is extremely bad. There are a couple of disadvantages to the hardware retriever and I think that one of them is that it is a little messy. There is a certain percent of failure. It is not as messy as demonstrating to your client the quality that commonly should be when the ration is right.

## Use of the Plastic Garbage Bag in Replacing a Prolapsed Uterus

**Dr. William Newman**  
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Fayetteville is located in southern middle Tennessee. We're in an agricultural area and cattle enterprises make up the major portion of agriculture in our area. Our practice is Fayetteville Animal Clinic. We have two clinics, one in Fayetteville and one in Lynchburg, and we have a duplex for interns and residents. Our practice is 80 percent large animal. There are seven of us in the practice. We're all Auburn graduates and the 80 percent large is mostly cattle with about half dairy and half beef. Our clinic contains 16,000 sq. feet and about 60 percent is for our large animal facility. We have two large animal work areas. There is an unloading area for our inside large animal surgery and treatment area. There is an open, south facing, open end shed area where we do most of our routine procedures. There is a chute in that area. We use Foremost chutes in our clinic and we have WW and Foremost portable chutes. In this same open end building we also have in-patient stalls for hospitalization. We have 7 stalls in this building. In our reception we have a large animal drug display on one side of our reception area that is divided between large animal and small animal where we have drugs displayed. And we also have a divided reception area for our large animal clients there, too. We have a stock room from which we service our trucks. Even with our good facilities we still do about half of our work on the farm. And my practice tip tonight has to do with that.

Prolapsed uterus replacement is usually just a hard and messy job and it hasn't changed a whole lot from the way our predecessors in the profession did it many years ago.

Two items that I use, and one of them is not labeled in the topic, are a plastic garbage bag or a cadaver bag (I actually use a Haver-Lockhart cadaver bag, but a large plastic garbage bag works the same) and the other one is a stool and we just call it a dove hunter stool. Hunter suppliers have them, dove hunters in our area use them, but it is just aluminum with a canvass seat that folds up that you can store nearly anywhere because it folds completely flat. In the procedure when I use it, I start out with it unopened (that's

just it lying flat), and when I'm talking about its uses in the cow that is down with a prolapsed uterus and using the routine sternal recumbency with her rear legs pulled out behind her, and placing the garbage bag lengthwise between her rear legs and the uterus just lying flat on it, with this it just leaves you a clean surface to wash it on or to remove the placenta. Most of the time, as you know, they are in mud or dirty conditions. You don't have to hold the uterus up. Water will just run off it. If it's where you can get water to it out of my truck, a lot of times I just back the truck close enough to it. Once I do a pretty good job of soaping it up I even spray it off with that, just under it, not having to lift it up. Then once you have the uterus clean, the bag is still lying there, it never has been opened, and these cadaver bags, even if it is lying in mud nothing ever runs in those things. I don't know, they just run through some kind of press and they are still clean on the inside. So if the cow's head was facing out toward the audience here I would just lift the open end edge of that and lift it back under the uterus and let the uterus come back inside the bag. And once you have it in this position you can treat it with any topical antibiotics or disinfectants or hydrophilic compounds, anything you want to. You're not wasting the compounds. You're not letting it fall back on the ground and contaminate it. It also frees up your assistant to help you a little more rather than just having to pick the thing up. Once I have it in this position in the bag then I set the stool just under the uterus and it holds it up at about pelvic floor level and it gets it up where you're not just having to hold the weight by assistant and it makes it at a level you're ready to work with it at that time. In most cases when I would have it here the bag kind of gets in your way at this time. I do not use the bag around it to replace it. I just still manually push it back in with usually an assistant helping me. You still have to have someone helping hold the uterus up. The stool will try to slide out from under you if you get to relying on it totally. But you've got it up there where it's a lot easier to hold and you've got it clean. And at