

# Small vet, big cow: Tips and tricks for the vertically challenged

Elizabeth R. Homerosky, DVM, MSc, DABVP (Beef Cattle Practice)  
Veterinary Agri-Health Services Ltd.  
Rocky View County, Alberta, Canada T4B 4L5

## Abstract

Regardless of your stature, it is critical you understand your strengths and weaknesses. Gaining experience and confidence in clinical skills, particularly obstetrical procedures, takes considerable time. Dystocias are a team sport and as such, you should never hesitate to reach out to colleagues for guidance or employ the client's assistance. In many instances, casting a cow down will improve your ability to control the situation and safely assist the cow. Maintaining an open mind and sense of humor will serve you well in a multitude of situations.

**Key words:** clinical skills, dystocia, C-section, uterine prolapse, vaginal prolapse

## Introduction

This session will review tips and tricks to help make bovine practice a little easier for those who are best suited to work on miniature Herefords. In addition to this session, it is highly recommended that you seek out other short-statured veterinarians to shadow and learn from. Regardless of your size, it is exceptionally important for your own safety and for that of your bovine patients' that you become proficient in animal handling and restraint. This session will address physical restraint; however, knowing when and how to safely employ chemical restraint can be invaluable.

Successfully navigating the obstacles that come with being vertically challenged is largely dependent on your level of self-awareness and ability to accurately identify your strengths and weaknesses. It is also important to have the ability to recognize when a current strategy will fail to result in your desired outcome and subsequently have the confidence to pursue an alternative. Self-awareness is equally important for all veterinary professionals regardless of stature, however, those standing below the height of the average bovine rectum may not be granted as much credibility from their clients the moment they step out of their truck. Knowing you may not always be given the "benefit of the doubt" means you may need to be better prepared than the average-sized veterinarian. This applies to your sense of humor as well. Having a few witty comebacks when the "short jokes" and inappropriate remarks are thrown your way will show your clients that you have grit and are up to the challenge. If this fails, simply stating that their pessimistic attitude will be reflected in their bill, seems to put a stop to the bullshit (no pun intended). Below are practical recommendations to help you build confidence and ensure success in various aspects of both cow-calf and feedlot practice.

## Dystocias and prolapses

### General recommendations

Calvings are a team sport. As such, you should always look for teachable moments and opportunities to share your knowledge with the client. This comes in handy where a few extra inches would help placing a snare or correcting a breech. Consider

walking the client through the technique. This will help save you time and effort and will help ensure a successful outcome the next time the client is presented with a similar case.

Administering an epidural for all obstetrical procedures is highly recommended. This is not something our clients are always able to perform. This differentiates us as veterinary professionals and improves the standard of care. Additionally, administering an epidural as soon as you arrive before getting suited up allows you time to assess the situation and mentally prepare for what lies ahead. It also eases the client's mind as you've immediately begun to work on the animal.

If a calf is unable to properly enter the birth canal, such as breeched calves, retained head, or any presentation with heifers, the birth canal may not be fully dilated. Dilation can be achieved by clasping your hands together inside the birth canal, abducting your elbows, and pulling back.<sup>1</sup> This action will mimic that of a calf being delivered and stimulate dilation via the Ferguson reflex.

Cast the cow before delivering the calf or replacing a uterine prolapse using the Running W technique (lasso around neck, half-hitch over withers and hips).<sup>1</sup> This puts you in control and allows the cow and her pelvis to be in a more natural position to facilitate delivery of the calf. When replacing a uterine prolapse, her hind limbs should be "frog legged" to tip her pelvis cranially and reduce abdominal straining.

Pharmaceuticals with tocolytic activity are useful for multiple scenarios, including breeched calves and C-sections, when a contracted uterus often complicates the procedure. Administering a tocolytic, such as 5-10mL of epinephrine IV or IM, will help relax the uterus and give you more room to work for ~15min. Beware as this will predispose the cow to a uterine prolapse.

### Correcting malpresentations

A retained head is among one of the most difficult malpresentations to correct for those with short arms. A stool to stand on or creating a lever under the cow to lift the abdomen can help shorten the distance between your hand and where the snare is to be placed. This can be achieved by placing a board through the side of the chute and pushing down. If the calf is confirmed dead, using a cray hook to puncture the skin between the mandibles and pull the head around is usually quicker and easier than placing a snare. Remember to repulse the calf as you pull the head around.

When correcting a breech, an OB wire guide bent in a U-shape, hooked to a carabiner, and subsequently a chain is a useful tool to help with correction of retained hind limbs. The chain can initially be placed above the hock and then worked down below the hock. If you are unable to slide the chain down below the hock, then a second chain can usually be placed in the desired location while an assistant applies gentle traction upward. Once the chain is in the proper location, traction should be applied upward while you push the hock laterally and pull the foot medially and then caudally. Repeat for the second hind limb if needed. Be certain to check for a twin as they commonly follow breeched calves.

---

## Performing C-sections

Pre-packing a C-section kit with everything required for surgery can save time and help keep you organized. Additionally, an automatic dosing syringe can be used to deliver lidocaine in 5mL amounts when a line block is preferred. It is recommended a line block be administered cranial to the most ventral aspect of your incision in the event you need to extend your incision, even when regional anesthesia via a proximal or distal paravertebral block is achieved. An oblique paralumbar approach is often recommended to help retain the uterus, provide better visualization of the uterus, and retain the exteriorized uterus during suturing.

The most difficult C-section scenario for a small-statured veterinarian is when a large calf is positioned with their dorsum facing the left side of the cow. Rotating the calf or exteriorizing part of the calf's leg before incising the uterus is not always feasible. Whereas some veterinary colleges now teach students to open the cow on the side that the calf is facing, older facilities may prohibit this strategy. A paramedian approach with the cow in dorsal recumbency also presents challenges. Rather, using a small plastic letter opener to strategically incise the uterus may provide some additional options. These letter openers can fit in the palm of your hand and are safer to use in the abdominal cavity relative to a scalpel or scissors. It is recommended that you make an incision the width of your hand in the uterus either over the canon bone or hoof. Care should be taken as to not penetrate the placenta so any contaminated fluid will be retained until the uterus can be properly exteriorized. You may then use just the cannon bone as a hand hold or in extreme cases, place a sterile chain above the fetlock to give yourself extra leverage to rotate the calf. Once exteriorized, the placenta can be cut allowing any fluid to drain outside the abdomen. Using a dull S-curve needle or one with the cutting edge sanded down can help expedite closure of the uterus, as a speedy surgery can help improve patient outcome.

## Vaginal prolapses

Large vaginal prolapses are often the result of bladder entrapment and should be lifted dorsally to promote draining of urine. Coating the prolapse with sugar and wrapping tightly with vet wrap will help reduce edema. Administering dexamethasone to non-pregnant animals can also help reduce edema and straining due to discomfort.

A watched cow never seems to calve. This can be frustrating when dealing with a recurrent vaginal prolapse in a pregnant cow. Rather than instructing your clients to cut the purse-string vaginal suture right before she calves and risk being either too early or too late, try placing a break-away purse-string suture. This is achieved by leaving the ends of the umbilical tape untied and fixing them together by threading a piece of supramid suture through each strand. When the cow begins to calve, the supramid will stay in place while the umbilical tape is pulled apart, reducing tension on vulvar tissue.

Vaginal prolapse repeat offenders may benefit from a permanent epidural using a small amount of alcohol (2mL). This should be reserved for terminal cases only that are scheduled to be slaughtered or euthanized within a short period of time. Cows will lose control of their tail and complications can result in severely compromised welfare.

## Uterine prolapses

Lifting a uterus to facilitate replacement while an animal is standing can be quite difficult. It is highly recommended all animals with a uterine prolapse be placed in sternal recumbency and frog-legged. Once in position, the uterus should be placed over the back of the cow to allow any prolapsed intestines to return to the abdomen. Squatting in a "catcher's position" behind the cow with a snow sled or large plastic container lid on your lap will allow you to raise the uterus and use your arms for pushing only. Once replaced, a wine bottle or wiffle ball bat can help facilitate complete involution. Involution can also be achieved by pumping in 5-10 gallons of warm water into the uterus.

## Daily field tasks

### Preg-checking

Ultrasound is now preferred to manual palpation for numerous reasons. A plastic introducer, facilitating an arm's free ultrasound assessment is highly recommended due to the decreased strain on ligaments and tendons in the shoulder, particularly on larger-framed or fractious cows.

### Performing bull breeding soundness evaluations

In general, palpation of the testicles often results in an irritable bull leaving you susceptible to injuries from kicking or jumping. It is highly recommended that you perform rectal massage and collect the bull before palpating the testicles. After collection, most bulls will relax their cremaster muscles allowing you to easily collect a scrotal circumference measurement.

An automatic electro-ejaculator is also recommended for those of short stature. Allowing yourself to remain standing and not needing to reach under the bull until the time of collection is safer and more ergonomic. Automatic electro-ejaculators also allow you to multitask and creates a more enjoyable experience for the bull often resulting in excellent extension.

### Administering oral medication

Mature cattle often don't appreciate receiving oral medications. Administering these medications can be difficult, particularly when dealing with large bulls. To facilitate drama-free dosing, try rubbing the roof of the animal's mouth until they mimic chewing their cud. This results in a calming effect and allows you to administer oral medication with ease. This technique can also be used as a distraction when performing uncomfortable procedures toward the rear of the animal.

## Other tips (for regular-sized veterinarians too)

### Staying organized

- Dry erase markers can be used on your truck side window to keep track of billable hours, ear tag numbers, physical exam parameters, dispensed products, etc. Gate codes or lock combinations can be written on your windshield underneath your visor.
- In addition to C-section kits, calf IV kits with everything you need to provide IV fluids are also handy in the field.
- Lanyards from past conferences can be attached to calving chain handles to prevent them from getting lost in bedding, mud, snow, etc.

- 
- Carabiners can be used to keep all your calving chains and other OB instruments together when not in use.
  - Zip-ties are an excellent method to keep the plastic dividers in the upper tray of your vet box firmly in place.
  - An air compressor is exceptionally useful for cleaning out compartments on the top trays of your vet boxes.
  - For those utilizing an axe for field necropsy, a PVC pipe cut in half can help keep your vet box tray clean. A PVC pipe zip-tied to the underside of your top tray provides an excellent storage location for your boot brush.

### Billing for “while you are here, Doc...” requests

We all fall victim to the “while you are here, Doc...” requests, but we often feel guilty charging for over-the-fence exams or brief consultations. Additionally, we sometimes feel compelled to discount services when our cases don’t have the desired outcome. While discounting invoices is not a wise business decision, it can help build rapport with clients. Furthermore, charging appropriately for these services can be challenging if this

hasn’t been done in the past or is inconsistent across veterinarians. Deciding whether or not to issue discounts is a decision the management team needs to make. However, if you choose to discount a bill, it is highly recommended that you get as much mileage as possible out of this good deed. A good practice is to always list the service provided at full price on the invoice and then write a note regarding the discount they received. This helps the client understand the value you provide and enables them to associate a dollar figure with your time and expertise.

### Conflicts of interest

The author declares no conflicts of interest.

### References

1. Midwest Beef Cattle Consultants, LLC website: <https://www.mwbeefcattle.com/educational-material>

