large enough to accomodate uterine infusion pipette.

4. 5cc plastic or glass tubes containing 2cc of USP Lactated Ringer's or 2cc USP Saline Solution. Tubes must be water tight. Red topped 5cc bleeding vacutainer tubes work well. *Do not flush samples into bangs bleeding tubes.*

5. Insulate box to keep samples from excessive heat or cold during collection and transport to laboratory. Samples for Camypylobacter should be kept at around room temperature.

6. Clark's media in sealed, rubber stopper vials.

Collection of Preputial Samples From Bulls

1. Restrain the bull in chute.
2. Clip the long hairs from the preputial orifice.
3. Attach the 10-12cc dry syringe to the dry uterine infusion pipette. A cleaner sample can usually be collected if the drinking straw is inserted into the prepuce to protect the pipette from contamination as it is passed through the preputial orifice.
4. Insert the uterine pipette into the external preputial orifice. (If a drinking straw is used it should be inserted first as a guide.) The pipette should be inserted back to the fornix of the prepuce.
5. By drawing back the plunger of the syringe, create a negative pressure in the syringe and hold it while the preputial sample is taken.
6. Move the pipette back and forth in the prepuce vigorously scraping the mucous membrane of the prepuce and glans penis. *A vigorous scraping is extremely important if you are to recover the organisms living deep in the preputial crypts.*
7. After completing the scraping release the negative pressure on the syringe and then remove the pipette from the prepuce. Check the sample in the pipette. For a satisfactory scraping the pipette *must contain* some cloudy material and in many cases will also contain a few red blood cells which give it a pink color. This will ensure that the scraping was deep enough to recover the organisms.
8. Flush the material from the uterine pipette into the vial containing the 2cc of USP Ringer's or Saline Solution.
9. If you are checking for Campylobacter, the vial should be mixed and 1cc of the material transferred with a syringe and needle to the Clark's media for transport to the laboratory. *Do not remove the cap from the Clark's media, inject through it.*
10. The remaining material (1ml) should be left in the collection vial for transport to the laboratory.

Use of an IV Catheter Device to Facilitate Frequent On-Farm IV Therapy

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I have two short practice tips which have worked well in our seven man large animal practice and hopefully will be useful in other similar types of practices. The first tip is the on-farm use of an indwelling I.V. catheter for repeat I.V. therapy. The need for such a device became necessary for three major reasons:

1. The inability of many clients to consistently and competently administer I.V. medication.
2. The desire of many clients to eliminate severe muscle swellings associated with large volume long-term I.M. therapy.
3. A large practice area with some clients as far as seventy-five miles from the clinic thus making consecutive day repeat visits impossible.

The apparatus used consists of:

1. 14 ga. 2 1/4 in. I.V. catheter.
2. I.V. extension tube with luer lock ends.
3. A 3-way valve.
4. Suture material.
5. Heparin solution.

The catheter is inserted into the vein in the regular manner, however, much care is taken at suturing it in place. A simple interrupted suture is placed around the hub of the catheter and then a large horizontal mattress suture is used with a one inch bite on either side of the catheter just distal to the hub. This results in two folds of skin being rolled over the catheter thus preventing it from being twisted when the cow bends her neck. The extension tube is then attached to the catheter at one end, secured with a loose simple interrupted suture posterior to the angle of the mandible and attached to the 3-way valve at the other end. The valve is taped to the halter just behind the poll and is now ready for use. Once the medication has been administered a heparin lock is used to maintain patency. The catheter apparatus seems to function well for 3-5 days without any secondary problems.

The use of a milker vacuum pump in G.I. surgery

The second practice tip is the use of a milker vacuum pump to assist in deflation during bovine gastrointestinal surgery. The apparatus consists of:

1. Non-sterile plastic tube.
2. Sterile plastic tube with luer lock end.
3. Vacuum jar with two inlet tubes.
4. 14 ga. 1 1/2 in. needle.

The collection jar provides a safeguard to prevent sucking fluid into the vacuum line and the device works very well for deflation in displaced abomasum or cecal torsion surgeries. By sterilizing the collecting jar this device also works well for collecting blood.