Welcome to the webinar! We’ll be starting the live Q&A in just a few minutes.

Hello everyone, and welcome to our Webinar, Late-Term Mare Care, Foaling, and Young Foal Care! We’d like to introduce tonight’s presenters, Patrick M. McCue, DVM, PhD, Dipl. ACT, professor in the department of clinical sciences at Colorado State University; and Wendy E. Vaala, VMD, Dipl. ACVIM, Sr. Equine Technical Services Specialist at Merck Animal Health.

Drs. McCue and Vaala will be answering your questions during this live event along with Ryan Ferris, DVM, MS, Dipl. ACT, Clinical Instructor at Colorado State University’s Equine Reproduction Laboratory. We’d also like to offer thanks to sponsor Merck Animal Health for bringing you this free event. Visit them online at http://www.FoalCare.com.

If the video is not playing for you or is hanging up (often slow or inconsistent Internet connections can cause this), try refreshing this page.

We have several questions that were submitted ahead of time to answer, so we’d like to ask that you hold any further questions until we finish these. Thanks for your patience!

Heather Rioux: Navel ill? Had a foal with navel ill in spring 2011 at the week of age he survived with heavy doses of antibiotics, Bute etc. His cord stem was iodine dipped at birth. His cord seemed unusually thick and did not dry up for a month. What is the best navel dip mix? Should a breeder continue applying something like blue coat spray after a few days? Is there other ways of foals contracting navel ill?

There are several acceptable disinfectants that can be applied to the navel of a foal in the early post-partum period. These include diluted chlorhexidine solution (we use a 1:1 dilution of Nolvasan solution and water; other may dilute it out more), povidone-iodine solution (again we use a diluted version), and 2% iodine. I would suggest that you do not use veterinary tincture of iodine (which is 7%) as it can irritate the skin of the foal and irritate the skin of the person applying the liquid. We recommend that the navel be dipped immediately after the cord breaks and then dipped again 3-4 times per day for 3-4 days. We recommend dipping the navel (i.e. putting the disinfectant in a small vessel and soaking the navel for a few seconds) rather than spritzing it on or dabbing it on. Foals with navel ill may have acquired the infection due to a high ‘load’ of bacteria in the environment, so make sure that you clean and disinfect the foaling stall between mares/foalings. In addition, failure of passive transfer of colostral immunity is another well-known factor that predisposes foals to a variety of infections. Make sure that 1) the mare has good quality colostrum (this can be tested with a Brix or sugar refractometer immediately after birth), 2) the foal nurses adequately, and 3) check the foal’s blood antibody levels either 12 or 24 hours after birth. If the foal’s IgG antibody level is low, the foal can be administered a plasma transfusion to help protect it against infectious diseases. Consult with your veterinarian as to the best time to test the foal, what test to use and what to supplement the foal with should additional antibodies be needed. —Dr. Patrick McCue
TheHorse.com: Buffy: I took a young filly off the meat truck in late June, about 1 1/2 yrs old, just a guess on this, but at least that old. Back tracking where she came from, Iowa and I am in Northern Wisconsin, by way of Craig's List, found out that she was running with a head of at least two mature stallions, plus other mares, and their new foals, plus one and two year old offspring.

So, my question is.... could this young filly be carrying a foal. I have dewormed her 3 times, so fairly sure it is not worms or a hay belly. Her belly looks solid, and often lop-sided. No bag, nor I have not felt movement. I feel she is just a baby herself, and I am doing all I can by ways of good hay, grains, salt, etc.

TheHorse.com: The young filly (age 1-years) could indeed be pregnant if she was in with a mature stallion. Horses reach puberty (i.e. defined as the time of first ovulation) anywhere from 16 to 20 months of age. If she came into estrus (heat) during the time she was running with the stallions, it is quite likely that she was covered. I would recommend that you start with a pregnancy examination by your veterinarian. He or she can then advise you as to the proper care for this horse. —Dr. Patrick McCue

TheHorse.com: Connie Nesteruk: 2. As for the foal born in a red-bag delivery, should it be treated aggressively even if no maladjustment symptoms are noted initially? In other words, should we assume there was some degree of oxygen deprivation and act promptly to prevent problems (such as administering dexamethasone)?

Wendy Vaala: Use of prophylactic treatment is often a judgment call. Many foals from red bag deliveries show no abnormalities even with out therapy. Reasons to consider early intervention: the delivery was prolonged; the placenta was heavier than normal (ie greater than 10- 11% of the foal's birth weight); the foal is slow to sit sternal & develop a suckle reflex within the first 10 20 minutes following delivery, or the foal's heart rate remains slow and does not increase within the first hour to 80 - 100 beats per minute or the breathing rate remains abnormally slow....these are all early warning signs there the foal may have experienced significant hypoxia (lack of oxygen) and early treatment should be started. Administering humidified oxygen to these foals immediately after birth can be helpful. Other treatments include placement of a catheter and intravenous administration of fluids containing antioxidants (such as Vitamins C & E), DMSO, thiamine (one of the B vitamins) and magnesium sulfate. (Wendy Vaala)

TheHorse.com: Terri: My pregnant mare is an easy keeper that is getting overweight. I am feeding her a grass hay mix to lessen her calorie intake. Can you give me more information on overweight pregnant mares and exercise amounts they should have?

TheHorse.com: Your ‘easy keeper’ pregnant mare should be kept on a maintenance diet, like she has been, until the last trimester of pregnancy. In general, it is recommended that most mares receive an increase in dietary energy, calcium and protein in their last trimester to account for the major growth period of the fetus. This can be accomplished by adding increasing amounts of alfalfa to the diet. Lactation is the biggest nutritional drain in the life of a broodmare. Adding a concentrate to her diet along with a combination of grass and alfalfa hay would be beneficial.

For your mare, I understand the easy keeper part. However, I would not restrict her diet to the point that fetal growth and development are compromised. I would suggest that exercise be provided to keep her in good physical condition. You can walk, trot, lunge, pony or otherwise exercise your mare on a routine basis until she approaches her due date. Of course, the intensity and duration of the exercise should be tapered as pregnancy progresses. —Dr. Patrick McCue

TheHorse.com: Connie Nesteruk: 1. On a mare known to have red-bagged before, do you like to use a prophylactic regimen of meds such as ReguMate, pentoxyfilline, low-dose Banamine, SMZs? How far
out from the anticipated foaling date would you begin? I have one mare in particular who for 3 years has foaled at 10 1/2 months as a red bag with no signs of placentitis and otherwise nothing amiss.

TheHorse.com: If a mare has had one red-bag delivery (premature placental separation), she may have another one, although it is not common to see red-bags on subsequent deliveries. As you are aware, the biggest issue is oxygen deprivation due to the separation of the chorioallantois (outer placental membrane) from the uterus prior to delivery. Most red-bags are not associated with placentitis, although that is also possible. If we suspect placentitis, we would ultrasound the mare and measure the combined thickness of the uterus and placenta (CTUP) every 2 weeks during the last 1 to 2 months of pregnancy. We could potentially also observe placental separation during that examination. For ‘standard’ types of red-bag (i.e. not associated with placentitis), treatment with Regumate, pentoxyfilline, NSAIDs, and antibiotics are not really indicated. What would be critically important is to attend the foaling and immediately open the intact chorioallantois (red-bag) when presented through the vulva. The foal should be delivered ASAP and supplemented with oxygen if available. —Dr. Patrick McCue

How many broodmares do you breed each year?

1-3 (63%)
4-6 (4%)
7-8 (8%)
9 or more (25%)

Comment From Jack Irvin: How long before foaling date should mares be under constant observation? Maiden mares?

Dr. Ryan Ferris: We often recommend to clients to bring mares in for constant observation starting around 2 weeks prior to the mares due date or when they start showing signs of suggestive of foaling (i.e. developing a mammary gland, ‘waxing’, etc). Signs suggestive of foaling can come on very quickly in maiden mares. If a maiden mare is not up under constant observation but is 320-380 days in foal, she should be evaluated at least twice daily for signs suggesting of foaling.

Comment From Guest: My 4 year old mare had her first foal this past spring. She rejected it and we ended up bucket feeding it. What can I do to help this to not happen again?

Wendy Vaala: A great question. I assume your mare was a maiden when she rejected her first foal? There are many reasons that mares reject their foals. Sometimes inexperience and fear, sometimes the wrong environment...etc. I encourage you to be in attendance for the foaling. Several wks prepartum begin to touch your mare gently around the flank and udder to get her desensitized to these areas where a newborn foal will be prodding. Avoid having too many people around the foaling stall. Be certain to be present as the foal starts to stand. That is when many mares become fearful. Calm the mare. Avoid sharp reprimands. Try positive reinforcement. If she tries to bite, consider a grazing muzzle. If she tries to kick, consider hobbles. Light sedation with acepromazine may help. Another cocktail to discuss with your vet is giving the mare ReguMate + estrogen + domperidone after foaling to help modify her behavior. Good luck. Wendy.

TheHorse.com: 3. When is your preferred time to pull blood on a foal to test IgG? From time of 1st nursing (or bottle), is 8 hours too soon? What’s a good game plan for mare owners whose foals are born at an inconvenient time (aren’t they all!!) meaning a vet may not be able to come until many hours later? For example, let’s say a foal arrives at noon and all appears well … realistically the vet won’t come until 8 am next day to pull blood, and if the IgG is low, it’s too late to supplement orally with colostrum so a plasma transfusion is the only option. Also, if a stall-side SNAP test is not used and the blood is sent
to a lab to be spun, results don’t come back until the next day. Is there another option for people who prefer to get a timely quantitative IgG number (not simply, “greater than 800”)?

**Wendy Vaala:** If the mare has good quality colostrum and the foal has suckled vigorously within the first couple of hours of delivery and has continued to nurse well, then the IgG can be checked as early as 8 - 12 hours. It usually requires at least 4 - 5 hours for peak absorption of IgG following a milk meal. So timing of the first IgG check is dependent on when the foal first received colostrum and the volume and quality of colostrum ingested. Remember that efficiency of antibody absorption declines rapidly within the first 6 - 8 hours. You might consider using one of the easy stall side tests to measure every mare’s colostrum quality right after foaling to ensure you are starting off with good quality colostrum.

(Wendy Vaala)

**TheHorse.com:** Connie Nesteruk: 4. Speaking of plasma, do you routinely give the type that includes rhodococcus? And if so, is it necessary to repeat the transfusion 30 days later? When do you recommend giving plasma, in terms of both the situation (ie, low IgG or a compromised foal) and timing (ie, day of birth, next day, etc.)? Do you recommend retesting IgG after running plasma or is it a given that the level will be satisfactory?

**Wendy Vaala:** I use one of the USDA licensed plasmas. If the farm where the foal is born has a history of Rhodococcus equi pneumonia or if the mare and foal will be going to a farm with a history of R equi, then I use a plasma that contains R equi antibodies. If you are trying to reduce the risk of R equi pneumonia, then I recommend that the first liter be given within the first 1 - 3 days and then a second liter 21 - 28 days later.

**TheHorse.com:** Connie Nesteruk: 5. Old-school thinking said it was a good thing to deworm a mare with ivermectin within 12 hours post-partum; are new studies rejecting this idea? If it’s safest to not deworm a mare in the either the first or last 30 days of pregnancy, when and with what should she be dewormed after foaling to ensure she’s clean heading into the breeding shed again?

**TheHorse.com:** We recommend provide a routine deworming program during pregnancy. Most dewormers are safe for use in pregnant mares (it should state this on the label). The reason mares are dewormed in late pregnancy or early in the postpartum period is to eliminate the intestinal threadworm (Strongyloides westerii), larva of which can be passed to the foal through the milk. This parasite is one of the many causes of diarrhea in young foals. —Dr. Patrick McCue

**Wendy Vaala:** I agree with Dr McCue’s suggestion to use ivermectin. Another way to reduce the your foal’s parasite exposure is to keep the foaling stall clean and with frequent manure removal.

**Comment From Emily:** Do mares usually have their foals at night?

**Wendy Vaala:** Typically mares do foal at night! Have your coffee thermos ready!

**TheHorse.com:** Connie Nesteruk: I am so looking forward to this webinar! We foal 25 to 40 mares a year on our farm, mostly outside mares with a half-dozen resident mares. Many come here as somewhat high-risk, meaning their owners have had a disastrous foaling before and want their mares to be monitored 24/7 under cameras. Even after attending more than 1200 foalings, it never gets old ... a broodmare is truly a miraculous animal and there is always that moment of wonder and awe when the foal clears the birth canal. We are lucky enough to be near the Mid-Atlantic EMC with its neonatal unit that Dr. Vaala set up, and short of having her here in person to “pick her brain,” this webinar is the next best place to get advice!
TheHorse.com: Thanks Connie, we hope you are enjoying the webinar! :)

Comment From Guest: Do you have any suggestions about how to check that the mucus plug has not dislodged? My mare has no white on hinds for blood observation.

Dr. Ryan Ferris: It can be difficult to know when the mucous plug dislodges. Often times this is not associated with very much blood and even in mares with white hind legs it can be difficult to determine. If you are concerned that your mare may be close to imminently foaling and might have lost her mucous plug unobserved, careful observation can help determine this. Mares in early labor will often be restless, sweating, laying down and immediately standing up, etc.

TheHorse.com: Jeanette Russell: I have a mare that was exposed to salmonella three years ago. Her 5 month foal sadly died with another owner. She is pregnant now and I am wondering if she needs to be vaccinated or would she produce and pass on antibodies to the foal, having already been exposed to the disease?

TheHorse.com: Wendy Vaala: Interesting question. It is unlikely that the mare still has high enough antibodies against Salmonella from her exposure 3 years ago. Unfortunately there is no licensed Salmonella vaccine for horses. Some farms with a history of Salmonella infections in foals have used autogenous bacterins (vaccines made specifically for that farm using the local strain of Salmonella). I would discuss this question with your vet to see if the risk of Salmonella is great enough to warrant considering using an autogenous bacterin.

What role does your veterinarian play during foaling season at your farm?

Very involved in all stages from conception to foaling (21%)
Involved during key stages (21%)
I call my veterinarian only if there is a problem (47%)
I don’t typically involve a veterinarian during foaling (11%)

Comment From Carrie: What is the best age to wean foals? Mine grow so much more staying on the mare for 7, 8 months. Is that bad at all?

Wendy Vaala: There is no right or wrong age when it comes to weaning. Many times it depends on the farm and the number of foals to wean. Some very large farms with 100’s of foals will choose to wean at one time......so some foals will be as young as 4 months and others as old 8 - 10 months. If you have only a few mares, you can choose to wean based on the condition of both your foal and mare. By 4 - 6 months your foal is receiving more nutrition from non-milk sources and your mare’s lactation is declining steadily. If your foals look better staying with the mare longer, then I would continue to follow that routine. Sometimes foals with heavy milk producing mares begin to grow too rapidly and gain excessive weight. These foals are at increased risk for metabolic bone diseases such as physitis and contracted tendons, etc. In these cases we often wean foals at earlier ages.

Comment From De Molina: I have a pregnant mare and I like to ride her at least every weekend, my question is when should I stop riding my Mare?

Dr. Ryan Ferris: Many pregnant mares can continue to be ridden until 6-8 months of pregnancy. Often at this point the mares abdomen starts to drop and her interest in exercise is greatly reduced. This is not a hard set rule, but a guideline. Typically your mare and she will help dictate if she needs to slow down exercising earlier or can keep being ridden later into gestation.
Comment From Deb Cross: I purchased a 13 year old mare the end of Sept not knowing she was pregnant. When she was trailered home that night she went into what seemed like contractions, dripping milk, going down and it appeared she was in labor. It has been over 2 months and she is huge, still pregnant, but we have no way of knowing an exact due date. She occasionally will drop milk from her teets for no apparent reason. Is this normal? It stops after a short period of time, but has happened several times.

Dr. McCue: Deb, It is difficult to predict a due date for a mare without a known last breeding date or ovulation date. In those situations, we can occasionally estimate a gestational age by palpation (fetal size) or ultrasound (eye orbit diameter). We would normally also monitor mammary gland development, which increases the 1-3 weeks prior to foaling and monitor milk calcium levels, which increases to > 200 ppm in the 24 to 48 hours prior to foaling. The fact that this mare had colic-like signs and then mammary gland development and dripping milk MAY suggest an issue with the pregnancy. Similar signs have been observed in mares that lost their pregnancy (i.e. aborted), mares that had placentitis with a live fetus, and in mares with twins in which one fetus died and the other was maintained and born alive. I would suggest a veterinary examination to determine if the mare is still pregnant with a live fetus.

Comment From Jack Irvin: At what age should foals have their own feed tub or a creep feeder and why?

Wendy Vaala: I like introducing foals to creep feed at an early age so they begin to eat creep feed gradually. Most foals will begin to nibble feed out of their mare’s tub within the first few weeks of life. Certainly by 2 months of age a foal should have access to his own tub. The goal is to make all diet changes slowly to allow gut bacteria to adjust to the new diet.

TheHorse.com: This Webinar will be archived for later viewing, along with a transcript from this chat, at http://www.thehorse.com/Videos/Webinars.aspx.

Comment From Emily: Although I have yet to experience this wonderful event, I have enjoy this webinar:) Thanks!

TheHorse.com: Thanks Emily, glad to hear that! :)

Dr. McCue: Jill, In general terms, we recommend that a mare be bred to carry a foal to term by the time she is 8 to 11 years old or so. ‘Older Maiden Mares’ (i.e. > 15 years old) may be difficult to get in foal due to changes in cervical function. The cervix of a young mare should relax in estrus (estrogen effect) and tighten after ovulation (progesterone effect). Older maiden mares sometimes lose the ability to relax during estrus and remain tightly closed throughout the cycle. The problem is that these affected mares may retain inflammatory fluid in their uterus after breeding as the closed cervix prevents elimination of this fluid.

Comment From Jill: What is the maximum age for a maiden mare that is active and in good health to be bred? I have heard many different schools of thought on acceptable ages for maiden mares, but am interested in your expert opinion. Thank you for the information given here this evening!

Comment From Guest: I believe that I saw signs of the mucous plug. Red in the straw and on her hind end. This happened on 2 separate days within a week. Was this the mucous plug?

Dr. Ryan Ferris: Red in the straw or on a mare’s hind end is most likely blood. This would be expected when the mare’s mucous plug dislodges or the mare’s water breaks during parturition. You typically will not observe blood on the hind end of a mare in the days leading up to parturition. If you do the mare should be evaluated by your veterinarian to the cause of the bleeding.
Comment From Connie Nesteruk: RE: deworming post-partum .. so is it still OK to give mares ivermectin (provided the birth was uneventful) within 12 hours after foaling (to kill those circulating larvae)? Also, I routinely give post-partum mares a rhino booster (since their last one was given at 9 months, and the next series would not begin until 3 or 5 months in the following pregnancy). Is there an optimum time to give this booster? I like to do it before they are rebred, as Thoroughbred mares may be exposed while at the breeding farm. Your advice?

Wendy Vaala: Yes, ivermectin is safe to give the post-foaling mare within the first 12 - 48 hrs provided she appears healthy.

“Rhino”, also known as herpes virus, vaccines do not generate long lasting immunity which is why we recommend vaccinating pregnant mares with an EHV-1 vaccine during months (3), 5, 7, & 9 to reduce the risk of abortion. Most mares also receive another booster with EHV1&4 4 - 6 weeks pre-foaling. If the mare is going to be bred back immediately, then you may not need to booster pre-breeding with another herpes vaccine. (Wendy)

Comment From Emily: Are there any breeds that have a harder time foaling than others?

Dr. McCue: Emily, The incidence of dystocia ranges from 3 to 10 % for all horse breeds. A recent retrospective study suggested that Thoroughbred mares may have a slightly higher incidence than Quarter Horse mares. Individual mares of several breeds may have a higher chance of dystocia. Some feel that some Friesian mares may be over-represented in dystocias (and certainly they have an increase in retained placentas).

What breed are you thinking of...?

Comment From Emily: Breeds such as draft?

Comment From Guest: We had mare with distocia ...foal born 2 hours after water broke...He is now a healthy 3 year old but we have been told that distocia is caused by poor hay management Can you elaborate?

Dr. Ryan Ferris: Rarely would poor hay management be a cause of dystocia. However, feeding of endophyte infected fescue grass to pregnant mares can result in an increase in dystocias due to premature placental separation, placental thickening, and prolonged gestational length.

TheHorse.com: Hi everyone, we have a ton of great questions in the works... we're typing furiously! :) Thanks for your patience.

At what age do you begin deworming your foals?

1-2 months (62%)
2-3 months (15%)
3-4 months (0%)
Older than 4 months (23%)

Comment From Jackie: We had an older mare (16 y/o) have trouble passing the placenta of her last foal. Vet intervention was not needed, but she was definitely very uncomfortable and paced when her normal foaling behavior is to nap until her foal starts attempting to stand. Are there ways to help a mare having trouble passing the placenta until a vet can get there?
Dr. McCue: Jackie, Mares with one retained placenta tend to have retained placentas with subsequent foalings. I would be ready for one in the future. You should have a conversation with you veterinarian as to a game plan. My plan with an owner may be:

1. Administer one dose of oxytocin (0.5 mls) in the muscle at 2 hours post foaling and potentially another dose at 3 hours post foaling.
2. Call me if the placenta is not passed within 1 hour after the second dose
3. I would then come out to the farm/ranch and perform a series of procedures that usually result in passage of the placenta (uterine lavage, etc.)

Have a game plan ready with your veterinarian prior to the foaling season. Best to be prepared early than regret later.

Comment From Amanda: I have had several foals before but was not present for the actual foaling. This time I have a 4yr maiden mare and will be along with my vet doing the foaling this time and am just wondering how often do they tend to foal earlier than their due date. I will begin to do foal watch 30 days out but was curious if they tend to go earlier.

Wendy Vaala: Every mare has own “normal” gestation length which is why the range of normal gestation lengths can vary from 320 days to 350 days. Until you know what is normal for your mare I would begin watching her more closely at least within 20 - 30 days of a calculated “340 day” due date. Watch for the typical signs of approaching delivery which include udder development and relaxation of the pelvic ligaments. Dr McCue also described using the calcium milk strip tests to help predict delivery.

Comment From Arlene: To Jill: My two mares have recently given birth to healthy foals. Both were maiden - one is 22, the other is 19. Probably not common, but I bred both and they have always been healthy themselves. I still consider myself to be very lucky!

Comment From Guest: When should I vaccinate my foal. My vet said at 6 months. She is now 8 months. I am trying to wean by separating them for several hours a day, but the weather has been so nice this fall and winter, it is hard to disrupt them. I do not want to vaccinate and wean the at the same time since I think this might be too much stress. How long does it take to overcome the stress of vaccination?

Dr. Ryan Ferris: Following administration of a vaccine majority of foals will show no signs of stress. Rarely, foals may have an elevated body temperature for a few days, or a local area of swelling from administration of the vaccine. Typically the stress of vaccination is over within 5-7 days of administration.

Comment From Ellen: Will the chat text be available? There are many excellent questions and answers. Thanks.

TheHorse.com: Hi Ellen! Yes, the text chat will be archived along with the video.

Comment From Ellen: Thank you! These webinars are always outstanding. I refer to them as long as they are ‘live’ on the site.

Comment From Guest: I have tested my fescue grass- it was 5%. My mare is eating hay that was made off the same fields. Should I take her off of pasture completely during her third trimester, or just offer other (Timmothy) hay to dilute the mix?
Dr. Ryan Ferris: It is typically recommended to remove pregnant mares from endophyte infected fescue grass and either move to non-endophyte infected pastures or grass hay 30 days prior to foaling.

Comment From Chelsea S.: How old should the foal be before my mare and foal can be safely returned to her group pen with our other mares?

Wendy Vaala: A lot depends on the experience and attitude of the mares. Usually by the time foals are several weeks of age it is safe to turn them out with other mares and foals. If mares know each other and get along with one another, you are often able to turn them out together even sooner. Likewise it is important that the foal is healthy and is not showing any signs of neonatal maladjustment syndrome. Foals that have demonstrated any signs of that condition should have additional time to fully bond with their mares before turning out with other mares and foals.

Comment From Guest: I have a mare that got out with a stud this fall and I don't want her to have a foal in October! What should I know about Lutalyse before I give her the shot? Great info tonight!

Dr. McCue: I would strongly encourage you to contact your equine veterinarian before contemplating any treatments/procedures for terminating a pregnancy. There is certainly a risk of dystocia, retained placenta and subsequent medical complications with an induced abortion. As a veterinarian, I would examine the mare and have a conversation with the owner about the risks of terminating a pregnancy. Termination of an equine pregnancy should not be taken lightly and optimal safe treatments vary with stage of pregnancy. FYI, Lutalyse or other prostaglandins are not necessarily the treatment of choice in mares. It is not the intent or place in this webinar format to prescribe medical treatment (sorry and no offense intended).

TheHorse.com: For more information on mare/foal care (and stallion care), see more than 2,711 articles plus free reports and videos in our Breeding/Reproduction category: http://www.thehorse.com/Topic-Search/Default.aspx?n=breeding-reproduction&nID=5.

Comment From J. Fogel: I have a 16 year old mare that is in excellent health that I have considered breeding. My question is, is 16 years too old for a maiden mare to carry her first foal? I have heard many different opinions on this, and am concerned she would be at too great a risk due to her age, even though she is still very active and in great health. What are your opinions on this? Thank you for this informative webinar!

Dr. Ryan Ferris: Getting a 16 year old maiden mare pregnant can be difficult, as Dr. Pat McCue mentioned above. However, if these mares can get pregnant we have not observed an increase in complications during gestation or foaling. It is not uncommon to have mares continue to carry a foal to term with minimal complications into their late teens and even early twenties.

Comment From Connie Nesteruk: When feeding (bottle or ng tube) supplemental colostrum, is it ok to use (thawed from the freezer) colostrum from several different mares? I often harvest only 6 or 8 ounces from a single mare to freeze, but when faced with a hungry, weak baby, I may have to use several bags. I do test, date, and label all frozen colostrum, and carefully thaw it before using.

Dr. McCue: Connie, If the foal has NO colostrum from the mare, it should receive at least one liter (or possibly two) of good quality frozen-thawed colostrum to receive an adequate amount of IgG antibodies. If you are strictly supplementing a foal that has received colostrum from the mare, you can certainly use one or two ‘units’ of colostrum (we also freeze colostrum in 8 oz volumes). Yes, you can administer colostrum from more than one mare to a foal. We would always want to evaluate the colostrum quality (Brix refractometer is the most convenient) and we also screen all colostrum donors for antibodies against horse red blood cells (the Jaundice Foal Syndrome or neonatal isoerythrolysis).
Comment From Emily: Thank you very much for this webinar:)

Comment From Guest: Great info tonight. Thanks !!

Comment From Amanda: if the mare rejects the foal and no nurse mares are available what is the best course of action to supplement the milk?

Wendy Vaala: If no nurse mare is available, your alternatives are to hand milk the mare and use her milk or use commercial mare milk replacements or goat’s milk. Before beginning any replacement formulas, you must be certain the foal receives colostrum - either from the foal’s own dam or from a colostrum bank. I initially feed orphan or rejected foals using a bottle. I like to have a selection of nipples since some foals prefer shorter nipples found on human baby bottles and others prefer longer nipples such as the black lamb’s nipples. Only bottle feed if the foal has a strong suckle. When bottle feeding, I turn my back to the foal and allow the foal to bump under my armpit and then reward with the bottle. If the foal is destined to be raised as an orphan that I gradually get the foal trained to a bucket. Newborn foals consume 15 - 25 % of their body weight per day and gain 1 - 3 lbs per day. During the first 5 - 7 days of life I suggest feeding the foal every 2 - 3 hours. A 100 lb foal will consume 20 pints of milk per day!! The mare milk replacer I have used the most is Mare’s Match.

Comment From Jack Irvin: Does the foaling process have a detrimental effect on a mare who suffers from laminitis?

Dr. Ryan Ferris: The actual foaling process is not typically detrimental to a mare who suffers from laminitis. However mares with a history of laminitis are prone to having a repeat episode of laminitis. Mares in late term gestation gain a significant amount of weight associated with fetal growth. This increase in weight bearing can induce laminitis.

The next big concern for a mare with a history of laminitis is post foaling. If a mare retains her placenta or develops metritis they often become endotoxemic which can induce laminitis.

If laminitis is a big concern for your mare embryo transfer (if allowed by the breed) may be a great option.

Comment From Connie Nesteruk: Strangely, I’ve found that the best-quality colostrum comes from Arabian and pony mares ... their colostrum tests at the top of the Brix refractometer many times! Have there been any studies on ways to “boost” colostrum quality (other than immunizations) .. ie, dietary?

Dr. McCue: The best quality colostrum comes from middle aged, vaccinated mares that have had several foals before. They produce large quantities of colostrum with a high IgG content. Several studies have compared breeds, but colostrum is largely an individual mare issue. I am not aware of any dietary way to increase colostrum quantity or quality. Vaccination one month prior to foaling will boost her immune system and enhance IgG availability to sequester from her blood into her mammary gland.

Comment From Guest: Would anyone be able to answer a question regarding supplements and herbs, and what is and is not safe?

Dr. McCue: We do not have any answers for supplements or herbal therapies. The best we can suggest is to contact your veterinarian and discuss your individual mare. Most broodmares will do very well on good quality hay during most of pregnancy and an increase in energy, protein and calcium (i.e. alfalfa) during the last part of pregnancy. Additional supplements and herbal therapies are often not actually needed (my opinion). However, if your mare has a specific medical issue or a history of a pregnancy
problem, there may be a benefit to certain supplements. Bottom line is talk to your vet.

**TheHorse.com:** If you have questions on this topic, type them in below! All questions will be moderated, so if you don’t see your questions right away, just hang in there. If you need immediate assistance, please e-mail us at THWebinars@TheHorse.com.

**Comment From Guest:** My mare is due to foal in March. I am trying to increase her protein intake via Alfalfa hay and Purina 30. But, she has recently stopped eating anything but plain oats and grass hay. Does anyone have a protein product that has been across the board successful when their mare begins rejecting her food?

**Dr. McCue:** You are already doing a good job trying to provide her with excellent sources of protein. She may be a selective eater and you may (unfortunately) have to try a variety of other sources and see what she will eat. You may also try feeding her in a different environment, with or without other horses, wet her hay, top dress it a little bit, etc.

There is no generic feed that ‘always work’. Good luck

**Comment From Guest:** How hereditary is an over at the knee condition? I’ve heard many times that I should breed my best horse, but her leg conformation was bad at birth, straightened up from ages 4 to 12, and now one is terribly bent again. I’m afraid to breed her that she will pass that along. Thoughts?

**Wendy Vaala:** If the “over at the knee” condition was present at birth - and you are referring to contracted tendons - then the cause can be multifactorial. Genetics can be part of the equation but in utero fetal malpositioning has also been incriminated. Sometimes we see this condition in particularly large foals. Plants ingested during pregnancy and exposure to certain viruses during pregnancy have also been incriminated. So there is not enough information available to say for certain that your mare would necessarily pass this trait along. Early treatment of contracted tendons usually have a successful outcome. If the “over at the knee” condition is acquired as the foal grows, then additional factors include diet / nutrition. Excessive calories are often part of the problem for foals that develop the over at the knee conformation. I recommend keeping foals on the trim side and using a commercial diet formulated for foals to ensure a good balance or protein, calories, calcium / phosphorus and trace minerals (copper, zinc, manganese).

**Comment From Jackie:** Thank you for all the information! I thought of another question: What are signs of a possible natural abortion? A mare I’m watching lost her first foal late in pregnancy due to it kinking its own umbilical cord and I admit to being nervous when I see her acting agitated as she approaches the same month she lost her first foal.

**Dr. Ryan Ferris:** Signs suggestive that your mare may be aborting are premature mammary development, a discharge from the vulva, or systemic illness. Unfortunately, the vast majority of mares that abort do not show any indications of an impending abortion. Many times the first thing that is noted is find the fetus in the stall or pasture. If one of your mares do abort, work with your veterinarian to diagnose the cause of the abortion.

**Comment From Guest:** On average are maiden mares more likely to foal earlier or later then their due date?

**Wendy Vaala:** Maiden mares are NOT more likely to foal earlier or later than non-maiden mares.

**TheHorse.com:** We hope you’ve enjoyed tonight’s presentation! We’ve got a couple more questions we’ll touch on before we wrap up.
TheHorse.com: We’d like to offer a special thanks to Drs. McCue, Vaala, Manning, and Ferris for taking the time to address this topic and answer your questions tonight. And of course thanks to this event’s sponsor, Merck Animal Health, for bringing you this free event. Visit them online at http://www.Foal-Care.com.

Comment From Guest: Our mare has had 3 foals, all by different stallions. Two of them have developed slightly clubby feet, a trait that the mare does not possess. What can cause this? Is there something that we can do to prevent this in the future?

Wendy Vaala: If the club foot is acquired, it is considered one type of metabolic bone diseases observed in growing foals. The causes can be multifactorial with genetics and nutrition leading the list. Along with club foot we often see contracture of the pastern joints. Many times the contracture develops in response to pain - which may also be due to other concurrent conditions such as physitis. I would discuss dietary management with your veterinarian and consider scheduling frequent conformation checks of your foal during the first 5 - 6 months of life. Avoid too many calories in the creep feed and monitor your foal’s body score to keep them on the lean side. Use a ration formulated for foals and containing adequate protein (at least 14%), proper calcium / phosphorus ratios, proper trace minerals. Avoid unnecessary supplements unless there is a cellular indication. At the first signs of any physitis, etc, restrict exercise, use pain meds cautiously, and use corrective trimming early to keep the feet in balance.

Comment From Connie Nesteruk: Last year had 2 mares (shipped to PA from KY) that demonstrated nocardioform placentitis (placentas had significant “peanut butter” blobs along with other abnormalities). One foal was early, redbag, stillborn; hippomane was covered with fungal growth. Other foal was OK but placenta was awful. Do you expect nocardia to be an ongoing problem?

Dr. Ryan Ferris: Typically mares that abort due to Nocardia form placentitis do not have an increased risk of developing this form of placentitis in subsequent pregnancies. Nocardia form placentitis is common in the east coast and central Kentucky. Diagnosis is typically made by trans-abdominal ultrasound and is treated with a combination of antibiotics, Regumate, and pentoxyfilline. I would work with your veterinarian to determine your mare’s individual risk in the future, and if performing occasional trans-abdominal ultrasound throughout the pregnancy to diagnose nocardia form placentitis is warranted.

Comment From Guest: Can my mare foal with another mare in the pen or is it better to have her alone?

Wendy Vaala: It is preferable to have mares foal by themselves. without other mares in the pen.

Comment From Terri: Hello, On riding pregnant mares. Could you give me an example what a mare might do to dictate she needs her exercise restricted? Thank You

Dr. Ryan Ferris: The most common sign is increasing size to her abdomen. This often will start to alter her gait, and she will not be energetic to move. At this time riding should be limited.

TheHorse.com: That’s all the time we have for today’s Webinar. Thanks for joining us! If you have suggestions for future topics or any feedback for us, please email us at THWebinars@TheHorse.com. Don’t forget, this Webinar will be archived for later viewing, along with a transcript from this chat, at www.TheHorse.com/Video.aspx?vID=566.