**Vaccinating Your Pregnant Mare**  
Kristen E. Near, VMD

December is the time to sit back, relax and wait for foaling season right? Well, kind of. It is also a key time to make sure your mare is well vaccinated against a variety of pathogens that can affect her overall health and reproductive capacity. Vaccinations in pregnant mares serve two main functions – to protect the pregnant mare from a common virus that may cause her to abort and to induce antibody production that will help protect her newborn foal.

Pregnant mares should be vaccinated against Equine Herpes Virus (EHV or Rhinopneumonitis virus) at 5, 7 and 9 months of gestation, with many veterinarians recommending vaccinating at 3 months of gestation as well. EHV is a common cause of respiratory tract infections in young horses. Equine Herpes Virus type 1 (EHV-1) can also cause abortion in pregnant mares or the birth of weak, nonviable foals. The virus is shed in respiratory secretions of infected animals and by the fluids, placenta and fetus in the case of abortions. Horses can be asymptomatic carriers of the disease, shedding the virus that may infect other horses without appearing clinically ill at the time. Most adult horses will have developed some immunity against the respiratory form of the disease from exposure early in life. However, exposure to the abortigenic form does not appear to be protective long term, necessitating a frequent vaccination protocol to protect against this form of the disease.

Pre-foaling vaccinations are another important group of vaccines given to pregnant mares 4-6 weeks prior to their anticipated foaling date. These vaccines induce an antibody response in the mare and result in the secretion of antibodies in her colostrum. Once the newborn foal ingests the colostrum, these antibodies are absorbed from the gastrointestinal tract and enter the newborn's bloodstream providing a strong foundation for the neonate's immune system. Ingesting colostrum in the first 12 hours post-foaling is critical to acquiring these antibodies, as they are too large to cross the placenta while the fetus is in utero and the young foal’s gastrointestinal tract is only able to absorb them for a short period of time. These maternal antibodies provide protection until the foal is old enough to receive its primary series of vaccines and result in a stronger immune response at the time of foal vaccination than in foals from previously unvaccinated mares. The vaccines administered should be tailored to the risk assessment for your farm but vaccines for eastern and western equine encephalitis (EEE/WEE), West Nile virus (WNV), EHV, botulism, tetanus, and equine influenza are fairly standard in this area. The rabies virus vaccine produces a very strong immune response, and as a result there is some debate as to whether to booster this vaccine in the pre-foaling series. Mares can also be vaccinated for rotavirus, which is a common cause of foal diarrhea. This vaccine requires a three dose series given one month apart, beginning in the 8th month of gestation.

It is preferable to use a killed form of the vaccines listed above in pregnant mares as the modified live forms may allow the virus to replicate in situations of decreased immune system function (such as pregnancy). Of course, vaccination only goes so far and is not a
substitution for good management. Pregnant mares should be grouped according to stage of gestation and should be ideally separated from horses of other ages. Pregnant mares should also ideally be moved to the place where they will foal 4-6 weeks prior to their due date in order to allow their immune systems to adjust to the pathogens present in the foaling environment. This natural exposure will also induce antibody production to these pathogens, again allowing for antibody passage to the newborn foal via colostrum. This will result in the foal being well prepared to handle the challenges of the outside world.

If you have questions about vaccinating pregnant mares or would like to schedule an appointment to have your mare vaccinated, please call the clinic at (859)255-8741.