

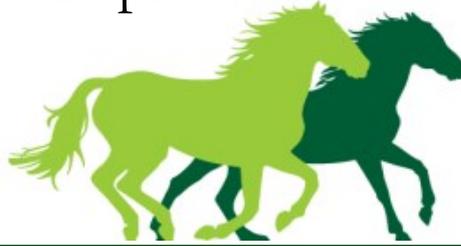
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Damory Veterinary Clinic

Equine Department



Artificial Insemination

Advantages of AI

- The mare can stay at home
- The procedure is cleaner than natural cover which helps to reduce the risk of infection
- Usually only one insemination is required which helps to reduce uterine inflammation

Pre-breeding examination

Early in the breeding year (eg. March onwards) an examination is helpful and will assess a number of factors:

- Assessment of vulval conformation: If this is poor then infections are more likely and a small operation may be required once the mare is pregnant
- Swab to detect chronic underlying infections
- Internal ultrasound scan: This will confirm that mare has all the normal organs required for pregnancy (ovaries and uterus). Also problems such as cysts in the uterus can be detected.

Synchronising the season

Usually the mare comes into season (oestrus) every 18-21 days. Most mares cycle very regularly and noticeably, and do not need to be chemically induced. However some mares are more erratic or have silent oestruses. If the latter occurs the mare can be injected to come into season 3-5 days latter.

The sequence of events during insemination

- Daily ultrasound scans to monitor the size and shape of the follicle on the ovary. These start once the mare is in oestrus or 3-4 days after an injection to bring her into oestrus.
- When the follicle is large than 35mm in diameter a drug called *chorulon* is given which helps the follicle to ovulate and release the egg. The semen is ordered now for the following day.
- The following day the semen is inseminated in a sterile manner. The ueterus is checked for fluid using ultrasound and treatment given if present.
- The day after insemination the follicle is checked to ensure it has ovulated, and the uterus is checked again for fluid.

Pregnancy diagnosis

Hopefully the mare is pregnant and this is detected using ultrasound on about 15 days after ovulation. At this stage only a small black 'bubble' indicates a pregnancy. A further ultrasound scan at about 23 days after ovulation should normally show an embryo with a beating heart.

What is the success rate for AI?

Approximately 60% of mares will be pregnant at 15 days following fresh or chilled AI. This assumes normal mare and stallion fertility.

What is included in the AI programme

- Pre-breeding ultrasound examination
- Injection and drug to induce oestrus
- Initial swab to detect uterine infection
- Visits and time to ultrasound the ovaries and monitor the follicles as necessary
- Administration of *chorulon*
- Insemination of semen
- Visit and time to ultrasound the ovaries and uterus the day after insemination
- Pregnancy ultrasound scan at 15 days

What is not included in the AI programme

- Visits to home premises if AI not performed at our clinic
- Treatment if any uterine infection is detected
- Treatment if fluid develops in the uterus after insemination
- Laboratory fees if bacteria need to be cultured
- Additional ultrasound scans to diagnose pregnancy after 15 days
- Sedation if the mare is difficult

What about AI using frozen semen?

The semen from some stallions is only available in a frozen form. This is particularly useful for international shipping where the semen is frozen in a straw and shipped in a container of liquid nitrogen. There are some important differences with fresh or chilled semen:

- The semen must be inseminated into the mare within 6 hours of her ovulating. This means that we have to carefully time events and often need to scan more frequently on the day of predicted ovulation.
- The conception and hence pregnancy rate is lower when using frozen semen. With a fertile mare and stallion, about 50% of mares will be pregnant at 16 days with frozen AI.
- Some mares are more prone to developing fluid in their uterus following frozen AI.
- A drug called *ovuplant* is used to control the timing of ovulation. This is injected under the skin near the vulva. It is normally removed after ovulation has occurred.