

OPU ICSI with the horse FAQ:

1. What is the OPU ICSI procedure?

OPU stands for "Ovum Pick Up", a technique in which eggs are collected directly from the mare's ovaries to be fertilized later in the lab. Fertilization is done by ICSI (Intracytoplasmic Sperm Injection).

2. Can I offer any mare for the technique

It is important that the donor mare has enough follicles on her ovaries. A minimum of 20 follicles (or more) is ideal and therefore ideally the mare is not in heat.

3. How many embryos can you make in one session

The success of one session is determined by, among other things, the mare (individual, breed and age), the number of follicles and the quality of the sperm. Although the number of follicles is very important, (the more follicles, the more oocytes and thus the more fertilization chances) it is also the case that some mares can be used very successfully in an OPU ICSI program where others unfortunately (again and again) are not productive at all. However, it is not possible (to date) to determine which mare will or will not be productive without "trial and error".

4. When should I present my mare?

It is best to have your mare checked for the presence and number of follicles. When sufficient follicles (> 20) of a size between 10 and 25 mm are indeed present, the mare can be planned in the OPU agenda of the clinic. In order for the procedure to proceed correctly, the mare will be tested for a number of conditions, in which she must be found negative for CEM (contagious uterine infection) and infectious anemia.

5. What are the practical arrangements for carrying out the OPU procedure?

When your mare has enough follicles and can be planned in the OPU agenda (0032 9 264 75 66), the mare will be presented on time as agreed. The procedure takes about one hour per mare. Due to Covid-regulations, the proceeding cannot be attended. If necessary, the mare can be placed at the clinic in the evening prior to the procedure so no time is lost in heavy traffic.

6. Is it a painful process?

The mares are manipulated standing in a palpation box and are given a sedative, painkillers and antibiotics. The follow-up treatment consists of a full day of rest (possibly with grazing), after which the mare may be returned to work.

7. How many times can I use the mare in this procedure?

The mare can be offered for OPU every time she produces enough follicles. This is usually the case with an interval of 14 days.

8. Which season is the most optimal?

The procedure can be carried out all year round, but in autumn and winter the population of follicles that can be aspirated is often larger than in the mating season. However, once the mare goes into full winter anestrus, she will no longer produce follicles. Furthermore, it is also true that we as a clinic can only offer this service in the autumn and

winter (September-March, as in the spring we have our hands full with the foals' and other reproduction-related activities.

9. What does the procedure cost?

The compulsory tests must be repeated every 3 months as long as OPU ICSI is performed on the mare. The entire procedure is charged per part (OPU, ICSI, maturation). After that, you pay for every frozen embryo (information about correct prices? ,give us a call at +32 9 264 75 66).

Later on, you should take into account that additional costs will be charged by your veterinarian or the transfer center to thaw and transfer the embryo, as well as to rent a recipient mare.

10. Do you have recipient mares available?

We do not have recipient mares at the clinic, but we work together with several reputable embryo transfer centers at home and abroad. When necessary your own recipients can be hospitalized and transferred in the clinic.

11. What complications might occur

Intestinal irritation, bleeding and inflammation can occur but are seen in very few cases. A transient digestive disturbance after the manipulation has been seen, the mare is therefore fed poorly on the day of the manipulation and it is recommended that the mare is given some rest the day of the manipulation.

12. Which semen can I use?

Usually frozen semen is used, fresh semen is also possible, the use of thawed and re-diluted/frozen semen is strongly discouraged. It is up to the owner to determine whether the semen he will present for the ICSI procedure can be used effectively for this purpose (may differ depending on the sales agreement). The semen must be sent to the ICSI center with the necessary sanitary documents and must be present prior to the OPU procedure.

13. How much semen is used

Since the sperm cells are injected directly into the oocyte, there are only a very limited number required. When frozen semen is used, usually 1/8th - 1/10th of a straw is thawed. Semen from 1 stallion is used per ICSI session. The oocytes of several mares can be fertilized on the same day by the same semen.

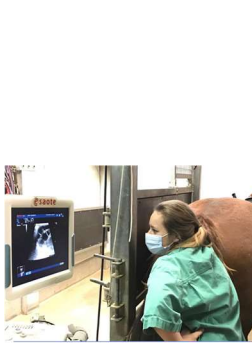
14. Can I have the embryo transferred immediately?

Since the embryos are created mostly in fall and winter, it is common for them to be frozen and then transferred later in spring. Direct transfer is possible without the freezing procedure, but often makes it more difficult to obtain a correctly synchronized recipient mare.

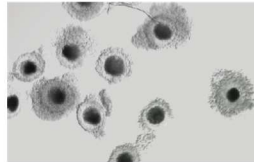
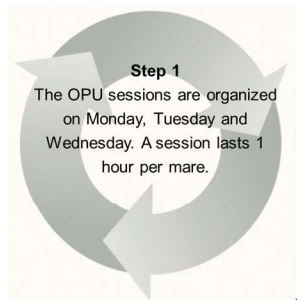
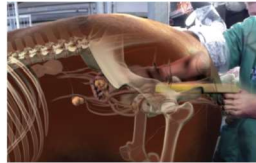
15. When will I be informed about the number of oocytes and the number of embryos produced?


You will be informed about the number of oocytes collected by OPU on the day of OPU. Embryo development is variable in time and will be checked on Day 7, 8, 9 and 10 after ICSI. When a transferrable embryo is obtained/frozen you will be informed, the final result will be communicated ultimately 14 days after OPU.

16. Schedule:



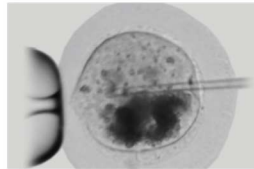
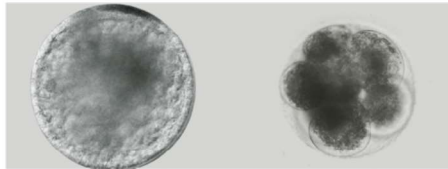
Step 0
When the donor mare has enough follicles, an OPU appointment can be scheduled. Donors can be used for OPU every 14 days.



Step 2
You will receive the preliminary report of the OPU session by email. 
The oocytes undergo maturation.



Step 3
The day after the OPU session the ICSI will be performed.



Step 4
Maturation and growth of the embryos takes more than a week.

Step 5
After an embryo has been formed, these are vitrified (frozen).
You will receive the final report of the session by email 14 days after the ICSI procedure. 