



**Canadian Embryo Transfer Association
Association Canadienne de Transfert d'Embryons**

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CETA/ACTE CODE OF PRACTICE

OBJECTIVES:

- 1) Define the view of our association on the use of reliable and safe procedures for the practice of embryo transfer of *in vivo* and *in vitro* produced embryos.
- 2) Establish directives that can be consulted by regulatory organizations as a guide to the practice of embryo transfer in Canada.

SET UP OF DONORS:

Recommended and defined requirements needed to prescribe drugs to donors and recipients.

- 1) The practitioner must contact the owner or manager of the donor in order to discuss the donor history and the conditions needed to maximise the results of superovulation and recipient synchronization.
- 2) Prior to superovulation treatment, the donor should have been examined recently by a licensed veterinarian (not necessarily the ET¹ practitioner), in order to assess the general and reproductive status of the animal.
- 3) Written protocols for the superovulation of donor(s) and synchronization of recipients must be provided by the ET practitioner. Information relative to the health status of the herd and the donor must be reviewed before prescribing.
- 4) Requirements to qualify embryos for export (i.e. semen qualification, donor testing, etc.) should be discussed with the owner or manager if applicable.

EMBRYO OR OOCYTE RECOVERY:

- 1) Check the identification of the donor and in the case of purebred registered donors, ensure that the breed registration certificate corresponds with the donor identification.
- 2) A licensed veterinarian must examine the donor on the recovery day and certify that she is clinically free of infectious or contagious disease. A written report must be kept on file.
- 3) A **licensed veterinarian must perform the embryo or oocyte collection** in order to preserve the fertility and integrity of the animal. For embryo export, *in vivo* embryos or oocytes must be collected by a licensed veterinarian who is a member of an embryo transfer team, approved by CFIA² to produce embryos for export.

¹ Embryo Transfer



- 4) Care must be taken to ensure that the cleanest method possible (close to sterile technique) is used during the collection process so as not to impair the fertility of the donor.
- 5) Recommendations must be made regarding the donor returning to normal cyclicity after superovulation and embryo collection. A follow-up reproductive donor exam must be recommended to the owner within sixty days post- recovery.
- 6) Genotyping of the donor, if applicable: samples should be taken at the time of recovery OR the owner should be informed to have samples taken. In the later case, it is recommended to have documentation signed by the owner to acknowledge he was advised to do so.

EMBRYO AND OOCYTES PROCESSING:

- 1) All embryos, for export or domestic market, should be washed with trypsin in accordance with the IETS³ recommendations.
- 2) Recovery, culture, freezing and micromanipulations of the embryos must be done in a clean area using sterile material and media. Maturation, fertilization and IVP⁴ embryo culture must be performed in a laboratory following IETS recommendations. The IETS and CFIA manuals should be used as reference.
- 3) Evaluation and labelling of embryos and canes must be done according to the procedures described in the IETS manual.
- 4) The embryo transfer team veterinarian is responsible for the quality of the embryos processed. Embryos must be processed by :
 - a) a licensed veterinarian, or
 - b) an embryologist under the indirect supervision of the licensed veterinarian, or
 - c) a well trained technician member of the embryo transfer team under the direct supervision of a licensed veterinarian who is a member of an embryo team.

The processing of embryos for export must be supervised by a licensed veterinarian who is a member of a team approved by CFIA to produce embryos for export.

- 5) Embryo Storage & Handling
 - a) Handling of frozen embryos must be done by properly trained personnel.
 - b) Re-caning of embryo straws must always be done in a liquid nitrogen bath by properly trained personnel.
 - c) Embryos for export must be stored under the supervision of a team veterinarian who is approved by CFIA to produce embryos for export and only stored with embryos that meet the sanitary conditions set by the importing country.

² Canadian Food Inspection Agency

³ International Embryo Transfer Society

⁴ In Vitro Produced



RECORDS:

- 1) Detailed records of all embryo and oocytes recoveries, donor health exams and testing (if applicable), superovulation treatments and frozen embryo inventories must be maintained. Dormant completed records must be kept for a minimum of seven years following recovery.
- 2) Certificate of recovery and freezing forms must be completed within seven days following the embryo recovery and copies must be available to the owner at the appropriate time.
- 3) Completed Certificates of Embryo Recovery and Freezing must accompany all embryos when moved domestically.
- 4) Embryos shipped for export must be accompanied by appropriate CFIA health certificates and Certificates of Embryo Recovery and Freezing, properly completed and signed.
- 5) It is recommended that CETA/ACTE Certificates or equivalent forms be used.

CLEANING AND STERILIZATION:

- 1) Disposable equipment which has been sterilized using non-embryo/oocytes-toxic methods should be used when possible.
- 2) All equipment to be re-used should be cleaned and sterilized following procedures that have been proven effective and non-embryo/oocytes-toxic.
- 3) A written protocol should be available for personnel who process equipment and a copy should be available if requested by CFIA, CETA/ACTE or the provincial Veterinary authority.
- 4) Personnel must be well trained on the safe use of potentially harmful and toxic products (ex. liquid Nitrogen).

QUALITY CONTROL:

Quality control measures should be in place in all ET practices. The measures described in the IETS manual are recommended to be used; which include: superovulation protocols used, data collection and analysis, pregnancy results, detailed procedures used by the staff, and records of batch numbers of biological products.