

Feline Blood Collection Procedures

Supplies Required

- 10 ml anticoagulant (available from CABB – no charge)
 - Choose from: Acid Citrate Dextrose (ACD)
 - Citrate Phosphate Dextrose (CPD)
 - Citrate Phosphate Dextrose with Adenine (CPDA-1)
 - Citrate Phosphate Double Dextrose (CP2D)
 - Sodium Citrate
- Multipurpose blood donor bag (from CABB \$23)
- 19 g butterfly needle set or catheter (16 - 19 g is acceptable)
- 60 ml syringe

Donor Care

Felines that donate blood without sedation are rare. A 21-23 g butterfly infusion set or 20-22 g catheter placed into the jugular vein is recommended. Recommended anaesthetic regimes include:

- Ketamine/Valium or Ketamine/Midazolam combinations with Atropine. PLEASE AVOID HYPOTENSIVE COMBINATIONS.
- Donors with difficult personalities may require general anaesthetic (ie chamber induction)

The usual donation volume is 11 ml/kg. This represents a large percentage of total feline blood volume. This donated blood volume combined with the need for sedation may account for reported hypotension-related adverse reactions, tachycardia and weak pulses in cats following donation, however its significance to donor health is not known. The administration of intravenous saline (AVOID LRS) minimizes these reactions.

Acceptable fluid therapy protocol is to give 90 ml of saline subcutaneously immediately before the donation, then to infuse 60-90 ml of saline over 15-20 minutes, starting half-way through the donation.

Feline Blood Collection Procedure

A standard blood donation results in 60 ml of anticoagulated blood.

1. Prepare the blood collection set.
 - a. Close all clamps of an 80-micron blood component filter. (Baxter Part # 4C2223)
 - b. Insert the spike on the filter into the port on the blood collection bag.
2. Aseptically draw 7 ml of anticoagulant into a 60 ml syringe
 - a. Attach the syringe to the female port of the blood filter
 - b. Open the lower clamp and prime the line with anticoagulant.
3. Clip the fur over the jugular vein and clean the skin with an antiseptic soap.
4. Insert the 19 g butterfly or catheter into the jugular vein.
5. Attach the male port of the component filter to the butterfly or catheter in the jugular vein.
6. Draw blood from the jugular vein via a 19 g butterfly needle set into the syringe, for a total volume of 60 ml. Gently rock the syringe during the collection to mix the blood with the anticoagulant. The collection should take 3-5 minutes.
7. Close the lower clamp on the component filter.
8. Open the upper clamp on the component filter (the one closest to the collection bag)
9. IMMEDIATELY, transfer the blood into the collection bag.
 - a. Stand the bag upright. Withdraw the air bubble with the syringe.
 - b. Close the clamp and mix gently.

CAUTION: THIS IS AN “OPEN” SYSTEM SUBJECT TO BACTERIAL CONTAMINATION AND THE RED CELLS MUST BE STORED AT 1-6° C AND TRANSFUSED WITHIN 24 HOURS.

Immediately prior to infusing the blood, remove the 80-micron filter set and replace with a standard 170-micron blood filter.

Available at the Canadian Animal Blood Bank are the 80-micron filters, 170-micron filters, empty blood collection bags, and anticoagulant.