

<b>SOP No:</b>	<b>AHT 19</b>
<b>SUBJECT:</b>	<b>Canine blood collection (bag)</b>
<b>POLICY:</b>	<b>Operator must be experienced and competent in this technique Dogs must be sedated prior to the collection of blood A second technician must be present to assist</b>
<b>PRECAUTIONS:</b>	<b>Gloves, eye protection, mask, long-sleeved gown, closed-in-shoes</b>
<b>EQUIPMENT:</b>	<b>collar and lead Acepromazine (0.02mg/kg) Torbugesic (0.1mg/kg) 14g needle 18-23g catheter (dependant upon size of dog) scalpel blade Elastoplast fluid pump 70% alcohol microhaematocrit tubes heparin clippers sterile drape 0.9% NaCl injection port chlorhexadine scrub blood collection bag scales scissors 60mL syringe surgical gloves</b>

**PROCEDURE:**

- 1) Heavily sedate the dog with an IV combination of Acepromazine (0.02mg/kg) and Torbugesic (0.1mg/kg)
- 2) Clip and surgically prepare the cephalic venipuncture site. Three stage preparation includes initial chlorhexidine scrub and then two stage alcohol application
- 3) Place an 18-23 gauge peripheral catheter and connect to a 1L bag of 0.9% NaCl solution via a gravity administration set (20drops/mL)
- 4) Commence infusion of 0.9% saline solution at a rate approximate to 10mL/kg/hr
- 5) Place the donor canine in left lateral recumbency
- 6) Clip and surgically prepare a 10x 10 cm area over the right jugular vein and/or left femoral artery
- 7) Drape the prepared surgical site with a sterile drape
- 8) While one technician monitors the anaesthetic the second washes their hands in a chlorhexidine scrub solution.
- 9) Insert a 18-23 gauge peripheral catheter into the prepared jugular vein/femoral artery (directed towards the heart) and secure with elastoplast®
- 10) Take a sample of blood from the catheter stillete into two microhemacrit tubes (spun for three minutes and PCV and TS recorded).
- 11) Attach the injection port to the catheter and flush with 2mL Heparinised Saline solution (1IU Heparin/1mL 0.9% NaCl)
- 12) Insert the blood collection bag into the port via an attached collection bag needle

- 13) Prime the blood collection bag line by retro-pulsion of a quantity of anticoagulant through the injection port
- 14) Place the blood collection bag on scales below the donor canine facilitating the gravity movement of blood from the donor into the bag
- 15) Rock the bag intermittently to disperse the anticoagulant
- 16) Continue the collection until a collection weight of 450-500g (total bag volume 450-500mL) is achieved
- 17) Cease collection by clamping the blood collection bag tubing and removing the needle from the injection port
- 18) Tie two secure knots in the tubing distal to the clamp and cut with scissors
- 19) Label the 450-50mL bag (date; dog number; PCV and bag number) and place on ice
- 20) Allow the dog to recover in the ICU, and administer the remaining fluid volume whilst monitoring closely.

**RECOMMENDATIONS:**

**DATE ISSUED:** 24.06.2009

**REVISED:**

**REFERENCES**

1. Knottenbelt C and MacKin A (1998) *Blood transfusions in the dog and cat Part 1. Blood collection techniques*. In Practice 20: 110-114
2. Feldman BF, Zinkl JG, Jain NC and Schalm OW (2000). *Principals of blood collection and processing*. In: Schalm's Veterinary Hematology, Chap 122, 123 pp 827-837. Wiley Blackwell 5 Ed.