



**pet blood bank**<sup>uk</sup>

A charity supported by Vets Now

## **CANINE WHOLE BLOOD (WB) FOR ANIMAL TREATMENT ONLY**

### **Presentation**

Whole Blood contains both red blood cells and plasma. Platelets are none viable within 4 hours of collection and white blood cells are usually nonviable after a few days. Each standard bag contains 450ml of Whole Blood in 63 ml of CPD anticoagulant solution.

### **Uses**

Whole Blood may be used in the treatment of anaemia or other disorders of oxygen transport, when hypovolaemia is also a concern. Whole blood may be used in the treatment of acute blood loss (traumatic or surgical haemorrhage, acute immune mediated haemolytic anaemia) and chronic blood loss (parasitism, bone marrow disorders, chronic anaemia). Whole blood is not a reliable source of labile clotting factors (V & VIII). Fresh Frozen Plasma (FFP) and other plasma products are a more effective source of therapeutic levels of clotting factors than Whole Blood. Unless freshly collected and transfused immediately whole blood is NOT a reliable source of platelets.

### **Dosage and Administration**

Whole Blood is intended for intravenous use only.

**Dosage:** As a general rule 2 ml/kg of Whole Blood will raise the PCV by 1 percentage point or the haemoglobin level by 0.3 g/dl. A separate dose calculation form is included with this data sheet for individual patient dosage.

**Rate of Administration:** The calculated dose should be given over 4 hours to normovolaemic cases. Hypovolaemic patients may tolerate transfusion over 2 hours. Acutely hypovolaemic patients may tolerate a rate of 4-6 ml/minute. Whole Blood should be used with extreme caution in patients with cardiac disease and other patients at risk for circulatory embarrassment. Ideally these patients should receive PRBC. Bags should be at room temperature for no more than 4 hours. If the transfusion cannot be completed in this time frame the Whole Blood should be divided and the unused portion stored in the refrigerator until required, once opened any product remaining after 24 hrs should be discarded.

**Administration: ALWAYS ADMINISTER USING A BLOOD GIVING SET** or suitable inline blood filter. Crossmatching is recommended. Carefully and gently prewarm Whole Blood to room temperature before administration. Gently resuspend Whole Blood by inversion prior to spiking bag. Whole Blood may be administered concurrently via a 'Y' blood giving set using 0.9% NaCl. Other types of intravenous fluids should not be used. Lactated Ringers Solution or any other solution containing divalent cations must not be administered in the same intravenous or parenteral line. Do not mix other products with Whole Blood. Use Whole Blood straight from the bag.

**Monitoring:** The infusion should be commenced slowly and the patient monitored closely (see adverse reactions) It is recommended that patients be monitored using the standard transfusion record form supplied by Pet Blood Bank Services Limited.

### **Contra-indications, Precautions, and Warnings**

**Contra-indications:** Canine Whole Blood is for use in puppies and adult dogs only.

**Precautions:** Inspect the bag before use. If significant haemolysis, colour change compared to the tubing segments, cloudiness or presence of flocculent material is noted, then the bag should not be used. Contact the Pet Blood Bank Services Limited for further advice.

**Warning:** Care should be taken to avoid volume overload.

**Handling Precautions:** In case of accidental contact with skin, wash affected areas thoroughly with warm soapy water. Unused product and empty pack should be discarded and disposed of as clinical waste.

### **Pharmaceutical Precautions:**

**ADVERSE REACTIONS to Whole Blood:** Anaphylaxis can occur with products of this type. Careful monitoring, especially at the start and throughout the transfusion, therefore, is essential. If tachycardia, increased temperature, hyperventilation, vomiting or trembling occurs, slow the transfusion down or stop altogether. If signs abate within five minutes, then continue transfusing at a slower rate. Consider the administration of dexamethasone (1 mg/kg IV) and chlorpheniramine (0.5 mg/kg IV, SC, IM depending on the preparation) If signs recur, stop the transfusion entirely. If severe or other signs occur such as pyrexia, cardiac arrhythmias, urticaria and collapse, stop the transfusion. If necessary, administer adrenalin (0.01 mg/kg IV), corticosteroids and intravenous saline. These emergency drugs should always be on hand.

**DELAYED ADVERSE REACTIONS** can include jaundice, haemoglobinuria, anuria, disseminated intravascular coagulation, acute renal failure and, in extreme cases, death. Delayed haemolytic reactions can occur days to weeks post transfusion. The direct Coombs test is positive in these patients.

### **Package Quantities**

One Standard Unit approximately 450 ml of Whole Blood in 63 ml of CPD anticoagulant

Half Unit approximately 225ml of Whole Blood in 32ml of CPD anticoagulant

### **Further Information**

**STORAGE:** Whole Blood should be stored at normal refrigerator temperature (1-6°C). Blood bags should be stored in a vertical (upright) position with adequate space between units to allow breathing. Ideally the bags should hang to allow full air contact. The refrigerated blood bags should be mixed by gentle inversion several times each week during the storage period. Temperature stability is very important. Pet Blood Bank Services Limited recommend the use of a maximum/minimum thermometer that is checked daily and temperatures recorded to ensure products are stored within appropriate temperature ranges. Whole Blood should not be stored in a refrigerator that is opened frequently. Whole Blood breathes and therefore should not be kept in a refrigerator used for the storage of food or other possible contaminants.

**SHELF LIFE:** Whole Blood stored in CPD has a shelf life of 21 days. The product label indicates the expiry date.

**WARMING:** Whole Blood removed from refrigeration will warm quite rapidly. Where active warming is required do NOT use a microwave oven. Immerse the bag in warm water at not more than 37°C. A water bath such as a sink full of domestic warm water is ideal. The Whole Blood should be warmed inside the provided zip lock bag to avoid contaminating ports while in the water bath.

Avoid hot water, as it will damage the proteins and haemolyse the red cells. The unit of Whole Blood should be brought slowly to no more than 37°C temperature before use. Room temperature is preferable.

**LEAKAGE:** If leakage becomes apparent the entire contents must be discarded.

### **Non-Food Animal Blood Bank Authorisation: No. 30549/8000**

*Products are supplied by Pet Blood Bank Services Limited the trading subsidiary of Pet Blood Bank UK. The purchaser of this product has no contract with Pet Blood Bank UK or Vets Now Limited and they accept no duty of care.*

# Product Data Sheet



## CANINE WHOLE BLOOD (WB)

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BCP0001 CANINE WHOLE BLOOD - DEA 1.1 POSITIVE  
BCP0002 CANINE WHOLE BLOOD - DEA 1.1 NEGATIVE

## Who donates our blood?

Our donor dogs are volunteers whose owners appreciate the important, and lifesaving role their companion can play in veterinary medicine. They are typical household pets and working dogs, such as police dogs.

Before becoming a donor there are certain criteria that each donor has to meet. They must be:

- Healthy and Friendly
- Aged between 1-8 years
- Weigh over 25kg in bodyweight
- Current with vaccinations – Parvovirus, Distemper, Infectious Canine Hepatitis, Leptospirosis and Parainfluenza
- Only be receiving preventative flea and worming treatment

## What do we test the blood for?

To ensure the integrity and quality of our blood products all dogs have an in-depth history taken to ensure they are healthy along side a full physical examination before entering the donor programme.

It is our standard procedure to:

- Blood type all our donors for DEA 1.1 –ve/+ve
- Pre-screen to check PCV and TP before every donation
- Undertake full haematology and biochemistry screening on an annual basis for all donors. This is carried out by our approved laboratory
- Ensure all our donors are micro-chipped to provide traceability of our products and donors (we use tattoo numbers where available)
- Test 10% of our donors for infectious disease Babesia, Anaplasma, Ehrlichia Genus, Leishmania and Mycoplasma
- Exclude dogs with a history of travel outside of the UK
- 10% of our products are screened for microbiology