Canine Platelet Concentrate (PC)

PC

For animal treatment only

Presentation:

Canine Platelet Concentrate (PC) is a cellular fraction which is separated from fresh whole blood by a process of centrifugation.

One standard unit is approximately 65ml containing the platelets from one fresh whole blood unit suspended in fresh plasma and CPD anticoagulant. It will contain negligible RBC and WBC contaminants.

Uses:

Platelets are for clinical conditions where supplementation and the subsequent clinical effects may be beneficial. Platelets are seen as a temporary means of support and act in the same way as they do in the donor dog. They are indicated in the management of clinically relevant haemorrhage related to conditions that cause thrombocytopenia or thrombopathia. Platelet transfusions can be used for short term reduction in bleeding in the actively haemorrhaging dog. There will not typically be an increase in circulating platelet count post transfusion due to the transfused platelets being consumed, especially in immune mediated thrombocytopenia where platelet destruction is accelerated. As platelets are activated, they release platelet-derived, epidermal, vascular endothelial, and insulin-like growth factors, which stimulate tissue repair and the development of new blood vessels.

Dosage and administration:

Platelet Concentrate is intended for intravenous use only.

Dosage: The standard recommended dose is 1 unit/10kg. Following administration, every patient should be monitored as to their individual response. The required dose may be more or less than the standard dose. Patients should continue to be treated until appropriate resolution of clinical signs. Because there is no standard dose that treats all patients in all clinical settings, the clinician's careful judgment must dictate the appropriate dosage and administration on a case-by-case basis.

Rate of administration: Start transfusion at a rate of 0.5-1ml/kg/hr for the first 15-30 minutes and aim to complete administration within 2 hours. The product can be administered quickly (within 30 minutes to 1 hour) to stop life threatening haemorrhage following the initial slow infusion.

Administration: Once breached for use, Platelet Concentrate should be used within 4 hours. Any product remaining after this time should be discarded.

Always administer using a blood product administration set or suitable inline blood filter. Platelets are stored at room temperature and can be administered on receipt. As there are no preservatives present in Platelet Concentrate, there is an inherent risk of bacterial contamination. Do not mix or administer any other intravenous drugs or products through the same IV line. 0.9% saline ONLY can be used to flush IV lines and catheter. Pet Blood Bank recommends a new blood administration set is used for each unit of blood product.

Monitoring: The infusion should be commenced slowly, and the patient monitored closely (see adverse reactions). It is recommended that patients be monitored using a transfusion record form, available to download from Pet Blood Bank's website. Please ensure the product unit ID is recorded on the patient's record.

Precautions, warnings, and adverse reactions:

Canine Platelet Concentrate is for use in puppies and adult dogs not destined for the food chain only.

Compatibility: Performing appropriate pre-transfusion testing should be considered when using blood products to increase patient safety.

Precautions: Inspect before use. If you have any concerns, please contact Pet Blood Bank for further advice.

Handling precautions: Appropriate personal protective equipment should be considered when handling any blood product. 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.

Warning: Care should be taken to avoid volume overload.

Despite serological and PCR testing performed on a proportion of the donors, a risk of transmitting infectious agents to the patient is present. Careful donor selection, care, and available laboratory tests do not eliminate this hazard.

Adverse reactions to Platelet Concentrate:

Acute and delayed, immunological and non-immunological transfusion reactions can occur with products of this type. These can manifest a variety of clinical signs. If during the transfusion, tachycardia, increased temperature, hyperventilation, emesis, urticaria, hives, or trembling occur, slow the transfusion down. Categorise the type of reaction and treat appropriately. The transfusion should be abandoned if serious symptoms continue.

Delayed reactions can occur days to weeks post transfusion. All potential transfusion reactions should be reported immediately via the Pet Blood Bank website.

Storage: Platelet Concentrate must be stored between 20-24°C. It should not be refrigerated or frozen. It is recommended to keep the platelets on a rocker to provide gentle agitation if they are not to be transfused on receipt. Temperature stability is very important. Pet Blood Bank recommends continuous temperature monitoring of all storage areas. Temperatures must be recorded to ensure the product stays within the appropriate temperature range.

Leakage: If leakage becomes apparent, the entire pack must be discarded.

Shelf life: Platelet Concentrate has a shelf life of 5 days from the date of collection. The product label indicates the expiry date. Blood products must not be administered to a patient after their expiry date. Once expired, they should be discarded into clinical waste.

Non-Food Animal Blood Bank Authorisation: No. Abb30549/8000

