Description: The information contained below is a compilation of works from the past several years developed by many sources. These are general guidelines. Transfusion protocols should include calculations of volume deficits, administration of other fluid volumes, general fluid loss over time, and other parameters that can affect the animal's recovery.

Whole Blood

When to use: Symptomatic anemia with **large volume** deficit.
How much to use: 1 ml of whole blood per pound of body weight should raise the PCV by approximately 1%.
Action: Restoration of blood volume with oxygen carrying capacity.

Red Blood Cells

When to use: Symptomatic anemia.
How much to use: 1 ml of RBCs per pound of body weight should raise the PCV by approximately 1.5%. If additive solution has been added back, the volume of additive solution on the red cells is not included in the red cell volume. The total volume of red cells and additive solution will more closely resemble the increase in PCV of whole blood.
Action: Restoration of oxygen carrying capacity.

Fresh Frozen Plasma

When to use: Deficit of labile and stable coagulation factors and where PT and/or APTT are greatly prolonged.
How much to use: Rule of thumb 2-4 units (120± ml each) for a 50 pound dog; adjust depending on condition and weight. Much larger volumes may be necessary with significant coagulation factor deficits. Administer as a part of a calculated total 24 hour fluid replacement.
Action: Source of labile and non-labile coagulation factors and plasma proteins.

Frozen Plasma

When to use: Deficit of stable coagulation factors and various plasma proteins.
How much to use: Rule of thumb 2-4 units (120± ml each) for a 50 pound dog depending on condition and weight. Much larger volumes may be necessary. Administer as a part of the calculated total 24 hour fluid replacement.
Action: Source of non-labile coagulation factors and various plasma proteins.

RATE OF TRANSFUSION: The rate of transfusion is governed by the clinical condition of the patient. ***Nothing is gained by prolonging the transfusion in the patient***. Crossmatched blood or components should always be used unless the condition of the patient does not permit the commitment of the time necessary to conduct the crossmatch. If the patient is in acute shock from blood loss, rapid transfusion is essential. In other situations, transfusions should be given more slowly. A slow drip (0.1 ml per pound of body weight) should be used for the first 10 to 30 minutes. Transfusion reaction symptoms during this period can signal a serious incompatibility, but the slow rate will allow the blood to be stopped before a large amount of incompatible blood has been infused. While many incompatibilities can be avoided by agglutination testing and crossmatching, some may not be, and appropriate treatment should commence on the onset of a reaction. If there are no signs of a reaction and the patient is not in danger of volume overload, the infusion rate should then be increased. ***The transfusion of blood products can then be infused as fast as the patient can tolerate it***. Most transfusions are finished in about 2 hours. If a unit of blood cannot be transfused within 4 hours, the blood should be administered in smaller units. Nothing is gained by extending the transfusion time beyond this. Patients must be continuously monitored during transfusions and post transfusion for signs of reaction or patient activity.