Claims

1. A dry formulation lacking free H_2O molecules, mixing of said formulation with donated whole blood or a blood product thereof creating a formulation-treated blood for transfusion into a recipient patient.

2. The formulation of claim 1, wherein the formulation is in a form selected from the group consisting of a tablet, a powder, a capsule, a gel, and a combination of the foregoing.

3. The formulation of claim 1, wherein the formulation is mixed with 450 mL (+/- 10%) or 500 mL (+/- 10%) of donated whole blood.

4. The formulation of claim 1, wherein the formulation holds the formulation-treated blood at a pH of between about 6.8 to about 7.6.

5. The formulation of claim 1, comprising an anticoagulant component and an energy-providing component and/or a preservative component.

6. The formulation of claim 5, wherein the anticoagulant component comprises citrate.

7. The formulation of claim 5, wherein the energy-providing component is dextrose.

8. The formulation of claim 5, further comprising a buffering component.

9. The formulation of claim 8, wherein the buffering component is selected from the group consisting of phosphate, bicarbonate, and citrate.

10. The formulation of claim 1, wherein the formulation-treated blood is stored for at least two days prior to transfusion into the recipient patient or is stored for at a period of time selected from the group consisting of at least twenty-eight days, at least thirty-five days, at least forty-two days, at least forty-nine days, and at least fifty-six days, prior to transfusion into the recipient patient.

11. A blood bag comprising an interior, said interior containing the formulation of claim 1.

12. The blood bag of claim 11, wherein the bag is sterilized by a sterilization method that is not steam sterilization.

13. The blood bag of claim 12, wherein the sterilization method is selected from the group consisting of gamma irradiation sterilization, x-ray sterilization, and e-beam sterilization.

14. Formulation-treated blood created by mixing donated whole blood or a blood product thereof with the formulation of claim 1.

15. The formulation-treated blood of claim 14, wherein the formulation treated blood is whole blood or red blood cells or is leukoreduced.