



e-Network Forum

CALIFORNIA BLOOD BANK SOCIETY

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Using automatic IV infusion pumps for the transfusion of red cells

A blood banker from Mission Viejo, California, reports that the nursing staff at his institution is asking for advice on using automatic IV infusion pumps for the transfusion of red cells, before incorporating this practice into their transfusion policy. The operator manuals for their IV infusion pumps in current use indicate the devices may be used for blood products, but at least for the devices in use at the inquiring blood banker's hospital, there is no mention of any special precautions, limitations on flow rates, or particular operating settings. The inquiring blood banker would like input from e-network colleagues as to their experience or recommendations regarding use of this type of equipment for blood product transfusion.

Examples of blood infusion systems (no endorsement is implied) are listed below. Colleagues and companies are encouraged to contribute to this list.

- [CardinalHealth Alaris® products](#)
- www.abbotthosp.com
- [Fresenius Kabi](#)
- [BD Posiflow™](#)

The following responses have been received.

ADDENDA Sept. 19, 2002

1. **A blood banker from Maryland** wrote that her hospital does **not** use automatic infusion systems for blood transfusion, because when one such system was evaluated it was observed that (quote) "every unit we put through the pump had **hemolysis** of various degrees regardless of age, speed or the amount of saline we ran with it". She realizes that her hospital's singular experience may not be representative of what others might experience. However, based on the aforementioned, she strongly suggests that any new blood infusion system should be validated by the personnel who will be expected to use the system, to assure that the system works as expected in their own hands.

ADDENDA Sept. 22, 2002

2. **A Texas blood banker** reports that his hospital in Houston recently evaluated an automatic blood infusion system. The responding blood banker's hospital wondered if blood products would be affected by the infusion process and if it would be possible to use a leukocyte reduction filter during the infusion of RBCs. They used a bedside leukocyte reduction filter for the leukoreduction of RBC's, and the pump they tested was a multichannel infusion pump. RBC's were filtered at a rate of 200 mL/hour (nursing provided this setting). The responding blood banker reports that their data showed that the use of the infusion pump actually may have improved the filtration process without causing hemolysis of the blood products. According to the Texan, their data will be presented as a poster at the upcoming AABB Meeting and Transfusion Expo (TXPO) in Orlando, Florida.

Please submit comments to the [e-Network Forum](#).



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