



# e-Network Forum

## CALIFORNIA BLOOD BANK SOCIETY

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### ***Pre-transfusion testing on blood samples that have been drawn from patients who are being treated at home***

**A blood banker in Michigan** was curious to learn if transfusion services perform pre-transfusion testing on blood samples that have been drawn from patients who are being treated at home. The inquiring blood banker also wanted to know who would accept for pre-transfusion testing a specimen **collected at home by a relative** of a patient, if that sample was to be used for crossmatching of a donor unit to be given three days later at an outpatient clinic. For the sake of this question, we were to assume that the relative was neither a trained nurse nor an employee of the facility performing the pre-transfusion testing. The inquiring blood banker stated that they have **refused to accept** for pre-transfusion testing specimens such as the one described in the hypothetical situation above. They accept specimens collected by home health nurses, but not untrained family members. They consider using such a specimen if the person collecting the specimen is associated with the Health System, is familiar with how to collect and label a specimen for transfusion, and if the specimen is transported to the transfusion service laboratory in a timely manner. Finally, the inquiring blood banker commented that for her own piece of mind, she **limits the use of such a specimen to those patients who have one or more ABO/Rh results on file**, so that a specimen identification error is unlikely to cause an ABO incompatible transfusion.

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The following replies were submitted in response to the above:

1. **Editor's NOTE:** As you read the comments below, please keep in mind that (at least in my opinion) **pre-transfusion testing is considered by FDA to be a 'manufacturing step'** in the provision of blood and blood products for transfusion. As such, good manufacturing principles would apply to the entire process of pre-transfusion testing, including acquisition of the sample used in the testing process.
2. A **blood bank physician from the Northwestern USA** wrote "Sounds like the inquiring blood banker answered her own question; and it's not a bad answer".
3. A **Sacramento blood bank physician** wrote: "Although we do not directly support any home transfusion services, I would **concur entirely** with the approach taken by the Michigan blood banker. First, I would never accept for compatibility testing a specimen that was not obtained by a trained health care worker contracted with the home transfusion service or the issuing blood bank. Second, I also agree with her that I would consider accepting the specimen (if correctly labeled, etc.) IF it came from an individual who was "associated with [their] Health System, was familiar with [and trained in] how to collect and label a specimen for transfusion, and if the specimen was transported to the transfusion service laboratory in a timely manner." Finally, I agree with her use of the "check type" system for these instances (as well as for ALL instances where home transfusions are administered). My guess is that you're going to get a lot of similar responses to this one. Still, I'll be curious to see what others have to say. Thanks for your continuous work in facilitating the sharing of such useful information".
4. **Another blood banker** wrote: "In my former life as lab supervisor of a now "defunct" LA blood supplier, we supplied crossmatched units for contracted home health centers and outpatient dialysis centers. We trained the home health center and outpatient dialysis staff in the our specimen collection procedures. The staff that drew the specimens were RNs (home health) and RNS or trained phlebotomy staff (at the outpatient dialysis centers). **We would not accept specimens drawn by other sources.**"
5. **An Arkansas blood banker** said: "I agree with limiting the use of such a specimen to those patients who have one or more ABO/Rh on file, so that a specimen identification error is unlikely to cause an ABO incompatible transfusion. **I would not accept a specimen drawn by a family member** and brought in for testing with no blood type on file....who knows that family member might want to knock them out of the picture for some inheritance".
6. **A blood banker in Stockton, California** said: "Our facility **does accept home collected**

**samples.** Frequently these are children or individuals with indwelling catheters. The family members are trained by their primary caregiver to access the ports, and we work with them to obtain laboratory samples. We provide the tubes, armband and instructions. The family members are generally very involved in the care of the individual and have gained understanding to the importance of the labeling of transfusion samples, timing for drug levels, clearing lines, etc. They have a stake in the process. We have experienced very few problems".

7. **A Texas blood banker** wrote: "When this situation presented itself at our lab (a 35-bed hospital in a very small Texas town) several years ago, we **sent a phlebotomist to the patient's home.** We considered that a customer service issue. I'm sure it wouldn't work everywhere and especially in big cities where the phlebotomist couldn't be out of the hospital that long and would probably want compensation for transportation used. In our case it worked quite well. It was a myelodysplastic person who got 3 units of blood a week for 2 years. Usually home health nurses drew the sample but at times they couldn't obtain it and we sent someone. If a **family member** was willing to come in and get trained by me about proper technique and identification, then I would feel comfortable letting that family member draw that particular patient".
8. **A blood bank physician in Baltimore** wrote: "I might have some concerns about having samples obtained by a family member (biohazards, needle sticks, clotting), but **sample identification would not be a concern** because I doubt the phlebotomist would be encountering more than one patient (the family member)".
9. **A blood bank physician in Chicago** wrote: "**I agree with the common sense, "piece of mind" approach!** Although I am no longer directly involved with home based laboratory testing or out-of-hospital ("home") transfusions, 13 years ago, I did set up the complete operations of a home transfusion service at a major Chicago Medical Center, to support chiefly hematology-oncology and BMT / PBSC transplant recipients. Although in those "dark ages" we did recognize Quality Assurance and its monitoring, that was long before the days of AABB Quality Essentials and the FDA's position(s) on Quality Systems. Even then, we would only accept pre-transfusion specimens intended for compatibility testing from individuals (most frequently RN's) who were licensed employees of home health care agencies which were contractually obligated to our institution, or who were either our employees or others who followed our policies and procedures (today that would include specific documented training and competency testing) or employees of agencies which were AABB and/or JCAHO-accredited. We worked with several home health care agencies, and the contracts with each agency specified that non-institutional employees were required to follow our institutional policies and procedures with regard to pre-transfusion specimen acquisition. In addition, as noted in your question, we required that all out-of-hospital transfusion recipients have both previous in-hospital transfusion "experience" and of course records of ABO/Rh, transfusion reactions (if any), etc., on file. To do anything less would be to invite anarchy and predictable disaster. **The best recent articles** covering all aspects of out-of-hospital transfusions are written by Drs. Joy Fridey and Cherie Evans, both of whom are CBBS members."

**ADDENDA** Nov. 19, 2001

10. **One of the authors of the AABB monograph on Out-of-Hospital Transfusion** (referred to above in [reply #9](#)) had the following comment: "I have had extensive experience with providing high-technology health services in the home including home transfusion. While I agree with the belief that a family member would be unlikely to make a mistake, if they did or there was a perception that they did, the center that accepted the sample would have significant liability risk. Even when we work with a home health agency, our contracts are very explicit about the tasks for which the health agency staff are responsible. "
11. **Another blood banker** was concerned about the rare instance where the family member might consider something **sinister.** According to this skeptical blood banker "Even with previous history of ABO/Rh and transfusion history, there is no way to guarantee the integrity of the specimen. Chances of someone having enough immunology and transfusion medicine knowledge to tamper with the specimen is rare and unlikely. But look at the use of airplanes now. We need to consider the risk and legal aspects also. They should contact their legal counsel for an assessment in addition to what is practice."

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

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CBBS e-Network Forum Editor & Moderator



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**Posted:** November 17, 2001

**Addenda:** Nov. 19, 2001

