

What to do if State Newborn Screen Obtained After Transfusion with RBCs
Recommendations from State Newborn Screen Office
Based on conversation with AD 08-23-11

Transfusion with RBC invalidates the galactosemia screen and the hemoglobinopathy screen. The state newborn screen office recommends the following:

1. Request "hemoglobin DNA testing" to be done by calling the state newborn screen office. They will send the paperwork to complete this test (you must have this paperwork), which is sent to the state reference hemoglobinopathy lab at CHORI. The hemoglobin DNA recall test is a DNA based study, which can be done, even if the patient has been transfused. Unfortunately, some of our physicians have been ordering or recommending a hemoglobin electrophoresis instead, which is not the correct test to do.

2. The state newborn screen office has no official position on what to do when the galactosemia portion of the newborn screen has been invalidated by prior RBC transfusion. However, they are reviewing the matter and expect to publish some recommendations. Until then, if the patient has symptoms of galactosemia or a family history of galactosemia AND has already been transfused RBCs, then you can arrange DNA testing for galactosemia through the newborn screen office. Otherwise, if the patient has no symptoms of galactosemia or family history of it, you should perhaps consider obtaining a urine reducing substance when the patient is being fed a lactose containing diet.

Keep in mind that the state does not consider FFP, platelets, or cryo as "prior transfusion" for purposes of the state newborn screen. These blood products do not interfere with the hemoglobin or galactosemia portions of the state screen.

If a patient has been transfused, the state apparently allows you to do the state screen on cord blood (see the site listed below).

For more info on prior transfusion you can go to the state newborn screen site at:

<http://www.cdph.ca.gov/programs/nbs/Pages/NBSWhentoCollectSpecimens.aspx#Transfusions>