

# Summer 2008



## Newborn Screening 411

**RCHSD**  
Newborn Screening  
Area Service Center

### What's New?

#### *Site Visits and In-services*

We have conducted several successful Site Visits and In-services over the last quarter. Thank you to all who have participated! If you would like to schedule an In-service, please contact Stevie at (858) 966-8708.

#### *Summer Reminder*

Summer is here! Please make sure your specimens are not exposed to the hot California sun. Excessive heat can result in false positives and inadequate specimens. If your drop box is exposed to direct sunlight, please place your specimens there as close to pickup time as possible. You can also ask the UPS driver or courier to pick them up from inside the building.



### Why Do We Require Heelsticks?

It is understandable that lab or nursing personnel may prefer to collect NBS blood specimens from lines, when present, rather than from heelsticks. However, the use of blood drawn from a line can produce inaccurate results, leading to unnecessary repeat testing, or worse, missed cases.

Specimens should not be collected from lines through which proteins and lipids are being administered.

We have found differences in the analyte concentrations of blood specimens collected by different methods. The test cutoffs are based on heelstick specimen values. For this reason,

we strongly discourage collection by other methods. **Capillary tube collection is never acceptable.**

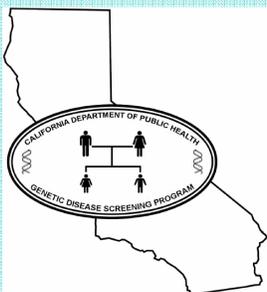
While we have not studied the analyte concentrations in IV specimens, it is clear that the odds of specimen contamination are great given the number of substances going through IV lines. Furthermore, some of the analytes are known to cling to the sides of the tubing, which could skew the test results.

For the above reasons, the Genetic Disease Screening Program discourages the use of IV lines to obtain NBS specimens. The fact that a baby has a line should

not preclude the utilization of the heelstick method. However, there are some clinical conditions for which heelsticks would be contraindicated, e.g., anemia or very tiny and poorly perfused feet. In these situations, a line specimen is preferable to not screening at all.

Our data shows that NICU babies have a higher incidence of the screened disorders, yet are at greater risk of not being screened at all. Whichever method is used, it is most important that babies are screened.

In summary, heelstick is the preferred method of specimen collection, followed by venous draws then arterial lines.



# Guidelines for Shipping Newborn Screening Specimens

## **RCHSD Newborn Screening Area Service Center**

### **LOCATED AT:**

7920 Frost Street, Suite 302  
San Diego, CA 92123

### **MAILING ADDRESS:**

3020 Children's Way  
Mail Code 5116  
San Diego, CA 92123

### **PHONE:**

(858) 966-8708

### **FAX:**

(858) 966-8709

### **WEBSITE:**

[www.rchsd.org/  
newbornscreening](http://www.rchsd.org/newbornscreening)

For more information visit:

[www.dhs.ca.gov/NBS/](http://www.dhs.ca.gov/NBS/)



*"Babies are such a nice  
way to start people."*

*-Don Herold*

Newborn screening samples are collected in the form of dried blood spot specimens. Allow the blood to thoroughly saturate the filter paper and air dry for a minimum of three hours. The specimen should be sealed in a high-quality bond envelope for transport. The paper overlay and the sealed bond envelope provide a double-layer barrier that protects casual handlers (e.g., shipping handlers and other non-laboratory, non-technical personnel) from accidental exposure to the dried blood specimens and protects the specimens from exposure to the environment or contaminants during shipping. For more information visit:

<http://www.cdc.gov/od/ohs/biosfty/driblood.htm>



Ideally, the envelope should be extra-strong, tear-proof, air-permeable and water resistant. The specimens **MUST NOT BE PACKAGED IN AIRTIGHT, LEAK-PROOF PLASTIC BAGS** because the lack of air exchange in the inner environment of a sealed plastic bag causes heat build-up and moisture accumulation which can damage the dried blood spot and/or affect test results. In addition, various chemicals can leach from these plastics and interfere with test results.

If a dried blood spot specimen is believed to contain an infectious agent, federal regulations require that a biohazard label be affixed to the packaging envelope. These steps provide reasonable safety from occupational exposure and maintain optimal specimen integrity.

Important Information for Parents about the Newborn Screening Test (IIP) is now available in twelve languages: English, Spanish, Armenian, Cambodian, Chinese, Farsi, Hmong, Korean, Laotian, Russian, Tagalog, and Vietnamese. Printable copies can be downloaded from our website at [www.rchsd.org/newbornscreening](http://www.rchsd.org/newbornscreening).

A limited number of booklets can also be ordered by calling Irene Mandujano at 510-412-1559.

