



Newborn Screening News

Volume 5, Issue 1

January 2004

New U.S. Postal Service regulations for mailing newborn screening specimens

This article provides information on the new mailing requirements for Newborn Screening specimens. A description of the new mailing requirements for dried blood spot specimens follows:

1. Two barriers are required between the blood sample and the outside of the envelope. This "double containment" may be accomplished by one of two ways: enclosing the specimen in an envelope before placing it into the outside mailing envelope, or by using a collection kit manufactured with a fold-over flap that covers the blood spots.
2. A universal orange or red biohazard label must be attached to the inner container whether using an inner envelope or a fold-over flap.
3. The outside mailing envelope must not contain a statement of content or a biohazard label.

The collection kits for 2004 are being manufactured with a fold-over flap that includes a pre-printed biohazard symbol.

Continue to use your current supply of collection forms by:

- * Enclosing the NBS specimens in an inner envelope that is labeled with an orange or red biohazard label.
- * Place the inner envelope in the regular TDH NBS mailing envelope. You may continue to use your existing supply of envelopes by removing/covering the content statement on the outside of the mailing envelope by applying a label over the statement or thoroughly obliterating the statement with a marker.

For further information about the new regulations, and to order collection kits and envelopes, please feel free to contact the TDH Laboratory at 1-800-422-2956, extension 7661.

IDEAL NEWBORN SCREENING SPECIMEN CHARACTERISTICS

- * All five circles are completely filled and saturated with blood. Universal precautions pertaining to blood and body fluids should be maintained.
- * Blood should be applied from only one side of the paper and appear as an even, uniform layer. The recommended collection technique is to absorb the blood directly from the heel onto the back of the paper while watching the circle to ensure that it completely fills.
- * The specimen should be air dried for at least 3-4 hours on a flat, nonabsorbent surface in a horizontal position, protected from heat or direct sunlight.
- * The specimen should be mailed immediately after drying (accumulated or "batched" specimens may result in specimens too old to test).

TIPS TO ENSURE VALID SPECIMENS

- * Do not "batch" specimens (Do not wait for 4 or 5 specimens to mail at the same time).
- * Plan ahead for holidays and weekends. If the holiday falls on Thursday or Friday, and the specimen is not mailed

until Monday, there will be a 3-4 day delay in receiving the results.

- * Fill out demographic information completely and legibly.
- * If known, use the TDH Laboratory number of previous specimens.
- * If possible, mail the specimen from the post office rather than a neighborhood mailbox (specimens could become overheated or baked).
- * Designate a responsible party to mail specimens and to receive results.
- * Keep the yellow copy from all submitted specimens and/or keep a log of the form number.
- * The NBS test are not run "stat." Please contact the TDH Laboratory if results from a particular test are needed immediately.
- * Follow the recommended collection procedures carefully to ensure a specimen is valid and acceptable.



SPOTLIGHT ON CAH

Congenital - Present at birth.

Adrenal - Involving the adrenal glands.

Hyperplasia - A condition in which

there is an increase in the number of normal cells in a tissue or organ.

Congenital Adrenal Hyperplasia (CAH) is an inherited condition that is present at birth. In CAH the adrenal glands do not produce enough of the right amount of hormones that are needed for our bodies to function normally. The adrenal glands produce three hormones, or chemical messengers called **cortisol** (hydrocortisone), **aldosterone** (salt-retaining hormone), and **androgens** (male sex hormones).

CAH occurs when the adrenal glands do not produce enough cortisol and aldosterone hormones, and instead produce too much of the male-like hormones, androgens.

The overproduction of male-like hormones can affect a baby before it is born. Girls with CAH may have an enlarged clitoris at birth, and may develop masculine features as they grow, such as

deepening of the voice, facial hair, and failure to menstruate or abnormal periods at puberty. Girls with severe CAH may be mistaken for boys at birth. Boys with CAH are born with normal genitals, but may soon become muscular, develop pubic hair, an enlarged penis and a deepening of the voice sometimes as early as two to three years of age. The testicles of boys with untreated CAH cannot function well and may not make sperm normally.

Children's growth also may be affected. Their long bones have growth plates at the ends. These plates allow for growth and eventually "close" when normal adult height is reached. High levels of androgens may cause rapid early growth. However, if these high levels of male-like hormones continue, the growth plates may "close-up" too early resulting in a very short adult.

In its most severe form, called **salt-wasting CAH**, a life-threatening adrenal crisis can occur if the disorder is not treated quickly. An adrenal crisis can cause dehydration, shock, and death within 14 days of birth. Other forms include **Simple Virilizing CAH** and milder forms.

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Public Meetings scheduled on Organizational Changes in Health

The Health and Human Services Commission is conducting public hearings throughout the state on proposed organizational changes that combine the Texas Department of Health with three other state agencies; Texas Commission on Alcohol and Drug Abuse, Texas Health Care Information Council, and the mental health community services and state hospitals under the Department of Mental Health and Mental Retardation to form the Department of State Health Services.

A schedule of these meetings and an opportunity to comment is available online at <http://www.hhsc.state.tx.us/Consolidation/News/OrgMeetings.html>

For background information and the proposed organizational chart go to:

http://www.hhsc.state.tx.us/Consolidation/News/dshs_org/Structure.html

Or, contact External Relations at (512) 458-7400 for information.

To order free literature from the Newborn Screening Program for patients and specimen collection information for submitters, please call 1-800-422-2956, ext. 2129 or order online: <http://www.tdh.state.tx.us/newborn/pubs.htm>

Publication Number 05-10897



www.tdh.state.tx.us/newborn/newborn.htm