



## **Health Chemistry Specimen Submission Guidelines**

**Kansas Department of Health and Environmental Laboratories  
6810 SE Dwight Street  
Topeka, Kansas 66620  
Phone: (785) 296-1620  
Fax: (785) 559-5209**

## General Information

**CLIA Director:** Robert Moser, MD

**Laboratory Director:** N. Myron Gunsalus, Jr.

**Health Section Chief:** Caryn Masters, MS

**Health Chemistry Laboratory Manager:** Vacant

**Address:** Kansas Department of Health and Environmental Laboratories  
6810 SE Dwight Street  
Topeka, Kansas 66620

**Email:** [kdhe.healthchemlab@ks.gov](mailto:kdhe.healthchemlab@ks.gov)

**Phone Number:** (785) 296-1620

**Fax Number:** (785) 559-5209

### Hours of Operation:

Open Monday through Friday 8:00am to 5:00pm.

KHEL does not perform testing and observes the following holidays:

New Year's Day (*January 1\**)  
Martin Luther King, Jr, Day (3<sup>rd</sup> Monday of January)  
Memorial Day (Last Monday of May)  
Independence Day (*July 4\**)  
Labor Day (1<sup>st</sup> Monday of September)  
Veteran's Day (*November 11\**)  
Thanksgiving (4<sup>th</sup> Thursday and Friday of November)  
Christmas Day (*December 25\**)

*\*When a holiday falls on Saturday, it is observed on the preceding Friday. When a holiday falls on Sunday, it is observed on the following Monday.*

**Website:** <http://www.kdheks.gov/labs/index.html>

The purpose of this manual is to provide a ready reference to our clients and to assist them in obtaining laboratory services as efficiently as possible.

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The mission of the Kansas Department of Health and Environmental Laboratories (KHEL) is to protect and improve the health and environment of all Kansans, provide timely and accurate analytical information for public health benefit in Kansas and to assure the quality of statewide laboratory services through certification and improvement programs, and to provide superior analytical data for all infants and children in Kansas on tests ranging from genetic diseases to toxins in the environment.

KDHE reporting requirements can be found at [http://www.kdheks.gov/epi/disease\\_reporting.html](http://www.kdheks.gov/epi/disease_reporting.html). This report identifies diseases which must be reported to the state epidemiologists and which isolates must be submitted to the laboratory. Please follow packaging and shipping guidelines found in this manual, or on our website at [http://www.kdheks.gov/labs/packaging\\_and\\_shipping.html](http://www.kdheks.gov/labs/packaging_and_shipping.html) to submit specimens to KHEL.

Further information regarding specimen collection materials, mailing containers and *Requisition for Laboratory Specimen Kits and Supplies* form is located in this manual. Supplies ordered from KHEL are to be used ONLY to submit specimens to KHEL. All requisitions for specimen kits and supplies for specimen submission can be request by mailing or faxing the KHEL Customer Service department in Topeka:

Kansas Department of Health and Environmental Laboratories  
ATTN: Customer Service  
6810 SE Dwight Street  
Topeka, Kansas 66620  
Fax: (785) 559-5205

[http://www.kdheks.gov/labs/cust\\_serv/download/specimen\\_kit\\_request\\_form.pdf](http://www.kdheks.gov/labs/cust_serv/download/specimen_kit_request_form.pdf)

Please request specimen collection materials and mailers before they are required as the expected turnaround time per order is **FIVE** business days. Most materials do have a limited shelf life; therefore, only order what will be used before the expiration date. Please do not use expired kits or any kits in which the media has changed characteristics. Dispose of the media properly and order replacement supplies.

The Clinical Laboratory Improvement Act (CLIA) regulations require a unique patient identifier on both the specimen container and the *KDHE Universal Laboratory Specimen Submission Form (Health)*. For example, each specimen must be properly labeled with at least the barcode label from the *KDHE Universal Laboratory Specimen Submission Form (Health)*.

KHEL specimen submission guidelines are referenced from the guiding principles set forth by the Clinical and Laboratory Standards Institute (CLSI) and the Centers for Disease Control and Prevention (CDC).

## **Specimen Rejection Guidelines**

KHEL currently has the following policy for rejection of laboratory specimens and/or requested examinations. KHEL will NOT examine specimens if the following circumstances exist:

- The patient identifier on the specimen did not match the identifier on the submission form, or there was no identification on the specimen.
- The quantity of specimen was not sufficient for examination.
- The quality of specimen was not sufficient for examination.
- The quantity of specimen did not meet the specimen collection guidelines.
- The transit time for the specimen exceeded the maximum allowable time frame from the time of collection to receipt by the laboratory.
- The specimen was broken or leaked in transit.
- Specimen was submitted in an improper or expired container, filter paper, or tube.
- Blood specimens submitted for analysis were hemolyzed or contaminated.
- Test request deemed unnecessary by the KDHE Infectious Disease Epidemiology and Response Program.

Exceptions to this policy will be considered due to extenuating circumstances; however, final approval to make an exception can only be made by the Laboratory Director, Health Section Chief, Health Chemistry Laboratory Manager, and/or Health Chemistry Technical Supervisor.

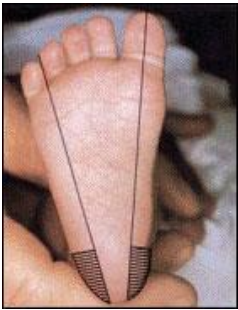
## Specimen Guidelines

FedEx Overnight and 2Day and UPS Next Day Air and Ground services are encouraged as the delivery times are guaranteed by the carriers. The use of a commercial carrier service is also encouraged if specimens are delivered to KHEL within the window of the collection date and time requirements. The use of USPS is discouraged for all clinical specimens for mycobacterium testing as the delivery times are not guaranteed by the carrier.

All infectious material must be classified as Category B (UN3373) and must be transported to KHEL according to appropriate IATA (International Air Transportation Association [www.iata.org](http://www.iata.org)), USPS (United States Postal Service [www.usps.com](http://www.usps.com)) and DOT (U.S. Department of Transportation [www.transportation.gov](http://www.transportation.gov)) shipping regulations. All infectious material must be triple-packaged to protect against breakage and/or leakage during transportation. All specimens must be in leak proof containers with properly fastened screw caps.

### Filter Paper Dried Blood Spots

- Newborn Screening
  - Collection



- Place infant's limb in a position to increase venous pressure. Warm site with soft cloth, moistened with warm water  $\leq 41^{\circ}\text{C}$ , for 3 – 5 minutes. Cleanse site with alcohol prep. Allow area to air dry. Puncture heel (see diagram below). Make puncture using sterile lancet with tip no longer than 2.5mm or use heel-stick device. Wipe away first blood drop with sterile gauze pad. Allow another large blood drop to form. Gently apply filter paper to large drop of blood but not to the heel. Allow blood to soak through and completely fill preprinted circle. Apply blood to one side of filter paper only for each circle. (Either side may be chosen for the procedure.) Do NOT Layer, or apply blood more than once for the same collection circle. Do NOT touch heel to filter paper.
- Storage
  - Allow blood spots to thoroughly air dry for  $\geq 3$  hours in a horizontal position away from heat and sunlight preferably on a rack. Avoid touching or smearing blood spots. Never superimpose one filter paper on another before thoroughly drying. Replace the white paper overlay over filter paper after blood spots have dried. Do not tear off or dispose of the paper overlay. Mail the specimen to KHEL within 24 hours of collection in accordance with Kansas Administrative Regulation 28-4-504.
- Shipping
  - The newborn screening card and filter paper dried blood spot specimen (collection kit) must have the biohazard symbol attached in order to meet USPS Regulations (printed on all KHEL forms). The dried blood spots must NOT be packaged in airtight, leak-proof plastic bags. The lack of air can cause heat to buildup and the accumulation of moisture that can damage the blood spot test substances. Also, chemicals in the plastic could contaminate the blood spot causing erroneous analytical test results. The collection kit must be enclosed in a quality-bond paper envelope and securely sealed. This envelope must have sufficient strength to withstand ordinary postal processing.
- **Must be received within 10 days from collection.**
- Blood Metals
  - Collection

- Warm site with soft cloth, moistened with warm water  $\leq 41^{\circ}\text{C}$ , for 3 – 5 minutes. Cleanse site with alcohol prep. Allow area to air dry. Make puncture using sterile lancet with tip no longer than 2.5mm or use heel-stick device. Wipe away first blood drop with sterile gauze pad. Allow another large blood drop to form. Gently apply filter paper to large drop of blood but not to the heel. Allow blood to soak through and completely fill preprinted circle. Apply blood to one side of filter paper only for each circle. (Either side may be chosen for the procedure.) Do NOT Layer, or apply blood more than once for the same collection circle. Do NOT touch heel to filter paper.
  - Storage
    - Allow blood spots to thoroughly air dry for  $\geq 3$  hours in a horizontal position away from heat and sunlight preferably on a rack. Avoid touching or smearing blood spots. Never superimpose one filter paper on another before thoroughly drying. Replace the white paper overlay over filter paper after blood spots have dried. Do not tear off or dispose of the paper overlay. Mail the specimen to KHEL within 24 hours of collection.
  - Shipping
    - The screening card and filter paper dried blood spot specimen (collection kit) must have the biohazard symbol attached in order to meet USPS Regulations (printed on all KHEL forms). The dried blood spots must NOT be packaged in airtight, leak-proof plastic bags. The lack of air can cause heat to buildup and the accumulation of moisture that can damage the blood spot test substances. Also, chemicals in the plastic could contaminate the blood spot causing erroneous analytical test results. The collection kit must be enclosed in a quality-bond paper envelope and securely sealed. This envelope must have sufficient strength to withstand ordinary postal processing.
  - **Must be received within 10 days from collection.**

### Capillary Blood

- Blood Metals
  - Collection
    - Collect  $\geq 500\mu\text{L}$  of blood in a lead free collection tube.
  - Storage
    - Refrigerate overnight if not able to send day of collection.
  - Shipping
    - Transport at ambient temperature Category B overnight to KHEL. For all Category B liquid specimens, the primary receptacle(s) must be leak-proof. The primary or secondary receptacle(s) must be able to withstand, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa in the range of  $-40^{\circ}\text{C}$  to  $55^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $130^{\circ}\text{F}$ ). For Biological Substance Category B (UN 3373) for both liquids and solids, cushioning material is required.
  - **Must be received within 10 days from collection.**

### Venous Blood

- Blood Metals
  - Collection
    - Collect 3 – 7mL of blood in a purple EDTA collection tube, minimum volume 1mL.
  - Transport

- Room temperature or refrigerate overnight if not able to send day of collection.
- Shipping
  - Transport at ambient temperature Category B overnight to KHEL. For all Category B liquid specimens, the primary receptacle(s) must be leak-proof. The primary or secondary receptacle(s) must be able to withstand, without leakage, an internal pressure producing a pressure differential of not less than 95 kPa in the range of -40°C to 55°C (-40°F to 130°F). For Biological Substance Category B (UN 3373) for both liquids and solids, cushioning material is required.
- **Must be received within 10 days from collection.**