



Inadequate Newborn Screening Specimens

Specimens received by the screening laboratory are reviewed for quality control before testing. Those that fail are called inadequate and the newborn screening tests are not run. Inadequate specimens delay results, diagnosis, and treatment of a potential disorder. When a new specimen cannot be obtained, newborns with a potential disorder could go undiagnosed and untreated. Adequate specimens are crucial for preventing potential life-threatening morbidity and mortality.

There are more than twenty different reasons for a newborn screening specimen to be deemed inadequate. Below are sample pictures of inadequate specimens with possible explanations for each reason.

Inadequate Specimens

Explanations

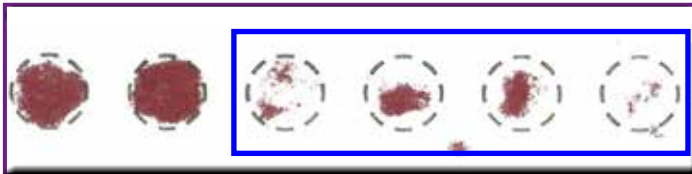
Circles are not completely filled.



Did not wait long enough for the blood to fill the circle completely before moving on to the next circle.

Code 1

Blood is not soaked through evenly to the other side of collection card.



Filter paper card was removed before the blood was able to soak through to the back side of the filter paper card.

Code 2

Clots appear on the surface of the sample.



Clots could be due to repeated application of blood drops to existing blood drop on the filter paper card.

Code 3

Blood is spread unevenly or layered (improper collection or drying).



Blood specimens were layered. This occurred when another coat of blood was applied on top of the first coat to fill the circles completely.

Code 4

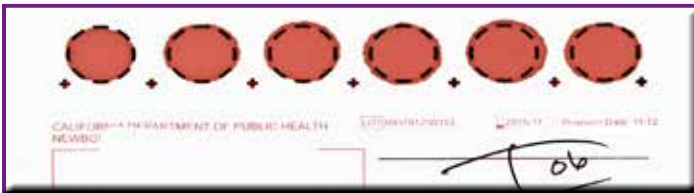
Blood or paper appears contaminated by spill or is soiled.



Contamination occurred when the filter paper card came in contact with liquid or solid substances during, before, or after specimen collection.

Code 5

Blood is very pale.



Pale blood specimens indicate low hemoglobin concentration. Testing cannot be done when the hemoglobin concentration is too low.

Code 6

Blood is very dark as though was heated.



Blood specimens turn dark when the filter paper card is placed directly in the sunlight, next to a lamp, or near a heat source.

Code 7

Blood is greenish as though old.



Blood specimens turn dark over time, indicating that the specimen is old.

Code 8

Sample is too old (>14 days since collection; collection date is day one).

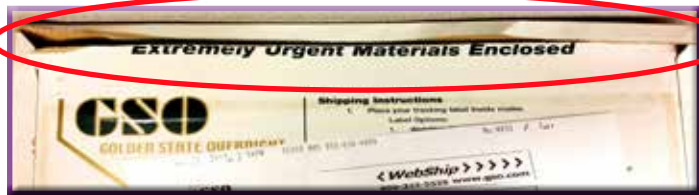


Date Collected: December 18, 2014

Date Received: February 2, 2015
(Julian Date is shown on the picture)

Code 9

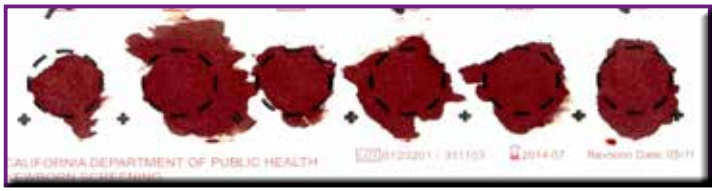
Specimen was found unprotected in the mail.



Envelope was delivered open. Specimen was tested and found to be contaminated.

Code 10

Blood spots are not completely dry.



Blood specimens were not completely dry before placing the filter paper card inside the envelope.

Code 11

Sample does not elute (determined after elution or testing).



Specimen did not elute during testing at the lab, thus further testing could not be done.

Code 12

Specimen was not collected on acceptable filter paper, including expired form.



Specimen was collected on an unapproved California State filter paper card. This includes expired and out-of-state forms.

Code 13

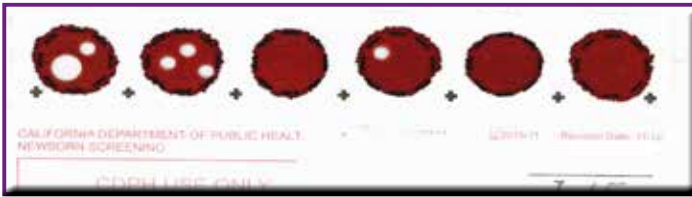
NBS form number on TRF does not match number on collection paper.



Form Numbers Do Not Match

Code 14

Abnormal pattern of test results.



Testing was done, and results show unusually low enzymes. This could be an adult specimen.

Code 15

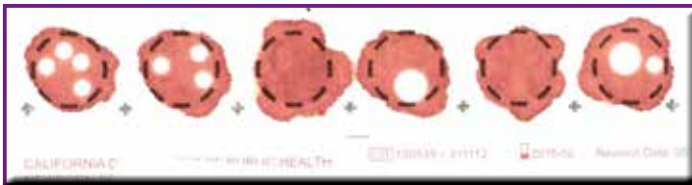
No blood is blotted on filter paper.



Specimen was not obtained/
no specimen was collected.

Code 16

**Hemoglobin concentration is too low
(determined after testing).**



Testing was done, and results show a low hemoglobin concentration. Further testing could not be done.

Code 17

**Hemoglobin concentration is too high
(determined after testing).**



Testing was done, and results show a high hemoglobin concentration in the specimens.

Code 18

**Test Request Form (TRF) entered
without form number.**

Code 19

Specimen inadequate for other reason.



All other reasons for a specimen to be called inadequate. This includes filter paper card detached from the TRF, mismatched medical record number, or any other reasons not previously listed.

Code 20