El Paso Children's HOSPITAL

Laboratory

Badge Buddy

Amylase	0.5mL
Acetaminophen	1 mL
AFP	1 mL
ALT(SGPT)/AST(SCOT)	0.5 mL
ANA	2 mL
BUN/Creatinine	0.5 mL
Calcium	0.5 mL
Chloride/CO2	0.5 mL
CK-MB or CK	1.5 mL
CRP or HCRP	0.5 mL
Bilirubin (Total & Direct)	0.5 mL
Direct LDL	1 mL
Ferritin	2 mL
Folate	1.5 mL
FSH/ LH	1.5 mL
FREE T3 / FREE T4	1 mL
Glucose	0.5 mL
Gentamicin	0.5 mL
HDL	1 mL
HIV / HCV / Hepatitis	2 mL
Iron / UIBC	0.5 mL
Insulin	1 mL
LDH	1 mL
Magnesium/Phosphorus	0.5 mL
NT BNP	1 mL
Potassium/Sodium	0.5 mL
Phenobarbital	0.5 mL
Phenytoin	0.5 mL
BHCG Quant	0.5ml
TSH	1 mL
TOTAL T3 / TOTAL T4	1 mL
URIC ACID	1 mL
Valproic Acid	0.5 mL
Vancomycin	0.5 mL
Vitamin D	1 mL

El Paso Children's Hospital

Pediatric Lab tube colors and minimum amounts

Ammonia	1 mL *on ICE*
BMP	1 mL
CMP	1 mL
Alkaline Phosphotase	0.5 mL
Troponin I	1.5 mL
CK-MB	1.5 mL
HCRP	0.5 mL
Procalcitonin	1 mL *lithium heparin*
CBC with differential	0.5 mL
Platelet Count	0.5 mL
Sed rate	1.5 mL
IPF	0.5ml
Reticulocyte Count	0.5 mL
Type and Cross	2 mL > 4 mos
Neonatal Workup	1 mL < 4 mos
PT/PTT/Fibrinogen	Fill Line
Acetone	1.5 mL
Immunoglobulins	2 mL
Osmolaity	1 mL
Thyroid Profile	2 mL
Amikacin	1 mL
CMV or EBV, IgM, IgG	3 mL
Lactate	0.5 mL *on ICE*
Blood Culture	1 mL
Urine Culture	1 mL

Rev. 1/2023

Reasons for Recollection

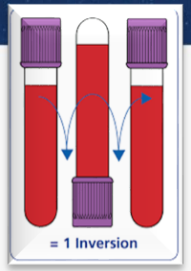
- Hemolysis
- Clots
- Contamination
- Mislabels
- Quantity not sufficient
- Overfilled blue top

Hemolysis

- Not letting alcohol dry before drawing blood
- Pulling blood too fast when drawing from a syringe
- The smaller the needle, the greater chance for hemolysis if drawing too fast

Clots

- Not inverting specimen as soon as blood is drawn into the tube



✖ 6-8

- Letting blood sit in syringe for too long

Contamination

- Not following appropriate order of draw
- Not following waste procedures when drawing from the IV
- Drawing above an IV line when not stopped

QNS/Overfilled

•When drawing microtainers keep in mind hematocrit. High hematocrit = less serum

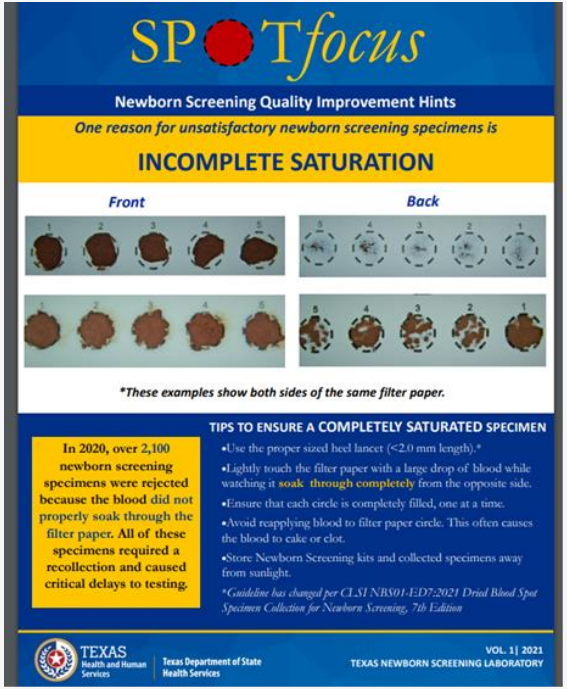
•For blue tops, needs to be filled up to the line. Underfilling or overfilling will be an automatic recollect

Blood Culture Set

- **One pediatric blood culture bottle can take the place of the set consisting of one aerobic and one anaerobic when collecting from pediatric patients (minimum 1 cc per pediatric bottle).**
- **Aseptic technique must be used to obtain these specimens in order to eliminate skin contaminants and thus provide clinician with diagnostically useful information (Make sure to clean the bottle with an Alcohol swab prior)**
- **Make sure to put the site of collection**

NBS

NBS 1 less then 48 hours ,NBS 2 after 7 days



SPOTfocus

Newborn Screening Quality Improvement Hints

One reason for unsatisfactory newborn screening specimens is

INCOMPLETE SATURATION

Front

Back

**These examples show both sides of the same filter paper.*

In 2020, over 2,100 newborn screening specimens were rejected because the blood did not properly soak through the filter paper. All of these specimens required a recollection and caused critical delays to testing.

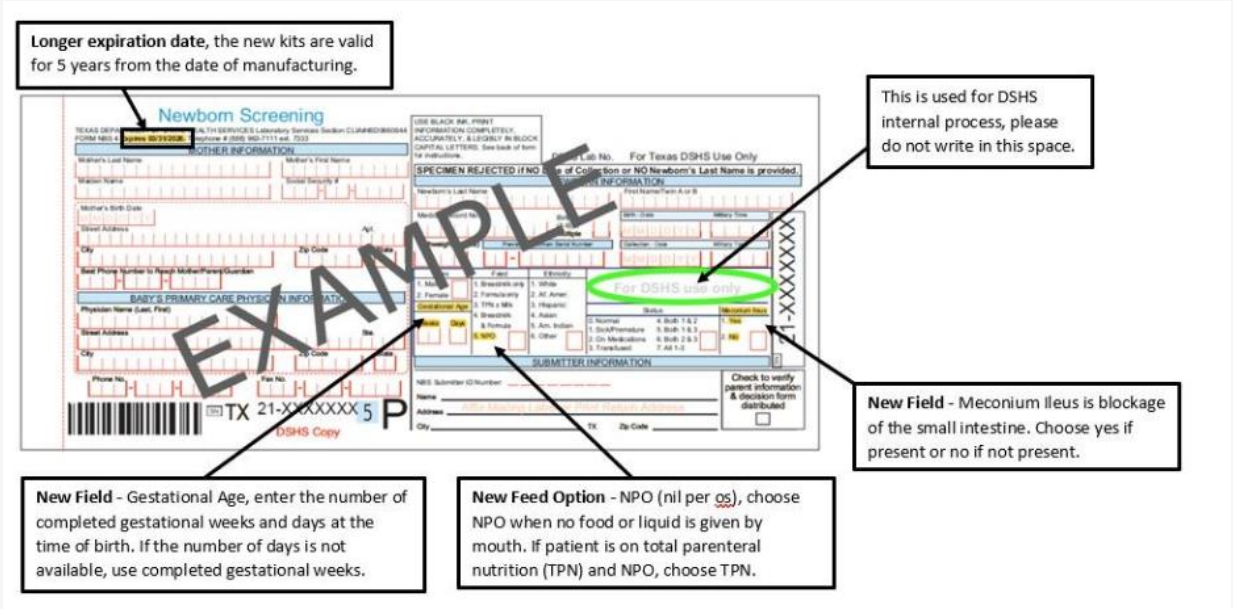
TIPS TO ENSURE A COMPLETELY SATURATED SPECIMEN

- Use the proper sized heel lancet (<2.0 mm length).*
- Lightly touch the filter paper with a large drop of blood while watching it soak through completely from the opposite side.
- Ensure that each circle is completely filled, one at a time.
- Avoid reapplying blood to filter paper circle. This often causes the blood to take or clot.
- Store Newborn Screening kits and collected specimens away from sunlight.

**Guideline has changed per CLSI NBS01-ED7:2021 Dried Blood Spot Specimen Collection for Newborn Screening, 7th Edition*

TEXAS Health and Human Services | Texas Department of State Health Services

VOL. 1| 2021 TEXAS NEWBORN SCREENING LABORATORY



CSF (Cerebrospinal fluid)

- Can they be sent in the tube system?

- Walk down ASAP (30 MIN FROM COLLETION)
- Always put the source of collection

Whole Blood

What is Whole Blood?

Whole blood is collected in an anticoagulant tube (e.g., lavender or light blue) to ***prevent clotting*** for tests such as CBC, ESR, and certain coagulation studies.

Serum vs Plasma

What is Plasma?

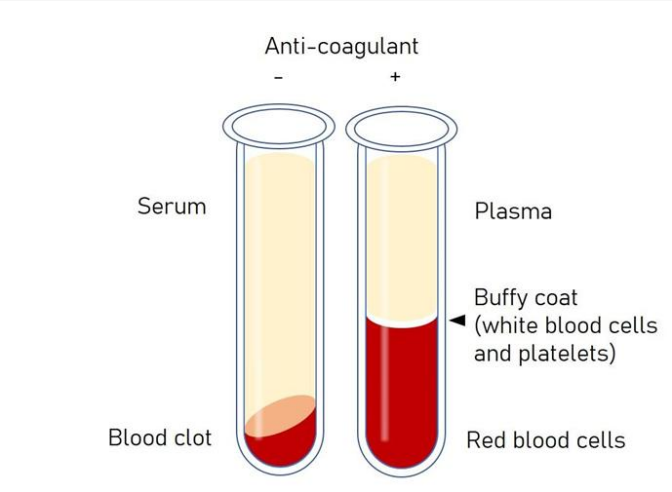
Plasma is obtained by centrifuging a tube of whole blood collected with an anticoagulant.

What is Serum?

Serum is obtained by centrifuging ***clotted*** whole blood collected in a coagulation tube or a tube with no additive (e.g., red or gold/SST). It is commonly used for tests such as CMP, BMP, magnesium, and phosphorus.

Serum vs Plasma

From Clotted Whole Blood



From Whole Blood

Please Note

Although we may receive approximately 3 mL of Whole Blood, once the sample is centrifuged we may only obtain about 1.5 mL of usable serum or plasma. This reduction in volume is expected because a portion of the original sample consists of cellular components that separate out during centrifugation.

THIS IS **OUR** HOSPITAL

Q & A

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