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48667.268 CHEMSTRIP 10 WITH SPECIFIC GRAVITY (SG) - URINE TEST STRIP

Copy of version 1.0 (approved and current)

**Last Approval or
Periodic Review Completed** 3/22/2021

**Next Periodic Review
Needed On or Before** 3/22/2023

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Location For POCT website and
procedure binder

Organization San Francisco General Hospital
Clinical Lab

Author

Original: Margaret Fong, Carol Hogan; Revising: Caroline Tolman-Salinas

Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Periodic review	Designated Reviewer	3/22/2021	1.0	<i>Barbara Haller, MD, PhD</i> Barbara Haller	
Periodic review	Designated Reviewer	4/23/2020	1.0	<i>Caroline Tolman-Salinas</i> Caroline Tolman-Salinas	
Approval	Lab Director	5/29/2018	1.0	<i>Barbara Haller, MD, PhD</i> Barbara Haller	
Approval	Laboratory Manager	5/29/2018	1.0	<i>Mary Eugenio-Allen</i> Mary Allen	
Approval	POCT Senior Supervisor	5/22/2018	1.0	DEBORAH NEGRI	

Signatures from prior revisions are not listed.

Prior History

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
1.0	Approved and Current	Initial version	5/15/2018	5/29/2018	Indefinite

Author: Original: Margaret Fong, Carol Hogan; Revising: Caroline Tolman-Salinas
Approved by Barbara Haller on 5/29/2018.
Reviewed by Barbara Haller on 3/22/2021.

1. Chemstrip 10 with SG, Roche Corporation. Available through Materials Management. Store test strips at 2-30°C. Do not freeze. Chemstrip urine test strips are stable in the original capped vial until the listed expiration date. In order to avoid exposure to moisture, the vial must be closed immediately after removal of a strip, using the original stopper, which contains a drying agent. Date container and record the lot number when the container is opened.
2. Absorbent paper or gauze.
3. KOVA Ligua-Trol normal and abnormal controls. Controls are stored in the Clinical Laboratory, and may be obtained from the POCT Service. Ranges for new

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lot(s) of controls are verified by the Hematology Division prior to expiration date of the old lot(s).

Store controls at 2 - 8° C until the expiration date located on the label(s). Do not freeze.

4. Timer.

QUALITY CONTROL:

1. Abnormal and normal controls are run daily by qualified ward/clinic personnel.
2. Remove the controls from the refrigerator and warm for 15 minutes to room temperature (18 - 30° C).
3. The lot number on the bottle of KOVA Liqua-Trol should be the same as the lot number on the record form. Check the expiration date. Control bottle should have date opened on it. This date should also be on the record form.
4. Gently swirl the control to assure good mixing, open the vial cap and apply KOVA Liqua-Trol directly onto the reagent strips with a spraying technique. Hold the reagent strip horizontally, ensure good pad saturation and remove excess control by tilting the reagent strip on its edge on a paper towel. Each pad should be thoroughly moistened.
5. Read the urine dipsticks following the same procedure as patient specimen.
6. Promptly recap the bottle and return the controls to refrigerated storage.

PROCEDURE:

- A. Using two patient identifiers, verify patient's identity, and explain procedure to patient and/or family.
- B. Observe universal precautions; wear gloves and other personal protective equipment as appropriate.
- C. Urine should be in a container that permits complete immersion of the test strip reagent area. Mix the urine thoroughly before testing.
- D. Remove a strip from the container. Close the container immediately. Prolonged exposure of strip to air can cause false positive results. Check strip against color blocks on Chem 10 container to ensure no pad has been prematurely activated.
- E. Briefly (no longer than 1 second) dip the test strip into the urine. The entire test strip reagent area must be totally immersed.

- F. Draw the edge of the strip along the rim of the specimen container to remove excess urine.
- G. On a piece of absorbent paper or gauze, turn the strip on its side and tap once to remove excess urine and to prevent possible mixing of chemicals.
- H. Holding the strip close to the color blocks on the Chemstrip 10 container and orienting the strip to the color chart on the container, match the color of each pad to a corresponding color on the container.

All values may be read between:

specific gravity	60 seconds
pH	60 seconds
leukocyte esterase	60-120 seconds
nitrite	60 seconds
protein	60 seconds
glucose	60 seconds
ketones	60 seconds
blood	60 seconds

Caution:

- False positive protein result may be obtained if the urine pH is >9
- Reagent pad colors are stable up to 120 seconds after immersion. Color changes that occur after 2 minutes from immersion are irrelevant and should be ignored. Color changes that occur only along the edge of the test pads should be ignored as well (careful removal of excess urine should eliminate this effect).

REPORTING RESULTS

Report the results in the medical record as read off the standardized color chart:

Parameter	Normal Result	Abnormal Result
Specific Gravity	1.000 – 1.030	< 1.000 or >1.030
Leukocyte Esterase	Negative (“neg”)	1-3+
pH	5.0 - 9.0	< 5.0 and > 9.0
Nitrite	Negative (“neg”)	1-3+
Protein:	Negative (“neg”)	1-3+
Glucose:	Normal (“neg”)	1-4+
Ketones:	Negative (“neg”)	1-3+
Blood	Negative (“neg”)	1-3+

