

Urine Specific Gravity: Patient Test Procedure

ATAGO Pocket- PAL 10S


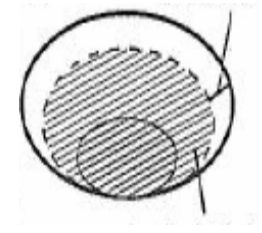
PURPOSE:



To measure patient urine for specific gravity using a Digital Refractometer.

REQUIRED MATERIALS - See Appendix H Supply List. Dirty Utility Room on the ward or unit.

- 1) ATAGO "Pocket" PAL-10S Urine Specific Gravity Digital Refractometer.
- 2) Distilled (Sterile) Water – **DH2O** – aliquot from 0.5 or 1L bottle for cleaning prism surface.
- 3) Plastic Droppers – wide tipped.
- 4) Tissue – Kim Wipes – Lab Quality Lint free, non-abrasive.
- 5) Test Tubes with rack.
- 6) Gloves

PROCEDURE:

	Action	Related Documents Title Number
1.	Wear Gloves.	
2.	Patient Urine Sample in a clean, sterile container. <ul style="list-style-type: none"> • midstream, bagged or catheter urine only. • Urine from cottonball has not been validated for testing. 	
3.	Assemble required materials. <ul style="list-style-type: none"> • DH₂O aliquot is at room temperature in a test tube. Ready for cleaning. • ATAGO "Pocket" PAL-10S is clean and ready to use for a patient sample. • Confirm Zero Set, Level 1, Level 2 Quality Check Solution done q. 24 hours. • Patient urine sample is fresh and at ambient temperature. 	
4.	Obtain Form B: Patient Record Form. <p style="text-align: right;">Record the date and collection time. Record time of patient result.</p>	Urine Specific Gravity: Form B - Patient Test Result Record Form, Ward
5.	Digital Refractometer is on a flat surface. <ul style="list-style-type: none"> • Mix or invert patient urine sample gently. • Add approximately 0.3 mL or 3-4 drops of patient sample to the prism surface. Use a plastic dropper. <p>Do not use urine from a diaper or cotton ball.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: right;">Prism surface with patient urine sample. Remove any bubbles from the urine sample to ensure accurate reading.</p>	

6.	Press the START key. Measured value displays after the arrow blinks 3 times. <ul style="list-style-type: none"> • on the screen for 2 minutes. • Record patient result on Form B. • Record patient result on chart. 			
7.	Results Interpretation: Normal urine specific gravity (SG) varies with hydration. Physiological range: 1.001 to 1.035 Newborns have decreased ability to concentrate urine (SG less than 1.012) Outside newborn period, after fluid deprivation: SG greater than 1.026 Dyes for imaging or other dissolved exogenous solutes may cause high results.			
8.	Remove residual patient sample from prism surface with tissue.			Urine Specific Gravity: Form A - Zero Set and Quality Control, Clinic
9.	Clean prism surface area with 3-4 drops of DH ₂ O. Wipe dry with a tissue.			
10.	Discard DH ₂ O aliquot and residual patient sample if not required for further testing.			

REFERENCES:

ATAGO Instructions of Urine Specific Gravity Refractometer URIVON-Ne
Textbook of Clinical Chemistry. Norbert W.Tietz 1986 WB Saunders.

REVISION & APPROVAL LOG

Version	Revision Type	Description of Change	Revision Date	Technical Approval	Medical Approval
1.0		New document	Nov 2013	Elvira Kozak	Dr. Cathy Halstead
1.1	Minor	Document title and number change. Upload to QMS document control	28 Dec 2016		Dr. Benjamin Jung

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