

Point of Care Urine Dipstick Quality Control Test Procedure

Purpose: This procedure provides instruction on how to perform the daily Urine Quality Control with the Roche Chemstrip 10A Test Strips.

Required Materials


- Roche Chemstrip 10A Test Strips
- Gloves
- Timer
- Absorbent towel/pad for blotting.
- QC Record Sheet – Normal/Level 1 and Abnormal/Level 2 Controls
- Quality Control Result Chart - BioRad qUAntify®.


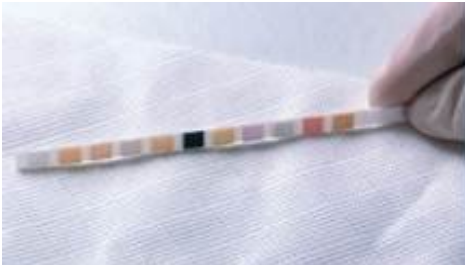



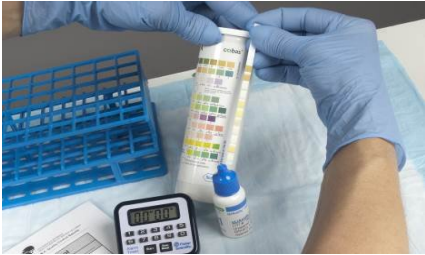

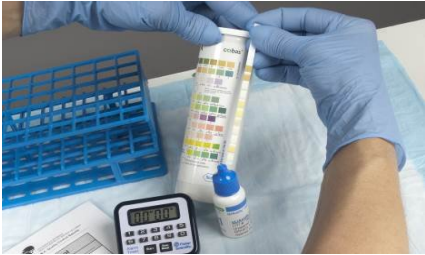

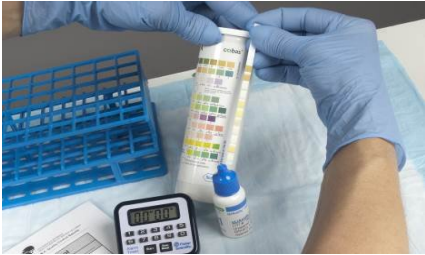

BioRad qUAntify® Quality Control:

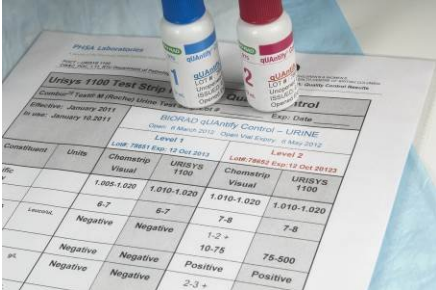
- Level 1 – Normal urine
- Level 2 – Abnormal urine
- 12 mL Vials each
- Store unopened vials in refrigerator.
- Open Vial expiry is 10 days at room temperature (18-25°C) or 31 Days refrigerated. (Ketone stability at room temperature is 10 days, stability for all other tests at room temperature is 31 days.)



	Action	Related Documents Title Number
	<p>Note: Quality Control is performed:</p> <ul style="list-style-type: none"> • Minimum weekly before patient testing. • When starting a new vial of Chemstrip 10A test strips. • When starting a new lot number of Chemstrip 10A test strips. 	
1.	<p>Gather equipment and assemble supplies on work space.</p> 	
2.	<p>Wear Gloves</p>	
3.	<p>Ensure Urine Quality Control is at room temperature before testing. Check for dates in use.</p>	
4.	<p>Obtain Urine Test Strip Vial – Chemstrip 10A.</p> <ul style="list-style-type: none"> • Check vial for expiry date. • Remove urine test strip from vial. • Immediately replace the cap for a tight seal. <p>Note: Discard the Chemstrip 10A strip vial and contents if found with cap removed.</p>	

	Action	Related Documents Title Number
5.	<p>Test the Urine Quality Control (UQC) solutions.</p> <ul style="list-style-type: none"> Mix UQC sample well just before testing. Apply UQC for approximately one second. 	
	<ul style="list-style-type: none"> Add a couple of drops onto the test strip from the Quality Control vial. 	
	<ul style="list-style-type: none"> Gently touch the long edge of the test strip to a piece of absorbent paper to remove any excess urine. <p style="color: red;">Caution: Do not blot urine test strip onto pad with color pads facing down onto the absorbent material.</p>	
	<ul style="list-style-type: none"> Place the test strip, pads facing up, onto paper towel or absorbent pad. Set timer for 60 seconds for test pads to develop. 	

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6.	<p>Urine Quality Control Results</p> <ul style="list-style-type: none"> Hold container upright and test strip vertically. Compare each test pad to the corresponding row of color blocks on the label. 																																																																																																																															
	<p>Read @ (seconds)</p> <p>Compare reagent area on test strip at specified times to color chart on test strip bottle. Circle result.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">SG</td> <td style="width: 10%;">60</td> <td style="width: 10%;">1.000</td> <td style="width: 10%;">1.005</td> <td style="width: 10%;">1.010</td> <td style="width: 10%;">1.015</td> <td style="width: 10%;">1.020</td> <td style="width: 10%;">1.025</td> <td style="width: 10%;">1.030</td> </tr> <tr> <td>pH</td> <td>60</td> <td></td> <td></td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>Leukocytes</td> <td>60-120</td> <td colspan="2">Leucocytes/μL</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>10-25</td> <td>75</td> <td>500</td> <td></td> </tr> <tr> <td>Nitrite</td> <td>60</td> <td></td> <td></td> <td>neg</td> <td>pos</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Protein</td> <td>60</td> <td colspan="2">g/L</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.3</td> <td>1.0</td> <td>5.0</td> <td></td> </tr> <tr> <td>Glucose</td> <td>60</td> <td colspan="2">mmol/L</td> <td>normal</td> <td>2.8</td> <td>5.5</td> <td>17</td> <td>56</td> </tr> <tr> <td>Ketones</td> <td>60</td> <td colspan="2">mmol/L</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td></td> </tr> <tr> <td>Urobilinogen</td> <td>60</td> <td colspan="2">μmol/L</td> <td>normal</td> <td>17</td> <td>70</td> <td>140</td> <td>200</td> </tr> <tr> <td>Bilirubin</td> <td>60</td> <td colspan="2">μmol/L</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td></td> </tr> <tr> <td rowspan="3">Blood</td> <td rowspan="3">60</td> <td colspan="2" rowspan="3">Erythrocytes/μL</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td>4+</td> </tr> <tr> <td>intact</td> <td>5-10</td> <td>25</td> <td>50</td> <td>250</td> </tr> <tr> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td>4+</td> </tr> <tr> <td></td> <td></td> <td></td> <td>lyzed</td> <td>10</td> <td>25</td> <td>50</td> <td>250</td> </tr> </table>	SG	60	1.000	1.005	1.010	1.015	1.020	1.025	1.030	pH	60			5	6	7	8	9	Leukocytes	60-120	Leucocytes/ μ L		neg	1+	2+	3+							10-25	75	500		Nitrite	60			neg	pos				Protein	60	g/L		neg	1+	2+	3+							0.3	1.0	5.0		Glucose	60	mmol/L		normal	2.8	5.5	17	56	Ketones	60	mmol/L		neg	1+	2+	3+		Urobilinogen	60	μ mol/L		normal	17	70	140	200	Bilirubin	60	μ mol/L		neg	1+	2+	3+		Blood	60	Erythrocytes/ μ L		neg	1+	2+	3+	4+	intact	5-10	25	50	250	neg	1+	2+	3+	4+				lyzed	10	25	50	250	
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Action		Related Documents Title Number
8. Check UQC Results with appropriate chart. Check for current lot #'s and expiry dates of the UQC's. <div style="text-align: center; margin-top: 10px;">  </div>		
If	Then	
Within QC acceptable limits	Proceed to Patient testing.	
Not within QC acceptable limits.	<p>Possible cause:</p> <ul style="list-style-type: none"> • Lid off of Test Strip Vial? • Inadequate sampling – test strip not inserted into solution? • Inadequate mixing? • QC lid left off vial? • QC not within expiry date? • QC not within open vial expiry date? <p>Action:</p> <ul style="list-style-type: none"> • Open new vial of Test Strips, and discard the vial with the lid left off. • Discard UQC if lid left off vial. • Discard UQC if not within expiry date. • Discard UQC if not within open expiry date. • Repeat UQC testing with new test strip – ensure full absorption of test pads. Mix UQC well before testing. 	
<p>Contact POCT Technologist to help with troubleshooting and new Quality Control in Lab walk-in refrigerator. Children's & Women's Laboratory: 604-875-2345 Point of Care Testing: Monday-Friday: ext: 7521 Chemistry Lab: Weekends, after hours: ext: 7820 Rm. 2J17</p>		
9.	Dispose of urine test strip in appropriate waste as per established procedure.	
10.	Scan and email Quality Control sheets to POCTLab@cw.bc.ca minimum monthly.	

REVISION & APPROVAL LOG

Version	Revision Type	Description of Change	Revision Date	Technical Approval	Medical Approval
1.0		New document		Elvira Kozak	Dr. Cathy Halstead
1.1	Minor	Document title and number change. Upload to QMS document control	28 Dec 2016		Dr. Benjamin Jung
1.2	Minor	Removed references to Kovatrol QC no longer in use.	Apr 27, 2017	Calvin Lee	
1.3	Minor	Removed references to ER. Reformatted.	Mar 13, 2020	Calvin Lee	

Attention: This document is published on the BCCW SHOP website

Revisions made to this document require an update to the corresponding document published on BCCW SHOP website