

## Point of Care Urine Dipstick: Patient Test Procedure

**Purpose:** This procedure provides instruction in performing a manual Urine Dipstick Test using Chemstrip-10A urine test strips.

### Required Materials

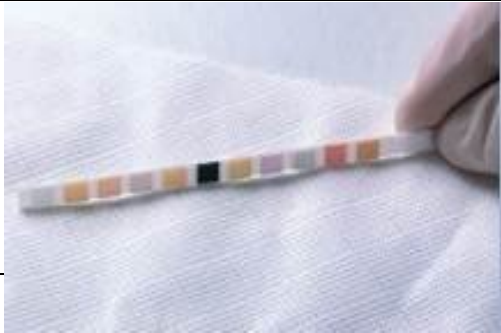
- Urine Test Strips Chemstrip 10A – Roche Diagnostics
- Gloves
- Timer
- Absorbent towel/pad for blotting urine test strip.
- Sterile Urine container
- Result Form: Result Pad – Chemstrip 10A Manual report.


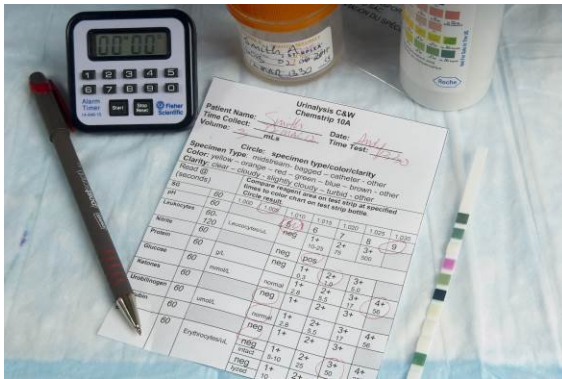


### Procedure:

	<b>Action</b>	<b>Related Documents Title Number</b>
	<p>Use freshly voided urine for analysis.</p> <ul style="list-style-type: none"> <li>• Urine is well mixed just before dipping the urine with the test strip.</li> <li>• Urine is &lt; 2 hours.</li> <li>• Urine &gt; 2 hours is not suitable for follow up microscopy testing.</li> </ul>	
1.	<p>Wear Gloves. Collect patient urine sample. Refer to nursing policy.</p> <ul style="list-style-type: none"> <li>• Midstream, Catheter or Bagged Urine Collection.</li> </ul>	<p>C&amp;W Nursing Policy NU-001                      Urine Specimen: Collection for Culture &amp; Sensitivity.</p>
2.	Obtain patient identifier labels if available, otherwise label urine specimen with Full Name, MRN and Date of Birth.	
3.	Transport urine and patient identifier labels to testing area.	
4.	Gather equipment and assemble supplies with patient sample on work space.	
5.	Mix entire patient urine sample well in collected container.	
6.	<p>Obtain Urine Test Strip Vial – Chemstrip 10A.</p> <ul style="list-style-type: none"> <li>• Check vial for expiry date.</li> <li>• Remove urine test strip from vial.</li> <li>• Immediately replace the cap for a tight seal.</li> </ul> <p><b>Note:</b> Discard the Chemstrip 10A strip vial and contents if found with cap removed. Air exposure may lead to false positive, e.g. nitrite.</p>	

	<b>Action</b>	<b>Related Documents Title Number</b>
<b>7.</b>	<p>Test the patient urine sample.</p> <ul style="list-style-type: none"> <li>Mix patient sample well just prior to testing.</li> <li>Briefly dip the test strip in the patient urine sample for approximately one second.</li> <li>Quickly remove the test strip and draw the edge along the rim of the test tube.</li> </ul>	
	<ul style="list-style-type: none"> <li>Gently touch the long edge of the test strip to a piece of absorbent paper towel or pad to remove any excess urine.</li> </ul> <p style="color: red;"><b>Caution: Do not blot urine test strip onto pad with color pads facing down onto the absorbent material.</b></p>	
	<ul style="list-style-type: none"> <li>Place the test strip, test pads facing up, onto paper towel or pad.</li> <li>Set timer for 60 seconds for test pads to develop.</li> </ul>	



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<b>8.</b>	<p><b>Patient Urine Sample Results.</b></p> <ul style="list-style-type: none"> <li>Hold container upright and test strip vertically.</li> <li>Compare each test pad to the corresponding row of color blocks on the bottle label.</li> </ul>																																																																																																										
	<p><b>Read @ (seconds)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;"><b>SG</b></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><b>pH</b></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><b>Leukocytes</b></td> <td>60-120</td> <td colspan="2">Leucocytes/<math>\mu</math>L</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td></td> </tr> <tr> <td><b>Nitrite</b></td> <td>60</td> <td></td> <td></td> <td>neg</td> <td>pos</td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Protein</b></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><b>Glucose</b></td> <td>60</td> <td colspan="2">mmol/L</td> <td>norma l</td> <td>2.8</td> <td>5.5</td> <td>17</td> <td>56</td> </tr> <tr> <td><b>Ketones</b></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><b>Urobilinogen</b></td> <td>60</td> <td colspan="2"><math>\mu</math>mol/L</td> <td>norma l</td> <td>17</td> <td>70</td> <td>140</td> <td>200</td> </tr> <tr> <td><b>Bilirubin</b></td> <td>60</td> <td colspan="2"><math>\mu</math>mol/L</td> <td>neg</td> <td>1+</td> <td>2+</td> <td>3+</td> <td></td> </tr> <tr> <td><b>Blood</b></td> <td>60</td> <td colspan="2" rowspan="3">Erythrocytes/<math>\mu</math>L</td> <td>neg intact</td> <td>1+ 5-10</td> <td>2+ 25</td> <td>3+ 50</td> <td>4+ 250</td> </tr> <tr> <td></td> <td></td> <td>neg lyzed</td> <td>1+ 10</td> <td>2+ 25</td> <td>3+ 50</td> <td>4+ 250</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	<b>SG</b>	60	1.000	1.005	1.010	1.015	1.020	1.025	1.030	<b>pH</b>	60			5	6	7	8	9	<b>Leukocytes</b>	60-120	Leucocytes/ $\mu$ L		neg	1+	2+	3+		<b>Nitrite</b>	60			neg	pos				<b>Protein</b>	60	g/L		neg	1+	2+	3+		<b>Glucose</b>	60	mmol/L		norma l	2.8	5.5	17	56	<b>Ketones</b>	60	mmol/L		neg	1+	2+	3+		<b>Urobilinogen</b>	60	$\mu$ mol/L		norma l	17	70	140	200	<b>Bilirubin</b>	60	$\mu$ mol/L		neg	1+	2+	3+		<b>Blood</b>	60	Erythrocytes/ $\mu$ L		neg intact	1+ 5-10	2+ 25	3+ 50	4+ 250			neg lyzed	1+ 10	2+ 25	3+ 50	4+ 250									
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<b>9.</b>	<p>Record Patient Urine results onto Patient Flowsheet. Verify the patient name and MRN on the chart. It is mandatory that documentation of all POCT results include the following:</p> <ul style="list-style-type: none"> <li>Test Result</li> <li>Date and time of sample collection</li> <li>Date and Time of Testing</li> <li>Requesting physician</li> <li>Operator ID or initial.</li> </ul>																																																																																																										

Medical Approval: Dr Benjamin Jung

Version: 1.2

Folder Name: CW\Point of Care\Urine Dipstick

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Medical Approval Date: 28 Dec 2016

Implementation Date: 3/15/2020 3:40:06 PM

<b>Action</b>		<b>Related Documents Title Number</b>	
<b>10.</b>	Review Patient Urine Results		
	<b>If follow up testing:</b>		<b>Then</b>
	Indicated		<ul style="list-style-type: none"> <li>• follow up with physician to confirm the need for further testing in urine or blood.</li> <li>• Record any further testing ordered on the patient chart.</li> <li>• Retrieve saved aliquot of urine for dispatch to the appropriate laboratory department if further testing is done in the urine.</li> </ul>
	Not indicated	Record on patient chart.	
<b>11.</b>	Dispose of urine test strip in appropriate waste as per established procedure.		
<b>12.</b>	Discard any residual urine in appropriate waste.		
<b>13.</b>	Please bring forward any suggestions, changes, improvements, concerns and complaints regarding urine dipstick testing or POCT (in any aspect) to the laboratory: <ul style="list-style-type: none"> <li>• Email <a href="mailto:POCTLAB@cw.bc.ca">POCTLAB@cw.bc.ca</a></li> <li>• Telephone 607-875-2345 ext 7521</li> <li>• Patient Safety Learning System (PSLS)</li> </ul>		

## 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 reference to ER, reformatted	Mar 13, 2020	Calvin Lee	

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