

<b>iSTAT1: Appendix E - Maintenance</b>		
<b>1. DAILY or As Required</b>		
<b>Clean analyzer</b>	<ul style="list-style-type: none"> <li>Wipe the outside of the i-STAT 1 analyzer case after each patient use.</li> </ul>	<ul style="list-style-type: none"> <li>2% W/V Chlorhexidine Gluconate in 70% V/V isopropyl alcohol prep pad.</li> <li>CAVIWIPES – Metrex Research Industries</li> </ul>
<b>Disinfect Analyzer</b>	<ul style="list-style-type: none"> <li>As required.</li> </ul>	<ul style="list-style-type: none"> <li>Use CAVIWIPES</li> <li>Clean the entire surface of the analyzer first.</li> <li>Disinfect with a second wipe.</li> <li>Allow to remain on the surface and air dry.</li> </ul>
<b>Date and Time</b>	<ul style="list-style-type: none"> <li>As required</li> </ul>	Computer Data Station: Data download will update the date and time automatically. Alternate Method Administrator Menu; Choose 5 - Set Date; Enter Password (1111).
<i>Caution: Follow institutional guidelines for infection control.</i>		
<b>2. WEEKLY</b>		
<b>Cartridges Room temperature 18 - 30°C</b>	<ul style="list-style-type: none"> <li>room temperature expiry varies by cartridge type.</li> <li>Check outside on box.</li> </ul>	<ul style="list-style-type: none"> <li>Deliver any expired cartridges to the Point of Care Technologist – Laboratory.</li> </ul>
	<ul style="list-style-type: none"> <li>Temperature is &gt;30°C for any period of time.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the cartridges from the shelves.</li> <li>Notify the Laboratory Point of Care Technologist immediately: POCT Technologist email <a href="mailto:POCTLab@cw.bc.ca">POCTLab@cw.bc.ca</a> local 7521.</li> <li>DO NOT USE the cartridges.</li> </ul>
<b>Cartridges Refrigerated 2 - 8°C</b>	<ul style="list-style-type: none"> <li>Cartridges are within the expiration date printed on the boxes.</li> </ul>	<ul style="list-style-type: none"> <li>Deliver any expired cartridges to the Point of Care Technologist.</li> </ul>
	<ul style="list-style-type: none"> <li>Temperature is within 2-8°C.</li> </ul>	<ul style="list-style-type: none"> <li>Use cartridges as required.</li> </ul>
	<ul style="list-style-type: none"> <li>Temperature is not within 2-8°C for any period of time.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the cartridges from the fridge.</li> <li>Notify the Point of Care Technologist immediately for documentation and supply ordering: POCT Technologist email <a href="mailto:POCTLab@cw.bc.ca">POCTLab@cw.bc.ca</a> local 7521</li> <li>DO NOT USE the cartridges.</li> </ul>
<b>3. MONTHLY PROCEDURE – Point of Care Technologist</b>		
<b>Checking Analyzer temperature</b>	<ul style="list-style-type: none"> <li>Place the analyzer in close proximity of a calibrated thermometer suspended near the analyzer and away from air currents for one hour.</li> <li>Press the Display key and access the Status page. The temperature reading should be +/- 1 °C of the thermometer's reading.</li> <li>Record temperature on i-STAT daily maintenance check sheet.</li> </ul>	
	<ul style="list-style-type: none"> <li>Measured temperature of the analyzer is within +/- 1°C.</li> </ul>	<ul style="list-style-type: none"> <li>Analyzer is acceptable for use.</li> </ul>
	<ul style="list-style-type: none"> <li>Measured temperature of the analyzer exceeds +/- 1°C.</li> </ul>	<ul style="list-style-type: none"> <li>DO NOT USE the Analyzer.</li> <li>Notify the Point of Care Technologist.</li> </ul>

		<ul style="list-style-type: none"> <li>Replace the Analyzer with backup Analyzer.</li> </ul>
<b>Print EQC Results</b>	<ul style="list-style-type: none"> <li>Print a copy of the Electronic Simulator results using the trend function on the Central Data Station.</li> </ul>	<ul style="list-style-type: none"> <li>Include the report in the i-STAT QC Log</li> </ul>
<b>Print QC Results</b>	<ul style="list-style-type: none"> <li>Print results for any control fluids analyzed using the trend function on the Central Data Station.</li> </ul>	<ul style="list-style-type: none"> <li>Include the report in the i-STAT QC Log.</li> </ul>
<b>4. PERIODIC PROCEDURES</b>		
<b>Replacing the Analyzer Batteries – ITT or POCT Technologist</b>		
<ul style="list-style-type: none"> <li><b>When battery is &lt; 8.0 volts on status page.</b></li> <li>Stored results will not be lost when replacing batteries.</li> </ul> <p><i>Note: i-STAT1 will perform about 10 – 15 tests after the “Replace Batteries alert” is indicated.</i></p>		
	<ul style="list-style-type: none"> <li>Obtain two 9 volt lithium batteries – Ultralife (U9VL-6P)</li> <li>Turn analyzer over and slide the battery compartment door off.</li> <li>Remove the old batteries. Orient the new batteries and replace.</li> <li>Close the Battery cover.</li> <li>Perform Electronic Simulation to verify Analyzer performance.</li> </ul>	
<b>Acceptance of newly received cartridge lots – POCT Technologist</b>		
<b>Check temperature Monitor Card</b>	<ul style="list-style-type: none"> <li>If all windows are white or if only the “A” window is blue, then transit temperatures were satisfactory.</li> </ul>	<ul style="list-style-type: none"> <li>Fill out the record of receipt and forward materials to refrigerator.</li> </ul>
	<ul style="list-style-type: none"> <li>If any or all of the “B”, “C”, or “D” windows are blue.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the suspect cartons.</li> <li>DO NOT USE cartridges.</li> <li>Record the out of control event in the i-STAT Maintenance Log.</li> <li>Return to vendor.</li> </ul>
<b>Integrity Testing- new cartridge lot #'s – POCT Technologist</b>		
<b>Perform within 72 hours of receipt.</b>	<ul style="list-style-type: none"> <li>Analyze i-STAT Quality Control Levels 1 &amp; 3.</li> <li>Use the appropriate Quality function - Administrative Menu</li> <li>Transmit results to the Central Data Station.</li> <li>The expected values published in the package inserts are used to verify the integrity of the cartridges.</li> </ul>	<ul style="list-style-type: none"> <li>Notify Point of Care Technologist of the cartridge shipment.</li> <li>The Laboratory Point of Care Technologist will release the Lot # of Cartridges for use as appropriate.</li> </ul>
<b>5. SOFTWARE UPDATE – POCT Technologist</b>		
	<ul style="list-style-type: none"> <li>When new tests and features become available.</li> <li>Typically twice per year mid-June and mid-December.</li> </ul>	<ul style="list-style-type: none"> <li>Complete instructions for installing new software will be sent in addition to any i-STAT1 manual updates.</li> </ul>

**REFERENCES**

**i-STAT1 System Manual. Abbott Point of Care Inc. Abbott Park, IL 60064 USA 20 JAN 2012**

## REVISION & APPROVAL LOG

Version	Revision Type	Description of Change	Revision Date	Technical Approval	Medical Approval
1.0		New document	25 Nov 2013	Elvira Kozak	Dr. Cathy Halstead
1.1	Minor	Document title and number change. Upload to QMS document control	22 Dec 2016		Dr. Benjamin Jung
1.2	Minor	POCT contact updated	June 24, 2019	Calvin Lee	

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