[](http://depts.washington.edu/labweb/index.htm)

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| **University of Washington,**  **Harborview Medical Center**  **325 9th Ave. Seattle, WA, 98104**  **Transfusion Services Laboratory**  **Policies and Procedures Manual** | **Original Effective Date:**  August 15, 2013 | **Number:**  **3015-1** |
| **Revision Effective Date:** | **Pages:** |
| **TITLE:** Calibrating Thermometers Using NIST Traceable Thermometer | | |

**PURPOSE**

To provide instruction for the calibration of thermometers used in the HMC Transfusion Service lab, using a NIST (National Institute of Standards and Technology) traceable thermometer.

**POLICY**  
  
All thermometers in the HMC TSL are calibrated against an NIST traceable thermometer prior to being place into use, and annually thereafter.

**PROCEDURE**

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| **Step** | **Action** | **Related Documents** |
| 1. | Check NIST Thermometer for cracks or defects. Do not use if either are discovered. |  |
| 2. | Document the NIST number on the Thermometer Calibration Form. | Thermometer Calibration Form |
| 3. | Two calibration points are required. Choose two from the points listed on the NIST certificate.   * One point within the range required for the use intended. * One point higher or lower than the usage range. * Note: (If 0°C. is chosen, (Use an ice bath to obtain the 0°C calibration point) |  |
| 4. | * Place the NIST thermometer and the thermometer being calibrated together at the temperature point being tested, and repeat the following steps for each temperature point. * Allow the temperature in both thermometers to equilibrate for at least 5 minutes. * Record the readings from both thermometers in the appropriate column of the Thermometer Calibration Form. * Record the NIST correction factor for the temperature point being tested in the appropriate field of the Form. * Create a tag stating the correction factor for the time range being utilized, and attach it to the top of the newly calibrated thermometer. * Complete the Calibration Form and leave for manager review. |  |

**References**

AABB Technical Manual, Current Edition