TRAINING UPDATE

Lab Location:	SGAH and WAH	**Date Implemented:**	2.5.2014
Department:	Blood Bank	**Due Date:**	2.28.2014

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

HemoTemp II Activator

Description of change(s):

- The manufacturer's instructions for the HemoTemp II Temperature Indicators was recently updated. The indicators must be activated at temperatures between 38-42°C. Our current heat blocks are set at 37°C for testing. We cannot adjust the heat blocks for HemoTemp II activation without affecting patient testing.
- We purchased HemoTemp II Activators for each site. The Activator is designed specifically for the HemoTemp II indicators and maintains a temperature of 39-41°C at all times.
- The activator contains a liquid crystal thermometer (similar to the one used for the P2 incubator) on an aluminum strip. The thermometer will display a number (37, 40, 43) and a color. The color indicates whether the actual temperature is identical to the number displayed, 1°C lower than the temperature displayed, or 1°C higher than the temperature displayed.
- We will take temperatures of the HemoTemp II Activator daily using the "Daily Temperature Quality Control" form. We do NOT need to record the color as the range is 40±1 °C. If the "40" is displayed, we know the temperature is within acceptable range.
- The heat block works just like our other heat blocks.

Non-Technical SOP

Title	**HemoTemp II Activator**	
Prepared by	Stephanie Codina	Date: 1.28.2014
Owner	Stephanie Codina	Date: 1.28.2014

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		
Local Issue Date:	Local Effective Date:	

Review:		
Print Name	**Signature**	**Date**

TABLE OF CONTENTS

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1. PURPOSE

To outline the preventive maintenance and quality control tasks for the HemoTemp II Activator. The HemoTemp II Activator is a block module heater designed to provide uniform temperature of 40°C ± 2°C. This equipment is specially-designed for activating HemoTemp II Temperature Indicators.

2. SCOPE

This procedure applies to the HemoTemp II Activator.

3. RESPONSIBILITY

All blood bank staff members must understand and adhere to this procedure when using the HemoTemp II Activator.

4. DEFINITIONS

Activation: The process of heating the HemoTemp II liquid crystal formulation to a metastable ordered glass at the color-play temperature range then quenching.

5. PROCEDURE

Daily Maintenance

Step	Action
1	Wipe the Activator with a damp cloth or mild detergent to remove any dust or debris. A. If liquid is spilled on the activator, the heating block may be removed and rinsed or submerged in water to clean. Ensure the heating block is completely dry before returning to the cabinet. B. NEVER immerse the cabinet in water.

Form revised 3/31/00

Step	Action
2	Monitor and record the temperature of the Activator daily. A. The temperature will be read using a liquid crystal thermometer attached to an aluminum plate (AKA sensing bracket) provided by the manufacturer. The sensing bracket will remain in the Activator when it is in use. B. The lot number and expiration date of the liquid crystal thermometer will be documented on the aluminum plate. a. Verify that the correct lot and expiration date are documented on the QC form. b. Verify that the expiration date has not been exceeded. c. New sensing brackets and liquid crystal thermometers can be obtained from the manufacturer as needed. C. Remove the sensing bracket and read the number that appears (37, 40, 43). Record the temperature on the QC form and document whether the temperature is acceptable. Remove the equipment from service and follow instructions below if the temperature is outside of acceptable range. D. The color of the number indicates the actual temperature. It is NOT necessary to document the color. For our purposes, if the "40" is displayed, the temperature is in range (39-41°C). a. Tan = temperature is 1°C lower than the number displayed. b. Green = temperature is the same as the number displayed. c. Blue = temperature is 1°C higher than the number displayed.

Temperature Adjustment

Step	Action
1	The temperature of the Activator may be adjusted if the temperature is out of acceptable range. A. Using a flat-blade screwdriver, turn the Temperature Adjust Control to change the set point of the temperature calibration. a. Turn the control CLOCKWISE to RAISE the temperature. b. Turn the control COUNTER-CLOCKWISE to LOWER the temperature. B. Allow the temperature to equilibrate for 30 minutes and then recheck. Make additional adjustments as needed. 

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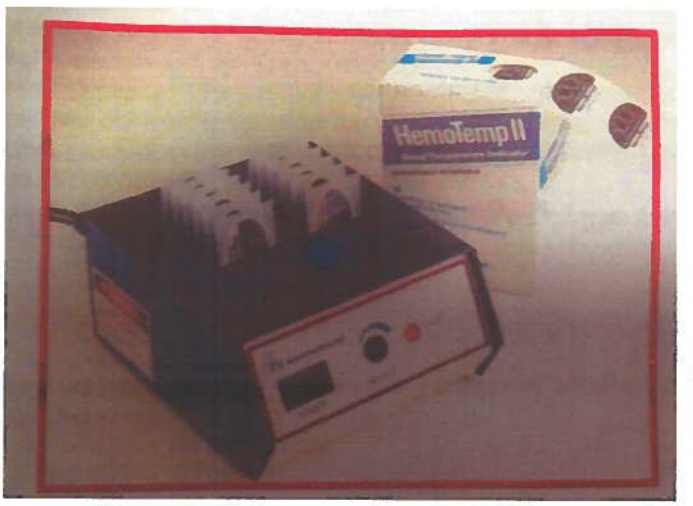
Operation

Step	Action
1	Write the date of activation on each HemoTemp II Temperature Indicator that will be placed in the activator.
2	Place the HemoTemp II temperature indicator into the slotted Activator heating block. The flower portion of each indicator must face down into the heating block. The temperature indicators must stay in the activator until the "flower" turns a dark royal-blue color; the indicators can remain in the activator for up to 28 days. 
3	To complete the activation process, remove the backing of the indicator and adhere the indicator to a blood product that has been refrigerated at 1-6°C. Place the blood bag, with the indicator facing down, on a flat surface and rotate the bag to ensure proper adhesion.
4	Verify that the "flower" is royal blue in color. Do not use the indicator if the flower is green or tan in color, as this means the indicator has not been properly activated.

6. RELATED DOCUMENTS

Form: Daily Temperature Quality Control

7. REFERENCES

Biosynergy Manual MBH_001. Operation Manual for Hemotemp II Activator: A single-temperature control multiple block heater. Model MBH001BIO. Biosynergy: Elk Grove Village, IL.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By

9. ADDENDA AND APPENDICES

None