

PROCEDURE

Corewell Health East - Preventative Maintenance of the Blood Bank Helmer Platelet Agitator - Troy

This Procedure is Applicable to the following Corewell Health sites:

Corewell Health Beaumont Troy Hospital

Applicability Limited to:	N/A
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Functional Area:	Clinical Operations, Laboratory
Lab Department Area:	Lab - Blood Bank

1. Principle

- A. This document provides the Blood Bank medical technologist with directions for performing preventative maintenance (PM) of the Helmer® Platelet Agitator.
- B. A platelet agitator, which constantly circulates the platelets during storage, is used to help maintain adequate gas exchange and appropriate pH.
- C. The platelet agitator is preventively maintained to safeguard the storage of platelet components and provide a safe transfusion.
- D. The platelet agitator is normally housed within the temperature monitored platelet incubator. This platelet agitator follows a defined schedule at least as frequent as specified by the manufacturer.
- E. The PM actions are recorded on Transfusion Medicine form, *Preventative Maintenance of the Helmer® Platelet Agitator*.

2. Responsibility

Personnel who have completed the competency requirements will perform these tasks.

3. Definitions

- A. Alternating current (AC): an electric current that continually changes direction as it flows.
- B. UPS: Uninterruptable power supply

4. Reagent/Equipment Needed

- A. Helmer® chart paper 220273
- B. Cleaning brush/cloth
- C. Mild detergent
- D. Vacuum
- E. 9-volt alkaline battery
- F. 9-volt rechargeable Nickel-Metal Hydride battery
- G. Light weight oil
- H. Petroleum Jelly

5. Procedure

- A. Quarterly Preventative Maintenance:

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1. Test Motion Alarm
 - a. The motion alarm test is performed to confirm that the auditory alarm activates when the platelet agitator motion stops. The alarm may not activate immediately, depending on the motion alarm delay setting. Confirm that the agitator is connected to AC power.
 - b. Enable alarms by pressing the motion alarm switch to the On (I) position.
 - c. Start agitation by pressing the agitation switch to the On (I) position.
 - d. Stop agitation by pressing the agitation switch to the Off (O) position, or open the platelet incubator door.
 - 1) After the delay period elapses, the alarm should activate.
 - e. Clear the active alarm by pressing the motion alarm switch to the Off (O) position or close the platelet incubator door to resume agitation.
2. Cleaning the Fan
 - a. The fan is located in the base, on the bottom of the agitator.
 - b. Disconnect the agitator from the power supply and remove agitator to a flat, sturdy surface.
 - c. Tip agitator on its side to access the fan.
 - d. Vacuum or use a soft brush to remove dust from fan and fan grill.
 - e. Return agitator to upright position.
3. Test Motion Alarm Battery / AC Power Failure Test
 - a. The motion alarm system is powered by AC power and backed up by a rechargeable battery, which charges when the platelet agitator is connected to the power source. In the event of a power failure, agitation would stop and the battery would power the motion alarm.
 - b. Confirm the platelet agitator is connected to AC power.
 - c. Switch the Motion Alarm ON/OFF switch to ON.
 - d. Switch the Agitation ON/OFF switch to OFF.
 - e. Disconnect the power cord from the AC power or disconnect the power cord from the outlet inside the platelet incubator.
 - f. When the alarm delay period elapses, the motion alarm activates.
 - g. If the motion alarm does not activate, replace the motion alarm battery.
 - h. Reconnect the platelet agitator to AC in the UPS outlet.
 - i. Switch the agitation ON/OFF switch ON to resume agitation and silence the alarm.
- B. Annual Preventative Maintenance:
 1. Cleaning the Platelet Agitator
 - a. The shelves and exterior of the platelet agitator are cleaned with a soft brush or cloth and disinfected (if needed) with a mild detergent.
 - b. Do not use a bleach solution on the platelet agitator.
 2. Maintaining Moving Parts: Check, Replace, Clean, and Lubricate
 - a. Unplug the platelet agitator and remove the agitator from the incubator.
 - b. Set the agitator on a solid work surface with the rear portion of the agitator facing you.
 - 1) Allow enough space to the right for the drawer unit.
 - 2) Push the drawers forward to expose two large bolt heads.
 - 3) Loosen these two large bolts but do not remove them.
 - 4) Slide the loosened bolt heads towards the front of agitator.
 - 5) Raise the rear of the drawer unit of the agitator, while rotating the drawer unit of the agitator to the right and lower onto the bench. WATCH strap holding two pieces together.
 - 6) Perform the PM by replacing the 7.2 Volt Nickel–Metal Hydride (9V NIMH) rechargeable battery.
 - 7) Check the cleanliness and condition of the motor bearing and wheels.
 - 8) Lubricate the axles on all four wheel assemblies with a lightweight oil.
 - 9) Replace wheels as necessary, the hole through the wheel should be circular.
 - a) See manufacturer's instructions for further direction.

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- 10) Vacuum interior of lower unit after drawer unit removal including fan.
- 11) Return the agitator's drawer unit to lower unit:
 - a) Push the two wheels near the front of the lower unit toward the center of unit.
 - b) Position the crank block bearing into an upright position.
 - c) Flip agitator drawer unit back onto the lower unit aligning the black slot on the bottom of the drawer unit onto the cam while sliding the front lip under the lower unit guide.
 - d) Adjust drawer unit front to back until sitting level.
 - e) Slide the drawers to the front of the unit and slide the bolts toward the rear of unit and tighten.
 - f) At this time the drawer unit should be secured to the lower unit.
3. Lubricate the Drawer Slides
 - a. Perform the drawer lubrication one drawer at a time.
 - b. Clean the slots in the drawer guides with a clean, dry cloth.
 - c. Apply a thin film of petroleum jelly to the bottom of each drawer where it makes contact with the drawer guide.
 - d. If the Helmer® Platelet Agitator is temporarily out of service for preventative maintenance (PM), or if any of the PM described in the document is unacceptable and cannot be corrected as described in this document, then complete the following steps:
 - 1) Attach the Transfusion Medicine form, Out of Service Tag, if the agitator is not operational.
 - 2) Document Transfusion Medicine form, Log of Blood Bank Reagent or Equipment Problems.
 - 3) Notify the supervisor or lead medical technologist of the events.

6. Revisions

Corewell Health reserves the right to alter, amend, modify or eliminate this document at any time without prior written notice.

7. References

- A. Helmer® Platelet Agitator, Operation Manual, 360092-1/P
- B. Helmer® Platelet Agitator, Service Manual, 360095-1/L
- C. AABB, Technical Manual, current edition.

AABB, Standards for Blood Banks and Transfusion Services, current edition.

8. Procedure Development and Approval

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9. Keywords

Not Set

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