

SUBJECT: Routine monitoring of the Medical Cart Washer

DEPARTMENT: Central Service

APPROVED BY:

EFFECTIVE:

REVISED: 08/17

PURPOSE: To ensure a properly functioning medical cart washer

POLICY: Routine monitoring of Medical Cart Washer

RATIONALE:

"A problem analysis should be completed for any problem with any aspect of decontamination that can pose a risk to personnel or patients. The problem analysis should define and resolve the problem and the system should be monitored to ensure that the problem has been corrected"(1).

ST 79; 2009A section 7.5.3.3 states this on weekly testing ***"...Mechanical cleaning equipment should be tested upon installation, weekly (preferably daily) during routine use, and after major repairs. A major repair is a repair that is outside the scope of routine preventive maintenance and that significantly affects the performance of the equipment. Examples include replacement of the water pump(s), detergent delivery system, heating system, water delivery system, water treatment system, or computer control or an upgrade to software..."(1)***

The JCAHO in standard E.C.6.20; states that all medical equipment is maintained, tested and inspected **(2)**.

The medical cart washer is considered a piece of medical equipment and medical cart washers need to be properly functioning to provide the best patient care as possible and help in reducing hospital acquired infections **(4,5)**.

Cart washers are important tools in the overall efforts to reduce cross contamination. Often they are used to clean not just surgical case carts, but also basins, IV poles, instrument containers, wheel chairs and other supply and patient transport equipment **(3)**. The CartWashCheck™ is the first test designed to challenge the mechanical efficiency of the medical cart washer.

Because there are various models of cart washers, cycle selection in older models can be limited. Many newer models now give an option to run surgical instruments within that specific type / model of cart washer (if your cart washer has an instrument cycle you will need to test that

specific cycle with a cleaning verification test (TOSI®) since the washer is being used to process surgical instruments). Each department needs to understand the various cycles they have to use and select the proper cycle for the item that is going to be processed. Because of the vast number of cart washers and cycle selections temperature ranges can be different. That is why it is important that all staff are trained on a regular basis on how the equipment (cart washer is used) and understand that temperatures could be different for the various cycles selected. The pass and fail concerning temperature is different for the various cycles. The range of temperatures is usually between 120° - 180°F depending on the cycle selected. So passing and failing a temperature is dependent on the cycle selected and staff needs to know the correct temperature for each cycle selected.

Testing the temperature of any type of cart washer is easy using the CartWashCheck™. These convenient test strips can be quickly and easily adhered to any surface with the peel off adhesive. Place these test on surfaces which are furthest from the medical cart washer jets or in area where you suspect coverage is most difficult. The special hydrochromic ink will change color only if moistened by water (black to white). This demonstrates that water is reaching the area tested and indicates proper mechanical action by the medical cart washer. Further, to ensure that your washer is achieving your target temperature setting, the CartWashCheck™ also includes an irreversible thermometer. The thermochromatic (heat sensitive) indicator above the hydrophilic ink will register temperature levels of 120°F, 150°F, and 180°F, documenting the temperature reached during the cycle.

The use of the CartWashCheck™ is an excellent tool to use for training of new employees as well as establishing a Quality Improvement Program. It can be used for checking whether the medical cart washer is working properly and the staff is loading items to be cleaned into the washer correctly. The frequency of testing/ monitoring is at least weekly preferably daily.

PROCEDURE:

1. The CartWashCheck™ is a test designed to challenge the mechanical efficiency of the medical cart washer. These convenient test strips can be quickly and easily adhered to any metal surface with the peel off adhesive that leaves no residue.
2. **Note an inactive strip is black/dark blue in color before being exposed to any mechanical cart washing process.**
3. **The frequency of testing of at least weekly and after any maintenance on the equipment is the suggested time frame.**
4. Peel the back of the CartWashCheck™ strip and remove the protective layer to expose the adhesive (sticky side) of the CartWashCheck™ strip.
5. Place at least one CartWashCheck™ test strip on the surface being tested which is the furthest from the medical cart washer jets or in areas where you suspect coverage is most difficult (you can place more than one CartWashCheck strip in other locations if desired). See Figure 1
6. Follow manufactures instructions for proper loading of the item tested (cleaned) into the medical cart washer. Follow those instructions.

7. Operate (select) the proper cycle for the item being (cleaned) tests (example cart program). Follow manufactures instructions.
8. After the cycle follow manufactures instructions for proper unloading of the item cleaned in the medical cart washer (surface may be hot; be careful). Read the CartWashCheck™ test strip and document all results. You are looking for color change from black/dark blue to white and then read the temperature on the irreversible temperature gauge. The thermochromatic (heat sensitive) indicator above the hydrophilic ink will register temperature levels of 120°F, 150°F, and 180°F, documenting the temperature reached during the cycle.
9. Remember that an inactive CartWashCheck™ strip is black/dark blue in color before being exposed to any medical cart washing process and no temperature recorded.
10. The special hydrochromic ink will change color only if moistened by water (from black/dark blue to white). This demonstrates that water is reaching the area tested and can indicate proper mechanical action by the water.
11. The CartWashCheck™ reports the temperature level reached during the cycle
12. A properly exposed CartWashCheck™ will turn white and record a temperature of at least 120°F (black bar line).
13. A white only color test strip shows only exposure to water in that area tested and no exposure to temperatures above 120°F.
14. After reading and documenting the results you can peel off the CartWashCheck™ test strip and dispose of in your trash .There is no hazardous material on the CartWashCheck™ test strip.
15. If proper temperature or proper water exposure are not achieved please bring results to the attention of the proper person in the department for action.

Maintenance on Equipment:

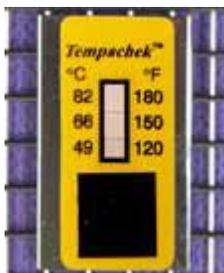
- Staff should perform all maintenance outline in the manufacture manual such as cleaning screens, checking water jets on the schedule provided by the manufacture to help ensure a properly performing medical cart washer
- Staff should record all observations such as: condition of the inside of the chamber(biofilm build up, other observations.....)
- After any maintenance on the equipment, perform a test using CartWashCheck™ to ensure that the equipment is at the minimum temperature (120°F) and water is reaching difficult hard to reach areas of the medical cart washer.
- Follow the weekly test process.
- Have the maintenance person wait until the test results are complete before leaving.

RESPONSIBILITY:

Central Service personnel are responsible for the proper use, result interpretation, and documentation of the CartWashCheck™ test strip on the medical cart washer

***NOTE : Transportation and Storage Conditions:
Keep Below 100°F & Avoid Exposure to Moisture.***

The CartWashCheck™ is the first test designed to challenge the mechanical efficiency of the cart washer. These convenient tests can be quickly and easily adhered to any metal surface with the peel off adhesive that leaves no residue.



Unexposed CartWashCheck™

Figure 1



Place these tests on surfaces which are furthest from the washer jets or in areas where you suspect coverage are most difficult. The special hydrophilic ink will change color (from black to white) only if moistened by water. This demonstrates that water is reaching the area tested and indicates proper mechanical action by the washer. *White Means Water Reached the Test*



To ensure that your washer is achieving your target temperature setting, the CartWashCheck also includes an irreversible thermometer. The thermochromatic (heat sensitive) indicator above the hydrophilic ink will register temperature levels of 120°F, 150°F, and 180°F, documenting the temperature reached during the cycle. *The Temperature Gauge Means the Surface Reached at Least the Corresponding Temp.*

Medical Automatic Cart Washer (MACW) Quality Improvement Program

Manufacture: _____ Model/Make: _____

Daily Inspection; should be done at least once a day; preferably each shift.

Note: When entering the MACW make sure power is off and all safety features are activated.

1. Look at various debris screen (different models have different locations and may have more than one) are they clear of debris. Yes No
2. If the MACW has water jets are they clean of debris (clogged). Yes No
3. If MACW has moving spray arms are they present and turning? Yes No NA
4. Is their staining / scaling on the inside chamber walls. Yes No
5. Is their sufficient level of cleaning solution in container? Yes No
6. Are all the door seal/ gaskets intact? Yes No

Comments / Action taken:

Weekly Testing using the CartWashCheck™ and Inspection: Should be done same time each week.

Cycle selection to test: _____

Note: Perform all daily inspection duties plus.

Minimum temperature checked by independent means and temperature is recorded.

A Mechanical function test of spray jets and arms has been performed. Pass Fail
If the Cart Washer has an instrument cycle it must be tested with a TOSI on each level and the results recorded.

Comments / Action taken:

Note: Work with the manufacture of the MACW in your department to make a detail list of activities that need to be monitored and performed on a: daily, weekly, monthly, quarterly and yearly time frame by the SPD staff. Keep this QIP log in a record book for review.

CartWashCheck™ Test Log

Footnotes

1. *ANSI/AAMI ST 79 – 2009A*
2. <http://www.jointcommission.org>
3. 3/ 2009 ; *Managing Infection Control*; Kovach, *Understanding Your Cart Washer*
4. Publication ID # M2044.000808.RevA @2000 by STERIS Corporation
5. <http://midbrookmedical.com/Washers.html>