

WASHER-DISINFECTOR TEMPERATURE CURVE STABILITY ASSESSMENT POST PERFORMANCE QUALIFICATION

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Introduction

Disinfection is the microorganisms, in a vegetative form, destruction process in semi-critical and non-critical medical devices and inert surfaces, by applying chemical or physical agents. ISO 15883 requires Washer-Disinfectors qualified thermally at least annually. Faced with this requirement, the question is asked: Is the annual qualification enough? Therefore, the aim of this study was to monitor the temperature curve of thermal disinfection during one year in a Washer-Disinfector validated using chemical indicators to monitor the cycle temperature.

Method

This is a field research with quantitative approach performed at Hospital São Paulo, Brazil in August / 2013 to May / 2014. Each month two cycles were performed following the same load pattern, using chemical indicators for thermal disinfection with changes the color in 160°F (71°C), 170°F (77°C), 180°F (82°C), e 190°F (88°C), at each rack shelf to assess different load points, the September / 2013 and May / 2014 cycle we also used wireless thermocouples.

Results

Evaluating the results of thermocouples is noticed that in September the first cycle showed a difference of 1.26 °C in the second cycle showed a difference of 0.89 °C. In May, the first cycle showed a difference of 2.27 °C in the second cycle showed a difference of 1.38 °C. Thus, it appears that in the first cycle performed in May, there was an increase of 0.27 °C more than the allowable value. This difference has a small error, which may be caused by the data acquisition system not the equipment or an equipment calibration lack after maintenance. Chemical indicators showed satisfactory results, with color change at all temperatures.



Conclusion

This investigation has concluded that the equipment did not show variations in their temperature parameters in the course of a year that would compromise the efficiency of thermal disinfection in accordance with ISO 15883.