ANDERSEN STERILIZERS

Laptop Study

Summary:

Modern medical devices include increasingly sophisticated and delicate components. This test is designed to evaluate the effect of an EOGas and Anprolene sterilization cycle on the functionality of a laptop computer. An abnormally high quantity of gas was used for each cycle to create a worst case. Back to back Anprolene and EOGas cycles were preformed on the same laptop. NOTE: Battery was removed and wrapped separately prior to each cycle.

Materials:

1. Dell Inspiron Laptop Model: PP05L
2. AN74i Sterilizer
3. EOGas 333 Sterilizer
4. AN71 Bag
5. 2 AN79 Ampoules
6. Biological Indicators
7. AN87/1087 Dosimeters
8. AN1005 Bag
9. 2 AN1005 Cartridges
10. CSR Wrap
11. Humidichip
12. Humiditube

Method:

Anprolene Cycle

1. The battery from the Dell computer was removed and wrapped in CSR wrap.
2. The laptop, wrapped battery, AN87 Dosimeter, Biological Indicator, Humidichip within a Humiditube and two (2) AN79 Ampoules were placed within an AN71 Bag. NOTE: The AN71 bag is normally used with a 5 gram ampoule of EO. Two AN79 ampoules represent 35 grams of EO, or 700% more gas than a normal cycle.
3. The bag was loaded into an AN74i Sterilizer and a 12 hour sterilization cycle was completed.
4. Upon completion of the sterilization cycle the biological indicator was incubated for seven (7) days and the computer was tested for functionality.

EOGas Cycle

1. The battery from the Dell computer was removed and wrapped in CSR wrap.
2. The laptop, wrapped battery, AN1087 Dosimeter, Biological Indicator, Humidichip within a Humiditube and two (2) AN1005 Cartridges were placed within an AN1005 Bag. NOTE: The AN1005 bag is normally used with a single 1005 (4 gram) cartridge of EO. Two AN1005 cartridges represent 8 grams of EO, or 200% more gas than a normal cycle.
3. The bag was loaded into an EOGas 333 Sterilizer and a 16 hour sterilization cycle was completed.
4. Upon completion of the sterilization cycle the biological indicator was incubated for seven (7) days and the computer was tested for functionality.

Data:

Table 1. Dosimeter Results.

Cycle	Pass (Y/N)
Anprolene	Y
EOGas	Y

Table 2. Biological Indicator Results After Seven (7) Days.

Cycle	Pos/Neg
Anprolene	Neg
EOGas	Neg

Table 3. Functionality of Computer.

Cycle	Pass (Y/N)
Anprolene	Y
EOGas	Y

Conclusion:

Andersen study, PR0804-17: full diagnostics and functionality testing at the conclusion of each sterilization cycle indicated that the laptop's performance had not been impaired.