



Sanford Health-UV Flash Testing

October/November 2013

Conducted By: Amanda Simonsen

Procedure:

A variety of items was selected for testing in the UV Flash. Each item was handled numerous times, dropped on the floor, and left sitting out in the open in an attempt to simulate everyday use. A surface sample was taken of each item and used to inoculate a Tryptic Soy Agar (TSA) Plate prior to being run through a cycle in the UV Flash. After the items were put into the UV Flash for a cycle, another surface sample was taken and used to inoculate a TSA plate. All of the plates were then incubated at 35°C. After 48 hours the plates were removed from the incubator and the “before” and “after” samples were inspected and the Colony Forming units (CFU) were counted.

The first test was run using a 60 cycle in the UV Flash. Another smaller test was then run using a 120 second cycle. The difference in CFUs between the “before sample” plates and the “after sample” plates were observed and percent kills were recorded for every item tested.

Results:

60 Second Cycle

| Plate Number | Item | Percent Kill |
|--------------|-------------------------|--------------|
| 1 | Ansell Gloves | 97% |
| 2 | Surgical Gown | 96% |
| 3 | Micro EZ Safety Kit | 100% |
| 4 | Ultrasound Gel | 88% |
| 5 | MediChoice Hemostat | 97% |
| 6 | Tegaderm Film | 100% |
| 7 | 3M Micropore | 98% |
| 8 | Sodium Chloride | 100% |
| 9 | BBL Culture Swab | 100% |
| 10 | BD Insyte Autoguard | 95% |
| 11 | ChloroPrep | 100% |
| 12 | Steri Plastic Container | 100% |

Average Reduction = 98%

120 Second Cycle

| Plate Number | Item | Percent Kill |
|--------------|----------------------------|--------------|
| 1 | Microfoam Tape | 98% |
| 2 | Central Venous Kit | 100% |
| 3 | Preoperative Prep Tray | 94% |
| 4 | Blue Tissue Pad | 100% |
| 5 | Heparin Lock Flush Syringe | 100% |

Average Reduction = 98%

Notes:

Both time cycles tested yielded average reductions of 98%, and 50% of the plates tested had 100% kills.

It is important to keep in mind that the UV Flash will only disinfect surfaces that the light touches. If there is any dirt or other particulate matter on the surface, it will not allow the UV light to disinfect that spot.