Decontamination of *Fusarium oxysporon* from a Central Line Needleless Access Device using a 70% Isopropyl Alcohol Impregnated Port Protector

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**CLINICAL SCENARIO**

5 yo male, day +57 s/p stem cell transplant with central line in place developed fever. Blood culture was positive for *Fusarium oxysporon*. Our hospital had just transitioned from a "scrub the hub" protocol to alcohol impregnated port protectors for central line disinfection. Concern arose whether the port protectors could achieve decontamination of *Fusarium oxysporon*.

**BACKGROUND**

*Fusarium species = pervasive environmental fungi

*Cause central line associated bloodstream infection (CLABSI) in immunocompromised patients

*Up to 75% mortality rate.

*Many hospitals utilize 70% isopropyl alcohol impregnated port protectors over needleless access devices (NADs) to reduce CLABSIs

*Port protectors achieve ≥4-log reduction in colony-forming units (CFU’s) of *S. aureus*, *S. epidermidis*, E. coli, C. albicans, P. aeruginosa & C. glabrata.

*The effect against *F. oxysporon* has not been reported.

**OBJECTIVE**

Determine whether the 70% isopropyl alcohol impregnated port protector can achieve a ≥4-log reduction in CFU’s of *Fusarium oxysporon* from the surface of needleless access devices

**METHOD #1**

Organism preparation: *F. oxysporon* grown on Sabouraud Dextrose (Sab Dex) agar.

Contamination: Surface of 20 NAD’s touched to a dense lawn of *F. oxysporon*.

Decontamination: Half of the NAD’s were decontaminated with a port protector for one minute; the other half had no decontamination step (along with positive/negative controls):

Growth: NAD’s circumferentially touched around a fresh Sab Dex agar plate, growth observed for 7 days.

Results: At seven days, plates exposed to non-decontaminated NAD’s had abundant growth, while decontaminated NAD’s had no growth:

**CONCLUSIONS**

Use of two different methods demonstrates that a 70% isopropyl alcohol impregnated port protector achieves decontamination of *F. oxysporon* from the surface of needleless access devices.

**REFERENCES/CONFLICT OF INTEREST**


*https://www.agric-rex.gov.aq/cropinfo/fusarium-dry-rot-potatoes


The authors declare there are no conflicts of interest regarding this poster presentation.