INTRODUCTION:
The registration of Medicare’s Merit-based Incentive Payment System (MIPS) has heightened the value of products that increase patient safety. Healthcare-associated infections (HAIs) continue to be one of the most common and significant complications associated with hospitalization across the globe. HAIs have an enormous ability to survive and ultimately affect the patient’s health. The differential to infection control as a consequence of intervention is continuous and compares favorably with other methods. The potential to transfer microbial contaminants is not only from patient to patient but also among themselves and in the environment. Hand washing, cleaning, and disinfecting surfaces within the built environment are critical to mitigating transmission of infection.

Persistence of Bacteria on Dry Surfaces

- 24 months
- 50% of the items are cleaned properly at the time of cleaning.
- 50% of the items that are not cleaned properly have bacteria on them.
- 10% of the items that are cleaned properly have bacteria on them.

Example Antimicrobial Copper Surfaces

- Hospital Room with Antimicrobial Copper
- Copper: 8.95 HAIs per 1000 patient days
- Copper-alloy items: 24.2 HAIs per 1000 patient days
- Rooms with copper items vs. control
- The HAI rate was significantly lower in rooms with copper items vs. control.

RESULTS AND LESSONS LEARNED

- The surface is estimated to be the source of up to 25% of HAIs.
- HAIs cost billions of dollars to treat.
- HAIs are the fourth leading cause of death in the United States.
- HAIs are estimated to cost up to 25% of the nation’s healthcare dollar.

ACKNOWLEDGMENTS

This work was described here was supported by the US Army Medical Research and Material Command under Contract No. W911QX-14-C-0003. The views, opinions, and/or findings presented herein are those of the author(s) and did not necessarily reflect the official views of the US Army and the Department of Defense.