

FP05 HOW CLEAN IS OUR WORK ENVIRONMENT?

Teo Aik Howe¹, Muhammad Naeem Bin Ali¹

¹*Emergency Department Hospital Pulau Pinang*

INTRODUCTION

Nosocomial infections remain a major cause of in-hospital morbidity and mortality. Commonly identified sources of infection include presence of in-dwelling catheters, lapses in infection control practices and respiratory droplet spread. Another method of spread of microorganisms is through contact with contaminated surfaces. This is especially pertinent in busy emergency departments where many people come into contact with multiple surfaces including clinical areas eg: work surfaces, trolley tops and non-clinical surfaces eg: door knob, standard phone and table tops. We look at how clean are our common contact surfaces, whether standard cleaning techniques are effective in decontamination, and what may be the recommended schedule of cleaning to prevent contact surfaces being a potential source of nosocomial infections.

MATERIALS AND METHODS

We conducted a swab-testing of common surfaces in each zones of our emergency department including clinical and non-clinical surfaces. The surfaces studied were then wiped with standard Clinell wipes according to standard cleaning protocols. After 10 minutes a repeat swab was taken off the study surfaces and analysed. Following this, each swab was cultured using 3M Petrifilm and a bacterial colony count was analyzed after 48 hours. A simple comparative analysis of the bacterial colony count was performed between pre and post cleaning procedure. In an identified contact surface with a high bacterial colony count, a second phase of the study was conducted where repeat swabs were taken at 6 and 12-hourly intervals to identify the time interval for significant recontamination to occur. This would suggest a cleaning schedule for such

contact surfaces in the Emergency Department.

RESULTS

A swab testing of common surfaces in each zones of our emergency department has revealed that most contact surfaces have a high prevalence of pre-procedure bacterial count. Upon cleaning those surfaces with our standard cleaning protocols using Clinell wipes, there is a notable difference in percentage decrease pre and post procedure. In which, the bacterial count has significantly decrease after the cleaning procedure. Recontamination of contact surfaces occurred at an earlier than expected interval. This would suggest a cleaning schedule that is more intensive than is currently performed.

CONCLUSION

Contact surfaces in the ED is a potential source of contact spread nosocomial infections. Both clinical surfaces which are regularly cleaned, and non-clinical surfaces which are not, show a degree of contamination which is worrying. A scheduled cleaning of both clinical and non-clinical surfaces are needed