Environmental Decontamination Programme: Reduction of Multi Drug Resistant Organisms (MDROs) Infection in Psychiatric Wards
Lui SF(1), Ng TW(1), Cheung HY(1), Yvette Lai(2), Wong YC(2), Yip PN(2), Tsen OW(2)

(1) Department of Psychiatry, (2) Infection Control Team, Pamela Youde Nethersole Eastern Hospital

Keywords:
Nosocomial infection
Environmental decontamination technique
Infection control
Multifaceted training strategies
Multi-drug resistant organism (MDROs)
Conjoint program

Introduction
Nosocomial infections (NIs) are growing concern in Hong Kong and are viewed as a paradox. People admit to hospitals in order to get well, yet many of them become ill from hospital-acquired infections. Not surprisingly, chronic mental illness clients are more likely to possess self-care deficit and poor hand hygiene. With the contaminated environment, it is likely to facilitate the transmission of Multi Drug Resistant Organism (MDROs). One of the best ways to reduce MDROs infection is to implement environmental decontamination. The skills and knowledge of healthcare workers would affect the effectiveness of environmental decontamination. Thus, a close collaboration between the Infection Control Team and healthcare staff in Department of Psychiatry is crucial. The conjoint program in Environmental Decontamination was implemented.

Objectives
1. To enhance the awareness of environmental decontamination techniques
2. To equip staff with the skills in proper environmental decontamination
3. To maintain the cleaning efficacy among supporting staff
4. To decrease hospital-acquired infections in Department of Psychiatry

Methodology
This program was conducted in Department of Psychiatry for 6 months with 15 identical sessions. Multifaceted training strategies including lectures, skill-based workshops and scenario based simulations, demonstrations and debriefing were applied. All frontline staff including nurses and supporting staff from Department of Psychiatry were recruited for this program. For training content, it was divided into 4 parts. Firstly, theoretical inputs on Environmental Decontamination principles.
Secondly, individual return demonstration by using florescent assessment paint to assess the cleaning efficacy and identify commonly missed areas for improvement. Thirdly, Environmental Decontamination Technique assessment conducted in groups. Lastly, questionnaires with 10 polar questions about infection control knowledge were conducted pre and post lectures.

**Result**

A total of 117 supporting staff and 68 Psychiatric nurses participated in this program and shown statistically significant results:

1. Improvement in applying Environmental Decontamination Techniques (from 80.4% to 92.0%).
2. Knowledge sufficiently acquired post lecture on Infection Control Techniques (from 86.8% to 93.8%).

This program utilises multi-faceted training strategies to equip staff with the knowledge and confidence in applying infection control measures in Department of Psychiatry. It further decreases the outbreak of nosocomial infections. Yet, noted that some staff is not available to attend the classes which are due to ward manpower concern. Besides, there is a concern for consolidation of Environmental Decontamination Technique among staff. To achieve these, we are proposed to organize supplementary classes in the future and hence this program is worthy to implement in Department of Psychiatry.