Creativity and problem solving skills in controlling MRSA transmission in an open structured ICU

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Introduction
Methicillin-resistant staphylococcus aureus (MRSA) is prevalent in many hospitals, but its most serious clinical manifestations, such as bloodstream infection and ventilator-associated pneumonia, are seen in the intensive care unit (ICU). It is also a major health-associated infection in which health care professionals play an important venue for transmission. PMH ICU has an open structured environment. There is limited partition between beds. Prevention of nosocomial infection has become a great challenge to health care profession. Use of problem solving skills in tackling MRSA needs creative mind and efficient response. Besides traditional methods, all staff were invited to suggest possible initiatives to combat MRSA transmission.

Objectives
1. Decrease the rate of acquired MRSA by 10%
2. Increase awareness on all patient's MRSA status
3. Increase the competencies and awareness of hand hygiene practice once entering ICU
4. Increase the competencies of environmental cleansing practice

Methodology
Interventional study with pre-intervention and post-intervention measurements. Strategies include:
1. Active surveillance for every ICU admission. A signate with "Pending MRSA" is used to alert all staff while waiting for the result.
2. Increase staff awareness by means of visual and audio alerts.
3. Designated equipment for known cases.
4. Hand hygiene promotion.
5. Chlorhexidine bath for all ICU patients.
6. Periodic audits which include behind screen hand hygiene audit for all staff (including internal and external health care workers) and behind screen environmental cleansing audit.

Result
Rate of cumulative MRSA infection was decreased more than 20% during the period July 2011 to July 2012.