Set up an outstanding Medical Equipment Management System (MEMS) in isolation ward – starting from zero

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Introduction
In 2003 after SARS, United Christian Hospital converted two general medical wards to isolation wards for preparation of major Infectious Diseases (ID) outbreaks in Hong Kong. In complying with Infection Control (IC) principle, designated sets of medical equipment (ME) such as physiological monitor, infusion device and tympanic thermometers should be provided for isolated patients. Therefore, a large amount of ME should be maintained in good conditions for Major ID outbreaks any time.

Objectives
ME Management System (MEMS) is set up with continuous quality improvement elements. With MEMS, the aim is to: 1 maintain MEs in good conditions for preparation of major ID outbreaks. 2 set up a system to ensure each deployed staff to isolation wards be familiar with the ward practice when using MEs. 3 ensure no cross-contaminations between patients via MEs.

Methodology
1 One Nurse, One ME Each nurse in isolation ward is assigned as the in-charge of a ME. He/she is responsible to produce a quick reference for the ME. The nurse is also asked to provide training of the designated ME to other staff. 2 Ward ME Coordinator A nurse is assigned as the ward ME Coordinator. An area is set for placing and charging of MEs. The coordinator has to set up a routine for charging to prolong the battery life of MEs according to user manuals and ward operations. He is also responsible to coordinate the usage of MEs and ME trainings for staff. 3 Set up Terminal Disinfection guidelines for MEs Regulations of terminal disinfection of MEs are designed according to IC Guidelines and advice of Infection Control Link Nurse. Regular audits and supervisions of the terminal disinfection process by Health Care Assistants are also performed to maintain the standard. 4 Standard Operating Procedure (SOP) in Isolation Ward Standard Operating Procedure (SOP) is developed to state the importance of proper use of MEs in Isolation Ward. The deployed staff should be complied with the SOP when working in isolation wards during major ID outbreaks, aiming to ensure no cross-contamination between patients via MEs. Duty in-charge of isolation ward would act as a site supervisor to monitor IC
Result
MEs are well maintained since 2003. Positive feedback is received from deployed staff including clear instructions and neatness of MEs. The MEMS can facilitate the clinical workflow, at the same time, maintaining IC measures in isolation wards.