Development and implementation of Accident & Emergency Department Isolation Rooms Management System (AIRMS) to enhance the management of patients requiring airborne infection isolation in United Christian Hospital: Users' satisfaction survey

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Introduction
Isolation is an important measure in transmission-based infection control practice and remains a challenge in Accident & Emergency Departments. It requires effective team communication and judicious use of isolation facilities. Currently, Airborne Infection Isolation Rooms (AIIR) are located in different areas of the department. Also, communication and coordination of care rely on nurses to do it manually. It results in inefficient workflow, variation in care delivery and poses potential infectious risks to patients and staff.

The AIRMS is purpose-built computer software to enhance communication and coordination of care to patients requiring airborne infection precaution. This is a joint development with Information Technology Department, UCH. The basic features include a real-time monitoring of the utilization of AIIR, a step-by-step reminder to guide users in care delivery process and a friendly interface which allows easy access at the point of care. It is newly introduced in 2017/2018 and users' feedback is pertinent to system enhancement in future.

Objectives
(1) To evaluate nurses satisfaction regarding the use of AIRMS; (2) To identify areas for system enhancement

Methodology
A survey was conducted between 20/1–28/1/2018 to all A&E nurses. A questionnaire consisted of 2 parts, including 1.) 17 items on a 5-point Likert scale which explore users' satisfaction, system features and impact to their practice; 2.) Open-ended questions to identify areas for system enhancement

Result
Total 53 questionnaires were returned. Majority of the nurses satisfied with the AIRMS, especially in improving team communication. Over 80% of the nurses think the response time from the system is acceptable and it is easily integrated with the current workflow. Further enhancement should target on simplifying the log-in procedure and its integration with Clinical Management System.