Enhancing quality of data through automated SARS contact tracing method using RFID technology

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Abstract: Severe Acute Respiratory Syndrome (SARS) contact tracing is one of the most important measures in containing the spread of SARS outbreak. Consequently, the success of the exercise depends highly on the quality of data collected. Thus, two current methods of SARS contact tracing: manual method and automated method using Radio Frequency Identification (RFID) technology, are assessed for their data quality. The findings suggest that automated SARS contact tracing possesses higher quality of data than manual SARS contact tracing. As a result, countries that are planning for SARS and other types of epidemic and pandemic outbreaks should consider the use of ICT, especially RFID in controlling the spread of the disease.

Keywords: Severe Acute Respiratory Syndrome; SARS; contact tracing; data quality; Radio Frequency Identification; RFID; Health Protection Unit; HPU.

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1 Introduction

SARS outbreak management and contact tracing

SARS was first reported to spread as an atypical strain of pneumonia in the Guangdong province of China in February 2003. Initially, the disease spread to those who live or work near poultry, especially chickens, which had first contracted flu. Later, the virus changed into a form that could be transmitted from human to human. It became a global epidemic...