

# ADRs and smart health cards

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## Abstract

The commentary by Paula Rochon and colleagues<sup>1</sup> highlights the importance of information technology in drug safety. In recent years medication error has received considerable attention, because it causes substantial mortality and morbidity and leads to additional health care costs. This source of preventable harm to hospital patients represents an area where information technology will have a positive impact.

The use of computerized physician order entry and online alerts to reduce medication errors are common elements of medication safety policy. We have implemented an automated alert system for drug–drug interactions in Taipei Municipal Wanfang Hospital (which is managed by Taipei Medical University). This system alerts the clinician in real time if a drug–drug interaction is detected for prescriptions given at our hospital. However, it is common for patients to be taking drugs from different hospitals or clinics at the same time. Now, our system is able to detect drug–drug interactions for prescriptions from different hospitals by checking the electronic prescription records on the patient's National Health Insurance (NHI) integrated circuit (IC) card. These cards have been in use since July 2003 and have fully replaced paper cards since January 2004. Hospitals must be able to use and support the IC cards to provide medical services for insured patients.

Four types of information are stored on the NHI IC card: personal information, NHI-related information, medical service information (e.g., drug allergies, long-term care prescriptions, ambulatory care prescriptions, and certain medical treatments) and public health information (including personal immunization records and willingness to donate organs). The electronic prescription records on the NHI IC card are a valuable way to detect drug–drug interactions between prescriptions from different hospitals.