



Media release

Is routinely collected electronic medical information fit for purpose?

A study of electronic data generated from over 33,000 emergency department attendances has raised concerns about the “fitness for purpose” of the information for care and planning, information sharing, research and quality assurance.

Professor Siaw-Teng Liaw, from the School of Public Health and Community Medicine at the University of New South Wales, with colleagues from the Centre for Primary Health Care and Equity at the University of New South Wales and the General Practice Unit of the South West Sydney Local Health District, examined the accuracy of the diagnoses of some chronic diseases in an emergency department information system (EDIS), a module of the NSW Health electronic medical record (EMR), and the consistency of the reports generated by the EMR.

The research is published as an Early View paper in *Emergency Medicine Australasia*, the journal of the Australasian College for Emergency Medicine.

“Little has been reported about the completeness and accuracy of data in existing Australian clinical information systems,” the researchers said.

Of the 33,115 emergency department attendees, 2,559 had diabetes mellitus, cardiovascular disease, or asthma/chronic obstructive pulmonary disease.

Of these 2559, 876 were admitted.

The researchers found that discharge summaries were missing for 12-15% of patients.

Only three-quarters of the diagnoses were confirmed by the discharge summary audit.

Agreement between the lists generated from the EDIS and EMR was best for diabetes and worst for asthma/chronic obstructive pulmonary disease.

Possible reasons for this discrepancy are either technical, such as use of different extraction terms or system inconsistency, or clinical, such as data entry, decision-making, professional behaviour, and organisational performance.

“This study highlights what we already know – we are only as good as the information we have,” the researchers said.

“The various purposes designated for the EMR as part of health reform are unrealistic if we cannot rely on data quality and consistency of our information systems.”

The researchers recommend further examination of the large repositories of routinely collected data to determine the fitness for purpose, which may be to share good quality information among clinicians or to support electronic decision support systems.

“A logical next step is to repeat this study with a representative sample of EDs and include a qualitative study of clinicians and information managers to understand the underlying reasons for any variations in data quality.”

FURTHER INFORMATION:

Professor Siaw-Teng Liaw

Phone 02 96168520, mobile 0407 818 281

Issued for the Australasian College for Emergency Medicine (03 9320 0444) by Marilyn Bitomsky, phone 07 3371 3057 or 0412 884 114