

Where informatics has been
proven to improve the quality of
care in hospitals

Professor Johanna Westbrook

Health Informatics Research & Evaluation Unit

University of Sydney



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Evidence of Impact on Quality & Safety 1997-2007

414 publications

(67 systematic reviews & 284 randomised controlled
and controlled clinical trials)



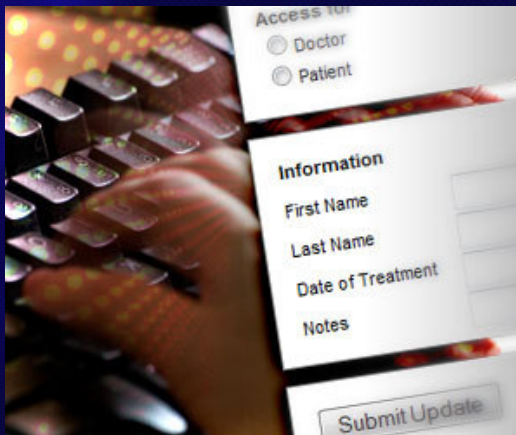
Health information exchange & interoperability

- sharing information to improve continuity of care

Conclusions:

*“[evidence] at present **weak** in relation to this improving organisational efficiency, practitioner performance or indeed any clinical patient outcomes.”*





Electronic health records

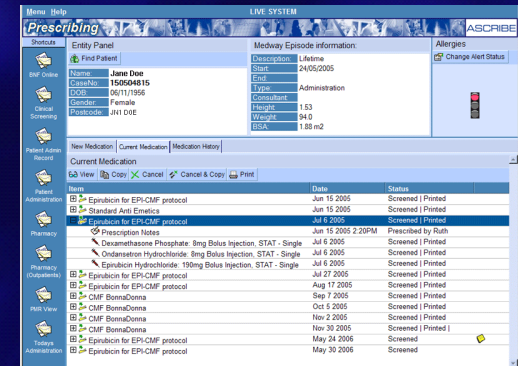
- improve legibility, comprehensive data collection, sharing information across geographic boundaries, incorporate support tools

Conclusions:

“empirically demonstrated benefits ... are currently limited to improved legibility, time savings for some professionals (nurses), and the facilitation of higher order functions such as audit, secondary analysis of routine data and performance management.”



Computerised decision support systems



- improved access to relevant clinical information for healthcare professionals, at the point of care

Conclusions:

“very little consistent and generalisable evidence exists on their ability to improve practitioner performance and patient outcomes; evidence is often limited to particular conditions (eg diabetes and hypertension) or an aspect of clinical care (eg preventative care).”



ePrescribing

- Reduced prescribing errors and ?
Administration errors



Conclusions:

“moderate evidence that practitioner performance is improved through better access to these guidelines. Patient outcomes are however less well studied and when assessed, most studies have not been able to demonstrate a clinical benefit.”



**In essence, we have limited
evidence which proves that
informatics has improved
hospital care**

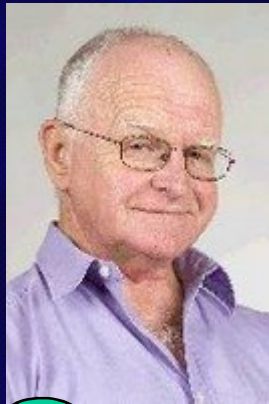




Online
evidence



Good
question!
Where's the
evidence?



Imaging



Patient
administratio
n systems

Lab
systems



**Where has informatics made
the greatest improvements in
care in Australian hospitals?**



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- Rates of searching by hospital.
- Survey of 5100 - majority of clinicians reported using evidence searches to support care.
- Evidence searches in hospital correlated with patient admissions – searching was related to patient care.
- Critical incident study - clinicians provided case studies of improved care & outcomes



Research

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● Use of the online evidence system was associated with a significant 21% improvement in the accuracy of answers by clinicians to typical clinical problems.

● Nurses matched doctors' performance.



**Good evidence that online
evidence systems in
Australian hospitals have
improved care**



Future – Reasons to invest

- Absence of evidence versus absence of effect
- Need to invest in the measurement, development of techniques, & personnel – engaging Q & S sector

