INTERNET USE IN NSW EMERGENCY DEPARTMENTS

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INTRODUCTION

The principles of evidence based medicine (EBM) dictate the implementation of the most current evidence for clinical care. Clinicians have cognitive limitations therefore easy access to resources is critical in practicing EBM. These resources are increasingly, and often, exclusively, found online. Access to online resources and the Internet has been identified by emergency clinicians as a major issue in NSW Emergency Departments (EDs) with consistent feedback that lack of access impedes clinicians' ability to deliver quality care. Internet technology is rapidly evolving and systematic research into clinical impact is scarce.

Without further study we cannot causally assume improved patient outcomes will result from open Internet access. However Internet resources can contribute to addressing clinicians' cognitive gaps, help clinicians deal with information overload, increase the breadth and strength of Communities of Practice and encourage situational Continuing Medical Education, each contributing to the successful implementation of EBM into emergency care.

METHOD

To investigate the use of the Internet in EDs the ECI undertook an Internet-based survey of ED staff. The survey was emailed to the ECI's network of 920 contacts representing over 150 departments or hospitals, professional and other organisations. The survey was also distributed through social media, displayed on the ECI website, and posted on the ECI Facebook and Twitter accounts.

A constraint identified with the survey methodology was that staff in EDs may not have access to the Internet and so would not be able to complete the Internet-based survey. As a result, to mitigate potential bias in favour of satisfaction with current Internet accessibility, an option was provided to allow respondents to complete a hard copy version of the survey that could be emailed or faxed to the ECI. Around 7% of respondents choose to use the hard-copy approach. This will not totally account for potential bias, given the ease of Internet completion compared with the hard-copy approach, and therefore, the survey results should be interpreted with caution and may significantly over-estimate ED staff satisfaction with and access to the Internet.

A more robust methodology to capture emergency care stakeholder views may have been to conduct site interviews in person or by telephone, however, there are shortcomings with both these methods, and additionally, the cost and practicality of contacting or visiting more than 180 emergency services in NSW was beyond the resources available. The current design of the methodology is a pragmatic approach, and the findings echo substantial previous stakeholder feedback.
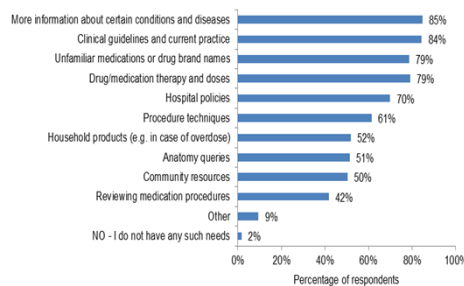
OBJECTIVE

The objective of this study was to better understand the use of, demand for, and accessibility and barriers to the Internet in NSW Emergency Departments.
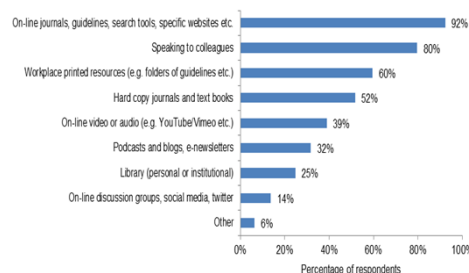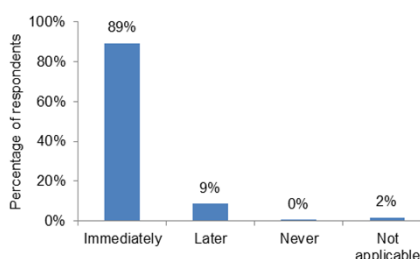
Level of Internet access available at work
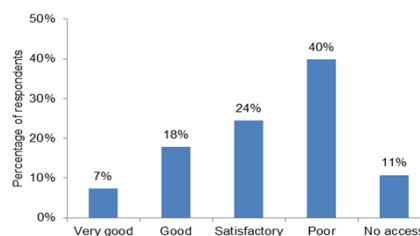
Information needs faced by clinicians during their working day

Resources used for answering clinical questions

Immediacy of seeking answers to clinical questions

RESULTS

1. Respondents reported a wide range of "clinical questions, research needs and areas of uncertainty" that they faced during their working day. These included:

- More information about certain conditions and diseases – 85%
- Clinical guidelines and current practice – 84%
- Unfamiliar medications or drug brand names – 79%
- Procedure techniques – 61%
- Household products (e.g. in case of overdose) – 52%

2. Respondents reported that their level of Internet access available at work was poor or that they had no access (51%)

3. Respondents were most likely to seek answers to clinical questions "immediately" – 89%

4. Using employer-provided IT resources staff accessed the Internet in a variety of locations. Almost half (48%) of staff reported that they shared a computer.

5. The main barrier to Internet access was firewalls / blocked sites (73%), but there were a number of other technical / resource factors including:

- Lack of computer / insufficient computers – 51%
- Slow computer / out-of-date technology – 51%
- Poor / no wireless access – 48%
- Volume of staff needing to use shared computers – 46%

6. Respondents (89%) felt that these barriers to Internet access affected their work.

CONCLUSION

Internet access should be regarded as an essential clinical tool in EDs, just as a stethoscope currently is. In 2013, Internet access in NSW EDs is variable and does not meet routine clinical needs to immediately access information for the delivery of quality patient care. Limitations are due to policy, equipment and resource constraints.

It is likely that preventable adverse events, with resulting serious consequences for patients, clinicians and the system occur in NSW EDs as a direct result of under-recognition of the role and responsibilities of the healthcare system and its custodians in providing a "safe environment" using systems-improvement tools, including readily accessible point of care Internet (i.e. at the point of clinical decision making).

Access restrictions on existing Internet services are bypassed by clinicians using personal devices. This not only undermines health service "control" of information used by clinicians in terms of the quality of content, but also potentially misses opportunities to implement guided decision making tools, and communicate with and engage clinicians in organisational priorities.

clinicians and consumers working together

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