

**Clinicians' experiences of the implementation of Electronic Medical Records for
Intensive Care in NSW**

Dr Sumati Ahuja, University of Technology Sydney, Business School

Sumati.Ahuja@uts.edu.au

Prof Deepak Bhonagiri, Liverpool hospital and SWSLHD

Dr Robin Butterfield, Liverpool Hospital

Abstract submitted for ANZICS

7 May 2023

Introduction

Electronic medical records (EMRs) are ubiquitous in healthcare with rapid adoption in critical care in the last decade. There is general consensus that EMRs improve the quality of healthcare [1]. ICU specific EMRs may have the potential to improve quality and coherence of the patient care process, to automate guidelines and care pathways, and to assist in clinical care and research, outcome management, and process improvement [2, 3]. This paper reports on a multi-site ethnographic field study of three public hospitals in NSW Australia implementing eRIC (electronic medical records for intensive care) in NSW.

Objectives

The objective of this study was to develop better understandings of clinicians and other healthcare professionals' experiences of the adoption of eRIC. A secondary objective was to identify clinician satisfaction (human) factors associated with adoption of eRIC and the impact of change in practices on clinicians.

Methods

This ethnographic study- a qualitative methodology widely used in social sciences research, gives us a powerful approach for understanding change processes, rooted in developing a deep understanding of interactions among components of complex socio-technical systems.

Data were collected before and during implementation of eRIC through field observations (approximately 4-6 hrs per week over an 8-week period). Observations were conducted during daily ward rounds as participants used eRIC and interacted with patients. The observations were supplemented by semi-structured interviews.

We relied on clinicians' prior experiences, decision points, and perspectives on their current practices. We inquired about their personal views of previous EMRs and the introduction of eRIC. The interview questions were meant to elicit open conversation about how the clinicians' identities and experiences shaped their micro-level decisions at work

Results

42 open ended interviews were conducted with clinicians in ICU including nurses, surgeons, and allied healthcare staff across all levels (including JMOs and junior nurses). The responses revealed that eRIC impacts all the workflows and care processes in the ICU and highlights the 'invisible work' that is required for technology adoption. Invisible work is the ongoing tension between patient care and patient recording which generates an emotional burden on the clinicians. Our responses indicate that a lack of interoperability and standardization of interfaces among EMRs hinders the collaborative model of care.

Conclusions

Our study uniquely captures ethnographic data related to electronic medical record implementation in ICU. We found that eRIC implementation was associated with invisible work affecting clinicians adversely. This has been observed in previous studies [5,6].

References

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