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Current practices in using standard clinical terminologies to record surgical procedures through electronic health information systems in state sector hospitals in Sri Lanka

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ABSTRACT

Introduction: In Sri Lanka, routine health information systems lack information on surgical procedures at the institutional, regional and national levels. Electronic Health Information (HIS) systems with standard clinical terminologies are expected to address this gap. Therefore, this research was conducted to study the current practices of using electronic information systems and standard clinical terminologies to record surgical procedures in state sector hospitals in Sri Lanka.

Methods: This exploratory study was conducted employing Hermeneutic Phenomenology as the research methodology. A maximum variation sampling method was employed to enrol 24 participants from seven tertiary care hospitals representing different stakeholder groups in recording and using surgical data. In-depth interviews were conducted with the consented participants to explore their lived experiences and interpretations in relation to the research objective. Interviews were audio-recorded and thematically analysed using the five-stage process proposed by Ritchie and Spencer.

Results: The main themes identified grounded in data include; the purpose of recording surgical procedures, current practices, and use of electronic information systems & clinical terminologies to record surgical procedures. Different categories of health care staff were involved in recording surgical procedure data. No uniformity or a standard was followed in the process of recording surgical data, the data elements or the clinical terminologies used in this process. Three electronic health information systems (Hospital Health Information Management System (HHIMS), Hospital Information Management System (HIMS) & Electronic Indoor Morbidity & Morality Return (eIMMR)) are widely adopted in the state health sector using either International Classification of Primary Care (ICPC-2) or International Classification of Diseases (ICD-10) as the main clinical terminology. A functioning theatre module is only available in one state hospital in the country. Moreover, private electronic databases are employed by many surgeons to record surgical procedures in addition to institutional electronic health information systems.

Conclusions: Current practices of recording surgical procedures reflect a wide variation in the use of data elements, the clinical terminologies, and the process of recording surgical procedures. No standard HIS is in place to capture data on surgical procedures. However, electronic databases are used by individual surgeons to record surgical procedures they perform. Such initiatives are not adequate to reap the benefits of digital health technologies.

Keywords: Electronic Health Information Systems, HIS, Terminology, Classifications, Surgical procedures