A feasibility study of constructing electronic nursing record with nursing clinical pathway

Angelica Te-Hui Hao\textsuperscript{a}, Chien-Yeh Hsu\textsuperscript{b}, Wen-Shan Jian\textsuperscript{c}, Chun-Kung Hsu\textsuperscript{b}, Hsiao-Hsien Rau\textsuperscript{b}, Her-Kung Chang\textsuperscript{*}

\textsuperscript{a}Dept of Business Administration, Chang Gung University  
\textsuperscript{b}: Graduate Institute of Medical Informatics for Taipei Medical University,  
\textsuperscript{c}: Institute of Public Health, National Yang Ming University,  
\textsuperscript{b} Dept of Information Management, Chang Gung University

\textsuperscript{*}Correspondent

Abstract

The purpose of this study is to analysis and to develop a well-defined electronic nursing record system integrated with nursing clinical pathway for improving the proficiency and accuracy in nursing process. We try to distinguish three major factors which is schema, terminology, and working flow will figure out how to and what to construct a well-defined electronic nursing record system integrated with nursing clinical pathway.

Keywords: electronic nursing record, nursing clinical pathway

Introduction

The health insurance policy such as Diagnosis Relationship Group (DRG) and global budget always changes and influence clinical care style in Taiwan recently. Thus, the Clinical pathway gradually becomes a major care index for nursing care. [1] Clinical pathway is a standard style for specify disorder that examination, treatment, nursing care, and health education since patient admission through discharge. In Taiwan, there are 55 clinical pathways guiding support clinical practice in Medical, Surgical, Cardiologic, Obstetric, Urologic, Ophthalmologic, Orthopedics, and Pediatric department. [2] But many formats duplicate between clinical pathway records and nursing records. It makes double working for nurse in these records. Although computerize nursing record is develop for many hospitals, But defect the same style and couldn’t to exchange for share patient’s data and knowledge management. Therefore, it is importance for analysis and constructs well-defined electronic nursing record integrated with nursing clinical pathway.

Method

There are three ways for this feasibility study. First, we will analysis some references by the PubMed and local database related to clinical pathway in policy, format, and information system were discussed. It will figure out what are important factors to construct a
well-defined electronic nursing record system.
Second, we will collect information and problem about nursing clinical pathway in clinical practice by questionnaire of 17 medical centers. It will figure out what are implication and limitation about integrate to electronic nursing record.
Finally, we will combine previous methods to integrate with standard of electronic health record such as Health Level 7(HL7) and Clinical Document Architecture (CDA), North American Nursing Diagnosis Association (NANDA), International Classification for Nursing Practice (ICNP), Nursing Intervention Classification (NIC), and Clinical Care Classification (CCC). It will become the three major factors which are schema, terminology, and working flow. We hope to figure out how to and what to construct a well-defined electronic nursing record system integrated with nursing clinical pathway.

Future works
To develop nursing care plan is helpful for personal interaction with in environment to got health. When set a nursing diagnosis will decide what nursing intervention to use. That is potential contribution of nursing diagnosis. [3]
Under challenge in DRG, nursing care model will toward to case management style. Therefore, the nursing care planning system will base on case management. Such as Clinical pathway that clarify important exam, treatment, health education, and care plan in everyday from patient admission through discharge. [4]
We had proposed to build a comprehensive ENR system based on the creative thinking model last year. [5] Therefore, a well-defined electronic nursing record system integrated with nursing clinical pathway is an important step and could more fit other information systems. We hope to create this research idea that will bring a new trend to the development of nursing informatics in Taiwan.

References

Correspondent
Her-Kun Chang, Ph.D. (hkchang@mail.cgu.edu.tw) Professor, Information Management Department, Chang Gung University