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Development of the Incident Reporting System Using the Nursing Administrative Database

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Abstract. A role of incident reporting system has become more important for improving of the patient safety. However, the more various causes managers seek for, the longer time healthcare providers send to report near-miss/ medical errors. The purpose of our work was to try to develop "the incident reporting system" utilized the nursing administrative database. As a result, we found that the system would make us spend less time to report medical errors and easy to analyze of the nursing care structure. The system using the nursing administrative database is effective to improve the patient safety rationally.

Keywords. Incident Reporting, Hospital Information Systems, Nursing Administration Research

1. Introduction

A role of an incident reporting system has become more important for improving of the patient safety. Recently it has been suggested that reporting systems should be integrated to Electronic Health Records (EHR). [1] EHR would be able to elucidate many of those causes, related to the nursing care process, but the care structure such as the nursing staffing on each unit and nurses' competencies. Both of them are necessary for a rational causal analysis to be used error-analytic theories. [2] The purpose of our work was to attempt a development of develop "the incident reporting system" utilized as the nursing administrative database.

2. Background

Every year, over 6,000 near miss/ medical adverse events are reported in Kyorin University hospital. Most reports are sent via the legacy electronic incident reporting system built in 2005. Over 80% of the reports are written by nurses, and many of them are new graduates.On the other hand, risk managers want to know a lot of detail information about medical errors in order to take preventive measures. The legacy system was limited to use, and had to be scraped and built drastically.

3. Method

Gathering cause-related information from other Hospital Information System is effective to simplify the reporting. So far, we have only retrieved patient information (age, gender and diagnosis) from COPE into the legacy system. The legacy system did not have any network with the nursing administrative database, but the renewed system (all property right of the system belongs to Carecom co., ltd) can combine some data sets. The Examples are following.

- Patient Acuity / Patient Nurse Dependency Measurement
- The reporter's acquired nursing skills, developed by the government

4. Result

We found that the new reporting system would make us spend much less time to report medical errors and easy to analyze of the nursing care structure. As a result of the test at two units, 83% of test users answered that they could reduce times to report. Moreover, risk managers and hospital administrators can gather more information than they get from the reports.

5. Discussion

We developed the incident reporting system using the nursing administrative database, which has some advantages. First of all, we successfully reduced data-input time. Secondary, some managers can elucidate causes of medical errors. However, there is one disadvantage in the new reporting system. The system can analyze by using various reporters' information, even though they did not report directly. Not to mention, the system should make reporters choose anonymous to prevent them from being accused. [3] Therefore, we had no choice but giving up some reports to combine with personal information and developed another analyzing tool on Microsoft Access® without personal information.

6. Conclusion

The incident reporting system using the nursing administrative database is effective to improve the patient safety rationally. However, it should be considered to protect reporters' personal data on the system.

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