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# The Relationship Between Nursing Workload, Quality of Care and Nursing Payment in Intensive Care Units

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**Abstract.** Nursing workload adversely affects patient safety in intensive care units, the higher nursing care hours were lower incidence rate of bedsores.

**Keywords.** Nursing workload, quality of care, nursing payment, patient classification

#### 1. Introduction

The heavy nursing workload seems to be related to patient care quality. Research shows that a heavy nursing workload adversely affects patient safety<sup>1,2</sup>. This study aimed to explore the relationship between nursing workload, patient safety and nursing fee in intensive care units (ICUs).

## 2. Methods

We retrieve data to analysis from patient classification systems (PCS) and nursing quality monitoring system (NQMS) for six ICUs of a medical center in Taiwan. Data retrieve from January 2013 to November 2014. We built up a structure PCS that includes therapeutic intervention scoring system-28(TISS-28) and direct patient care activities in ICU which is linked with computerized physician order entry (CPOE) system. We collect the nursing care hours and nursing manpower utilization as nursing workload, nursing fee data retrieved also from PCS. The adverse incidence of patient safety-related indicators includes bedsores, restraint, falls, self-extraction of tubing, infection rate, and mortality rate.

## 3. Results

The daily classification of patient's data retrieved total 92442data set the average of daily nursing care hours was 12.5 hours per-patient. There was no statistically significant correlation between nursing workload and patient safety; but the results showed the higher nursing care hours were lower incidence rate of bedsores.. We compare the nursing fee items from PCS and national health insurance (NIH), the

records showed that the PCS more than NIH. The nursing fee only accounted for 4.77 percent of total ICU medical expenses.

#### 4. Discussion

The lower nursing care hours were more adverse events. We compared the nursing payments items between PCS and NIH, the NIH program covers too little nursing care payments.

We retrieve data from patient classification systems and nursing quality monitoring system, even translation to nursing workload and patient safety information, we expect increase the nursing manpower, and add the useful and valuable of informatics system.

# 5. Acknowledgments

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