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# DECREASING ABNORMAL RATE OF MEDICAL SUPPLY: TO EMPLOY MULTI-DISCIPLINE MEDICAL TEAM WITH INFORMATION COOPERATION

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## INTRODUCTION

Medical supplies, medical environment, and patient' s security had something to do with one another. Once medical supplies did not manage well, conduct expired or contaminated ones to induce infection issues within patients, it would threaten patients' safety even their lives. The study suggested that medical supply expense in regional hospitals of Taiwan occupied the organizational operation 30% to 50 %.

With the severe competition in medical markets and changes of health insurance payment, hospitals took on more and more stress on medical quality and financial responsibility. Under the premise of pursuing service quality of medical atmosphere, finding resources and saving cost and expense became challenges of management. According to the analysis on January to October of 2021, the frequency of applying for medical supplies in nursing units was 46,033. Among them, abnormal rate of medical supply was up to 35.50 % (16,340 / 46,033 x 100%), and the monthly average was 1,634 and daily average was 54.46.When the unit applied for a few of medical supplies, the preparation of medical supply personnel to the transferring of goods for single time would take 30 minutes per person.

The cost of man power (cost NT$148 per hour) changed into daily extra expenditure was NT$4,030, the monthly expenditure was NT$ 120,901, and the annual expenditure was up to NT$1,450,814.

## AIM

In order to enhance management of medical supply, we expected to build well management of medical supply and further to elevate the correctness of medical supply employment.

## CONCLUSIONS

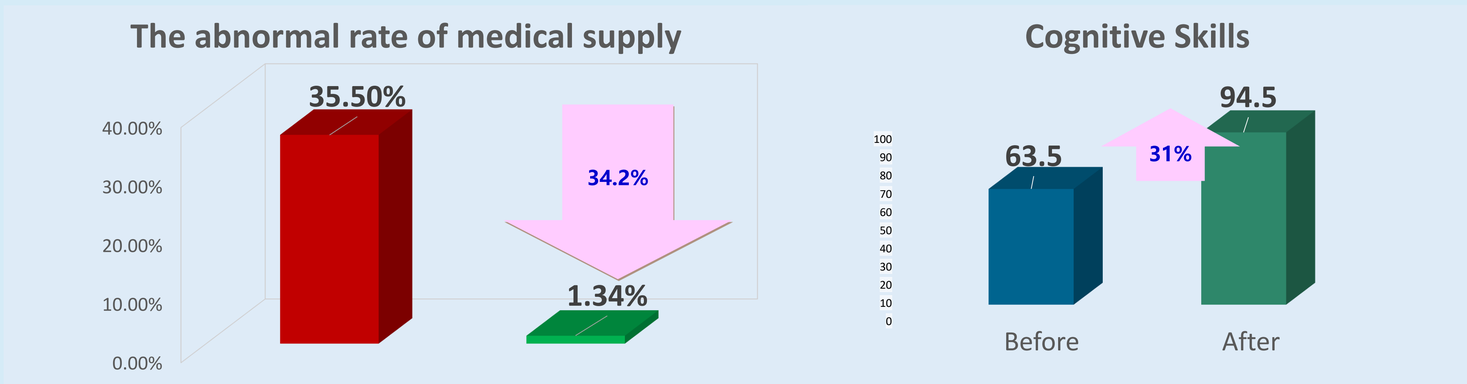
With the collaboration of multi-discipline information team to establish management mechanism of compiling medical supply, strengthen secretary' s understanding on medical supply management through visualization monitoring data analysis module to control the late delivering and inadequate supply for lowering the abnormal rate of medical supply.

## ACKNOWLEDGMENTS

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## RESULTS

The abnormal rate of medical supply decrease from 35.50 in November of 2021 to 1.34% (220 / 16, 467 x100%) (↓34.16%). Annual expenditure on man power deducted from NT$1,450,814 to NT$65,090, the balance wasNT$1,385,724.




## METHOD

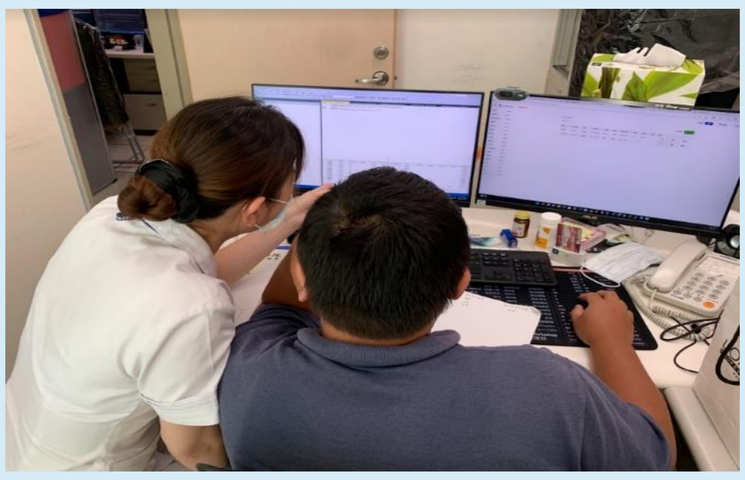
The educational training on "Compiling Medical Supply" would be held to carry out inventories and effectively control the amount of medical supply by secretaries. Those nursing units with the designated secretary and high abnormal rate of medical supply should cultivate an assistant' s ability of compiling medical supply. Also, the compiling system was built by multi-discipline information team to effectively handle the import of medical supply and compile the usage of each unit. Moreover, the using levels of adequacy and maximum should be made (weekly average amount x10%) to lower the abnormal rate of medical supply. Furthermore, big data system of Power BI was coined to accurately maintain the difference in quantity to understand the late delivering of goods, and to analyze and improve from those errors.







**POWER BI system monitoring**



**System design with computer engineers**



**Information exchange meeting**

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