APPLICATION OF THE VMI SYSTEM TO REPLENISH MEDICINE AT RAMATHIBODI HOSPITAL

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ABSTRACT

The objective of the study was to simulate and evaluate the proposed internal VMI system for the hospital supply chain at Ramathibodi hospital. Thirty drug samples were selected on the basis of having the most highly dispensed value, frequency of drug dispensation, and shortage problems. The replenishment volume was calculated, based on drug utilization on average of daily use or by summation during the week. Then we selected the best alternative to implement in all dispensing rooms to see the effect.

The results showed the best alternative is the summation during the week formula. It can achieve the hospital KPI's, reduced average inventory value up to 20 percent, days of stock of approximately 7 days and 100 percent service level. When it was implemented in all dispensing rooms it could save a budget of around 31,019661 to 36,209,721 baht at the dispensing unit and 70,780,840 to 92,928,603 baht at the warehouse.

The formulation to calculate the maximum stock level, replenishment volume, minimum stock level and re-order point should be embedded in the hospital IT system.

KEY WORDS: INTERNAL VMI SYSTEM / HOSPITAL SUPPLY CHAIN / REPLENISHMENT VOLUME

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