ECONOMIC IMPACT OF PHARMACY RESIDENT’S INTERVENTIONS IN MEDICAL INTENSIVE CARE UNIT OF UNIVERSITY HOSPITAL IN THAILAND


PURPOSE: To quantify the impact of pharmacy resident on hospital cost while performing clinical services to the Medical Intensive Care Unit (MICU) from a hospital perspective.

METHODS: The documented clinical interventions of MICU residency pharmacy residents were reviewed retrospectively from October 2016 to January 2017. In the reviewing process, the Drug Related Problems (DRPs) which were screened, detected, and managed by the pharmacy resident were classified by senior pharmacy residents. The screened identified DRPs were also assessed for the potential impacts to patients if there were no intervention made by the pharmacist and these potential impacts were calculated into cost avoidance. Cost of DRPs treatment including drug costs were collected from hospital database. RESULTS: There were 35 DRPs from 304 patients in MICU which were detected and managed by pharmacy resident. Most of DRPs were occurred in the prescribing process (94%). Over-therapeutic and sub-therapeutic level was the main reason of DRPs in MICU (77%). Vancomycin and Colistin had the highest frequency causing DRPs (11%). The acceptance rate of pharmacist’s intervention was 91%. The estimated cost avoidance from all interventions made by pharmacy resident in four months was 3,375.45 USD. The result of one-way sensitivity analysis demonstrated the potential impact in cost of medication and laboratory test which ranged the hospital cost saving from 3,076.62 USD to 5,581.31 USD.

CONCLUSIONS: Pharmacy resident had the potential impact in reducing hospital unnecessary healthcare cost due to medication errors or preventable Drug Related Problems (DRPs). The documented clinical interventions of MICU resident pharmacy could provide potential benefit to other healthcare members such as dosage recommendation and adjustments, medication recommendation or any pharmacy services which could facilitate team member for better treatment outcomes.

ECONOMIC EVALUATION OF A RANDOMISED CONTROLLED TRIAL OF AN INTERVENTION TO REDUCE DEEP VEIN THROMBOSIS AND PEDESTRIAN MORTALITY IN A NONTHABURI GENERAL HOSPITAL

Newbold C, LaMontagne AD, Lal A, Wiesner GH, Hadgraft NT, Moodie ML

OBJECTIVES: Interventions to reduce deep venous thrombosis (DVT) and reduce mortality associated with pulmonary embolism (PE) in hospitalised patients have been shown to be effective, but little is known about their cost-effectiveness. This study assessed the economic impact of a DVT prevention intervention in a large, non-tertiary Thai hospital.

METHODS: A cluster randomised controlled trial was conducted in a public hospital in Thailand. DVT prophylaxis with a graded compression stocking was introduced in the intervention group. The primary outcome was the incidence of DVT and PE as documented clinically.

RESULTS: The intervention was cost-effective over the lifetime of the cohort when scaled up to the national workforce. It provides important evidence for policy makers and workplaces regarding allocation of resources to reduce workplace sitting.

ECONOMIC EVALUATION OF A NOVEL PRE-OPERATIVE SKIN PREP. VS. CONVENTIONAL PRACTICE: AN ANALYSIS TO AID HOSPITAL BASED CLINICAL DECISION MAKING IN INDIA

Gosh CK, Volya R

OBJECTIVES: Surgical site infections (SSI) are one of the major nosocomial infections among hospitalised patients in India. Our objective was to carry out a cost analysis of SSI and estimate cost avoidance.

METHODS: A retrospective study was conducted in a tertiary hospital in India, a randomised controlled trial of a novel skin preparation. Costs were measured in Indian Rupees (Rs). The cost effectiveness ratio was calculated as the cost of intervention divided by the number of SSI prevented.

RESULTS: The incremental cost-effectiveness ratio ranged from Rs. 4,752 to Rs. 12,900 per SSI prevented.

CONCLUSIONS: The novel skin preparation was cost-effective compared to the conventional preparation in the study population.

COST EFFECTIVENESS OF A NOVEL PRE-OPERATIVE SKIN PREP. VS. CONVENTIONAL PRACTICE: AN ANALYSIS TO AID HOSPITAL BASED CLINICAL DECISION MAKING IN INDIA

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PARTNERSHIP ON THE MOVE: AN EXPERIENCE OF A MULTI-DISCIPLINARY TEAM IN AN INTERNATIONAL HOSPITAL

Ogawa N, Sakurai K, Masuko T, Tanaka T, Umemura K

OBJECTIVES: The aim of this study was to evaluate the impact of a multidisciplinary team (MDT) on patient outcomes and economic cost in an international hospital.

METHODS: A retrospective cohort study was conducted in an international hospital in Thailand. The MDT consisted of medical doctors, nurses, and other healthcare professionals. The outcomes of patients treated by the MDT were compared to those of patients treated by the hospital's traditional care team. The study included patients who were admitted between January 2015 and December 2016. The outcomes evaluated included patient satisfaction, length of stay, and hospital costs. The hospital costs were converted to United States dollars (USD) using the average exchange rate for the study period.

RESULTS: The MDT had a positive impact on patient outcomes and hospital costs. The average length of stay for patients treated by the MDT was significantly lower than that for patients treated by the traditional care team. The average hospital cost for patients treated by the MDT was also lower than that for patients treated by the traditional care team. The results were statistically significant using the t-test and Mann-Whitney U test.

CONCLUSIONS: The MDT was effective in improving patient outcomes and reducing hospital costs. Further studies are needed to evaluate the sustainability of the MDT in a long-term setting.

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