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Service Audit on the Clinical Impacts of Perioperative Multimodal Analgesic Regime for Patients undergoing Major Joints Replacement

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Introduction

With aging population, osteoarthritis of knees and hips has become a major orthopaedic problem in Hong Kong. Osteoarthritis of knees and hips are associated with significant pain and functional disability. Total joints replacement is the ultimate surgical procedure to deal with such problems.

However, total joints replacement is associated with significant tissue damage and post-operative pain, which affect post-operative rehabilitation and recovery

Objectives

To evaluate the Clinical impacts of perioperative multimodal analgesic regime for patients undergoing major joints replacement

Methodology

Structured multimodal analgesic regime is implemented for patients undergoing major joint replacement in 2016. Different clinical parameters, including pain control and rehabilitation data, are collected. These data are compared with period without structured multimodal analgesic regime in 2014.

Result

With perioperative multimodal analgesic regime in 2016, patients undergoing major joint replacement had less pain at rest with better functional parameters in terms of walking distance and range of movement of the involved joint. There is less morphine consumption via PCA with statistically reduction in the incidence of nausea and vomiting. There is impairment in renal function, probably related to Celebrex use.

However, it is transient and reversible. Otherwise, no significant major side effects are detected.

Although the mean length of stay in 2016 is similar to 2014 (6.5 days Vs. 6.9 days), a significant proportion of patients could be discharged home directly (57% Vs. 20%) instead of transferring to rehabilitation hospital. Although most of the patients were discharged home directly and with shorter hospital stay, nearly all of them had no active orthopaedic and pain problems after discharge. The 90 days unplanned readmission rate related to pain or analgesic related side effects is 2.8 %.