Service Priorities and Programmes

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Pharmacist-initiated analgesia pathway (PIPA) for patients in the Accident and Emergency Department of a teaching hospital of Hong Kong: A clinical intervention trial

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Introduction

Pain is one of the most common reasons for seeking help in the Accident and Emergency Departments (A&Es) of Hong Kong. Yet, pain control with analgesia is often too little and too late because of A&E overcrowding, long waiting time to doctor consultation, and other competing health needs. Literature review has shown that objective pain assessment and early pain relief are becoming the standard practice in A&Es in advanced countries such as Australia, United Kingdom (UK) and the United States (US). It is good clinical and ethical practice to relieve patients' pain as soon as possible. The role of pharmacists and multidisciplinary collaboration in hastening provision of adequate analgesia has not been studied in the local A&E setting.

Objectives

(1).To develop a multi-disciplinary evidence-based acute pain management pathway in A&E and evaluate its impact on timely provision of analgesia (2).To evaluate the quality of pain relief and patient satisfaction with pain relief provided before and after the introduction of this pathway.

Methodology

We undertook a pre-intervention (Sept-October 2016) and post-intervention study (November-December 2016) in the A&E department of Queen Mary Hospital, a tertiary teaching hospital in Hong Kong. The intervention comprised development and

implementation of a comprehensive Pharmacist-Initiated Analgesia Pathway (PIAP). As referred by the triage nurse, the pharmacist was authorized to assess and administer paracetamol to suitable patients prior to doctors' encounter. Patients aged 18 or above who suffered from minor musculoskeletal pain and with a triage pain score of 4 or above (10 point numerical rating scale [NRS]) were eligible for enrolment. The primary outcome was time to analgesia. Secondary outcomes were the proportion of patients who received 'adequate analgesia' (reduction of the pain score by ≥2 and to <4 [0–10 scale]) and their satisfaction with A&E pain management during their stays in the department.

Result

Results:

Fifty-five patients were enrolled in both the pre- and post-intervention periods. Patient gender and mean age and triage pain score did not differ significantly between the groups ($P > 0.05$). During the post-intervention period, the median time to analgesia was significantly reduced (33 min vs 173 min; $P < 0.01$) and significantly more patients received 'adequate analgesia' (10.2% vs 22.5%; $P=0.08$). The proportion of parents who were very satisfied with their overall pain management trended upwards in the postintervention period (50.1% vs 67.8%; $P = 0.07$). No adverse events were observed during either period.

Outcomes:

The PIAP significantly reduced the lag time to analgesia and increased the proportion of patients with adequate pain control in A&E. It was associated with a high level of patient satisfaction.