



Service Priorities and Programmes
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Use of Bisphosphonates and its Adherence among Elderly patients with Hip fractures: A 2 year Cohort Study

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Introduction

Hospital Authority managed over 7000 cases of elderly hip fracture each year. It is estimated that the healthcare system spends around HK\$450 million for managing hip fracture patient each year. Cumulative incidence of a second hip fracture after 10 years was 6-11%. Bisphosphonates were shown to decrease the incidence of fragility fracture by 50% in osteoporotic patients. In 2010, Hospital Authority announced that bisphosphonates were included in drug formulary for the indication of 1st line treatment for secondary prevention of osteoporotic fracture in patients with reasonable QoL.

Objectives

This study aimed at investigating the trend of usage of bisphosphonates in a regional rehabilitation hospital from 2009 to 2010. It also described the profiles of patients being prescribed with bisphosphonates and adherence of bisphosphonates 1 year and 2 years after discharge from hospital.

Methodology

Patients were retrospectively recruited if they were admitted to musculoskeletal rehabilitation programme for hip fractures from 1 January 2009 to 31 December 2010. Patients were excluded if they were aged younger than 65 and there was history suggestive of non-osteoporotic fractures.

Result

In 2009, 10 out of 50 patients were prescribed with bisphosphonates. In 2010, 27 out of 57 patients were prescribed with bisphosphonates. Usage of bisphosphonates was significantly increased from 2009 to 2010 (20.0% vs. 47.4%, $p < 0.005$). For patients being prescribed with bisphosphonates in 2010, majority of patients were female (M:F = 5 (18%):22 (82%)). Median age was 83 +/- 8.0. About half of the patients suffered from fracture neck of femur, while the other half suffered from trochanteric fracture of femur. 52% of patients received dynamic hip screws, while 33.3% received hemiarthroplasty as surgical procedure. Regarding the follow-up destination upon discharge, 15 (56%) patients had follow-up in Medical Specialist Clinic, while 7 (26%) patients were followed up by Community Geriatrics Assessment Team (CGAT).

Survival Rate at 1 year and 2 year were 89% and 81% respectively. After excluding the patients who passed away, prescription rate of bisphosphonates at 1 year and 2 year were 54% and 43% respectively.