



Service Priorities and Programmes
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An evaluation of the risk profile of diabetic patients admitted to the Emergency Medical Ward (EMW) with hypoglycaemia.

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Introduction

Hypoglycaemia is a common occurrence which has a negative impact on the quality of life in patients suffering from diabetes. Compared with other forms of acute complications such as hyperglycaemia, hypoglycaemia is highly preventable and easily managed by both the patients and their health care providers.

Objectives

1. To identify the most frequent causes of hypoglycaemia leading to hospitalization. 2. To prevent hypoglycaemia events in this high risk group of patients by focusing on diabetes education to preclude the precipitating factors identified in this evaluation and by setting more acceptable glycaemic targets suited to the patients' clinical condition.

Methodology

A Continuous Quality Improvement (CQI) Program was initiated since 1 Mar 2013, in The Diabetes and Endocrine Centre of Prince of Wales Hospital in collaboration with the Accident & Emergency Department. In the program, a fast-track diabetes education service is provided to diabetic patients admitted to the EMW for diabetes related problems. Upon referral, diabetic patients are assessed by diabetes nurses with appropriate education and recommendation provided. Since the implementation of this service, a total of 173 diabetic patients have been evaluated and managed by diabetes nurses between 1 Mar 2013 and 31 Dec 2013. Of these, patients admitted to EMW, hypoglycaemia accounted for a large proportion of the admissions (51.4%)

Result

The majority of patients admitted with hypoglycaemia are of the older age group with mean age of 73.2 years. The mean HbA1c for these patients above the age of 70 is 7.38+- 1.5%.The major causes of hypoglycaemia include decreased oral intake

(31.5%), skipped meals (12.4%), and inappropriate sick day management (12.4%). In general, most of these patients have long duration of diabetes (66% of patients have more than 10 years of diabetes). Patients on oral anti-diabetic medications accounted for the largest proportions of admissions (47.2%). 52.3% have impaired renal functions with chronic kidney disease of stage 3 or above. In this cohort, 3 patients sustained head injury at the time of the hypoglycaemic event. Discussion: Optimized glycaemic control can effectively reduce the risk of diabetic complications, however at a price of a higher risk of hypoglycaemia events particularly in the older age group. In light of this, health care providers need to personalize the care of diabetic patients to set HbA1c targets appropriate to the age and co-morbidity state of the patient. Furthermore, for diabetic patients in the older age group, both patient and caregivers should be educated to reinforce the importance of regular meals, sick day management as well as the recognition and prompt management of hypoglycaemia so as to reduce unnecessary hospital admissions.