

## **Effectiveness of Diabetes Education Program in Private Old Aged Home for Reducing Unplanned Hospital Admission**

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### **Introduction:**

The prevalence of elderly (> aged 64) with Diabetes Mellitus in Hong Kong is reported to be 32.9 % in men and 36.2 % in women. Diabetes Mellitus tends to be more prevalent among at risk and high risk patients especially in the frail elderly of Long Term Care Facilities. In Hong Kong, the frail elderly in Long Term Care Facilities are known to be the repeated and frequent hospital users. The admission rate of resident related to DM problem in 3 selected aged homes at North District is about 8 % in pre-program period from 2004 to 2005 (total 19 months). The Community Outreach Service Team in North District Hospital implemented a diabetic education program to Long Term Care Facilities in order to improve aged home's staff the knowledge and understanding of diabetic care and coordination with COST team in hypoglycaemia management. The outcome of the program can be reviewed by the reduction of hospital admission of residents related to hypoglycaemic attack or poor glycaemic control. Starting from October 2005 to 2006, a DM Education Program to Long Term Care Facilities was launched to deal with this challenging problem.

### **Purposes of the Project:**

- 1) To reduce the incidence of hypoglycemia and related DM acute problems ended up to unplanned readmission.
- 2) To enhance Long Term Care Facilities staff in related to hypoglycaemic attack and diabetic care in Long Term Care Facilities.

### **Material and Method:**

- 1) Total three private old aged homes were recruited to participate in the program in October 2005. A DM registrar was designed to record number of residents with Diabetes and their glycaemic status to identify those at-risk or high risk patients
- 2) A protocol on hypoglycaemia and its management in private old aged home was designed and posted up in their offices to notify all staff.
- 3) Fast Track clinic was provided promptly accordingly to the protocol.
- 4) A series of educational program was provided to the old aged home staff including foot care, insulin injection, dietary advice, hypoglycaemia and hyperglycaemia management and self blood glucose monitoring with Point of Care Test.
- 5) Outcome measures were categorized as: program effectiveness by comparing staff's knowledge before and after the program, the monthly A&E Attendance rate, hospital admission, and unplanned readmission rate.

### **Results:**

The overall passing rate of pre-test and post are 61.2 and 72.2% and an increase in 18% after education program. Monthly report showed no unplanned readmission and hospital admission of resident with DM and related complication after the program from November 2005 to March 2006(total 5 months).

### **Conclusions:**

The program showed great improvement in reducing A&E attendance, hospital and unplanned readmission of aged home resident related to DM problem. The staff knowledge on DM management is enhanced. The DM education program improved the quality of care of DM and reduced the healthcare resources utilization of the disease. This program demonstrate a organized education and management program for high volume disease such as DM was proven to be practical and effective within the HA community outreaching services.