



Service Priorities and Programmes
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Risk Assessment and Management Programme – Hypertension: Clinical application of ambulatory blood pressure monitoring in General Out-patient Clinics in Kowloon East Cluster

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Introduction

Studies showed that 20-30% patients who are found to be hypertensive in clinics can be normotensive in other settings. Identifying this subgroup allows reduction in antihypertensive use and related side effects. On the other hand, patients with apparent white-coat effect may still have suboptimal blood pressure (BP) control. Ambulatory blood pressure monitoring (ABPM) is useful in assessing patients with suspected white-coat hypertension, guiding physicians in the treatment and reducing the cardiovascular risks. Traditionally this group of patients was referred to medical physicians for ABPM. With the implementation of Risk Assessment and Management Programme – Hypertension (RAMP-HT) in October 2011, ABPM was introduced as a new clinical assessment tool in our General Out-patient Clinics (GOPCs).

Objectives

1. To evaluate the ABPM results of all patients under RAMP-HT in KEC GOPCs 2. To improve the outcomes of hypertensive patients in KEC GOPCs

Methodology

ABPM was introduced as a new investigation tool under RAMP-HT in October 2011. Training for operating the ambulatory BP machine and interpreting ABPM reports were provided to nurses and doctors respectively. Updated guideline for interpretation of ABPM results was also prepared. Clinical data of all patients with ABPM performed from 1st October 2011 to 31st December 2012 were retrieved from CDARS and the results were reviewed from CMS clinical notes.

Result

Results: 636 patients were referred to RAMP-HT Clinic for suspected white-coat hypertension. 274 ABPM were performed. The mean age of patients was 63.2 years old. 69.7% and 34.3% patients had average daytime and nighttime BP greater than target respectively. 9 (3.3%) and 77 (28.1%) patients were confirmed to have white-coat hypertension and hypertension with suboptimal BP control respectively.

188 (68.6%) patients were found to have white-coat component and among these patients, 54.8% (103) had suboptimal BP control. 2 patients with bradycardia found and 2 patients with suspected obstructive sleep apnoea were referred to Medical Specialist Out-patient Clinic. There was a statistical significant drop in mean BP from 160/85mmHg before referral to 149/80mmHg at last visit ($p<0.001$). Conclusion: ABPM can be easily performed in primary care. It can assist family physicians better manage hypertensive patients. With optimization of the BP control, cardiovascular complications would be reduced and the number of referrals to secondary care could be minimized.