Service Priorities and Programmes

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Do we need ambulatory blood pressure monitoring (ABPM) in managing hypertensive patients in primary care setting?

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Introduction

The roles of ambulatory blood pressure measurement (ABPM) in confirming the diagnosis of hypertension (HT), and as adjunct to clinic BP measurements in monitoring response to anti-hypertensive treatment in people identified as having white coat effect have been highlighted in the updated NICE (National Institute for Health and Clinical Excellence) clinical guideline in 2011. White coat effect is a common phenomenon among hypertensive patients, which has been found in as many as 73% of treated individuals. In our local clinic study conducted in 2010, white coat effect was confirmed in 37% of our studied patient group. These figures suggest a potential service gap existing in our clinical practice since if doctors merely rely on conventional clinic BP measurement, a significant proportion of patients might be misdiagnosed as HT, or over-treated with unnecessary anti-hypertensive medications. In order to improve clinical care for hypertensive patients, ABPM had been equipped in our department since 2008.

Objectives

To assess how the ABPM can help the clinical diagnosis and management in primary care setting

Methodology

A retrospective case review was conducted. All patients in CSW JC GOPC with ABPM performed from January to November 2012 were involved in the study.

Result

21 patients were recruited in this study, with 9 male (43%) and 12 female patients (57%). Their mean age was 63.4 years old (range 48-87). 10 out of 21 patients (48%) had been diagnosed to have HT and majority of them (8 patients) had regular home (HBPM) or community BP monitoring (CBPM). The BP readings measured in the clinic for these patients were high which contradicted their home/ community BP measurements. ABPM was arranged due to suspected white coat effect based on

discrepancy between clinic and home BP readings. 8 out of these 10 patients were confirmed to have poor BP control by ABPM and required stepping up of anti-HT medications. For the 2 patients with good BP control as demonstrated by ABPM, they were reassured of their BP status and kept monitoring of the white coat effect. 11 out of the 21 patients (52%) were noted to have high clinic BP but the diagnosis of HT could not be confirmed due to fluctuating clinic BP readings and patients' self reported home BP records were normal. ABPM was arranged to confirm or refute the diagnosis of HT. 7 out of these 11 patients (64%) were confirmed to have HT and require either anti-hypertensive medications or lifestyle modifications. For the four patients (36%) who were confirmed to be normotensive by ABPM, they were reassured of their BP status and kept monitoring of the home BP records. In conclusion, the practice of self help home BP measurement is very common among HT patients. However the interpretation of patients' self reported home BP records should be cautious and needs verification as home BP readings can be falsely reassuring to patients. On the other hand, depending on clinic BP alone might overlook the potential white coat effect, which leads to misdiagnosis or over-treatment for HT. As HT is one of the commonest encounters in GOPC and the BP levels bear much relevance to the subsequent management, ABPM should be widely advocated for primary care setting. It should be arranged more liberally for indicated cases.