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Blood Pressure Target Attainment in a General Out-patient Clinic

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Introduction

Hypertension is the most common chronic condition encountered in General Out-patient Clinics (GOPCs). Treating hypertensive patients to recommended blood pressure (BP) goals can reduce risk of developing serious complications such as myocardial infarction, stroke, renal failure, and death.

Objectives

- (1) To examine the BP control in a GOPC
- (2) To examine the association between various risk factors and BP target attainment in the GOPC

Methodology

Eighth Joint National Committee (JNC 8) guidelines, developed from results of randomized controlled trials that were often considered to be the gold standard in generating efficacy and effectiveness evidence, were chosen as a reference evidence-based recommendation to assess the BP target attainment in the GOPC. Representative random sample of hypertensive patients were selected in the clinic. Relevant data were retrieved by medical record review. Risk factors being studied included patients' age, gender, body mass index (BMI), smoking status, attendance of Risk Assessment and Management Programme in the past 2 years, co-morbidities (e.g. ischaemic heart disease, chronic kidney disease, diabetes mellitus, microalbuminuria, stroke, gout, asthma, benign prostatic hypertrophy) that might affect the choice of anti-hypertensive agents, current number of anti-hypertensive drugs and prescription adherence to JNC 8 recommendations. The association between BP target attainment and risk factors was examined by binary logistic regression analysis.

Result

450 eligible patients were analyzed. Their mean age was 66.9 years old and 53.0% were female. Their mean BMI was 25.3 kg/m² and 11.3% were active smokers. Over

80.0% had attended Risk Assessment and Management Programme in the past 2 years. Majority of the patients (70.0%) were receiving 1-2 anti-hypertensive drugs. 77.8% of the prescriptions were guideline adherent or not adherent to recommendations but with clinical justifications.

93.6% of the patients achieved their BP targets. Age was found to be the only statistically significant factor that was associated with BP target attainment after adjustment. Taking the age group 40-59 as a reference, those aged 60-79 were more likely to achieve their BP target (adjusted OR = 3.52, 95% CI for OR = 1.46 - 8.48, $p = 0.01$), while those aged 80-99 had an adjusted OR of 1.32 (95% CI for OR = 0.47 - 3.70, $p = 0.59$).