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Needs Assessment for the Computer-interpretable Hypertension Guideline at Public Health Centers in Korea

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Abstract

Computer-interpretable hypertension guidelines can make for the improvement of blood pressure control rate by assisting clinicians at the point-of-service to behave according to the evidence-based guidelines. We surveyed 117 public health centers in Korea to evaluate current hypertension management status with clinicians' performance, and to analyze the needs for the computer-interpretable hypertension guidelines. Hypertension control rate was 57%, while clinicians overestimated it as 79.5%. 60.4% of patients were treated with 2 or more anti-hypertensive medications, and most frequently used drug class was calcium channel blocker. Inappropriate prescription rate of contraindicated patients was 2.6%. Two-thirds of clinicians agreed to implement the computer-interpretable hypertension guideline. Implementation of computer-interpretable hypertension guideline is considered as a way to improve the hypertension control rate and to reduce the inappropriateness of the therapeutic choice.

Keywords:

needs assessment, hypertension, guideline,
practice guideline

Introduction

For the prevention of cardiovascular diseases, hypertension management takes important portion. Yet world-wide hypertension control rate is known to be less than one-third, especially in Korea, it is about 17%. Computer-interpretable guideline is suggested as an intervention tool for the quality improvement of patient care as modifying clinicians' behavior. This is a preliminary study for developing computer-interpretable hypertension guideline, which is designed to improve hypertension control rate in primary health care. We intended to analyze current hypertension management status, clinicians' performance and needs for the CIGs.

Materials and methods

We surveyed 117 public health centers and 154 clinicians in Gyeonggi province. We extracted medical records of hypertension patients from the centers' clinical database during a 10-month period. Data included blood pressure, medication, comorbid disease, and others. Questionnaire was answered by the clinicians to assess their adherence to hypertension guidelines and needs for the CIG program.

Results

38,474 patients' data and 41 clinicians' survey was analyzed. 61% of clinicians agreed to implement the computer-interpretable hypertension guideline. Hypertension control rate was 57%. Clinicians overestimated as 79.5% of patients had controlled blood pressure. Over 60% of patients were treated with 2 or more antihypertensive medications, and calcium channel blocker was the most frequently prescribed. Based on JNC7 report, inappropriate prescriptions, such as monotherapy for the stage hypertensive patient, beta blocker only for the diabetes patient, combination of beta blocker and non-dihydropyridine calcium channel blocker, thiazide diuretics for the gout patient, and beta blocker for the asthma patient, were 2.6% (N=1001).

Conclusion

Clinicians overestimated the proportion of their patients with controlled blood pressure. Implementation of computer-interpretable hypertension guideline is considered as a way to reduce the inappropriateness of the therapeutic

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