

CHAP

Cardiovascular Health Awareness Program
Programme de sensibilisation à la santé cardiovasculaire

Use of Automated Blood Pressure Measurement to Reduce White Coat Response in a Pharmacy Setting

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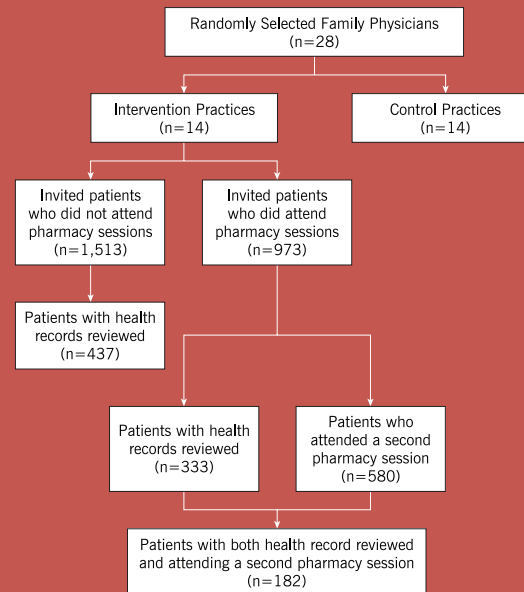
Background

- Manual blood pressure (BP) readings taken in routine clinical practice may be affected by a white coat reaction.
- White coat reaction can lead to overdiagnosis of hypertension.
- Approximately 25% of hypertensive patients are reported to have white coat hypertension.
- Validated automated BP monitoring devices, such as the BpTRU help decrease the white coat reaction.
- Research suggests community pharmacies are a practical setting to monitor BP.

Methods

- Data was collected as part of the Community Hypertension Awareness Trail (CHAT).
- In intervention practices, patients ≥ 65 years ($n=2,493$) were invited by their family physician to attend BP assessment sessions at a nearby community pharmacy.
- 182 patients attended two pharmacy sessions and also had their health records reviewed.
- Hypertensive patients were defined as those with their most recent office systolic BP being ≥ 140 mm Hg.
- BP measurements were compared through analysis of variance (ANOVA).

Sampling Frame



Study Population

	Hypertensive Patients (n=80)	Normotensive Patients (n=102)
Age (mean +/- SD)	74 +/- 6	75 +/- 6
% Female	44	55

Results

- Comparison of blood pressure measurements taken by a physician at a recent office visit vs. those taken by the BpTRU at two pharmacy visits for hypertensive and normotensive patients.

	Hypertensive Patients		Normotensive patients	
	BP (mean +/-SD)	p-value *	BP (mean +/-SD)	p-value *
Systolic BP Measurements				
Physician's Office	153 +/- 14	< 0,0001 **	130 +/- 10	0,12
1st Pharmacy Visit (BpTRU)	147 +/- 19		128 +/- 15	
2nd Pharmacy Visit (BpTRU)	140 +/- 17		132 +/- 17	
Diastolic BP Measurements				
Physician's Office	79 +/- 8	0,19	70 +/- 8	0,17
1st Pharmacy Visit (BpTRU)	79 +/- 11		72 +/- 9	
2nd Pharmacy Visit (BpTRU)	77 +/- 10		70 +/- 9	

* p-values from repeated measures analysis of variance (ANOVA)
** post-hoc analysis found a significant difference between the 1st and 2nd pharmacy visits ($p=0,04$) but not between the office and 1st pharmacy visit ($p=0,08$)
BP: blood pressure
SD: standard deviation

Conclusions

- In hypertensive patients, systolic BP decreased from physician's office to first pharmacy visit and from first pharmacy visit to second pharmacy visit.
- Use of the automated BpTRU in a pharmacy reduces the white coat reaction seen when routinely measuring BP in the physician's office.
- Community pharmacies should be considered as an alternate setting for measuring BP when validated, automated BP measuring devices are used.

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