



Identifying Chronic Diseases in the Emergency Department: A Pilot Screening Intervention for Asymptomatic, Incidental Findings of Hypertension

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Disclosures

None

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Background

- Asymptomatic hypertension (HTN) is ubiquitous within the aging Canadian population
- Hypertension Canada estimates 7.3M Canadians have HTN
 - Increase of 26% over 5yrs
- Often not discovered until complications manifest
- Untreated HTN holds serious risk for
 - Cardiovascular disease
 - Renal disease
 - Cerebral vascular disease



Emergency Department

- ED is a busy, complex environment
- Primary function → to identify and manage an acute medical complaint
- Frequent source of primary care for those:
 - with limited access to family physicians (FP)
 - with socioeconomic barriers
 - with mental illness
 - with substance use issues
 - who do not routinely seek regular health care



St. Michael's Hospital, Toronto

- Urban, academic, inner city, level-1 trauma centre
 - ED census 72,000/year
 - Increase ~10% annually
 - ED designed for 45,000/year
 - ~ 20% homeless
 - ~ 20% mental health
 - ~ 650 annual trauma team activations



Methods

- Convenience sampling across weekdays, weekends, day, evening and night shifts
- Inclusion:
 - ≥ 18 years of age
 - BP readings ≥ 140 systolic or ≥ 90 diastolic at **two** time-points during an ED visit
- Exclusion:
 - history of HTN
 - past or current use of HTN medication
 - unstable condition
 - incapacity to consent, missed and declined participation



Intervention Letter

- Letter addressed to FP with hypertension concern
- Given at discharge with encouragement to seek a follow up visit with his/her FP
- Follow-up completed at 6-weeks post-ED discharge with both patient and FP



St. Michael's
Inspired Care.
Inspiring Science.

Date:

Dear Doctor _____,

Re: *Emergency Department Screening Program for Hypertension*

Sponsor: Academic Health Science Centres (AHSC) Alternative Funding Plan (AFP)
Innovation fund

The St. Michael's Hospital Emergency Department is piloting a screening program to identify patients at risk for hypertension and who may be undiagnosed or poorly controlled.

On their visit of _____, your patient was noted to have the following:

- Elevated BP on 2 separate readings in the ED
1st reading _____ 2nd reading _____

Your patient has been advised to follow up with you for further evaluation and investigations as appropriate.

Thank you,

Dr. Jennifer Riley - Principal Investigator
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Primary Outcomes

1. Completed follow up with his/her FP at 6-weeks post-ED discharge; and
2. Number of new HTN confirmed cases



Limitations

- Consent process – high literacy and good command of English
- Reconcile with the inner city population, who are often underhoused, recently immigrated, and have low literacy
- Discussion with EM staff to approach the eligible patient
 - “gatekeeper” to important chronic disease identification



Final Thoughts

- A pilot, single site study has demonstrated that measuring BP and reporting asymptomatic, incidental finding of HTN **while in the context of an unrelated acute medical visit** to the ED holds the potential to identify new chronic disease, as confirmed by FPs
- Ongoing program planning is underway to offer the letter of intervention to **all** patients with asymptomatic, incidental findings of HTN who present to the ED



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