

PEDIATRIC HYPERTENSION SCREENING AND RECOGNITION IN PRIMARY CARE CLINICS IN CANADA, 2011-2017

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Background:

Pediatric hypertension is becoming increasingly prevalent. Comprehensive guidelines have been developed to guide the diagnosis of hypertension in children.

Objective:

The objective of this study is to evaluate the rates of pediatric blood pressure (bp) assessment and recognition in primary care clinics in Canada.

Methods:

Electronic medical record (EMR) data from the Canadian Primary Care Sentinel Surveillance Network was used. Children aged 3-17 with at least one clinical encounter were included. The 4th report 2004 guideline was used to define elevated bp (bp=90-95th%ile), hypertension (bp>95th%ile), and screening frequency. Screening, follow-up, and recognition rates were trended annually. Multivariate logistical regression was used to determine patient and provider characteristics associated with increased screening.

Results:

Data was available for 378002 children. Annually, an averaged 33% had at least one bp documented. Rates of hypertension screening increased from 26% (n=28146) in 2011 to 36% (n=56305, p=0.007) in 2017. Bp was measured in 76% of well child visits (n=42063). Follow-up visits occurred within six months for 26% of children with elevated bp, 57% of children with hypertension; and within one month for 7% of children with hypertension. Factors associated with increased bp screening include overweight status (OR 2.19, p<0.0001), diabetes diagnosis (OR 1.88, p<0.0001), increased social deprivation (OR 1.34, p<0.0001), female practitioner (OR 1.40, p <0.0001), and older practitioner age (OR 1.40, p<0.0001). Patient sex, hyperlipidemia, and location of residence did not affect screening rates. Overall prevalence of hypertension was 2% (n= 715), of those, 5.6% (n=40) had a diagnosis of hypertension or an anti-hypertensive recorded in the EMR.

Conclusion:

Rates of hypertension screening are low across Canada, with increased screening at well child visits. Children with cardiovascular risks factors including higher BMI and diabetes were more likely to be screened. Recognition of hypertension is also poor suggesting pediatric hypertension should be a priority for knowledge translation interventions.