Understanding the Utilization of Nurse Visits in a Primary Care Setting

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Abstract

Hypertension control in the United States remains suboptimal, with only 48% of adults achieving adequate control (<140/90 mmHg).[1] This quality improvement project uses retrospective chart review and provider survey at the Robert B. Green Family Health Center (RBG FHC). A review of 99 nurse blood pressure visits showed that only 34.5% included clear provider instructions with limited follow-up documentation. Baseline results demonstrated documentation gaps, limited provider awareness of nurse visit outcomes, and modest improvements in blood pressure across visits. Implementation of a provider-led standardized nurse-visit protocol is expected to improve documentation, strengthen provider–nurse communication, and increase the proportion of patients achieving blood pressure control, aligning with the AHA Target: BP initiative.[3]

Introduction

Hypertension is a leading modifiable risk factor for cardiovascular disease, yet control rates remain suboptimal despite effective treatments. Only 48% of U.S. adults with hypertension achieve blood pressure control (<140/90 mmHg).[1] Primary care plays a critical role in managing hypertension, and team-based strategies such as nurse-led blood pressure (BP) recheck visits have been shown to improve outcomes.[2] Nurse-led BP visits offer unique advantages: they expand appointment availability, reduce follow-up wait times, and lower costs for patients. In addition, these visits allow for more frequent monitoring, reinforce patient education, and promote adherence to lifestyle and medication changes. By leveraging nurses for routine BP checks, practices can improve efficiency, reduce provider workload, and enhance continuity of care; all of which are essential to achieving better blood pressure control at the population level. RBG FHC is a residency run clinic with over 60 providers,4 licensed vocational nurses and 16 medical assistants. Because our team is so robust, we anticipate there to be a wide range of practices when utilizing nurse BP visits.

Methodology

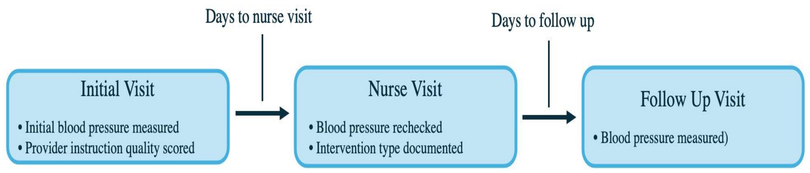
This quality improvement project used retrospective chart review and provider survey. The setting was the Robert B. Green Family Health Center, an academic residency clinic. Adult patients (N = 99) scheduled for a nurse visit with an initial clinic blood pressure ≥140/90 from three months (July 2024, November 2024, April 2025) were combined. Pediatric patients, low BP checks and visits for reasons other than BP monitoring were excluded.

A provider survey was conducted to assess provider utilization of nurse visits and awareness of outcomes.

1. In the past year, I have scheduled between ____ nurse visits for blood pressure checks.
2. Of those BP visits scheduled, I know the outcome of ____ of those visits.

BP values were collected at the initial, nurse, and follow-up visits. Provider instruction quality for nurse visits was assessed at the initial visit using a 0–3 rubric (see Figure 2).

Figure 1. *Timeline of Data Collection Across Visits*



Score	Description	Criteria
0	No Instruction	No follow-up plan or instructions given to guide the nurse
1	Minimal or vague	Generic instruction (e.g., "start BP log," or "take meds") without thresholds or an actionable plan
2	Moderate: Some structure or thresholds, but incomplete	Includes follow-up plan with either BP threshold or actionable plan but not both
3	Clear, comprehensive, and actionable	Includes all of the following: 1) BP thresholds, 2) specific nurse actions (e.g., start lisinopril 10), 3) safety flags or symptoms to monitor, 4) med instructions or next visit plan

Figure 2. *Provider Instruction Quality Scoring Rubric (0–3) (criteria for instruction quality at the initial visit)*

Results

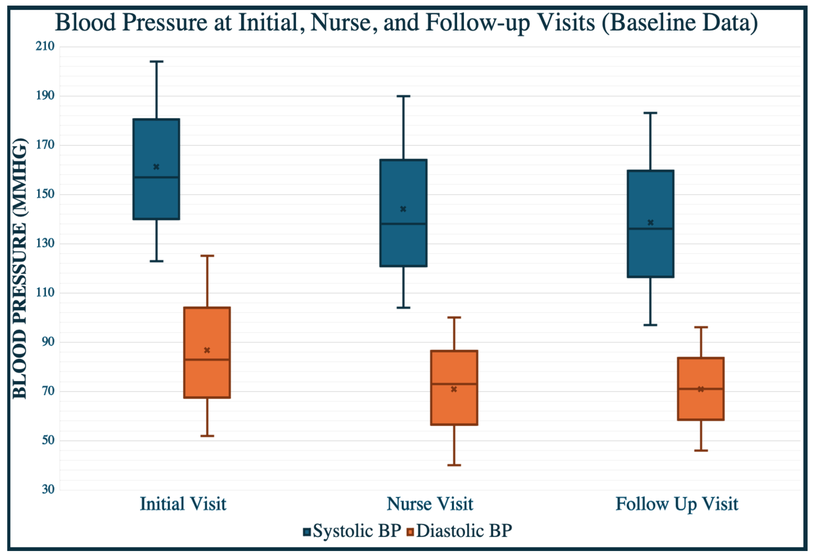


Figure 3. *Systolic and Diastolic Blood Pressure at Initial, Nurse, and Follow-up Visits*

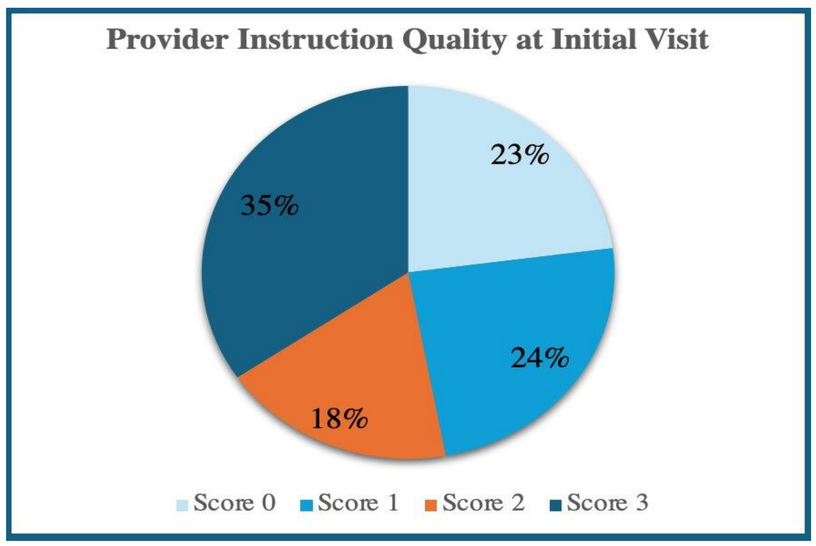


Figure 4: *Distribution of Provider Instruction Quality Scores(percentage of visits by score category)*

Results Summary

- In the provider survey providers reported rarely scheduling nurse visits (29% scheduled none per year, 42% scheduled 1–5, 21% scheduled 6–10, and 8% scheduled 11–15), and 75% of respondents reported not knowing the outcome of the nurse recheck.
- A total of 99 nurse blood pressure visits were reviewed across three sample months, with an average of 33 visits scheduled and 22 completed per month, yielding a 33% no-show rate.
- Blood pressure values decreased across visits, from an average of 156/83 mmHg at the initial visit, to 138/73 mmHg at the nurse visit, and 136/71 mmHg at follow-up. Of these follow up readings 37.7% above goal (≥140 systolic or ≥90 diastolic, and 62.3% were at goal <140 systolic and <90diastolic.
- Provider instruction quality at the initial visit varied: 23% received no instructions (score 0), 24% minimal (score 1), 18% moderate (score 2), and 35% clear and actionable (score 3).
- At the nurse visit, interventions included escalation to a provider in 36% of cases, medication changes in 15%, and no intervention or follow-up as scheduled in 49%.

Conclusion

Blood pressure measurements showed improvement during nurse visits and follow-up appointments, highlighting their effectiveness. Despite this, survey results indicated that both residents and faculty underutilize nurse visits and are often unaware of their outcomes, resulting in a crucial resource for our patients being overlooked. Furthermore, among the completed nurse visits, the instructions provided for nurses and the interventions performed were minimal, suggesting that even the utilized visits were not conducted to their full potential.

- Our future plan is to implement a provider-led standardized nurse-visit protocol through incorporating a standardized template for instructions and resident/faculty education.
- The intervention is expected to:
  - •Improve documentation and follow-up of elevated BP.
  - •Strengthen communication between providers and nursing staff.
  - •Increase the proportion of patients achieving BP control (<140/90) to the desired 70% per the national Target:BP initiative by the AHA.[3]
- Anticipated next steps include piloting the protocol, monitoring adoption, and evaluating its impact on continuity of care and hypertension outcomes.

References

1. Carter BL, Rogers M, Daly J, Zheng S, James PA. The potency of team-based care interventions for hypertension: a meta-analysis. *Arch Intern Med.* 2011;171(21):1748–1755.
2. Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCN A Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. *J Am Coll Cardiol.* 2018;71(19):e127–e248.
3. American Heart Association, American Medical Association. Target: BP™ initiative. https://targetbp.org/