Implementing a Pilot Project to Assist Patients in Controlling Blood Pressure in a Primary Care Setting through a Nurse-led Blood Pressure Clinic

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Background
The current workflow of the non-provider-led blood pressure (BP) appointments carried out by Medical Assistants (MAs) at the Advocate Aurora Health (AAH) RiverCenter Family Practice Clinic (RFPC) is not conducive to obtaining and maintaining adequate BP control for patients with Hypertension (HTN) who are actively seeking care.

Objectives
Improve the way BP is managed in a primary care setting during a non-provider-led BP appointment.

1. Achieve a Quality Improvement (QI) score >73% on combined QI report for Drs. Olsen, Sethi, and APNP Villwock for adequate BP control for HTN patients actively seeking care within 9 weeks; adequate BP is <140/90 mmHg
2. Achieve a 5% increased score on the anonymous Postimplementation Provider Satisfaction Survey

Methods
Setting: The AAH RiverCenter Family Practice Clinic located in downtown Milwaukee, WI

Inclusion Criteria for Objective 1:
• Primary Care Provider (PCP) is Dr. Olsen, Dr. Sethi, or APNP Villwock for at least 6 months
• Adult aged 18-85 with diagnosis of HTN
• Any in-person appointment at RFPC with their PCP during 9-week implementation period and has at least one of the following:
  • BP≥140/90 on 2 checks
  • Nonadherence with antihypertensive medication
  • Historically uncontrolled HTN defined as BP ≥140/90 during provider-patient appointments within the past 6 months

Exclusion Criteria for Objective 1:
• PCP suspects HTN urgency (BP ≥ 180/110)
• PCP suspects HTN emergency defined as acute, marked elevation in BP associated with signs of target organ damage
• Pregnancy and Preeclampsia
• Antihypertensive medication is not prescribed and managed by PCP

Objectives (continued)

Implementation Strategy for Objective 1:
• RFPC retired the non-provider-led BP appointments completed by MAs and implemented an RN-led BP appointment (Figure 1).

Provider-Approved Pathway:

Figure 1. Swim Lane Diagram of RN-led BP appointments including the role and responsibilities of topics to discuss, documentation to complete, and communication to maintain

Methods (continued)

Implementation Strategy for Objective 2:
• RN-led BP clinic's effectiveness in managing BP within 9 weeks

Provider-Approved Pathway:

Figure 2. Provider-Approved Pathway the RNs utilized within the RN-led BP appointments. The pathway guides follow-up appointments based upon the BP reading(s)

Results

Objective 1:
Successful in achieving a QI score >73% on combined QI report for Drs. Olsen, Sethi, and APNP Villwock for adequate BP control for HTN patients actively seeking care within 9 weeks; adequate BP is <140/90 mmHg

Combined Quality Improvement Report for Dr. Olsen, Dr. Sethi, and APNP Villwock

<table>
<thead>
<tr>
<th>Initiative Name</th>
<th>Measure Description</th>
<th>Num</th>
<th>Den</th>
<th>%</th>
<th>Score</th>
<th>Goal (A)</th>
<th># for A</th>
<th># for B</th>
<th># for C</th>
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<td>443</td>
<td>73</td>
<td>F (0)</td>
<td>≥89</td>
<td>10</td>
<td>12</td>
<td>34</td>
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Figure 3. January 2021 Preimplementation Combined QI Report for Dr. Olsen, Dr. Sethi, and APNP Villwock

Combined Quality Improvement Report for Dr. Olsen, Dr. Sethi, and APNP Villwock

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<tbody>
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<td>533</td>
<td>C (2)</td>
<td>89</td>
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<td>7</td>
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Figure 4. January 2022 Postimplementation Combined QI Report for Dr. Olsen, Dr. Sethi, and APNP Villwock

Objective 2:
Successful and surpassed goal of 5% increased score on the Postimplementation Provider Satisfaction Survey for RN-led BP clinic’s effectiveness in managing BP within 9 weeks

Combined Quality Improvement Report for Dr. Olsen, Dr. Sethi, and APNP Villwock

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Figure 5. Comparison of the anonymous Pre and Postimplementation Provider Satisfaction Surveys

Discussion

Major Findings & Outcomes:
• Both project objectives were achieved
• The combined QI score increased from 73% to 77%
• The provider survey indicated all participating PCPs found the RN-led BP clinic to effectively manage their patients’ BP.
• Provider perception of project effectiveness helped maintain interest and provider buy-in
• Non-participating PCPs at RFPC frequently asked when they could start using this resource

Limitations:
• PCPs’ colleague on maternity leave resulted in Dr. Olsen and APNP Villwock reporting less of their own patients scheduled each day due to seeing their colleague’s patients.
• Referral process dictated participating providers present RN-led BP clinic only to their own eligible patients in an appointment setting during the implementation period.
• APNP Villwock was out of the office for 3-weeks.
• One nurse was out of the clinic for 4 weeks
• One nurse was reassigned to a different role and responsibility at RFPC.

Implications for Practice
• Leadership interested in expanding the RN-led BP clinic to all providers at the clinic and reassessing the results
• Opportunities to see how this RN-led BP clinic workflow can be implemented at other primary care clinic sites
• Provider and team member buy-in is essential
• Leadership approved billing/coding the RN-led BP appointment as a 99211 level of service, which will bring some revenue to the clinic.
• This project applied the goals of The Future of Nursing 2020-2030 by maintaining focus on the patient experience (National Academies of Sciences, Engineering, and Medicine, 2021)

Acknowledgements
I want to thank Dr. Kelly Fogelmark and Taylor Villwock, APNP for their guidance and expert knowledge. The collaboration you both provided helped this project be the success that it is.

Reference
https://doi.org/10.17226/25682

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