Implementation of a Nurse Practitioner Fracture Liaison to Improve Outcomes in Post-Fracture Patients

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Purpose

Improvement is needed in osteoporosis screening and post-fracture care. Nurse practitioners can play an important role in improving care. This project aims to decrease the number of care gaps in osteoporosis management for Medicare Advantage post-fracture patients by implementing a nurse practitioner fracture liaison.

Methods

This project follows the Institute for Healthcare Improvement (2018) Plan-Do-Study-Act Model.

Plan - The RQIs question is "Will implementation of a nurse practitioner fracture liaison improve quality outcomes in Medicare Advantage post-fracture patients?"

Do - Patients who are not on osteoporosis treatment and have not had a bone density test or were on any medications to treat osteoporosis. A valid note will be sent to the primary care provider.

Study - The number of open HEDIS gaps and the Medicare Star Ratings from previous years at the beginning and at the end of the project will be compared. The outcomes of data collection and analysis will be a 25% increase.

Act - The data analysis and results will be summarized and presented to administration. If the findings show an improvement, they will be used to support expanding the use of a nurse practitioner fracture liaison statewide.

Setting: WellMed Southwest Florida, a managed service organization for Medicare Advantage patients.

Inclusion Criteria: Women age 65 and over who have had a fragility fracture and have an open Healthcare Effectiveness Data and Information Network osteoporosis management quality gap.

Exclusion Criteria: Patients who have had a DEXA scan two years before the fracture or 6 months after the fracture and who are already being treated for osteoporosis.

Sampling Strategy: Qualified patients are identified through a quality measure database, which provides information on individuals with open osteoporosis management gaps at WellMed. In January 2019, 61 patients were identified. Following the removal of ineligible patients, patients that met exclusion criteria and patients whose provider group opted not to participate, a total of 25 patients remained.

Outcome Measures: HEDIS scores and Medicare Star Ratings.

Intervention

- The eligible 25 patients were called to see if they have already had a bone density test or were on any medications to treat osteoporosis.
- If not, they were offered a home visit including: GE Qualitative Frax computer, calcaneal ultrasound, fall risk assessment, and thorough education.
- If they were not interested, education was provided over the phone, and they were assisted with scheduling a follow up with their primary care provider to order bone density testing.
- If they accepted the in-home intervention, the nurse practitioner visited them to perform the above interventions.
- A copy of the calcaneal ultrasound, FRAX score, fall risk assessment score, and visit note were sent to their primary care provider.
- The patients were referred to the primary care provider to determine further treatment and final clinical decisions.

Results

Total of 25 Eligible Participants

- Patients who were unable to be contacted
- Patients with a gap that expired before they could be reached
- Patients with a gap closed by PCP before they could be reached
- Patients who refused all interventions
- Patients who had the telephone intervention and scheduled with radiology
- Patients who had a full intervention with the nurse practitioner

In the United States, there are millions of people who have osteoporosis or are at high risk due to low bone mass (National Institute of Health, 2014). Twenty percent of patients who have a fragility fracture will have another fracture within five years (Keshishian et al., 2017). Also, up to 30% of patients who have a hip fracture die within one year (United States Preventive Services Task Force, 2018). Many osteoporosis-related fracture patients are not being screened or followed up after their first fragility fracture (International Osteoporosis Foundation, 2018). Evidences shows that having a fracture liaison follows up after their first fragility fracture (International Osteoporosis Foundation, 2018). Many osteoporosis-related fracture patients are not being screened or followed up after their first fragility fracture (International Osteoporosis Foundation, 2018).

Limitations

- A large provider group opted out of the intervention. This limited the number of qualifying patients for this project.
- Poor success rates with contacting patients by telephone. Many patients did not return the call or did not answer the phone.
- The Medicare Star Rating was difficult to impact due to provider group size variability and the fact that new patients are having fractures at the same time as current patients’ gaps are closing.

Discussion

This quality improvement project demonstrated that the use of a nurse practitioner fracture liaison can be very effective in closing HEDIS osteoporosis quality gaps and can have a positive impact on Medicare Star Ratings for this measure. The percentage of HEDIS measures closed in the NP intervention group was 48% in comparison to non-NP intervention group of 29%. Medicare Star Ratings also showed an increase from January to March from 1.8 to 2.5 in the NP intervention group.

An additional method of contacting patients needs to be used to reach more patients. Developing a letter for patients with open osteoporosis gaps to educate them about their risks and inviting them to have the NP come to their homes or contacting them by phone may improve recruitment of patients into this program. Also, including their primary care provider’s name in the letter and assuring them the results will be sent to their PCP can increase patients’ confidence.

The outcomes of this project provided evidence to provider groups of the benefits in utilizing the nurse practitioner fracture liaison role to close gaps. The results also support the usefulness of expanding the role statewide.

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References are available upon request