OSTEOPOROSIS

Improving the Screening and Referral Process

A QUALITY IMPROVEMENT PROJECT
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WebMD (2021)
BACKGROUND AND PROBLEM

BACKGROUND:
- Elderly are living longer.
- OP is a well-known problem, yet there continue to be gaps regarding screening and treatment.

PROBLEM:
- Worldwide gap of 80% people not being treated for OP.
- 1.7 million fractures projected each year.
- 70% of hip fractures will be due to OP.
- Burden to health care expense.

AAOS, 2014; National Osteoporosis Foundation (NOF), 2019
What is a Fracture Liaison Service (FLS)?

- Best practice for identifying and treating osteoporosis (OP).
- It is a coordination of care that closes the gap by preventing secondary fractures.
  - Nurse practitioner led program.
- FLS is the most effective way to improve patient outcomes from fracture.
  - Physician Champion, FLS Coordinator, Nurse navigator
- Provides closer follow-up of OP

Ganda et al., 2013; Wasfie et al., 2019; WHO, 1998
AIM OF THE PROJECT

- **Improved screening and referral process to an FLS:**
  - Implement a custom alert button into the electronic health record to encourage surgeons to refer:
    - Increase referral rate within 90-days.
    - 50 years and older with a fragility fracture.
  - Retroactive Chart Review for both before (2019) and after (2020) implementation:
    - to determine the number of patients referred to the FLS.
  - Compare results of 2019 and 2020 to determine if referral process was improved by at least 25%.
Orthopaedic Practice in the Southeastern United States:
- Specializes in Bone Health, Sports Medicine, and Rehabilitation
- Six Orthopaedic Surgeons
- Internal FLS Clinic
- Two Nurse Practitioner FLS Coordinators
- Approximately 3,000 patients seen annually

Resources:
- Billing Department
- Information Technology
- EHR
- Computer and Workspace
## Retroactive Chart Review

<table>
<thead>
<tr>
<th></th>
<th>Pre-Implementation - 2019</th>
<th>Post-Implementation - 2020</th>
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<tbody>
<tr>
<td>Total Patients</td>
<td>91</td>
<td>155</td>
</tr>
<tr>
<td>Inclusion</td>
<td>37</td>
<td>59</td>
</tr>
<tr>
<td>Exclusion</td>
<td>54</td>
<td>96</td>
</tr>
</tbody>
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*Custom Alerts*

*Consider mammography (patient is over the age of...)*

*PATIENT MEETS CRITERIA FOR FLS*
RESULTS

<table>
<thead>
<tr>
<th>Year</th>
<th>FLS Referrals</th>
<th>Non-Referrals</th>
<th>Referrals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>37</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>48</td>
<td>11</td>
<td></td>
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Percentage Gap/Improvement

- FLS Gap 2019: 95%
- FLS Gap 2020: 81%

Improvement Rate: 14%
### IMPLICATIONS TO PRACTICE

- Custom Alert was adopted into practice
- Appointed a supportive physician champion
- FLS coordinator to focus solely on FLS clinic
- Monthly audits to capture missed opportunities
- Changes in protocol
REFERENCES


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