

Utility of Inpatient Fracture Liaison Service on Post-hospitalization Follow-up

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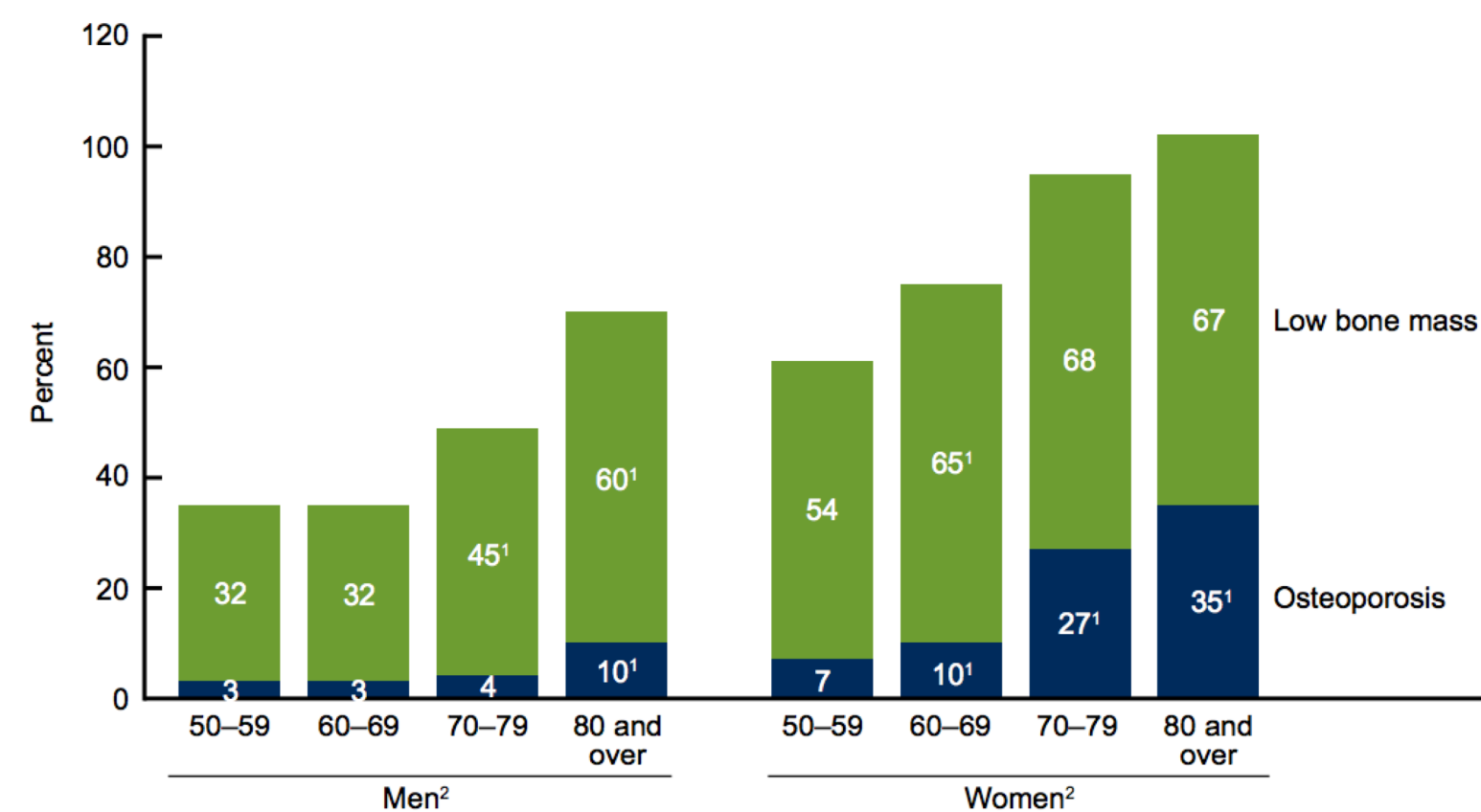
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Background

- **Problem Statement:** Osteoporotic fractures are a major source of morbidity and mortality especially in the elderly. Patients admitted for fragility fractures have inadequate outpatient follow-up leading to worse outcomes.
- **Project AIM:** We implemented an inpatient fracture liaison service to identify patients admitted for fragility fractures with the goal of improving outpatient follow-up.

Baseline Metrics

Osteoporosis or low bone mass at the femur neck or lumbar spine, by age in adults aged 50 years and over



SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2005-2008.

Table 1. Patient characteristics

	Entire cohort, N=29 n (%)		Entire cohort, N=29 n (%)
Age (Average), years	79 (46-100)	Gastric bypass history	1 (3.4)
Gender		Smoking history	10 (34.5)
Female	21 (72.4)	Glucocorticoid use	4 (13.8)
Male	8 (27.6)	Immobilization	8 (27.6)
Race		History of fracture	
White	22 (75.9)	Yes	7 (24.1)
African American	6 (20.7)	No	22 (75.9)
Asian	1 (3.4)	Prior DXA scan	
Medical History		Yes	16 (55.2)
Osteoporosis	7 (24.1)	No	13 (44.8)
Diabetes mellitus	5 (17.2)	Prior osteoporosis treatment	
Cardiovascular disease	10 (34.4)	Yes	4 (13.8)
Chronic kidney disease	5 (17.2)	No	25 (86.2)
Rheumatoid arthritis	2 (6.9)	Body Mass Index (median, range)	24.5 (18.0-46.0)

Interventions

- From 9/9/2021 to 1/6/2022, endocrinology was consulted for twenty-nine patients with a fragility fracture.
- Patients were evaluated for osteoporotic risk factors.
- Patients were counseled to follow-up with endocrinology or their primary care physician.
- Chart review was performed to identify if patients had appropriate follow-up.

Figure 2. Initial process map

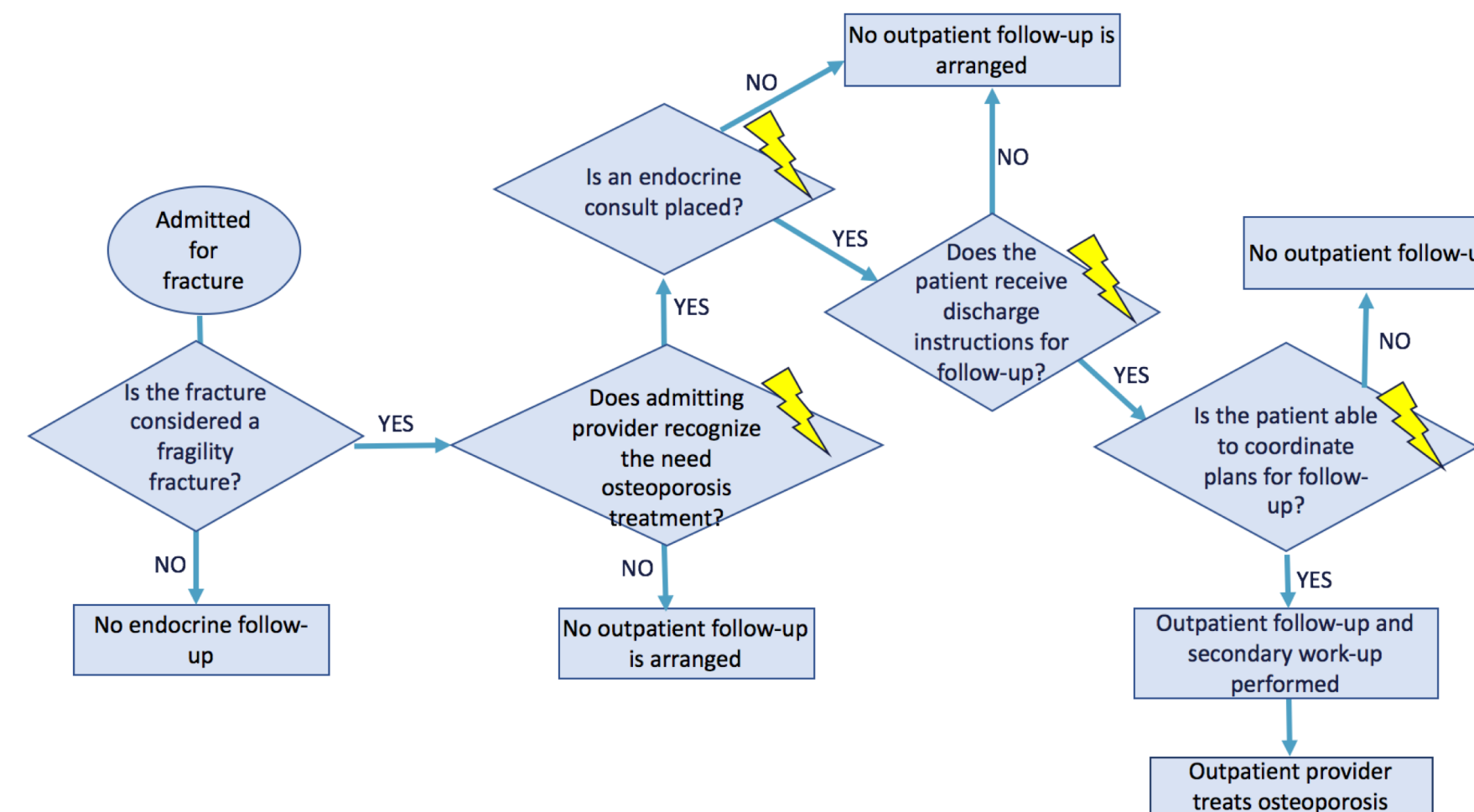
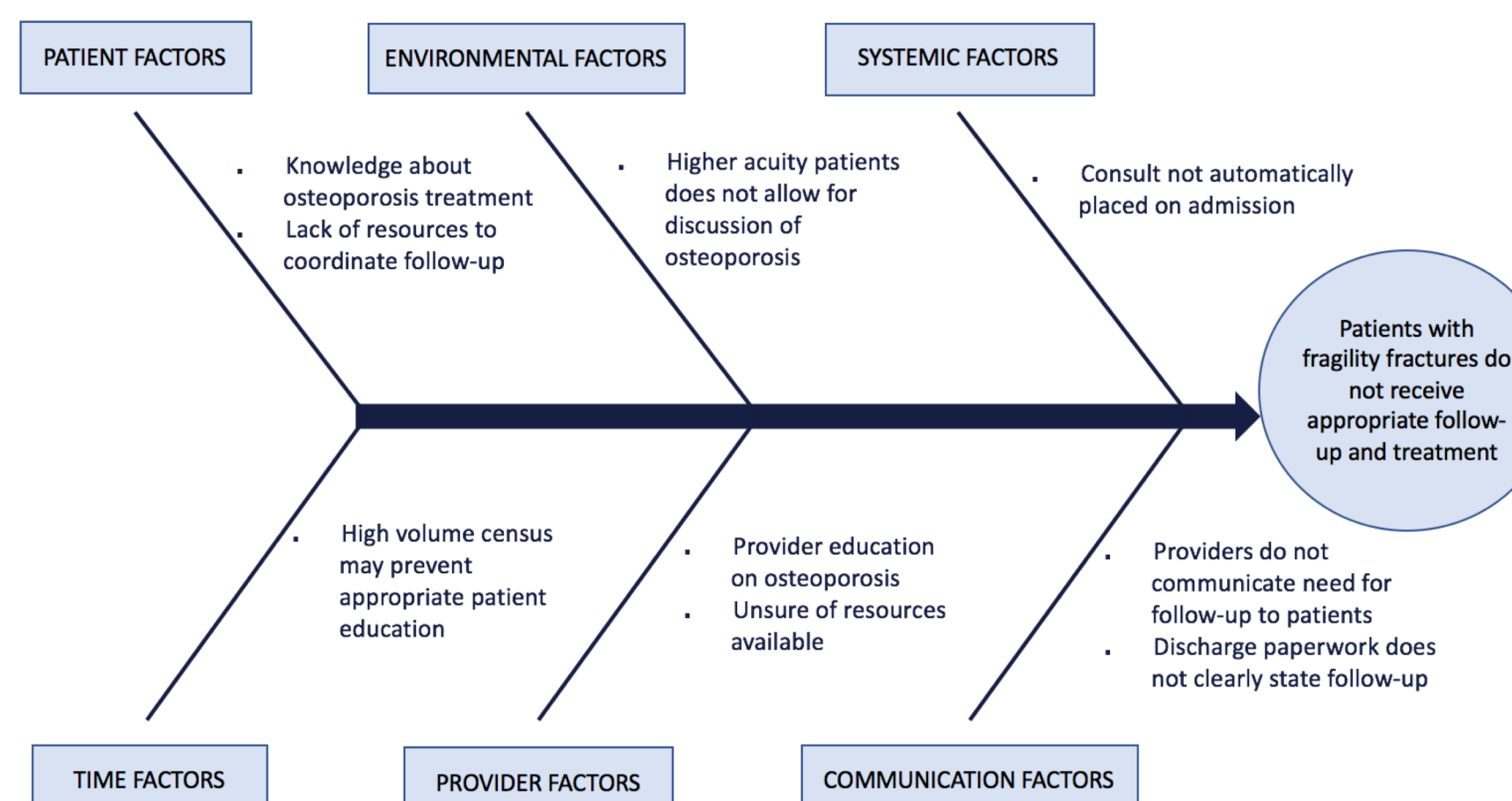


Figure 3. Root cause analysis



Outcomes

- 7 patients (24%) followed up at discharge for osteoporosis management.
- 3 patients (10.3%) were initiated on treatment for osteoporosis.
- 22 patients (76%) did not have any follow-up documented.

Challenges and Lessons Learned

- Inpatient provider must recognize need for osteoporosis treatment
- Limited by electronic medical record documentation
- Patient must receive appropriate follow-up information
- Lack of resources (i.e. transportation) delays patient follow-up

Future Directions

- Improve provider education on osteoporosis (i.e. screening, treatment)
- Improve patient education on osteoporosis
- Identify patient specific factors contributing to poor follow-up

Linkage to Healthcare Disparities

- Socioeconomic disparities may delay specialty care for osteoporosis work-up and treatment.
- There are significant racial disparities regarding osteoporosis management. Studies have shown that non-white women are less likely to be screened for osteoporosis, receive osteoporosis treatment and have a higher mortality rate after fracture.
- Future studies should aim to identify and address barriers to specialist care.

Karina N. Ruiz-Esteves, Jimmitti Teyssir, Daria Schatoff, Elaine W. Yu, Sherri-Ann M. Burnett-Bowie. Disparities in osteoporosis care among postmenopausal women in the United States, Maturitas, Volume 156, 2022, Pages 25-29.