Improving bone health assessments in patients attending Frailty SDEC

Northern Care Alliance
NHS Foundation Trust

Dr Francesca Morgans-Slader; Dr Chloe Cropper; Dr Alex Bulcock; Dr Helen Jackson.

Introduction

The Frailty Same Day Emergency Care (SDEC) unit at Fairfield General Hospital provides same day Comprehensive Geriatric Assessments (CGA). Bone health is an integral part of CGA, however recognition and management of osteoporosis is often not prioritised in acute hospital settings. There is a recognised treatment gap in osteoporosis between those that need treatment and those who receive it. (1)
This is important considering hip fractures, a leading complication of osteoporosis, have a mortality of roughly 20% (2). Patients that present following falls are high risk of this complication and a CGA might provide an opportunity to reduce this future risk and improve bone health.

Objective

We noticed that bone health was an area that was often overlooked within our CGAs. Our goal was to increase the number of bone health assessments performed and improve access to appropriate treatment for patients in the Frailty SDEC.
The aim of this project was to increase the number of appropriately managed FRAX scores by 40% within 12 weeks in high-risk patients.

Methodology

Baseline data was collected on all patients attending Frailty SDEC 2 days per week over an 8 week period. A driver diagram and process map of the current patient journey was created to help identify areas of improvement. We measured how many patients were having FRAX scores calculated, and how these were acted on. Analysis of the baseline data indicated that patients presenting with falls were not having FRAX scores completed.

Our change idea was implementing a pathway on the Frailty SDEC unit. This helped guide and remind clinicians when to calculate a FRAX score. This was also facilitated by our pharmacist who led the completion of FRAX scores which helped consistency as it did not add to the doctor's workload.

Analysis

Bone health assessment in patients presenting with falls to Frailty SDEC was improved from 40% pre-intervention, to 80% post-intervention. Of those who were identified as needing treatment for osteoporosis, all patients had an appropriately assessed treatment plan and none were untreated who had been deemed appropriate for treatment.
Due to the low sample size and the selection criteria for data collection, it is difficult to know the impact of the intervention and if this was statistically significant in term of improving overall assessment. However, the total number of bisphosphonates prescribed did increase.

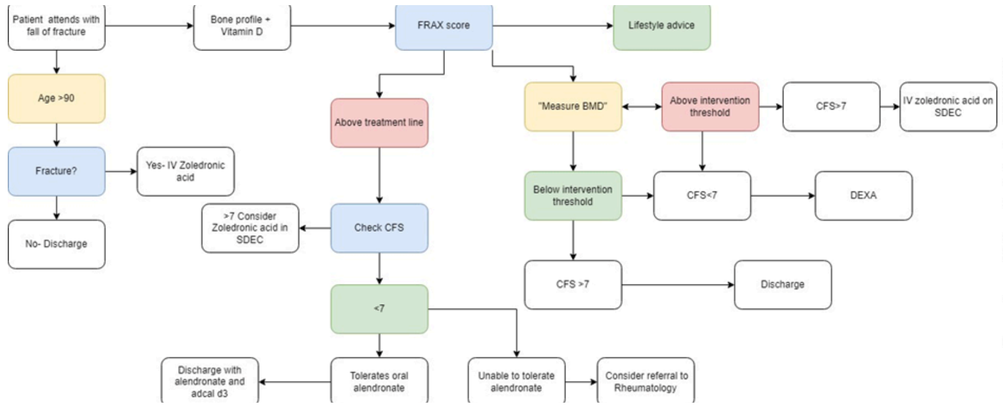


Figure 1 - Pathway implemented to aid clinician decision making.

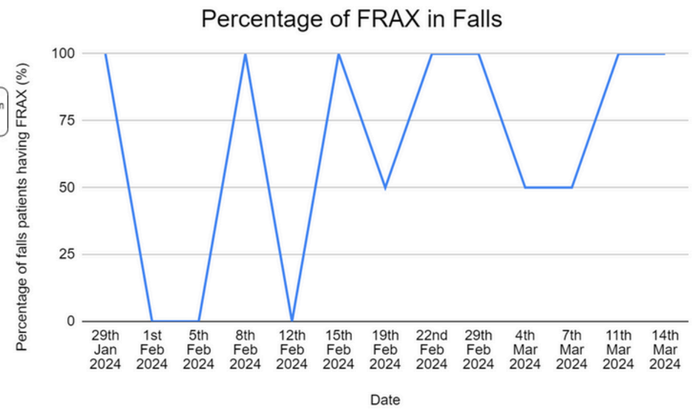
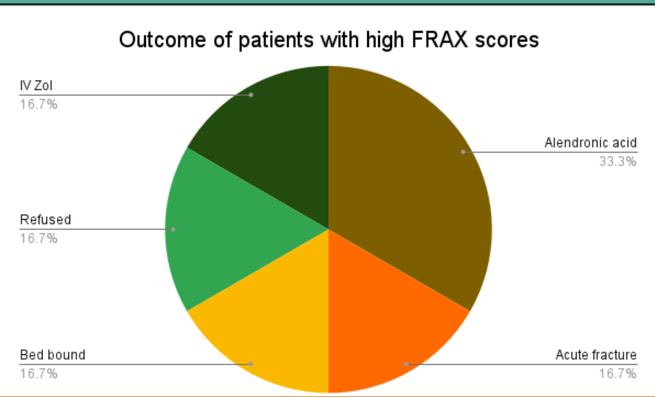


Figure 2 -Run chart showing percentage of patients presenting with a fall who had a FRAX score

Figure 3 - Chart showing the post-intervention treatment of patients with high FRAX scores



Conclusion

The implementation of a bone protection pathway has led to an improvement in the amount of FRAX scores calculated for patients attending with a fall. Although it was difficult to assess whether the amount appropriately managed FRAX scores increased due to low sample size in the pre-intervention population, the absolute amount of bisphosphonate prescribed did increase, implying improved access to treatment for patients at high risk of fragility fractures. The pathway was implemented across the Northern Care Alliance as part of a Quick Reference Guide for Frail Fallers Attending Frailty SDEC.

References: 1.Fuggle NR, Curtis B, Clynes M, Zhang J, Ward K, Javaid MK, Harvey NC, Dennison E, Cooper C. The treatment gap: the missed opportunities for osteoporosis therapy. Bone. 2021 Mar 1;144:115833.
2.Haleem S, Choudri MJ, Kainth GS, Parker MJ. Mortality following hip fracture: trends and geographical variations over the last SIXTY years. Injury. 2023 Feb 1;54(2):620-9.