Embedding FRAX scoring into the Comprehensive Geriatric Assessment following an inpatient audit

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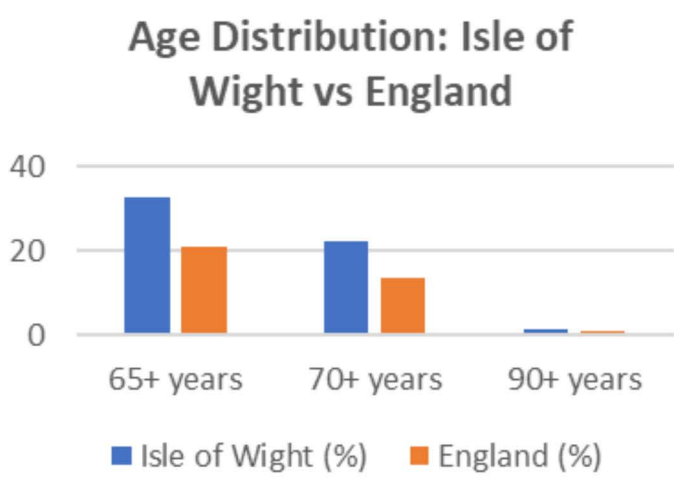
INTRODUCTION

Falls are a common presentation to Emergency Departments (ED), compromising 17% of all ED attendances in one study1 and can lead to significant harm including fragility fractures (FFs). Consequences of FFs include pain, immobility and functional decline, decondition, and high mortality2.
Anti-resorptive medications such as bisphosphonates can reduce the risk of FFs3.
NICE and the National Osteoporosis Guideline Group (NOGG) recommend using a validated screening tool such as FRAX as part of a bone health assessment to guide further investigation and management of those at high risk of fragility fracture4 and provide guidance on which groups should have their fragility fracture risk assessed.
Comprehensive Geriatric Assessment (CGA) is the gold-standard, multidisciplinary approach to assessing and managing geriatric syndromes including falls and can include fragility fracture risk assessment5.
The purpose of this audit was to identify whether older inpatients who met the NICE criteria for bone health assessment had a FRAX score completed and whether embedding FRAX scoring within the CGA completed by the Allied Health Professional-led (AHP) Acute Frailty Team resulted in improvements in the number of FRAX scores completed.

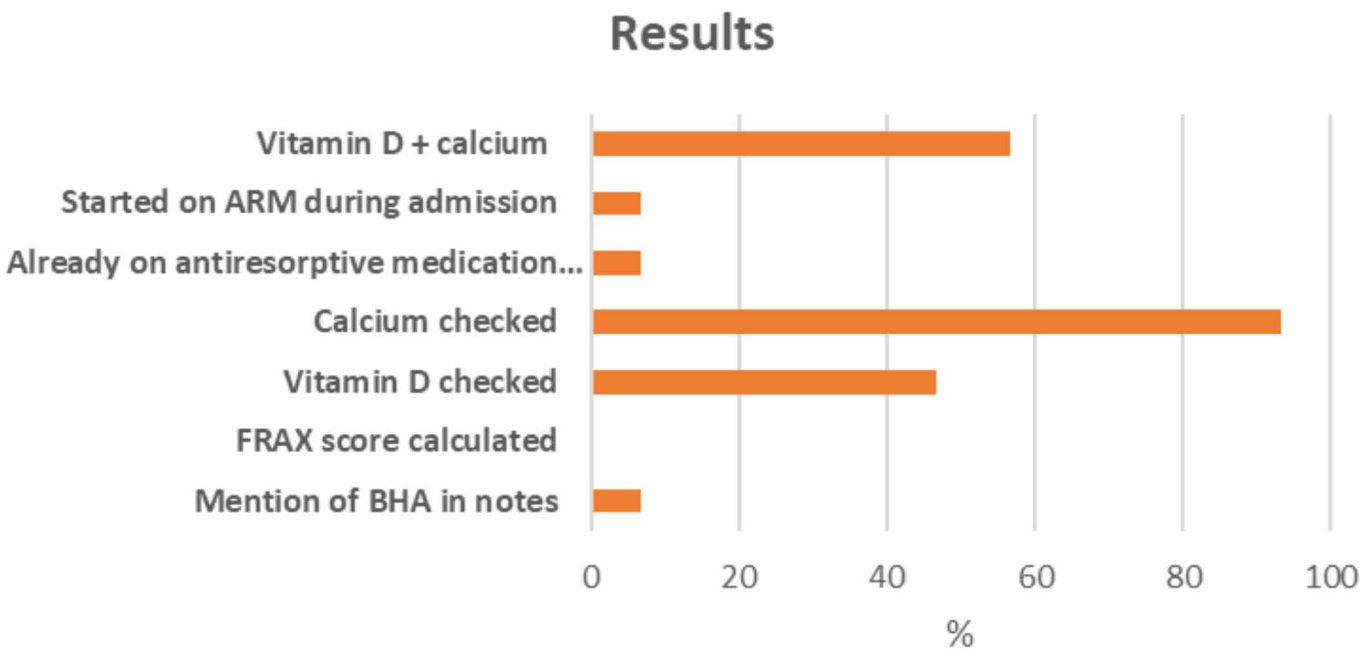
METHODOLOGY

A cross-sectional audit was undertaken of all inpatients on Colwell Ward, Medicine for Older people, Isle of Wight NHS Trust, within a 24-hour period. Patients were assessed against the NICE criteria to determine whether a bone health assessment was indicated. If a bone health assessment was indicated, inpatient notes were reviewed for evidence of a bone health assessment or FRAX score. Blood tests were reviewed for evidence of serum vitamin D and calcium measurements in the past 3 months. Medication charts and primary care records were reviewed to identify any prior or current prescriptions of vitamin D and calcium supplementation, and/or anti-resorptive medication.
Following completion of the audit, FRAX scoring has been introduced as part of the falls risk assessment in the Comprehensive Geriatric Assessment being trialled by the Acute Frailty Team.



Results

Of 30 inpatients, 100% met NICE criteria for BHA. Mean and median age was 85 (72-96). 63.3% were female (19/30). 16.7% had a history of osteoporosis or osteopenia (5/30).
6.7% (2/30) had a note mentioning BHA in their medical notes, however zero patients had had a FRAX score calculated.
46.7% (14/30) had vitamin D checked and 93.3% (28/30) had had calcium checked. 6.7% (2/30) were already on ARM and the same percentage were started on ARM that admission. 56.7% (17/30) had vitamin D and calcium prescribed on their drug charts.



Discussion

It is unclear why so few patients had had a bone health assessment and FRAX score considering all inpatients met the NICE criteria for assessment and only 2/30 patients were already on anti-resorptive medication. However, it is likely the reasons are multi-factorial including lack of awareness regarding the NICE and NOGG guidelines, bone health assessment being perceived as less important than other tasks in a higher acuity environment, and unfamiliarity with anti-resorptive medications amongst less experienced prescribers.
It is notable that all inpatients met the NICE criteria for fragility fracture risk assessment. This is reflective of the high-risk group geriatricians care for and perhaps all patients under the care of Medicine for Older People should have a FRAX score completed without reference to the NICE guidance to simplify decision-making. Routine checking of vitamin D and calcium on admission may improve opportunities to address deficiency in this high-risk group.

Conclusion

All patients met the NICE criteria for fragility fracture risk assessment however none had FRAX scores completed. Without quality improvement work, this may lead to avoidable fragility fractures. Reasons for the low number of FRAX score completed are likely multifactorial. Embedding FRAX scoring within the falls risk assessment of the Acute Frailty CGA increases opportunities to identify at-risk patients early in their admission. A re-audit is recommended after the pilot CGA including the FRAX score has been fully implemented locally.

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