Reviewing the Effect of the COVID Pandemic on Changing Clinical Practice of Administrating Zoledronic Acid to hip fracture Patients

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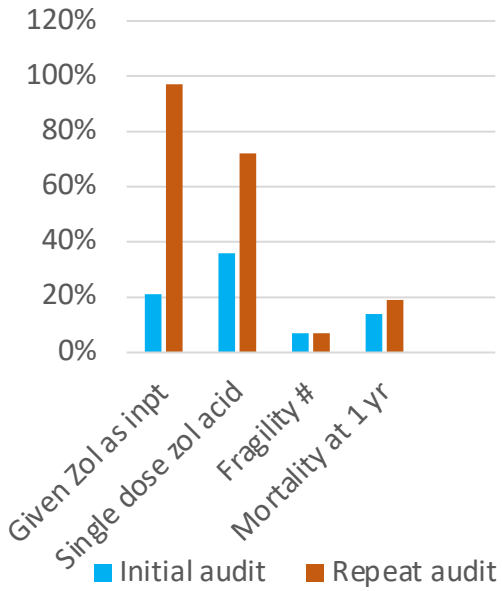
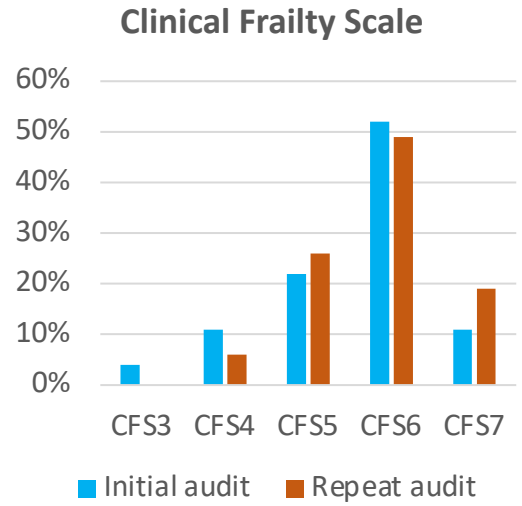
Introduction

Reduction in outpatient appointments during the COVID-19 pandemic and patient concern surrounding risk of contracting COVID-19 by attending day-case settings, resulted in delayed or cancelled medical treatments including Zoledronic Acid infusions as management for Osteoporosis. This, alongside recent research concluding that these treatments can be given safely as early as 1-2 weeks post-fracture, lead to the adaptation of protocol at Hull University Teaching Hospitals Trust in 2021, to provide rapid loading of Cholecalciferol over 6 days, prior to administration of Zoledronic Acid on day 7. However, some concerns remain surrounding the potential interference with bone remodelling and healing. This completed audit cycle evaluates the logistics and safety of this new protocol.





Methods

All patients over 60, admitted with neck of femur fracture who received Zoledronic Acid infusion as inpatient or outpatient in 2019 and 2021 were included in the initial and repeat audit respectively. Electronic records for the following 12 months were analysed evaluating for further fragility fracture and mortality rate.

Results

There was an increase in patients receiving Zoledronic Acid as an inpatient treatment from 21% in the initial audit to 97% in the repeat audit. There was a slight increase in mortality rate at one year from 14% to 19%. The percentage of a further fragility fracture within one year, remained stable at 7%.

Conclusion

The increase in inpatient infusions suggests more patients with significant frailty who would otherwise not have been able to attend outpatient settings, have been able to receive treatment. The mortality results reflect this frailer audit population. The absence of a substantial increase in the rate of further fragility fracture at one year; supports the earlier administration of Zoledronic Acid as a management protocol.

References:

Barton, D.W., Taylor Smith, C., Piple, A.S., Moskal, S.A and Carmouche, J.J. 2020. Timing of Bisphosphonate Initiation After Fracture: What Does the Data Really Say?. *Geriatric Orthopaedic Surgery & Rehabilitation.* [Online]. Available at: Timing of Bisphosphonate Initiation After Fracture: What Does the Data Really Say? - PubMed (nih.gov) [Accessed 8 April 2022].