



Osteoporotic Vertebral Fractures – are we treating the actual problem?



Sherif Ahmed Kamel, MD, FRCSEd (Tr & Ortho)^{1,2}, Kristine Logan¹; Partha Basu, FRCS¹
¹University Hospitals of Leicester NHS Trust, Leicester, UK, ²Ain Shams University, Cairo, Egypt

Background

Annually, approximately 536,000 new osteoporotic fractures are diagnosed in the UK, 66,000 are vertebral fractures. The cost to the NHS exceeds £4 billion/ year. Most national and international guidance advise for secondary fracture prophylaxis after osteoporotic fractures.

Results

A total of 146 cases data were collected, 29 were excluded. Age range was 26-93 (71.7) years. 68% were females. The most common region was the thoracic spine. Patients presented with only one fracture were 62%. New fractures comprised 71% of the cases, whilst the others were old or of unknown chronicity. Most patients had one clinic appointment during the period (83), however clinic appointments range from 1 to 4 (average 1.39). Bone health was addressed fully in 65% of cases and partially in 7%. Forms of bone health addressing were recognition of the patient on anti-osteoporotic medication (35%), commencing anti-osteoporotic medication (16%), arranging of DEXA scan (21%), or referral to bone health, rheumatology, or primary care for osteoporosis management (28%).

Conclusions

There was less attention to the secondary prophylaxis after osteoporotic vertebral fractures. A management pathway was proposed in order to address this problem, to reduce the burden imposed on NHS by osteoporosis.

Disclosures

None

Methods

Retrospective quality improvement project aiming to determine the referral to bone health or initiation of osteoporotic treatment for patients with osteoporotic vertebral fractures as per NICE (2021) and National Osteoporosis Guideline Group (updated 2018). The sample were cases with suspected osteoporotic vertebral fractures seen in spinal fracture clinic in Leicester Royal Infirmary, University Hospitals of Leicester from 01/01/2021 till 31/12/2021 inclusive. Purely traumatic, pathologic, or unstable fractures were excluded as well as initial clinic outside the data collection range or loss of follow up. The outcome was to assess whether bone health was addressed.

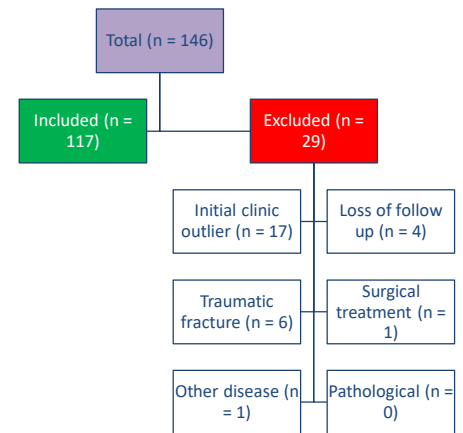


Chart 1. Details of patients

HAS BONE HEALTH BEEN ADDRESSED?

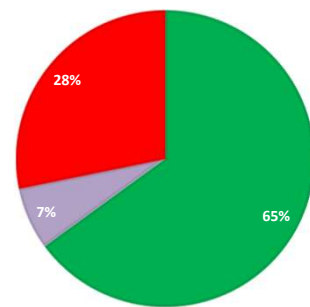


Chart 2 Demonstration of whether bone health was addressed in clinic

If yes, then how?

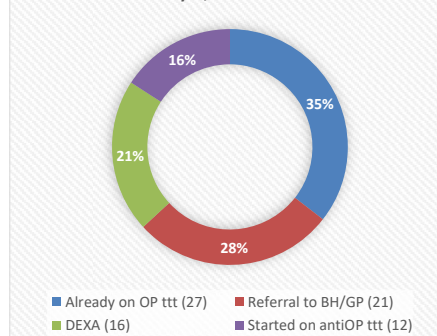


Chart 3 Demonstration of how bone health was addressed in clinic

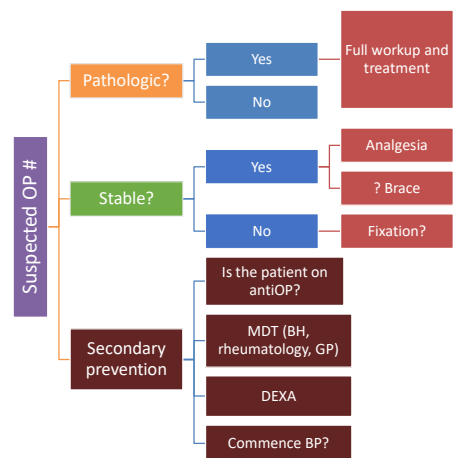


Chart 4 Suggested pathway for management of vertebral osteoporotic fractures in fracture clinic

Contact

Mr Sherif Ahmed Kamel, MBBCh, MSc (Ortho), MD (Ortho), FRCSEd (Tr&Ortho)
University Hospitals of Leicester NHS Trust
Email: sherif.ahmedkamel@nhs.net

References

- Svedbom A, Hernlund E, Ivergård M, Compston J, Cooper C, Stenmark J, McCloskey EV, Jönsson B, Kanis JA; EU Review Panel of IOF. Osteoporosis in the European Union: a compendium of country-specific reports. Arch Osteoporos. 2013;8(1):137. doi: 10.1007/s11657-013-0137-0. Epub 2013 Oct 11. PMID: 24113838; PMCID: PMC3880492.
- van Staa TP, Dennison EM, Leufkens HG, Cooper C. Epidemiology of fractures in England and Wales. Bone. 2001 Dec;29(6):517-22. doi: 10.1016/S8756-3282(01)00614-7. PMID: 11728921.
- Ferreira PCS, Maher CG, Megaw RZ, March L, Ferreira ML. An overview of clinical guidelines for the management of vertebral compression fracture: a systematic review. Spine J. 2017 Dec;17(12):1932-1938. doi: 10.1016/j.spinee.2017.07.174. Epub 2017 Jul 21. PMID: 28739478.
- NICE - Osteoporosis - prevention of fragility fractures Last revised in July 2021
- National Osteoporosis guideline group recommendations 2018 (National Osteoporosis Guidelines Group UK (nogg.org.uk))