Bisphosphonates in General Practice: An Audit on the Management of Osteoporosis

Sir,

An estimated 300,000 people aged 50 and over are currently living with osteoporosis in Ireland¹. For decades, bisphosphonates have been used as the drug of choice for the treatment of osteoporosis. Despite their efficacy against the development of fractures in osteoporosis, bisphosphonates have been associated with serious, albeit rare, adverse events. These include osteonecrosis of the jaw, as well as atypical fractures of the subtrochanteric and diaphyseal femur². As such, the possibility of a ‘drug holiday’ should be evaluated in all patients on bisphosphonate treatment. The Fracture Risk Assessment (FRAX) Tool incorporates non-Bone Mineral Density (BMD) clinical features into the assessment of a patient’s fracture risk. FRAX scores should be used in combination with DEXA in determining an individual’s appropriateness to remain on bisphosphonates. An algorithm outlining this was developed by the Derbyshire Joint Area Prescribing Committee NHS (DJAPC-NHS)³. By following this algorithm for all patients on bisphosphonates, bisphosphonate-related adverse events may be avoided.

We conducted a local investigation at Clanmaurice Medical Centre (CMC), Abbeydorney and Ballyheigue, County Kerry. We hoped to determine the number of CMC patients prescribed bisphosphonates for the treatment of osteoporosis. An additional aim was to assess whether the management of osteoporosis with bisphosphonates at CMC is in accordance with the aforementioned guidelines. A HeathOne search was carried out by disease name, which yielded 58 patients with osteoporosis, out of a total of 3,766 patients. Of these 58 patients, 50 were identified as having been prescribed bisphosphonates. Information was collected from these patients’ files regarding gender, age, DEXA scans, X-ray scans, fracture history, medications prescribed, and bisphosphonate treatment duration. Statistical analysis of this data was completed using Microsoft Excel.

Guidelines established by the DJAPC-NHS for the treatment of osteoporosis with bisphosphonates include an algorithm initiated by a reassessment of treatment at 5 years. Using this algorithm, a combination of DEXA and FRAX scores are used to assess each patient as high- or low-risk. High-risk patients are advised to continue with bisphosphonate treatment for another 5 years, while those determined to be low-risk are due for a bisphosphonate holiday. Adherence to this algorithm will decrease the risk of bisphosphonate-related adverse events. The results of this audit indicate that the treatment of osteoporosis with bisphosphates at CMC is not entirely in accordance with existing guidelines. Reassessment of treatment at 5 years was not performed on a number of patients, while one patient was continued on bisphosphonate treatment despite having qualified for a drug holiday. Limitations of this study include a small sample size which may not adequately represent the GP patient population. Implications of this study suggest that guidelines regarding the duration of bisphosphonate
treatment must be more strictly adhered to and it is suggested that a follow-up audit be administered to confirm such changes. We therefore conclude that there exists a need for a robust protocol to be put in place regarding the long-term treatment of osteoporosis to improve on current practices.

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