

Therapeutic Regimens of Osteoporosis in Bahrain: A Drug Audit

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ABSTRACT

Objective: We examined the protocol for drug selection and bone mineral density follow up for a sample of osteoporosis patients in Bahrain.

Methods: This was a retrospective study. Data was collected from three hospitals in Bahrain over the period 2016-2018. We collected subject's demographic data, osteoporosis drug therapy, and the schedule of dual-energy X-ray absorptiometry (DXA) scan before and after therapy.

Results: The number of subjects who were included in this study was 4572 (mean age 59.36 years: 92.5% females, 7.5% males). We found that 41.8% of the patients used osteoporosis medications, whereas the rest were not on any pharmacotherapy (58.2%). The following drugs were used: Vitamin D (82.4%), Calcium (76.6%), Denosumab (14.9%), Bisphosphonate (4.5%) and Tamoxifen (4.3%). Almost all subjects were offered BMD scan before therapy (96.5%), but minority received a follow up after starting medications (17.2%). The follow up scan was performed 2-3 years following therapy in 46.9% of subjects, whereas for the rest, it was requested 1-2 years (31.1%) or 3 years (17.1%) later. Pharmacotherapy was associated with age ($p<0.001$), female gender ($p<0.05$) and being postmenopausal ($p<0.001$). Follow up BMD was positively associated with age ($p<0.001$), postmenopausal status ($p<0.001$) and medication use ($p<0.001$).

Conclusions: Osteoporosis patients were undertreated with anti-resorptive drugs and most of them were not offered a follow up DXA scan to assess response to therapy. Protocol for pharmacotherapy and follow up of osteoporosis in Bahrain needs review.

Keywords: Osteoporosis, DXA, Regimen, Anti-resorptive drugs

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