UNDER USE OF BMD MEASUREMENTS AND PHOSPHONATE TREATMENT IN WOMAN OVER AGE 50 WITH OSTEOPOROSIS IN A NATIONALLY-REPRESENTATIVE EMR DATABASE

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OBJECTIVES: To assess the extent of reporting of bone mineral density (BMD) measurements and pharmacologic treatment among women over age 50 with osteoporosis in a nationally-representative Electronic Medical Record (EMR) database. The diagnosis of osteoporosis is based on a history of a prior fragility fracture or a low bone mineral density (BMD) Z-score ≤−2.5, indicating osteoporosis. METHODS: The EMR database reviewed was the Medical Quality Improvement Consortium database from GE. This database contains EMR data collected from over 11,000 ambulatory providers in the United States and includes over 12 million patients as of April, 2009. Records were reviewed for all women over age 50 for the presence of a BMD test result and bisphosphonate prescriptions. RESULTS: Of 2,382,357 women over age 50, only 16,550 had a BMD test documented in their medical records. Of these, 16,505 had a T-score < −2.5, indicating osteoporosis. Among the women with a T-score diagnostic of osteoporosis, only 38% had a bisphosphonate prescription on record. Furthermore, nearly 10% of women with no BMD result on record were also prescribed bisphosphonates. CONCLUSIONS: The extent of under-reporting of BMD results in the outpatient records of these patients is difficult to assess. Of those patients with a BMD test result available indicating osteoporosis, surprisingly few (38%) are receiving first-line therapy with bisphosphonates. The possible under-use of BMD testing, and under treatment of osteoporosis, requires further investigation. In addition, the available data suggest that many providers may be prescribing bisphosphonates in the absence of a documented BMD measurement.