Methods: 47988 electronic patient records across 4 GP practices in North-West England were analysed using computerised algorithms. Patients with diagnosis codes for fragility fractures, osteoporosis, clinical risk fractures for osteoporosis and bone sparing therapy were identified. The data was used to quantify the prevalence rates, under-diagnosis and suboptimal treatment of patients.
Results: 15201 (31.67%) of patients were in the risk category for osteoporosis. The prevalence of osteoporosis was 1.6% (736 patients). 941 patients were analysed to have fragility fractures but only 336 (35.7%) patients of these patients were coded appropriately. Only 331 (43.38%) patients were on the right treatment for the condition while majority of 432 (58.69%) patients were not. 304 (47.87%) patients, despite being on treatment with bone sparing agents did not have a diagnosis code for osteoporosis.
Conclusion: There are clear guidelines on the diagnosis and management of Osteoporosis (1). However evidence suggests that under-diagnosis and under-treatment of the condition is not uncommon (2). This study identifies inconsistent coding of index events and lack of appreciation of co-existing clinical risk factors as the prime cause for under-diagnosis. The coding algorithm used in this study is robust in identifying the condition, easily replicable and should be the first step to ensure that patients are diagnosed in a timely manner. Timely secondary prevention measures reduces risk of further fractures and its resultant morbidity and mortality (3).
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Acknowledgements: North-West Academic Science Health Network UK (AHSN); Interface Clinical Services, UK; Amgen UK
Disclosures: Study received grants and technical support from Northwest AHSN.

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CONDITION OF BMD IN PATIENTS WITH TYPE 2 DIABETES WITH INSULIN

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Objective: There is epidemiological evidence the negative influence of type 2 diabetes mellitus (T2D) on bone quality, but the insulin anabolic effect on BMD is of interest. The aim of the study was the examination the relationship between the parameters of BMD and insulin therapy characteristics.
Methods: We studied 138 T2D patients with insulin in therapy (31 men and 107 women; mean age 51.43±8.41 yrs; duration of the disease 6.40±2.01 yrs; BMI 31.15±1.99 kg/m^2; total daily dose (TDD) of insulin 0.74±0.12 U; duration of insulin use 3.86±0.87 yrs). Mean HвA1c was 8.05±0.95%, and patients were divided into two groups: 1st group (Gr1) 61 (44.2%) people predominantly compliant patients (HвA1c ≤ 7.5%), 2nd (Gr2) 77 (55.8%) people mostly not committed to the control of glycemia (HвA1c>7.5%). The research involved anthropometry, general clinic examination, DXA performed on "Prodigy Lunar".
Results: Osteoporosis was detected in 14.5% of cases (20 patients) with diabetes, osteopenia in 27.5% (38 people). There is a stronger degree of bone loss at femoral neck than at spine (W=14543.0; p<0.05): T-score –0.81 (–1.81 – (–0.20)) vs. 0.01 (–0.54–0.60); U=148; p<0.001; and BMD 1.05 (0.85–1.14) vs. 1.22 (1.15–1.23) g/cm^2; U=124; p<0.001). The feedback is established with BMD and HвA1c in general group (T-score: ρ=–0.35, p=0.012; and g/cm^2: ρ=–0.21, p=0.039; ρ – is the Spearman correlation coefficient) and in each subgroup. However, there was not a significant correlation between the TDD of insulin in Gr2 (T-score: ρ=–0.42, p=0.127; and g/cm^2 ρ=–0.24, p=0.228) and the duration of its use (T-score: ρ=–0.31, p=0.102; and g/cm^2 ρ=–0.18, p=0.346).
Conclusions: The data confirmed low BMD in type 2 diabetes mellitus patients. In the absence of target glycemia, the BMD correlates with the level of glycated hemoglobin, but not with the dose and duration of insulin therapy.

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THE MAJOR RISK FACTORS OF MALE OSTEOPOROSIS IN TAIWAN

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Objective: To detect the major risk factors of male osteoporosis in Taiwan.
Methods: A bus, equipped with DXA, serving for Taiwan countrywide BMD test was available between 2008-2011. Participants must complete a questionnaire regarding risk factors of osteoporotic fracture in FRAX®

VOLUME 29 SUPPLEMENT 1 APRIL 2018

OSTEOPOROSIS INTERNATIONAL

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