Prevalence of patient self-reported fracture risk factors – preliminary analysis of a digital study in the primary care setting (the SELF-FRAX study)

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Objective

The SELF-FRAX study aims to explore the concordance between patient self-reported risk factors and risk factor documentation within the GP electronic patient record (EPR) with the hope of enhancing and automating fracture risk assessments in primary care to improve treatment access. The aim of the current analysis is to describe recruitment and present the prevalence of self-reported risk factors.

Materials and Methods]

Across England, a total of 181 GP practices using SystmOne EPR software were recruited through the NIHR Research Delivery Network. Eligible patients within each GP practices were identified and 500 were randomly approached comprising 125 in each of four groups (men: 50-65 years, >65 years; women 50-65 years, >65 years). Patients were invited to participate via a GP practice-generated SMS message containing a URL directing them to study information, an e-consent form and an online questionnaire including the FRAX risk factors. Paper forms were available to patients without an active mobile phone number or by request.

Results

Approximately 90,500 patients were approached and 5707 questionnaire responses (99% digital) collected (response rate 6.3%). Participation rate was greater in women than in men (8.1% vs 4.5%) with a lower mean age in women than in men (64.3 vs. 67.4 years, $p<0.001$). Risk factor prevalence was highest for previous fracture (similar in women 39.1% and men 40.6%) and lowest for current smoking (similar in women 5.6% and men 4.7%). The prevalence of most FRAX risk factors was similar in men and women, but women reported a slightly higher prevalence of parental hip fracture (16.5% vs 12.7%, $p<0.001$) but a lower prevalence of alcohol intake of 3 or more units daily (6.6% vs. 16.4%, $p<0.001$).

Conclusions

Despite a relatively low response rate, SELF-FRAX is one of the few studies to compare self-reported rates of risk factors in men and women in UK primary care. The prevalences are comparable to those reported in other studies in women. Further analysis will determine the concordance with risk factors in the EPR and determine whether a combination of patient self-reported and EHR data may permit enhanced risk assessment and intervention to mitigate future fracture risk.