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Comments on “Guidelines for the diagnosis and management of osteoporosis in Poland. Update 2022”

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In *Endokrynologia Polska* 2023; Vol 74, No. 1 an important and interesting paper was published entitled “Guidelines for the diagnosis and management of osteoporosis in Poland. Update 2022” [1]. This manuscript presents a great deal of valuable information, which may be useful in daily practice in patients with osteoporosis. I greatly appreciate the efforts of the authors to establish recommendations for practitioners, but in my opinion some points should be clarified.

The authors of the recommendations, among many references, cited two previously published studies [2, 3]. The magnitude of fracture risk (or probability according to FRAX scale) is an essential point in proper patient management. In these papers recommendations were presented, and the level of fracture risk was a crucial criterion for making therapeutic decisions in daily practice. The level of fracture risk was established by means of FRAX in both studies, but American authors also recommended the use of other available fracture risk assessment tools [2]. In 2017 a study was published which presented an original Polish algorithm for 5-year fracture risk assessment in postmenopausal women. This tool is available at www.ryzyko-zlaman.pl [4]. More recently, in 2023 the same authors developed an algorithm for 10-year fracture risk prediction [5]. The latter paper was published after the publication of current Polish guidelines, but in my opinion the tool proposed in 2017 should be included in current recommendations. One should remember that the most appropriate method of clinical assessment of patients is from the results obtained in the local population. Our study was performed in an epidemiological, randomly selected, female sample recruited in 2010. Afterwards, data were collected annually on fracture and falls inci-

dence. Ten-year observation allowed the development of a reliable tool for fracture risk assessment called POL-RISK. Generally, the methodology used in our study was similar to that used in the excellent Garvan algorithm [6, 7]. POL-RISK concerns postmenopausal women aged over 55 years. Only general fracture risk maybe established.

Recently, during the conference “Zdrowe Kości i Stawy” (March 2023, Poznań), a lecture on the optimal way of using POL-RISK was presented. POL-RISK was validated in another population (GO Study, 457 patients), and the optimal threshold of 19.6% for fracture risk as a level of therapy initiation was established. I think that the 19.6% threshold of risk may be recommended for practitioners in their daily work with patients as the optimal level of fracture risk for therapy initiation. This threshold allows us to classify patients requiring therapy (e.g. those who are at high fracture risk). Its accuracy is 67%, which means that 67% of patients were adequately classified as high- or low-fracture risk.

In the Polish guidelines the authors propose the levels of fracture risk used for patient classification into medium/low, high, and very high subgroups. Very high risk was defined as when the fracture risk for major osteoporotic fractures (hip, spine, forearm, and arm) exceeds 15%. Such division was used as a method to recommend different therapeutic means. Generally, the idea of such classification was similar to other recommendations [2, 3], but I consider that the threshold of risk should be established according to assessment of locally gathered data instead of direct use of other recommendations. And finally, one should be aware that FRAX was not developed using prospective observation, and it



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is based on mathematical analysis of data. Conversely, the POL-RISK and Gravan nomograms were constructed according to data gathered from long-term observation of epidemiological, randomly selected populations. Therefore, I consider that the level of fracture risk used in guidelines should be based on locally obtained data.

Obviously, final decisions on therapy initiation should always be individualized, and fracture risk assessment tools cannot replace the physician's thoughts.

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