ABSTRACT

World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (WCO-IOF-ESCEO 2020): Special Lecture Abstract

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ESCEO-IOF ALGORITHM FOR THE MANAGEMENT OF PATIENTS AT LOW/HIGH/VERY HIGH RISK OF FRACTURE

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In 2019 the International Osteoporosis Foundation (IOF) and the European Society for Clinical and Economic Evaluation of Osteoporosis and Osteoarthritis (ESCEO) published updated guidance for the diagnosis and management of postmenopausal osteoporosis. The algorithm supplements this guidance to recognise that the risk of a subsequent osteoporotic fracture is particularly acute immediately after an index fracture and wanes progressively with time. Additionally, new anabolic agents with more rapid and greater fracture risk reduction compared to antiresorptive treatments have been developed. These have the potential to revolutionise treatment strategies, particularly in individuals at very high fracture risk. These considerations argue for the identification of individuals at very high risk of fracture.

The algorithm follows the guidance of the IOF and ESCEO in the use of age-dependent intervention thresholds with the use of FRAX. In addition to the categories of low and high risk espoused in the current IOF-ESCEO guideline, very high risk can be identified as a fracture probability that exceeds the current intervention threshold by 20%. In women age 50 years or more from the UK, 64.8% would be categorised at low risk, 19.7% at high risk and 15.6% at very high risk. A FRAX adjustment is provided to take account that the probability of second fracture is particularly high in the first 2 years after a clinical vertebral fracture. The 10-year probability of a major osteoporotic fracture is multiplied by 1.04 to 2.47, depending on age. FRAX adjustments are still needed men and for index fractures other than spine fracture.

The rationale for the more refined characterisation of risk is to direct appropriate interventions. Thus, initial treatment recommendations for women at high risk might most usually start with an inhibitor of bone resorption. In contrast, women at very high risk might be more suitably treated with an anabolic treatment followed thereafter by an inhibitor of bone resorption. Such regimens save more fractures than inhibitors of bone resorption followed by anabolic agents.