


Novel Approach to Identify Patients With the Most to Gain From New Treatment Options Intended to Prevent Fragility Fractures

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An article on osteoporosis care was published in nearly every issue of GORS in 2021. New treatment options for osteoporosis and underlying bone loss are arriving when they are needed most: when demographic trends are creating headwinds exacerbating the limits of care systems. Although powerful new drugs have been shown to increase BMD, other adjunctive options are also emerging, including procedural treatments that might transform how very high fracture risk patients are treated.¹ These new options may immediately impact fracture risk during the early, highest-risk time after an index fragility fracture and prior to the onset of protection of current drugs. Since procedural treatments are more invasive, we should expect the number needed to treat (NNT) to prevent a hip fracture to be lower than what has been reported for drugs in the past. The identification of high-risk patients will be key to establishing a low NNT. Fracture Liaison Services (FLS) are frequently regarded as a critical component of secondary fracture prevention efforts.² In combination with epidemiology-based fracture risk calculation tools such as FRAX or Garvan, FLS are considered state-of-the-art at identifying high-risk patients. They allow for stratification of patients into risk sub-groups, helping clinicians to tailor treatment strategies based on patients' risk of fracture.³ Orthopedic surgeons will play a leading role in closing the care gap since patients with fragility fractures present daily. They may need optimized tools, however, given that algorithms based on epidemiological data may lack sufficient specificity to be reliable at the individual patient level. For instance, algorithms do not consider recency of fracture or life expectancy, both key to understanding who would benefit most from treatment. Due to these limitations,

the NNT to prevent a fracture may remain high, potentially slowing adoption of new treatment options.

The osteoporosis crisis warrants fresh thinking. There is a growing discussion among orthopedists and traumatologists regarding how experienced clinician judgment may supplement algorithms to increase specificity and treat those who would have the most to gain. Such advances may reduce NNT to acceptable levels, including for procedural treatments. The Fracturis protocol aims to assess the efficacy of clinical judgment to predict re-fracture risk after an index fragility fracture. While visiting these patients, we assess fracture risk and survival within the next year by answering the following question: “Would I be surprised if this patient were to present again with another fragility fracture within the next year?” It is the patients for whom the answer is “no” who we think are candidates for the new drugs and procedural treatments. The protocol includes 1-year follow-up to identify recurrent fractures, thus determining effectiveness of clinical judgment at identifying patients with an indication to treat. This approach may serve as an important step towards our delivering individualized osteoporosis care to those patients who would benefit most.

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