

## ENHANCED PUBLICATION

# Anticoagulation in Atrial Fibrillation Patients With Frailty



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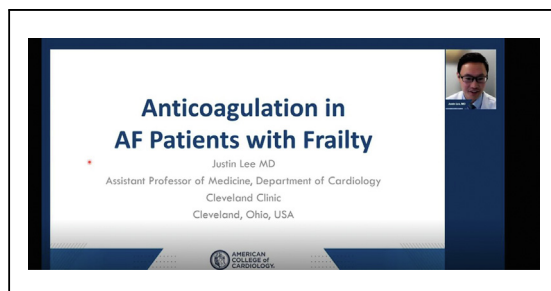
In an older and frail patient, especially one who may have an increased risk of bleeding, how do the options for oral anticoagulants compare with one another? In a network meta-analysis of randomized controlled trials, with a subgroup analysis of patients older than 75 years of age, apixaban and edoxaban had a lower bleeding risk compared with warfarin.<sup>1</sup> A retrospective study of 88,582 patients with atrial fibrillation older than 80 years of age showed that apixaban had a lower bleeding risk compared with rivaroxaban and dabigatran.<sup>2</sup> In another study, which is a cohort study of 527,226 patients, apixaban was associated with a lower risk of gastrointestinal bleeding compared with dabigatran, rivaroxaban, and edoxaban.<sup>3</sup> Therefore, among direct oral anticoagulants (DOACs), apixaban may have the lowest risk of bleeding risk. However, we also must keep in mind that there is yet to be a randomized study which directly compares the various DOACs.

The doses of DOACs must be carefully considered in older adults, particularly those with low body weight and impaired renal function. In the case presented, the patient's weight (53 kg) suggests that standard dosing may not be appropriate. Apixaban requires dose adjustments from 5 mg twice a day to 2.5 mg twice a day when 2 or more of the following criteria are met: 1) age  $\geq$ 80 years of age; 2) body weight  $\leq$ 60 kg; or 3) serum creatinine level  $\geq$ 1.5 mg/dL. Edoxaban also requires dose adjustment from 60 mg once daily to 30 mg once daily if the patient's weight is  $\leq$ 60 kg. On the other hand, there are limited randomized data supporting dose reductions for rivaroxaban and dabigatran in patients with low body weight.

An essential consideration for the patient presented, who has a very poor appetite, is the impact of food on the absorption of certain DOACs. Rivaroxaban, for instance, must be taken with food to enhance its bioavailability when taken at the 20 mg daily dose. If taken without food, the plasma concentration of rivaroxaban can be significantly lower, reducing its efficacy. In contrast, apixaban and edoxaban are not affected by food intake. Dabigatran, although unaffected by food in terms of absorption, must be taken with the capsule intact, which could be problematic for frail patients who have difficulty swallowing or who are on a feeding tube.<sup>4</sup>

The simplicity of DOACs compared with warfarin may prompt many patients or caregivers to inquire about switching from warfarin to a DOAC. However, in the FRAIL-AF trial, frail patients on warfarin who were switched to a DOAC had an increased risk of

The following is the video related to this [paper](#).



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bleeding compared with those who remained on warfarin.<sup>5</sup> This highlights the need for individualized patient care, where the benefits of switching to a DOAC must be weighed against the potential risks.

In summary, in a frail older patient with atrial fibrillation, a personalized approach to anticoagulation is important with considerations based on the patient's age, weight, renal function, treatment compliance, and dietary habits.

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