Anticoagulation in the Very Old
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**One of the most fraught choices** clinicians make is deciding which older patients should receive anticoagulant therapy. Risk of thrombosis and bleeding both increase with age, and these risks must be balanced with the burdens of anticoagulant monitoring, cost, adherence, and polypharmacy. Studies evaluating the net benefit of anticoagulation therapy often exclude the oldest and sickest patients. Consequently, physicians caring for older adults with complex medical conditions instead must rely on extrapolated data and clinical experience; surveys show that patient age acts as a significant deterrent to the use of anticoagulation regardless of other risk factors.

In this issue of *JAMA Internal Medicine*, Kooistra et al offer insight on the risk of bleeding and thrombosis in this understudied age group. They included all patients 90 years or older who were prescribed vitamin K antagonists at an anticoagulation clinic in the Netherlands and matched them with equal numbers of patients aged 80 to 89 years and 70 to 79 years based on treatment duration. Compared with patients aged 70 to 79 years, those aged 80 to 89 years had a similar risk of bleeding, whereas patients 90 years or older had a mildly increased risk of bleeding. Conversely, patients in their 80s and 90s had a markedly higher risk of thrombosis than did patients in their 70s.

This study included all patients in the region that clinicians chose to treat with anticoagulation therapy and had no exclusion criteria; thus, it offers valuable information on real-world outcomes. Investigators should use these inclusive methods in future studies of the very old. These data also suggest that clinicians are successfully identifying very old patients who can be given anticoagulation therapy with relative safety.

However, we still know little about the patients who clinicians chose not to treat with anticoagulation therapy. Beyond absolute age, frailty, mobility problems, fall risk, and dementia influence decisions regarding anticoagulation therapy, and we need data on how these factors mediate risk of bleeding and thrombosis. We need more studies that include the very old and that measure the risk factors that are particularly relevant in the frail older population.

The specter of iatrogenic hemorrhage and preventable thrombosis looms large when discussing anticoagulation at any age. Patients and clinicians will benefit greatly from robust and generalizable data when considering these nuanced decisions.

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