models, in the second validation study, which had a much larger sample size and used other statistical methods beyond the C statistic, as suggested by Dr Corbanese.

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Financial/nonfinancial disclosures: The authors have reported to CHEST the following conflicts of interest: Dr Pisters has consulting fees from Bayer and Boehringer Ingeheim and lecture fees from Boehringer Ingeheim. Dr Lane is the recipient of an investigator-initiated educational grant from Bayer Healthcare and has received sponsorship to attend the European Society of Cardiology Congress 2009 from AstraZeneca. Dr Crijn has received consulting fees from Boehringer Ingeheim, Sanofi-Aventis, and AstraZeneca; grant support from St. Jude Medical, Boston Scientific, Boehringer Ingeheim, Sanofi-Aventis, Medapharma, and Merck; and honoraria from Medtronic, Sanofi-Aventis, Medapharma, Merck, Boehringer Ingeheim, and Biosense Webster. Dr Lip has served as a consultant for Bayer, Astellas, Merck, AstraZeneca, Sanofi-Aventis, Arx, Portola, Biotronic, and Boehringer Ingeheim, and has been on the speakers bureau for Bayer, Boehringer Ingeheim, and Sanofi-Aventis. Dr Nieuwlaat has reported that no potential conflicts of interest exist with any companies/organizations whose products or services may be discussed in this article.

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DOI: 10.1378/chest.11-0184

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The HAS-BLED Score and Renal Failure

To the Editor:

In a recent issue of CHEST (November 2010), Pisters et al published an interesting work that establishes a score to assess 1-year risk of major bleeding in patients with atrial fibrillation. In this article, kidney failure (defined as the presence of chronic dialysis
or renal transplantation or serum creatinine ≥ 200 µmol/L) is identified as a risk factor for major bleeding. The “Discussion” section of the article stated that in the vast majority of patients with atrial fibrillation who require oral anticoagulation (CHADS$_2$ [congestive heart failure, hypertension, age > 75 years, diabetes mellitus, previous stroke/transient ischemic attack (doubled)] index ≥ 2), the risk of bleeding outweighs the potential benefits of oral anticoagulation if the HAS-BLED (hypertension, abnormal renal/liver function, stroke, bleeding history or predisposition, labile international normalized ratio, elderly [> 65 years], drugs/alcohol concomitantly) score exceeds the individual CHADS$_2$ index. As such, a 75-year-old man with hypertension and renal failure would have a CHADS$_2$ index of 2 and HAS-BLED score of 3, and the oral anticoagulant treatment should be discouraged. We believe that this recommendation does not take into account the impact of renal failure on thromboembolism risk in patients with atrial fibrillation. In all trials in which the benefit of oral anticoagulant in the prevention of thromboembolism in atrial fibrillation was established, the patients with end-stage renal failure were excluded, and in the European Heart Survey on atrial fibrillation, renal failure was not evaluated as a risk factor for thromboembolism.² However, in the ATRIA (Anticoagulation and Risk Factors in Atrial Fibrillation) study, chronic kidney disease increased the risk of thromboembolism in atrial fibrillation independently of other risk factors; in addition to this, studies carried out in our institution show that the patients with end-stage renal disease and atrial fibrillation have a very high rate of thromboembolism.³ We believe that this excellent risk score should have considered that although renal failure can increase the bleeding risk, it can also increase the risk of thromboembolism.

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**Financial/nonfinancial disclosures:** The authors have reported to CHEST that no potential conflicts of interest exist with any companies/organizations whose products or services may be discussed in this article.

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**DOI:** 10.1378/chest.10-2961

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**Response**

To the Editor:

We thank Drs Vázquez and Sánchez-Perales for their interest in our recent article in CHEST (November 2010).¹ We would like to emphasize our mutual agreement on the importance of chronic kidney failure (defined as the presence of chronic dialysis or renal transplantation or serum creatinine ≥ 200 µmol/L) as a thromboembolic risk factor, as was highlighted in the article by Go et al² on the importance of decreased glomerular filtration rate and proteinuria as risk factors for stroke.

However, patients with chronic kidney failure represent a difficult treatment problem. Not only are these patients at high risk of thromboembolism, but they are also at high risk of bleeding, myocardial infarction, vascular events, and all-cause mortality.³ That the Euro Heart Survey on atrial fibrillation (AF) did highlight the absence of definitive evidence on chronic kidney failure or proteinuria is a limitation, as we did not have information on proteinuria in our survey. Nonetheless, patients with severe chronic kidney failure have not been adequately studied in clinical trials of stroke prevention in AF, and our proposal of using the HAS-BLED (hypertension, abnormal renal/liver function, stroke, bleeding history or predisposition, labile international normalized ratio, elderly [> 65 years], drugs/alcohol concomitantly) score was meant to provide a simple, user-friendly score for use in everyday clinical practice that would be applicable for the majority of patients with AF. Indeed, one could informally apply an unwritten rule for guideline writing: that any recommendations need to be applicable for > 80% of the time, in > 80% of the patient population.

Drs Vasquez and Sánchez-Perales challenge our discouragement of the use of oral anticoagulation if the HAS-BLED score outweighs the CHADS$_2$ (congestive heart failure, hypertension, age > 75 years, diabetes mellitus, previous stroke/transient ischemic attack [doubled]) score.¹ Balancing the risk of stroke and bleeding solely based on this simplistic subtraction is tricky and fails to take into account significant (and important) differences in morbidity, mortality, and associated costs within the different types of major bleeding and compared with AF-related ischemic strokes. Indeed, a high HAS-BLED score is indicative of the need for caution and/or regular review of patients following the initiation of antithrombotic therapy, rather than the complete nonuse of oral anticoagulation.⁴

Despite the awareness of the above-mentioned shortcomings of our proposed “rule,” we strongly believe its use is justified. Compared with a scenario in which no practical guidance on balancing stroke and bleeding risks in patients with AF is available, large numbers of patients are automatically deemed unsuitable for oral anticoagulation. Given that poor guideline adherence has a significant impact on adverse outcomes, undertreatment can be reduced by applying decision rules, at the cost of a few cases in which oral anticoagulation may be withheld.¹

With regard to the scenario illustrated by Vázquez and Sánchez-Perales of a 75-year-old man with renal failure and hypertension, a history of hypertension is less of a risk than uncontrolled hypertension, in relation to bleeding.⁵ With the age of 75 and the presence of renal failure scoring, the patient’s HAS-BLED score is 2. As his CHADS$_2$ score is also 2, application...