Morgan suggests that the role of warfarin in stroke prevention may be short lived, as the new oral direct thrombin inhibitor Ximelagatran presents many advantages over coumarin-based therapies: fixed dosing, no significant drug interactions and no need to monitor anticoagulant effects. Ximelagatran also compares favourably in terms of major non-stroke related haemorrhage (1.3%/year with Ximelagatran and 1.8%/year with warfarin) in the SPORTIF trials [8, 9]. Predicting a short-lived role for warfarin may prove somewhat optimistic as this parity in bleeding events was based on patients taking Ximelagatran at an appropriate level of anticoagulation, compared with 44% of warfarin subjects out of range (INR>3.0) [8]. Similarly, this parity in major bleeding suggests that uptake of Ximelagatran by elderly patients is unlikely to be significantly higher than rates of existing warfarin prescriptions: patients and clinicians are still faced with similar rates of potentially lethal bleeding, identified as a key factor in decisions surrounding anticoagulation [10].

The challenges of decision making in anticoagulation are likely to deepen for patients and clinicians, irrespective of the relative merits of warfarin and Ximelagatran. One solution is emerging: that of decision modelling where all available data can be assembled into a computerised model. Such techniques are beginning to be established in AF decision making [11], and may well present the key opportunity to improve the management of the AF ‘epidemic’ and involve older patients more closely in making decisions about their own health care.

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Reply

SIR—The above response reaffirms the complexity of this decision in the older person, both for the clinical management of the individual, but also in the context of a wider population and its financial ramifications.

I would be a little cautious in suggesting that a computerised decision-making model can offer the whole solution. There are questions regarding the ‘weight’ to be attributed to individual risk factors, the evidence is vast and of varying quality, often with a paucity of information involving this age group.

Models, no matter how robust on a population level, should remain as guides to the final decision and not dictum. There should always be an option for both the individual patient and physician to contribute, to acknowledge personal preference and practical considerations. The final decision should always be individual and will require the art as well as the science of Medicine.

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Interventions for sarcopenia and muscle weakness in older people

SIR—We read with interest the systematic review by Stephen Borst ‘Interventions for sarcopenia and muscle weakness in older people’, which concludes that high-intensity resistance exercise training achieves the greatest and safest strength gains in elderly people [1]. We feel
that the results of this review may be biased for several reasons.

Firstly, the methods for searching have not been explicitly described. Presenting the full search strategy together with the inclusion or exclusion criteria for the selection of studies in terms of study designs, populations, interventions and outcomes is important to allow readers to assess the validity of the findings and their relevance both at clinical and policy level [2].

Secondly, the literature search was not systematic. In this review only two electronic databases were searched using a limited number of descriptors, which may have led to important and relevant studies being missed, as the author rightly acknowledges. No efforts were made to reduce publication bias by attempting to identify unpublished studies, and no other methods such as hand-searching of relevant journals, screening of reference lists of retrieved papers or contacting experts and study authors were described. This could have seriously affected the results of this study.

Thirdly, the critical appraisal process should have been stated. The validity of a systematic review directly relates to the quality of the included studies. The author does not report how the quality of included studies was assessed, and we are concerned that uncontrolled observational studies were included without mention of how the results of these were weighted compared with findings from more robust randomised trials.

In summary, we feel that this systematic review is in danger of being biased, particularly because it may have missed important studies. We suggest that the review is repeated, using a more comprehensive search strategy before its results are incorporated into clinical practice and that the report fully describes the research methods used. This will then allow readers to judge for themselves the strength of evidence for interventions to treat sarcopenia and muscle weakness in older people.

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**Methods to check correct placement of a nasogastric tube: beware of the pitfalls**

SIR—Arora et al. report a fatal case of nasogastric tube displacement resulting from oropharyngeal suction and rightly advise rechecking the position of a nasogastric tube each time the procedure is carried out [1]. However, the case report does not highlight important pitfalls associated with the various current methods used for this purpose.

Aspiration of gastric fluid and pH testing has become the most popular bedside method of confirming correct placement of a nasogastric tube and this was the method used in the case described by Arora et al. This is, however, not a foolproof method.

In a prospective study on 46 patients (78 nasogastric intubations), Neumann et al. found that pH ≤ 4.0 accurately confirmed correct position (P = 0.0005) but gastric aspiration was successful in 85% of patients only [2]. Furthermore, a pH value of > 4 was not very helpful in predicting malposition (37%) especially when pH-altering medications were used. The study concluded that when the pH of the nasogastric tube aspirate is < 4.0, X-ray films are not needed to prove the accuracy of tube placement. In other situations, a film is required.

Radiographic examination as initial assessment to confirm proper placement of nasogastric tubes is widely practised. Whilst this is an accurate method, a false sense of security may be instilled if one X-ray shows the tube to be in place and subsequent displacement occurs. Repeated radiographic confirmation is not practical as this interferes with the feeding regime and poses a radiation hazard.

Auscultation of air insufflated through the nasogastric tube has traditionally been used as a marker of correct placement of nasogastric tubes. This requires experience and may be difficult in obese patients and in differentiating from noise produced by gut peristalsis. Neumann et al. found auscultation alone to be ineffective as a confirmatory test, with only 63% specificity (P = 0.31) [2].

Members of the team involved in the care of a patient with a nasogastric tube should receive appropriate training in various methods used to check the correct position of the tube and should be aware of the pitfalls of each method.

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**Reply**

SIR—Dr Suman has raised an interesting point for discussion. We agree with the comments that repeated X-rays to confirm the right position of the feeding tube are not practical and probably not advisable. We totally agree that staff should receive appropriate training in various methods used to check the correct position of the tube.