ing lipid lowering treatment. We fully agree that it is better to measure lipid concentra-
tions before thombolitic treatment. But early lipid estimations are not available, val-
ues obtained within 24 hours after admis-
sion or 4 weeks later are a sufficiently valid basis for reaching a decision about early lipid intervention.

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Aortic distensibility measured by mag-
netic resonance imaging in patients with Marfan’s syndrome

Sin,—Adams and colleagues reported aortic distensibility measurements based on assess-
ments by eye of magnetic resonance (MR) and echocardiographic images in 12 patients with Marfan’s syndrome. They suggest that the measurements are reproducible. Without repeating the MR or echocardiographic scans on a separate occasion and repeating their analyses we do not see how they can conclude this. They do not specify the oscillation frequency of the ultrasound probes used for echocardiogra-
phy and the 1-3 MHz, which we considered to be acceptable. For such work, the maximum spatial resolu-
tion would be of the same order of magni-
tude as the change in aortic diameter being measured. Furthermore, the errors involved in the off-line measurement of dimensions from a scan are much less than those involved in actually performing the scan. Therefore data on the repeatability of the analysis procedures or methods for reproduc-
tibility from repeat scans at the same visit—tell us very little, if anything, about the true repro-
ducibility of the measurement techniques.

In any discussion of the validity of direct measurements of distensibility at a particular aortic cross-section it is important to con-
sider the role of blood pressure. Adams et al measured the change in diameter (or area) at different cardiac phases of the ascending and descending thoracic aorta but then applied blood pressure values recorded from the brachial artery to calculate aortic disten-
sibility. Blood pressure varies along the arte-
ter tree and amplification of the pressure pulse between central and peripheral arteries makes brachial pressure values an inaccurate measure of central aortic pressure. There can be absolute differences in systolic and pulse pressures of up to 20 mm Hg. This problem can be partly overcome by indi-
rectly determining an average elastic propor-
tion of the aortic wall based on pulse wave velocity (PWV) measurements. Such an approach does not require the blood pres-
sure at a particular aortic cross-section to be known.

This is especially pertinent because aortic distensibility indices determined from PWV measurements have good repro-
ducibility (coefficient of variation <10%). A transfer function can also be used to calculate central aortic systolic and pulse pressures based on non-invasively deter-
mined data on pressure waveforms in peripheral arteries.

To describe the application of MR or echocardiography for directly mea-
suring the change in aortic diameter (or area) between diastole and systole by eye are increasing. But not many papers report the reproducibility of such methods for non-
invasively assessing aortic distensibility. Kupari et al reported a mean (SD) reproduc-
tibility for their MR measurements in the ascending and descending aorta of 26.3 (23-3)% and 34.8 (32-1)% respectively.4 Inarad et al using echocardiographic reported a reproduction accuracy of 23% in the ascending aorta.2 Dart et al also used echocardiography and, taking special care to obtain images orthogonal to the aortic arch (to avoid measuring the change in diameter of an ellipse), obtained a mean reproducibility (SEM) in young, healthy, athletic men 9.4 (2-9)%.6 Unfortunately, these latter data tell us very little, if any-
thing, about the reproducibility of the tech-
nique in older patients with stiffer arteries in whom the change in aortic diameter during the cardiac cycle would be much reduced (as would their reproducibility). In view of these data we do not find it sur-
prising that Adams et al found that individual aortic values for distensibility varied by up to a factor of five depending on whether MR or echocardiographic data were used.

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1 Adams JN, Brooks M, Redpath TW, Smith FW, Decarli C. Aortic distensibil-


4 Hopkins KD, Lehmann ED, Gosling RG. Aortic compliance measurements: a non-


7 Insar RW, Panmier BM, Laurens S, London DM, Diemunsch P, Safar ME. Pulsitile diam-

8 Dart A, Slaghy C, Dewar E, Jennings G, McNeil J. Direct aortic distensibil-

This letter was shown to the authors, two of whom reply as follows:

Sin,—Magnetic resonance imaging is an established non-invasive method of assessing anatomic and functional dimensions. What we have shown in our study that aortic images obtained by this technique can be produced quickly and simply in patients with Marfan’s syndrome and by independent observers. Measurements made on these images can be reproducibly assessed by independent observers. We did not perform further scans on a second occasion and therefore cannot comment further on the reproducibility of this technique.

We agree that brachial pressure is lower than that measured directly. However, as Stefanadis et al have indicated, the underesti-
mation is similar in patients with coronary disease and healthy men and the pulse pres-
sure measured indirectly by sphygmomanome-
ter correlates well with the pressure mea-
sured directly by catheterisation of the ascending aorta. Their conclusion remains valid, particularly as the non-invasive method is closely related to that obtained using direct measurements.1 We chose to use brachial pressure rather than pulse wave velocity because brachial pressure is more widely available and easier to use.


Is aspirin safe for patients with heart failure?

Sin,—The prophylactic benefit of aspirin may have been overstated not only in coro-
ary heart disease, as Griffiths et al have indicated, but also in thromboembolism related to non-valvar atrial fibrillation (NVAF). In NVAF, this overstatement may be the result of failure to recognise that warfarin cannot prevent all thromboembolic events in patients at all times,1 and that aspirin may sometimes be perceived to have a prophylac-
tic benefit because some NVAF patients the non-cardiac mechanisms of thromboem-
boembolism that are more amenable to risk modification by aspirin than by warfarin.1

Furthermore, the risk/benefit profile of antithrombotic treatment might be more favourably disposed towards aspirin than towards warfarin in-high intensity2 than in low-intensity3 anticoagulant regimens. For thromboembolic prophylaxis, the principal disadvantage of aspirin is the unpredictabil-
ity of its antiplatelet effect.4 This study confounds comparisons between antithrom-
boembolic drugs and between subgroups receiving the same drug. The seemingly intractable dilemmas of antithrombotic therapy can only be resolved by a complex trial simultaneously posing the questions “which patient?”, “which drug?”, “what dose?”, and “what duration?”.

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Aston under Lynne OLD 9RW
3 Kantor MC, Tegler CH, Pearce LA, et al. Carotid stenosis in patients with atrial fibril-
5 Stroke Prevention in Embolic Risk Factor Investigators. Warfarin versus aspirin for pre-
6 Enkowdzia MJ, Bridges SL, Krum H, et al. Warfarin in the prevention of stroke associ-
Is aspirin safe for patients with heart failure?

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doi: 10.1136/hrt.75.2.214-a

Updated information and services can be found at:
http://heart.bmj.com/content/75/2/214.2.citation

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