However, in recent years, accumulating evidence indicates that ischaemic alterations, often interpretable as non-STEMI, are rather common at presentation of AAS. In a large international registry, ischaemic alterations were observed in ~15% of all AAS patients and in as many as 21% of those with Stanford type A. Ischaemic ECGs can occur in both Stanford subtypes (and in intramural haematomas as well as classic aortic dissection). Ischaemic presentation ECGs appear to be more common in complicated forms of AAS. In Stanford type A disease, such ECGs have been associated with higher in-hospital mortality. Remarkably, in both Stanford types, ischaemic ECGs seem more often to be characterized by non-STEMI features. Of note, the difficulties in recognizing AAS in patients with chest pain may be amplified by the finding of raised troponin levels. In AAS, ischaemic ECGs can stem from very different substrates, including interference by the aortic flap in the coronary flow (at the ostial level), left ventricular pressure/volume overload, pericardially mediated electrical abnormalities, pre-existing repolarization abnormalities, and global myocardial ischaemia either due to low cardiac output or due to shock. Underlying coronary artery disease may in turn amplify the effects of any of these determinants. Taken together, these observations indicate that the issue of differential diagnosis between acute coronary and aortic syndromes cannot be confined to the physical examination phase. The consistency of the available evidence highlights the importance that clinicians should be aware that presence of an ischaemic ECG pattern (whether non-STEMI or STEMI) does not in any way exclude the diagnosis of AAS.

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Guidelines for the diagnosis and treatment of non-ST-segment elevation acute coronary syndromes: The Task Force for the Diagnosis and Treatment of Non-ST-Segment Elevation Acute Coronary Syndromes of the European Society of Cardiology: reply

The letter from Rapezzi et al. draws attention to a very important point, namely, conditions that may mimic the presentation of non-ST-elevation acute coronary syndromes and whose outcome could be worsened by the administration of anti-coagulant and anti-platelet agents. Aortic aneurysm or dissection is certainly among these conditions. The authors are right when they point out that both clinical presentation and ECG tracings may be confusing. In some instances, troponin release may add to the confusion, rendering a diagnosis difficult.

These points are addressed in section 4.3 of the guidelines, p. 1607, under the section ‘Differential diagnosis’, as well as in Table 4 on the same page. In a guidelines document, it is unfortunately impossible to address in detail every single situation that can mimic acute coronary syndromes. However, the reader’s attention is clearly drawn to the problems posed by aortic aneurysm or dissection. It is stated in the document that ‘NSTE-ACS may be a complication of aortic dissection when the dissection involves the coronary arteries. In a patient with undiagnosed aortic dissection, the current therapies for NSTE-ACS may exacerbate the patient’s condition and result in detrimental outcomes’. This message is underlined once again in Table 4, on the same page, where it is indicated that aortic dissection, aortic aneurysm, and aortic coarctation can mimic non-ST-elevation acute coronary syndromes, implying that these patients may
present clinically with chest pain, ST-changes, and troponin release.

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Non-ST-segment elevation acute coronary syndromes: an algorithm for decision

We have read with great interest the report1 of the Task Force concerning the guidelines for the diagnosis and treatment of non-ST-segment elevation acute coronary syndromes (NST-ACS). We would like to compliment the Task Force members for this excellent work, updating the previous ESC guidelines concerning that matter. In particular, the recent chapters on management of elderly patients, renal insufficiency, bleeding complications, anaemia, transfusions are new and of particular importance for the cardiological community. However, we feel a bit puzzled by the lack of a clear message concerning the recommendations on anticoagulation. Indeed, Table 11 reports six possible anticoagulation regimen without any clear recommendation regarding the drug of choice to be given as soon as the diagnostic of NST-ACS has become a working hypothesis.

Taking into account the literature, the recommendations of the ESC, and also the recently published recommendations of ACC/AHA,2 we propose a simplified analysis (Figure 1) that may help the clinicians to choose the best anticoagulation strategy adapted to their own practice.

We have used the following rules to digest the complex data on the subject:

(i) As stated in the guidelines, the decision should be made on both the acute ischaemic risk (death and MI) and the bleeding risk, which has been established as a critical issue. As a consequence, the proposed table has two entries.

(a) Assessment of the ischaemic risk could be made on ECG, troponin level (simplified method), or by using more complex scores (GRACE, TIMI, PURSUIT, for example).

(b) Assessment of the bleeding risk could be made according to the following criteria3 (in the absence of validated bleeding risk score): creatinine clearance < 30 mL/min, history of prior bleeding, female gender, age > 75, and femoral vs. radial access for catheterization. The former criterion has been chosen given the fact that >85% of major bleed are related to catheterization access

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Figure 1 A simplified analysis to choose the best anticoagulation strategy

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\*At least two of these criteria.

\*Gp2b/3a in case of bailout only.