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Lipid Modification Therapy For Primary Prevention Of Cardiovascular Disease

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Introduction

Cardiovascular disease (CVD) is the leading cause of mortality worldwide, totalling almost one third of all deaths. Lipid optimisation is a key public health priority to decrease CVD morbidity, mortality and consequential economic burden on healthcare systems. A reduction in cholesterol by 1 mmol with statin therapy reduces the risk of CVD events by 20-24%, in people with an estimated 10-year CVD risk greater than 10%. In the UK, the National institute of Clinical Excellence (NICE) recommends atorvastatin 20 mg for primary prevention of CVD in these people, using QRISK2 to estimate their level of risk.

Aim

To assess adherence to NICE lipid modification guidance in patients presenting with acute coronary syndrome (ACS).

Method

Data on lipid-lowering therapy was collected prospectively, over an 8-week period in August 2018, for all patients presenting with ACS. QRISK2 scores were calculated for patients admitted with ACS naïve to statin therapy. Ethics approval was not required.

Results

252 patients presented with ACS; breakdown of results are presented in figure 1 and table 1.

Figure 1. Statin therapy in patients presenting with ACS

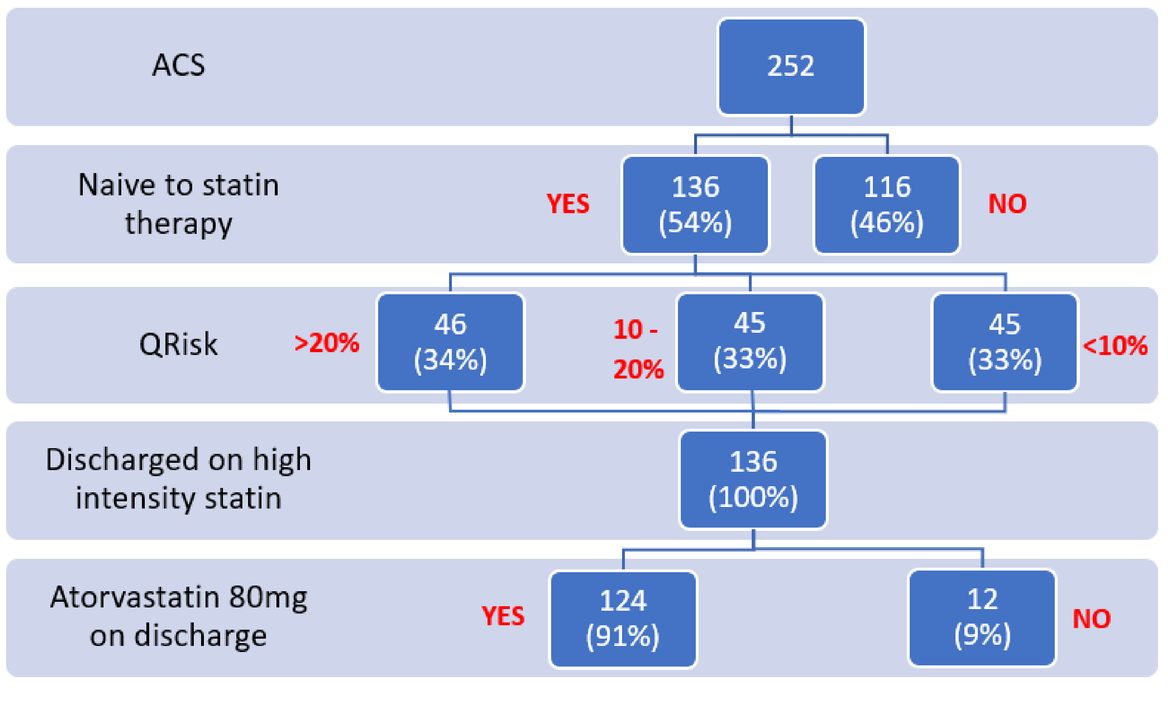

Table 1. Mean Qrisk and lipid levels

Mean QRisk	18.5%
Mean total cholesterol	4.7 mmol/L
Mean low density lipoprotein (LDL)	2.8 mmol/L

Conclusion

Two thirds of patients naïve to statin therapy prior to admission had a 10-year CVD risk of 10% or greater, as estimated using QRISK2, and would have been eligible for atorvastatin 20mg for primary prevention of CVD as per NICE guidance. Identifying patients in primary care at risk of CVD events is key to ensure appropriate lifestyle modifications are undertaken and statin therapy initiated, both of which have been shown to reduce CVD event rates. On a population basis, an estimate of benefit is the prevention of 8000 deaths in 3 years and over 28 000 heart attacks and 16 000 strokes annually in England and Wales. From an individual perspective it has been estimated that for primary prevention 74 people, at around the 10% level of risk, and 37 people, at around the 20% level of risk, need to take a statin for 5 years to prevent one cardiovascular event respectively. Community services, such as NHS health checks at community pharmacies, and development of GP practice based pharmacists should be targeted and supported by secondary care to ensure high-risk patients are prescribed optimum lipid modification therapy for primary prevention of CVD, thereby reducing the risk of CVD morbidity, mortality and associated financial implications to the health system.