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P097 -Audit of statin use in a chronic kidney disease population

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Introduction

Chronic kidney disease (CKD) is an independent risk factor for cardiovascular disease (CVD), and evidence shows that statins are effective in reducing that risk. The July 2017 updated CKD quality standard (QS5) stated that health professionals should offer all CKD patients a high-intensity statin for primary or secondary prevention of CVD, recommending atorvastatin 20mg because it is clinically and cost effective. We audited the records of CKD patients in our centre to assess adherence to this guidance.

Methods

The medical notes of all consecutive patients attending 'general nephrology' clinics at our base hospital during the first ten days of May 2018 were reviewed to identify those with CKD. For eligible patients, records for the prior 12 months were then scrutinised in order to assess compliance with NICE guidelines on statin use. Using our electronic results system, serum non-high density lipoprotein (non-HDL), total cholesterol/non HDL ratio, urine albumin creatinine ratio (ACR) and estimated glomerular filtration rate (eGFR, based on CKD-EPI equation) were collected.

Results

171 patients attended clinic, of which 140 had a confirmed diagnosis of CKD. 58 (41%) were female compare to 82 (59%) male, and mean age was 68.0 years.
In total only 63 patients (45%) were on a high-intensity statin dose: 59 (42%) were on the recommended (high-intensity) atorvastatin dose of 20mg or greater, and 4 (3%) were on an alternate high-intensity statin. 38 patients (27%) were on a statin at a medium or low-intensity dose. 39 patients (28%) were not on any statin; only 4 of those patients had a documented contra-indication or intolerance, and clinic non-attendance was not a factor.
Likelihood of being on a high-intensity statin varied by stage of CKD: 2 of 14 patients (14%) with eGFR stage G1, 5 of 7 patients (71%) with stage G2, 12 of 28 patients (43%) with stage G3a, 24 of 46 patients (52%) with stage G3b, 17 of 41 patients (41%) with stage G4, and 3 of 4 patients (75%) with stage G5 were on high-intensity treatment. 17 of 38 patients (45%) with ACR stage A1, 18 of 41 patients (44%) with stage A2, and 19 of 46 patients (41%) of patients with stage A3 were on high-intensity treatment.
Non-HDL cholesterol had only been checked in 89 patients (63%) in the previous 12 months.
It was not possible to discern whether the recommended 40% reduction in non-HDL cholesterol had been achieved due to lack of clarity of treatment start date.

Conclusion

The percentage of patients receiving high-intensity statin treatment was low in our audit, despite good evidence of the efficacy of treatment. Use was particularly low in CKD category G1, and higher levels of albuminuria were not associated with greater use of high-intensity statins despite the known association with cardiovascular mortality. Measurement of non-HDL cholesterol was also relatively low. In response to

these findings a quality improvement project has begun in an attempt to improve compliance with guidance.