PCT Prescribing Report (November 2009)

Prescribing of angiotensin-converting enzyme (ACE) inhibitors and 
angiotensin-II receptor antagonists (AIIRAs) - Prescribing Guidance and 
Discussion Points

Discussion points

1. Does your PCT have up-to-date prescribing protocols for angiotensin-
converting enzyme (ACE) inhibitors and angiotensin-II receptor 
antagonists (AIIRAs) in line with current National Institute for Health and 
Clinical Excellence (NICE) guidelines?

2. Do you work with secondary care and practice based commissioning 
groups to agree a common strategy that promotes cost-effective 
prescribing?

3. In line with one of the NHS Institute for Innovation and Improvement 
Better Care, Better Value ‘Indicators’, does your PCT audit the 
percentage of items written for AIIRAs as a percentage of the total 
volume of prescribing of ACE inhibitor and AIIRA drugs?

4. Does your PCT audit the number of patients who are treated with both 
an ACE inhibitor and an AIIRA?

5. Does your PCT audit prescribing of fixed-dose combination ACE or 
AIIRA containing products (i.e. ACE inhibitors or AIIRAs combined with a 
diuretic or calcium channel blocker)?

Currently there are 11 ACE inhibitors, seven combination ACE inhibitors, 
seven AIIRAs and six combination AIIRAs available in the UK. They are 
broadly indicated for similar conditions and NICE offers guidance on the use 
of these drugs in the following areas: Chronic Kidney Disease, Diabetes (type 
2), Heart Failure, Hypertension, and Myocardial Infarction Secondary 
Prevention.

NICE recommends that for indications where either an ACE inhibitor or an 
AIIRA could be prescribed, an ACE inhibitor is routinely the drug of choice. If 
either an ACE inhibitor or an AIIRA is prescribed, NICE recommends using a 
drug that can be taken once a day (if possible), is generically prescribed, and 
minimises cost. From an evidence-based perspective, there is little to choose 
between ACE inhibitors and AIIRAs. There is a wide range of generic ACE 
inhibitor products available, unlike for AIIRAs where there are currently none, 
and this makes ACE inhibitors the more cost-effective option.
Figure 1: Trends in Prescribing of ACE inhibitors and ARIRAs in General Practice in England

Figure 2: Trends in Spending on ACE inhibitors and ARIRAs in General Practice in England.
Figures 1 and 2 indicate that prescription items for ACE inhibitors and AIIRAs have increased by 66% in the last 5 years to 13.4 million items. Although the overall cost has decreased by 27% to £93 million, this cost reduction can be attributed to the fact that ACE inhibitors represent 71% of items but only 26% of the cost of the drugs for these two groups combined.

In the quarter to June 2009, there were about 2.5 times the number of items of ACE inhibitors (9.5 million items) prescribed in primary care in England compared with AIIRAs (3.8 million items). However, in the same time period, the total net ingredient cost for ACE inhibitors (£24.26 million) was nearly a third that of AIIRAs (£68.31 million). Currently, candesartan is the most cost-effective AIIRA but the patent on losartan is due to expire March 2010 and this will then enable generic losartan products to become available.

NICE has recommended that AIIRAs are an alternative choice to ACE inhibitors when an ACE inhibitor is clinically indicated but not tolerated. The incidence of cough in patients taking ACE inhibitors has been reported to be up to approximately 12%. Among patients experiencing cough, between 20% and 60% will rate it intolerable and request withdrawal of therapy. Cough is common in people with heart failure and other co-morbidities but if the cough is persistent and troublesome, and if other causes have been ruled out and a renin-angiotensin type drug is indicated, then NICE recommends switching to an AIIRA.

When comparing PCT prescribing patterns, the distribution of AIIRAs compared with ACE inhibitors appears to represent a higher proportion of AIIRA prescribing than would be expected based on the small percentage of people who are not likely to tolerate an ACE inhibitor. This variation ranges from AIIRA prescribing representing just over 20% to nearly 40% volume in terms of items. AIIRAs are significantly more costly than ACE inhibitors and the significant variation in the proportion of ACE inhibitor to AIIRA prescribing between PCTs cannot easily be explained on the basis of differences in disease prevalence or incidence of side effects. By ensuring that clinicians follow NICE guidelines and initiate patients on one of the lower cost drugs, PCTs can keep prescribing costs down.

The use of fixed-dose combination ACE or AIIRA containing products (i.e. ACE inhibitors or AIIRAs combined with a diuretic or calcium channel blocker) is another area of relatively high cost prescribing compared with the number of items prescribed. Despite the widely held view that fixed-dose combinations improve patient concordance, there are few good quality studies which show this and even fewer which demonstrate improved outcomes. The Northern Regional Drug and Therapeutics Centre therefore recommends that regimens containing single component drugs should usually remain the treatment of choice where possible.

Treatment combining the use of an ACE inhibitor and an AIIRA also has a limited role currently. Evidence suggests that only a small proportion of patients with heart failure are eligible for consideration of combined ACE inhibitor and AIIRA use. Combined ACE inhibitor and AIIRA use increases the risk of worsening renal function and hyperkalaemia, thus increased monitoring is essential. This message could be reinforced by PCT prescribing advisers to ensure that only the minority of patients are treated with this strategy in-line with current clinical evidence.
Sources of further information

1. Information on prescribing for the PCT is available using ePACT.net and the Prescribing Toolkit.