Appendix Table C6. Clinical renal outcomes (outcomes part C), ACEI monotherapy versus control treatment trials

| **Study** | **End-Stage Renal Disease****n/N (%)** | **Doubling of Serum Creatinine****n/N (%)** | **Halving of GFR****n/N (%)** | **Progression from Micro- to Macroalbuminuria n/N (%)** | **Composite Renal Outcome n/N (%)\*** |
| --- | --- | --- | --- | --- | --- |
| **ACEI** | **Control** | **ACEI** | **Control** | **ACEI** | **Control** | **ACEI** | **Control** | **ACEI** | **Control** |
| ***ACEI versus placebo trials (n=17)*** |
| Perkovic, 20071(PROGRESS) |  |  |  |  |  |  |  |  |  |  |
| Asselbergs, 20042(PREVD) |  |  |  |  |  |  |  |  |  |  |
| Marre, 20043(DIAB) | 11/2443(0.5) | 12/2469(0.5) | 48/2443 (2.0) | 60/2469 (2.4) |  |  |  |  |  |  |
| Katayama, 20024 |  |  | 2/52 (3.8) | 2/27 (7.4) |  |  |  |  |  |  |
| Bojestig, 20015 |  |  |  |  |  |  | 0/37 | 0/18 |  |  |
| Gerstein, 20016(MICROHOPE)† | 5/553 (0.9) | 6/587(1.0) | 21/553 (3.8)\* | 18/587 (3.1) |  |  | 104/553 (18.8) | 127/587 (21.6) |  |  |
| O’Hare, 20007(ATLANTIS) |  |  |  |  |  |  | 6/88 (6.8) | 5/46 (10.9) |  |  |
| Muirhead, 19998 |  |  |  |  |  |  | 1/29 (3.4) | 3/27 (11.1) |  |  |
| REIN, 19999stratum 1 | 9/99(9.1) | 18/87(20.7) |  |  |  |  |  |  |  |  |
| Crepaldi, 199810 |  |  |  |  |  |  | 2/32 (6.3) | 7/34 (20.6) |  |  |
| REIN, 199711stratum 2 | 17/78(21.8) | 29/88(33.0) | 1/78 (1.3) | 11/88 (12.5) |  |  |  |  | 18/78 (23.1) | 40/88 (45.5) |
| Maschio, 199612 | 1/300\*(0.3) | 1/283(0.4) | 30/300 (10)\* | 56/283 (19.8) |  |  |  |  | 31/300 (10.3) | 57/283 (20.1) |
| Trevisan, 199513 |  |  |  |  |  |  |  |  |  |  |
| Laffel, 199514 |  |  |  |  |  |  | 4/67 (6.0) | 13/70 (18.6) |  |  |
| Sano, 199415 |  |  |  |  |  |  |  |  |  |  |
| Lewis, 199316 | 20/207(9.7) | 31/202(15.3) | 25/207 (12.1) | 43/202 (21.3) |  |  |  |  | 23/207 (11.1) | 42/202 (20.8) |
| Ravid, 1993†17 | 0/49\* | 0/45 | 2/49 (4.1)\* | 12/45 (26.7) |  |  | 2/49 (4.1) | 22/45 (48.9) |  |  |
| ***ACEI versus ARB trials (n=6)*** |
| Mann, 200818ONTARGET |  |  |  |  |  |  | § | § | *Numbers not provided for CKD subgroup* |
| Menne, 200818VALERIA |  |  |  |  |  |  |  |  |  |  |
| Sengul, 200620 |  |  |  |  |  |  | 0/110 | 0/109 |  |  |
| Barnett, 200421DETAIL |  |  |  |  |  |  |  |  |  |  |
| Lacourcière, 200022 |  |  |  |  |  |  | NR‡ | NR‡ |  |  |

Appendix Table C6. Clinical renal outcomes (outcomes part C), ACEI monotherapy versus control treatment trials (continued)

| **Study** | **End-Stage Renal Disease****n/N (%)** | **Doubling of Serum Creatinine****n/N (%)** | **Halving of GFR****n/N (%)** | **Progression from Micro- to Macroalbuminuria n/N (%)** | **Composite Renal Outcome n/N (%)\*** |
| --- | --- | --- | --- | --- | --- |
| **ACEI** | **Control** | **ACEI** | **Control** | **ACEI** | **Control** | **ACEI** | **Control** | **ACEI** | **Control** |
| Muirhead, 19998 |  |  |  |  |  |  | 1/29 (3.4) | 1/62 (1.6) |  |  |
| ***ACEI versus CCB trials (n=6)*** |
| Rahman, 200523ALLHAT | 70/1533 (4.6) | 65/1516 (4.3) |  |  |  |  | 36/1533 (2.3) | 25/1516 (1.6) | 106/1533 (6.9) | 90/1516 (5.9) |
| Rahman, 200523ALLHAT, DM patients†† |  |  |  |  |  |  |  |  | 61/501 (12.2) | 56/506 (11.1) |
| Fogari, 200224 |  |  |  |  |  |  |  |  |  |  |
| Agodoa, 2001(AASK) | 47/436 (10.8) | 32/217 (14.7) |  |  |  |  | 44/436(10.1) | 29/217(13.4) | (1) 70/436(16.1); (2) 87/436(20.0) | (1) 43/217(19.8); (2) 56/217(25.8) |
| Marin, 200128ESPIRAL |  |  |  |  |  |  |  |  | 27/129(20.9) | 40/112 (35.7) |
| Crepaldi, 199810 |  |  |  |  |  |  |  |  |  |  |
| Zucchelli, 199529 | 7/60 (11.7) | 14/61 (23.0) |  |  |  |  |  |  |  |  |
| ***ACEI versus BB trials (n=3)*** |
| Wright, 200226 | 62/436 (14.2) | 73/441 (16.6) |  |  |  |  |  |  | 126/436 (28.9) | 155/441(35.1) |
| van Essen, 199731 | 5/52 (9.6) | 2/51 (3.9) |  |  |  |  |  |  |  |  |
| Hannedouche, 199432 | 10/52 (19.2) | 17/48 (35.4) |  |  |  |  |  |  |  |  |
| ***ACEI versus diuretic trials (n=3)*** |
| Rahman, 200634ALLHAT | 70/1533 (4.6) | 124/2613 (4.7) |  |  |  |  |  |  | 106/1533(6.9) | 180/2613(6.9) |
| Rahman, 200634ALLHAT, DM patients | 41/501 (8.2) | 68/881 (7.7) |  |  |  |  |  |  | 61/501 (12.1) | 96/881(10.9) |
| Marre, 200433NESTOR |  |  |  |  |  |  | 18/286 (6.3) | 26/283 (9.2) |  |  |

ACEI = angiotensin converting enzyme inhibitor; ARB = angiotensin receptor II blocker; CCB = calcium channel blocker; BB = beta blocker; GFR = glomerular filtration rate
\*See Composite renal outcome definitions table
† Data obtained from Ksirsagar Am J Kidney Dis 2000;35(4):695-707) or Stroppoli BMJ/Cochrane review 2004.
‡Study reported that 3/103 participants converted from micro- to microalbuminuria, but did not report results by treatment group.
§Study reported in text that progression from microalbuminuria to microalbuminuria occurred in 166 (2.12%) of ramipril subjects, 138 (1.8%) of telmisartan subjects, but this is not possible given that in figure study reports that 2673 subjects had either microalbuminuria or macroalbuminuria at baseline.
††Rahman 2006 ALLHAT DM patients is a report on the subgroup of diabetic patients from the overall ALLHAT study.