

Appendix

Drug class	Risk ratio (drug versus placebo) [95%CI]	Trials included in the meta-analysis
Treatment effect on mortality		
ACEi	0.91 [0.85,0.97]	CHARM [1] Val-HEFT [2] SOLVD-T [3]
beta-blockers	0.78 [0.71,0.86]	BEST [4] CIBIS-2 [5] COPERNICUS [6] MERIT-HF [7]
Aldosterone antagonist	0.80 [0.65,0.98]	EMPHASIS [8]
Treatment effect on readmission		
ACEi	0.80 [0.75,0.86]	CHARM [1] Val-HEFT [2] SOLVD-T [3]
beta-blockers	0.77 [0.72,0.84]	BEST [4] CIBIS-2 [5] COPERNICUS [6] MERIT-HF [7]
Aldosterone antagonist	0.65 [0.54,0.78]	EMPHASIS [8]

Table A1 Meta-analysis results of treatment effects on mortality and readmission

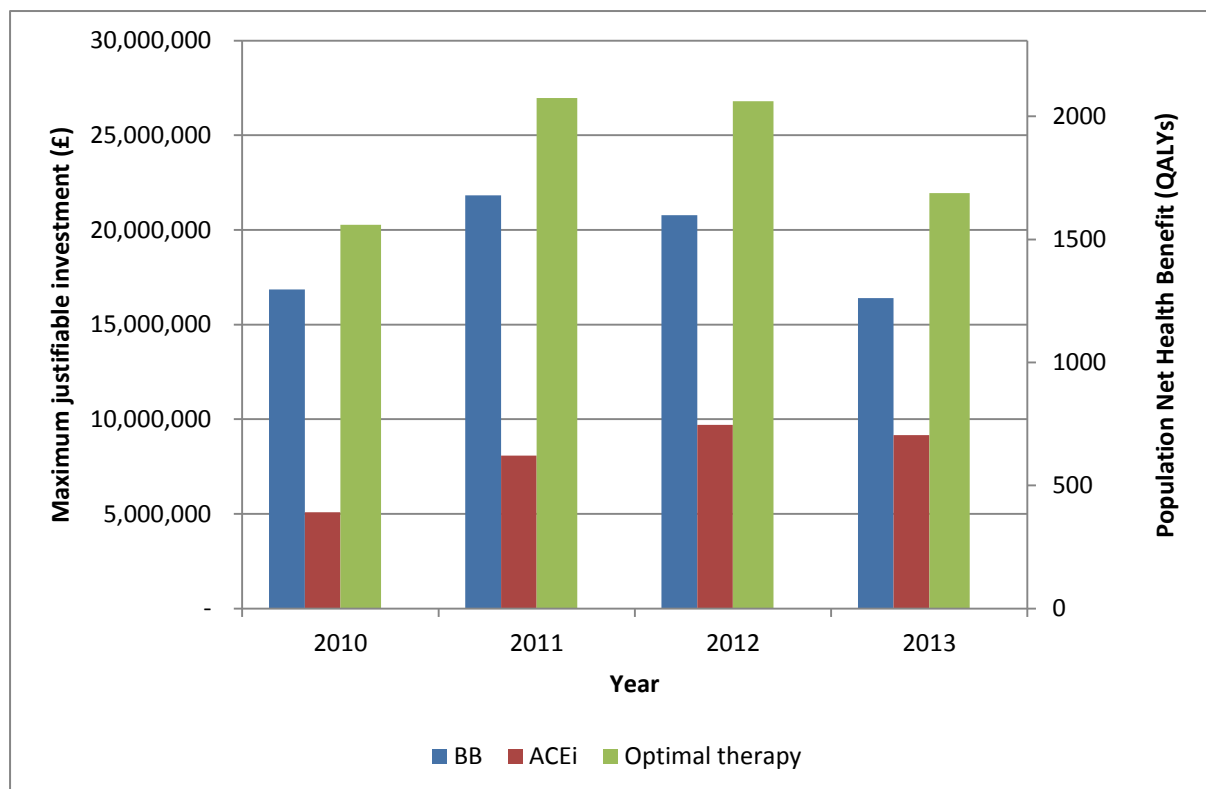


Figure A2 Expected value of perfect implementation: Population net health benefit and maximum

justifiable investment if all patients who were eligible received beta-blockers, ACE inhibitors or Optimal Therapy (one or both of ACEi and BB) compared to what patients actually received from 2010 to 2013

References

- 1 McMurray JJ V, Ostergren J, Swedberg K, *et al.* Effects of candesartan in patients with chronic heart failure and reduced left-ventricular systolic function taking angiotensin-converting-enzyme inhibitors: the CHARM-Added trial. *Lancet (London, England)* 2003;**362**:767–71. doi:10.1016/S0140-6736(03)14283-3
- 2 Cohn JN, Tognoni G. A randomized trial of the angiotensin-receptor blocker valsartan in chronic heart failure. *N Engl J Med* 2001;**345**:1667–75. doi:10.1056/NEJMoa010713
- 3 Effect of enalapril on survival in patients with reduced left ventricular ejection fractions and congestive heart failure. The SOLVD Investigators. *N Engl J Med* 1991;**325**:293–302. doi:10.1056/NEJM199108013250501
- 4 A Trial of the Beta-Blocker Bucindolol in Patients with Advanced Chronic Heart Failure. *N Engl J Med* 2001;**344**:1659–67. doi:10.1056/NEJM200105313442202
- 5 The Cardiac Insufficiency Bisoprolol Study II (CIBIS-II): a randomised trial. *Lancet* 1999;**353**:9–13.<http://www.ncbi.nlm.nih.gov/pubmed/10023943> (accessed 31 Mar 2015).
- 6 Packer M, Fowler MB, Roecker EB, *et al.* Effect of carvedilol on the morbidity of patients with severe chronic heart failure: results of the carvedilol prospective randomized cumulative survival (COPERNICUS) study. *Circulation* 2002;**106**:2194–9.<http://www.ncbi.nlm.nih.gov/pubmed/12390947> (accessed 7 Dec 2015).
- 7 Effect of metoprolol CR/XL in chronic heart failure: Metoprolol CR/XL Randomised Intervention Trial in Congestive Heart Failure (MERIT-HF). *Lancet* 1999;**353**:2001–7.<http://www.ncbi.nlm.nih.gov/pubmed/10376614> (accessed 7 May 2015).
- 8 Zannad F, McMurray JJ V, Krum H, *et al.* Eplerenone in patients with systolic heart failure and mild symptoms. *N Engl J Med* 2011;**364**:11–21. doi:10.1056/NEJMoa1009492