Appendix 1: Rationale for using a 90-day window after discharge for filling a prescription and for combining angiotensin-converting-enzyme inhibitors and angiotensin-receptor blockers

We chose a window of 90 days because this reflects what was done in a previous hospital report card on post-discharge drug use in myocardial infarction patients.¹ Furthermore, recent research has shown that over 91% of discharged myocardial infarction patients who received a discharge prescription for an angiotensin-converting-enzyme (ACE) inhibitors, β-blockers or a statin filled the prescription within 90 days of hospital discharge.² We examined use of ACE inhibitors and angiotensin-receptor blockers together since the prescribing of either agent is used as an indicator of quality of care in myocardial infarction patients by the United States Department of Health and Human Services.³ Furthermore, clinical practice guidelines recommend the substitution of angiotensin-receptor blockers in patients who are intolerant of ACE inhibitors.⁴ In a preliminary examination of the data we found evidence of a substitutionary behaviour by physicians in Ontario: in recent years prescribing of ACE inhibitors decreased while that of angiotensin-converting enzyme increased. Finally, recent studies have found angiotensin-receptor blockers to be suitable alternatives to ACE inhibitors in patients with high-risk acute myocardial infarction⁵ and in reducing atherosclerotic events.⁵

References:

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