

## Meta-analyses of outcome postponement in cardiological trials

The risks and benefits of using pharmaceuticals are of great public interest. Conveying information on the magnitude of treatment benefits is necessary to help patients make informed choices. Until now, this has been done by using measures of effects and risks such as relative risk reduction or the popular 'number needed to treat' (NNT) measure. However, previous work has shown that these measures are very poorly understood by patients. In contrast, measures of postponement, i.e. the average time a clinical event will be postponed by using a given drug, has, been shown to be more easily and intuitively understood by patients. Outcome postponement shows the effect of a pharmaceutical as a deferment of events in months or years. Postponement analysis has never before been done in a meta-analysis setting. The aim for this Phd-thesis is to devise a model for the meta-analysis of outcome postponement in cardiological trials during trial running time, focusing on statins and heart failure treatment e.g. ACE-inhibitors, betablockers, aldosterone antagonists and angiotensin receptor blockers.

### SPECIFIC AIMS

- To develop and apply a model for conducting meta-analyses of outcome-postponement and apply it in a meta-analysis of all-cause mortality in statin trials.
- To perform a meta-analysis of postponement for distinct outcomes (cardiovascular mortality, non-cardiovascular mortality, myocardial infarction both fatal and non-fatal, stroke and revascularization) among available statin trials. Both primary and secondary prevention trials will be considered.
- To perform a meta-analysis of endpoint postponement in heart failure trials, comparing the benefit of the three major classes of intervention: Angiotensin inhibition, use of aldosterone antagonists and use of beta-blockers.

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