Optimal cardiovascular treatment strategies in kidney disease: casual inference from observational data

Fu, E.L.

Stellingen behorend bij het proefschrift

Optimal cardiovascular treatment strategies in kidney disease

Causal inference from observational data

1. Although early dialysis initiation based on kidney function is associated with improved outcomes, this may not outweigh the burden of a substantially longer period spent on dialysis. (*this thesis*)
2. In patients with advanced chronic kidney disease, renin-angiotensin system inhibitors have superior effectiveness compared with calcium channel blockers because they provide additional renoprotection. (*this thesis*)
3. Explicit emulation of a hypothetical target trial avoids immortal time bias, prevalent user bias and lead time bias. (*this thesis*)
4. Although renin-angiotensin system inhibitors increase the risk of acute creatinine increases and acute creatinine increases are associated with worse outcomes, this does not imply that stopping these medications would improve outcomes. (*this thesis*)
5. In many published observational studies confounding is not the main problem, but avoidable flaws introduced by the researchers.
6. "Epidemiologic methods are useless, they can only give you answers." (*M. A. Hernán, Epidemiology 2012*). The clinical question of interest determines the study design and statistical analysis, not the other way around.
7. Observational cohort studies investigating the effectiveness and safety of medical treatments should report both relative and absolute risks, as is already common for clinical trials.
8. Registry-based randomized trials combine randomization with registry data and give the opportunity to harvest the best of both worlds.
9. One study alone cannot establish causality, it is the triangulation of evidence that counts.
10. "Everything should be made as simple as possible, but not simpler" (*A. Einstein, 1879-1955*). If we want novel methods to be used by more medical researchers, these methods need to be explained in educational articles that are easy to grasp but that do not compromise veracity.
11. Even though an unhealthy lifestyle has been a raging pandemic during the past decades, countermeasures do not come close in impact to those taken against SARS-CoV-2.