Improving survival prediction models for liver transplantation candidates

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Stellingen behorend bij het proefschrift getiteld:
"Improving survival prediction models for liver transplantation candidates".

1. Compared to MELD, the MELD-Na score provides better discrimination and calibration of the risk of death among candidates for liver transplantation; thus, use of the MELD-Na score may reduce mortality among patients on the waiting list. (*Kim et al., New England Journal of Medicine, 2008*)

2. Refitting MELD must be done periodically to keep predictive power maximal in continuously changing waiting list populations. (*This thesis*)

3. Liver transplant waiting list priorities should be based on jointly modeled longitudinal and survival data in order to dynamically calculate personalized predictions of future waiting list survival. (*This thesis*)

4. Failure to recognize when a clinical question requires methods for causal prediction can lead to incorrect risk predictions and even suboptimal treatment decisions. (*Sperrin et al., American Journal of Epidemiology, 2021*)

5. Survival benefit from liver transplantation must be estimated from the moment of possible transplantation. This contrasts with the established practice of calculating benefit from the moment of first waiting list registration. (*This thesis*)

6. Our purpose should be the abandonment of arbitrary exception point systems. Instead, future waiting list survival should be based on actual patient characteristics. (*This thesis*)

7. If the goal of an allocation system is to make the biggest difference to the patient population, then one would prefer to allocate by transplant survival benefit. (*Merion et al., Transplantation International, 2011*)

8. Every researching clinician should develop programming skills. This capacity facilitates a better understanding of one's work and supports the conceptualization of new ideas; most importantly, it helps bridging the gap between research and clinical practice.

9. "Men doet wat men kan en zodoende blijft er heel wat liggen *(Marten Toonder, 1967)."* Het belangrijkste onderscheid is of er überhaupt gewerkt wordt of niet. Daarbij kan men meewerken of tegenwerken. Hetgeen dan actief of passief gebeurt.

10. Het feit dat een methode veel wordt toegepast, maakt nog niet dat die methode de beste keuze is: "I suppose it is tempting, if the only tool you have is a hammer, to treat everything as if it were a nail *(Abraham Maslow, 1966)*."

11. Alle modellen maken aannames en zijn gebaseerd op een selectie van gegevens. Een model mag dus nooit zonder menselijke keuze worden toegepast: "All models are wrong, but some are useful (*George Box, 1976*)."