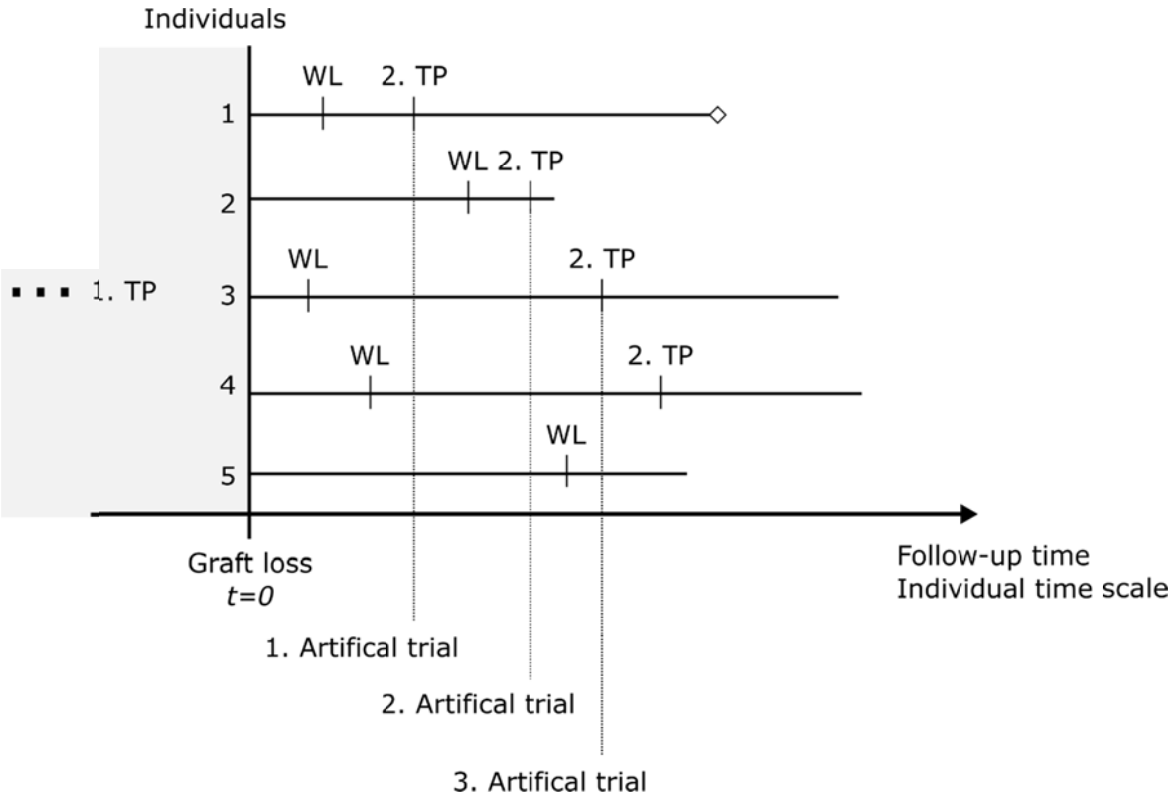


### 3 Supplemental Figures



Supplemental Figure 1: Visualisation of study design which defines two main time axes. First, the time axis “time since first graft loss”: for each individual the graft loss after first transplantation (1. TP) defines the “baseline”, or time 0 ( $t = 0$ ) of these individual time scales. Second, the time axes defined in each auxiliary trial: auxiliary trials are started at each observed transplantation (TP), representing time 0 for that particular trial, and the time to the outcome is measured from the start of the trial. All auxiliary trials are ordered by the first time axis, i.e. time since graft loss of an individual after the first transplantation. Only individuals who have joined the waiting list (WL), and did not receive a transplantation at that point in their personal history of follow-up since graft loss are eligible to join the auxiliary trial initiated by a TP. Thus, in the graphic above, in the first auxiliary trial starting with the 2. TP of individual 1, individuals 1, 3 and 4 would be eligible, in the second trial started by individual 2, individuals 2, 3 and 4 would be eligible, and in the third trial started by individual 3, individuals 3, 4 and 5 would be eligible. Study outcomes are indicated as filled (death) or empty (survived until date of data lock, loss to follow-up) diamonds. In the first trial, for individuals 1, 3, and 4 the time would be measured from the time of 2.TP of individual 1, to the respective individual outcomes. The outcomes in the auxiliary trials are modified to conform to the definition of the treatment strategies by censoring all individuals who received a transplant after joining an emulated trial at the time of their transplant.