Guarantee-time bias

If a group of trial participants receiving a placebo are monitored/followed up from the moment they enrol in a trial, but the treatment for another group of trial participants does not begin straight away, this time lag can cause bias in the trial. This particular type of bias is called ‘guarantee-time bias’.

Guarantee-time bias means that the participants in the treatment arm will only be monitored/followed up if they survive (or, for example, do not have symptoms that the treatment aims to prevent) for the whole of the time lag. Any that do not will be excluded from the trial, and this means the treatment arm is selected on a different basis to the placebo arm.

The easiest way to avoid guarantee-time bias is to use matching. Participants in the treatment arm and the placebo arm are individually matched. If a participant in the treatment arm has to wait 30 days to begin the trial, they are matched with a placebo participant who has also survived or survived without symptoms for 30 days since enrolment. This is also known as establishing matched pairs.