

Modify the decision from stay to de-escalation when observing 2 DLT out of 6 patients

When observing 2 DLT out of 6 patients and the target DLT rate is between 0.28 and 0.33, the optimal decision is to stay at the current dose. This is because, given 2 DLT out of 6 patients, the likelihood of overdosing is **lower** than the likelihood of proper dosing. However, due to the long history of using the conventional 3+3 design, when observing 2 DLT out of 6 patients, de-escalation or stop is a widely accepted practice. This option allows users to change the BOIN decision from stay to de-escalation, aligning it with that practice. We found that making this modification, or not, has a very minor impact on the operating characteristics of the BOIN design.