Operating characteristics of the Bayesian design testing both (i) non-inferior survival and (ii) reduction of AEs for the de-intensified therapy compared to the standard of care. The Bayesian design includes interim analyses for inferiority (PFS) and insufficient reduction of toxicity every 1, 2, 3, ..., 11 or 12 months. Crosses, stars and circles correspond to a 0%, 25% and 50% reduction of adverse events (AEs) under the experimental treatment. The blue (green) points refer to a design that stops the study early for inferiority with probability approximately equal to 0.8 (0.9) when $HR_{OS} = 1.45$, and terminates the study early for insufficient reductions of toxicities with probability approximately equal to 0.6 (0.7) when $\gamma = 0$. The red horizontal lines indicate the operating characteristics of the RTOG 1016 design, which does not consider AEs at interim analyses.

**Figure S1**: Operating characteristics, efficacy scenario 1 (an average of 3.2, 2.4 and 1.6 AEs per patients under toxicity scenarios 1, 2, 3).

**Figure S2**: Operating characteristics, efficacy scenario 2 (an average of 3.2, 2.4 and 1.6 AEs per patients under toxicity scenarios 1, 2, 3).