## Supplementary material 2: propensity score

Among 10,606 new users of a stable biotherapy, the cumulative incidence of initiating a polytherapy in patients receiving a bitherapy including a benzodiazepine was compared to that of patients receiving a bitherapy without a benzodiazepine using a Fine and Gray model, with inverse probability weighting on a propensity score.

The propensity score included, sex, hospital admission for epilepsy in the month before initiation of the stable bitherapy, number of different ASM delivered in the last 6 months (<3 or ≥3); time from first ASM to first bitherapy (< or ≥ 1 year), and ASM taken before the start of the bitherapy as binary variable (yes/no) for all ASM but eslicarbazepine, perampanel, lamotrigine and benzodiazepines du to distributional issues).

Covariate balance between the two groups was assessed before and after weighting, and we considered an absolute standardized difference (ASD) less than 0.1 as evidence of balance.

**Figure 5:** Standardized differences before and after propensity score weighting



In addition, in a sensibility analysis, we excluded 4,625 CwE exposed to benzodiazepines in the period just before initiation of the bitherapy.

**Figure 6:** Standardized differences before and after propensity score weighting (sensitivity analysis)

