Considerations of a real life pragmatic clinical trial in adolescent asthma

Reply to J.F.M. van Boven and co-workers:

We appreciate the interest shown by J.F.M. van Boven and co-workers in our study. PACT [1] was first and foremost designed as a pragmatic randomised controlled trial (RCT) reflecting current UK primary care practice. While addition of controller treatment for those in the personalised care group with poor control was guided by the study algorithm, the decisions with respect to monotherapy versus combination therapy, inhaler type and use of a spacer was down to the discretion of the participant’s primary care team.

In the personalised care group at 12-month follow-up, 19/104 (18.3%) were prescribed inhaled corticosteroid (ICS)/long-acting β₂-agonist (LABA) and 25/104 (24%) ICS/leukotriene antagonist (LTRA). In the standard care group at 12-month follow-up, 29/108 (26.9%) were prescribed ICS/LABA and 18/108 (16.7%) ICS/LTRA. We do not have data with respect to inhaler education practices or medication adherence due to the pragmatic nature of the study design, but on balance we feel such potential confounders might be expected to be similar in both arms. Whether or not the 8.6% lesser use of ICS/LABA and 7.3% higher use of ICS/LTRA in the personalised therapy group would bias the results to a clinically meaningful degree is debatable.

There is long-running discussion with respect to the virtues and limitations of the differing study designs employed in trials assessing asthma management [2]. PACT, as a pragmatically designed RCT, thus has notable limitations as detailed; however, its primary strength is in relation to the ability to elucidate the potential effect of genotype-directed prescribing in the real-life clinical setting of primary care, increasing the external validity of the findings and obtaining conclusions that are relevant to clinical practice [3–5]. We therefore retain faith in the validity of our results and their generalizability to what might happen in the real world for such genotype-directed therapy.
References


