Comparative effectiveness analysis: Extra-fine particle hydrofluoroalkane beclomethasone dipropionate vs fluticasone propionate with spacer in children

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Body: Background: Extra-fine particle hydrofluoroalkane beclomethasone dipropionate (EF HFA-BDP, QVAR®) results in greater overall lung disposition including the small airways. This study compared outcomes achieved by EF HFA-BDP with or without spacer to those achieved by standard particle fluticasone propionate (FP) with spacer. Methods: Retrospective study using UK Clinical Practice and Optimum Patient Care Research Databases. Patients aged 5-11yrs initiating EF HFA-BDP with or without spacer were matched to patients initiating FP with spacer on baseline demographic and disease characteristics. Outcomes evaluated over 1yr: risk domain asthma control (RDAC-absence of: severe exacerbations, lower respiratory infection and antibiotics, or out-patient/out-of-hours attendance), ATS/ERS defined exacerbations, overall asthma control (RDAC plus short acting beta2 agonists (SABA) use), clinical defined exacerbations, treatment success (asthma control and no change in therapy) and odds of higher SABA use. Results: Cohort consisted of 465 patients initiating EF HFA-BDP (of which 319 were prescribed spacer) and 465 patients initiating FP with spacer.

Conclusion: When FP was initiated with a spacer, matched children receiving EF HFA-BDP had better outcomes in most domains assessed.