

Table E1: Comparison of Entry Criteria for Three Trials involving Preschool Children			
	INFANT	PEAK	MIST
Years conducted	2013-2015	2001-2005	2008-2010
Number of primary sites	9	5	7
Network conducted	AsthmaNet	CARE Network	CARE Network
Source of funding	NHLBI	NHLBI	NHLBI
Ages enrolled	12-59 months	24-48 months	12-53 months
Symptom criteria for inclusion	<p>NHLBI guideline-based criteria for daily asthma (step-2) controller medication</p> <p>(Symptom criteria: daytime asthma ≥ 2 days/week; nighttime awakening in the last month, ≥ 2 exacerbations in the past 6 months, ≥ 4 wheezing episodes over the past 12 months. <i>Can be included if additionally on ICS or LTRA for ≥ 90 days in the last 6 months</i>).</p>	<p>Meets the modified asthma predictive index</p> <p>(≥ 4 wheezing episodes during the past 12 months. <i>At least one exacerbation was confirmed by a physician per parental report</i>).</p>	<p>Meets the modified asthma predictive index</p> <p>(≥ 4 wheezing episodes during the past 12 months or 3 wheezing episodes and controller use for ≥ 3 months. <i>At least one exacerbation was confirmed by a physician per parental report</i>)</p> <p>Severe exacerbation requiring systemic glucocorticoids or higher level of care</p>
Exclusions			
Life-threatening asthma	Yes	Yes	Yes
Other chronic lung disease	Yes	Yes	Yes
Gastroesophageal Reflux	Yes	Yes	Yes
Prematurity	Yes	Yes	Yes
Other chronic disease	Yes	Yes	Yes
Recent steroids	Yes	Yes	Yes
Recent hospitalizations	Yes	No	Yes
Medication exclusions	Cannot be higher than step 2 NAEPP asthma guideline therapy	Cannot have used ICS ≥ 4 months in the past year	N/A
Intervention duration	16 weeks per cross-over	2 years	1 year
Intervention products	<p>Crossover of:</p> <p>Flovent[®] HFA, 44 mcg per inhalation, 2 inhalations twice daily, and Singulair[®], 4 mg granules or chewable tablets by mouth once daily in the evening, and Flovent[®] HFA, 44 mcg per inhalation, 2 inhalations with as needed SABA for asthma symptoms</p>	<p>Flovent[®] HFA, 44 mcg per inhalation, 2 inhalations twice daily</p> <p>vs</p> <p>Placebo</p>	<p>Pulmicort Respules[®], 0.5 mg, 1 nebulization daily</p> <p>vs</p> <p>Pulmicort Respules[®], 1 mg, 1 nebulization BID x 7 days with upper respiratory tract infection.</p>
CARE – Childhood Asthma Research & Education, NHLBI – National Heart Lung and Blood Institute, NAEPP – National Asthma Education & Prevention Program, HFA – hydrofluoroalkane, SABA – short acting beta-agonist			