Table C-8. Study characteristics of HEPA vacuum study

| Study | Intervention | Allergen(s) | Study Design | Demographic Factors | Clinical Factors |
| --- | --- | --- | --- | --- | --- |
| Popplewell et al. 200017 | ***Arm 1:*** High-efficiency (Electrolux) vacuum  ***Arm 2:*** Standard model (Electrolux) vacuum  Participants instructed to vacuum sofa, mattress, living room, and bedroom carpet at least once per week | Cat: Fel d 1  Dog: Can f 1  Dust mite: Der p 1 | ***Type of study:***RCT  ***Population:***60  21 children, 39 adults  ***Attrition:***15%  ***Setting:*** Home  ***Country:*** United Kingdom  ***Followup:*** 1 year | ***Age,*** mean: NR  Range:  Children: 5 to 15 years  Adults: 22 to 63 years  ***% Male:*** NR  ***Race:***NR  ***Homeownership:*** NR  ***Geographic environment:***NR | ***Sensitization*** (skin prick positive test):  100% house dust mite  10 of 15 cat owners sensitized to cat  8 participants owned a dog, none described as sensitized to dog  ***Asthma severity:*** NR  ***Comorbidity:*** NR  ***Pet owners:*** 30% |

Can f 1=*Canis* *familiaris* dog allergen I; Der p 1=*Dermatophagoides* *pteronyssinus* house dust mite allergen; Fel d 1=*Felis* *domesticus* cat allergen 1; HEPA=high=efficiency particulate air-filtration; NR=Not reported; RCT=randomized controlled trial