

Effect of HEPA filter air cleaners (IQAir®/Incleen®) in homes of asthmatic children and adolescents sensitised to cat and dog allergens

Submission date 15/08/2007	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 12/09/2007	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 12/04/2021	Condition category Respiratory	<input type="checkbox"/> Individual participant data

Plain English summary of protocol
Not provided at time of registration

Contact information

Type(s)
Scientific

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Additional identifiers

Protocol serial number
91/99

Study information

Scientific Title

Effect of HEPA filter air cleaners (IQAir®/Incleen®) in homes of asthmatic children and adolescents sensitised to cat and dog allergens

Acronym

HEPA

Study objectives

The reduction of pet allergens in households of pet-sensitive asthmatic children with Hepa air filters reduces bronchial hyper-responsiveness after cold air challenge and possibly also pet allergen exposure after 6 and 12 months of treatment.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Ethics approval received from the Ethics Committee of the Charite in May 1999.

Study design

Randomised controlled trial

Primary study design

Interventional

Study type(s)

Treatment

Health condition(s) or problem(s) studied

Allergy and asthma

Interventions

Recruitment took place 3 - 4 months before the treatment started. After randomisation patients were allocated to two groups: active and sham filters placed in the living and bedroom of families with a cat or dog sensitive asthmatic child.

Filters were placed in the homes on month 0 and changed after 6 months. Treatment period was 12 months. There was no follow up after the treatment. Dust samples of house dust were collected before the treatment started (inclusion criterion pet allergen exposure greater than 500 ng/g) and on month 0, 6 and 12. They were analysed for Fel d 1 and Can f 1 (pet allergens). Furthermore, we extracted the filters on month 6 and 12 and measured major allergens of cat and dog, Can f 1 and Fel d 1.

Clinical evaluation (lung function testing, cold air challenge, symptom score, medication, questionnaire on quality of life [published by Elizabeth Juniper]) took place on month 0, month 6 and 12.

Intervention Type

Other

Phase

Not Specified

Primary outcome(s)

Forced Expiratory Volume in one second (FEV1) after cold air challenge on month 0, 6 and 12.

Key secondary outcome(s)

1. Symptom score
2. Quality of life questionnaire
3. Cat and dog allergen exposure in bulk dust and filters
4. Eosinophil Cationic Protein (ECP) levels in serum as a marker of inflammation

Secondary outcomes were measured on month 0, 6 and 12.

Completion date

31/10/2000

Eligibility**Key inclusion criteria**

1. Aged 6 to 18 years
2. Significant cat or dog allergen exposure greater than 500 ng/g in house dust
3. A doctor's diagnosis of asthma, sensitisation (serum Immunoglobulin E [IgE] to cat and/or dog)

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Child

Lower age limit

6 years

Upper age limit

18 years

Sex

Not Specified

Total final enrolment

36

Key exclusion criteria

1. Systemic corticosteroids
2. Mite allergy above 0.7 KU/L
3. Missing consent of parents

Date of first enrolment

01/10/1999

Date of final enrolment

31/10/2000

Locations

Countries of recruitment

Germany

Study participating centre

Charite Campus Virchow University Children's Hospital

Berlin

Germany

13353

Sponsor information

Organisation

Incen AG (Switzerland)

Funder(s)

Funder type

Industry

Funder Name

Incen AG (Switzerland) - provided filter systems

Funder Name

Charite - University Medicine Berlin (Germany) - provided funding for nurses, doctors, students

Results and Publications

Individual participant data (IPD) sharing plan**IPD sharing plan summary**

Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		01/01/2009	12/04/2021	Yes	No