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Richter, Jens

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Utility of measuring allergen content in house dust samples in a cross-sectional study of respiratory health and atopy in a cohort of immigrant families in poor-quality housing in Malmö, Sweden

Jens Christian Richter MD MPH
Division of Occupational and Environmental Medicine Lund University, Sweden, and Unit of Allergy and Lung Medicine, Department of Heart and Lung Medicine, Skåne University Hospital Lund, Region Skåne, Sweden; email: jens.richter@med.lu.se

Aims: To measure allergens in house dust samples collected from immigrant families in Malmö, Sweden, where respirable health problems are prevalent. We sought to identify associations between allergen content in house dust and respiratory health outcomes, with a focus on atopy.

Methods: Dust samples were collected from 130 apartments, and allergen content was measured using sandwich ELISA. The study was designed as a cross-sectional investigation of respiratory health and atopy in a cohort of immigrant families living in poor-quality housing in Malmö, Sweden. The study included a sample of 130 apartments, and allergen content was measured in all 130 samples.

Results: The study found that the presence of allergens in house dust was associated with respiratory health outcomes. In particular, dust samples from apartments with higher allergen content were associated with higher rates of atopy and respiratory symptoms in children. The study also identified specific allergens that were more prevalent in certain locations, with house dust samples from the bedrooms and kitchens having the highest allergen content.

Conclusion: The study highlights the importance of measuring allergen content in house dust samples to understand the role of indoor allergens in respiratory health outcomes. Further research is needed to understand the mechanisms by which allergens in house dust may be associated with respiratory health outcomes in immigrant families.