

Affected person of a food hypersensitivity – claim of medical achievements in a Luxembourgian medical surgery

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According to international figures, the prevalence rate of food hypersensitivity varies between 3.24% and 34.9% (1, 2). A review of the literature reveals that no economic data and investigations into food hypersensitivity for the health-care system or the economic losses resulting from this disorder are available (3–5).

Within the scope of the research project MENSSANA (Mobile Expert and Networking System for Systematical Analysis of Nutrition based Allergies), we evaluated the outpatient medical services provided to 46 patients with the clinical picture of food hypersensitivity from October 2008 up to September 2009 (Table 1). The data come from a Luxembourgian medical specialist in dermatology/venereology with further training in allergology. Either food allergy or nonallergic food hypersensitivity had to have been diagnosed or the suspicion of food hypersensitivity in the broader sense had to have been investi-

This is an analysis of costs to diagnose and treat patients with food hypersensitivity.

Table 1 Total medical services and expense distribution

(n = 46)	Total	Per patient
Practice-related medical services	368	8
Costs	6031.06€	131.11€
Diagnostic methods	188	4.09
Personal consultation/anamnesis	104	2.26
Prick test	22	0.48
Epicutaneous test	15	0.33
RAST	47	1.02
Diamine oxidase	16	0.35
IgE total	40	0.87
Food allergens	287	6.24
Prescribed medications	206	4.48
Costs	5195.92€	112.95€
Absorption of Costs (CNS)	3992.14€	86.79€
Patients' contribution	1203.78€	26.17€
Medical services (incl. laboratory tests) and prescribed drugs	15057.64€	327.34€
Median		323.94€
SD		111.43€
Variance		12416.19€
Minimum		93.17€
Maximum		575.79€
Confidence interval (95%)		[294.25€; 360.43€]

gated. Furthermore, patients were only included if they were 18 years and older at the time of examination. Overall, 46 patients were identified who fulfilled the designated criteria. Of these 46 people, 33 were women and 13 men. The average age was 43.15 years.

Besides the pure cost survey, the number and distribution of visits to the doctor's office were likewise interesting as a further parameter. The affected persons consulted the practice an average of 2.98 times during this 1-year period (mean 11.42 visits per month). A distortion of the distribution arises here for the month November in which the doctor's practice was closed for 2 weeks (four visits). The 46 patients made most doctor visits exactly in the months of

April (19 visits) and July (18 visits) with their high pollen concentrations.

The diagnostic method most often used besides the personal consultation or anamnesis is the radioallergosorbent test. This test was not conducted in only three of the 46 patients; four patients received even two tests. In the process, the blood of the patients was examined for a total of 287 food allergens. This corresponds to 6.24 tested food allergens per patient and 6.11 per radioallergosorbent test.

Forty-six patients received a total of 368 services. This corresponds to an average of eight services per patient and average medical costs of 131.11€ for a food allergy sufferer or a patient with nonallergic food hypersensitivity.

In all, 206 medications were prescribed in this period. That results in 4.48 medications or costs of 112.95€ per patient. Luxembourg has a reimbursement rate of 80% for medications. Under certain conditions, some drugs are covered completely or at a diminished rate of 40% by the Luxembourgian statutory health insurance system (CNS – Caisse Nationale de Santé) (6).

In the following total expense evaluation, only the services used for the diagnosis or treatment of food hypersensitivity have been considered. Those services include prescribed medications (which flowed into the final amount), the laboratory costs (total IgE, diamine oxidase test, IgE test for food allergens) and the practice-related costs of medical services. We received costs at the rate of 294.25–360.43€ (95% confidence interval) per patient for this 1-year investigation.

Eleven of the 46 patients visited the doctor's practice for the first time. Another striking feature was that the patients who were clearly diagnosed based on the tests used did not visit the practice again thereafter owing to food-related symptoms.

A clear diagnosis with respect to food ingredients that trigger symptoms is especially important from the health-economic point of view and could drastically reduce the number of doctor contacts as well as the medications needed.

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