

placebo-controlled drug provocation test were done.

Results: One thousand patients were included in primary evaluation and 341 were considered for the final evaluation, 264 of them completed the study. One hundred and seventeen participants (44.3%) were confirmed as allergic and 147 (55.7%) were diagnosed otherwise. The identified allergic causes were, drugs (49.57%) and food (36.75%). The main non-allergic cause was acute or chronic urticaria with no specific triggers (39.7%).

For food allergy, most common clinical presentation was anaphylaxis (54.8%), and fruits and vegetables were the main prevalent triggers (44.2%). In drug allergy, also anaphylaxis was the most common clinical presentation (40.4%), main triggers were NSAIDs (62.1%) followed by β -Lactams (22.4%).

A concordant results between ED physician and the Allergy Unit team was found in 123/264 cases (46.6%) and between the trained allergist and Allergy Unit team in 141/264 cases (53.41%). Finally, concordant results between ED physician and the trained allergist was were found in 179/264 cases (67.8%), which represents a moderate level of agreement between the two observers.

Conclusion: These data show that drug and food hypersensitivity are the main inductors of hypersensitivity reactions evaluated in ED, being anaphylaxis the main clinical entity. Less than 50% of patients initially labelled as allergic in ED were finally confirmed. These results highlight the importance of evaluating patients in Allergy Units to get an accurate diagnostic and further management.

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Severity of anaphylaxis is associated to higher comorbidity. Analysis of hospitalized patients in Spain during the period 1998–2011

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Background: We have evaluated in the Spanish database of patients admitted, if presence of high level of comorbidities different than cardiovascular and respiratory diseases is associated to higher severity of anaphylaxis.

Method: The study was carried out using the Spanish Minimum Basic Data Set for

the period 1998–2011. The system uses the codes of the Spanish version of the ICD-9-CM and covers 98% of public hospitals in Spain.

Possible cases of anaphylaxis were obtained only in the principal diagnostic field. We use two strategies: First, we chose the codes ICD-9-CM specifically associated with anaphylaxis. Secondly, we used combined codes of causes of anaphylaxis and symptoms or signs of organ and systems in order to select episodes that met the criteria for the definition of anaphylaxis following an adapted Harduar-Murano's strategy. Proxies of severity in anaphylaxis admissions were deaths, use of invasive mechanical ventilation or vasopressor drug administration (IMV) and length of stay. The *Elixhauser's score modified by van Walraven* was used as index of comorbidity. This score is validated to estimate the risk of deaths, longer stay admissions and hospital charges in admitted patients. We adjusted the estimated risks in the logistic regressions by age, sex and causes of anaphylaxis.

Results: 5261 admissions whose main diagnosis was anaphylaxis were found. Out of them, there were 116 cases of deaths and 318 cases required IMV and 66 vasopressor drug administration (375 IMV or vasopressor drug).

We observed in all studied outcomes, the Elixhauser's score was associated to higher severity of anaphylaxis. For deaths and length of stay the C-statistics or discrimination was high (deaths 0.76; 95% CI 0.75 to 0.77; length of stay 0.73; 95% from 0.71 to 0.74). Good calibration was noted for both ($P = 0.39$, Hosmer-Lemeshow test). For Mechanical invasive ventilation or vasopressor drug administration discrimination was lower (0.66, 95% CI 0.64 to 0.67) with good calibration ($P = 0.12$).

Conclusion: Severity of anaphylaxis is increased not only due to presence of cardio-vascular and respiratory diseases, but also by presence of other comorbidities. For the most sick people are more likely to have more severe anaphylaxis.

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Assessment of Fel d1 allergen characteristics in domestic house cats

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Background: Cat dander is ubiquitous and is one of the most potent indoor allergens causing an IgE mediated Type 1 allergic response. The purpose of this preliminary work was to measure the levels of Fel d1 found in fur, saliva and urine of male and female domestic house cats and to determine whether there are differences in allergen levels dependent on breed, gender, sterilization status and age.

Method: Cats volunteered by owners from a local animal hospital were used for this study. Owners signed an informed consent prior to any sample collection. In this initial exploratory investigation, fur, saliva and urine samples from 10 cats of various breeds, ages and sex were studied. Commercially available ELISA kits were used to measure the allergen levels.

Result: The sample size included 8 domestic short and 2 long hair breeds, with 4 males (mean age, 8.43 years) and 6 females (mean age, 4.34 years). All male cats were castrated. Overall mean Fel d1 levels in the fur was 23.33 $\mu\text{g/g}$ with males having a mean value of 21.05 $\mu\text{g/g}$ and females 24.85 $\mu\text{g/g}$. Mean fur Fel d1 levels in non-spayed cats was 28.03 $\mu\text{g/g}$ compared to 18.48 $\mu\text{g/g}$ in spayed cats. Mean values for short hair vs long hair were 26.09 and 16.88 $\mu\text{g/g}$ respectively. Mean values by sex were 21.05 $\mu\text{g/g}$ in males and 24.85 $\mu\text{g/g}$ in females. Overall values for saliva and urine were 2.65 and 0.0197 $\mu\text{g/ml}$ respectively.

Conclusion: We have been able to demonstrate that even in this small sample size, that short and long hair cats irrespective of their gender, sterilization status and age produce levels of Fel d1 allergen to pose a significant health risk for sensitization. Further we have demonstrated these general characteristics will help us to identify cats to be housed in a cat allergen

	Odds Ratio by unit of Elixhauser's score (modified by van Walraven)			
	$P > z$	Lower interval 95%	Upper interval 95%	
Deaths	<0.001	1.06	1.14	
Length of stay	0.0140	1.00	1.03	
Mechanical invasive ventilation or vasopressor drug administration	0.0410	1.00	1.05	