duration and response to treatment) and estrogen-sensitivity.

Results: We included 13 women and 1 man (from seven families) with HAEunknown, seven women (from five families) with HAE-FXII (mutation p.Thr328Lys) and eight women with INH-AE. The median age of onset was between 21 and 23 y.o, but the only man affected presented symptoms at 76 with the use of ACEi and antiandrogen therapy. Frequency of attack was very variable in all groups (1-20/year). The most frequent localisation of attack was: a) face and perioral region (77%) in HAE-unknown, 35.7% of patients with estrogen-dependence (OD); b) perioral region (100%) and abdomen (86%) HAE-FXII patients. OD was found in 29% of the patients; c) face (75%) and abdomen (100%) in INH-AE patients, with an OD of 25%. 71% of patients required acute treatment with complement C1 esterase inhibitor (pdC1INH) or Icatibant which were very successful. Two of our patients have shown only good response and benefit from Icatibant (not from pdC1INH).

**Conclusion:** There aren't clinically significant differences between the three groups of patients. INH-AE presents the same clinical characteristics and response to treatment that hereditary forms, which induce us to think that both forms have very similar pathophysiologic mechanism. No family history has been found in HAE-FXII patients, so, this reason could not exclude the diagnosis.

## 1919

#### The use of icatibant in angiotensinconverting enzyme inhibitor-associated angioedema: our experience in Australia

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**Background:** The bradykinin receptor antagonist, icatibant, is licensed for treating hereditary angioedema in Australia. The use of icatibant in acquired angioedema is 'off label'. We present a case series of seven patients with angiotensin-converting enzyme (ACE) inhibitor-associated angioedema successfully treated with icatibant

Method: This is a retrospective case series of seven patients. All of these seven cases

were referred to the immunology team, either before or after the decision of intubation was made. Only a dose of icatibant was required for each of these patients.

Results: Four patients presented with airway compromise and had not improved following administration of adrenaline and/or corticosteroid. These patients were intubated in the Emergency Department, and were subsequently referred to the immunology team for further advice. Icatibant was given to all four of them. Patient A was extubated within 2 h. Patient B achieved first sign of clinical improvement in 4 h and was extubated within 24 h. Patient C was extubated within 24 h as well. Patient D was only referred to the immunology team 3 days after she was intubated; nonetheless she demonstrated first sign of clinical resolution by 6 h after receiving icatibant. Due to hospitalacquired pneumonia the last patient had had prolonged intubation.

The remaining three patients presented with facial angioedema without serious airway involvement. Like the four cases above, all three of them demonstrated positive response to icatibant. Clinical resolution of angioedema occurred in an hour; one case in particular happened after 30 min.

**Conclusion:** All patients responded well to icatibant, suggesting the underlying cause for their angioedema was bradykinin-mediated. The use of icatibant had either averted the need for intubation or expedited extubation. First symptom improvement occurred as early as 30 min. We recommend early use of icatibant in the management of such cases as timely institution of icatibant reverses angioedema caused by ACE inhibitors.

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### KRAK2: the phase 2 multicentre collaborative study putting together allergists and dermatologists to work for an improved Polish baseline series for patch testing

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**Background:** In 2010–2011, the KRAK study on the diagnostic effectiveness of the new Polish Baseline Series (POL-1000) for

patch testing was carried out in 11 allergy and dermatology centres across Poland. The new series was introduced in June 2010 and consisted of European Baseline Series supplemented with palladium and propolis - two sensitisers that seemed frequent and relevant in Poland. Altogether 624 patients were included. At least one positive reaction was recorded in 59.3% patients, and in 40.9% at least one was deemed clinically relevant (higher rates were recorded in children and adolescents: 65.4% and 46.5%, respectively). The two additions to the series - palladium and propolis have proven their importance: palladium gave positive reactions in 11.4% of patients, including 4.2% considered clinically relevant (rank 4 among most frequent sensitisers), for propolis, the respective figures were 4.6%; and 1.4% (rank 8). The present Phase 2 study, is aimed at testing a broader series of candidate haptens in order to further improve the diagnostic effectiveness of the baseline series.

**Method:** In the Phase 2 Study (KRAK2), Polish Baseline Series has been supplemented with 20 additional hapten preparations. The selection was made based upon results of pilot studies, search of emerging sensitisers in literature and analysing exposures to them in Poland, as well as generous advice of patch test experts throughout Europe.

**Results:** A listing of the study series has been devised consisting of 50 tests substances, and the final series was produced by Chemotechnique Diagnostics (Sweden). The KRAK2 series was distributed to nine participating allergy and dermatology centres – from university clinics to private practices. In this way, a good representation of various patient groups was sought for, including the social status, age and gender.

**Conclusion:** This ongoing study demonstrates both the potential for, and benefit from the collaboration between allergists and dermatologists – two specialties that seem equally interested in allergic contact dermatitis and may learn a great deal from each other.