Network of Excellence

Pan-European Surveillance System of Allergy and Asthma

Professor Torsten Zuberbier
GA²LEN Secretary General

Spreading Excellence in Allergy & Asthma
What is GA²LEN

- GA²LEN was born from a growing public health concern of allergic diseases and the need for harmonized allergy research in Europe.
- Created in 2004 under FP6 – an EU Star Project
- A unique model project in the history of medicine
Who is GA²LEN
A consortium of 31 partners
Who is GA²LEN
The Network of Excellence

26 European members

- Partners
- Collaboration centres

and the Network continues to grow …..
GA²LEN’s groundbreaking work

GA²LEN unique in the history of medicine

• Coprogramme research for all aspects of allergic diseases
• Accelerate the application of research results
• Create platforms and tools for research and dissemination
• Create awareness and disseminate better clinical care
GA²LEN’s groundbreaking work

GA²LEN’s aim

DECREASE THE BURDEN
OF ALLERGY AND ASTHMA THROUGHOUT EUROPE
GA²LEN’s groundbreaking work

- created a durable infrastructure facilitating research in allergy and ensuring systematic dissemination but “partly idle” since funding is currently based on institutional commitment only
GA²LEN - The Sentinel Network

Why?

- Allergies are the most frequent chronic disease in Europe - *they are on the rise*
- Unexpected changes in allergies due to climate change and change of living
- New pollen, food and chemical allergens emerging

At present, no early alert system is in place in the EU
GA²LEN - The Sentinel Network
Why? – POLLEN

Increase in Ambrosia pollen intensity over Europe, 2000-2005

<table>
<thead>
<tr>
<th>Level</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>0 - 2,2</td>
</tr>
<tr>
<td>Very low</td>
<td>2,2 - 8,9</td>
</tr>
<tr>
<td>Low</td>
<td>8,9 - 20,0</td>
</tr>
<tr>
<td>Moderate</td>
<td>20,0 - 35,6</td>
</tr>
<tr>
<td>High</td>
<td>35,6 - 55,6</td>
</tr>
<tr>
<td>Very high</td>
<td>55,6 - max</td>
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GA²LEN - The Sentinel Network
Why? - CHEMICALS

• e.g. Dimethylfumerate (DMF) in leather

Images courtesy of www.homeworldinfo.co.uk
But also for newly emerging allergens and/or modified food sources e.g. Allergic reaction to products containing Meripro 711 (soluble wheat protein) .. as discovered by GA²LEN Partner Allergy Center, Odense University Hospital, Denmark
New Allergens are constantly endangering health, also in occupation and require early detection.

- 54 yrs, Nurse
- Allergy against crushed tetrazepam
- Occupational health hazard


Images courtesy of EPOS
GA²LEN - The Network is rooted in collaboration

Cooperation! Collaboration! Communication!
GA²LEN - The Sentinel Network

Objective

Identify new emerging trends in allergic diseases *before* they become a major public health problem
• Standardise series for all allergens
• Report all cases of rare allergies
• Employ patient sample for consistent monitoring of severity of allergy as “scouts”
• Dissemination of scientific results to policymakers, health care professional and the general public
GA²LEN - The Sentinel Network
Tasks – patients as scouts and a new way in e-health

E-health for GA²LEN Tasks using mobile technology

Simplifying survey technology for fast results
Building platforms for interaction
GA²LEN *already* adheres to the EC Healthplan 2020 by way of:

- rational use of EU financial resources
- concentrating care in centres of excellence
- ensure sufficient human resources for health through: good training; motivation and working conditions; addressing imbalances in different categories of staff
- already using existing GA²LEN framework
  - = greater value for money
- Saving money for society
Impact on Presenteeism

10-30% reduction of presenteeism in allergic rhinitis
Chance of dropping a grade

Walker S et al., JACI 2007
Undertreatment

Figure 3: Proportion of patients receiving the indicated number of DDDs over the course of 1 year. ICS, inhaled corticosteroids; LABA, long acting β₂-agonists; SABA, short-acting β₂-agonists.

Clinically relevant allergic rhinitis
(grass, trees, mite SPT +, symptoms; n= 2320)

29.8 % of total Belgian Population
45.5% in age group 20-40 years

K. Blomme, C. Bacchert, P. Gevaert;
Unpublished GA²LEN Ghent data
Treating Allergy helps our economy

A Calculation

8 hour workday on average costs 240 EUR (Eurostat)

Reduced performance in untreated allergy is 10 – 30% in money

24 – 72 EUR / day

versus

Treatment costs of ≤ 1 EUR/day
One European citizen in two is likely to have developed at least one form of allergy by 2015.

GA²LEN Sentinel Network can be serving an EU Health Priority.