

## **PRESS RELEASE**

### **Do 'EpiPens' save lives?**

**Istanbul/Zurich, 13 June 2011 - Over 100,000 adrenaline auto-injectors ('EpiPen') have been given to people with severe food allergy (food anaphylaxis) over the past 20 years, but as the death rate has remained at around five per year it seems possible they are not saving lives. New research from Dr Richard Pumphrey of the Central Manchester Hospitals, UK, has today revealed why.**

Dr Pumphrey looked at the circumstances around each of the 110 deaths from food allergy that have occurred since introduction of the EpiPen. He found that two out of three of those dying had not been given EpiPens because their previous reactions had been so mild. "Of those who had been given pens, around half used the pen late or not at all because they were not carrying them at the time of the attack", he explained, "and the other half had used the pens correctly but still died". This latter group are the most perplexing, and are an important focus of Dr. Pumphrey's research, delegates at the Congress of the European Academy of Allergy and Clinical Immunology in Istanbul were told today.

When the pens are activated, a needle is shot through the skin and followed by an automatic injection of adrenaline. This adrenaline works best - and is most likely to save a life - if it is given into the muscle. In overweight people, however, the needle may not reach the muscle and therefore neither does the adrenaline 'shot' - which could put the life of the patient at greater risk during an anaphylactic attack. "The needle will not reach the muscle in a significant fraction of those with severe food allergies, so it is an important issue," said Dr Pumphrey. Because the needle tracks are rarely dissected at post mortem examinations, the failure to inject into the muscle has only been confirmed in a single case of fatal reaction following correct pen use but the same thing is likely to have happened in over half the remaining fatalities.

Despite manufacturers assurances that the force of the injection means the adrenaline will reach the muscle even if the needle doesn't reach that far, recent research from the UK and US has shown this is not the case, and so other solutions will need to be found. One option is to produce pens with longer needles. "It is easy to do, but expensive for manufacturers, who would need to make costly adjustments to the design and machinery - but it is something they are considering, however," he said. In the meantime, better training in the use of the pens could help, including working out the best injection point on the thigh, where the fat is thinnest and the injection is most likely to reach the muscle.

There should also be more emphasis on patients taking the pens with them when they go into situations where they could be at risk. "The peak age for deaths from food allergy is between 18 and 24, and the advice needs to be tailored to them - this age group has varying views on risk," said Dr Pumphrey.

Adrenaline auto-injectors are not by themselves an adequate solution to the problem of food anaphylaxis, and need to be combined with other tactics such as optimal avoidance of trigger foods and proper management of any other medical conditions that make these reactions more dangerous.

## Meet the Expert 16

### NOTES TO EDITORS

Dr Richard Pumphrey (retired), University of Manchester [richard.pumphrey@cmmc.nhs.uk](mailto:richard.pumphrey@cmmc.nhs.uk)

**Publication:** Pumphrey RSH. **When should self-injectible epinephrine be prescribed for food allergy and when should it be used?** *Curr Opin Allergy Clin Immunol.* 2008 Jun;8(3):254-60. Review.

### About EAACI :

EAACI - The European Academy of Allergy and Clinical Immunology is a non-profit organisation active in the field of allergic and immunologic diseases such as asthma, rhinitis, eczema, occupational allergy, food and drug allergy and anaphylaxis. EAACI was founded in 1956 in Florence and has become the largest medical association in Europe in the field of allergy and clinical immunology. It includes 6'500 members from 107 countries, as well as 41 National Allergy Societies.

Throughout 2011, EAACI will develop different activities to celebrate the 100th anniversary of immunotherapy in Allergy, which will aim at increasing the knowledge in this field among healthcare professionals, increase awareness in the general population, and finally, promote the availability of immunotherapy for allergic patients.

### For further information:

#### EAACI 2011 Press Center

Elaine Snell (English)  
Tel: +44 (0)20 7738 0424, Mobile: +44 (0)7973 953 794  
[elaine@snell-communications.net](mailto:elaine@snell-communications.net)  
Snell Communications Ltd, UK [www.snell-communications.net](http://www.snell-communications.net)

Eren Akyurt (Turkish)  
Tel Mobile: +90 (0)544 344 5800  
[ernakyurt@gmail.com](mailto:ernakyurt@gmail.com)

Gülçin Yılmaz İzel (Turkish)  
Tel: +90 (0)212 356 09 09 or Mobile +90 (0)532 244 46 29  
[gulcinyilmaz@3diletisim.com](mailto:gulcinyilmaz@3diletisim.com)  
3D Communication Services, Turkey [www.3diletisim.com](http://www.3diletisim.com)

Direct Tel.: EAACI Press Office *from 11-15 June 2010 only*: +90 212 373 99 15



**EAACI Headquarters**

Head of Communications

Panthea Sayah

Genferstrasse 21

8002 Zurich

Switzerland

Tel.: +41 44 205 55 33

Fax: +41 44 205 55 39

Mobile: +41 79 551 99 48

E-mail: [panthea.sayah@eaaci.org](mailto:panthea.sayah@eaaci.org)

Internet: [www.eaaci.net](http://www.eaaci.net)