**Online supplementary material:**

**InFAC website**: http://genapha.hli.ubc.ca/infac/

**Additional references:**

**Table S1: Skin prick test and specific IgE cut-off references for peanut, cow’s milk and hen’s egg white**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Reference** | **Age** | **No. of Patients** | **SPT size (mm)** | **sIgE levels (kUA/L)** |
| **Peanut** | | | | |
| Bernard et al., 2003 | 1.5-16 years | 96 | - | ≥5 |
| Clark et al., 2003\* | Children and adults | 1000 | ≥8 | ≥15 |
| Dang, 2012 | 11-20 months | 200 | - | ≥15 |
| Hill et al., 2004 | Median 3 years | 467 | ≥6 (≥2 years)  ≥4 (<2 years) | - |
| Ho et al., 2006 | 4 months-19 years | 680 | ≥8 (> 2 years)  ≥4 (≤ 2 years) | - |
| Nicolaou et al., 2009 | ≤ 8 years | 933 | ≥9 | ≥45 |
| Nolan et al., 2007 | 3.7-14.8 years | 54 | ≥7\*\* | - |
| Peters et al., 2013 | 11-15 months | 438 | ≥8 | ≥34 |
| Rance et al., 2002 | 0.1-15.9 years | 363 | ≥16 | ≥57 |
| Roberts et al., 2005 | 1.0-16.4 years | 157 | ≥8 | ≥15 |
| Sampson, 2001 | 3 months-14 years | 68 | - | ≥14 |
| Sampson et al., 1997 | 0.6-17.9 years | 196 | - | ≥15 |
| Sporik et al., 2000 | Mean 3 years | 467 | ≥8 (all children)  ≥4 (< 2 years) | - |
| Wainstein et al., 2007 | 11 months-17 years | 84 | ≥15 | ≥10 |
| **Cow’s milk** | | | | |
| Garcia-Ara et al., 2001 | < 1 year | 161 | - | ≥5 |
| Hill et al., 2004 | Median 3 years | 467 | ≥8 (≥2 years)  ≥6 (<2 years) | - |
| Saarinen et al., 2001 | Mean 7 months | 239 | ≥8 (92%PPV) | ≥3.5 (94%) |
| Sampson, 2001 | 3 months-14 years | 62 | - | ≥15 |
| Sampson et al., 1997 | 0.6 to 17.9 years | 196 | - | ≥32 |
| Sporik et al., 2000 | Mean 3 years old | 467 | ≥8 (all children)  ≥6 (< 2 years) | - |
| Verstege et al., 2005 | 3 months-14.5 years | 385 | ≥12.5 (all children)  ≥15.7 (1 year)  ≥9.7 (<1 year) | - |
| **Hen’s egg white** | | | | |
| Boyano-Martinez et al., 2002 | ≤ 2 years | 58 | - | ≥3\*\*\* |
| Hill et al., 2004 | Median 3 years | 467 | ≥6 (≥2 years)  ≥5 (<2 years) | - |
| Peters et al., 2013 | 11-15 months | 652 | ≥4 | ≥1.7 |
| Sampson, 2001 | 3 months-14 years | 75 | - | ≥6 |
| Sampson et al., 1997 | 0.6 to 17.9 years | 196 | - | ≥6 |
| Sporik et al. , 2000 | Mean 3 years old | 467 | ≥7 (all children)  ≥5 (<2 years) | - |
| Verstege et al., 2005 | 3 months-14.5 years | 385 | ≥13.0 (all children)  ≥13.3 (1 year)  ≥11.2 (<1 year) | - |

The table shows cut-off of 95% PPV or above.

\* Results are based on mixed peanuts and tree nuts.

\*\*Value is based on 93% PPV. No higher PPV is reported in the article.

\*\*\*Value is based on 93% PPV, and interpreted as such from Caubet & Wang, 2011.

**Table S1 References:**

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**Table S2: Astier score for reaction severity:** (Astier C, Morisset M, Roitel O, Codreanu F, Jacquenet S, et al. (2006) Predictive value of skin prick tests using recombinant allergens for diagnosis of peanut allergy. J Allergy Clin Immunol 118: 250–256.)

|  |  |
| --- | --- |
| **Symptom score** | **Symptoms** |
| **0** | No symptoms |
| **1** | Abdominal pain that resolved without medical treatment, rhinoconjunctivitis or urticaria < 10 papules, rash |
| **2** | **One organ involved**, \*abdominal pain requiring treatment, \*generalized urticaria**,** \*non-laryngeal angioedema**,** \*mild asthma (cough, fall of peak expiratory flow <20%) |
| **3** | **Two organs involved** (of symptoms mentioned under 2) |
| **4** | **Three organs involved** (of symptoms mentioned under 2) **or asthma** requiring treatment or laryngeal edema, or hypotension |
| **5** | **cardiac and respiratory symptoms requiring hospitalization in the intensive care unit** |

**World Allergy Organization definition of Anaphylaxis** (Simons FE, Ardusso LR, Bilo MB, et al. World allergy organization guidelines for the assessment and management of anaphylaxis. The World Allergy Organization journal. 2011;4(2):13-37.)

Anaphylaxis is highly likely when any one of the following three criteria is fulfilled:

1. Sudden onset of an illness (minutes to several hours), with involvement of the skin, mucosal tissue, or both (e.g. generalized hives, itching or flushing, swollen lips-tongue-uvula) and at least one of the following:
   1. Sudden respiratory symptoms and signs (e.g. shortness of breath, wheeze, cough, stridor, hypoxemia)
   2. Sudden reduced blood pressure or symptoms of end-organ dysfunction (e.g. hypotonia [collapse], incontinence)
2. Two or more of the following that occur suddenly after exposure to a likely allergen or other trigger for that patient (minutes to several hours):
   1. Sudden skin or mucosal symptoms and signs (e.g. generalized hives, itch-flush, swollen lips-tongue-uvula)
   2. Sudden respiratory symptoms and signs (e.g. shortness of breath, wheeze, cough, stridor, hypoxemia)
   3. Sudden reduced blood pressure or symptoms of end-organ dysfunction (e.g. hypotonia [collapse], incontinence)
   4. Sudden gastrointestinal symptoms (e.g. crampy abdominal pain, vomiting)
3. Reduced blood pressure after exposure to a known allergen for that patient (minutes to several hours)

**Environmental and genetic interaction references:**

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