

Recommendations for the Use of In Vitro Methods to Detect Specific Immunoglobulin E: Are They Comparable?

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CME Items

- Which one of the following statements is false about the presence of IgE in a patient's serum?
 - It always confirms clinical allergy.
 - It complements the skin tests.
 - It indicates sensitization.
 - It can indicate a type I hypersensitivity reaction.
- Which of the following is true about available methods for the detection of IgE?
 - They are replacing radioisotope-based methods with enzymatic reactions.
 - They can detect IgE to complete extracts and allergenic molecules.
 - The results should be interpreted by specialists.
 - All of the above.
- Which of the following is the most important characteristic of a serum specific IgE detection method?
 - High sensitivity and analytical specificity.
 - Reproducibility.
 - Correct standardization.
 - All of the above.
- Which is the most important characteristic of a serum specific IgE detection method?
 - It needs to be manual so that all the steps can be precisely controlled.
 - It can be used with a large range of allergens.
 - It is complex in order to restrict use to a specialist.
 - All of the above.
- Which one of the following is true for most detection systems?
 - The allergen is always bound to a solid matrix.
 - They use IgG detection antibodies.
 - They use a substrate bound to the detection antibody that emits fluorescence when transformed into its product.
 - All of the above.
- When comparing different methods for IgE detection, which one of the following applies?
 - Agreement varies depending on the allergen.
 - They yield the same results.
 - They are similar because they use radioactivity.
 - All of the above are incorrect.
- Which of the following apply for ImmunoCAP by ThermoFisher and Immulite by Siemens?
 - They use the same unit of measurement because they produce interchangeable results.
 - They yield results that correlate with skin test results.
 - They estimate total IgE and specific IgE similarly.
 - All of the above are incorrect.
- Which one of the following statements applies when a cutoff point of 7 kU_A/L for specific IgE to egg white yields a positive result in an oral challenge test with a specificity of 95%?
 - I need to determine with which method this result has been obtained and compare it with the method available in my practice.
 - Irrespective of whether the test was performed with ImmunoCAP or Immulite, this result indicates that 50% of the patients with a value ≥ 7 kU_A/L to egg white will have a positive challenge result with this food.
 - Irrespective of whether the test was performed with ImmunoCAP or Immulite, this result indicates that 95% of the patients with a value ≥ 7 kU_A/L to egg white will have a positive challenge result with this food.
 - The result of the ImmunoCAP should help me to decide whether to perform a challenge test, no matter which method I used to detect IgE.
- Which one of the following is true with respect to the detection of specific IgE with protein microarrays?
 - Their results are comparable with those of the component ImmunoCAP, given that they all use the same allergens.
 - Quantification of specific IgE with microarrays is similar to quantification with ImmunoCAP.
 - The allergen-antibody relationship is similar to that observed for ImmunoCAP.
 - All of the above are incorrect.
- Which one of the following is true for specific IgE measured with component ImmunoCAP and IgE measured with ISAC (ThermoFisher)?
 - They are comparable.
 - They are calibrated in the same way.
 - They use the same allergens.
 - All of the above.