



ORAL PRESENTATION

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Molecular-based allergy diagnostics in the real world: evidence for a cost explosion and an impact vacuum

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From Food Allergy and Anaphylaxis Meeting 2014
Dublin, Ireland. 9-11 October 2014

Background

Molecular-based allergy (MA) diagnostics are used to identify patient sensitization to individual allergen components. Despite a recent consensus statement, the clinical utility of MA diagnostics in routine practice remains unclear.

Aim

To review the cost and usage patterns of MA diagnostics at a regional level and to estimate the clinical value of such testing strategies.

Methods

Laboratory data on Northern Ireland MA diagnostics ordering between 2010 and 2013 was obtained. Data specific to Regional Immunology Service patients from 2013 was further interrogated. A retrospective review of case records from adults (n=70) and children (n=53) was carried out to determine the impact of MA test results.

Results

MA testing has increased annually since its introduction in 2010. Spending on MA diagnostics exceeded £20,000 in 2013. Increases in test numbers were observed across a range of allergen groups during the time period and suggests routine ordering (Figure 1). Analysis of request sources indicated a surge in test numbers across 5 key user hospital units (Figure 2). Additionally, a marked increase in MA diagnostics orders from non-specialist sources was noted.

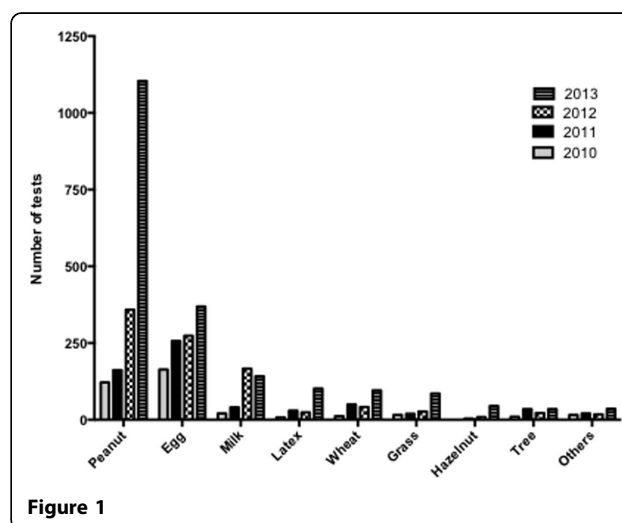


Figure 1

Use of MA diagnostics introduced a mean increase in cost of 156% in adults (range 11%-900%) and 197% in children (range 9%-600%)(Table 1). Review of individual cases indicated that MA diagnostics had no specific impact on diagnosis or management in 78.6% of adults and 83.0% of children.

Discussion

This study suggests that the use of MA diagnostics is entering routine clinical practice and is associated with a cost premium. The minimal clinical impact of these testing modalities argues for the establishment of demand management programs in resource-constrained environments.

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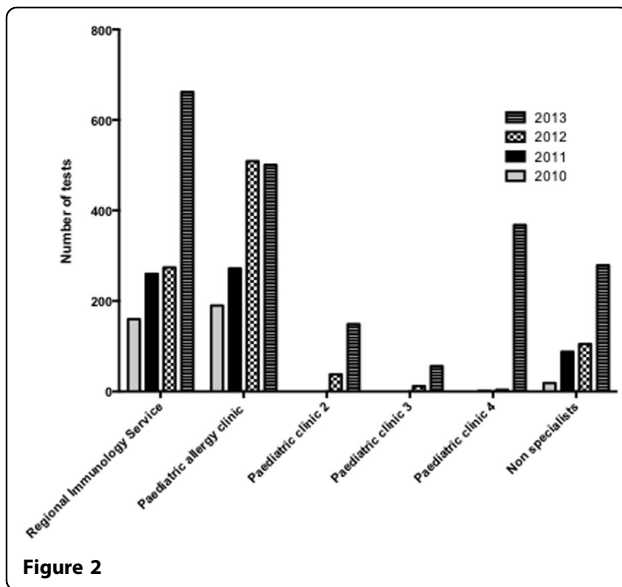


Table 1

	Adults (n=70)	Children (n=53)
Mean age (sd)	31.9 (12.3)	9.2 (4.2)
% cost increase with MA (range)	156 (11-900)	197 (9-600)
MA test results altered management, n(%)	6 (8.6)	7 (13.2)
MA test results provided useful diagnostic support, n(%)	9 (12.8)	2 (3.7)
MA test results had no impact on diagnosis or management, n(%)	55 (78.6)	44 (83)

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Published: 30 March 2015

doi:10.1186/2045-7022-5-S3-O3

Cite this article as: Conlon *et al.*: Molecular-based allergy diagnostics in the real world: evidence for a cost explosion and an impact vacuum. *Clinical and Translational Allergy* 2015 **5**(Suppl 3):O3.

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