Asthma and allergy

ImmunoCAP™ Specific IgE tests

Integrating aeroallergen evaluation into asthma management is of paramount importance to optimise the asthma patient journey from diagnosis to treatment.[1]

Diagnosis includes assessment of allergen sensitisation[1]

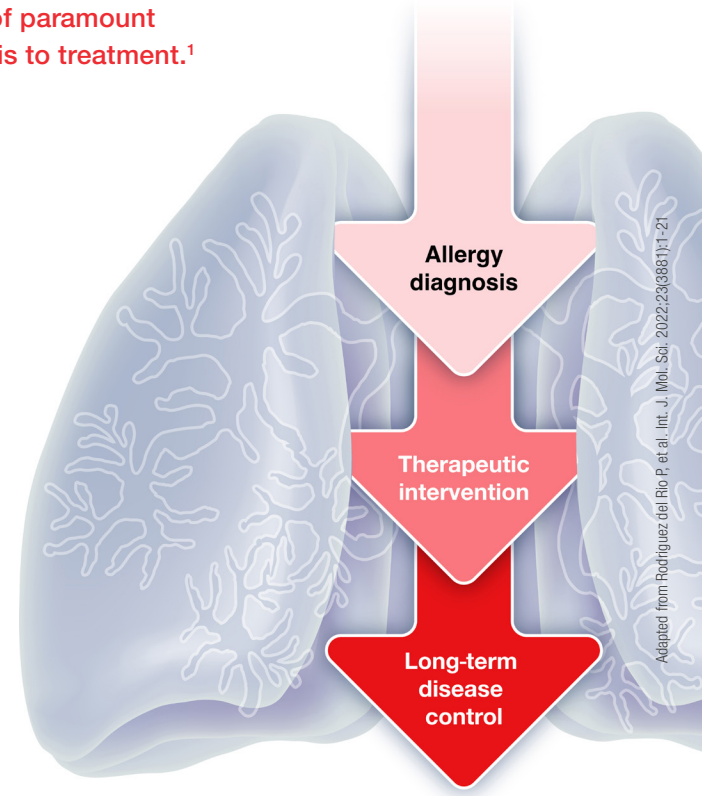
- Qualifies a T2 inflammatory response to allergic sensitisation[2]
- Gives a more precise clinical picture of asthma phenotype and endotype[3]
- Identifies two or more co-existing sensitisations (polysensitisation) that could contribute to asthma symptoms, cross-reactive allergens, minor allergens[4–6]

Enables therapeutic intervention[1]

- Flags up which allergens should be avoided[7–9]
- Helps to justify treatment selection, especially when decreasing or increasing corticosteriod use[10,11]
- Essential for careful administration of allergen immunotherapies (AITs), such as sublingual immunotherapy (SLIT) or subcutaneous immunotherapy (SCIT)[12–14]

Support long-term allergic asthma management[1]

- Contributes to understanding if symptoms of asthma will resolve, continue to develop, or change over time[12,15,16]
- Can predict an increasing risk of exacerbation[17]



Adapted from Rodriguez del Rio P, et al. Int. J. Mol. Sci. 2022;23(3881):1-21

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Testing with aeroallergen components can help to identify individuals sensitised to species-specific or to cross-reactive allergens, as well as to confirm polysensitisation.[1,18]

Allergen source	ImmunoCAP™ Whole Allergen*	ImmunoCAP™ Allergen Component* Primary sensitiser[13,14]
Pollen	Birch (t3)	Bet v 1 (t215)
	Ash (t25) / olive (t9)	Ole e 1 (t224)
	Timothy gras (g6)	Phl p 1 (g205) / Phl p 5b (g215)
	Mugwort (w6)	Art v 1 (w231)
	Ragweed (w1)	Amb a 1 (w230)
	Plantain (w9)	Pla l 1 (w234)
Mite	*Dermatophagoides pteronyssinus* (d1)#	Der p 1 (d202) / Der p 2 (d203) / Der p 23 (d209)
Animals	Cat (e1)	Fel d 1 (e94)
	Dog (e5)	Can f 1 (e101) / Can f 2 (e102) / Can f 4 (e229) / Can f 5 (e226)
	Horse (e3)	Equ c 1 (d227)
Mould	*Alternaria alternata* (m6)	Alt a 1 (m229)
Panallergen##	Profiline, e.g. Bet v 2 (t216), Phl p 12 (g212)	
	Polcalcine, e.g. Bet v 4 (t220), Phl p 7 (g210)	

Table: Most common whole allergens and corresponding allergen components[13,14]

Official product names: ImmunoCAP Allergen t3, Common silver birch; ImmunoCAP Allergen t215, Allergen component rBet v 1, PR-10, Birch; ImmunoCAP Allergen t25, European ash; ImmunoCAP Allergen t9, Olive; ImmunoCAP Allergen t224, Allergen component rOle e 1, Olive; ImmunoCAP Allergen g6, Timothy; ImmunoCAP Allergen g205, Allergen component rPhl p 1, Timothy; ImmunoCAP Allergen g215, Allergen component rPhl p 5b, Timothy; ImmunoCAP Allergen w6, Mugwort; ImmunoCAP Allergen w231, Allergen component nArt v 1, Mugwort; ImmunoCAP Allergen w1, Ragweed; ImmunoCAP Allergen w230, Allergen component nAmb a 1, Ragweed; ImmunoCAP Allergen w9, Plantain; ImmunoCAP Allergen w234, Allergen component rPla l 1, Plantain; ImmunoCAP Allergen d1, House dust mite; ImmunoCAP Allergen d2, House dust mite; ImmunoCAP Allergen d202, Allergen component rDer p 1, House dust mite; ImmunoCAP Allergen d203, Allergen component rDer p 2, House dust mite; ImmunoCAP Allergen d209, Allergen component rDer p 23, House dust mite; ImmunoCAP Allergen d205, Allergen component rDer p 10 Tropomyosin, House dust mite; ImmunoCAP Allergen e94, Allergen component rFel d 1 Cat; ImmunoCAP Allergen e220, Allergen component rFel d 2 Cat serum albumin; ImmunoCAP Allergen e228, Allergen component rFel d 4, Cat; ImmunoCAP Allergen e231, Allergen component rFel d 7 Cat; ImmunoCAP Allergen e101, Allergen component rCan f 1 Dog; ImmunoCAP Allergen e102, Allergen component rCan f 2 Dog; ImmunoCAP Allergen e221, Aller-gen component nCan f 3 Dog serum albumin; ImmunoCAP Allergen e229, Allergen component rCan f 4 Dog; ImmunoCAP Allergen e226, Allergen component rCan f 5 Dog; ImmunoCAP Allergen e230, Allergen component rCan f 6 Dog; ImmunoCAP Allergen e227, Allergen component rEqu c 1, Horse; ImmunoCAP Allergen m6, Alternaria alternata; ImmunoCAP Allergen m229, Allergen component rAlt a 1, Alternaria alternata; ImmunoCAP Allergen t216, Allergen component rBet v 2 Profilin, Birch; ImmunoCAP Allergen t220, Allergen component rBet v 4, Birch; ImmunoCAP Allergen g210, Allergen component rPhl p 7, Timothy; ImmunoCAP Allergen g212, Allergen component rPhl p 12 Profilin, Timothy.

High cross-reactivity between *D. pteronyssinus* and *D. farinae* allergen components[14] ## Pollen components that help to explain multiple positive skin prick tests or specific IgE tests, but should not be considered an indication for AIT[13,14]

Note: As in all diagnostic testing, any diagnosis or treatment plan must be made by the clinician based on test results, individual patient history and symptoms, the clinician's knowledge of the patient, as well as their clinical judgement. Patients can be sensitised to more than one allergen component.[18]

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