

Approccio multidisciplinare nella gestione dell'asma allergico da acaro

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Disclosures

- I have accepted grants, speaking and conference invitations from Angelini, ALK, AstraZeneca, Bayer, Chiesi, Dompè, GSK, Guidotti-Malesci, Menarini, Novartis, Pfizer, Sanofi, Teva, Thermo Fisher and Zambon
- I have had recent or ongoing consultancy with Angelini, AstraZeneca, Chiesi, GSK, Menarini, Novartis, Teva, Zambon

Asthma as a Heterogenous Disease

“Asthma is a **heterogeneous disease**, usually characterised by chronic airway inflammation”¹

Asthma severity and response to usual treatments **varies greatly** between patients²



Disease **endotypes** may represent a better conceptual framework than disease phenotypes to accelerate progress towards personalised treatments²

BACKGROUND 1

In recent decades, there has been an increase in the prevalence of allergic respiratory diseases.

- ✓ **In the US, asthma prevalence increased from 7.3% in 2001 to 8.4% in 2010, when 25.7 million persons had asthma.** NCHS Data Brief No. 94, May 2012
- ✓ **During the Finnish Asthma Program, the prevalence of allergic rhino-conjunctivitis and physician-diagnosed asthma has increased from 1994 to 2004 in adults, especially in women aged <40 years.** Prim Care Respir J 2013; 22: 64-71
- ✓ **The ISAAC study showed that although childhood asthma has historically been more prevalent in western than eastern Europe, the difference is diminishing as rates in the East rise.**

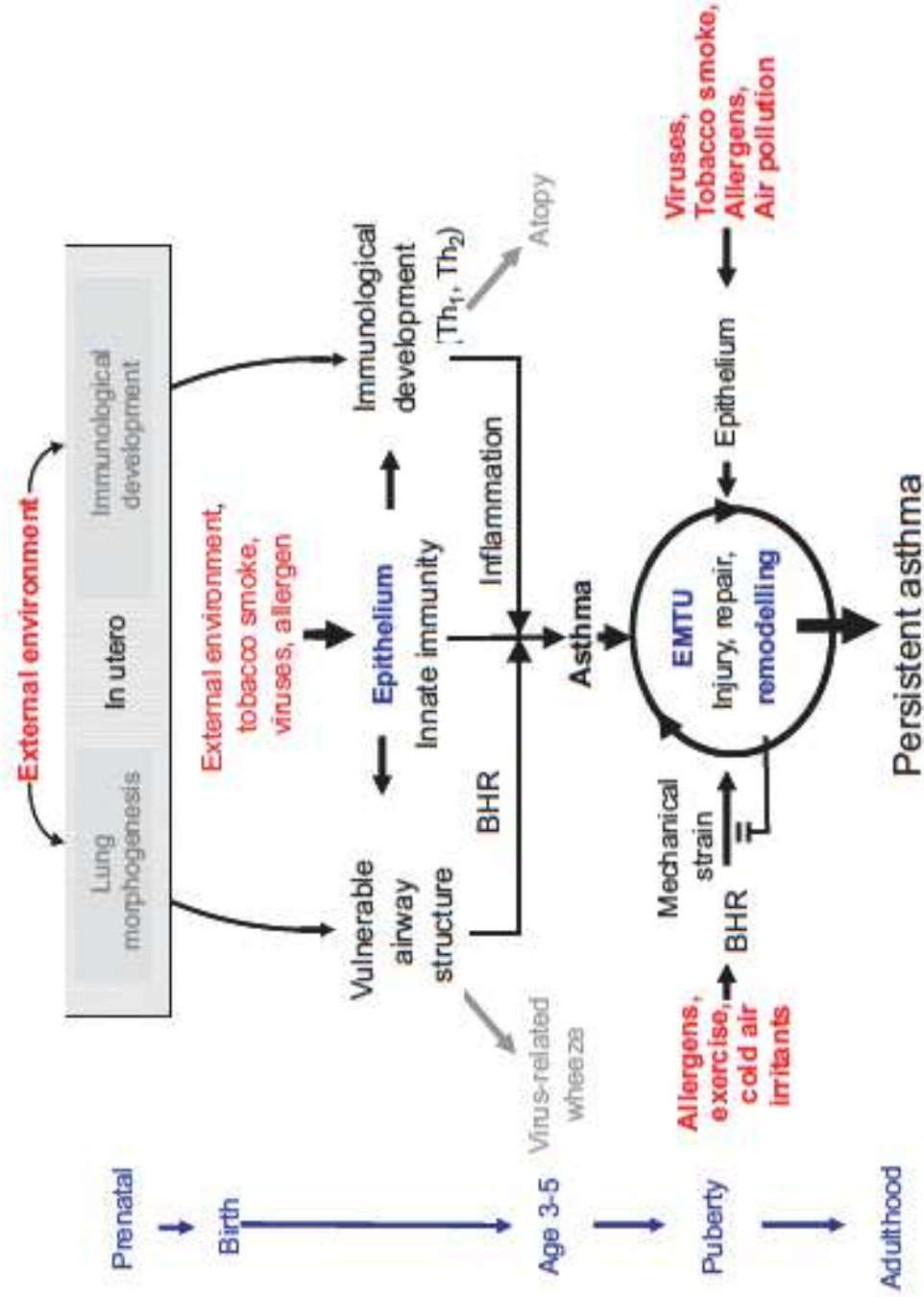
ISAAC study, I and II, EUROPEAN LUNG *white book*

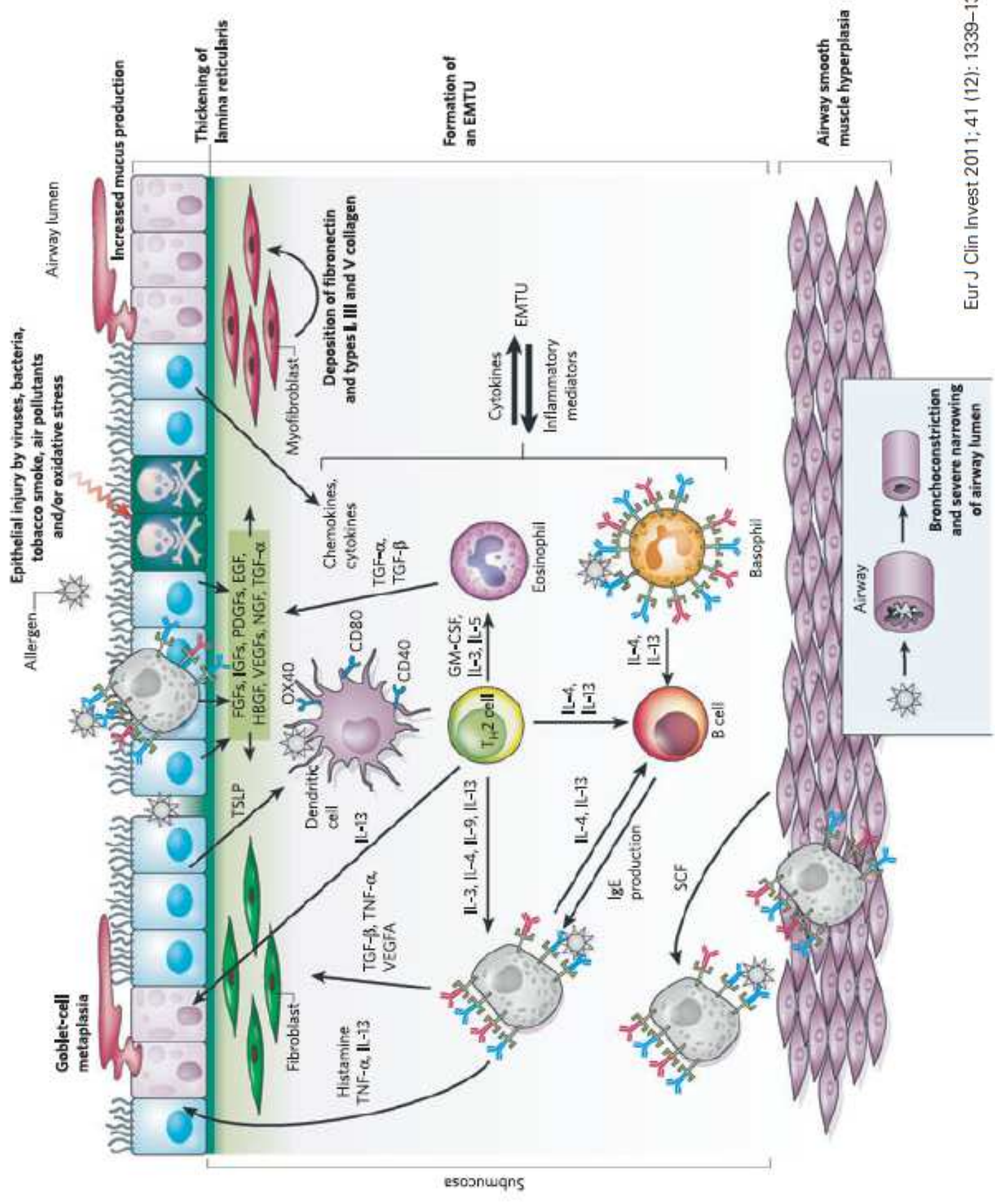
BACKGROUND 2

- ✓ **In Swedish adults, sensitization to pollens and pets were risk factors for onset of allergic rhinitis, whereas allergic rhinitis, sensitization to pets, and smoking were risk factors for onset of asthma.** Plaschke PP. et al Am J Respir Crit Care Med 2000.
- ✓ **The Prevention of Allergy among Children in Trondheim (PACT): sensitization at 2-yr-old may be useful predictors of allergy-related disease later in childhood. The predictive ability of skin test positivity and specific IgE were mainly comparable.** Rø AD et al. Pediatr Allergy Immunol 2014.
- ✓ **House dust mite sensitization in toddlers predicts persistent asthma in children between eight to fourteen years old.** Llanora GV et al. Asia Pac Allergy 2012.

Asthma: a simple concept but in reality a complex disease

Stephen T. Holgate





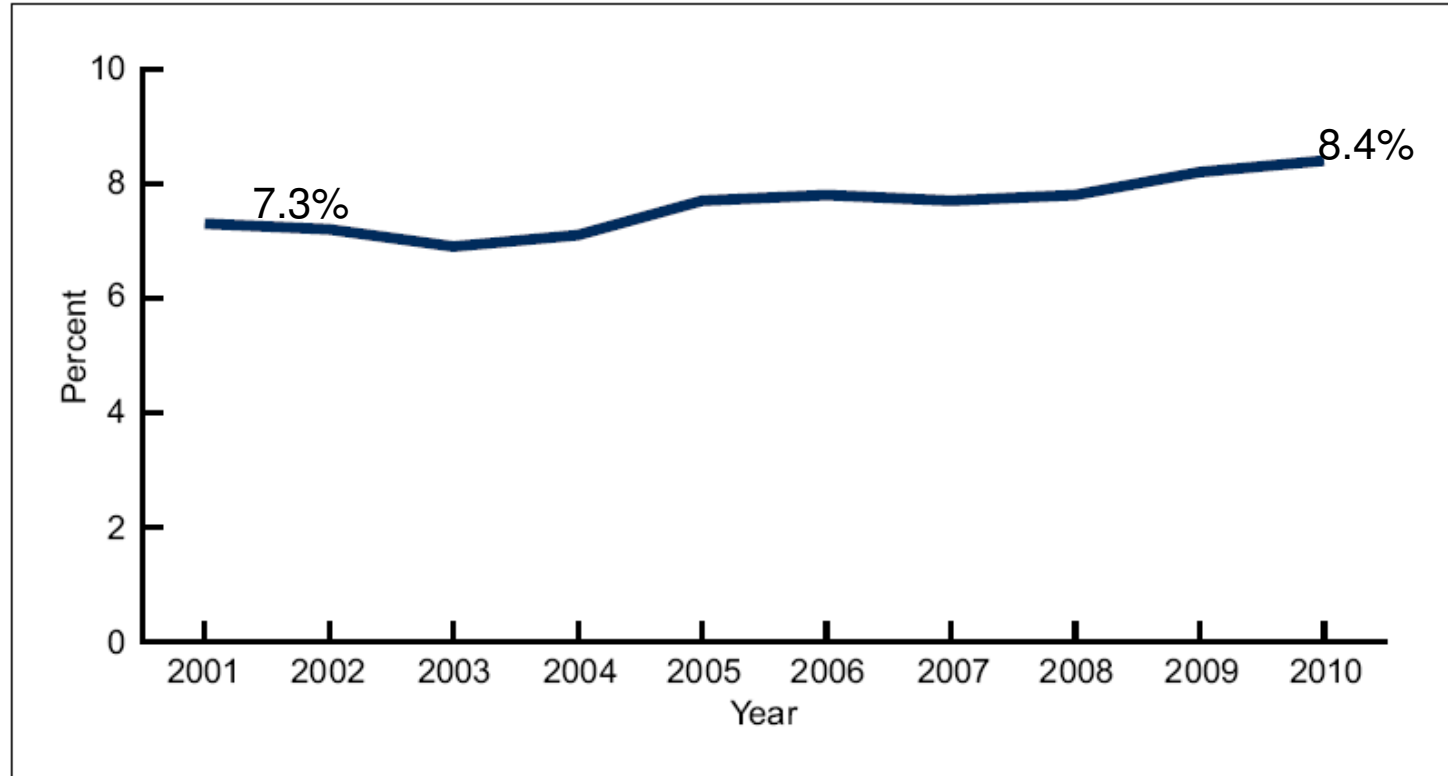
Trends in Asthma Prevalence, Health Care Use, and Mortality in the United States, 2001–2010

Lara J. Akinbami, M.D.; Jeanne E. Moorman, M.S.; Cathy Bailey, M.S.; Hatice S. Zahran, M.D.; Michael King, Ph.D.; Carol A. Johnson, M.P.H.; and Xiang Liu, M.Sc.

In recent decades, there has been an increase in the prevalence of allergic respiratory diseases.

Asthma prevalence increased from 2001 to 2010 and is now at its highest level.

Figure 1. Asthma prevalence in the United States, 2001–2010



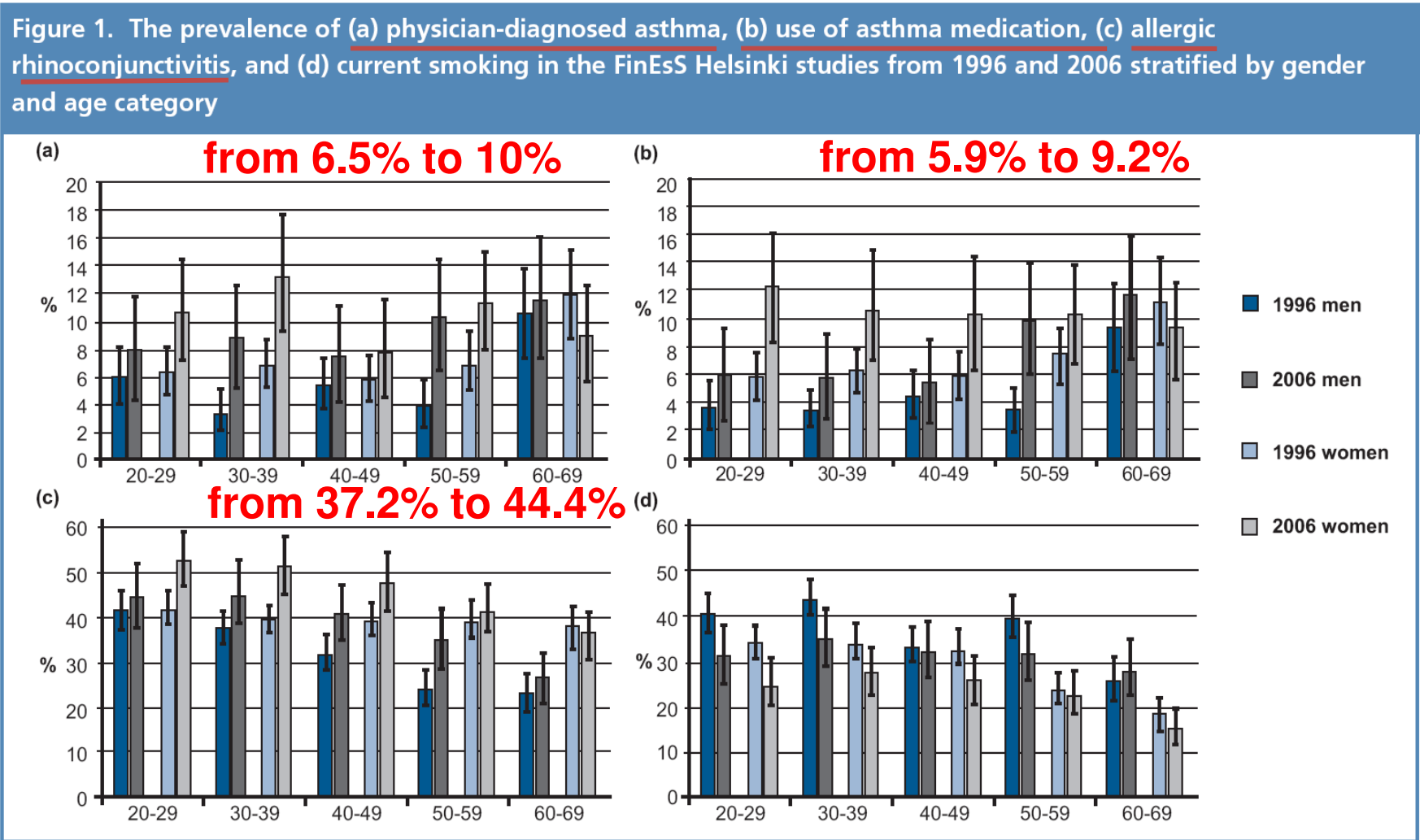
US

Increase in prevalence of physician-diagnosed asthma in Helsinki during the Finnish Asthma Programme: improved recognition of asthma in primary care? A cross-sectional cohort study

*Annette Kainu¹, Paula Pallasaho², Päivi Piirilä³, Ari Lindqvist⁴, Anssi Sovijärvi⁵, Anne Pietinalho⁶

Finland

Prim Care Respir J 2013; 22(1): 64-71



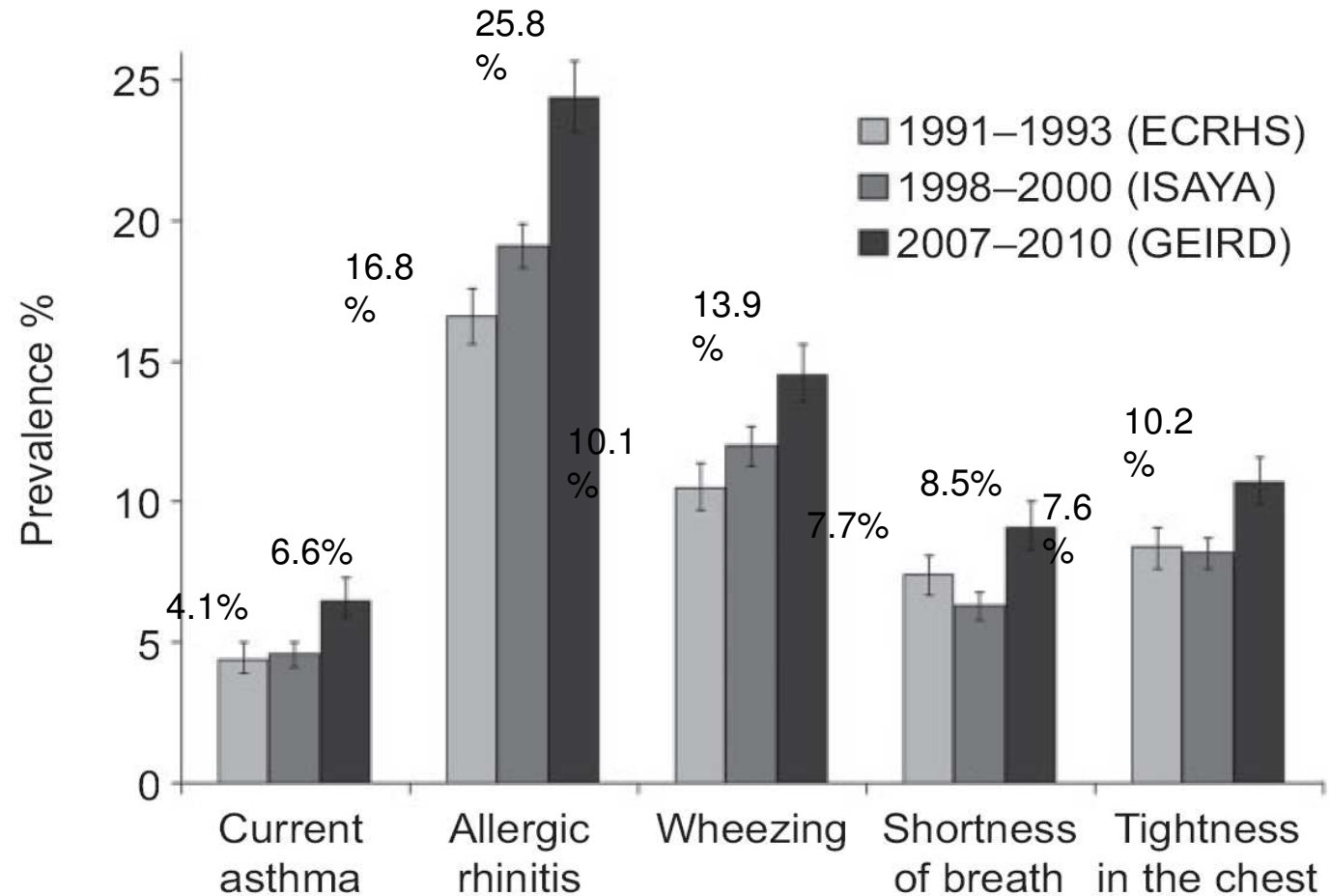
Trends in the prevalence of asthma and allergic rhinitis in Italy between 1991 and 2010

Eur Respir J 2012; 39: 883–892

Italy

R. de Marco*, V. Cappa*, S. Accordini*, M. Rava*, L. Antonicelli#, O. Bortolami*, M. Braggion*, M. Bugiani†, L. Casali+, L. Cazzoletti*, I. Cerveri§, A.G. Fois†, P. Girardi*, F. Locatelli*, A. Marcon*, A. Marinoni**, M.G. Panico###, P. Pirina†, S. Villani**, M.E. Zanolin* and G. Verlato* for the GEIRD study group†¶

Adjusted prevalence of allergic rhinitis and wheezing increases continuously between 1991-1993 to 2007-2010, while asthma and asthma symptoms increased between 1998-2000 and 2007-2010.



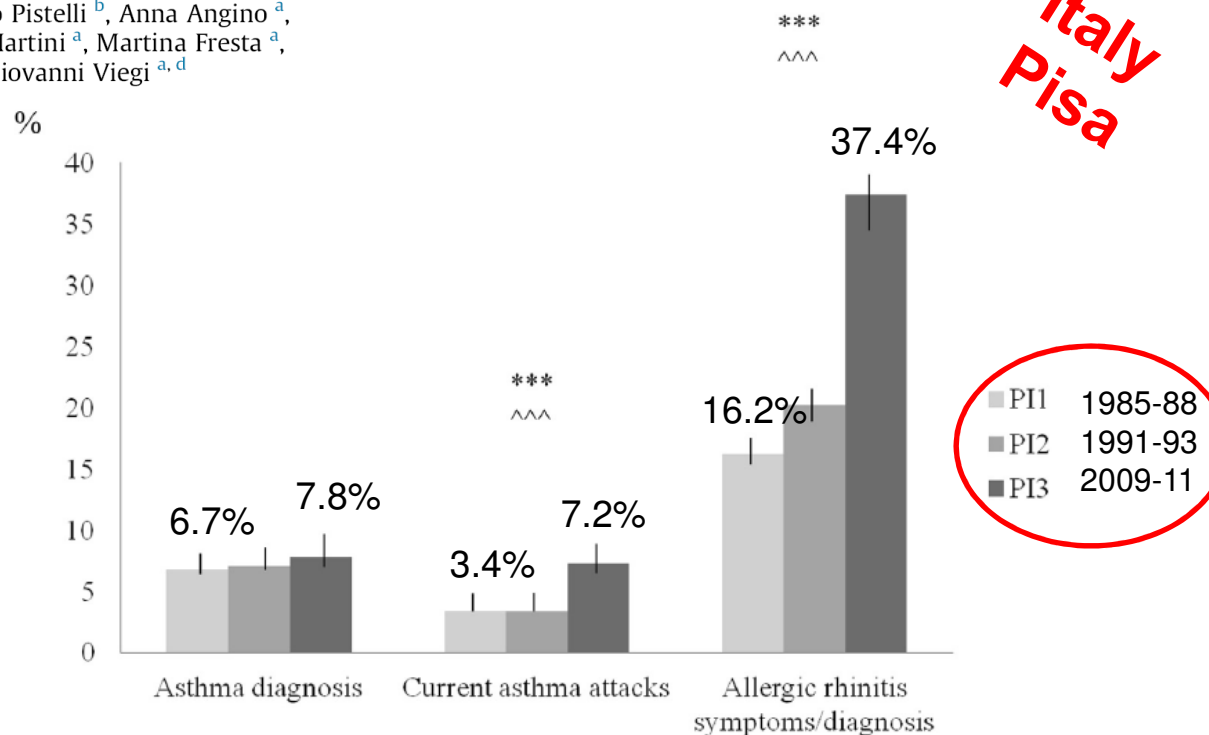
Respiratory symptoms/diseases prevalence is still increasing: a 25-yr population study

Sara Maio ^{a,*}, Sandra Baldacci ^a, Laura Carrozzi ^b, Francesco Pistelli ^b, Anna Angino ^a, Marzia Simoni ^a, Giuseppe Sarno ^a, Sonia Cerrai ^a, Franca Martini ^a, Martina Fresta ^a, Patrizia Silvi ^a, Francesco Di Pede ^a, Massimo Guerriero ^c, Giovanni Viegi ^{a,d}

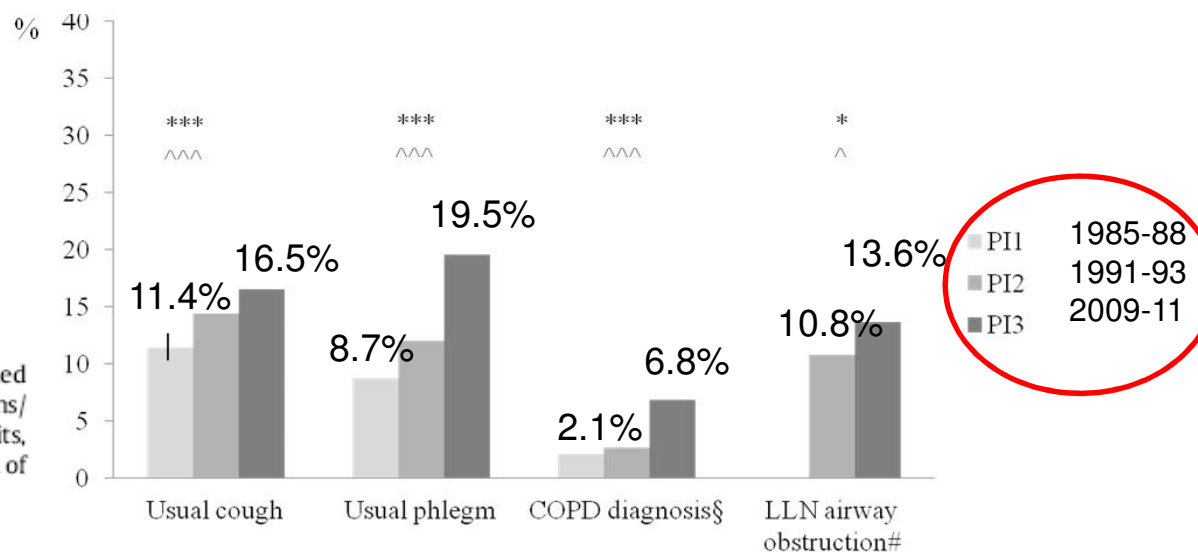
Respiratory Medicine 110 (2016) 58–65

Adjusted prevalence of all the respiratory symptoms tended to increase; current asthma attacks, allergic rhinitis symptoms/diseases doubled over 25 years.

Adjusted prevalence of symptoms/diseases was obtained through logistic regression models with respiratory symptoms/diseases as dependent variables and sex, age, smoking habits, educational level, occupational exposure to fumes/gases and area of residence as independent variables.



b



Un'accurata diagnosi ed un appropriato trattamento sono notevolmente ritardati nei soggetti asmatici e allergici agli acari

Una survey effettuata in 10 nazioni europee (n= 7004) in pz affetti da patologie respiratorie ha dimostrato che **circa il 33% di questi non ha mai effettuato test allergologici anche se per il 50% era sotto controllo medico**

Solo il 16% era in terapia con AIT mentre il resto dei pz assumevano solo sintomatici ed in modo discontinuo..

(Chivato J Invest Allergy Clin Immunol 2012)

Una survey condotta in Europa sulla gestione delle malattie allergiche ha dimostrato che il 20% dei MMG non ha accesso ai test allergologici **e tra gli specialisti gli pneumologi fanno meno ricorso agli accertamenti etiologici (allergologici) rispetto agli specialisti allergologi**

(Agache Allergy 2013)

Un'accurata diagnosi ed un appropriato trattamento sono notevolmente ritardati nei soggetti asmatici e allergici agli acari

• **Il tempo di latenza** tra la comparsa dei sintomi di allergia da acari e il consulto di un medico è di **1,5 - 2,5 anni**

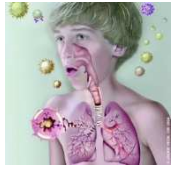
(Bauchau ERJ 2004 ; Maurer Allergy 2007)

• In uno studio danese condotto su 726 pz con asma e/o rinite è stato dimostrato **che l'asma non era stata correttamente diagnosticata solo nel 50%** dei casi e la rinite solo nel 35% dei casi, il **75%** dei soggetti era allergico.

(Nolte Respir med 2006)

• In uno studio italiano che ha arruolato 550 pz asmatici è stato osservato **che nel 35% dei casi l'asma è stata diagnosticata dopo 2- 4 anni dalla comparsa dei primi sintomi** riconducibili all'asma e allergia (il **68%** dei pz si è dimostrato allergico)

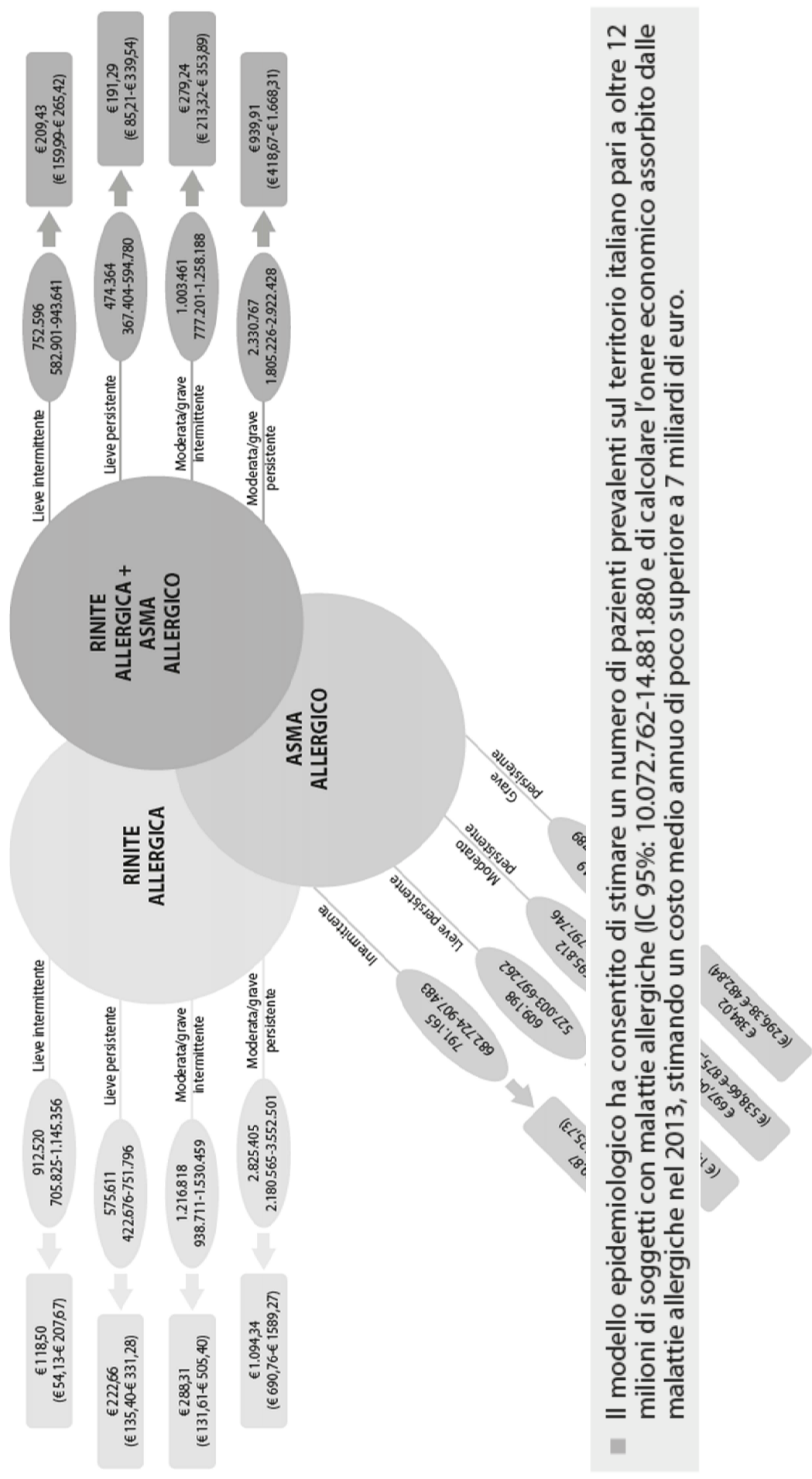
(Vaghi Rass App Resp 1998)



Caratteristiche cliniche degli asmatici allergici agli acari

•La sensibilizzazione agli acari è uno dei principali fattori causali delle malattie allergiche respiratorie (rinite ed asma allergica)

•I **pazienti asmatici** con rinite allergica e **sensibilizzati agli acari** hanno una **prognosi peggiore** rispetto agli altri asmatici atopici.



Il modello epidemiologico ha consentito di stimare un numero di pazienti prevalenti sul territorio italiano pari a oltre 12 milioni di soggetti con malattie allergiche (IC 95%: 10.072.762-14.881.880 e di calcolare l'onere economico assorbito dalle malattie allergiche nel 2013, stimando un costo medio annuo di poco superiore a 7 miliardi di euro.

GLI SPECIALISTI

- Circa 1.500 allergologi in Italia
- Si occupano di allergie respiratorie dalla rinite fino all'asma



- Circa 300 rinologi in Italia
- Si occupano principalmente di patologie nasali tra cui oculoriniti



- Circa 1.500 pneumologi in Italia.
- Si occupano principalmente di Asma e BPCO.



Patients' Perceptions and Experience of House Dust Mite Allergy in a European Survey

Erkka Valovirta,¹ Michèle Lheritier-Barrand,² Lisa Tauleigne,³ Marie David,² Lise Lemonnier² and Christine Rolland⁴

House Dust Mites Allergy is Not as Serious as Other 'Real' Diseases

"I don't think that house dust mite allergy is difficult to live with. There are diseases that are much worse." (Woman, Germany, 49)

"I find the word 'disease' a bit too strong for house dust mite allergy. There are much more serious complaints." (Woman, France, 39)

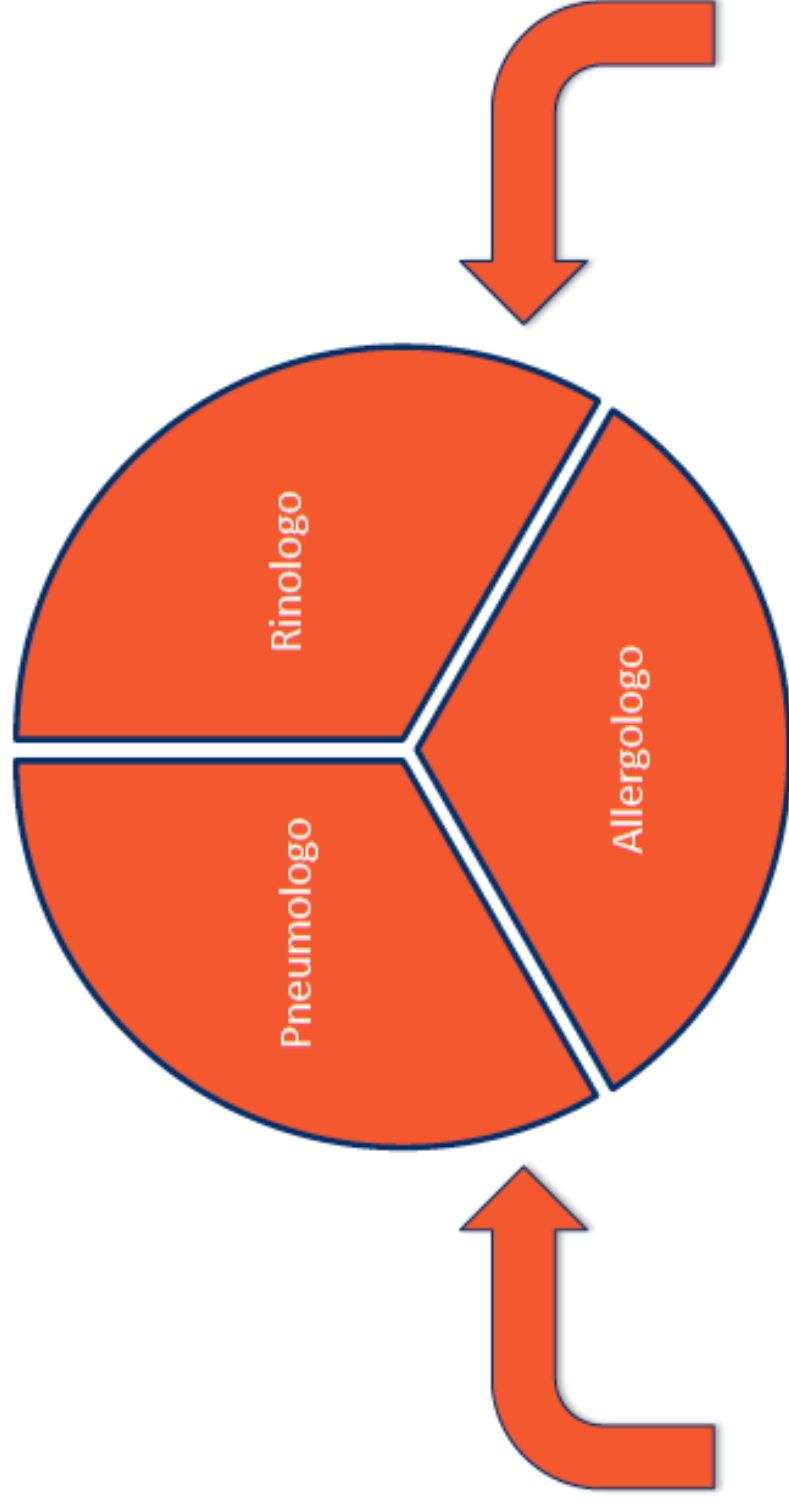
"I think there are other more serious things. Strictly speaking, I don't know if it can be considered a disease. In daily life, it's a discomfort, but not really a handicap." (Woman, France, 23)

"When I was diagnosed, I thought, ok, this is an allergy, this is not something really bad." (Woman, Germany, 49)

Molti pazienti credono che l'allergia agli acari sia qualcosa che si deve accettare e che non costituisce una "vera malattia"



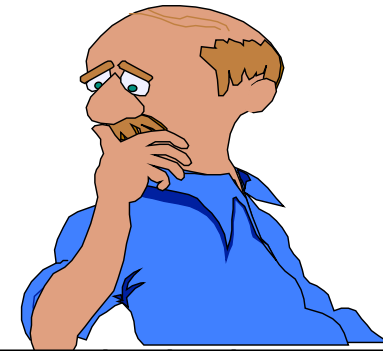
A CHI SI RIVOLGE IL PAZIENTE?



ASMA

RINITE ALLERGICA

▶ “A year-long, fortnightly, observational survey in three European countries of patients with respiratory allergies induced by house dust mites: Methodology, demographics and clinical characteristics”



Characteristics of the survey population, according to the post-inclusion questionnaire

	Italy	France	Spain
Number of participants ($n = M/F$), % female.	114 (36/78), 68 %	92 (27/65), 72 %	107 (41/66), 61 %
Age: mean, median [range] (years):	37.5, 36 (18–63)	35.8, 36 (18–62)	38.2, 37 (18–68)
Time interval between first symptoms and consultation with a specialist: mean, median [range] (months):	18.9, 4 (0.25–588)	28.4, 6 (0.25–360)	20.3, 11 (0.25–156)
Proportion of patients (%) having consulted the following physicians (mean number of visits per year):			
GP	92 % (3.4)	91 % (3.0)	70 % (3.9)
Allergist	87 % (2.0)	83 % (1.7)	70 % (1.4)
ENT specialist	27 % (2.3)	27 % (2.3)	15 % (1.7)
Dermatologist	24 % (1.6)	20 % (1.7)	8 % (2.6)
Pulmonologist	22 % (1.5)	32 % (1.6)	8 % (6.2)
Paediatrician	14 % (6.8)	9 % (1.0)	7 % (na)
Other	6 % (4.0)	2 % (1.5)	4 % (1.0)

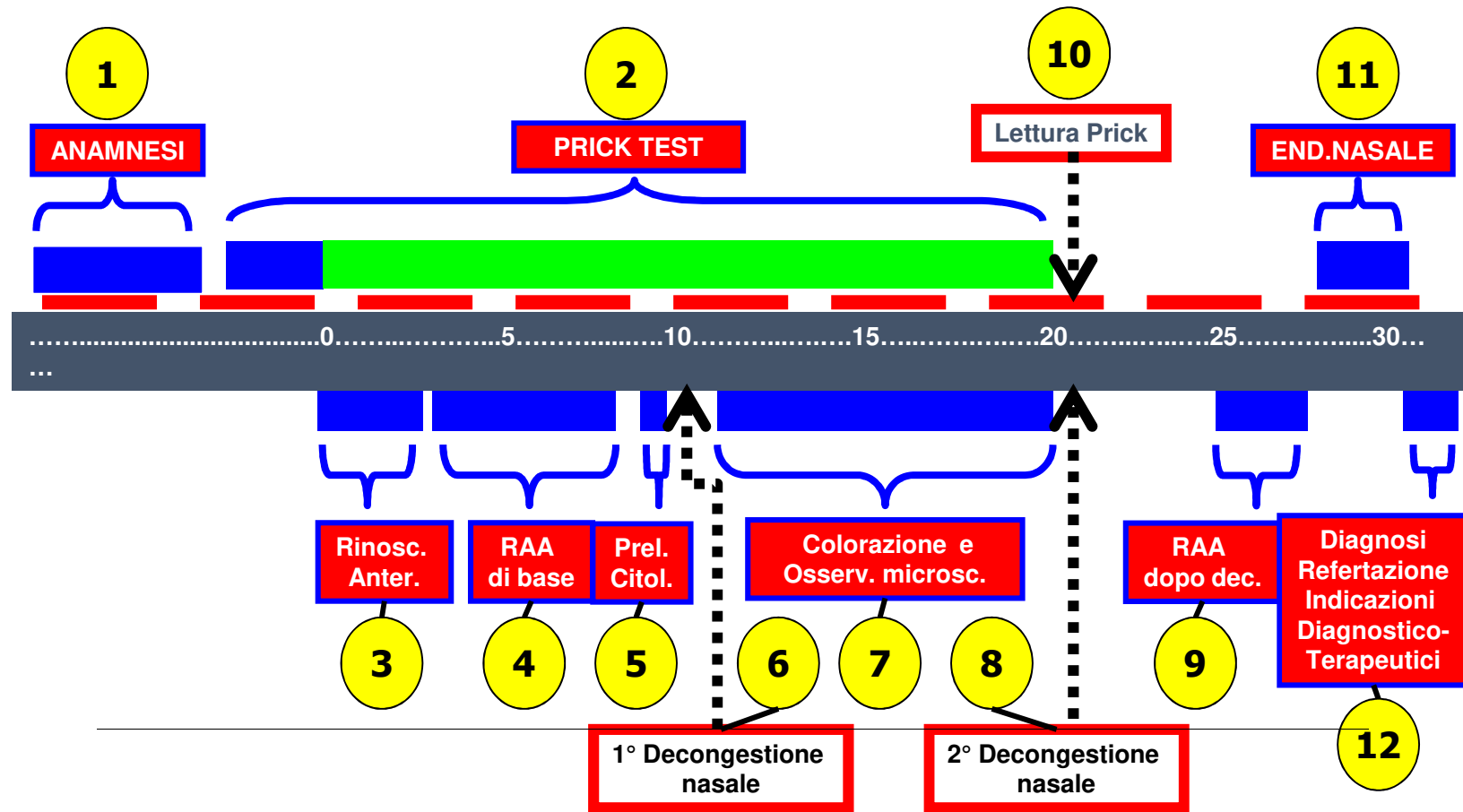
ANAMNESI



DIAGNOSTICA

TERAPIA

▶ CRONOLOGIA DELL'ITER DIAGNOSTICO RINOLOGICO



The role of lung function in asthma

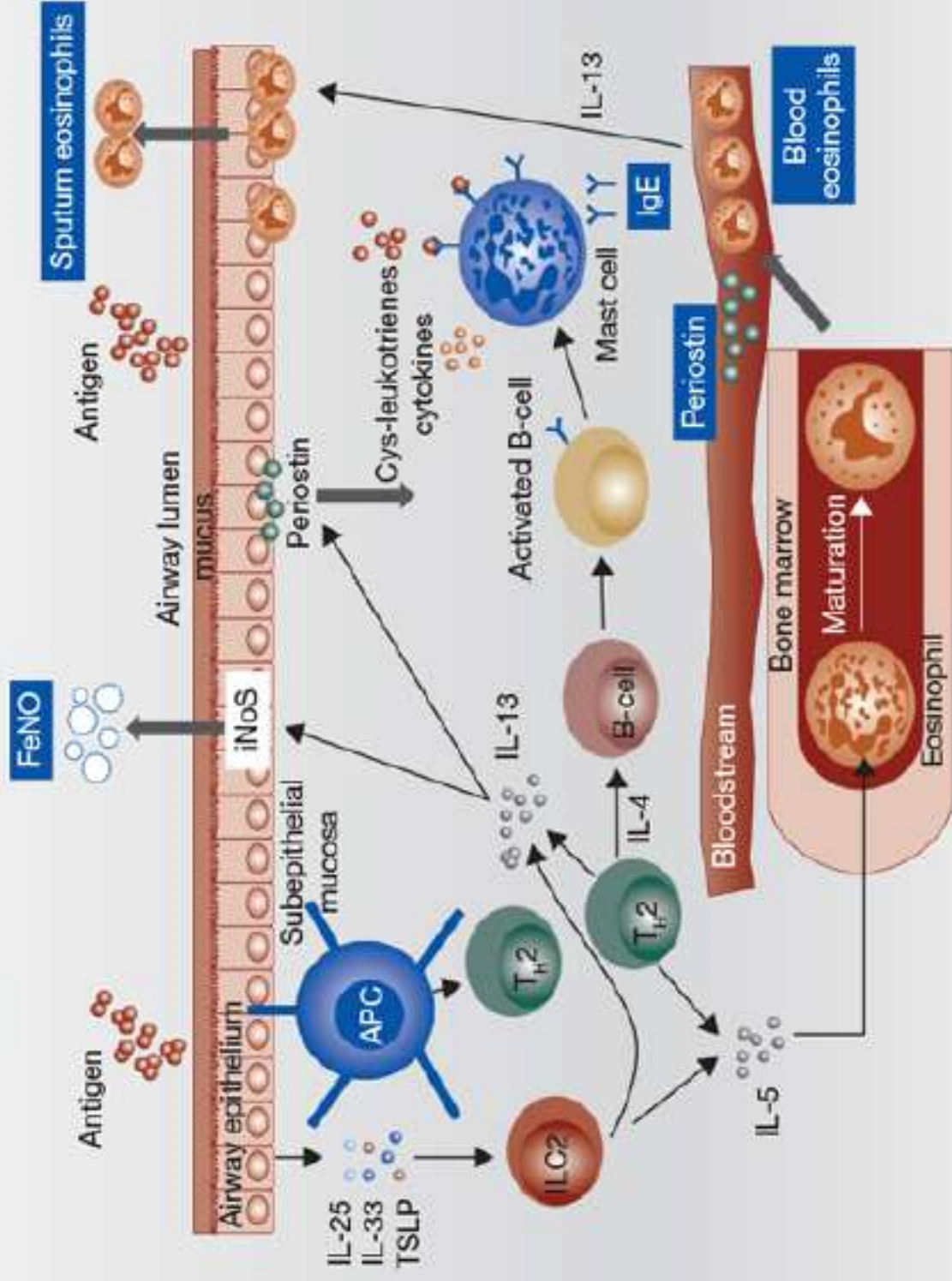


- **Diagnosis**
 - Demonstrate variable expiratory airflow limitation
 - Reconsider diagnosis if symptoms and lung function are discordant
 - Frequent symptoms but normal FEV1: cardiac disease; lack of fitness?
 - Few symptoms but low FEV1: poor perception; restriction of lifestyle?
- **Risk assessment**
 - Low FEV1 is an independent predictor of exacerbation risk
- **Monitoring progress**
 - Measure lung function at diagnosis, 3-6 months after starting treatment (to identify personal best), and then periodically
 - Consider long-term PEF monitoring for patients with severe asthma or impaired perception of airflow limitation
- **Adjusting treatment?**
 - Utility of lung function for adjusting treatment is limited by between-visit variability of FEV1 (15% year-to-year)

Increase in asthma “complexity”

- **Heterogeneity in pathobiology**
 - «Typical» Th2-driven inflammation
 - IgE-driven
 - Specific cytokine pattern (IL-4, IL-5, IL-13)
 - Main effector cell: eosinophil
 - **Role of «innate» immunity**
 - Dendritic cells
 - **«Atypical» inflammation**
 - Non-IgE driven
 - Different cytokine pattern (IL-2, TNFa, ..)
 - Main effector cell: neutrophil

Using Type 2 Inflammation Biomarkers to Identify Specific Endotypes¹



One Size Does Not Fit All: Moving Towards a Personalised Approach to Asthma Treatment

Identification of asthma endotype

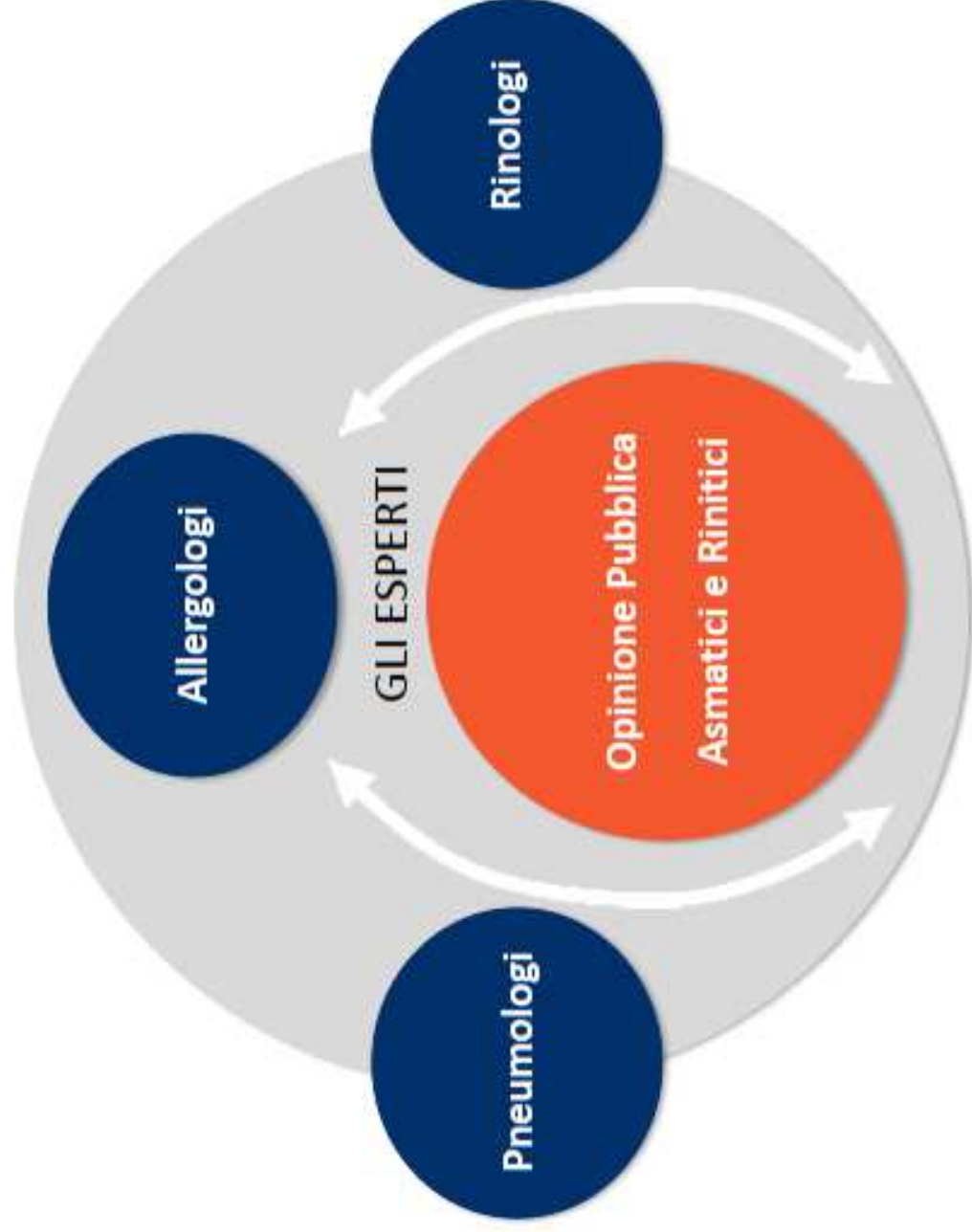
Prediction of treatment response

Rate of disease progression and prognosis

Individualised targeted treatment strategies



TARGET



Da coinvolgere direttamente, tramite

Mass Media

Social Media