

congresso *lat.* CONGRÈSSUS da CÒN-GREDI
camminare, muovere insieme e fig. abboccarsi con alcuno, parlare, disputare, comp. di CON = CUM *insieme* e GRÈSSUS - p. p. di GRÀDI - *andare* (v. *Grado* e cfr. *Egresso, Ingresso, Progresso, Regresso*). — Adunanza nella quale si discutono affari pubblici e gravi.

NON E' UN INSIEME DI CONFERENZE!!!

Quarte Giornate Romane di Pediatria On Line

Roma, Auditorium Antonianum

10-12 Ottobre 2019

La gestione dell'asma nell'ambulatorio del pediatra

Guglielmo Scala
Napoli

- *DIAGNOSI*
- *MORTALITÀ*
- *CONFLICTING GUIDELINES*
- *ADERENZA*
- *TERAPIA CONTINUA VS AS NEEDED*
- *PREVENZIONE*

Diagnosi di asma

■ La diagnosi di asma può essere basata su:

- Pattern di sintomi caratteristici
- Limitazione al flusso aereo variabile evidenziata dal test di reversibilità con broncodilatatore o da altri tests

■ Documentare la diagnosi di asma nelle note del paziente, preferibilmente prima di iniziare il trattamento di controllo.

- E' spesso più difficile confermare la diagnosi di asma se il trattamento è già stato iniziato.

■ L'asma è spesso caratterizzata da infiammazione delle vie aeree e iperresponsività delle vie aeree, ma queste non sono necessarie o sufficienti per fare diagnosi di asma.



Controllo dell'asma

- Assenza di sintomi nella vita quotidiana
- Assenza di risvegli notturni dovuti all'asma
- Non necessità di farmaci al bisogno
- Nessuna limitazione alla attività fisica
- Effetti collaterali minimi
- Normali PFR (PEF, FEV1)



Controllo dell'asma

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La percezione dell'asma è capricciosa

Asthma and lower airway disease

Randomized trial of the effect of drug or placebo on asthma outcomes: The American Thoracic Society Clinical Research Center

Robert A. Wise, MD,^{a,b} Susan J. Holbrook, PhD,^b Christopher M. Dickey, PhD,^c Elizabeth A. Sugar, PhD,^b for the American Thoracic Society Clinical Research Center
Montreal, Quebec, Canada, St Louis, Missouri, and Bethesda, Maryland

ORIGINAL ARTICLE

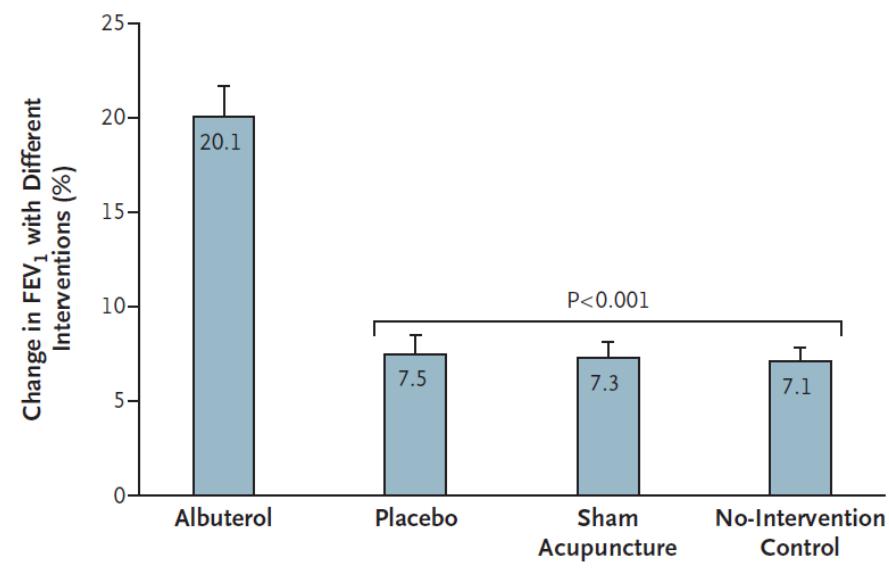
Active Albuterol or Placebo, Sham Acupuncture, or No Intervention in Asthma

Michael E. Wechsler, M.D., John M. Kelley, Ph.D., Ingrid O.E. Boyd, M.P.H., Stefanie Dutille, B.S., Gautham Marigowda, M.B., Irving Kirsch, Ph.D., Elliot Israel, M.D., and Ted J. Kaptchuk

FEV₁

I pazienti trattati con Salbutamolo mostrano un netto miglioramento del FEV₁ e del VAS.

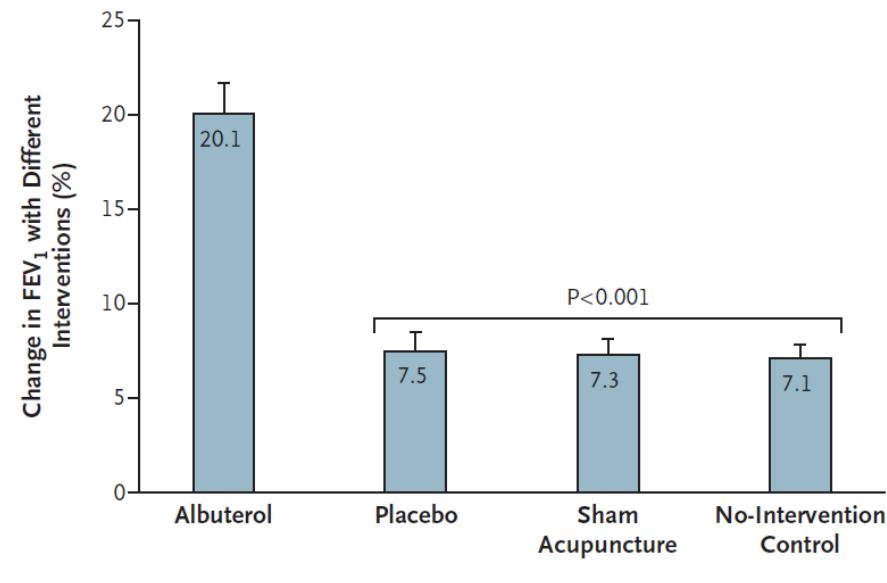
I pazienti non trattati o trattati con placebo nessuna variazione.



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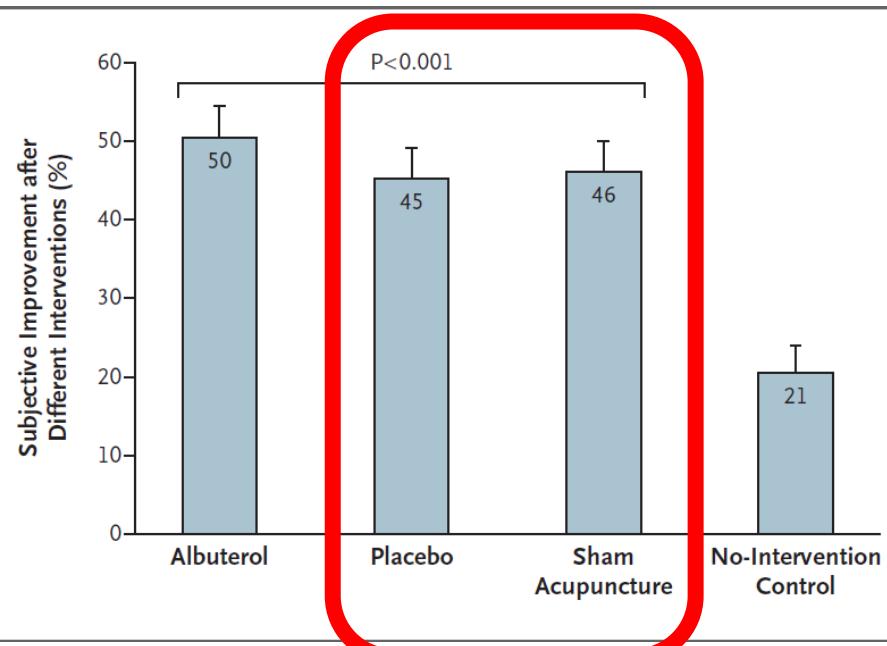
I pazienti non trattati o trattati con placebo nessuna variazione.



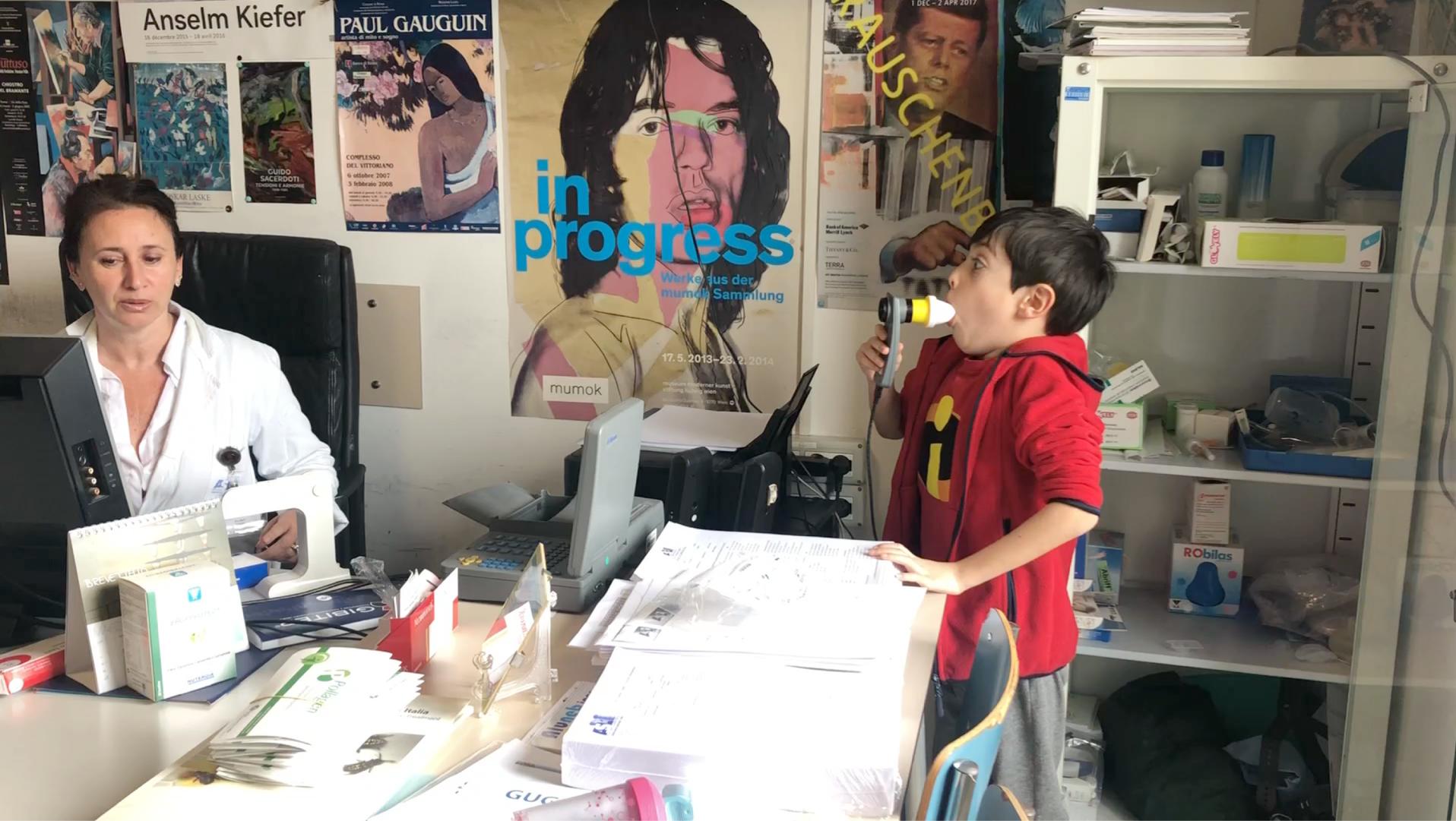
VAS

I pazienti trattati con Salbutamolo e con placebo mostrano un netto miglioramento del VAS.

I non trattati non mostrano variazioni del VAS



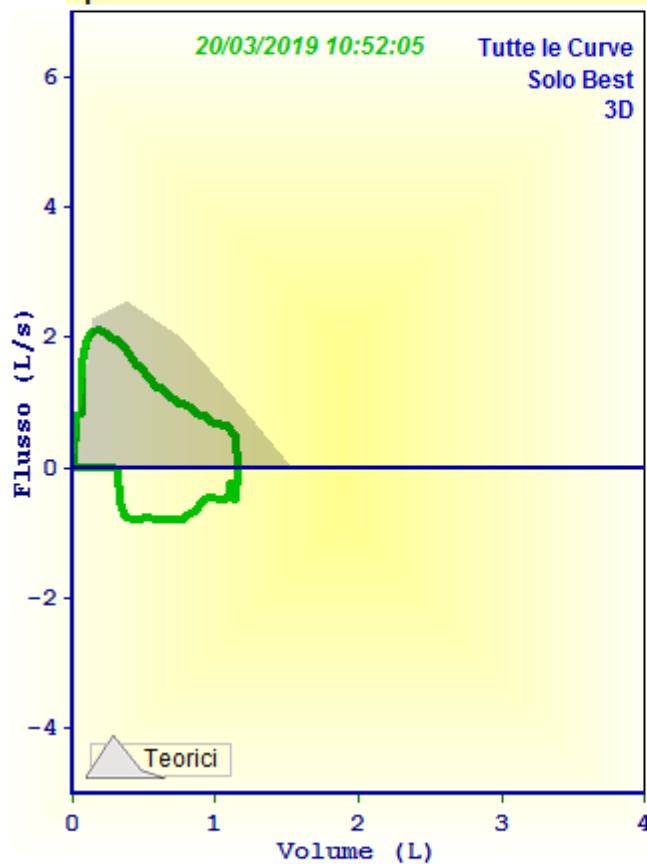




gagliardi rodolfo - Maschio - Anni 6 - 120 cm - 18 kg - Caucasico

Curve V-t / Info Test

Spirometria di Base



Imposta come Best

Migliore (ATS)

Elimina

Escludi

Valori Migliori	
Parametri	% Teorico
FVC	1,16 76
FEV1	1,13 83
PEF	2,13 93
FEV1/FVC	97,4 106

Elenco Sessioni FVC PRE

20/03/2019 (*) (*) POST



Interpretazione

Restrizione Lieve

Ripetibilità

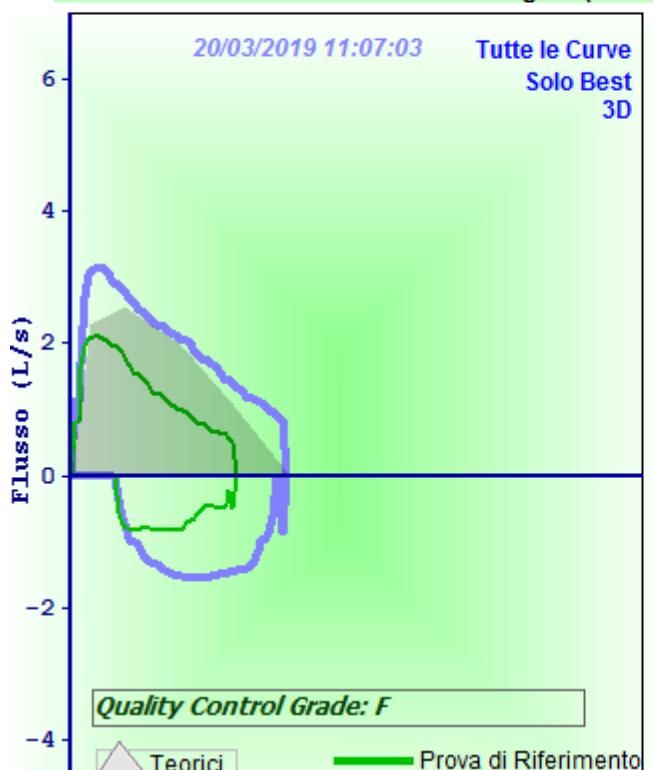
Controllo di Qualità

Espirare più a lungo, Espirare Tutta l'aria

Parametri		Teorici	PRE	%Teor.	PRE #1				
FVC	L	1,53	1,16	76	1,16				
FEV1	L	1,36	1,13	83	1,13				
FEV1/FVC	%	92,0	97,4	106	97,4				
FEV1/VC	%	92,0	0,0	0	0,0				
PEF	L/s	2,30	2,13	93	2,13				
FEF2575	L/s	1,74	1,32	76	1,32				
FEF25	L/s	2,55	1,95	76	1,95				
FEF50	L/s	1,99	1,24	62	1,24				
FEF75	L/s	1,04	0,81	78	0,81				
FET	s	6,00	1,03	17	1,03				
FEV6	L	1,53	1,16	76	1,16				
FEV1/FEV6	%	88,9	97,4	110	97,4				
FEV3	L	1,10	1,16	105	1,16				
FEV3/FVC	%	71,9	100,0	139	100,0				
ELA	Anni	6	0	0	0				
EVOL	mL		0		0				
FIVC	L	1,53	0,80	52	0,80				
FIV1	L	1,36	0,80	59	0,80				
FIV1/FIVC	%	92,0	100,0	109	100,0				

gagliardi rodolfo - Maschio - Anni 6 - 120 cm - 18 kg - Caucasico

Test di Broncodilatazione Farmacologica (POST)



Selezione Rifer.



Rifer. Automatico



Elimina



Escludi

Step N° 1
Salbutamolo 200 mcg
Variaz. FEV1 da PRE
+ 33 %

Elenco Sessioni FVC POST
20/03/2019 --> PRE

Conclusioni / Diagnosi

Curve V-t

Prov. Bronch.

Info

Interpretazione

SPIROMETRIA PRE

Restrizione Lieve

CONCLUSIONI (DOPO BRONCODILATAZIONE)

Ostruzione Lieve

Broncodil. Significativa (FEV1 >= 80%Teor.)

Ripetibilità

Controllo di Qualità

Ripetere con start più veloce, Espirare più a lungo, Espirare Tutta l'

Parametri		Teorici	PRE	%Teor.	POST-BD	%Teor.	%CHG	POST #1
FVC	L	1,53	1,16	76	1,51	99	30	1,51
FEV1	L	1,36	1,13	83	1,50	110	33	1,50
FEV1/FVC	%	92,0	97,4	106	99,3	108	2	99,3
FEV1/VC	%	92,0	0,0	0	0,0	0	0	0,0
PEF	L/s	2,30	2,13	93	3,16	138	48	3,16
FEF2575	L/s	1,74	1,32	76	2,08	120	58	2,08
FEF25	L/s	2,55	1,95	76	2,66	104	36	2,66
FEF50	L/s	1,99	1,24	62	2,02	101	63	2,02
FEF75	L/s	1,04	0,81	78	1,29	124	59	1,29
FET	s	6,00	1,03	17	1,61	27	56	1,61
FEV6	L	1,53	1,16	76	1,51	99	30	1,51
FEV1/FEV6	%	88,9	97,4	110	99,3	112	2	99,3
FEV3	L	1,10	1,16	105	1,51	137	30	1,51
FEV3/FVC	%	71,9	100,0	139	100,0	139	0	100,0

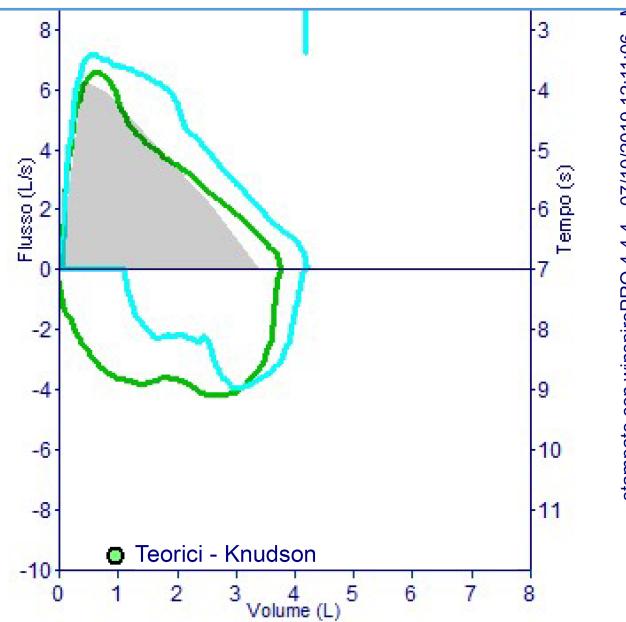
Data visita 07/10/2019

ID	WSP3003808856
Cognome	
Nome	
Data di nascita	24/09/2006
Gruppo etnico	Caucasico
Fumo	Non Fumatore
Gruppo pazienti	Pack-Year

Interpretazione

Ostruzione Lieve
Broncodil. Significativa (FEV1 >= 80% Teor.)

Conclusioni / Diagnosi



stampato con winspiroPRO 4.4.4 - 07/10/2019 12:11:06 - 1

Data prova PRE 07/10/2019 11:56:48

POST Broncodilatazione con Salbutamolo - 12:10:22

Parametri	BTPS 1,106 22°C - 71,6°F	Teor.	PRE	%Teor.	POST	%Teor.	%Chg	PRE#1	PRE#2	PRE#3
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Valori migliori da tutte le prove

FVC	L	3,41	3,75	110	4,19	123	12
FEV1	L	3,00	3,38	113	3,87	129	14
FEV1/FVC	%	85,3	90,1	106	92,4	108	3
PEF	L/s	6,31	6,62	105	7,19	114	9

Valori da prova migliore

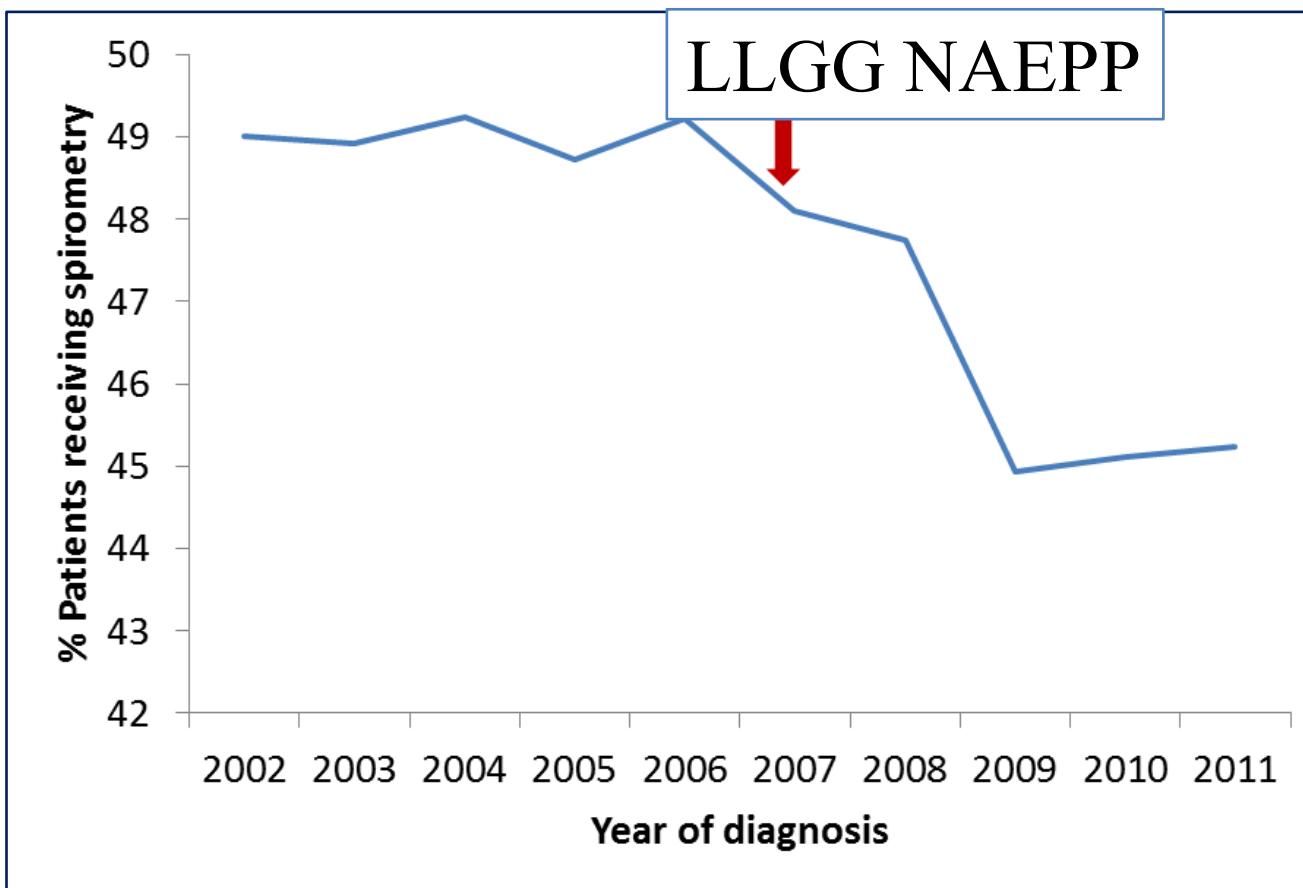
FEF2575	L/s	3,52	3,69	105	4,74	135	28
FEF25	L/s	5,86	5,83	100	6,81	116	17
FEF50	L/s	3,95	3,64	92	4,91	124	35
FEF75	L/s	2,19	2,19	100	2,60	119	19
FEV3	L	3,21	3,75	117	4,19	130	12
FET	s	6,00	2,45	41	3,39	57	38
FIVC	L	3,41	3,74	110	3,05	89	-18
FIV1	L	3,00	3,68	123	2,97	99	-19
FIV1/FIVC	%	85,3	98,4	115	97,4	114	-1
PIF	L/s	6,31	4,19	66	4,02	64	-4
ELA	Anni	13	0		0	0	
VC	L						
IVC	L						
FEV1/VC	%						
ERV	L						
IC	L						
EVOL	mL		100		90		

Controllo di Qualità

F

Espirare Tutta l'aria

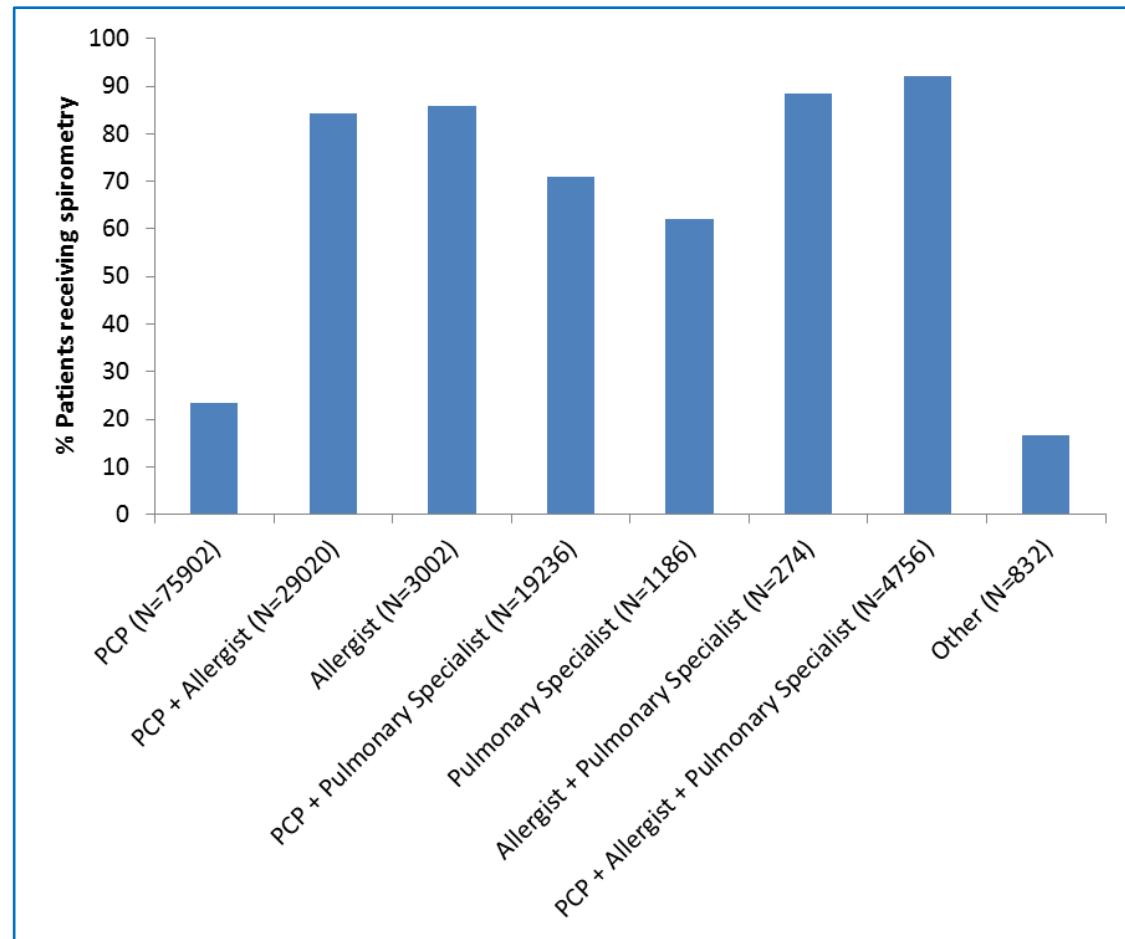
Percent spirometry use within one year of asthma diagnosis, by year of diagnosis.



Choosing Wisely: Adherence by Physicians to Recommended Use of Spirometry in the Diagnosis and Management of Adult Asthma

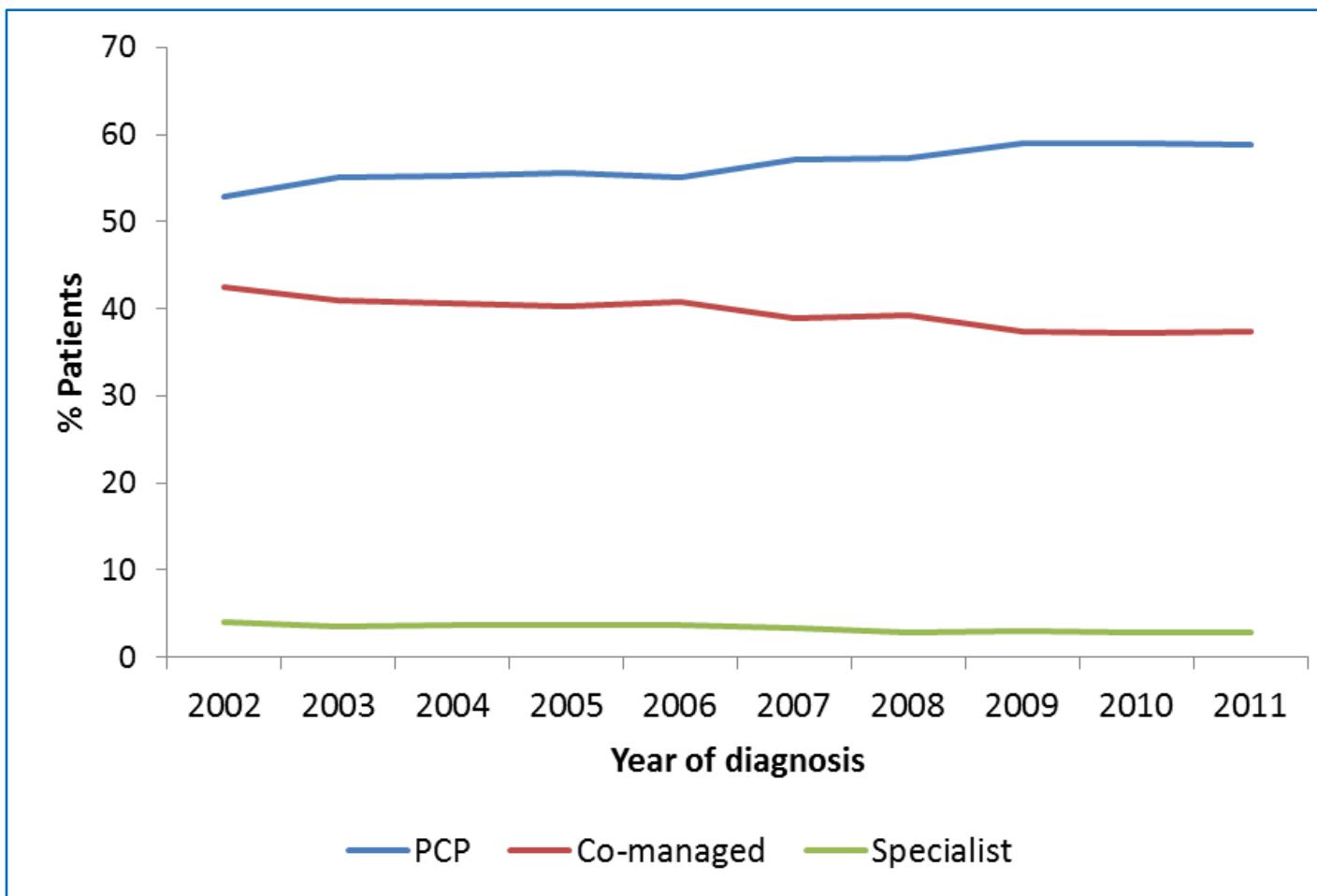
Kristin Sokol, 2014, Am J Med

Percent spirometry use within a year of asthma diagnosis by the type of provider seen.



Choosing Wisely: Adherence by Physicians to Recommended Use of Spirometry in the Diagnosis and Management of Adult Asthma

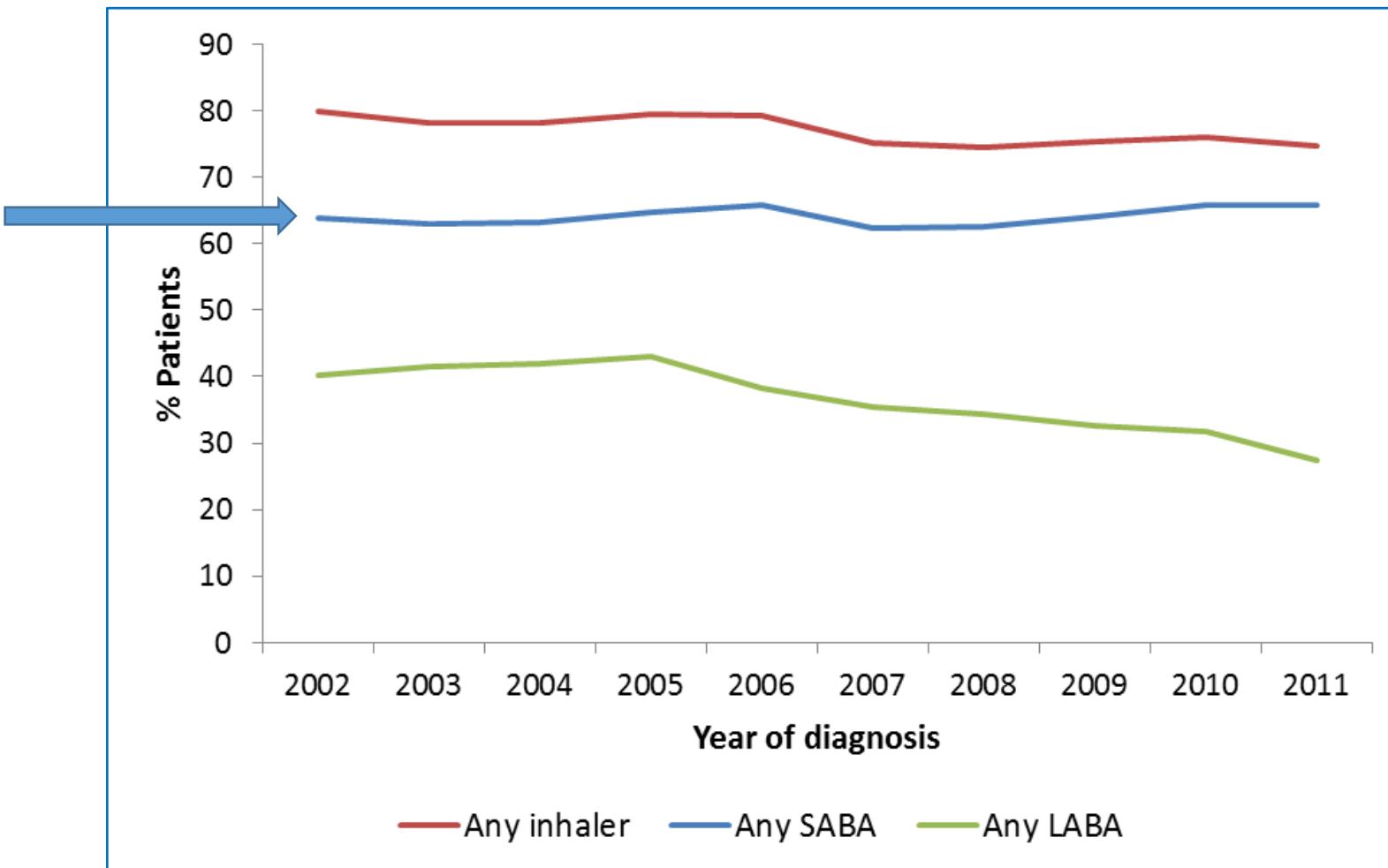
Kristin Sokol, 2014, Am J Med



Percent of patients being managed by a PCP, specialist, or both within one year of asthma diagnosis, by year of diagnosis.

Choosing Wisely: Adherence by Physicians to Recommended Use of Spirometry in the Diagnosis and Management of Adult Asthma

Kristin Sokol, 2014, Am J Med



Proportions of patients (N=70362) receiving any inhaler (red), short-acting beta-agonist (SABA) (blue), or long-acting beta agonist (LABA) (green, including combination inhaled corticosteroid with LABA) in the year following the asthma diagnosis, by the year of diagnosis.

06.06

Arrivando al Loreto trovo ad attendermi il sig. Angelo. Mi dice che mi sta aspettando per una consulenza, su indicazione del PS del Cardarelli.

Angelo è un giovane uomo, di mestiere fa il barbiere per uomo. E' un po' imbarazzato, ha una lieve cadenza dialettale. Sorride, visibilmente preoccupato



Appena seduto mi dice di aver avuto uno shock anafilattico. Mi racconta di aver sempre avuto allergie respiratorie, asma e rinite e di aver addirittura completato un ciclo di immunoterapia specifica negli anni dell'adolescenza. Non ricorda a cose fosse allergico ma era qualcosa nell'aria.

Allora, cos'era successo:

Alle ore 14 si era mangiato un panino col tonno, poi dopo mezz'ora circa una bustina di mandorle e anacardi.

Alle 16 aveva fumato una sigarettina di canapa (senza THC).

Alle 17 ha presentato **tosse** con senso di restringimento al torace e **fame d'aria**. Sono sintomi che conosce bene e ha inalato due puff di **Salbutamolo**. Nella sua esperienza il Ventolin è risolutivo ma questa volta la tosse è peggiorata e l'asma è diventata preoccupante.

Si è accorto che il Salbutamolo era scaduto ed è iniziata la paura.

Nell'arco di 30 minuti ha presentato **dispnea intensa e obnubilamento**.

E' stata chiamata l'ambulanza del 118 che l'ha trovato senza conoscenza. Immediatamente praticato O2, liquidi, Idrocortisone e trasferito al PS del Cardarelli. Qui entra in **codice rosso**.

Rianimazione, ossigeno, esami: acidosi respiratoria.

Lentamente si recupera.

E' dimesso l'indomani alle 18, in equilibrio e con terapia di Prednisone e Bilastina. E inviato a consulenza da noi.

Alla visita sta bene. Chiacchieriamo. «come si cura l'asma?» gli chiedo.
«uso **il Formoterolo spray tutti i giorni mattina e sera e Salbutamolo molte volte al giorno**. Appena lo prendo sto meglio.»

«Ma è stato il medico a fare questa prescrizione?»
«No no. Faccio io così» «da quanto tempo?» «da anni!»



Prick Test:

Parietaria 10 mm

Graminacee 6 mm



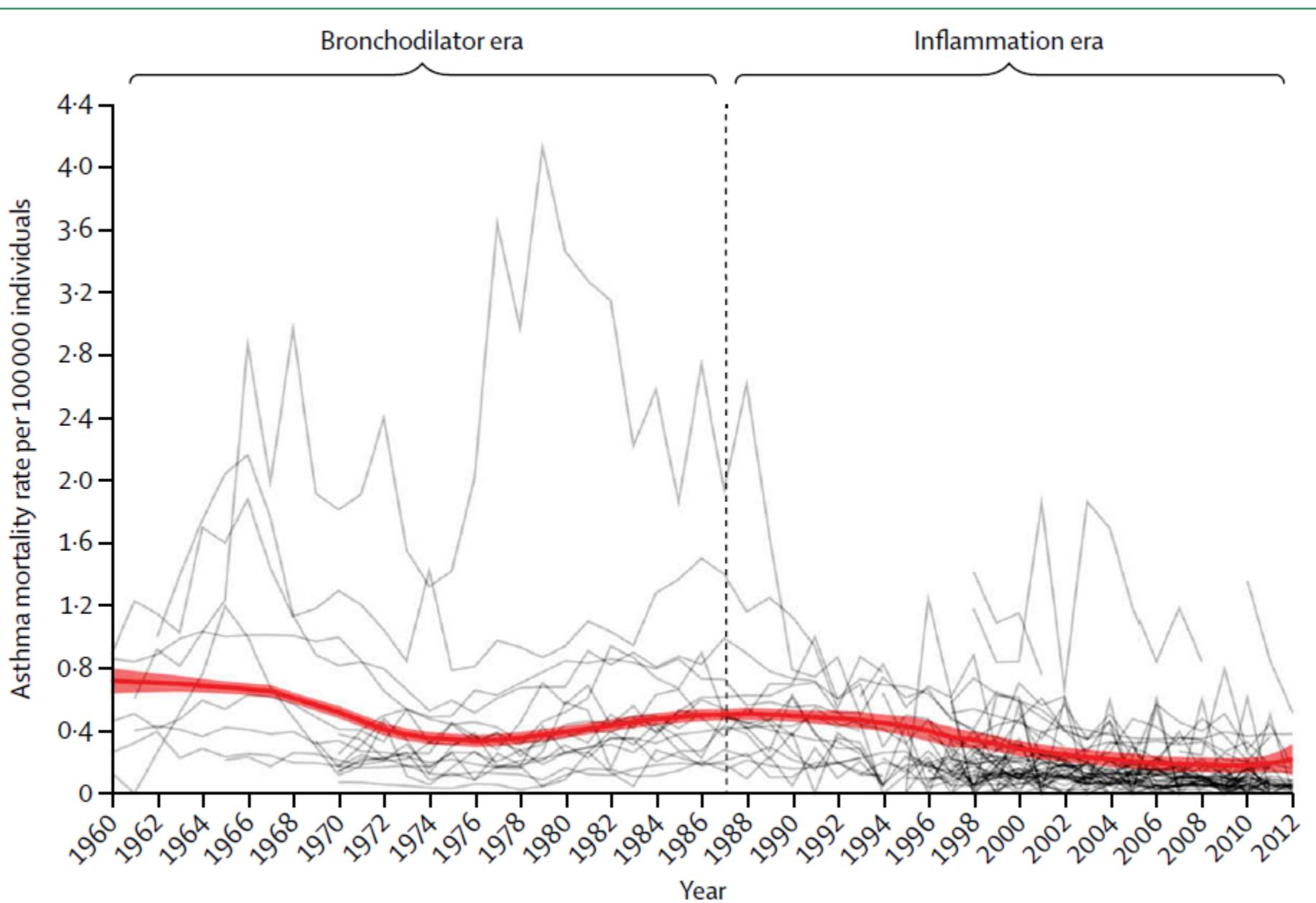
Inizio una terapia standard
Associazione ICS LABA ad alto dosaggio

Controllo con spirometria la settimana
prossima

Di asma si muore

Trends in international asthma mortality: analysis of data from the WHO Mortality Database from 46 countries (1993–2012)

Ebmeier S, et al 2017, Lancet



Oggi in Italia ancora si muore per asma

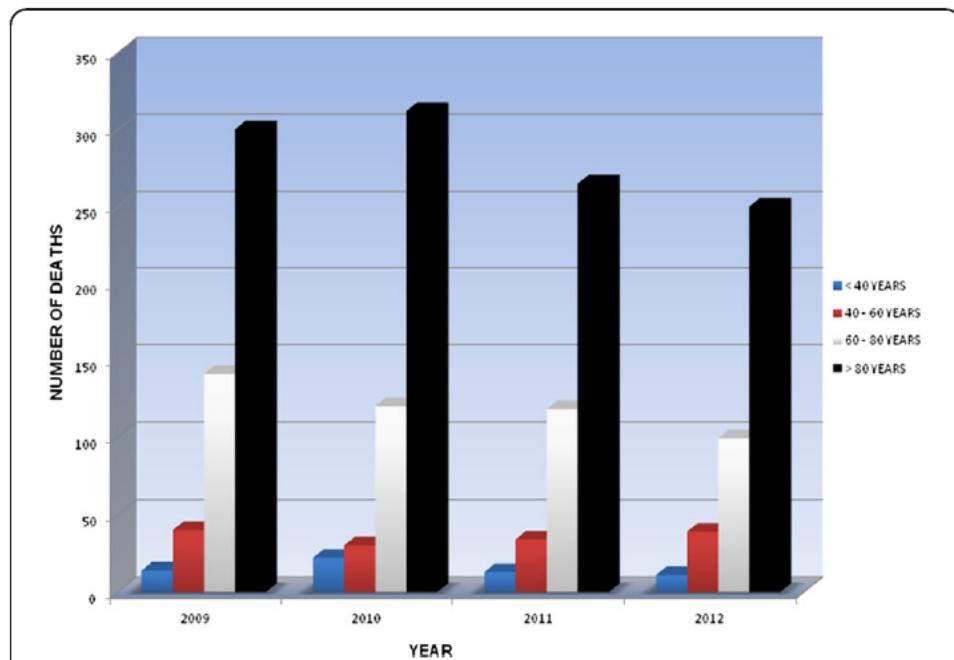


Fig. 1 Trend of asthma mortality according to the Italian National Institute of Statistics (ISTAT) from 2009 to 2012

Fatal asthma; is it still an epidemic?

Vianello A et al, 2016, WAOJ

Table 1 Demographic data of patients and place and time of fatal events

Patient's initials	Place (county)	Age	Gender	Nationality	Time of death	Occupation	Place of death	Day of the week
GP	Padua	18	M	Italy	1 AM	student	Outdoor	FRI
JV	Padua	16	M	Italy	8 PM	student	At home	WED
LM	Treviso	22	M	Italy	3 AM	mechanic	Hospital	THU
SM	Venice	22	M	Italy	10 PM	chef	Hospital	FRI
RB	Verona	10	M	Italy	5 PM	student	Hospital	MON
ST	Padua	15	M	Italy	8 PM	student	At home	FRI
AR	Verona	34	M	Italy	2 AM	employee	At home	SAT
SH	Padua	26	M	Morocco	10 PM	unemployeed	At home	SAT
MP	Padua	33	F	Italy	8.30 PM	painter	Outdoor	MON
AV	Vicenza	11	M	Italy	11.30 PM	student	At home	FRI
KS	Treviso	21	M	Romania	4 AM	employee	At home	WED
EA	Padua	42	F	Philippines	7 AM	unemployeed	At home	FRI
KK	Venice	54	M	Russia	7 PM	employee	Train station	SUN
RT	Padua	18	M	Italy	11 PM	student	At home	SAT
MA	Padua	30	M	Italy	9 PM	student	At home	FRI
OZ	Padua	41	M	Morocco	3 AM	unemployeed	Outdoor	SAT
AB	Padua	31	F	Italy	3 AM	journalist	At home	WED

Ozono (O_3)

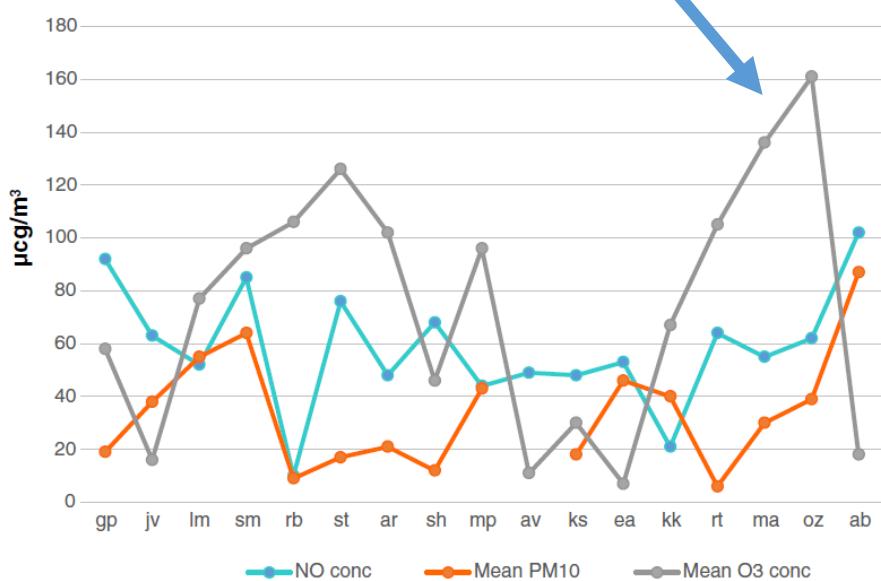


Fig. 2 Levels of pollutants (NO, PM₁₀ and O₃) registered at the place and at the time of the deaths. On x-axis patients' initials are reported. In 3 days the concentration of ozone was above the accepted limits (120 $\mu\text{cg}/\text{m}^3$), whereas only in 1 day the level of PM₁₀ was significantly over the permitted values (50 $\mu\text{cg}/\text{m}^3$)



Alternaria

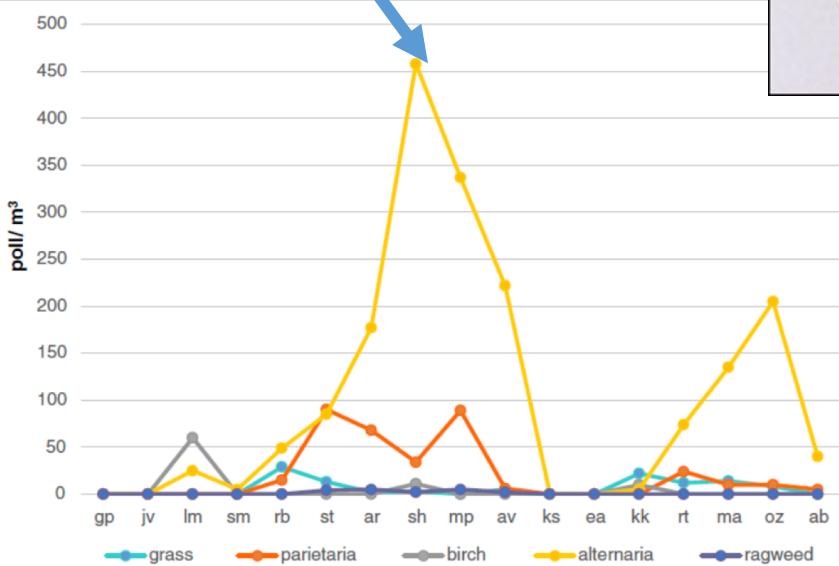


Fig. 3 Aerobiological data at the time and places of the deaths are shown. On x-axis patients' initials are reported. The pollen count was low for all pollens detected (grass, birch, parietaria and ragweed) whereas in 6 days a high concentration of alternaria was registered

RINITE/ASMA

**Approccio
“ecologico”**

**Approccio
“farmacologico”**

**Approccio
“immunologico”**

Evita esposizione

- Federe
- HEPA
- acaricidi

- Difficile
- Costoso
- Impegnativo per la famiglia
- Spesso vano

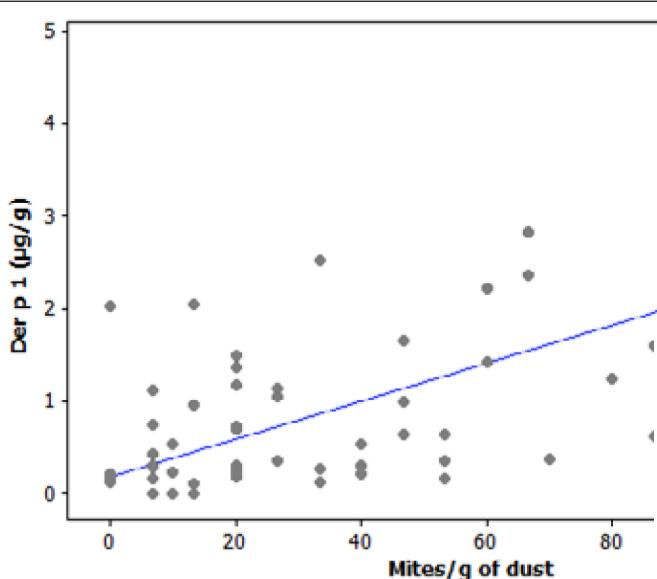
**52 % dei pazienti con RA è sensibilizzato agli acari
50 % dei pazienti con AA è sensibilizzato agli acari**

Rolla G et al., Chest. 2007;131:1345-1352.

Ulrik CS et al., Am J Respir Crit Care Med. 1999;160:40-44.

Child car seats – a habitat for house dust mites and reservoir for harmful allergens

Clarke D et al, 2015, Ann Agricult Env Med

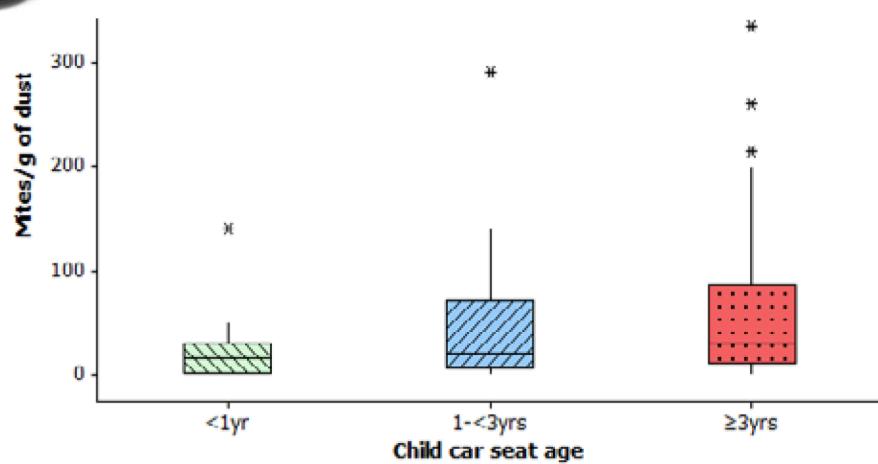


Correlation of house dust mites (mites/g dust) with concentrations of Der p 1 allergen ($\mu\text{g/g}$) measured from 71 car seats . $p = 0.001$



Square root of mites/g of dust for child car seat (age categories):

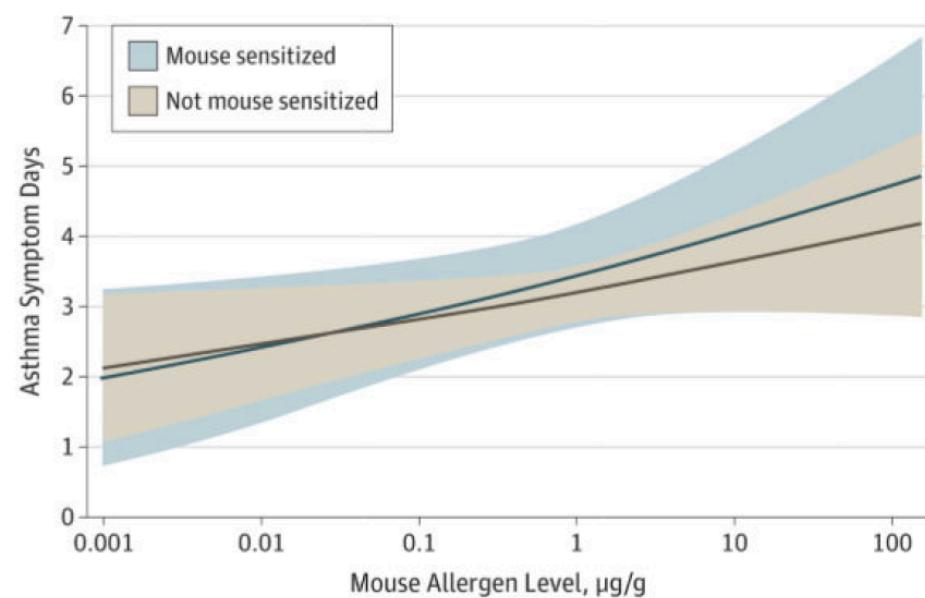
- | | |
|----------------|----------------|
| <1 year | (mean = 26.05) |
| 1-<3 years | (mean = 41.42) |
| ≥ 3 years | (mean = 67.28) |



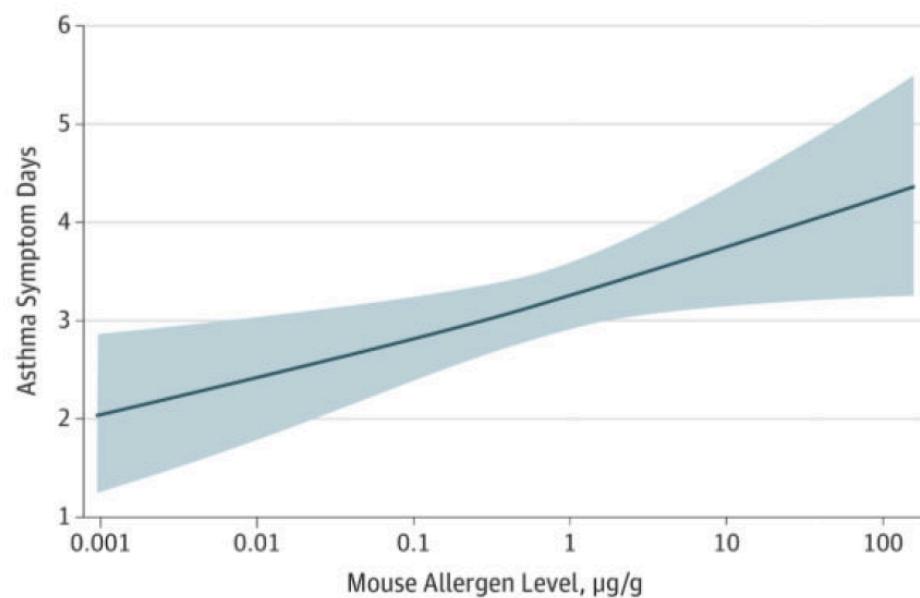
Mouse allergen was the most commonly detected allergen, with rates of detection of 99.5% in schools and 96.0% in homes.

Dust mites were detected in 46.5% of school samples.

A Asthma symptoms by sensitization

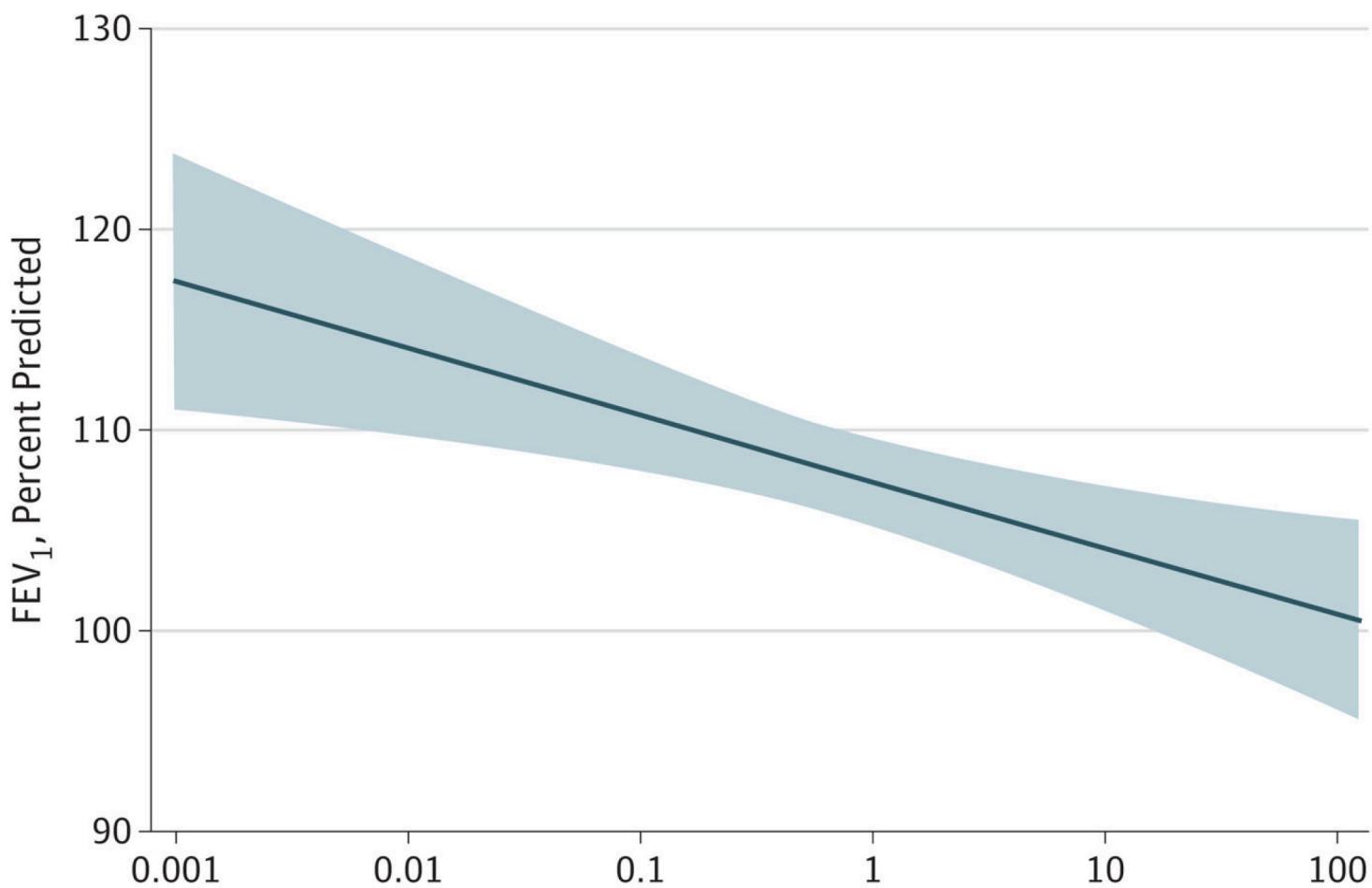


B Mouse allergen exposure and asthma symptoms



Association Between Allergen Exposure in Inner-City Schools and Asthma Morbidity Among Students

William J. Sheehan WJ et al, 2017, *JAMA ped*



RINITE/ASMA

Approccio “ecologico”

Approccio “farmacologico”

Evita esposizione

- Federe
- HEPA
- acaricidi

- Difficile
- Costosa
- Impegnativa per la famiglia
- Spesso vana

Farmacoterapia

- ICS
- Anti H1
- LTRA
- SABA/LABA

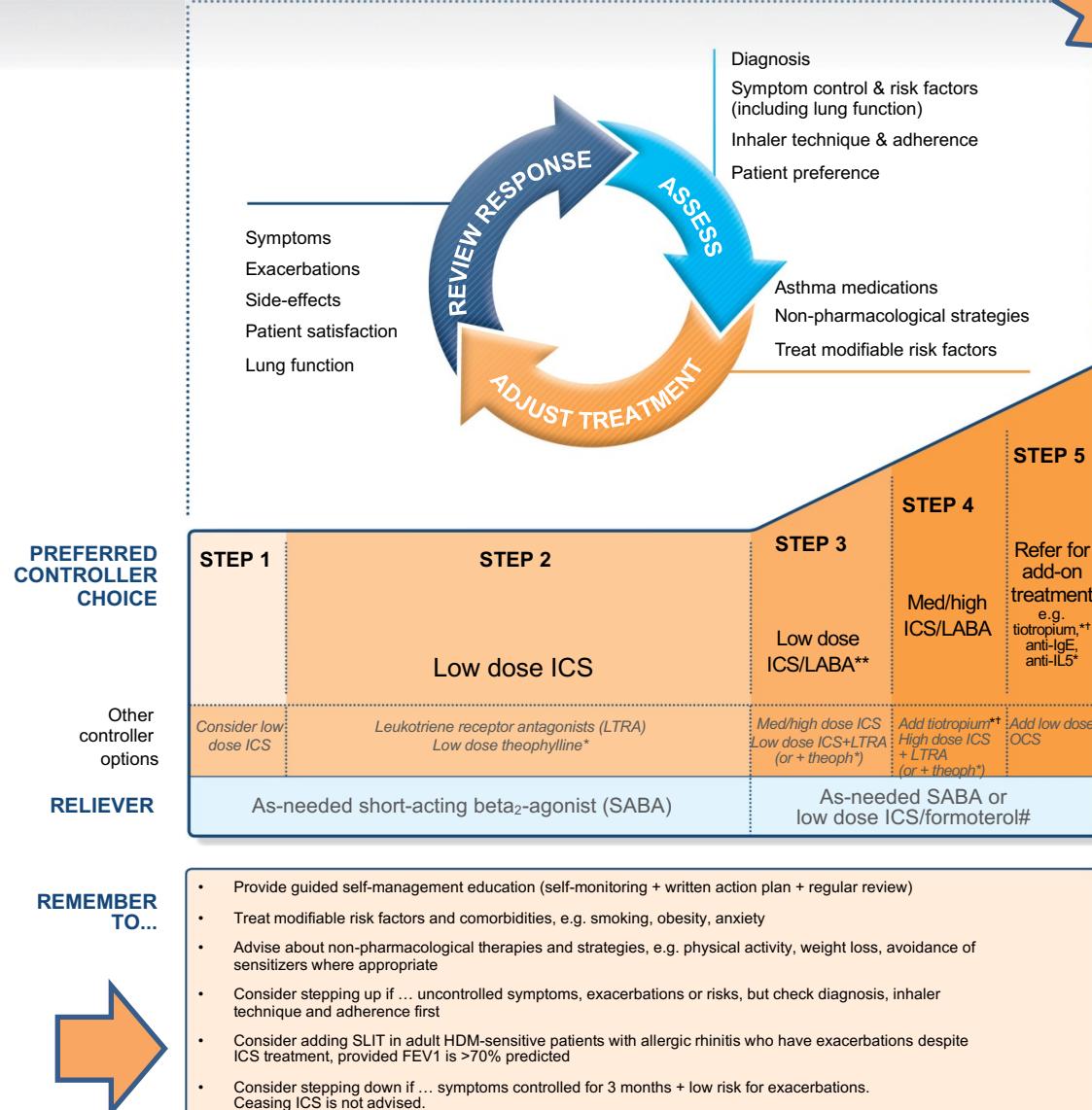
- Eff. collaterali
- “tempo”
- Costi

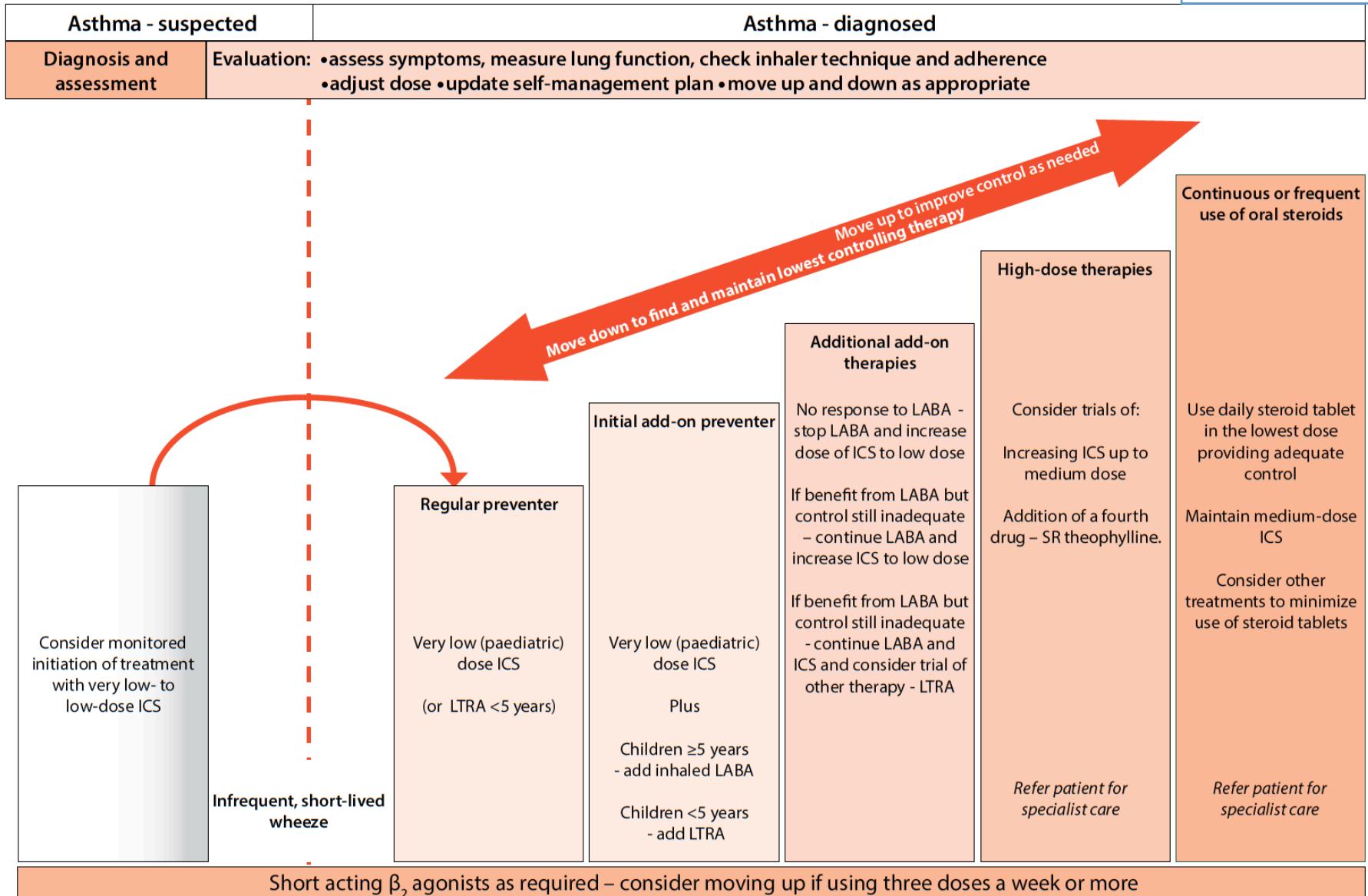
Linee Guida e «Real life»

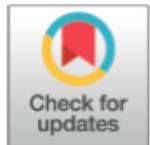
Stepwise approach to control asthma symptoms and reduce risk



UPDATED
2017







EDITORIALS

Conflicting asthma guidelines cause confusion in primary care

A way forward for clinicians while we streamline the guideline process

Duncan Keeley *executive committee policy lead*, Noel Baxter *chair*

Primary Care Respiratory Society UK, Solihull, UK

EPR 1991



BTS 1990



BTS-SIGN 2003

NEW ZEALAND 1989



NICE 2013

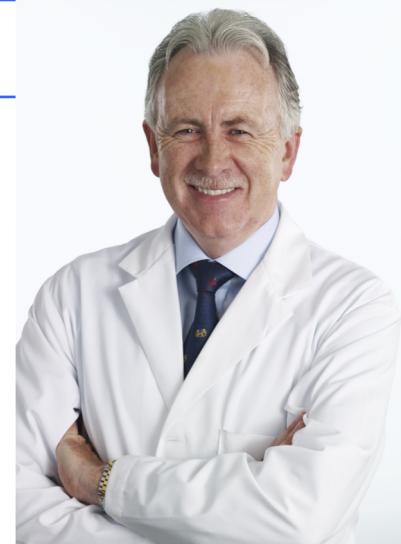
GINA 1995

- | | |
|-------------------------|-------------------------------|
| 1) Albania | 15) Macedonia |
| 2) Andorra | 16) Moldavia |
| 3) Armenia | 17) Monaco |
| 4) Azerbaijan | 18) Montenegro |
| 5) Bahrain | 19) Paesi Bassi |
| 6) Belgio | 20) Ruanda |
| 7) Bosnia ed Erzegovina | 21) Saint Kitts e Nevis |
| 8) Bulgaria | 22) Saint Vincent e Grenadine |
| 9) Croazia | 23) San Marino |
| 10) Emirati Arabi Uniti | 24) Serbia |

ALCUNE LINEE GUIDA PER L'ASMA

Antartide

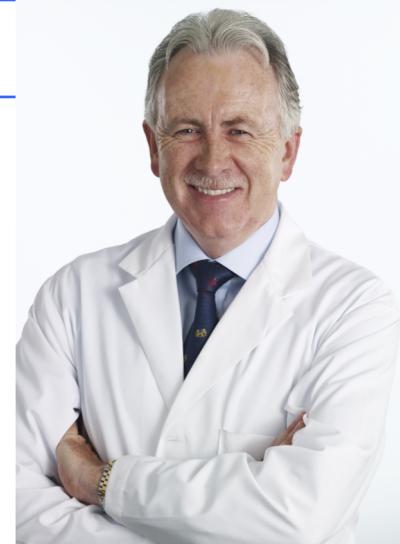
“It is not known whether these guidelines have improved the care of people with asthma; asthma prevalence has continued to rise”



The biggest controversy surrounds initial add-on therapy.

What is required is not varying and contradictory guidance, but testing of both the evidence for and implementation of current guidelines

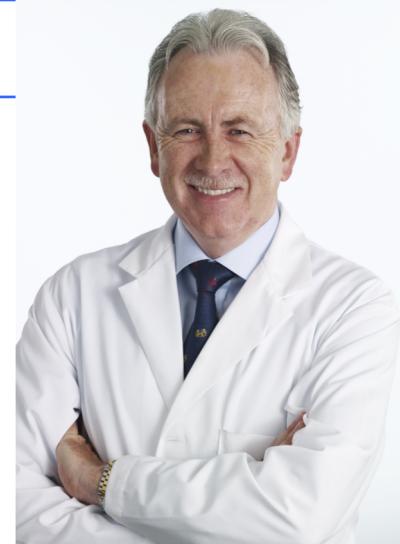
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The biggest controversy surrounds initial add-on therapy.

What is required is not varying and contradictory guidance, but testing of both the evidence for and implementation of current guidelines

“It is not known whether these guidelines have improved the care of people with asthma; asthma prevalence has continued to rise”



The biggest controversy surrounds initial add-on therapy.

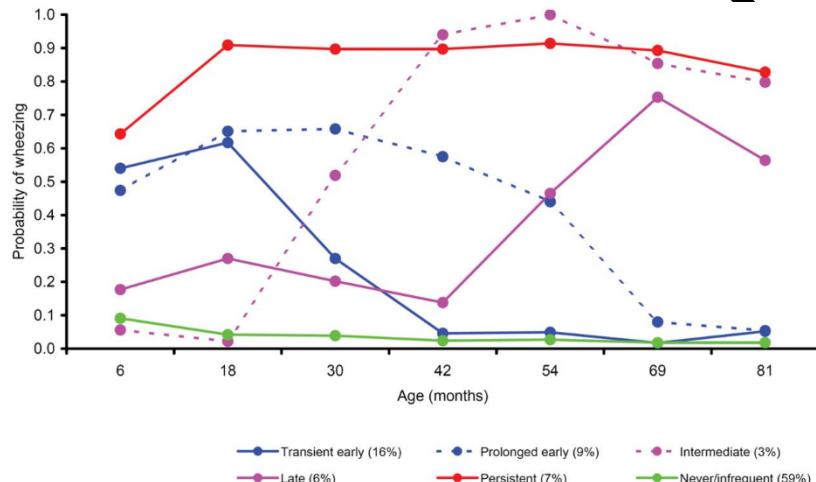
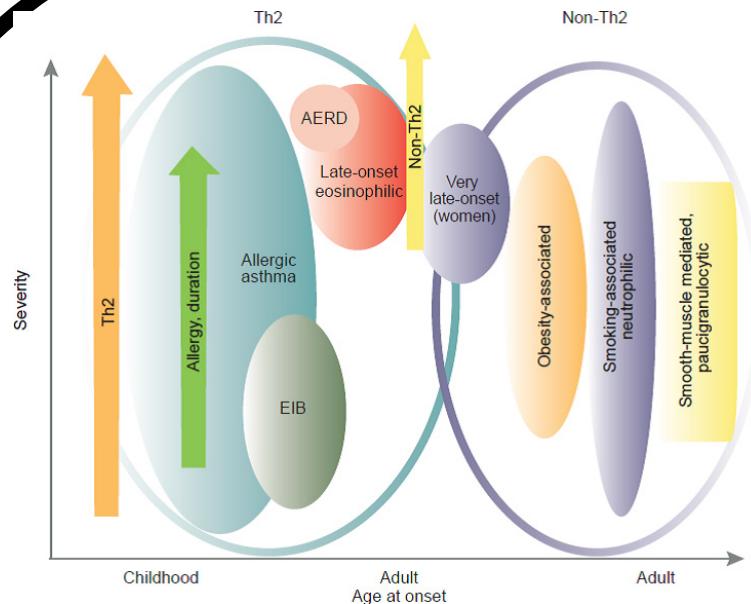
What is required is not varying and contradictory guidance, but testing of both the evidence for and implementation of current guidelines

The Lancet Commissions

After asthma: redefining airways diseases

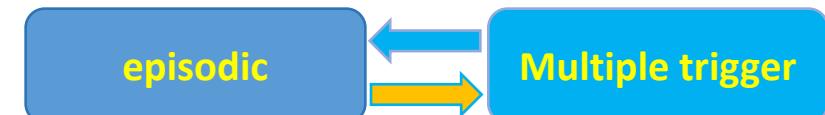
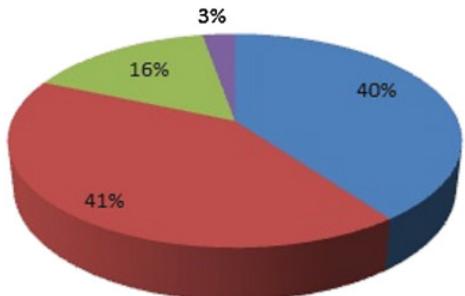
Ian D Pavord, Richard Beasley, Alvar Agusti, Gary P Anderson, Elisabeth Bel, Guy Brusselle, Paul Cullinan, Adnan Custovic, Francine M Ducharme, John V Fahy, Urs Frey, Peter Gibson, Liam G Heaney, Patrick G Holt, Marc Humbert, Clare M Lloyd, Guy Marks, Fernando D Martinez, Peter D Sly, Erika von Mutius, Sally Wenzel, Heather J Zar, Andy Bush

ASMA



Asthma Inflammatory Phenotypes

■ Paucigranulocytic ■ Eosinophilic ■ Neutrophilic ■ Mixed granulocytic



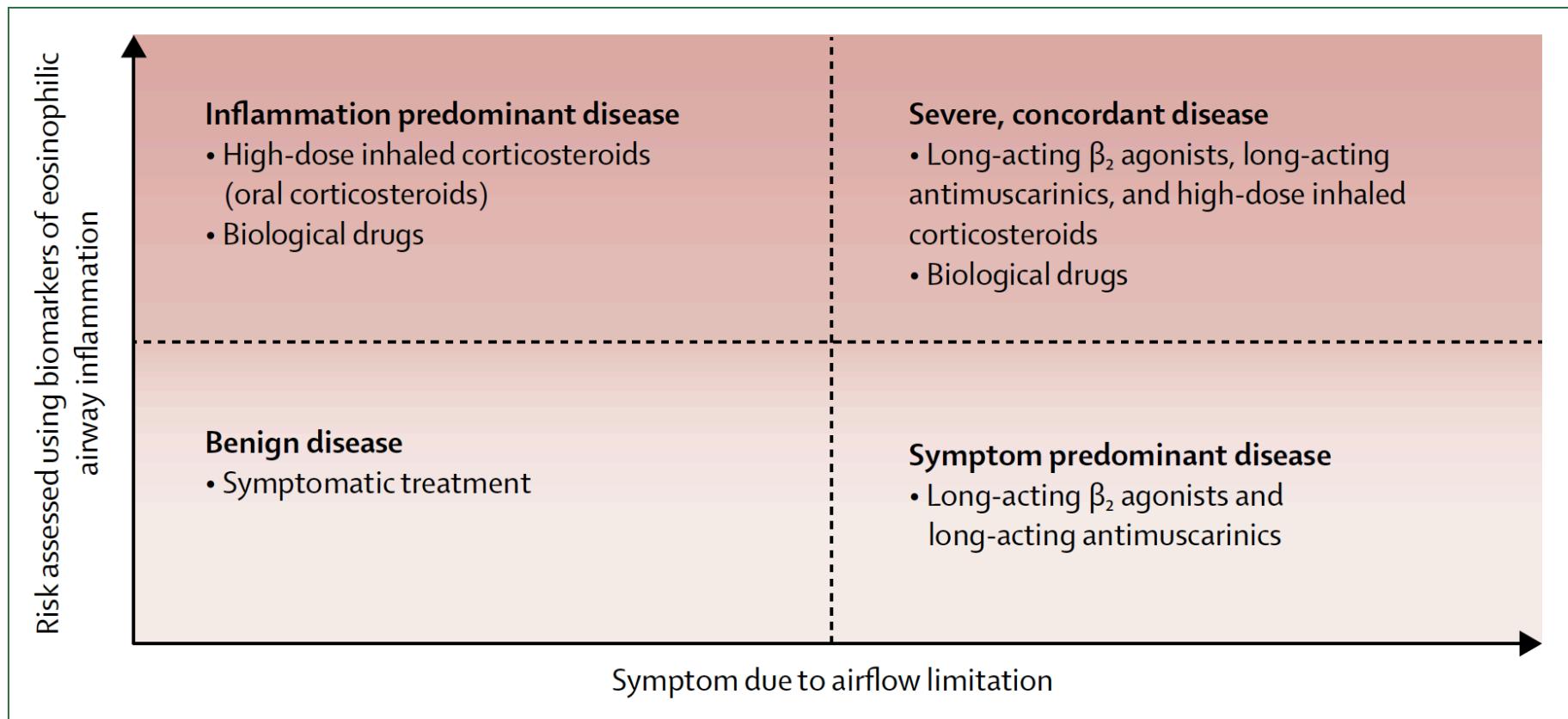
“Treatment decisions at different steps are overgeneralised, resulting in illogical treatment in a considerable number of patients”

“Perhaps guidelines were created without first establishing whether the entity whose management we are seeking to guide is useful and sufficiently welldefined” (Lancet commission)

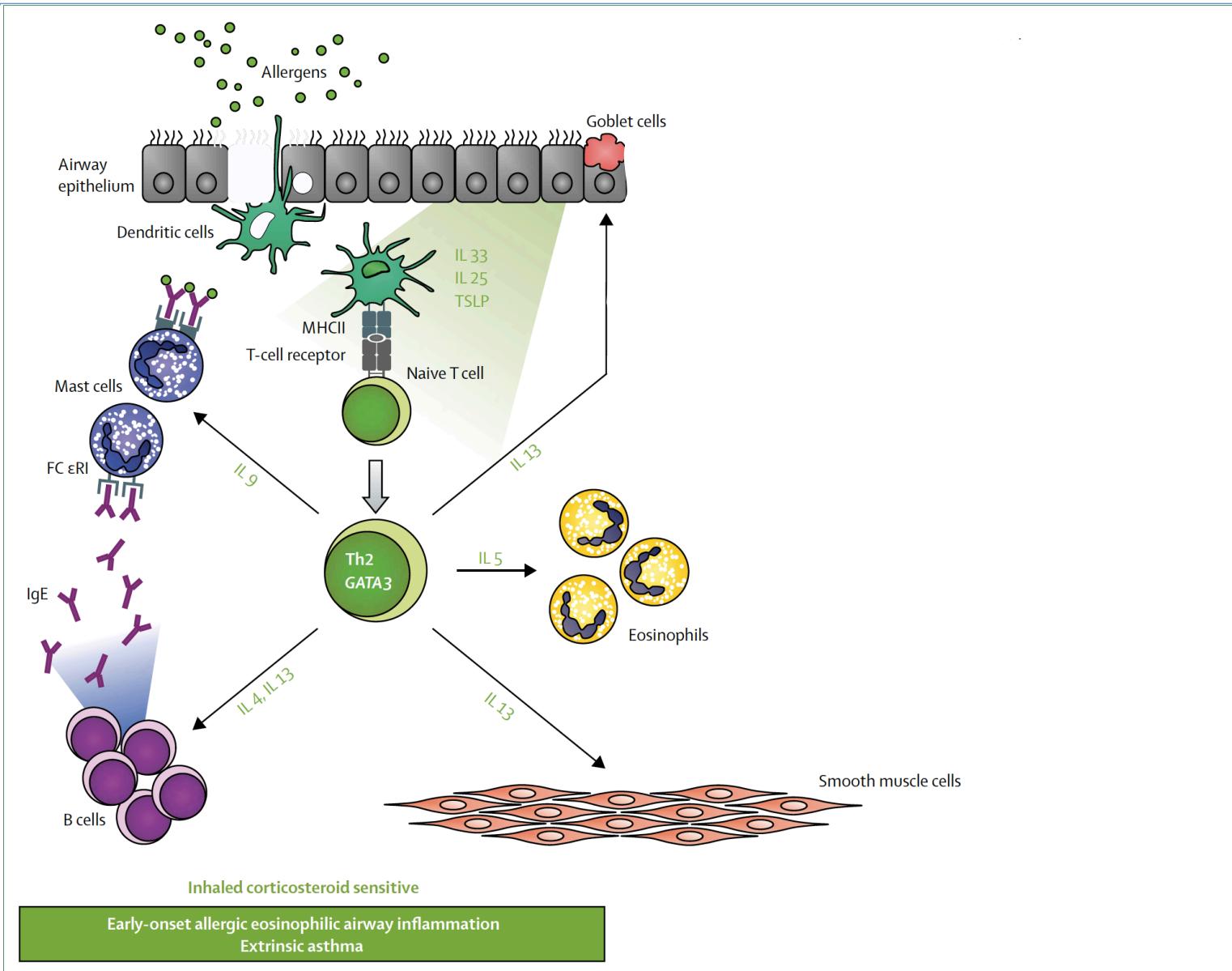
“Treatment decisions at different steps are overgeneralised, resulting in illogical treatment in a considerable number of patients”

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«Treatable traits»



After asthma: redefining airways diseases
Pavord ID and The Lancet Commission, 2017, *Lancet*



TREATMENT OF CHRONIC ASTHMA WITH PREDNISOLONE

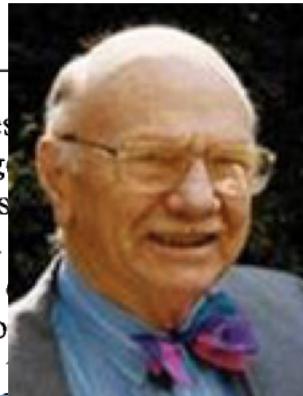
SIGNIFICANCE OF EOSINOPHILS IN THE SPUTUM

H. MORROW BROWN
M.D. Edin., M.R.C.P.E.

CONSULTANT CHEST PHYSICIAN, DERBY CHEST CLINIC,
AND DERWENT HOSPITAL, DERBY

the sputum. What was even more interesting were the results indicated that eosinophils in large numbers in the sputum were associated with a good response to prednisolone, and few or no eosinophils with a poor response.

With experience, certain aspects of the disease pattern became evident. Often bronchospasm could be demonstrated only by forced exhalation.



90 CASES OF CHRONIC ASTHMA TREATED WITH PREDNISOLONE

Relief of bronchospasm	Cases with eosinophilic sputum	Cases with a few or no eosinophils
Complete	56	1
Partial	7	3
Slight	—	7
No relief	—	16
Total	63	27

Betamethasone Dipropionate: A New Steroid Aerosol for the Treatment of Allergic Asthma

H. MORROW BROWN, G. STOREY, W. H. S. GEORGE



British Medical Journal, 1972, 1, 585-590

Summary

Betamethasone dipropionate was aerosols for the treatment of 60 cases of asthma for up to 15 months. Twenty were transferred to this treatment after oral steroids for up to 16 years; other asthmatics not dependent or completely controlled. No biochemical adrenal suppression was found. Symptoms were often a problem, systemic absorption. The precise metabolic fate of this corticosteroid

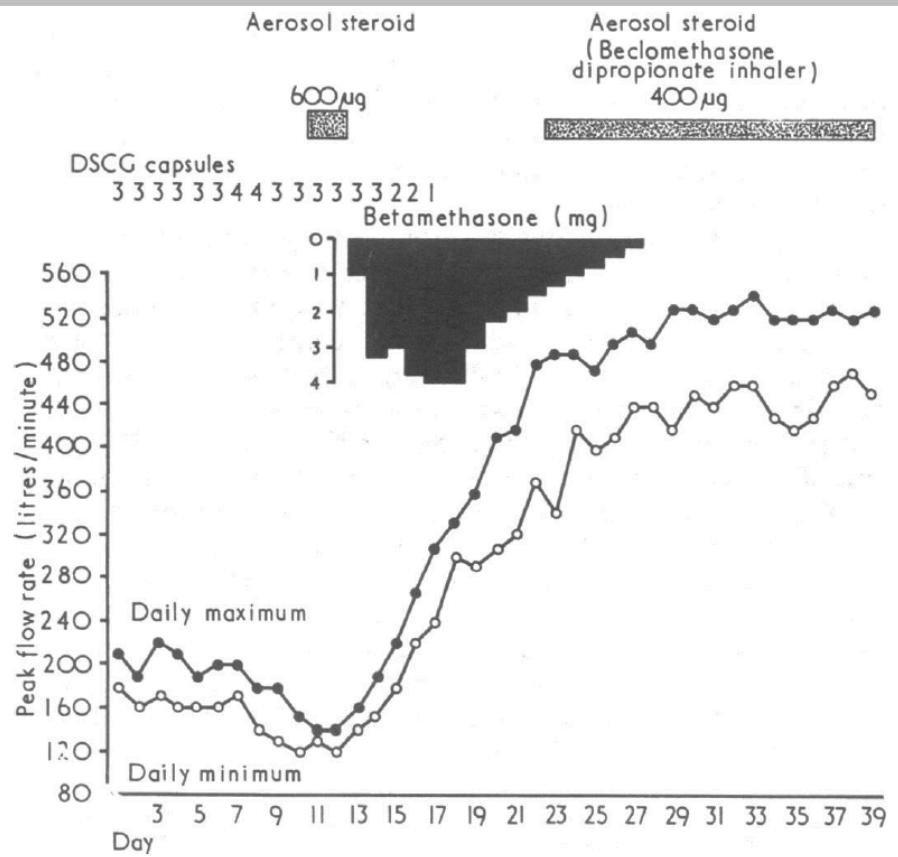


FIG. 4—Man aged 45. Late-onset asthma—allergens unknown. A good example of the uselessness of aerosol therapy until airways cleared by high-dose steroid. Disodium cromoglycate (DSCG) had been used for a year but was no longer effective. High level maintained to date on aerosol alone. The aerosol actually caused bronchospasm when first introduced. This case is not included in the present series as the patient was seen subsequently, but it is shown on account of its outstanding interest.

Nicole DG
6 anni e ½

Genitori entrambi allergici asmatici

3 mesi: bronchiolite
2 anni Broncopolmonite con pleurite

SPT (I): negativi

ALIFLUS 25/501 puff x 2

DA ALLORA NON HA SMESSO MAI PIU'

4 anni:

SPT (II): negativi

CONTINUA ALIFLUS (25/125)

18/03/2019:

tosse insistente (mai mentre dorme), reperto toracico OK.

Post nasal drip con adenoidismo

- Sospesa ogni terapia
- Lavaggi nasali con ipertonica
- Vis ORL con rinofibroscopia
- Componente psicogena?
- Dosaggio IgE

ADHERENCE



30 %



70 %



30 %



40%



Repeated cross-sectional survey of patient reported asthma control in Europe in the past 5 years

Demoly P et al, 2012, Eur Resp Rev.

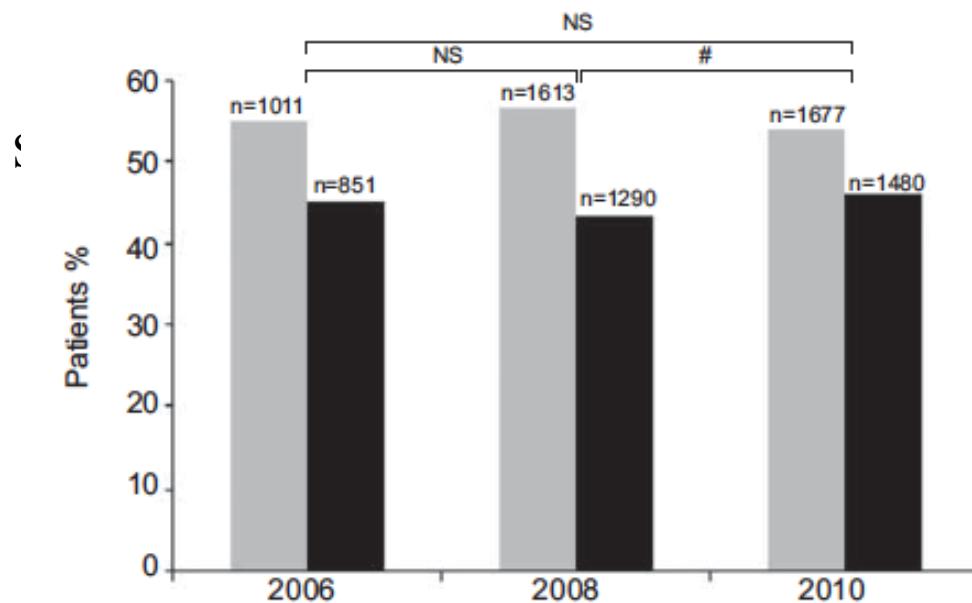
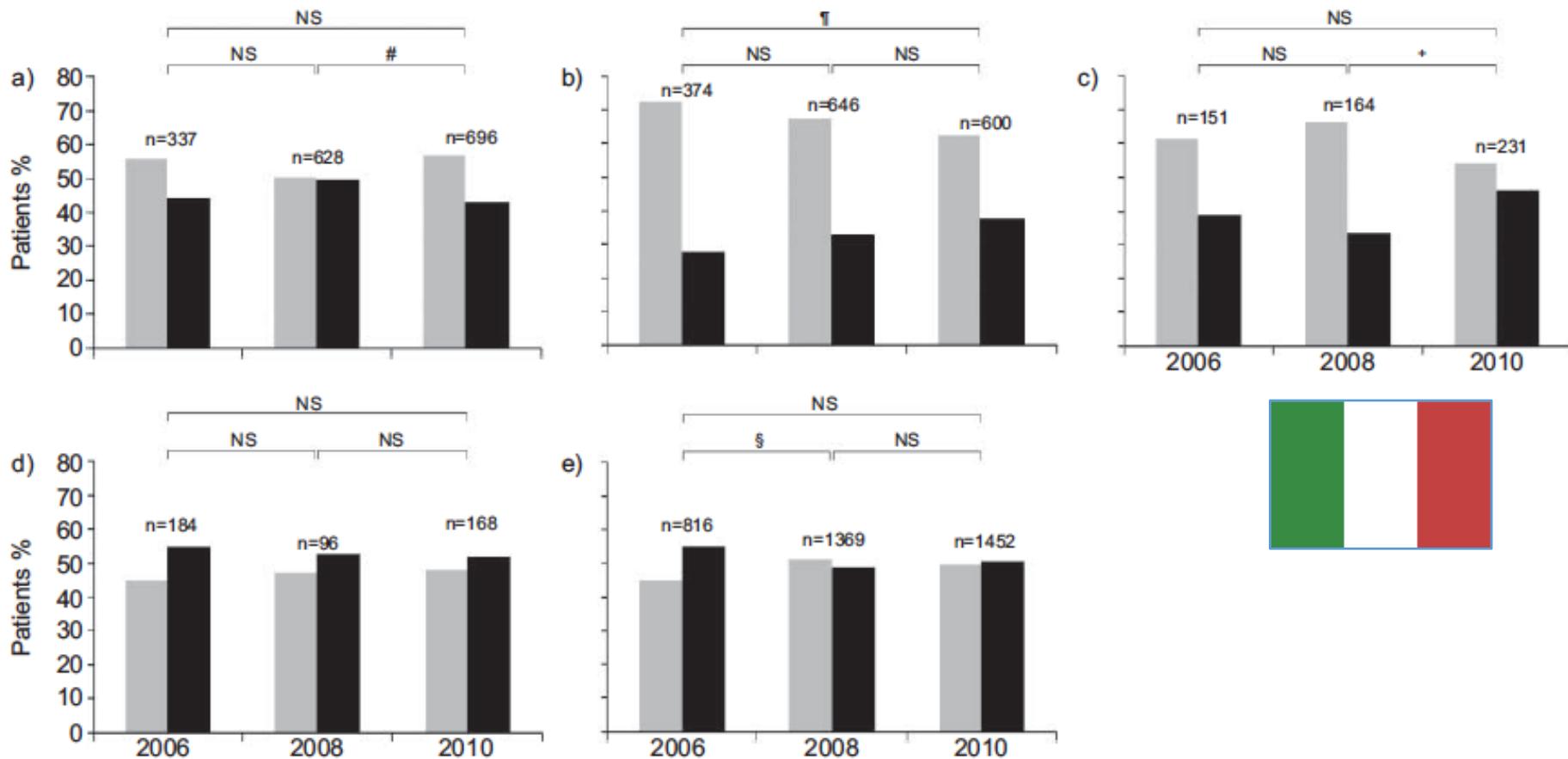
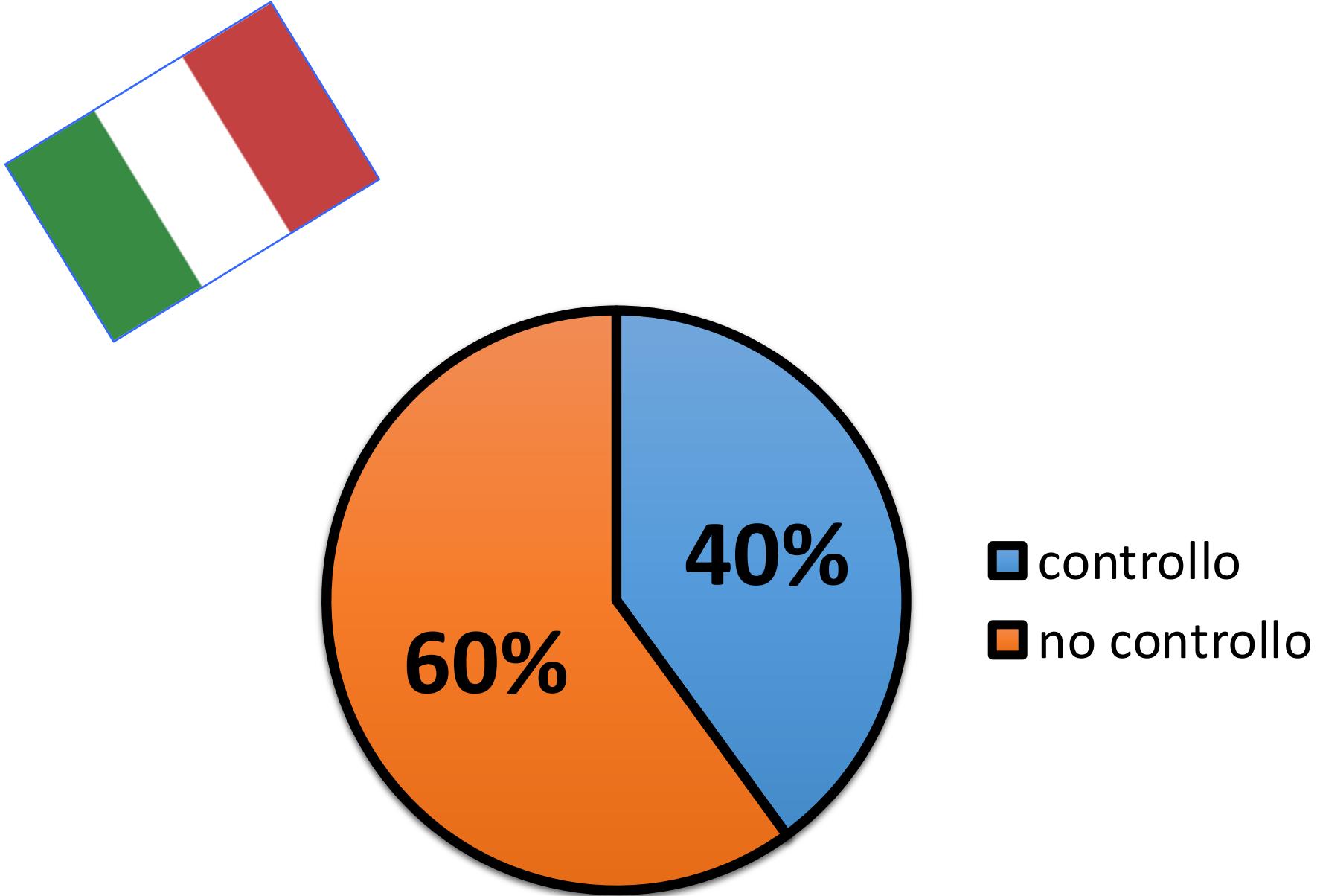


FIGURE 1. Proportion of treated patients with not well-controlled asthma (▨) and at least well-controlled asthma (■) in 2006, 2008 and 2010 in all countries. NS: nonsignificant. #: p=0.035.

Repeated cross-sectional survey of patient reported asthma control in Europe in the past 5 years

Demoly P et al, 2012, Eur Resp Rev.

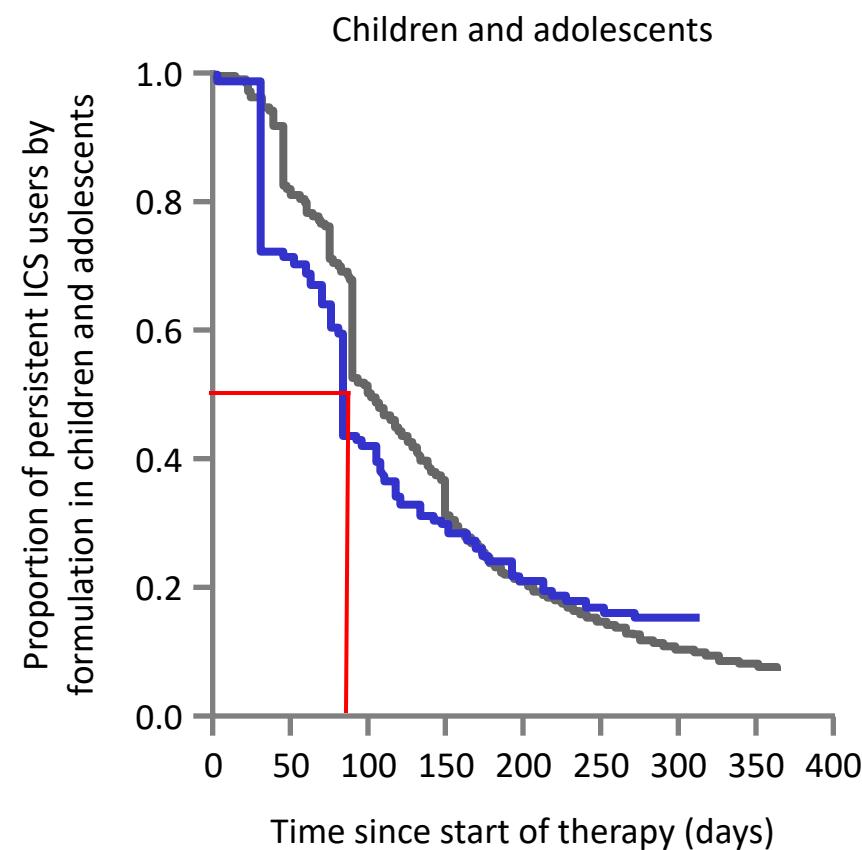
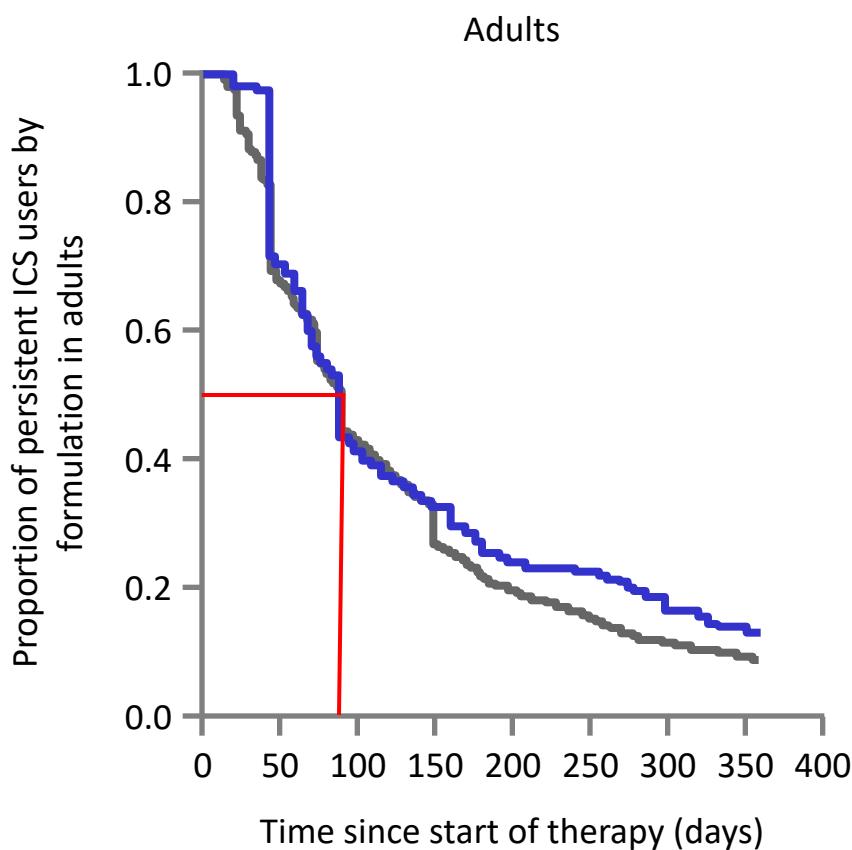




Treatment with inhaled corticosteroids in asthma is too often discontinued

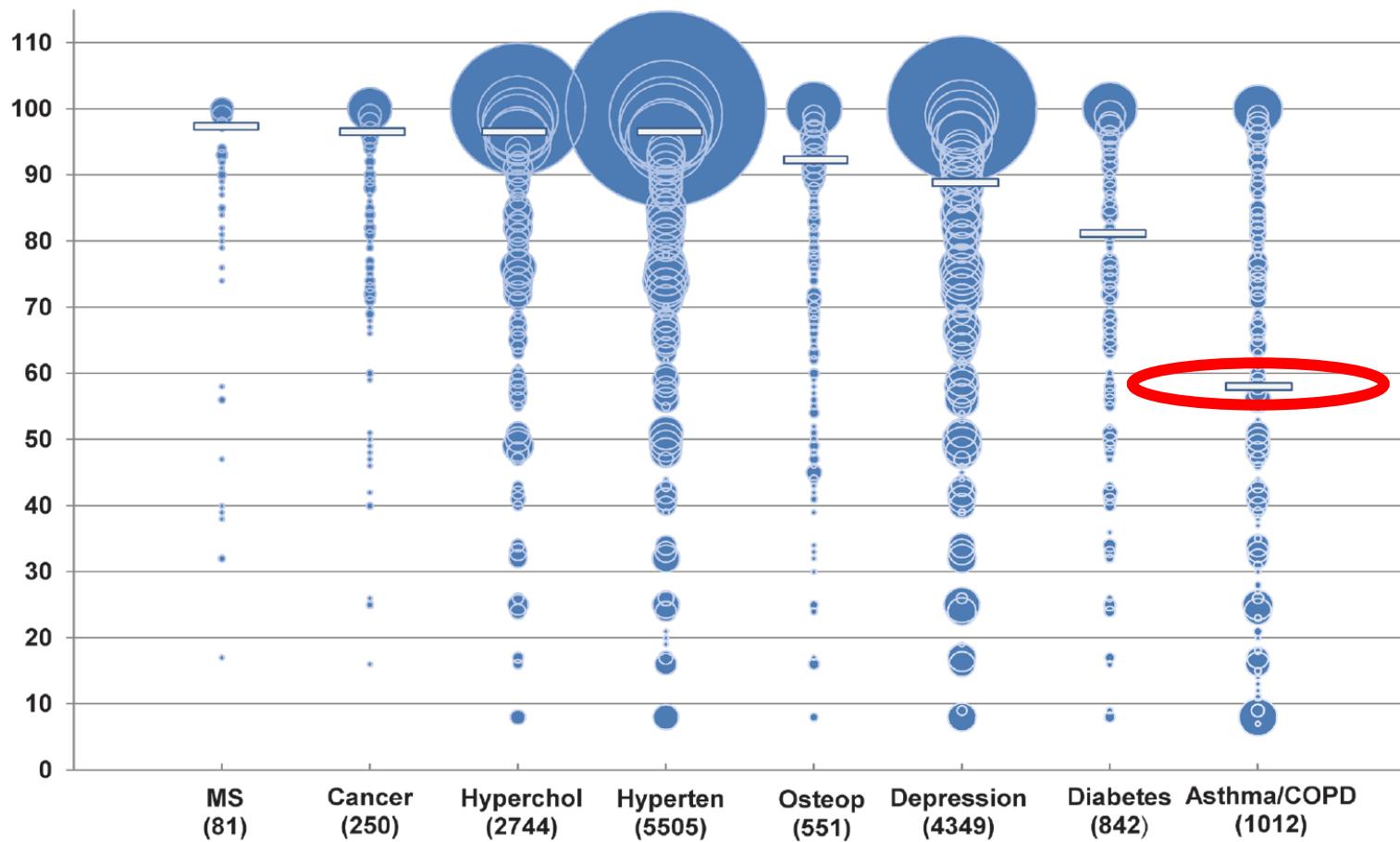
Breekveldt-Postma NS et al, *Pharmacoepidemiol Drug Saf*, 2008

Overall persistence with single and fixed ICS treatment in new users with asthma



Patient Characteristics Associated with Medication Adherence

Rolnick SJ et al, 2013, Clin Med Res



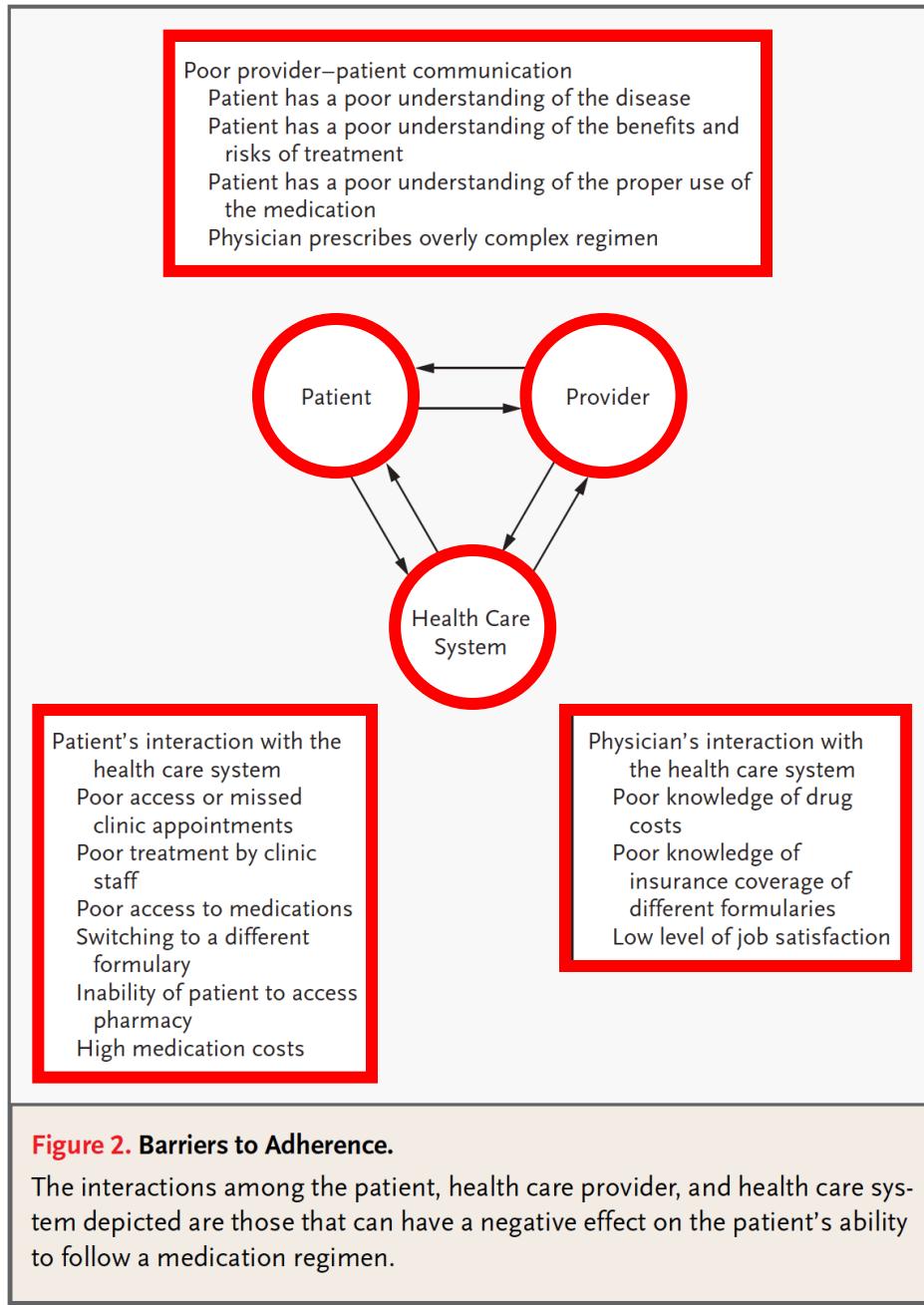


Drugs don't work in patients who don't take them.

— C. Everett Koop, M.D.

Adherence to Medication

Osterberg L, Blaschke T, *N Engl J Med*, 2005



Why do patients adhere/not adhere?

Initial qualitative study

Qualitative study of 11-18 years olds with uncontrolled severe asthma (ICS: > 800 mcg/die)

- **Almost all** the teenagers were not taking their medication as prescribed
- Previous negative experiences were the main reason for better concordance with treatment.
- Majority of those prescribed spacer devices were not using them – alternative methods of delivery preferred.

Main reasons for poor concordance:

“forgets”

“can’t be
bothered”

“no time”

“adverse
effects”

“feel fine”



Adherence to Medication

Osterberg L, Blaschke T, *N Engl J Med*, 2005

What can we do?

Table 3. Strategies for Improving Adherence to a Medication Regimen.*

Identify poor adherence

Look for markers of nonadherence: missed appointments ("no-shows"), lack of response to medication, missed refills

Ask about barriers to adherence without being confrontational

Emphasize the value of the regimen and the effect of adherence

Elicit patient's feelings about his or her ability to follow the regimen, and if necessary, identify supports to promote adherence

Provide simple, clear instructions and simplify the regimen as much as possible

Encourage the use of a medication-taking system

Listen to the patient, and customize the regimen in accordance with the patient's wishes

Obtain the help from family members, friends, and community services when needed

Reinforce desirable behavior and results where appropriate

Consider more "forgiving" medications when adherence appears unlikely†

Medications with long half-lives

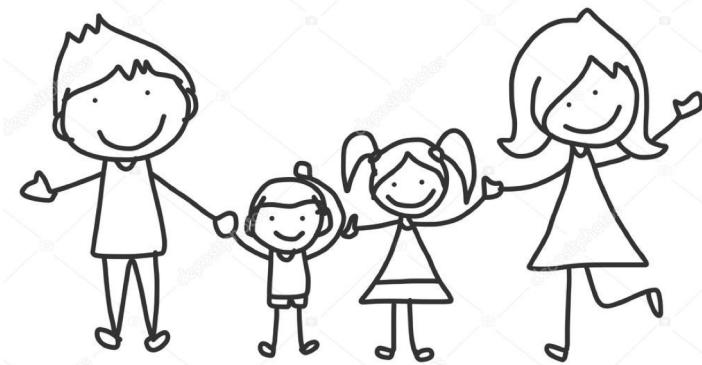
Depot (extended-release) medications

Transdermal medications

Home Sweet Home



FAMILY



Family Functioning and the Well-Being of Children With Chronic Conditions: A Meta-Analysis

Jennifer Leeman, Jamie L. Crandell, Anna Lee, Jinbing Bai, Margarete Sandelowski,
Kathleen Knafl



Associations Among Behavioral Sleep Disturbance, Family Functioning, and Controller Medication Adherence in Children with Asthma

Jennifer T. Sonney, PhD, ARNP, PPCNP-BC, * Chris Segrin, PhD, † Teresa M. Ward, PhD, RN*



RESEARCH ARTICLE

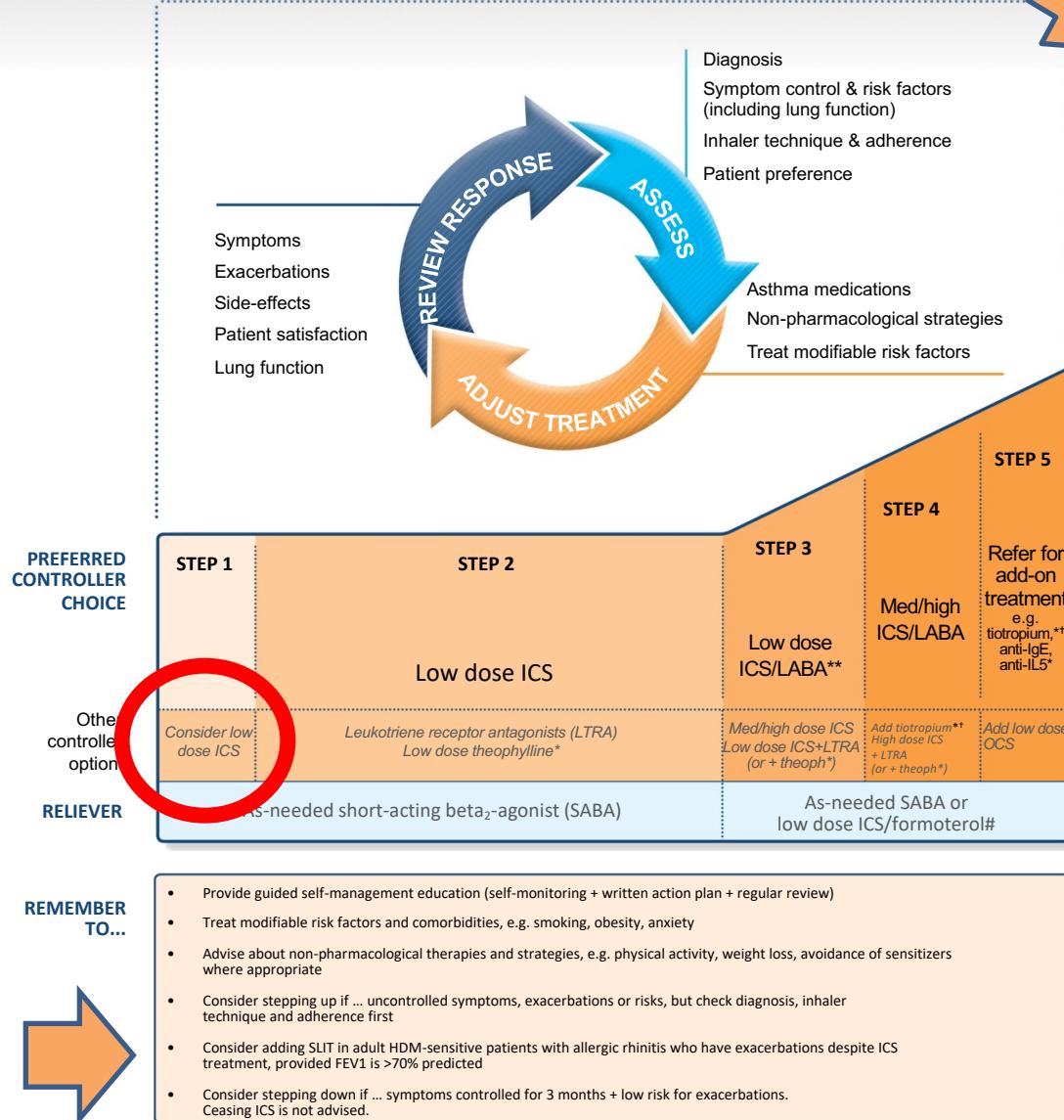
Health-Related Factors Associated with Discrepancies between Children's Potential and Attained Secondary School Level: A Longitudinal Study

Iris van der Heide¹*, Ulrike Gehring², Gerard H. Koppelman³, Alet H. Wijga¹

Stepwise approach to control asthma symptoms and reduce risk



UPDATED
2017



ASMA ACUTO NEL BAMBINO: PIANO TERAPEUTICO

- Sintomi:**
1. tosse notturna e/o risvegli per tosse
 2. sibili o fischi respiratori
 3. tosse forte o affanno dopo sforzo
 4. difficoltà a svolgere alcune attività per l'affanno

Terapia: Ventolin Spray (con distanziatore adeguato!)
s. 2 spruzzi ripetibili anche ogni 10-15 minuti fino a regressione dei sintomi, poi via via distanziati fino a intervalli di 4 – 8 ore.

Il bambino non migliora
(i sintomi addirittura peggiorano):

Il bambino migliora:

continuare Ventolin ogni 6 – 8 ore per 3 – 4 giorni

Prendere contatto col Pediatra!

1. Respiro affannoso
2. Tosse insistente
3. Stato di agitazione
4. Rientramenti intercostali e/o al giugulo

Terapia:

Continuare con il Ventolin (come sopra)
aggiungere cortisone (per via sistematica):

Farmaco (nome commerciale):.....

Dose: ogni ore per giorni

Prendere contatto col Pediatra

EMERGENZA:

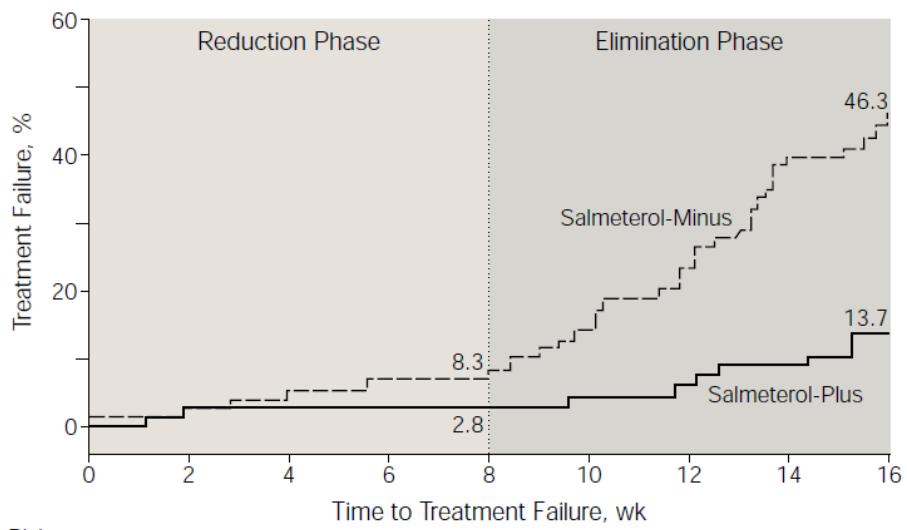
- DIFFICOLTA' A CAMMINARE O A PARLARE
- AGITAZIONE MOLTO INTENSA
- DITA E UNGHIE O LABBRA BLUASTRE

RECARSI AL PRONTO SOCCORSO O CHIAMARE IL 118
CONTINUARE VENTOLIN E CORTISONE

Therapy «*as needed*»

**Adherence in mild asthma
= 20%**

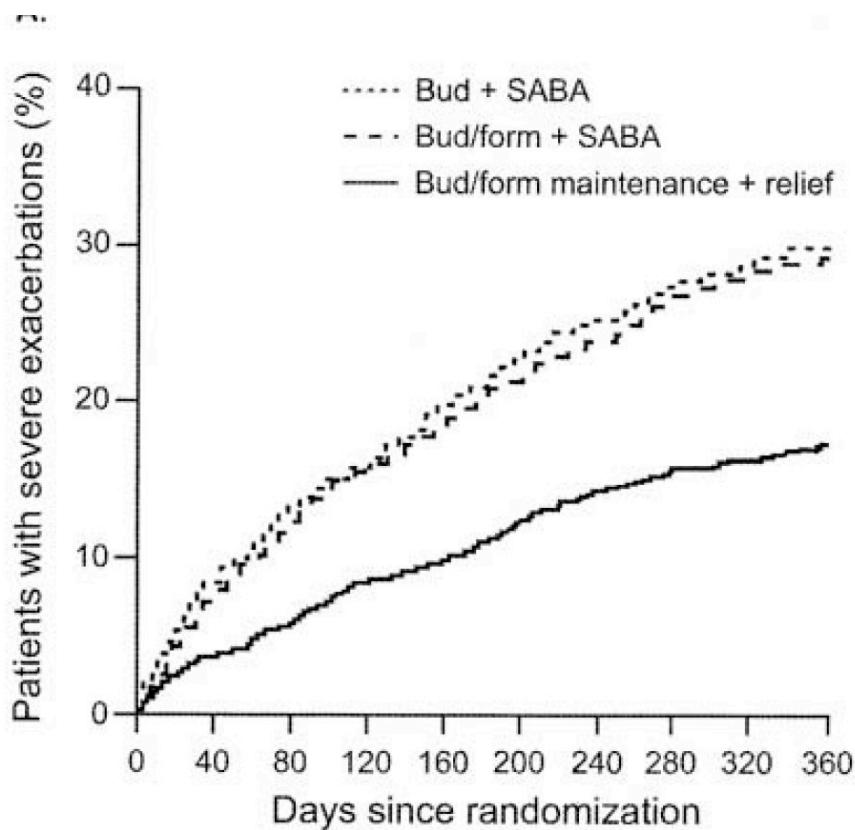
Physicians do not prescribe



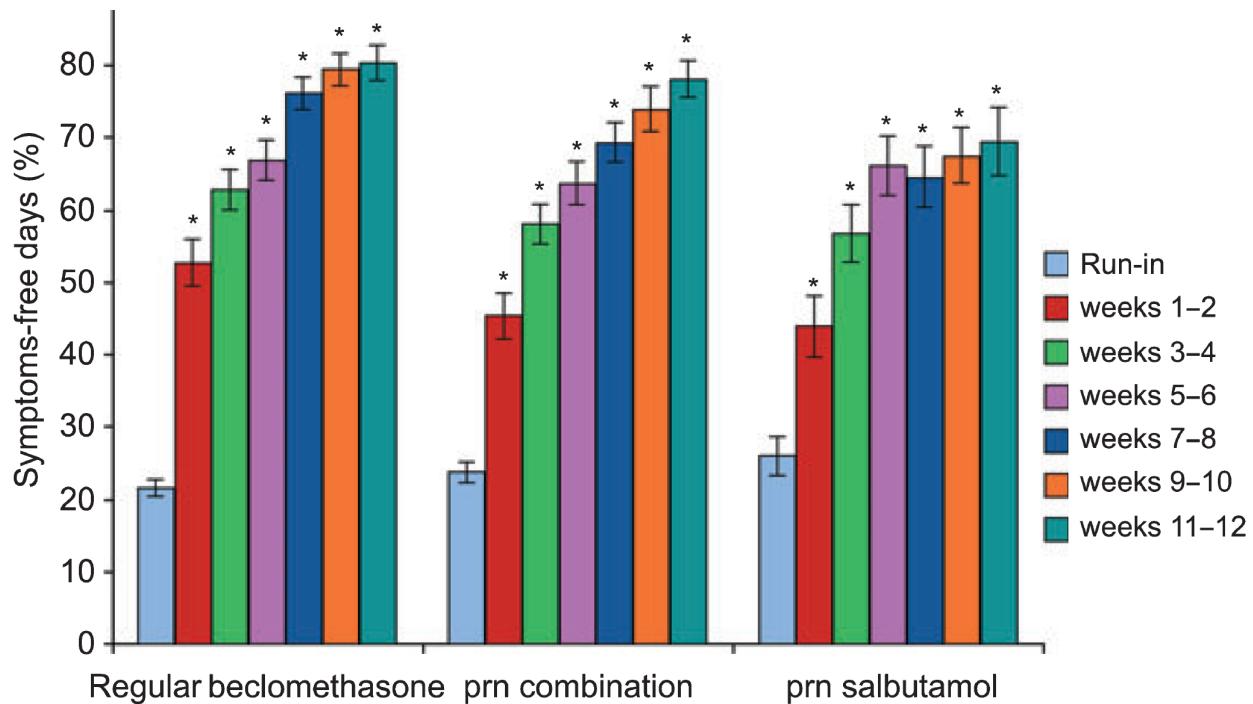
Risk of asthma attack x3

342 children, 4 – 11 y, mild to moderate asthma

Main Outcome: Time to the first wheezing episode



276 children with frequent wheeze, aged 1–4 years

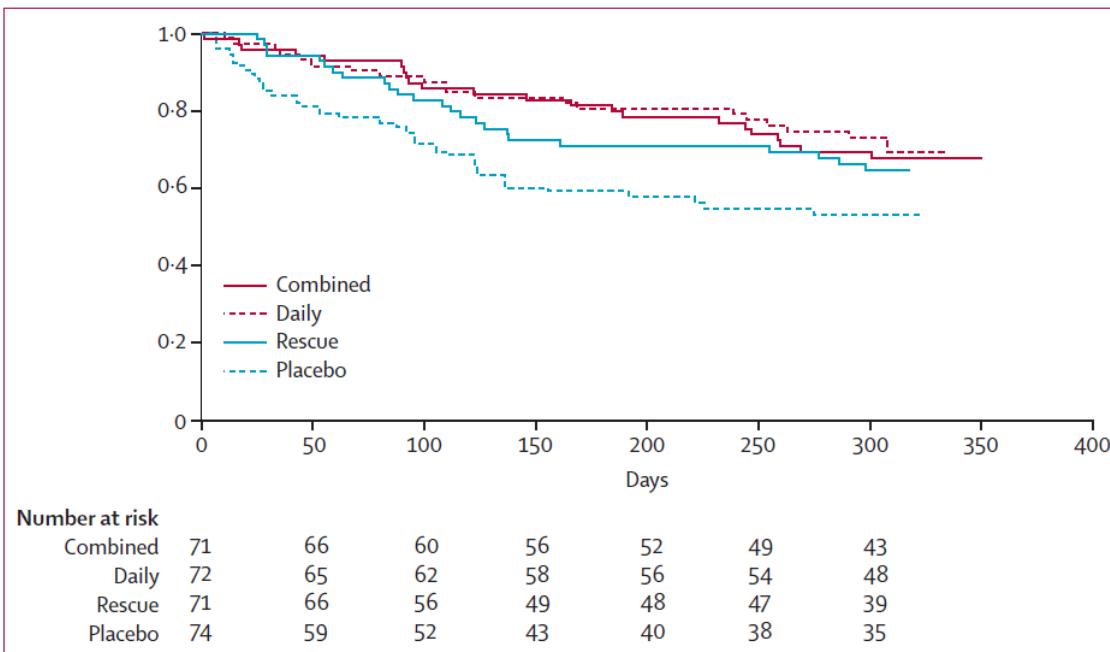


- (1) 400 mcg beclomethasone bid plus 2500 mcg salbutamol prn;
- (2) placebo bid plus 800 mcg beclomethasone/1600 mcg salbutamol combination prn;
- (3) placebo bid plus 2500 mcg salbutamol prn.

Use of beclomethasone dipropionate as rescue treatment for children with mild persistent asthma (TREXA): a randomised, double-blind, placebo-controlled trial.

Martinez FD et al, 2011, Lancet

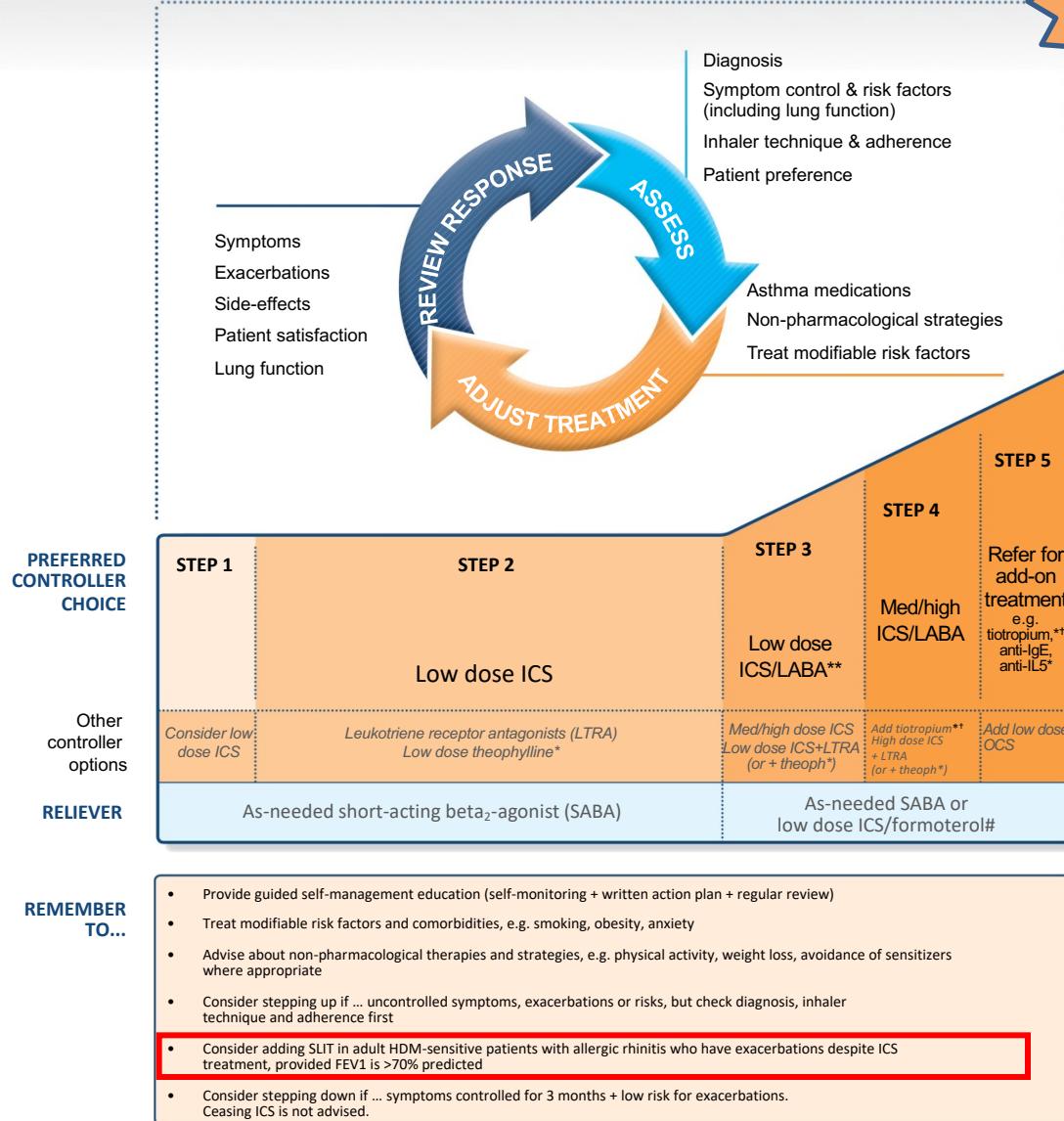
- Twice daily beclomethasone with beclomethasone plus albuterol as rescue (combined group)
- twice daily beclomethasone with placebo plus albuterol as rescue (daily beclomethasone group)
- twice daily placebo with beclomethasone plus albuterol as rescue (rescue beclomethasone group);
- twice daily placebo with placebo plus albuterol as rescue (placebo group)



Stepwise approach to control asthma symptoms and reduce risk



UPDATED
2017



RINITE/ASMA

Approccio “ecologico”

Evita esposizione

- Federe
 - HEPA
 - acaricidi
-
- Difficile
 - Costosa
 - Impegnativa per la famiglia
 - Spesso vana

Approccio “farmacologico”

Farmacoterapia

- ICS
- Anti H1
- LTRA
- SABA/LABA

- Eff. collaterali
- “tempo”
- Costi

Approccio “immunologico”

AIT

- SCIT
- SLIT

- NNT
- Selezione
- Età / durata
- Biomarkers



VOLIERE E SIGARETTE

DARISSINIA EXIBARD

Efficacissimo contro l'Asma

Campione Medico Gratuito

ASMA

POLVERE E SIGARETTE

D'ABISSINIA EXIBARD

Efficacissimo contro l'Asma

Campione Medico Gratuito

Tariffa Ridotta R.D. 1-5-24 N. 758 - Lettera
N.R. 73237 del 20-12-1924 Direzione
Provinciale Milano



哮喘丸

CROCODILE BILE PILL
FOR ASTHMA



30粒

中國廣東
佛山聯合製藥廠製



S.M. di Loreto - Crispi

guglielmoscala@gmail.com

- *Claudia labrò*
- *Carlo Cirelli*

**GRAZIE PER LA PAZIENZA E
L'ATTENZIONE**

