



# First European Congress on Adherence to Therapy Respiratory Area

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- Asthma and COPD prevalence and burden are increasing (WHO and ERS Whitebook)
- Avoidance of smoking and environmental risk factors would prevent 30-45% of these diseases (WHO and ERS Whitebook)
- We have effective treatments but adherence is at best about 50% across most countries, even lower within certain patient groups such as adolescents and those with low socioeconomic status (Tottenborg 2016)
- Non-adherence is associated with excess exacerbations, healthcare utilization, mortality, costs and lost work productivity (Van Boven Respir Med 2014, Vestbo Thorax 2009, Williams JACI 2011)

## Advantages

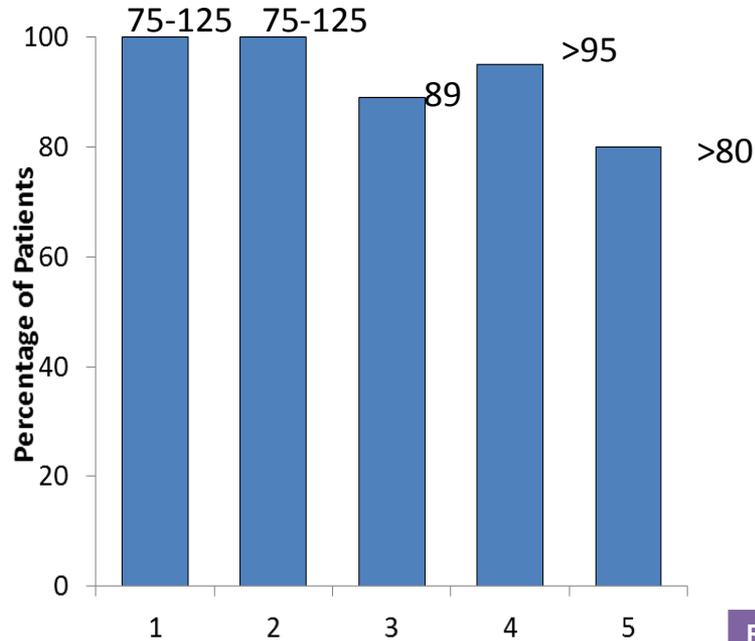
- ✓ Smaller dose than systemic administration
- ✓ Rapid onset of drug action
- ✓ Targeted to the organ
- ✓ Fewer & less severe systemic side effects

## Disadvantages

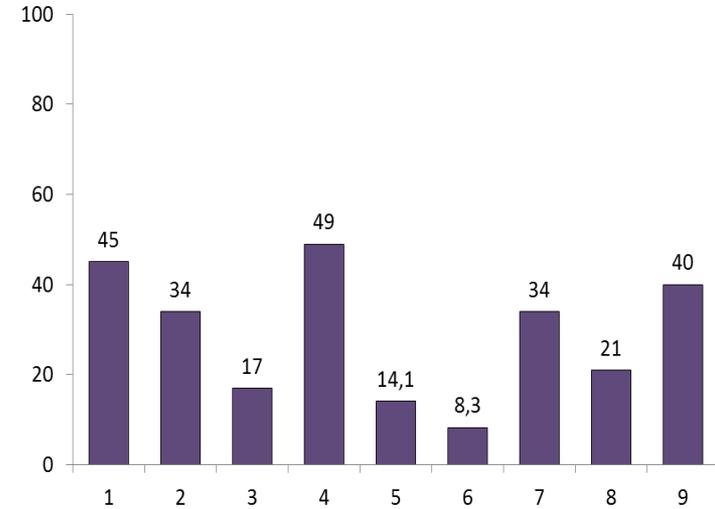
- ✓ Correct use of inhalers is necessary for effective treatment
- ✓ Differences in inhalers are larger than differences in tablets
- ✓ Variability in delivered drug doses
- ✓ Lower perception by patients regarding recognition of inhalers as effective treatment compared to pills or injection

# Patient adherence is lower in real life than RCTs respiratory studies

## Randomised trials



## Real-life studies



### RCT references

- 1) Pawels R et al. N Engl J Med 1997
- 2) Kips J et al. Am J Respir Crit Care 2000
- 3) Bateman E. Am J Respir Crit Care 2004
- 4) Papi A et al. Eur Respir J 2007
- 5) Busse W et al. J Allergy Clin Immunol 2008

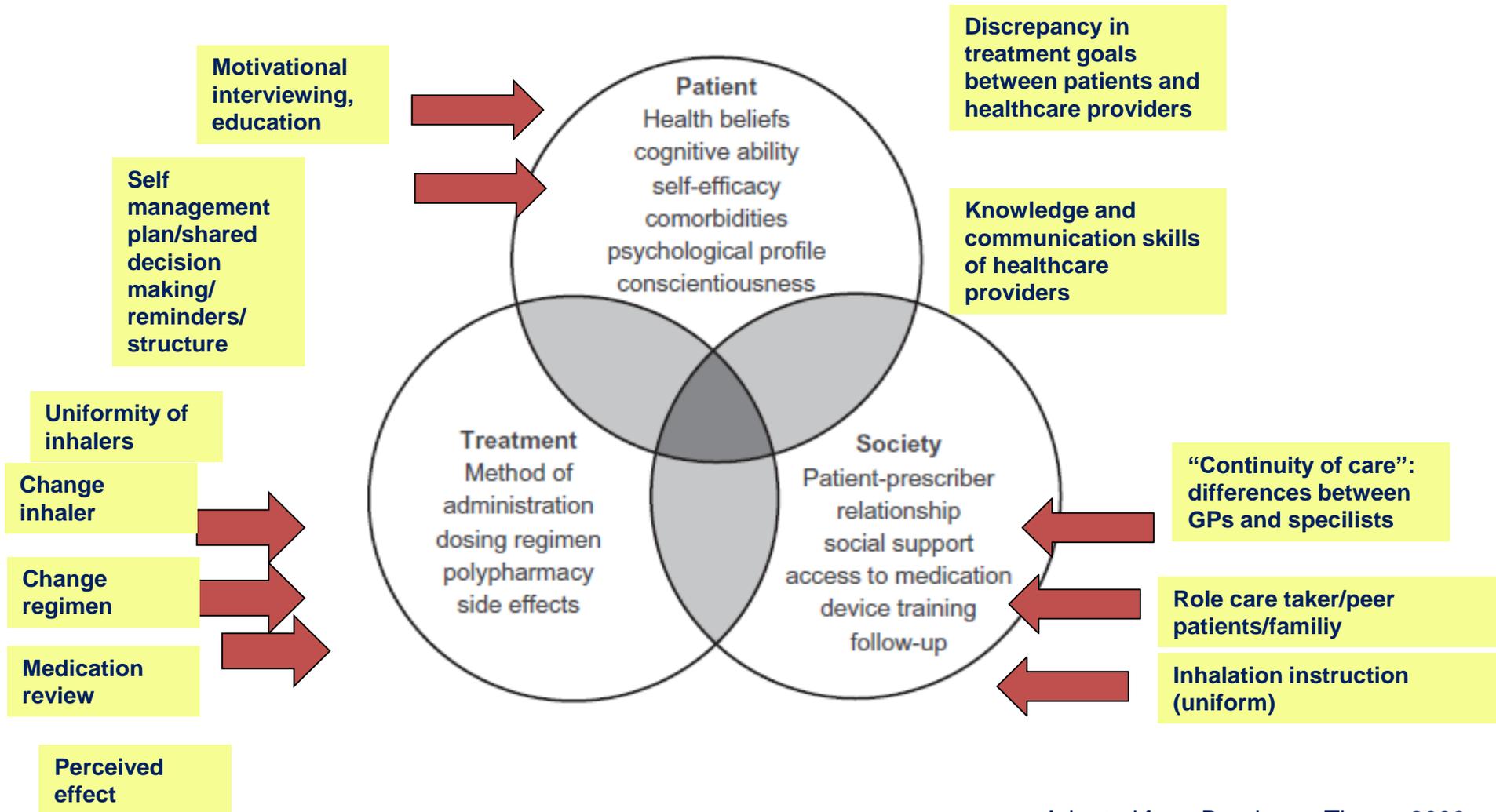
### Real-life references

- 1) Partridge Pulm Med 2006
- 2) De Marco et al. Int Arch Allergy Immunol 2005
- 3 and 4) Janson et al. Eur Respir J 2001 3=Italy 4=UK
- 5 and 6) Breekveldt-Postma et al. Pharmaco-epidemiol Drug Saf 2008 5=fixed combination 6=ICS
- 7) Stallberg et al. Resp Med 2003
- 8) Adams et al. J Allergy Clin Immunol 2002
- 9) Corrigan Prim Care Resp J 2011

- Erratic non-adherence  
Forgetfulness → reminders, easier regimen, link to daily habit, social help from family
- Intelligent/intentional non-adherence  
Conscious decision (e.g. Fear of side effects or uncertainty of benefits) → shared decision making, motivational interviewing
- Unwitting non-adherence  
Non-intentional/lack of knowledge → educate (incl. inhaler technique), change inhaler, self-management plan

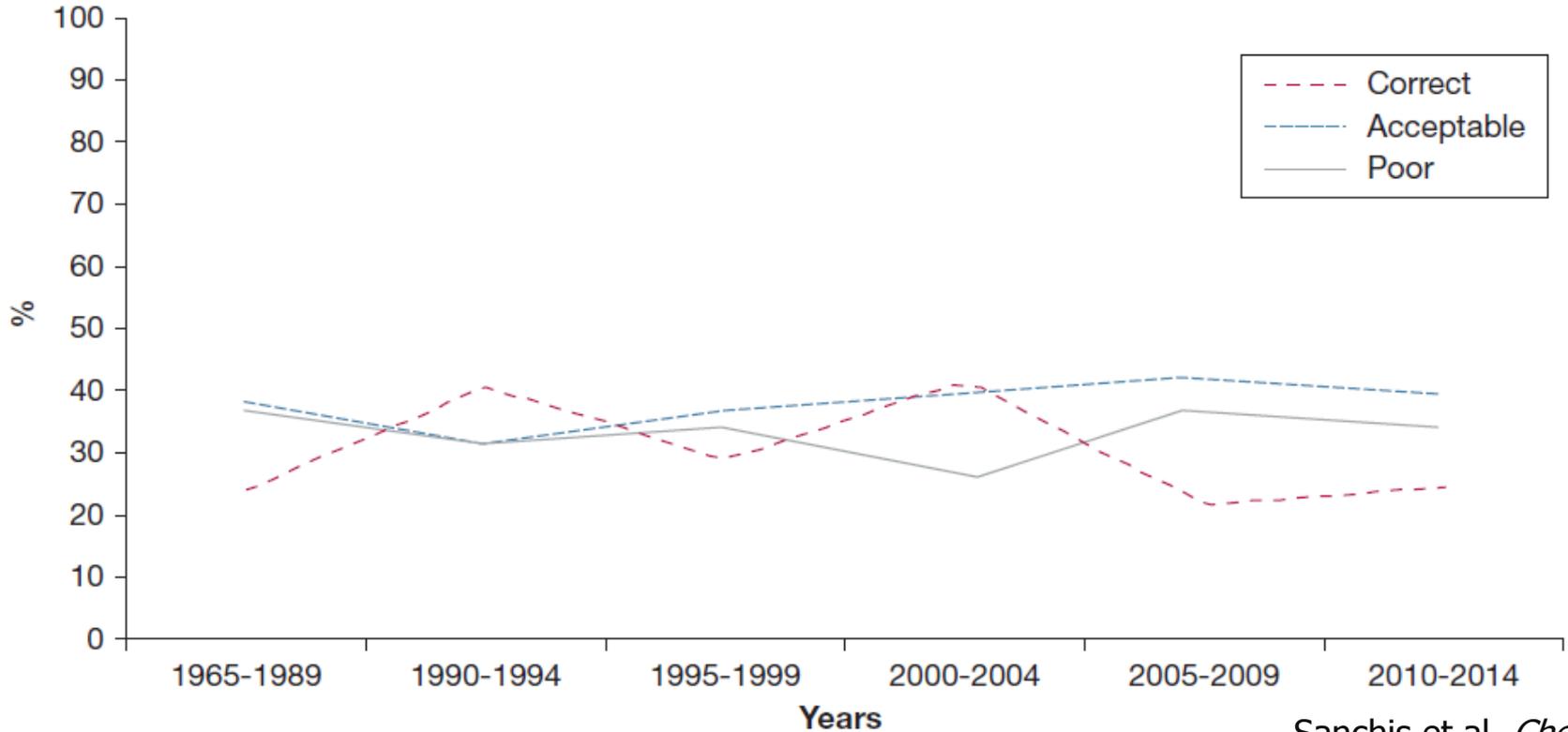
Notably, the last type is of utmost importance  
in respiratory medicine!

# Multiple Causes of Non-Adherence: our targets



Adapted from Bourbeau. Thorax 2008

## Patients' inhaler technique has not improved over the past 40 years



Sanchis et al. *Chest* 2016

We urgently need new approaches to education and drug delivery

- Matching patient and device
- Identifying “serious” errors in inhaler usage
- Better disease outcomes by easier to use devices
- Safety and effectiveness of switching inhalers
- Effectiveness of technical or m- and e-health tools in monitoring and educating patients
- Better real life adherence results, better clinical decision making and outcomes
- Taking into account patient preferences and satisfaction

- ✓ Choose the most appropriate device for each patient
- ✓ Simplify the regimen and do not mix inhaler device types
- ✓ Do not switch a patient who is familiar with one inhaler to another device without education
- ✓ Invest the time to train each patient in proper inhaler technique
  - ✓ Observe technique & let patient observe self (using video demonstrations)
  - ✓ Devices to check technique and maintain trained technique (e. g. 2Tone Trainer; In-Check Dial)
- ✓ Recheck inhaler technique on each revisit

## General proposals

- Country system should be ready: well trained professionals, sufficient time and reimbursement are needed
- Multidisciplinary approach is needed: doctors, pharmacists & nurses with good inter-communication and task assignment
- Prerequisites for doctors: re-assure diagnosis, treat comorbidities, avoid triggers
- Implementation of innovative inhaler technologies
- International promotion of uniform inhaler instructions based on validated checklists

***“Improving adherence seems to be fairly low on the policy agenda, but better use of existing technologies (eg, drug therapy) is likely to be more cost-effective than many new technologies.”***

*(Elliott et al. Ann Pharmacother 2005)*

## A NETWORK TO ASSIST AGED PEOPLE AND CAREGIVERS IN SOLVING PROBLEMS: (Senior Italia includes > 3 mio members)

- Bureaucracy (fiscal and general assistance)
- General requests in everyday life
- Social (loneliness, abuses, need for assistance)
- Medical (information and advice about:
  - Osteoporosis
  - Atrial fibrillation
  - **COPD**
  - Diabetes
  - Cancers
  - RA
  - Psoriasis
  - Hearing loss)

A telephone-administered interview led by a standardised questionnaire

# “m-Health”



**Monitoring patients**



**Tracking disease evolution**



**Promoting “Contactless”  
Doctor-Patient relationship**



**Planning further controls between patients and  
health staff; even out of scheduled, if  
necessary**

