Global Initiative for Asthma (GINA)

What's new in GINA 2017?

GINA Global Strategy for Asthma Management and Prevention

‘Asthma-COPD overlap’

- The word ‘syndrome’ has been removed from the previous term ‘asthma-COPD overlap syndrome (ACOS)’ because:
  - This term was being commonly used in the respiratory community as if it was a single disease (‘the asthma-COPD overlap syndrome’)
  - There are two medically-accepted definitions of ‘syndrome’
  - This distracted from the key messages for clinicians and regulators
- The aim is to focus attention back on the original issues
  - These patients are commonly seen in clinical practice
  - They are almost always excluded from the RCTs that provide the evidence base for treatment recommendations, and from studies of underlying mechanisms
  - Current guidelines have opposite safety-based recommendations
    - Asthma: never use LABA without ICS
    - COPD: start treatment with LABA and/or LAMA, without ICS

Asthma-COPD overlap – new 'Key Points'

- Distinguishing asthma from COPD can be problematic, particularly in smokers and older adults. Some patients may have clinical features of both asthma and COPD
- The descriptive term asthma-COPD overlap (ACO) is useful to maintain awareness by clinicians, researchers and regulators of the needs of these patients, since most guidelines and clinical trials are about asthma alone or COPD alone.
- However, the term asthma-COPD overlap does not describe a single disease entity. Instead, as for asthma and COPD, it likely includes patients with several different forms of airways disease (phenotypes) caused by a range of different underlying mechanisms.

Asthma-COPD overlap – new ‘Key Points’

- Thus, in order to avoid the impression that this is a single disease, the term Asthma COPD Overlap Syndrome (ACOS), used in previous versions of this document, is no longer advised.

- This consensus-based description of asthma-COPD overlap is intended to provide interim advice to clinicians, while stimulating further study of the characteristics, underlying mechanisms and treatments for this common clinical problem

Measurement of lung function - changes

- Frequency of measurement of lung function
  - "Lung function should be assessed at diagnosis or start of treatment; after 3–6 months of controller treatment to assess the patient's personal best FEV_1; and periodically thereafter"
- 'Periodically' has been clarified
  - Most adults: lung function should be recorded at least every 1-2 yrs
  - More frequently in higher risk patients
  - More frequently in children based on severity and clinical course
- Lung function trajectories
  - Children with persistent asthma may have reduced growth in lung function, and some are at risk of accelerated decline in lung function in early adult life *[McGeachie, NEJMed 2016]*
- Low resource areas
  - Poverty is commonly associated with spirometric restriction, so where possible, both FEV_1 and FVC should be recorded

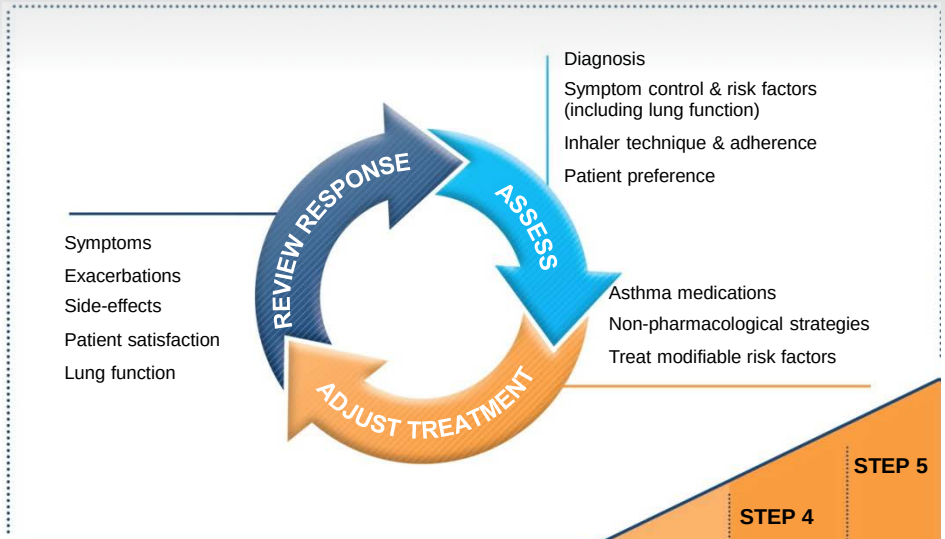
Fraction of exhaled nitric oxide (FENO) - changes

- Diagnosis of asthma
  - Additional factors that increase or decrease FENO are listed
  - FENO is not helpful in ruling in or ruling out asthma as defined by GINA
- Assessment of future risk
  - Elevated FENO in allergic patients has been added to the list of independent predictors of exacerbations *[Zeiger JACI 2011]*
- Single measurements
  - Results of FENO measurement at a single point in time should be interpreted with caution
- Controller treatment
  - Given the lack of long-term safety studies, FENO cannot be recommended at present for deciding against treatment with ICS in patients with a diagnosis or suspected diagnosis of asthma.
  - Based on current evidence, GINA recommends treatment with low-dose ICS for most patients with asthma, even those with infrequent symptoms, to reduce the risk of serious exacerbations.

Treatment – other changes in 2017

- Step 5 treatment for severe asthma
  - Anti-IL5: reslizumab (IV) added to mepolizumab (SC) for ≥18 years
- Step-down from low-dose ICS (Box 3-7)
  - Add-on LTRA may help
  - Insufficient evidence for step-down to as-needed ICS with SABA
- Side-effects of oral corticosteroids
  - When prescribing short-term OCS, remember to advise patients about common side-effects (sleep disturbance, increased appetite, reflux, mood changes); references added
- Vitamin D
  - To date, no good quality evidence that Vitamin D supplementation leads to improved asthma control or fewer exacerbations
- Chronic sinonasal disease
  - Treatment with nasal corticosteroids improves sinonasal symptoms but not asthma outcomes

Stepwise approach to control asthma symptoms and reduce risk



	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
PREFERRED CONTROLLER CHOICE		Low dose ICS	Low dose ICS/LABA**	Med/high ICS/LABA	Refer for add-on treatment e.g. tiotropium,*† anti-IgE, anti-IL5*
Other controller options	*Consider low dose ICS*	*Leukotriene receptor antagonists (LTRA) Low dose theophylline**	*Med/high dose ICS Low dose ICS+LTRA (or + theoph*)*	*Add tiotropium*† High dose ICS + LTRA (or + theoph*)*	*Add low dose OCS*
RELIEVER	As-needed short-acting beta$_2$-agonist (SABA)		As-needed SABA or low dose ICS/formoterol#		

REMEMBER TO...

- Provide guided self-management education (self-monitoring + written action plan + regular review)
- Treat modifiable risk factors and comorbidities, e.g. smoking, obesity, anxiety
- Advise about non-pharmacological therapies and strategies, e.g. physical activity, weight loss, avoidance of sensitizers where appropriate
- Consider stepping up if … uncontrolled symptoms, exacerbations or risks, but check diagnosis, inhaler technique and adherence first
- Consider adding SLIT in adult HDM-sensitive patients with allergic rhinitis who have exacerbations despite ICS treatment, provided FEV1 is >70% predicted
- Consider stepping down if … symptoms controlled for 3 months + low risk for exacerbations. Ceasing ICS is not advised.

SLIT added as an option

Stepwise management, SLIT as an add-on option for some patients

REMEMBER TO...

- Provide guided self-management education
- Treat modifiable risk factors and comorbidities
- Advise about non-pharmacological therapies and strategies
- Consider stepping up if … uncontrolled symptoms, exacerbations or risks, but check diagnosis, inhaler technique and adherence first
- Consider adding SLIT in adult HDM-sensitive patients with allergic rhinitis who have exacerbations despite ICS treatment, provided FEV_1 is 70% predicted
- Consider stepping down if … symptoms controlled for 3 months + low risk for exacerbations. Ceasing ICS is not advised.

SLIT: sublingual immunotherapy

ICS and growth in children

- This topic previously covered in detail in the online Appendix
  - Information now also added to main report for accessibility
- Ch 2, assessment of future risk in children 6-11 yrs
  - Recommended to check height at least yearly
  - The reason has been added: "…as poorly-controlled asthma can affect growth *[Pedersen 2001]*, and growth velocity may be lower in the first 1-2 years of ICS treatment *[Loke, 2015]."*
- Ch 6, assessment of future risk in children ≤5 yrs
  - Extra text as above
  - Advice also added about factors that should be considered if decreased growth velocity is seen (e.g. poorly-controlled asthma, frequent use of OCS, and poor nutrition). Consider referral

ICS and growth in children

- Ch 6, choice of controller treatment, children ≤5 yrs
  - Discuss decisions about controller treatment with parents or carers
    - Relative benefits and risks of treatments
    - Importance of maintaining normal activity levels for normal physical and social development
  - Although effects of ICS on growth velocity are seen in pre-pubertal children in the first 1-2 years of treatment, this is not progressive or cumulative *[Kelly 2012, Loke 2015].*
  - The one study that examined long-term outcomes showed a difference of only 0.7% in adult height *[Kelly 2012, Loke 2015]*
  - Poorly-controlled asthma itself adversely affects adult height *[Pedersen 2001]*
  - For more detail see Appendix Chapter 5B.

Other changes

- Cough in infancy
  - Prolonged cough in infancy, and cough without cold symptoms, are associated with later parent-reported physician-diagnosed asthma, independent of infant wheeze *[Oren 2015]*
- Primary prevention of asthma
  - No consistent effects of maternal dietary intake of fish or long-chain polyunsaturated fatty acids during pregnancy on the risk of wheeze, asthma or atopy in the child (based on RCTs and epidemiological studies) *[Best, 2016]*
- Effective implementation studies
  - Update of adherence strategies effective in real-life settings
  - Examples of high impact interventions (from appendix)