



Asthma guidelines - How family docs can do better!

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My potential conflicts:

- I sit on Advisory Boards for GSK, AZ, BI and Sanofi.
- I have given CME's for GSK and AZ in the past.
- Despite my COI my presentation will be strictly scientific and will not be influenced by any commercial interests.



Theme of the Talk Today:

- Diagnosis and Treatment of Asthma.
- I'll present guideline recommendations for how to properly diagnose asthma and I'll provide updates on new guidelines for how to manage asthma.

GINA Asthma Guidelines:



Global Strategy for Asthma Management and Prevention (2021 update)

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Definition of Asthma:

- GINA Guidelines 2021:
- *"Asthma is a heterogeneous disease characterized by chronic airway inflammation. It is defined by a history of respiratory symptoms such as wheeze, SOB, chest tightness and cough that vary over time and in intensity, together with variable expiratory airflow limitation."*

The First Principle of Treating a Disease is to Make Sure You've Made the Correct Diagnosis!

- Things that make it more likely to be asthma:
- Wheeze, SOB, cough, chest tightness that gets worse at night or in early morning.
- Symptoms vary over time and in intensity.
- Symptoms are aggravated by exercise, viral URTI's, cold air, allergen exposure (ex. cats, molds, etc), or irritants (ex. car exhaust, smoke, etc).

The First Principle of Treating a Disease is to Make Sure You've Made the Correct Diagnosis!

- Things that are unlikely to be asthma:
- Isolated cough with no other symptoms.
- SOB accompanied by dizziness, lightheadedness, or finger and foot paresthesias.
- Chest pain (pain, not tightness).
- Feeling “like I can’t get a good breath all the way in”.

The First Principle of Treating a Disease is to Make Sure You've Made the Correct Diagnosis!

- Asthma cannot be diagnosed on symptoms alone.
- There are a lot of other conditions that present with chest tightness, dyspnea and cough that are not asthma.



Proving Asthma:

To confirm a diagnosis of asthma patients must have evidence of **variable airflow obstruction or bronchial hyper-reactivity**.

Diagnosing asthma without testing for airflow obstruction is like diagnosing diabetes without testing the patient's blood sugar.

Objective Tests That Can Confirm a Diagnosis of Asthma:

- 1) Positive bronchodilator reversibility test (12% improvement after Ventolin). Or
- 2) Positive exercise challenge test. Or
- 3) Positive bronchial challenge test (*aka* methacholine challenge test).

What do all of these tests have in common?

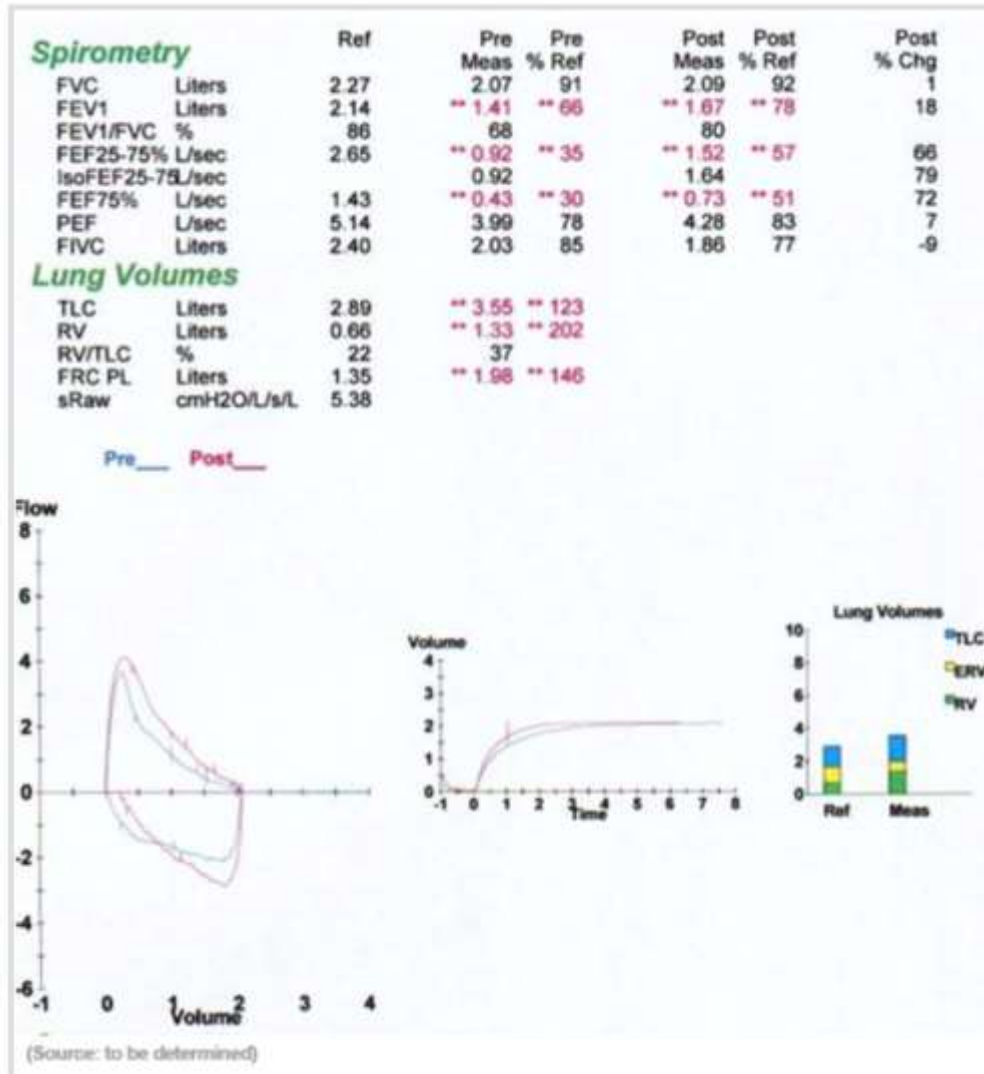
- They all involve spirometry!
- The Guidelines say all patients suspected of having asthma should have pre and post bronchodilator spirometry done, prior to starting on treatment.

Pulmonary function tests needed to diagnose asthma:

1. **Spirometry**
2. Bronchial challenge test



Spirometry- airflow obstruction which reverses with salbutamol.



JAMA | Original Investigation

Reevaluation of Diagnosis in Adults With Physician-Diagnosed Asthma

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IMPORTANCE Although asthma is a chronic disease, the expected rate of spontaneous remissions of adult asthma and the stability of diagnosis are unknown.

OBJECTIVE To determine whether a diagnosis of current asthma could be ruled out and asthma medications safely stopped in randomly selected adults with physician-diagnosed asthma.

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+ CME Quiz at
jamanetworkcme.com and
CME Questions page 314

30% of Canadians diagnosed with asthma in the previous five years did not have asthma, and their asthma meds were safely stopped.



Before Starting Drugs for Asthma:

- 1) Confirm the Diagnosis.
- 2) Assess and Modify Risk Factors (ex. smoking, vaping, cats, horses, hobbies, mold in the house, work exposures).
- 3) Find out patient's preferences- would they rather take inhalers every day or only when needed?



New Guideline Recommendations for Mild Asthma:

- The new GINA guidelines recommend first line treatment with **ICS/LABA combination therapy as needed** (ex. Symbicort or Zenhale).
- Rationale: using ICS/formoterol as a reliever reduces the risk of exacerbations compared to using Ventolin as a reliever.

Only ICS/Formoterol combinations can be used PRN!

- Be careful what you prescribe, the long-acting beta-agonist component in the combination ICS/LABA medication needs to be able to work quickly.

Do use:

Symbicort or **Zenhale** (these take 5 mins)

○ **Do not use:**

Advair, Breo, or Generic Wixela (these take 60 mins to achieve bronchodilation)

If you use ICS/LABA combinations PRN:

- Be careful what you prescribe, only ICS/Formoterol combos can be used PRN.
- You can prescribe these PRN:
Zenhale or **Symbicort** (these take 5 mins to work).



CANADIAN
PHARMACY
KING

These combinations cannot be used PRN!

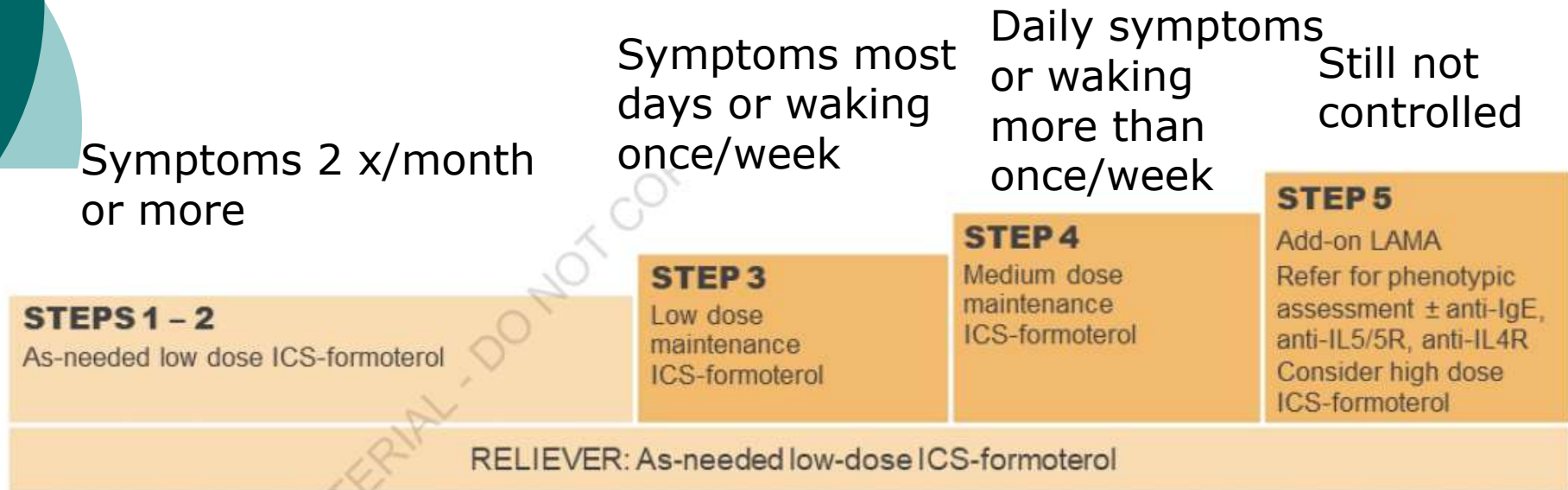
Advair, Breo, or Generic Wixela take 60 mins to achieve bronchodilation.

They are fixed-dose inhalers, meant to be used daily. They cannot be used PRN.



*Product image for reference use only

Starting treatment in adolescents (12+) and adults with asthma:



Symbicort 100
or Zenhale 100
-Use Q4H PRN

Symbicort 100
or Zenhale 100
2 puffs BID,
plus Q 4H PRN
(max 8 puffs/d)

Symbicort 200
or Zenhale 200
2 puffs BID,
plus Q 4H PRN
(max 8 puffs/d)

Refer to
Respirology!



Before Intensifying Asthma Drug Treatment:

- 1) Assess and modify environmental risk factors.
- 2) Assess adherence to current asthma therapy.
- 3) Assess inhaler technique- ask the patient to bring in their maintenance inhaler and watch them use it in the office.

Using LABA/ICS Combination Products:



If you are not able to do this, keep your lips tight on the mouthpiece



Whatever you prescribe- you have to teach the patient how to use it!

- I keep samples of metered dose inhalers (with aerochambers), turbohalers, and diskus/ellipta inhalers in my office.
- I give the patient a sample and I show them how to use it.
- I watch them use it and I watch them take at least one puff before they leave the office.



Conclusion

- 1) Confirm asthma- order spirometry before starting treatment.
- 2) Assess frequency and severity of symptoms.
- 3) Treat initially with one inhaler (ICS/Formoterol) PRN.
- 4) Step up treatment to BID ICS/Formoterol if not controlled.
- 5) Make sure you assess inhaler adherence and inhaler technique.