COPD: WHO DOES, AND DOES NOT, BENEFIT FROM TRIPLE THERAPY

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Disclosures

- I receive research funds from CIHR.
- I have not received any financial or in kind contributions from PHARMA in the last 10 years.
- Therefore, the opinions I express are my own.

Learning Objectives

As a result of attending this session, participants will be able to:

- Adopt current COPD treatment guidelines.
- Recognize specific phenotypes of COPD in order to choose the preferred treatment options in different patients.
- Recognise the potential benefit and adverse outcomes associated with the ICS component of Triple Therapy in COPD.
- Become comfortable with the new triple combination inhalers being promoted for the treatment of COPD.

What is COPD?

- Airflow obstruction on spirometry which is at least partially fixed (FEV1/FVC < .70)
- Persistent progressive respiratory symptoms especially dyspnea on exertion.
- Significant smoking history (> 20 pack-years) or concomitant biomass or industrial exposure.
- Neutrophilic airways obstruction resistant to corticosteroids.

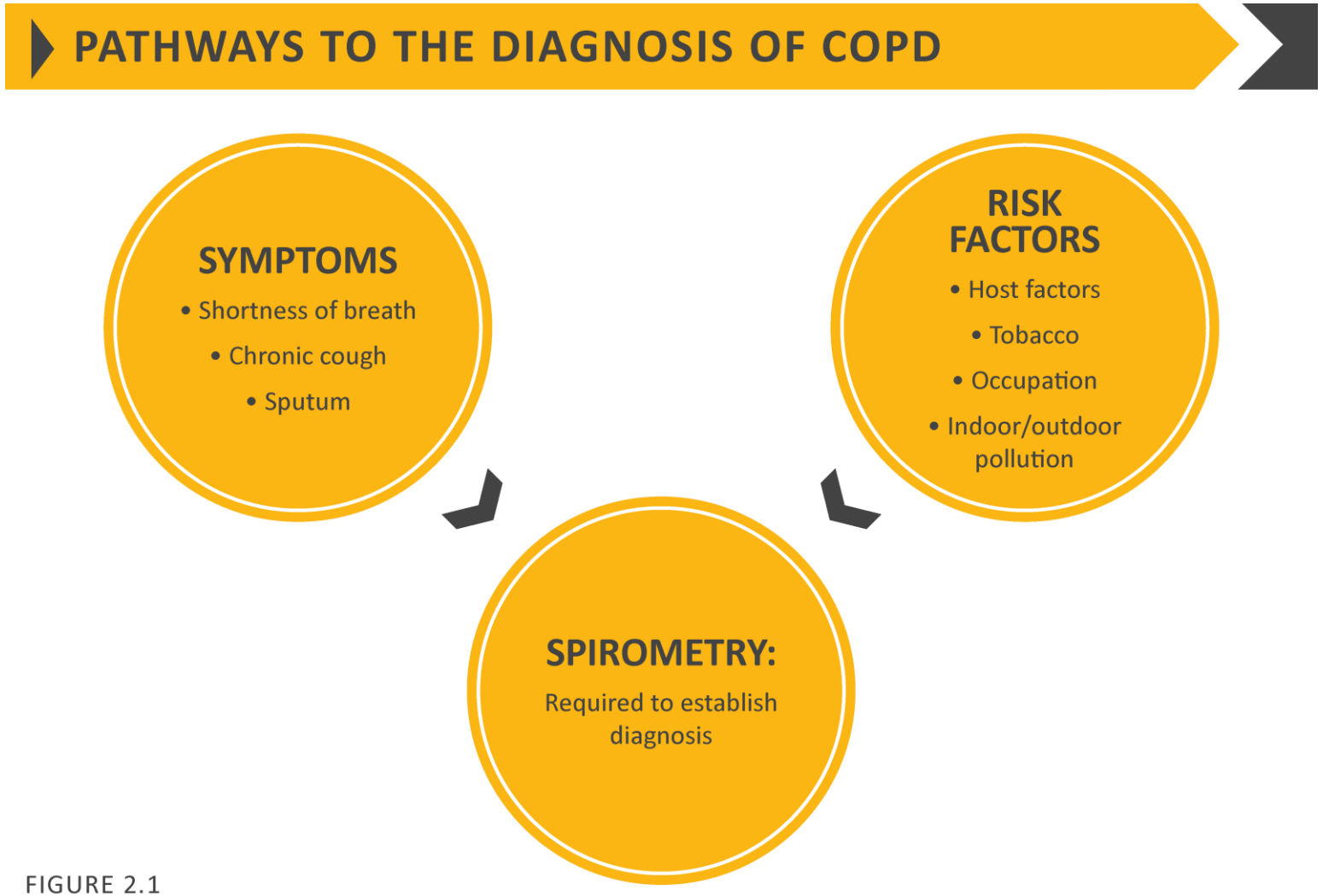


FIGURE 2.1

GOALS FOR TREATMENT OF STABLE COPD

- **Relieve Symptoms**
- **Improve Exercise Tolerance**
- **Improve Health Status**

REDUCE SYMPTOMS

and

- **Prevent Disease Progression**
- **Prevent and Treat Exacerbations**
- **Reduce Mortality**

REDUCE RISK

TABLE 4.1

Choice of Inhaler Device

- Consider lower carbon footprint (1/20th) of dry powder inhalers (DPI) vs MDIs
- DPIs require a breath hold of at least 5 seconds, preferably 10 secs
- MDIs should be used with an aerochamber!
- INHALER TECHNIQUE NEEDS TO BE CHECKED AGAIN and AGAIN and AGAIN……..

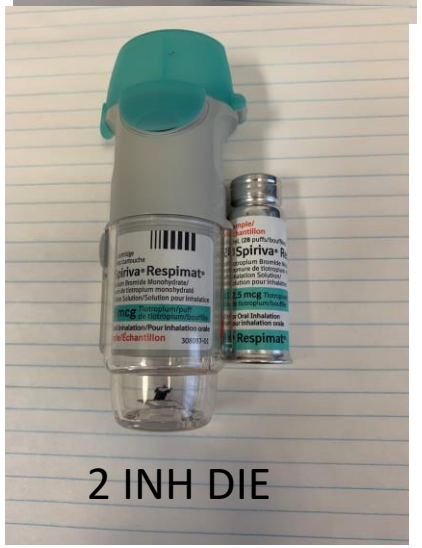
Long-Acting Muscarinic Antagonist LAMAs

- First line in COPD as addition to short-acting beta-agonist: salbutamol MDI or Ventolin Diskus (code RE113) or Bricanyl turbuhaler for powder device
- Spiriva Handihaler, Spiriva Respimat, Tudorza (bid), Incruse, Seebri.

- No code required.

LAMAs

SPIRIVA

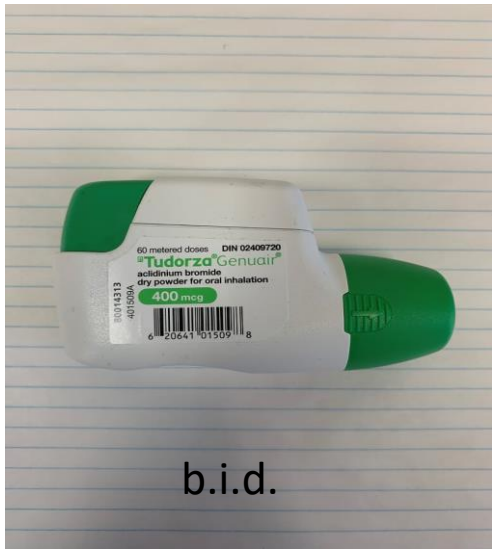


2 INH DIE

INCRUSE

SEEBRI

TUDORZA



b.i.d.

1st line maintenance tx in COPD

LAMA/LABA Combinations

- RE 176 to START
- RE 177 to RENEW
- For patients with continuing symptoms and/or exacerbations on single long-acting bronchodilator therapy BUT without characteristics suggestive of concurrent asthma.
- My order of preference: type of inhaler most important
  - Anoro=Ultibro=Inspiolto. Once a day

LABA/LAMA

INSPIOLOTO

2 inh die

ULTIBRO

ANORO

RE176 NEW; RE177 RENEW. COPD ONLY

FACTORS TO CONSIDER WHEN INITIATING ICS TREATMENT

Factors to consider when initiating ICS treatment in combination with one or two long-acting bronchodilators (note the scenario is different when considering ICS withdrawal):

· STRONG SUPPORT ·	· CONSIDER USE ·	· AGAINST USE ·
• History of hospitalization(s) for exacerbations of COPD#	• 1 moderate exacerbation of COPD per year#	• Repeated pneumonia events
• ≥ 2 moderate exacerbations of COPD per year#	• Blood eosinophils 100-300 cells/µL	• Blood eosinophils <100 cells/µL
• Blood eosinophils >300 cells/µL		• History of mycobacterial infection
• History of, or concomitant, asthma		

#despite appropriate long-acting bronchodilator maintenance therapy (see Table 3.4 and Figure 4.3 for recommendations);

*note that blood eosinophils should be seen as a continuum; quoted values represent approximate cut-points; eosinophil counts are likely to fluctuate.

FIGURE 3.1

LABA/ICS Combinations in COPD

- RE 172 to START
- RE 173 to RENEW
- For patients with features suggestive of asthma (blood eosinophils > 300) OR with continuing symptoms and exacerbations on LAMA/LABA therapy.
- My order of preference: (compatibility of inhaler techniques a strong consideration).
  - Breo**100** qd, Symbicort200 2bid, Zenhale**100** 2 bid

ICS/LABA

SYMBICORT 200 2x2

BREO 100 qd

ONCE A DAY

ZENHALE 100 2x2

EQIVALENT TO ADVAIR 125 X2, ADVAIR DISKUS 250 x2

BREO 200 CONTRA-INDICATED IN COPD

FOR COPD RE172 NEW, RE173 RENEW

Triple Therapy in COPD

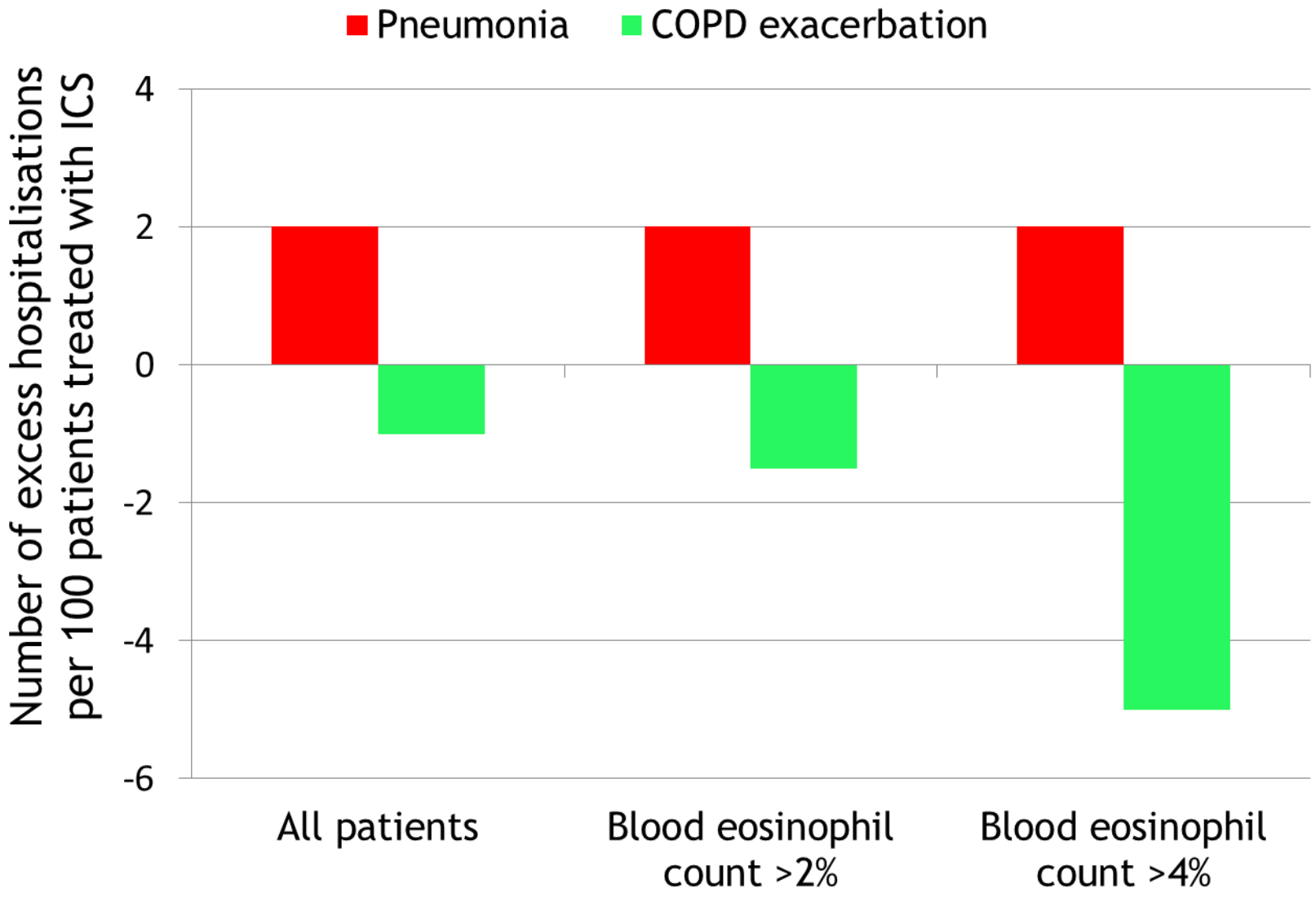
- **Long-acting muscarinic agonist** (also called anti-cholinergic)
- Plus
- **Long-acting beta-agonist**
- Plus
- **Inhaled corticosteroid**

- LAMA + LABA + ICS
- Now available in a single inhaler
- RE 384 to start (6 months); RE 385 to renew

Why not prescribe LABA/ICS or LAMA/LABA/ICS in COPD?

Side effects are significant:

- Severe pneumonia
- Mycobacterial infections
- Diabetes onset and progression
- Osteoporosis
- Adrenal insufficiency
- Cataracts



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LAMA-LABA-ICS triple inhaler

Once a day

TRELEGY 100
Umeclinidium/vilanterol/ fluticasone
DPI requires breath-hold
Advantage: ease of use of device
Trelegy 200 contra-indicated in COPD due to high risk of severe pneumonia.

LAMA-LABA-ICS
triple inhaler

Breztri

Glycopyrronium/formoterol/budesonide

MDI device improved to use with aerochamber

Low potency ICS (less pneumonia risk probable)

LAMA-LABA-ICS
triple inhaler

Enerzair
Indication is asthma, not COPD!
Glycopyrronium/indacaterol/mometasone
DPI requires breath-hold
Requires insertion of capsule in device
Best LABA

Vidéos sur techniques d'inhalations

- **Association pulmonaire de l'Ontario:**
  www.on.lung.ca/inhalationdevicevideos

- Association pulmonaire canadienne:
  www.poumon.ca/santé-pulmonaire/demandez-de-laide/comment-utiliser-votre-inhalateur

- National Asthma Council Australia:
  www.nationalasthma.org.au/living-with-asthma/how-to-videos

Case # 1

- 68 M smoker PPD
- AM cough and sputum
- Walks slower than peers and stops on slight hills (mMRC 1)
- FEV1/FVC 0.62; FEV1 68 % predicted (moderate airflow limitation)
- Required prednisone and antibiotics once in the last year following URTI.
- Takes salbutamol prn with some improvement in exercise tolerance.

Case # 1: Which intervention is most appropriate?

- LABA
- LAMA
- LAMA/LABA
- LABA/ICS
- Smoking cessation

Case # 2

- 68 M **ex-smoker** PPD
- AM cough and sputum
- Walks slower than peers and stops on slight hills (mMRC 1)
- FEV1/FVC 0.62; FEV1 68 % predicted (moderate airflow limitation)
- Required prednisone and antibiotics once in the last year following URTI.
- Takes salbutamol prn with some improvement in exercise tolerance.

Case # 2: Which intervention is most appropriate?

- LABA
- LAMA
- LAMA/LABA
- LABA/ICS
- LAMA/LABA/ICS

Case # 3

- 68 F ex-smoker PPD
- AM cough and sputum following URTI
- Walks slower than peers and stops on slight hills (mMRC 1)
- FEV1/FVC 0.62; FEV1 68 % predicted (moderate airflow limitation)
- Required prednisone and antibiotics once in the last year
- **Noted improvement in dyspnea with daily LAMA but still needs to stop when climbing the stairs to her apartment.**

Case # 3: Which intervention is most appropriate?

- LABA
- LAMA
- LAMA/LABA
- LABA/ICS
- LAMA/LABA/ICS

Case # 4

- 68 F ex-smoker **PPD/2**
- AM cough and sputum following URTI
- Walks slower than peers and stops on slight hills (mMRC 1)
- FEV1/FVC 0.62; FEV1 68 % predicted (moderate airflow limitation)
- Required prednisone and antibiotics once in the last year
- Noted improvement in dyspnea with daily LAMA but still needs to stop when climbing the stairs to her apartment.
- **History of asthma and allergies during adolescence**
- **Recent CBC with absolute eosinophil count of 300 (4%)**

Case # 4: Which intervention is most appropriate?

- LABA
- LAMA
- LAMA/LABA
- LABA/ICS
- LAMA/LABA/ICS

Case # 5

- 68 M ex-smoker PPD
- Walks slower than peers and stops on slight hills (mMRC 1)
- FEV1/FVC 0.62; FEV1 68 % predicted (moderate airflow limitation)
- Required prednisone and antibiotics for worsening cough sputum and dyspnea **twice in the last year**
- Noted improvement in dyspnea with daily LAMA/LABA
- Recent CBC with absolute eosinophil count of 300 (4%)

Case # 5: Which intervention is most appropriate?

- LABA
- LAMA
- LAMA/LABA
- LABA/ICS
- LAMA/LABA/ICS

Case # 6

- 68 M ex-smoker PPD
- Walks slower than peers and stops on slight hills (mMRC 1)
- FEV1/FVC 0.62; FEV1 68 % predicted (moderate airflow limitation)
- Overall noted improvement in dyspnea, cough and sputum with daily LAMA/LABA /ICS
- Recent CBC with absolute eosinophil count of **200** (2%)
- **Hospitalised 5 days with pneumonia 3 months ago.**

Case # 6: Which intervention is most appropriate?

- LABA
- LAMA
- LAMA/LABA
- LABA/ICS
- LAMA/LABA/ICS

Updated INESSS documents for COPD

- MPOC: Aide au choix du dispositive d’inhalation
- MPOC: Dispositifs et molécules évaluées
- MPOC: Guide d’usage optimal (GUO)
  - Updated November 2022 on INESSS website