Go for the GOLD:
2021 Chronic Obstructive Pulmonary Disease (COPD) Updates

A presentation for HealthTrust Members
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Objectives

1. Recall guideline updates to recommendations and current trends in COPD treatment
2. Identify recently published outcomes and studies regarding COPD management
3. Recognize appropriate recommendations for pharmacologic therapy in COPD patients based on new clinical evidence

Definitions

Diagnosis, Spirometry, Assessment

COPD: Chronic Obstructive Pulmonary Disease
FVC: forced vital capacity
FEV1: forced expiratory volume in 1 second
mMRC: Modified Medical Research Council
CAT: COPD Assessment Test

Treatment

LABA: long-acting beta agonist
LAMA: long-acting muscarinic antagonist
ICS: inhaled corticosteroid

Other

Eos: eosinophils
cAMP: cyclic adenosine monophosphate
ATP: adenosine triphosphate
RCT: randomized controlled trial

Overview

- Background
- Prevention Updates
- Treatment Updates
- COPD during COVID19

Knowledge Check 1

Which of the following was NOT a finding of a recently published study on COPD treatments?

A. E-cigarettes were found to be a safe and effective method to help patients quit smoking

B. LABA/LAMA improved symptoms compared to long acting bronchodilator monotherapy in patients with low exacerbation risk not on ICS

C. LABA/LAMA/ICS therapy reduced risk of death in symptomatic patients at risk for exacerbation compared to LABA/LAMA or ICS/LABA

D. Lower-dose inhaled glucocorticoid triple-therapy regimen showed greater efficacy than higher dose glucocorticoid-LABA regimen, with greater reductions in symptoms

Knowledge Check 1- Correct Response

Which of the following was NOT a finding of a recently published study on COPD treatments?

A. E-cigarettes were found to be a safe and effective method to help patients quit smoking

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C. LABA/LAMA/ICS therapy reduced risk of death in symptomatic patients at risk for exacerbation compared to LABA/LAMA or ICS/LABA

D. Lower-dose inhaled glucocorticoid triple-therapy regimen showed greater efficacy than higher dose glucocorticoid-LABA regimen, with greater reductions in symptoms

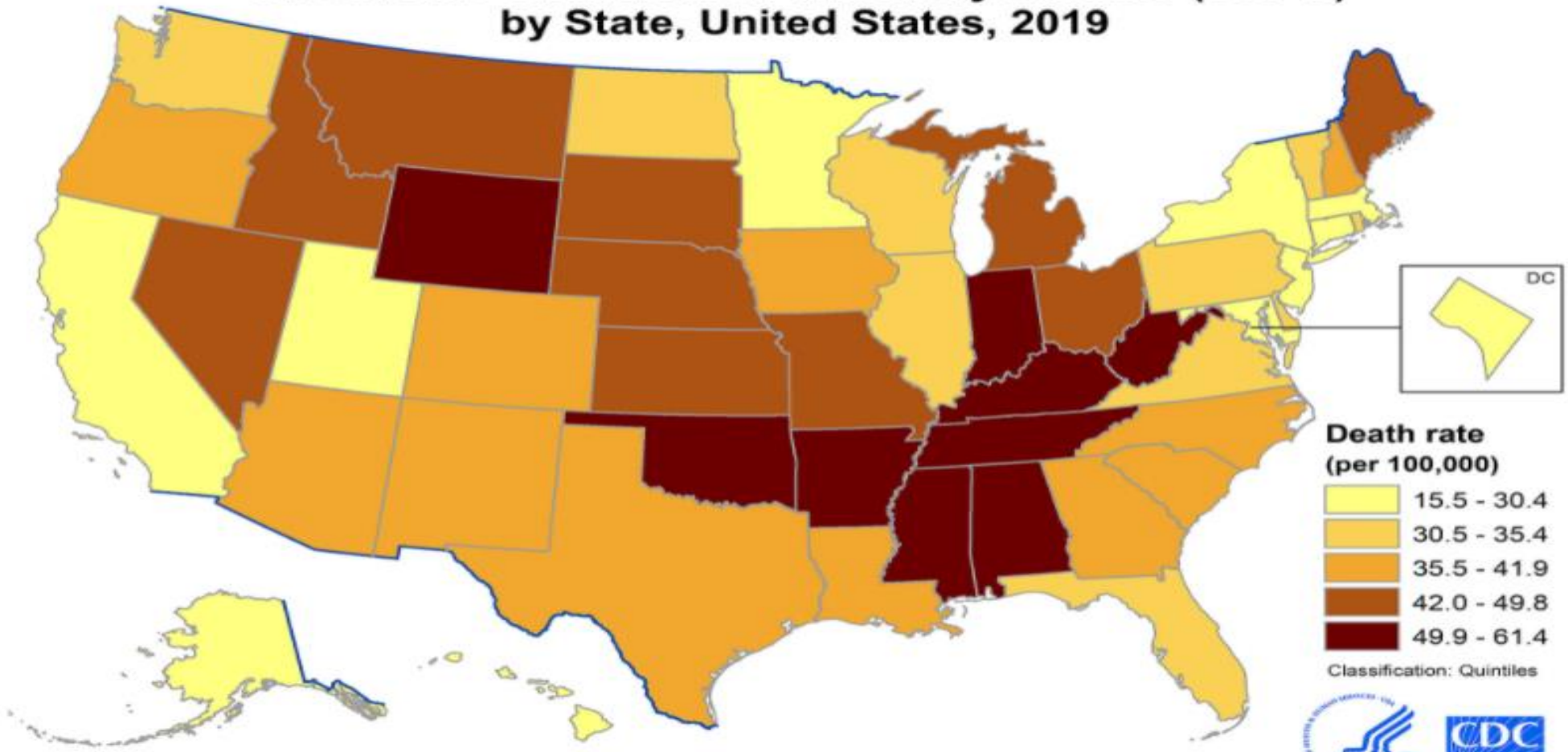
Background

What is COPD?

- COPD is common, preventable and treatable
- COPD is characterized by:
  - Persistent respiratory symptoms
  - Airway and/or alveolar abnormalities

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Age-Standardized Death Rate (Per 100,000 US Population) for Chronic Obstructive Pulmonary Disease (COPD) by State, United States, 2019



Data source: CDC National Vital Statistics System data obtained from http://wonder.cdc.gov.
COPD as underlying cause of death was defined by ICD-10 codes J40-J44.
Death rates (per 100,000 US population) were age-adjusted to the 2000 US standard population.

Date: 3/30/2021

Risk Factors

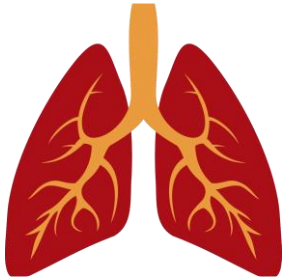
Tobacco smoke

Indoor air pollution

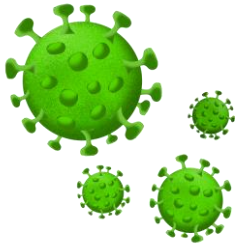
Occupational exposures

Outdoor air pollution

Age and sex



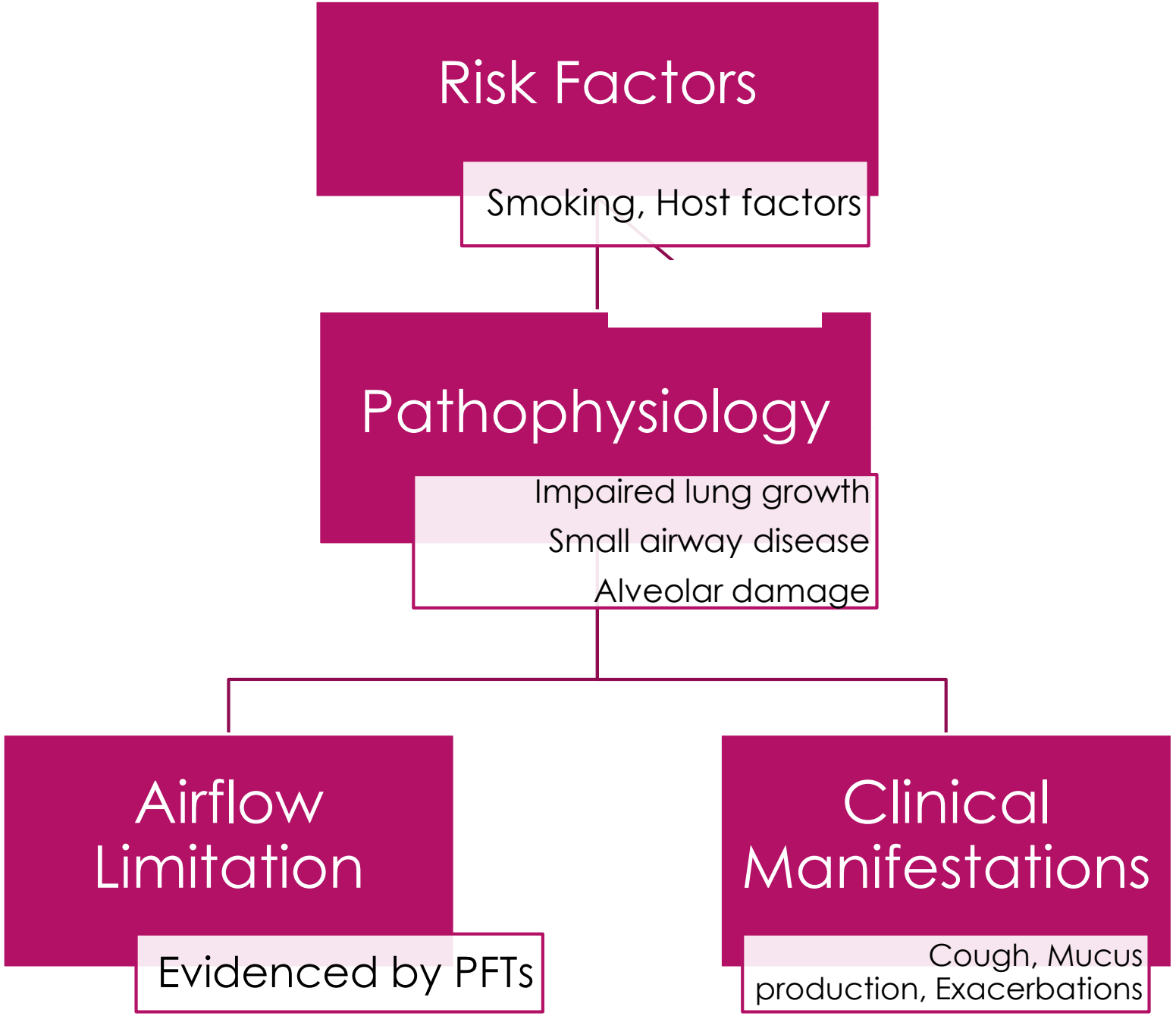
Lung growth and development/asthma



Infections/chronic bronchitis

Genetic factors

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report



Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

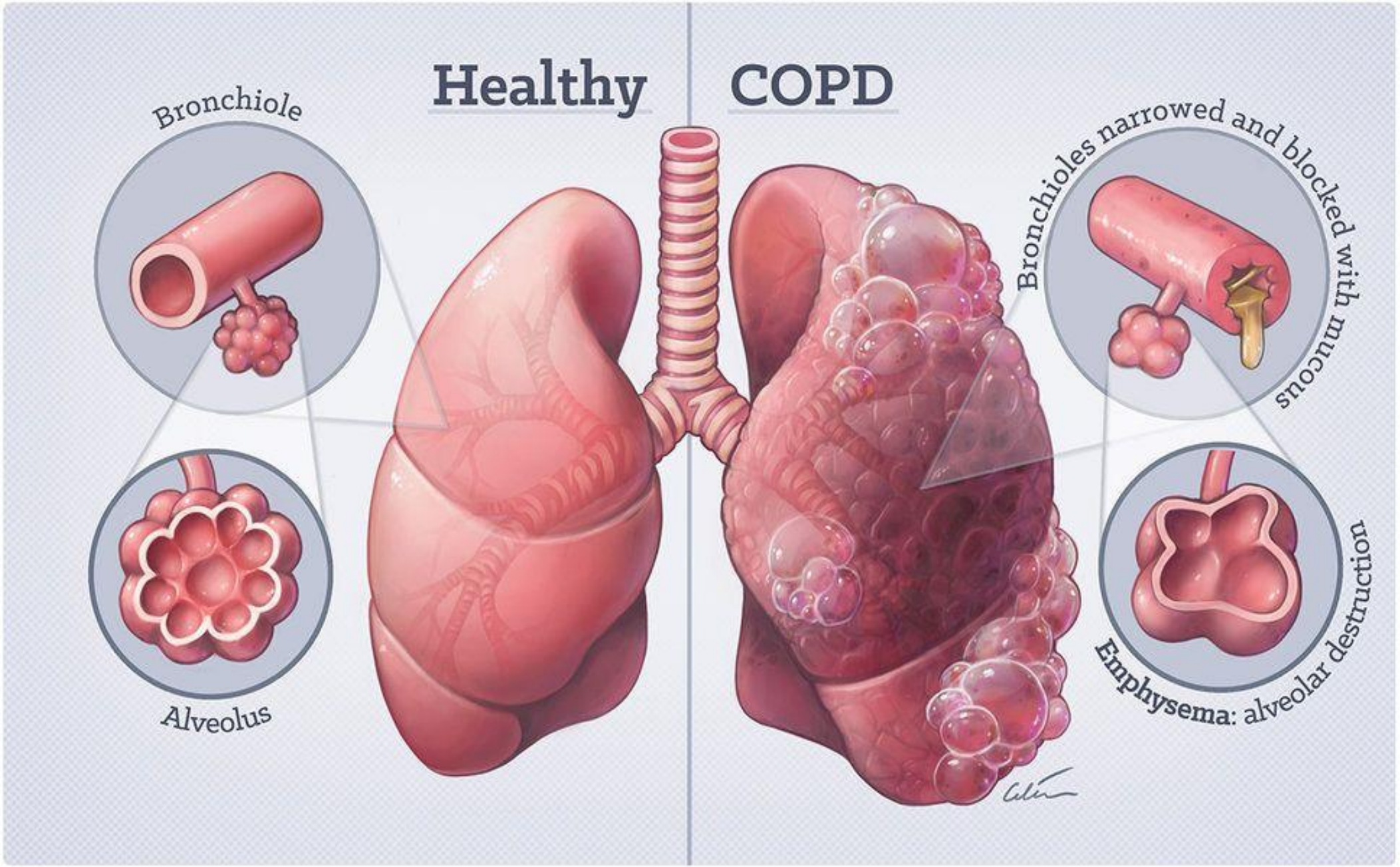


Image available at: https://www.nhlbi.nih.gov/health-topics/copd#Signs,-Symptoms,-and-Complications

Diagnosis

- COPD is NOT a clinical diagnosis
  - Spirometry required to confirm diagnosis

SYMPTOMS

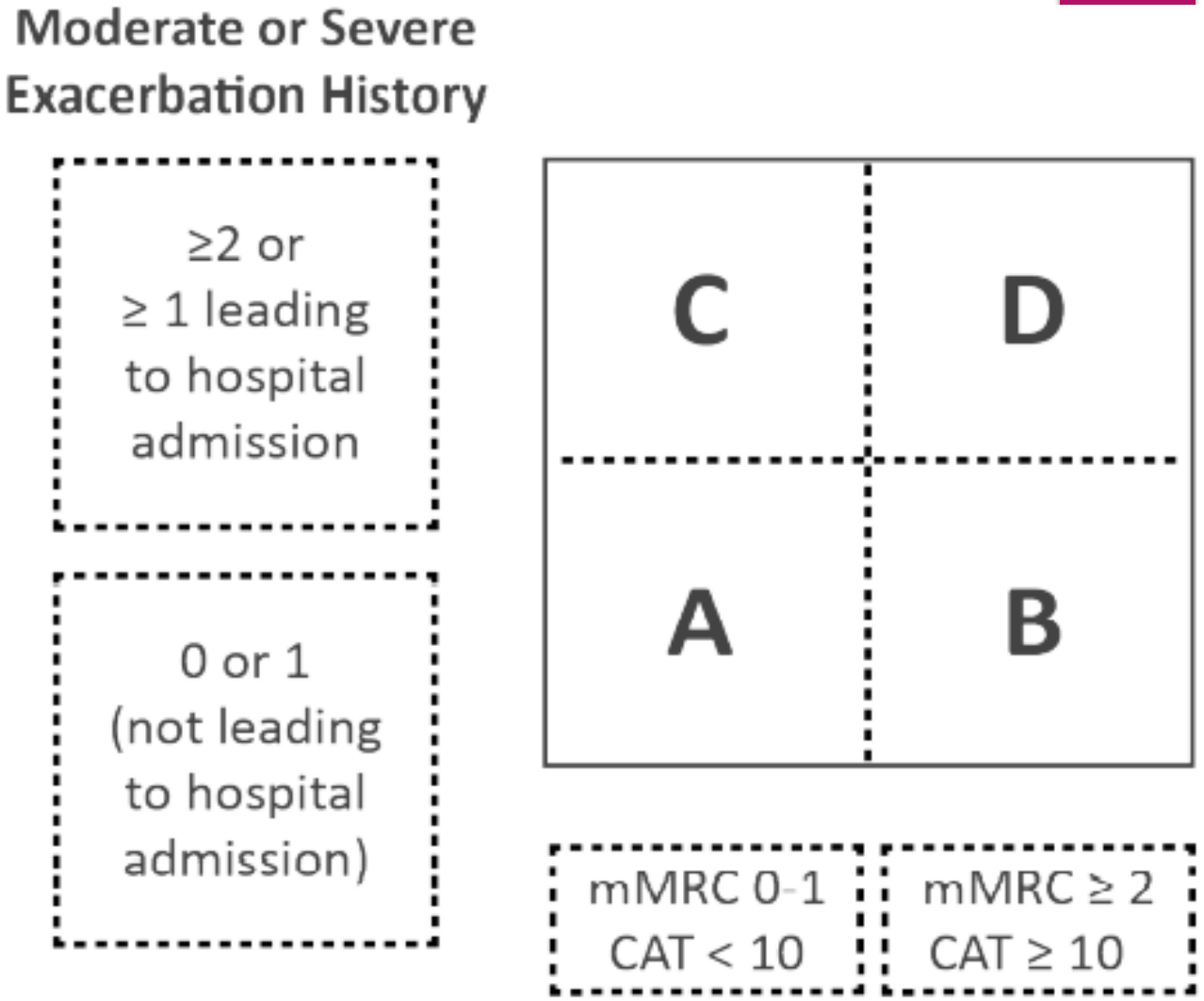
- Shortness of Breath
- Chronic Cough
- Sputum

SPIROMETRY

- FVC
- FEV1
- FEV1/FVC < 70%

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Assessment Scales



Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Assessment Scales

MODIFIED MRC DYSPNEA SCALE[a]

PLEASE TICK IN THE BOX THAT APPLIES TO YOU | ONE BOX ONLY | Grades 0 - 4

mMRC Grade 0.	I only get breathless with strenuous exercise.	☐
mMRC Grade 1.	I get short of breath when hurrying on the level or walking up a slight hill.	☐
mMRC Grade 2.	I walk slower than people of the same age on the level because of breathlessness, or I have to stop for breath when walking on my own pace on the level.	☐
mMRC Grade 3.	I stop for breath after walking about 100 meters or after a few minutes on the level.	☐
mMRC Grade 4.	I am too breathless to leave the house or I am breathless when dressing or undressing.	☐

[a] Fletcher CM. BMJ 1960; 2: 1662.

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Assessment Scales

Cutoff at 10

CAT™ ASSESSMENT

For each item below, place a mark (x) in the box that best describes you currently.
Be sure to only select one response for each question.

EXAMPLE: I am very happy	0 (X) 2 3 4 5	**I am very sad**	SCORE
I never cough	0 1 2 3 4 5	I cough all the time	
I have no phlegm (mucus) in my chest at all	0 1 2 3 4 5	My chest is completely full of phlegm (mucus)	
My chest does not feel tight at all	0 1 2 3 4 5	My chest feels very tight	
When I walk up a hill or one flight of stairs I am not breathless	0 1 2 3 4 5	When I walk up a hill or one flight of stairs I am very breathless	
I am not limited doing any activities at home	0 1 2 3 4 5	I am very limited doing activities at home	
I am confident leaving my home despite my lung condition	0 1 2 3 4 5	I am not at all confident leaving my home because of my lung condition	
I sleep soundly	0 1 2 3 4 5	I don't sleep soundly because of my lung condition	
I have lots of energy	0 1 2 3 4 5	I have no energy at all	

Reference: Jones et al. ERJ 2009; 34 (3); 648-54.

TOTAL SCORE: ( )

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Treatment and Updates

Vaccination for Stable COPD

Influenza

- Reduces serious illness and death in COPD patients

Pneumovax 23® (PPSV23)

- COPD patients < 65 yo with FEV_1 < 40% predicted and those with comorbidities to reduce community acquired pneumonia

Prevnar 13® (PCV13)

- COPD patients greater than or equal to 65 to reduce bacteremia and pneumococcal disease

Tetanus, Diphtheria, Pertussis (Tdap)

- COPD patients who were not vaccinated in adolescence to protect against pertussis (whooping cough)

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Knowledge Check 2

E-cigarettes contain all of the following ingredients EXCEPT:

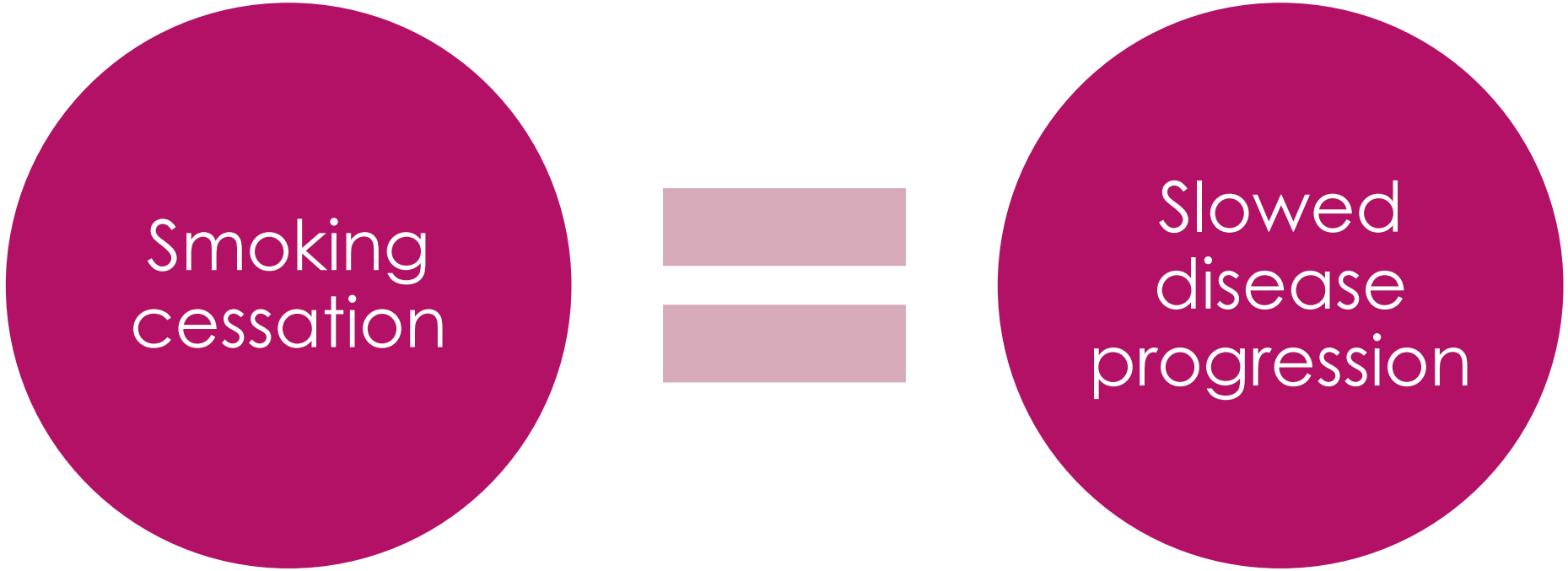
A. Nicotine
B. Reactive oxygen species
C. Volatile carbonyls
D. All of the above can be contained in e-cigarettes
E. Only A and B

Knowledge Check 2 – Correct Response

E-cigarettes contain all of the following ingredients EXCEPT:

A. Nicotine
B. Reactive oxygen species
C. Volatile carbonyls
D. All of the above can be contained in e-cigarettes
E. Only A and B

Smoking Cessation



Smoking Cessation ★

- E-cigarettes and vaping
  - Contain nicotine, propylene glycol, volatile carbonyls, diacetyl, reactive oxygen species, furones, and metals
  - Case reports of severe acute lung injury, eosinophilic pneumonia, alveolar hemorrhage, respiratory bronchitis, and sometimes death

- E-cigarette or vaping associated lung injury (EVALI) outbreak was investigated by FDA and CDC
  - Vitamin E acetate was found to be linked to EVALI and cases have decreased since
  - Airway inflammation and irritability, ciliary paresis, and mucus hypersecretion seen in animal and in vitro human models

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Initial Management

≥ 2 moderate exacerbations or ≥ 1 leading to hospitalization	**Group C** LAMA	**Group D** LAMA or LAMA + LABA* or ICS + LABA** *Consider if highly symptomatic (e.g. CAT > 20) **Consider if eos ≥ 300
0 or 1 moderate exacerbations (not leading to hospital admission)	**Group A** A Bronchodilator	**Group B** A Long Acting Bronchodilator (LABA or LAMA)
	mMRC 0-1, CAT < 10	mMRC ≥ 2, CAT ≥ 10

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Bronchodilator Therapy

- Increase FEV_1 and/or change other spirometric variables
- Most often given on a regular basis to prevent or reduce symptoms

Beta2 agonists

Antimuscarinic drugs

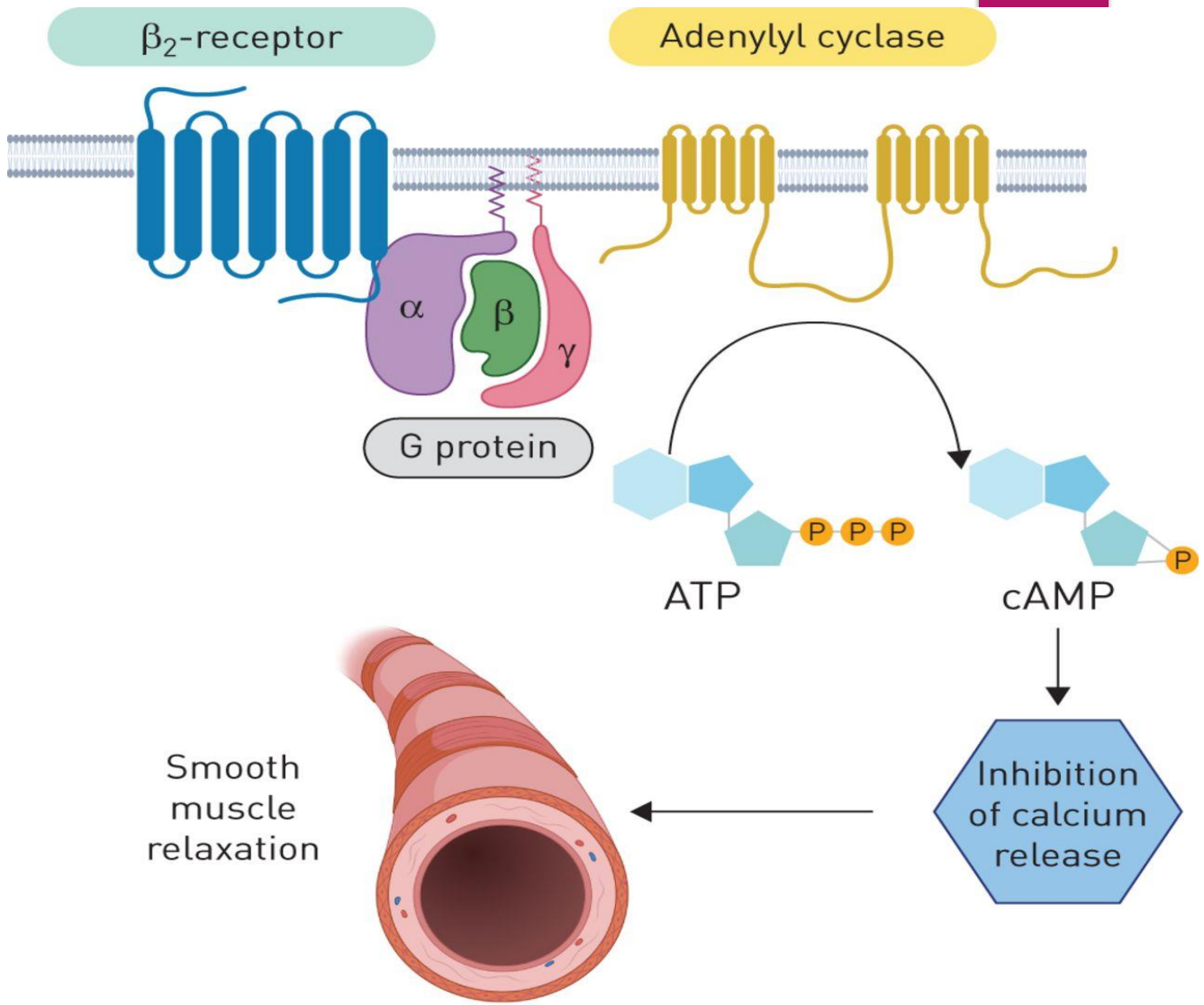
Methylxanthines

Combination therapy

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Beta2 Agonists

- Primary action is to relax airway smooth muscle
- Adverse effects:
  - Nervousness
  - Tachycardia
  - Cough
  - Hyperglycemia
  - Decreased potassium



Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

β2-agonists do not work in children under 2 years of age: myth or maxim? | European Respiratory Society (ersjournals.com)

Short-Acting B_2 Agonists (SABA)			
Medication	**Inhaler Type**	**Nebulizer Solution Available?**	**Duration of Action**
Levalbuterol (Xopenex®)	Metered dose inhaler (MDI)	Yes	6-8 hours
Albuterol (ProAir®, Ventolin®, Proventil®)	Metered dose inhaler (MDI) Dry powder inhaler (DPI)	Yes	4-6 hours

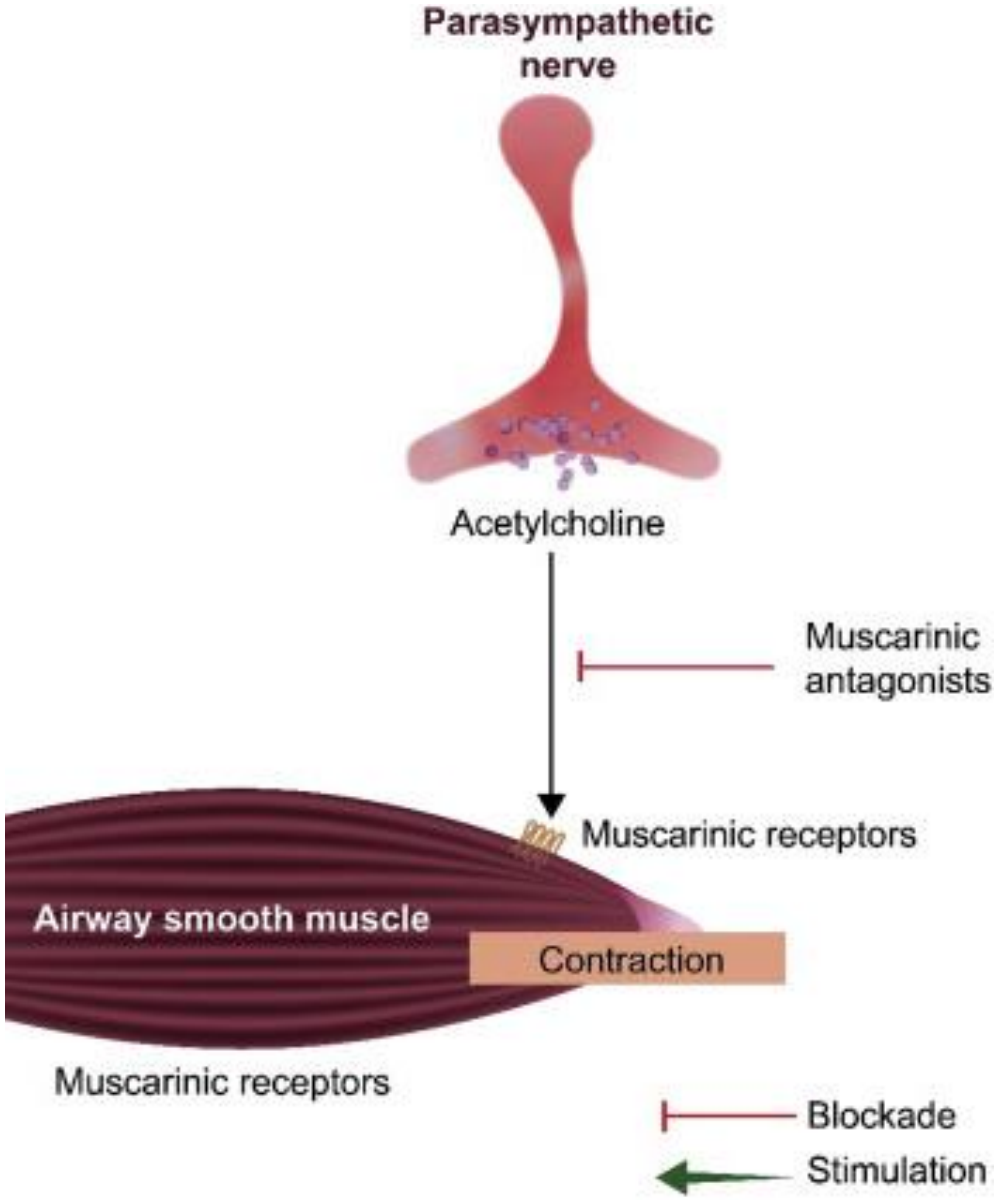
Long-Acting B_2 Agonists (LABA)			
Medication	**Inhaler Type**	**Nebulizer Solution Available?**	**Duration of Action**
Formoterol (Foradil®)	Dry powder inhaler (DPI)	Yes	12 hours
Indacaterol (Arcapta®)	Dry powder inhaler (DPI)	No	12 hours
Olodaterol (Striverdi Respimat®)	Soft mist inhaler (SMI)	No	24 hours
Salmeterol (Serevent®)	Metered dose inhaler (MDI) Dry powder inhaler (DPI)	No	12 hours

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Muscarinic Antagonists

- Block bronchoconstrictor effects of acetylcholine at M3 muscarinic receptors expressed in airway smooth muscle

- Adverse effects:
  - Dry mouth
  - Bitter taste
  - Upper respiratory tract infections



Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Long-acting maintenance pharmacotherapy in chronic obstructive pulmonary disease. | Respiratory Medicine: X. (sciencedirect.com)

Short-Acting Muscarinic Antagonists (SAMA)			
Medication	**Inhaler Type**	**Nebulizer Solution Available?**	**Duration of Action**
Ipratropium bromide (Atrovent®)	Metered dose inhaler (MDI)	Yes	6-8 hours

Long-Acting Muscarinic Antagonists (LAMA)			
Medication	**Inhaler Type**	**Nebulizer Solution Available?**	**Duration of Action**
Aclidinium bromide (Tudorza Pressair®)	Metered dose inhaler (MDI), Dry powder inhaler (DPI)	No	12 hours
Tiotropium (Spiriva Handihaler®, Spiriva Respimat®)	Metered dose inhaler (MDI) Dry powder inhaler (DPI) Soft mist inhaler (SMI)	No	24 hours
Umeclidinium (Incruse Ellipta®)	Dry powder inhaler (DPI)	No	24 hours
Glycopyrronium bromide (Seebri Breezhaler®)	Dry powder inhaler (DPI)	Yes	12 hours

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

EMAX Trial

Randomized patients at low risk for exacerbation to receive umeclidinium/vilanterol, uneclidinium monotherapy, or salmeterol monotherapy

Results: change from baseline of FEV1 at week 24

LABA/LAMA versus LAMA monotherapy:	LABA/LAMA versus LABA monotherapy:
66 mL greater ($p < 0.001$)	141 mL greater ($p < 0.001$)

Conclusion: LABA/LAMA combination inhaler improved lung function and symptoms versus long-acting bronchodilator monotherapy in symptomatic patients with low exacerbation risk not receiving inhaled corticosteroids

Source: Maltais F, Bjermer L, Kerwin EM, et al. the EMAX randomised trial. Respir Res 2019; 20(1): 238

Combination Bronchodilator Inhalers

SABA/SAMA Inhalers

- Albuterol/ipratropium (Combivent Respimat®, DuoNeb®)

LABA/LAMA Inhalers

- Formoterol/aclidinium (Duaklir Pressair®)
- Formoterol/glycopyrronium (Bevespi Aerosphere®)
- Vilanterol/umeclidinium (Anoro Ellipta®)
- Olodaterol/tiotropium (Stiolto Respimat®)

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Methylxanthines

Not recommended unless other bronchodilators not an option

- Contradictory evidence with low-dose therapy

Dose-related toxicity

- Small therapeutic range
- Nausea, repetitive vomiting

Adverse Effects

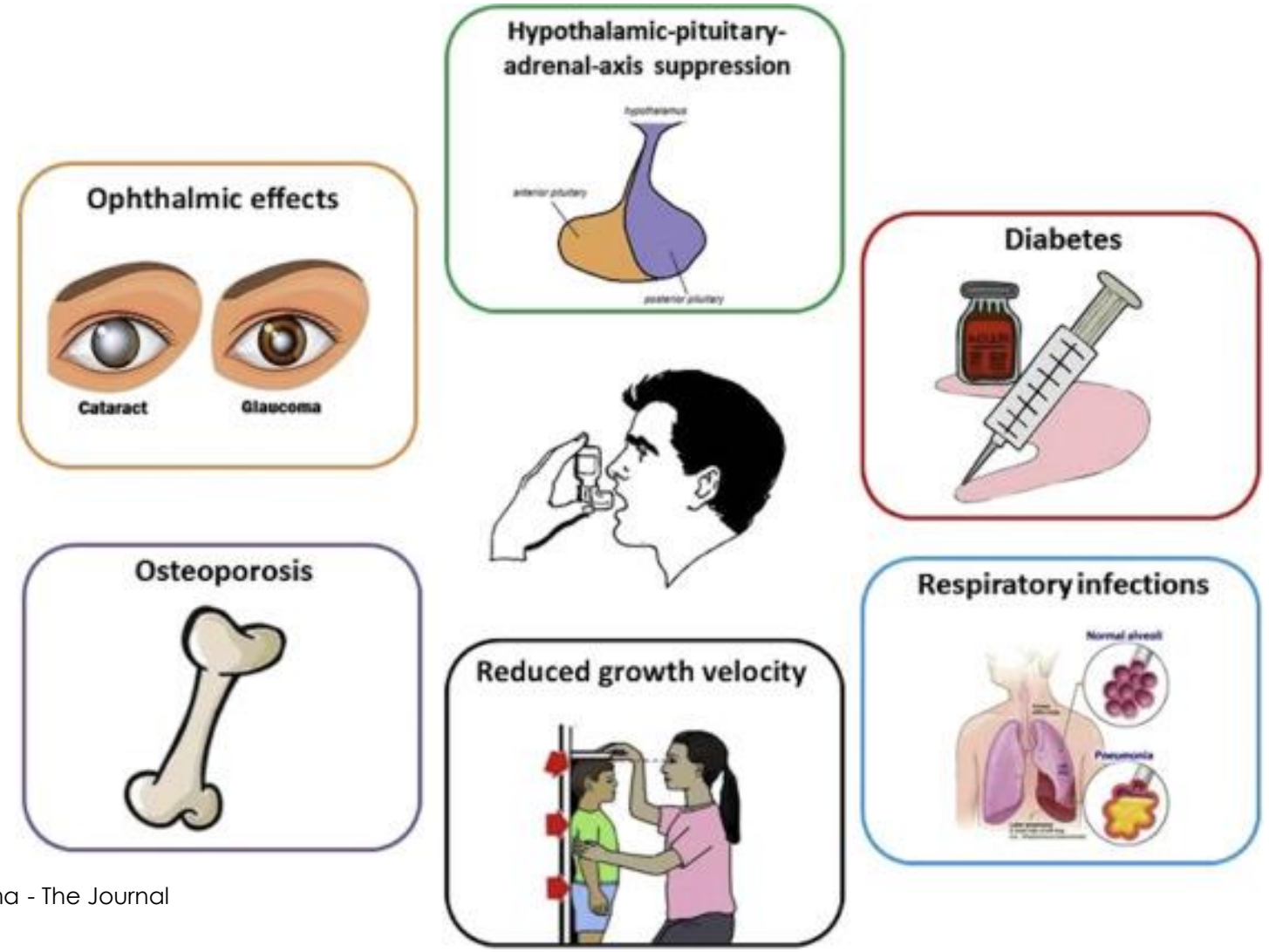
- Arrhythmias
- Grand mal seizures
- Headaches
- Insomnia

Significant interactions with commonly prescribed medications

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Inhaled Corticosteroids (ICS)

- Reduce lung inflammation by inhibiting synthesis of pro-inflammatory mediators



Source: Inhaled Corticosteroids Safety and Adverse Effects in Patients with Asthma - The Journal of Allergy and Clinical Immunology: In Practice (jaci-inpractice.org)

Combination ICS Inhalers

LABA/ICS Inhalers
• Fluticasone furoate/vilanterol (Breo Ellipta®)
• Fluticasone propionate/salmeterol (Advair®)
• Mometasone furoate/formoterol (Dulera®)
• Budesonide/formoterol (Symbicort®)

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

ICS Takeaways and Updates

- ICS/LABA combination more effective than individual components in improving lung function and reducing exacerbations
- Regular treatment with ICS increases pneumonia risk, especially in those with severe disease
- Both current and former smokers benefit from ICS use
  - Magnitude of effect is lower in heavy or current smokers
- Studies investigating ICS treatment and risk of lung cancer had conflicting results

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Favoring Use

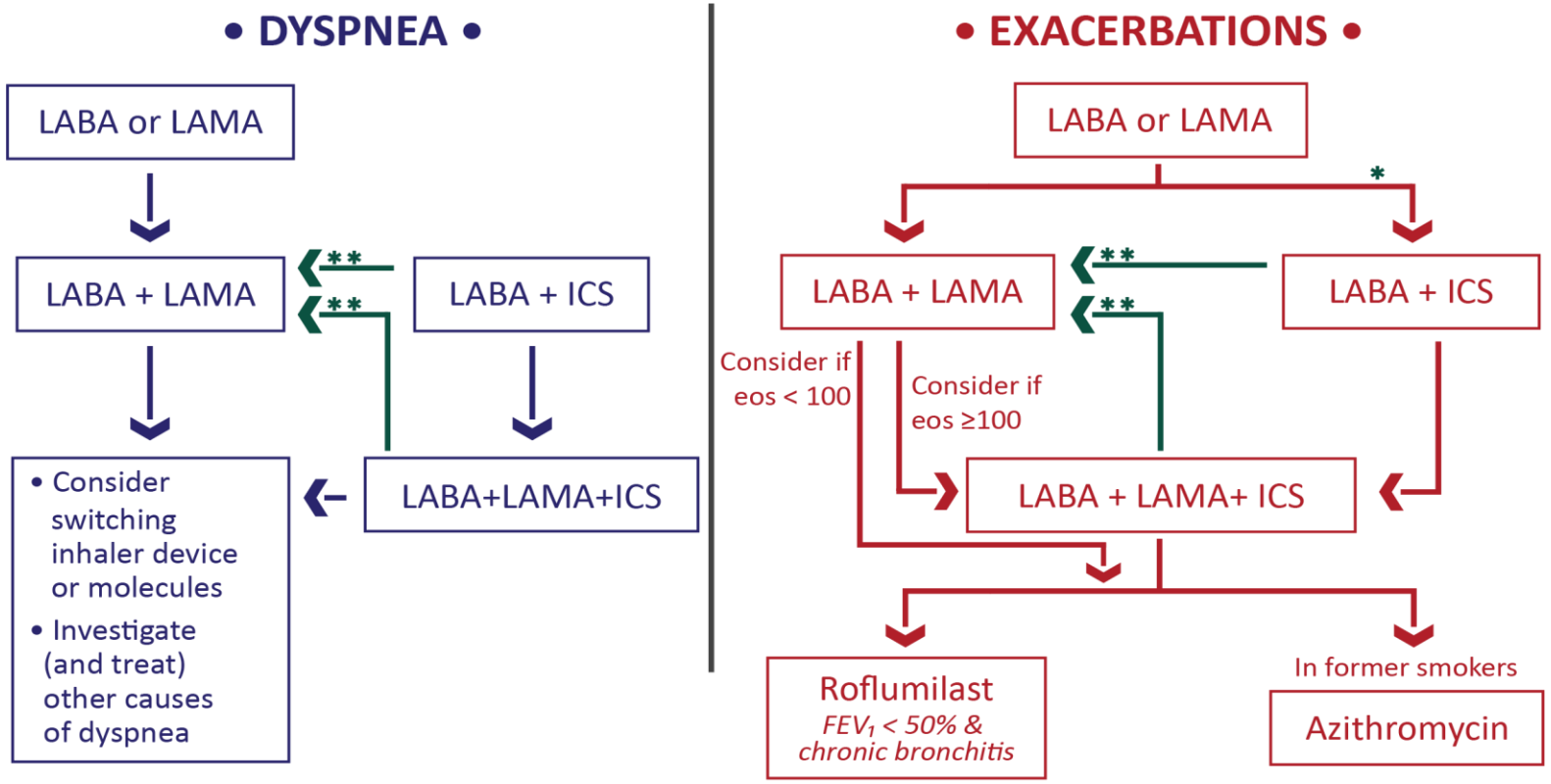
Blood eosinophils >300 cells/microL	Blood eosinophils <100 cells/microL
2 or more moderate COPD exacerbations per year	History of mycobacterial infection
History of asthma	Repeated pneumonia events

Against Use

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

FOLLOW-UP PHARMACOLOGICAL TREATMENT

1. **IF RESPONSE TO INITIAL TREATMENT IS APPROPRIATE, MAINTAIN IT.**
2. **IF NOT:**
   - ✓ Consider the predominant treatable trait to target (dyspnea or exacerbations)
     - Use exacerbation pathway if both exacerbations and dyspnea need to be targeted
   - ✓ Place patient in box corresponding to current treatment & follow indications
   - ✓ Assess response, adjust and review
   - ✓ These recommendations do not depend on the ABCD assessment at diagnosis



eos = blood eosinophil count (cells/µL)
** Consider if eos ≥ 300 or eos ≥ 100 AND ≥2 moderate exacerbations / 1 hospitalization*
*** Consider de-escalation of ICS or switch if pneumonia, inappropriate original indication or lack of response to ICS*

FIGURE 4.4

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Knowledge Check 3

Which patient is the best candidate for triple therapy inhaler based on GOLD guideline recommendations?

A. Patient on LABA/LAMA inhaler with eosinophils >100 cells/microL, who continues to experience dyspnea and exasperations
B. Patient on LAMA inhaler, who continues to have dyspnea
C. Patient on LABA/ICS inhaler, who continues to have exacerbations
D. Patient on LABA/LAMA inhaler with eosinophils <100 cells/microL, who continues to have dyspnea and exacerbations
E. A and C

Knowledge Check 3 – Correct Response

Which patient is the best candidate for triple therapy inhaler based on GOLD guideline recommendations?

A. Patient on LABA/LAMA inhaler with eosinophils >100 cells/microL, who continues to experience dyspnea and exasperations
B. Patient on LAMA inhaler, who continues to have dyspnea
C. Patient on LABA/ICS inhaler, who continues to have exacerbations
D. Patient on LABA/LAMA inhaler with eosinophils <100 cells/microL, who continues to have dyspnea and exacerbations
E. A and C

Triple Therapy Inhaler (LABA/LAMA/ICS)

Improves lung function, patient reported outcomes, and reduces exacerbations

New evidence on mortality reduction

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Reduction in All-Cause Mortality with Fluticasone Furoate/Umeclidinium/Vilanterol in Patients with Chronic Obstructive Pulmonary Disease

FF: fluticasone furoate
UMEC: umeclidinium
VI: vilanterol

IMPACT Study

Intervention: randomized 2:2:1 to receive FF/UMEC/VI, FF/VI, or UMEC/VI

Patient population: 10,355 COPD patients with either

- 1. FEV_1 <50% and ≥ 1 moderate or severe exacerbation OR
- 2. FEV_1 50% - <80% and ≥ 2 moderate or 1 severe exacerbation

Source: Lipson DA, Crim C, Criner GJ, et al. IMPACT, Am J Respir Crit Care Med 2020; 201(12): 1508-16.

IMPACT Results

Results:

- FF/UMEC/VI: 98 deaths (2.36%)
- FF/VI:109 deaths (2.64%)
  - HR=0.89 (0.67-1.16)
- UMEC/VI: 66 deaths (3.19%)
  - HR=0.72 (0.53-0.99)

Conclusion: once-daily FF/UMEC/VI inhaler reduced all-cause mortality versus UMEC/VI in patients with symptomatic COPD and a history of exacerbations

FF: fluticasone furoate
UMEC: umeclidinium
VI: vilanterol

Source: Lipson DA, Crim C, Criner GJ, et al. IMPACT, Am J Respir Crit Care Med 2020; 201(12): 1508-16.

Triple Inhaled Therapy at Two Glucocorticoid Doses in Moderate-to-Very-Severe COPD

BD: budesonide
GP: glycopyrronnium bromide
FM: formoterol

ETHOS Study

Intervention: randomized 1:1:1 to receive BD/GP/FM, BD/FM, or GP/FM

Patient population: 8,509 symptomatic COPD patients (CAT ≥ 10) on at least 2 maintenance therapies, postbronchodilator FEV_1 25% - 65%, smoking history of at least 10 pack years, and either

- 1. ≥ 1 moderate or severe exacerbation if FEV_1 <50% OR
- 2. ≥ 2 moderate, or 1 severe, exacerbation if FEV_1 ≥ 50%

Source: Rabe KF, Martinez FJ, Ferguson GT, et ETHOS. N Engl J Med 2020; 383(1): 35-48.

ETHOS Results

LABA/ICS

- **Exacerbation Rate= 1.24 (2131 patients)**

LABA/LAMA

- **Exacerbation Rate= 1.42 (2120 patients)**

Triple therapy (320mcg):

- **Exacerbation Rate= 1.08 (2137 patients)**
- 13% lower rate than LABA/ICS (P=0.003)
- 24% lower rate than LABA/LAMA (P<0.001)

Triple therapy (160mcg):

- **rate = 1.07 (2121 pts)**
- 14% lower rate than LABA/ICS (P=0.002)
- 25% lower rate than LABA/LAMA (P<0.001)

Source: Rabe KF, Martinez FJ, Ferguson GT, et ETHOS. N Engl J Med 2020; 383(1): 35-48.

Ethos Conclusion

Triple therapy with twice-daily glycopyrronnium bromide, budesonide, and formoterol resulted in a lower rate of moderate or severe COPD exacerbations than budesonide/fomoterol or glycopyrronnium bromide/formoterol therapy

Source: Rabe KF, Martinez FJ, Ferguson GT, et ETHOS. N Engl J Med 2020; 383(1): 35-48.

New Evidence on other Pharmacologic Therapy ★

- Erdosteine may have significant effect on mild exacerbations
- RCT looking at metoprolol in COPD patients without established indication for beta-blocker use showed it did not delay the time until first exacerbation, and hospitalization for exacerbation was more common in metoprolol group
- Pharmacist-led interventions and lay health coaching can improve inhalation technique and adherence in COPD patients
- Procalcitonin-guided antibiotic treatment regimens have been studied for management of COPD exacerbation with controversial results

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

COPD and COVID-19 ★

Risk

Unknown if COPD increases risk of COVID-19 infection

- One population survey with random sampling found no increased risk of COVID-19 infection
- Most studies of people in the community tested for SARS-CoV-2 have not shown COPD as an independent risk factor
- Many studies reporting comorbidities of patients hospitalized with COVID-19 have shown lower COPD prevalence than expected
- A large study with comprehensive data on comorbidities showed a high prevalence of COPD among those admitted (19%)
- A further study showed COPD as an independent risk factor for hospital admission

Takeaway: increased risk of hospitalization and severe disease

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

When to Get Tested

- Patients with COPD presenting with
  - Respiratory symptoms
  - Fever
  - Other symptoms suggestive of COVID-19 infection

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Available at: https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html

Protective Strategies

Follow basic infection control measures

Wear a face covering

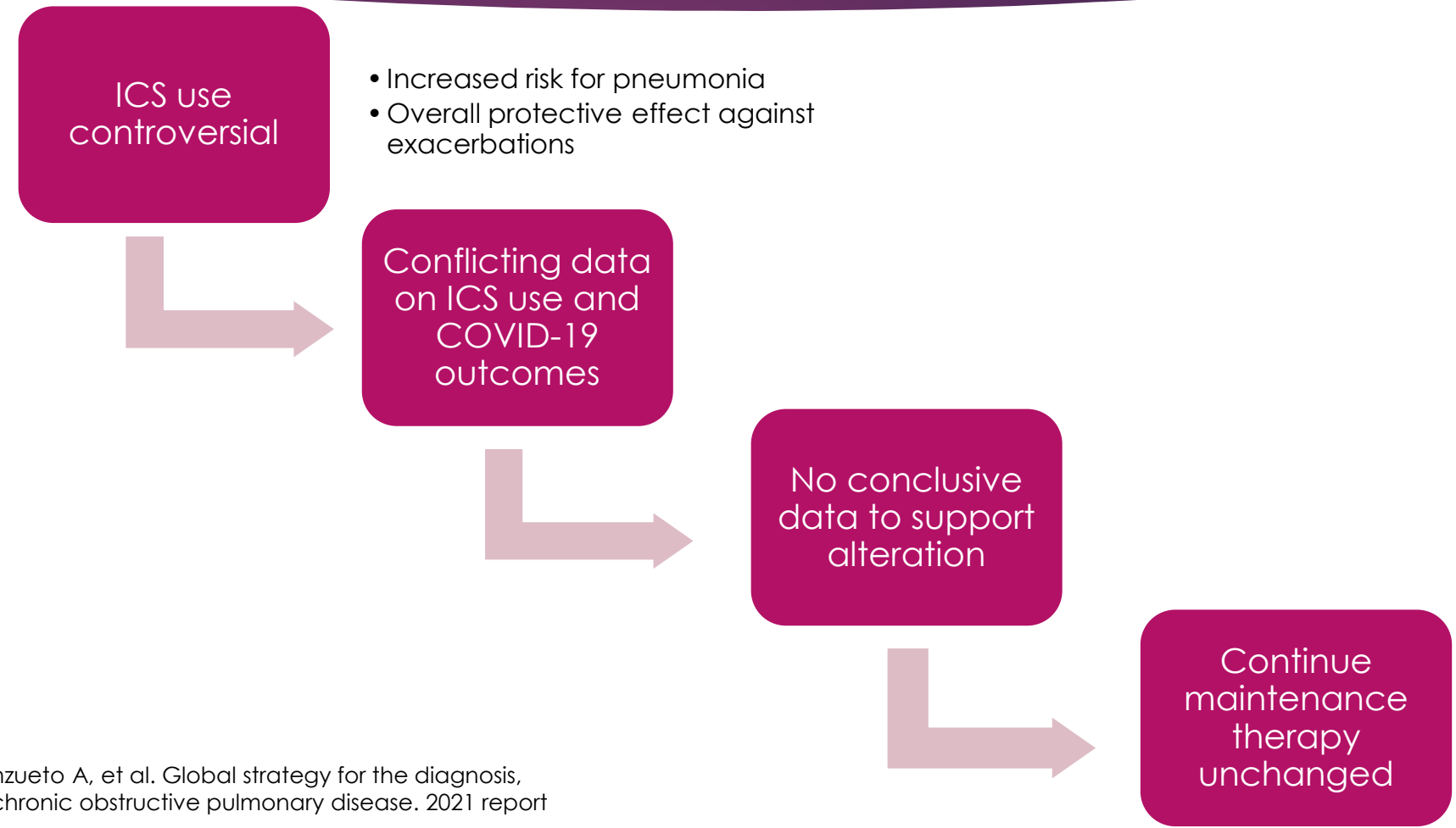
Consider shielding/sheltering in place

COVID-19 vaccination/annual influenza vaccination

Only essential spirometry

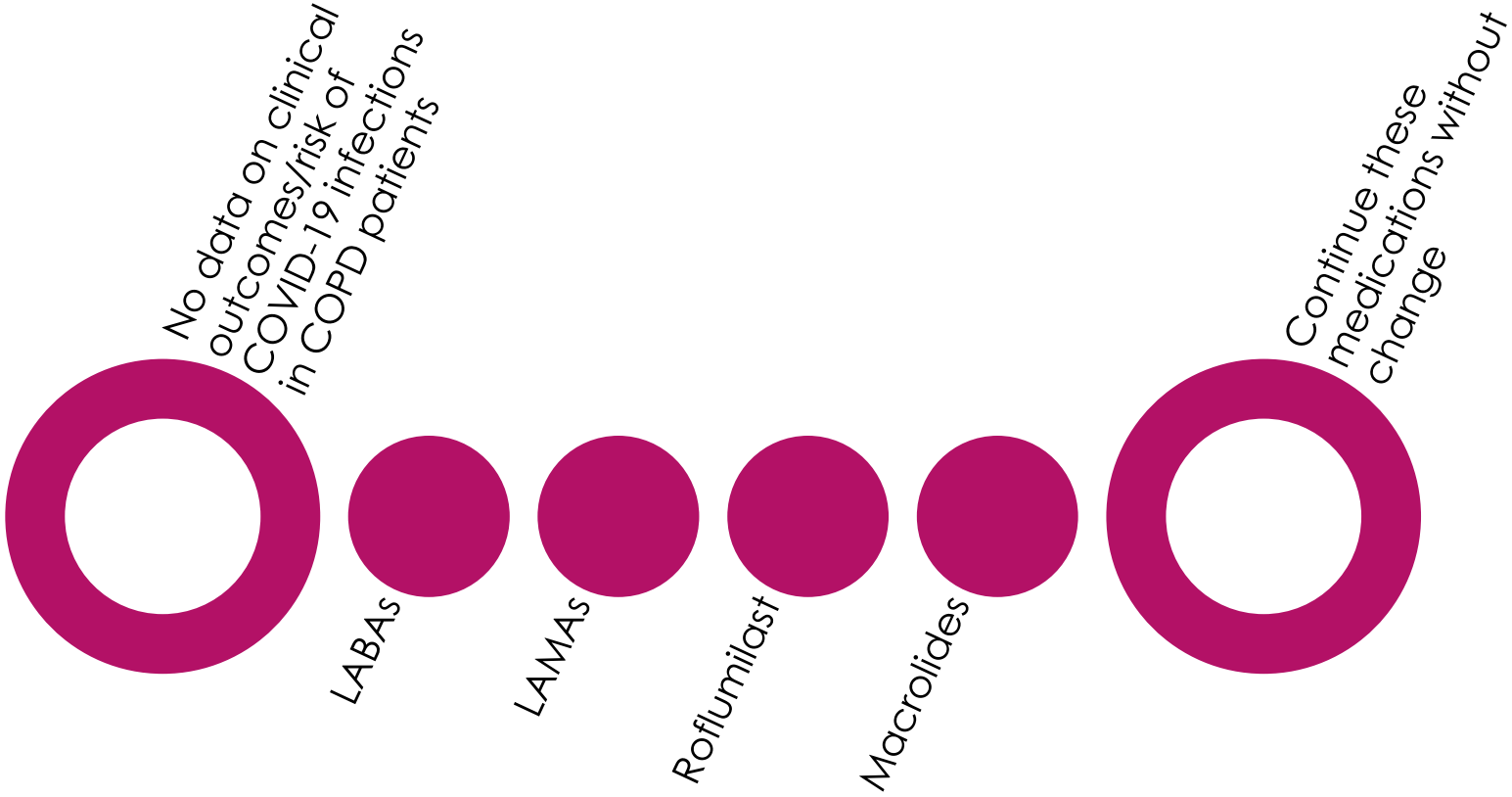
Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

ICS Therapy during COVID-19 Pandemic



Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Other Pharmacologic Treatment during COVID-19 Pandemic



Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Treatment of COPD Exacerbations during COVID-19 Pandemic

Coronaviruses are among the respiratory viruses that trigger COPD exacerbations

To date MERS-CoV, SARS-CoV, and SARS-CoV-2 infections have not been reported in COPD exacerbations

Continue recommended treatments according to usual indications

Systemic corticosteroids	Antibiotics

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Treatment of COVID-19 Infection in COPD Patients

No recommendations to change management of COVID-19 in COPD patients

Continue usual course of therapy as indicated by patient parameters

Source: Vogelmeier C, Agusti A, Anzueto A, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. 2021 report

Knowledge Check 4

- What is the most appropriate recommendation based on the patient case?

LB is a 64 year old male with COPD currently on salmeterol/fluticasone (Advair Diskus®) inhaler. LB has persistent dyspnea despite his current regimen but has not had any exacerbations since starting treatment. He had a case of pneumonia less than a year ago. His labs show a blood eosinophil count of 67 cells/microL.

A. Recommend starting LB on fluticasone furoate/umeclidinium/vilanterol (Trelegy Ellipta®)
B. Recommend switching LB to formoterol/budesonide (Symbicort®)
C. Recommend switching LB to vilanterol/ umeclidinium (Anoro Ellipta®)
D. Recommend adding roflumilast (Daliresp®)

Knowledge Check 4 – Correct Response

- What is the most appropriate recommendation based on the patient case?

LB is a 64 yo male with COPD currently on salmeterol/fluticasone (Advair Diskus®). LB has persistent dyspnea despite his current regimen but has not had any exacerbations since starting treatment. He had a case of pneumonia less than a year ago. His labs show an eosinophil count of 67.

A. Recommend starting LB on fluticasone furoate/umeclidinium/vilanterol (Trelegy Ellipta®)
B. Recommend switching from LB to formoterol/budesonide (Symbicort®)
C. Recommend switching LB to vilanterol/ umeclidinium (Anoro Ellipta®)
D. Recommend adding roflumilast (Daliresp®)

Summary

New evidence has been added on

E-cigarettes and vaping
LABA/LAMA combination therapy versus bronchodilator monotherapy
Inhaled corticosteroid use in current or heavy smokers and in lung cancer
Triple therapy benefits
COPD treatment in context of COVID-19 pandemic

References

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Thank you!

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