

GOLD

Question(s):

What percentage of GOLD 0 subjects in COPDGene showed an accelerated loss (>5%) of FEV1 and/or FEV1/FVC over five years of follow-up?

A. 18%

B. 28%

C. 38%

Rationale: COPDGene showed that 28% of patients with GOLD 0 disease show rapid progression of disease over 5 years. This pattern was consistent with airway-predominant or emphysema-predominant paths.

COPDGene proposed criteria to expand the diagnosis of COPD based on presence of exposure (ie, smoking), symptoms, imaging, and spirometry. The categorization of Probable COPD is based on exposure and presence of how many other factors?

A. 1 Factor

B. 2 Factors

C. 3 Factors

Rationale: Probably COPD is based on exposure + 2 factors in COPD gene. Exposure + 1 factor is associated with possible COPD and exposure + 3 factors is associated with definite COPD.

Numerous studies have demonstrated that all-cause mortality is improved in high-risk COPD patients receiving triple therapy.

A. True

B. False

Rationale: Numerous studies have suggested/demonstrated that ACM is improved in high risk COPD patients. The impact of ICS withdrawal remains controversial but does not negate the value of ICS in appropriate COPD populations. The risk benefit in appropriate COPD patients appears favorable.

Long-term risk for inhaled closed/fixed-dose triple therapy is which of the following compared to their individual components?

A. Less risk with inhaled closed/fixed-dose triple therapy

B. Same risk with inhaled closed/fixed-dose triple therapy

C. Greater risk inhaled closed/fixed-dose triple therapy

Rationale: The combination of more than one inhaled medication together does not appear to produce additive or synergistic safety concerns compared to those known for the individual medications.

Triple therapy as a step up from LABA/LAMA or ICS/LABA should be considered for patients with COPD who are hospitalized, repeated exacerbators, at increased risk for pneumonia, and/or have a blood eosinophil count greater than which of the following?

A. 100 cells/ μ L

B. 150 cells/ μ L

C. 200 cells/ μ L

Rationale: The GOLD 2020 report states that triple therapy as a step up from LABA/LAMA or ICS/LABA should be considered for with blood eosinophils ≥ 100 cells/mL.

Factors associated with failed spirometry in a 2008 study included more severe airflow limitation, female sex, a paucity of clinical trials, and age greater than which of the following?

A. 50 years

B. 60 years

C. 70 years

Rationale: Factors associated with failed spirometry include age 70 years or older, more severe airflow limitation, female sex, and a paucity of clinical trials according to Perez-Padilla et al, 2008.

Airflow reversibility testing has been shown to be which of the following with regard to the diagnosis of COPD?

A. Augments the diagnosis of COPD and differentiates from asthma

B. Predict the response to long-term treatment with bronchodilators or corticosteroids

C. Neither of the above

Rationale: The degree of reversibility has not been shown to augment the diagnosis of COPD, differentiate from asthma, or to predict long-term treatment with bronchodilators or corticosteroids.

A study of long-acting bronchodilator adherence after hospital discharge in Italy found that in 13,178 only what percentage of patients were adherent in 2 years of follow-up (defined as medication possession ratio $>80\%$)?

A. 29%

B. 39%

C. 49%

Rationale: DiMartino M, in 2017, founds that only 29% of patients were adherent of long-acting bronchodilator therapy after hospital discharge. This study included 13,178 patients in Lazio, Italy to whom medications were provided without charge.

Inhalation instructions for which of the following devices can be described as “hard and fast” vs “slow and steady”?

A. DPI

B. pMDI

C. SMI

Rationale: Inhalation with a DPI can be described as hard and fast while inhalation with a pMDI is described as slow and steady. Inhalation with an SMI is described as slow and long.

Jean is a 75-year-old female with COPD. She has strong cognitive function and manual dexterity, but a suboptimal peak inspiratory flow rate. Which of the following device options would be beneficial Jean?

A. pMDI, SMI, or nebulizer

B. DPI, SMI, or nebulizer

C. DPI, pMDI, or nebulizer

Rationale: According to Mahler 2020, a patient who strong cognitive function and manual dexterity but suboptimal peak inspiratory flow rates should be considered for pMDI, SMI, or nebulizers. Patients with poor cognitive function or manual dexterity should be provided a nebulizer and patients with strong cognitive function, manual dexterity, and peak inspiratory flow should be considered for pMDI, SMI, or DPI devices.

The FDA approval requirements for SARS-CoV-2 vaccines are which of the following?

A. At least 25% reduction in disease or disease severity and acceptable safety within 1 months post vaccination

B. At least 50% reduction in disease or disease severity and acceptable safety within 2 months post vaccination

C. At least 75% reduction in disease or disease severity and acceptable safety within 3 months post vaccination

2020 International COPD & Asthma Conference Posttest Rationale

Rationale: FDA approval for SARS-CoV-2 vaccines require at least 50% reduction in disease or disease severity and acceptable safety within 2 months post vaccination.

Management of stable COPD during the COVID-19 pandemic should include, which of the following?

A. Continue pharmacotherapy unchanged except for ICS

B. Continue pharmacotherapy unchanged including ICS

C. Discontinue all pharmacotherapy for stable patients

Rationale: The GOLD 2020 report states that pharmacotherapy should continue unchanged for patients with stable COPD during the COVID-19 pandemic, including ICS. Adequate supplies of medications for patients should be ensured.

GINA

Clinical or inflammatory phenotype should always be assessed in patients with which of the following?

A. Mild, moderate, or severe asthma

B. Moderator or severe asthma

C. Severe asthma

Rationale: For patients with persistent symptoms and/or exacerbations despite high dose ICS, the clinical or inflammatory phenotype should be assessed, as this may guide the selection of add-on treatment.

Which of the following increases in FEV1 following bronchodilator administration is consistent with the variable expiratory airflow limitation found in adults with asthma?

A. >8% and 120 mL from baseline

B. >10% and 160 mL from baseline

C. >12% and 200 mL from baseline

Rationale: In adults with asthma an increase or decrease in FEV1 of >12% and >200 mL from baseline following bronchodilator administration is typical of asthma.

John, a 2-year-old male presents for evaluation of respiratory symptoms that includes approximately 4 episodes of wheezing and heavy breathing per year. Episodes may last up to two weeks when accompanied with cough and fever and the child sometimes has respiratory symptoms between episodes. His mother has asthma and atopic dermatitis. According to the 2020 GINA report, the probability of patients like John to have asthma is which of the following?

A. Most patients like John have asthma

B. Some patients like John have asthma

C. Few patients like John have asthma

Rationale: The GINA 2020 report states that patients <5 years old with symptoms >10 days during upper respiratory tract infections, >3 episodes per year or severe episodes and/or night worsening, between-episode wheeze or heavy breathing during play, and allergic sensitization, atopic dermatitis, food allergy, or family history of asthma have higher probably of having asthma.

FeNO \geq 20 ppb, sputum eosinophils \geq 2%, asthma that is clinically allergen-driven, need for maintenance OCS, and/or blood eosinophils greater than which of the following are indicators of type 2 inflammation?

A. 100 cells/ μ L

B. 150 cells/ μ L

C. 200 cells/ μ L

Rationale: FeNO \geq 20 ppb, sputum eosinophils \geq 2%, asthma that is clinically allergen-driven, need for maintenance OCS, and/or blood eosinophils \geq 150/ μ L as criteria for type 2 inflammation.

Add on type 2-targeted biologic therapy for patients with exacerbations or poor symptom control on high-dose ICS-LABA therapy should be considered in patients who need OCS or have which of the following?

A. Eosinophilic or allergic biomarkers

B. Incorrect inhaler technique or suboptimal adherence

C. Comorbidities such as GERD, obesity, chronic rhinosinusitis, or OSA

Rationale: Prior to initiation of add-on biologic therapy, treatment should be optimized to check and correct inhaler technique and treat comorbidities and modifiable risk factors.

Children with a T2 high phenotype with severe asthma are predominantly which of the following?

A. Eosinophilic

B. Non-eosinophilic

Rationale: According to Fleming and Heaney, 2019, children with severe asthma are predominantly eosinophilic, although TH2 cytokines may not be elevated.

Asthma exacerbations are common in pregnancy, particularly during which trimester?

A. First

B. Second

C. Third

Rationale: Exacerbations are common in pregnancy, particularly in the second trimester. Exacerbations and poor asthma control during pregnancy may be due to mechanical or hormonal changes, or to cessation or reduction of asthma medications due to concerns by the mother and/or the health care provider.

The preferred controller medication for children \leq 5-years-old at step 3 of care is which of the following?

A. LTRA

B. Double low-dose ICS

C. Medium-dose ICS

2020 International COPD & Asthma Conference Posttest Rationale

Rationale: According to the GINA 2020 report, the preferred controller medication for children ≤ 5 -years-old at step 3 of care is double low-dose ICS. LTRAs are recommended as an alternative therapy at step 2 or as addition to low-dose ICS at step 3 as an alternative therapy.

Adults with asthma aged ≥ 65 -years-old have odds of atopic and eosinophilic phenotypes that are which of the following compared with younger patients with asthma?

- A. Lower
- B. Equal
- C. Higher

Rationale: Ponte et al, 2017, demonstrated that asthmatic subjects aged 65 years or older have lower odds of atopic and eosinophilic phenotypes compared with younger subjects, whereas they present with higher odds of irreversible airway obstruction and severe asthma.

A pulse rate of which of the following is an indicator of a severe exacerbation in a patient with asthma?

- A. >100 bpm
- B. >110 bpm
- C. >120 bpm

Rationale: The GINA 2020 report lists talks in words, sits hunched forward, agitated, respirator rate >30 /min, accessory muscle use, pulse rate >120 bpm, O₂ saturation $<90\%$ on room air, and PEF $\leq 50\%$ predicted or personal best as indicators of a severe exacerbation.

Controlled oxygen is recommended in patients with an asthma exacerbation to maintain oxygen saturation of which of the following?

- A. 90%-92%
- B. 93%-95%
- C. 95%-97%

Rationale: Initial treatment of asthma exacerbations includes controlled oxygen to target a saturation of 93%-95% or 94%-98% in children.

In developed countries, which of the following generally account for the largest share of asthma costs?

- A. Inpatient visits
- B. Outpatient visits
- C. Medications

2020 International COPD & Asthma Conference Posttest Rationale

Rationale: In developed countries, medication is generally the largest share of costs, accounting for 45%-84% of costs.

What percentage of the world asthma population lives in lower-middle income countries (LMICs)?

A. 70%

B. 80%

C. 90%

Rationale: Although in a way a helpful collective, there is substantial diversity within and between LMICs. Ninety percent of people with asthma live in LMICs.