



COPD Pharmacotherapy and Treating Tobacco Dependence

**Webinar for
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Priority Health

Global Initiative for Chronic Obstructive Lung Disease



<http://www.goldcopd.org>



Global Strategy for Diagnosis, Management and Prevention of COPD

Therapeutic Options: Bronchodilators

- Bronchodilator medications are central to the symptomatic management of COPD.
- Bronchodilators are prescribed on an as-needed or on a regular basis to prevent or reduce symptoms.
- The principal bronchodilator treatments are beta₂-agonists, anticholinergics, theophylline or combination therapy.
- The choice of treatment depends on the availability of medications and each patient's individual response in terms of symptom relief and side effects.



Short-Acting Bronchodilators

- These work quickly (within 15-20 minutes) to help decrease shortness of breath. They are sometimes described as "rescue" or "quick-reliever" medications:
 - Albuterol – ProAir, Ventolin, Proventil
 - Levalbuterol – Xopenex
 - Albuterol & Atrovent (ipratropium) – Combivent Respimat, DuoNeb
 - Atrovent (ipratropium) – anticholinergic alone



Global Strategy for Diagnosis, Management and Prevention of COPD

Therapeutic Options: Bronchodilators

- Long-acting inhaled bronchodilators are **convenient** and **more effective** for symptom relief than short-acting bronchodilators.
- Long-acting inhaled bronchodilators **reduce** exacerbations and related hospitalizations and **improve** symptoms and health status.
- **Combining bronchodilators** of different pharmacological classes may improve efficacy and decrease the risk of side effects compared to increasing the dose of a single bronchodilator.



Long-Acting Bronchodilators

- Long-acting beta-agonists (LABAs) – long-acting bronchodilators
- Long-acting muscarinic receptor antagonists (LAMAs) – long-acting anticholinergic bronchodilators – block the parasympathetic nerve reflexes that cause the airways to constrict, so allow the airways to remain open. Muscarinic receptor antagonists bind to muscarinic receptors and inhibit acetylcholine mediated bronchospasm.
- Studies show that combination therapy – LABA & LAMA – can be superior to either agent used alone
- *Coming soon...triple therapy!* LABA & LAMA & ICS



Long-Acting Bronchodilators

Single agents:

- Tiotropium (Spiriva Respimat) – LAMA – once daily
- Salmeterol (Severent) – LABA q 12 hours
- Formoterol (Foradil, Perforomist) – LABA q 12 hours
- Arfomoterol (Brovana) – LABA q 12 hours
- Indacaterol (Arcapta) – LABA – once daily
- Aclidinium (Tudorza Pressair) – LAMA q 12 hours
- Glycopyrrolate (Seebri Neohaler) – LAMA q 12 hours
- Umeclidium (Incruse Ellipta) – LAMA – once daily
- Olodaterol (Striverdi Respimat) – LABA – once daily



Combination Long-Acting Bronchodilators: 2 BD in 1 Device

Combination agents:

- Umeclidium & Vilanterol (Anoro Ellipta) – LAMA & LABA
- Tiotropium & Olodaterol (Stiolto Respimat) – LAMA & LABA
- Glycopyrrolate & formoterol (Bevespi Aerosphere) – LAMA & LABA
- Indacaterol & glycopyrrolate (Utibron Neohaler) – LABA & LAMA



Long-Acting Bronchodilators: An Array of Devices





Anti-inflammatory Therapy in Stable COPD

- An ICS combined with a LABA is more effective in improving lung function and health status and reducing exacerbations in moderate to very severe COPD
- Regular treatment with ICS increases risk of pneumonia
- Triple therapy ICS/LAMA/LABA improves lung function, symptoms and health status and reduces exacerbations compared to ICS/LABA or LAMA monotherapy
- Long-term use of oral steroids has numerous side effects with no evidence of benefits
- PDE4 inhibitors
 - In patients with chronic bronchitis, severe to very severe COPD and a history of exacerbations
 - Improves lung function and reduces moderate and severe exacerbations



Therapeutic Options: Combination Therapy

- Combination ICS & LABA
 - Advair (fluticasone propionate & salmeterol)
 - Symbicort (budesonide & formoterol)
 - Dulera (mometasone & formoterol) – currently indicated only for asthma
 - Breo (fluticasone furoate & umecclidinium)
- Long-term treatment with ICS & LABA is recommended for patients at high risk of exacerbations
- **Black box warning for all LABAs**



Phosphodiesterase-4 Inhibitors

- Roflumilast (Daliresp) – an oral drug that acts as a selective, long-acting inhibitor of the enzyme PDE-4. Has anti-inflammatory effects and is approved for severe COPD associated with chronic bronchitis.
- Side effects include: diarrhea, nausea, headache, insomnia, abd. pain, UTI, depression, decreased appetite



Therapeutic Options: Phosphodiesterase-4 Inhibitors

- In patients with severe and very severe COPD (GOLD 3 and 4) and a history of exacerbations and chronic bronchitis, the phosphodiesterase-4 inhibitor, roflumilast, reduces exacerbations treated with oral glucocorticosteroids.



Methylxanthines

How Theophylline works:

- Mild bronchodilator, mild anti-inflammatory medicine
- Improves breathing by increasing the strength of the diaphragm (if it is weakened) and by stimulating the breathing control centers in the brain.

Side Effects

- Nausea and vomiting, seizures, arrhythmias, insomnia, nervousness & irritability, tachycardia, tachypnea
- May be able to reduce these side effects by avoiding caffeine
- Difference between a therapeutic dose and toxicity is small
- Significant interactions with other prescribed medicines, which can make it less effective and potentially life-threatening

In most cases, newer and safer medicines have replaced methylxanthines for treatment of people who have COPD.



Therapeutic Options: Systemic Corticosteroids

- Chronic treatment with systemic corticosteroids should be avoided because of an unfavorable benefit-to-risk ratio.



Therapeutic Options:

Other Pharmacologic Treatments

Influenza vaccines can reduce serious illness.

Pneumococcal polysaccharide vaccine is recommended for COPD patients 65 years and older and for COPD patients younger than age 65 with an $FEV_1 < 40\%$ predicted.

The use of **antibiotics**, other than for treating infectious exacerbations of COPD and other bacterial infections, is currently not indicated.



Therapeutic Options:

Alpha-1 Antitrypsin Deficiency (AAT)

- AAT Deficiency is an inherited condition that increases risk of lung disease and liver disease
- Genetic disorder which causes emphysema in *younger* adults (30's, 40's) without a history of significant smoking
- Sx: SOB, wheezing, rhonchi and rales
- AAT is a protein that protects the lungs – if the protein molecules are misshapen, they get stuck in the liver (leading to cirrhosis) and can't reach the lungs (leading to emphysema)
- Treatment: inhalers, pulmonary rehab, oxygen, augmentation therapy (infusions of AAT protein)



Non-Pharmacologic Treatment

- ▶ Education and self-management
- ▶ Physical activity
- ▶ Pulmonary rehabilitation programs
- ▶ Exercise training
- ▶ Self-management education
- ▶ End of life and palliative care
- ▶ Nutritional support
- ▶ Vaccination
- ▶ Oxygen therapy



Therapeutic Options: Rehabilitation

- All COPD patients benefit from **exercise training programs** with improvements in exercise tolerance and symptoms of dyspnea and fatigue.
- Although an effective pulmonary rehabilitation program is 6 weeks, the longer the program continues, the more effective the results.
- If exercise training is maintained at home, the patient's health status remains above pre-rehabilitation levels.



Therapeutic Options: Other Treatments

- **Oxygen Therapy** - some studies have shown an increase in survival rates in patients who use oxygen more than 15 hours a day. Can improve sleep, mood, mental alertness and stamina and allows individuals to carry out normal, everyday functions.
- **Non-invasive ventilatory support** – positive pressure ventilation delivers intermittent positive airway pressure (PAP), which gives the patient ventilatory support using a face or nasal mask.
- **Lung volume reduction surgery (LVRS)** – small wedges of damaged lung tissue are removed to allow the remaining tissue to function better.
- In appropriately selected patients with very severe COPD, **lung transplantation** has been shown to improve quality of life and functional capacity.



Manage Stable COPD: Summary

- Long-acting formulations of beta₂-agonists and anticholinergics are preferred over short-acting formulations. Based on efficacy and side effects, inhaled bronchodilators are preferred over oral bronchodilators.
- Long-term treatment with inhaled corticosteroids added to long-acting bronchodilators is recommended for patients with high risk of exacerbations.



Manage Stable COPD: Summary

- Long-term *monotherapy* with oral or inhaled corticosteroids is not recommended in COPD.
- The phosphodiesterase-4 inhibitor roflumilast may be useful to reduce exacerbations for patients with $FEV_1 < 50\%$ of predicted, chronic bronchitis, and frequent exacerbations.

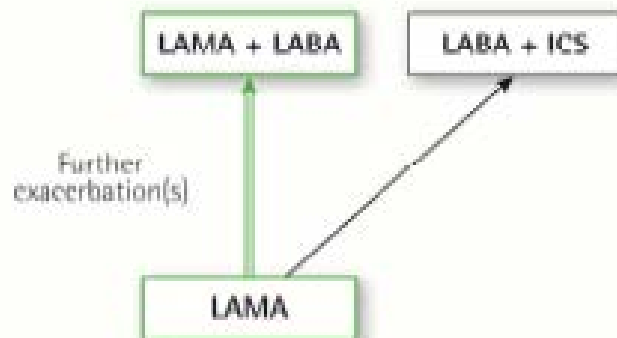


Pharmacologic Treatment Algorithms by GOLD Grade - ABCD

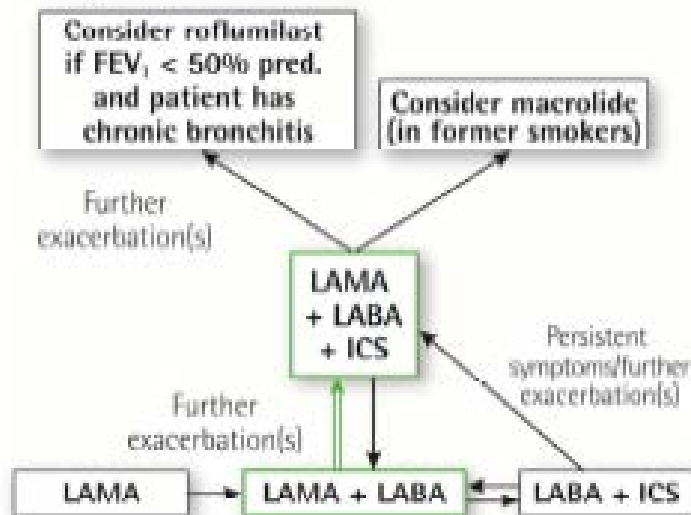
2017:

Introducing
NEW strategies
for escalation and
de-escalation
of
pharmacotherapy
In COPD

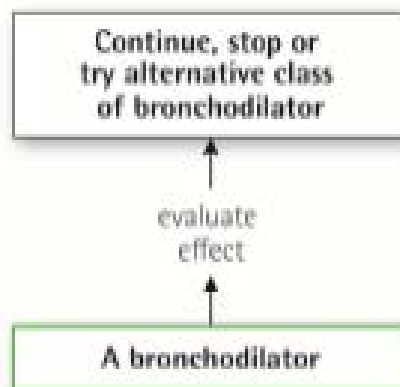
Group C



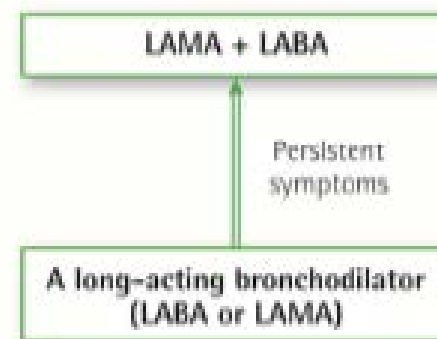
Group D



Group A



Group B

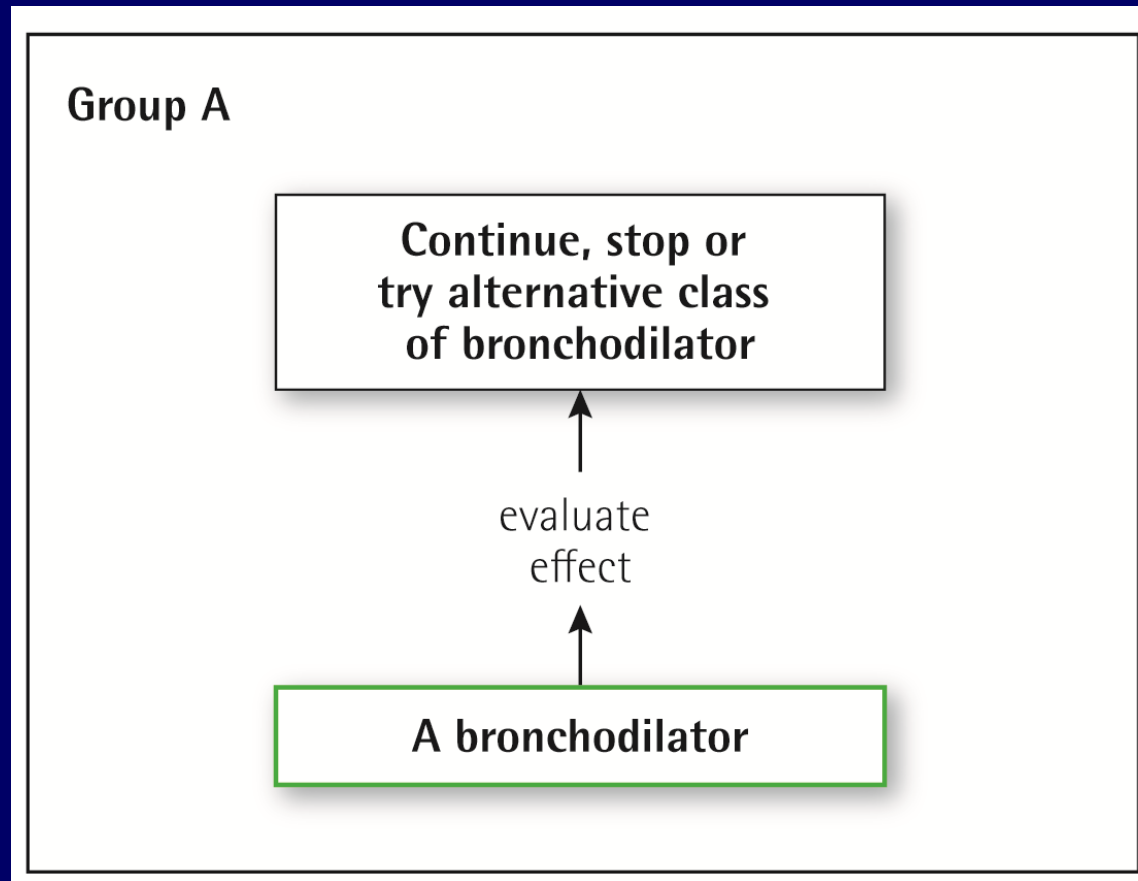




Pharmacologic treatment algorithms

Group A

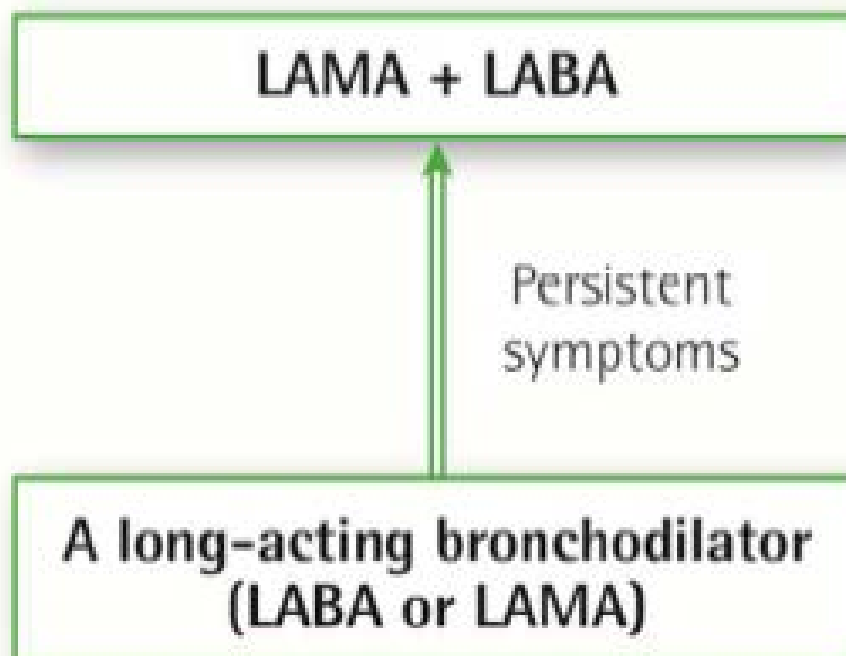
- ▶ All Group A patients should be offered bronchodilator treatment based on its effect on breathlessness. This can be either a short- or a long-acting bronchodilator.
- ▶ This should be continued if symptomatic benefit is documented.





Pharmacologic Treatment Algorithms by GOLD Grade Group B

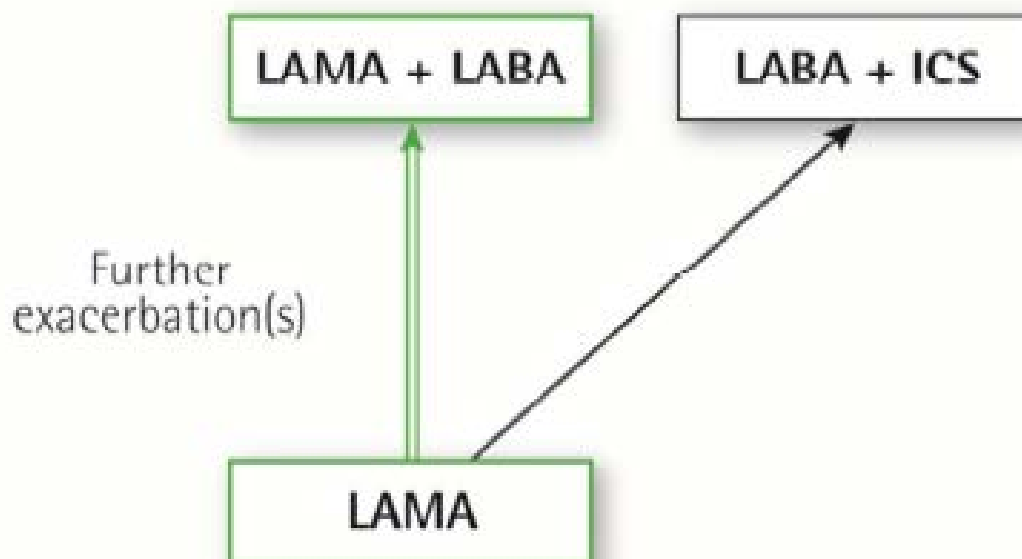
Group B





Pharmacologic Treatment Algorithms by GOLD Grade Group C

Group C





Consider roflumilast if FEV₁ < 50% pred. and patient has chronic bronchitis

Consider macrolide
(in former smokers)

Further
exacerbation(s)

LAMA
+ LABA
+ ICS

Persistent
symptoms/further
exacerbation(s)

Further
exacerbation(s)

LAMA

LAMA + LABA

LABA + ICS



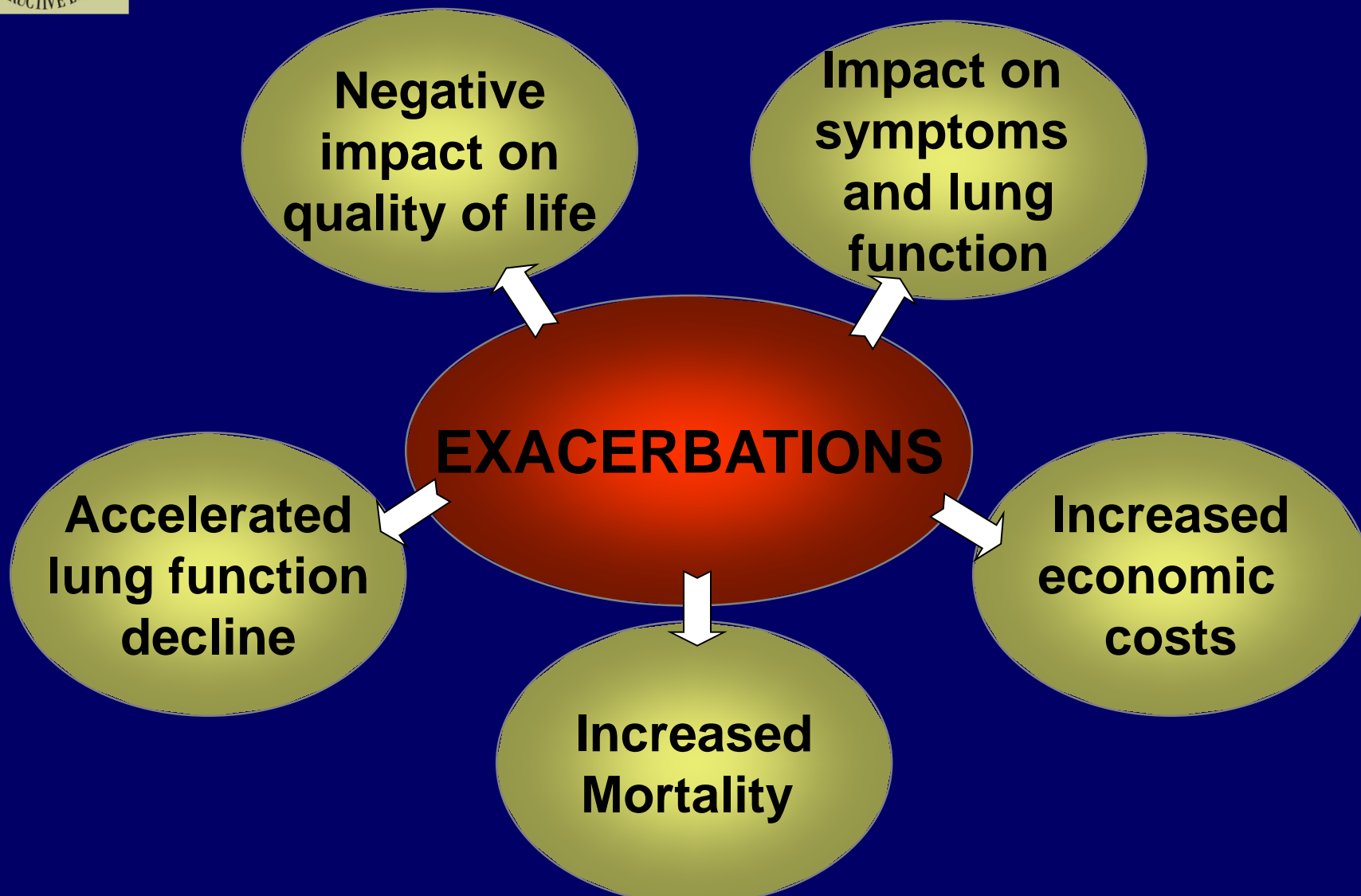
Manage Exacerbations

An exacerbation of COPD is:

“an acute event characterized by a worsening of the patient’s respiratory symptoms that is beyond normal day-to-day variations and leads to a change in medication.”



Consequences Of COPD Exacerbations





Management of Exacerbations

OVERALL KEY POINTS (1 of 3):

- An exacerbation of COPD is defined as an acute worsening of respiratory symptoms that results in additional therapy.
- Exacerbations of COPD can be precipitated by several factors. The most common causes are respiratory tract infections.
- The goal for treatment of COPD exacerbations is to minimize the negative impact of the current exacerbation and to prevent subsequent events.



Management of Exacerbations

OVERALL KEY POINTS (2 of 3):

- **Maintenance therapy with long-acting bronchodilators** should be initiated as soon as possible before hospital discharge.
- **Systemic corticosteroids** can improve lung function (FEV1), oxygenation and shorten recovery time and hospitalization duration. Duration of therapy should not be more than 5-7 days.
- **Antibiotics**, when indicated, can shorten recovery time, reduce the risk of early relapse, treatment failure, and hospitalization duration. Duration of therapy should be 5-7 days.
- Methylxanthines are **not recommended** due to increased side effect profiles.



Management of Exacerbations

OVERALL KEY POINTS (3 of 3):

- **Non-invasive mechanical ventilation** should be the first mode of ventilation used in COPD patients with acute respiratory failure who have no absolute contraindication because it improves gas exchange, reduces work of breathing and the need for intubation, decreases hospitalization duration and improves survival.
- Following an exacerbation, appropriate measures for exacerbation prevention should be initiated (see GOLD 2017 Chapter 3 and Chapter 4).



Manage Exacerbations: Treatment Options

Antibiotics should be given to patients with:

- Three cardinal symptoms: increased dyspnea, increased sputum volume, and increased sputum purulence.
- Who require mechanical ventilation.



Management of Exacerbations - Summary

COPD exacerbations are defined as an acute worsening of respiratory symptoms that result in additional therapy.

► They are classified as:

- **Mild** (treated with short acting bronchodilators only, SABDs)
- **Moderate** (treated with SABDs plus antibiotics and/or oral corticosteroids) or
- **Severe** (patient requires hospitalization or visits the emergency room). Severe exacerbations may also be associated with acute respiratory failure.



Management of Exacerbations - Summary

Pharmacologic treatment

The three classes of medications most commonly used for COPD exacerbations are:

▶ Bronchodilators

- Short-acting inhaled beta₂-agonists, with or without short-acting anticholinergics, are the initial bronchodilators for acute treatment of a COPD exacerbation.

▶ Corticosteroids

- Oral steroids in COPD exacerbations shorten recovery time and improve lung function (FEV₁). They also improve oxygenation, the risk of early relapse, treatment failure, and the length of hospitalization.

▶ Antibiotics



Manage Exacerbations: Indications for Hospital Admission

- Marked increase in intensity of symptoms
- Severe underlying COPD
- Onset of new physical signs
- Failure of an exacerbation to respond to initial medical management
- Presence of serious comorbidities
- Frequent exacerbations
- Older age
- Insufficient home support



Monitoring and Follow-up

Monitoring disease progression and development of complications and/or comorbidities

- ▶ **Measurements.** Decline in FEV_1 can be tracked by spirometry performed at least once a year.
- ▶ **Symptoms.** At each visit, information on symptoms since the last visit should be collected, including cough and sputum, breathlessness, fatigue, activity limitation, and sleep disturbances.
- ▶ **Exacerbations.** The frequency, severity, type and likely causes of all exacerbations should be monitored.
- ▶ **Imaging.** If there is a clear worsening of symptoms, imaging may be indicated.
- ▶ **Smoking status.** At each visit, the current smoking status and smoke exposure should be determined followed by appropriate action.



GOLD Website

www.goldcopd.org

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GLOBAL INITIATIVE FOR CHRONIC OBSTRUCTIVE LUNG DISEASE

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) works with health care professionals and public health officials to raise awareness of Chronic Obstructive Pulmonary Disease (COPD) and to improve prevention and treatment of this lung disease for patients around the world.

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RECENT POSTS

World COPD Day – November 16, 2016 November 15, 2016

GOLD COPD Contributors to Discuss New GOLD Strategies at ATS 2017 October 16, 2016

WORLD COPD DAY GALLERY



Treating Tobacco Dependence

- Tobacco dependence is a chronic condition until permanent abstinence is achieved
- Effective treatments do exist
- Consistently identify, document, and treat every tobacco user at every visit/encounter
- Even brief smoking cessation counseling is effective



Treating Tobacco Dependence

- Strong dose-response relation between the intensity of tobacco cessation counseling and its effectiveness
- 3 types of counseling especially effective:
 - Practical counseling
 - Social support of family and friends as part of treatment
 - Social support arranged outside of treatment



Treating Tobacco Dependence

- First-line pharmacotherapies are effective
 - Varenicline, bupropion, nicotine gum, nicotine inhaler, nicotine nasal spray, and nicotine patch
- Financial incentive programs for smoking cessation may facilitate smoking cessation
- Tobacco dependence treatments are cost effective interventions

Tobacco Dependence is a
CHRONIC DISEASE

Why not treat tobacco
dependence the same
way we treat asthma?

Tobacco Dependence



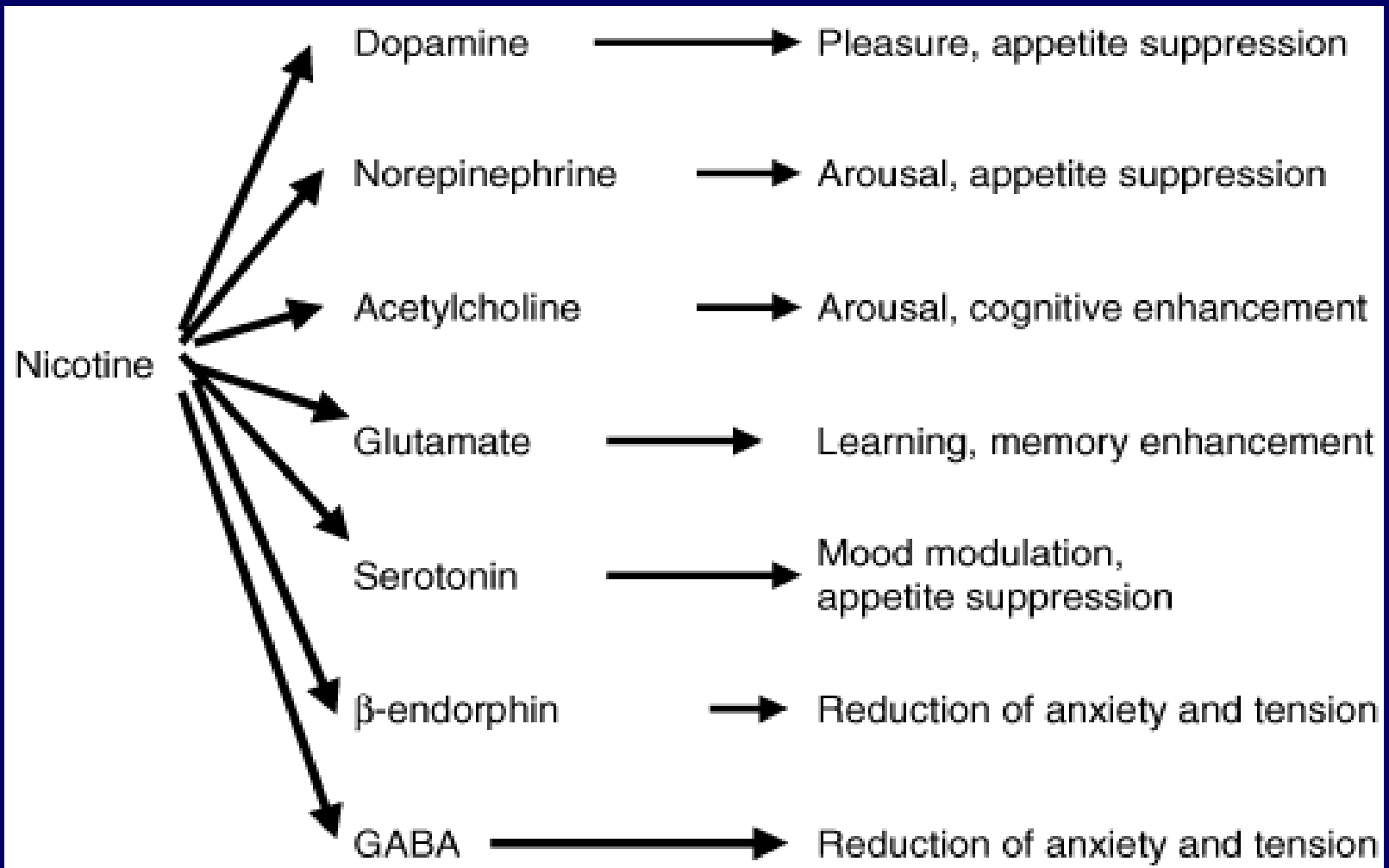
- Active smoking causes permanent changes to brain structure and chemistry
 - Cigarette smoking maintains near-complete saturation — and thus desensitization — of the nicotine receptors in the brain
 - Smokers rely on smoking to modulate mood and arousal, relieve withdrawal symptoms, or both
- Highly effective treatments for tobacco dependence are available

Benowitz NL. Nicotine Addiction. N Engl J Med 2010;362(24):2295

Fiore MC, et al. Treating Tobacco Use and Dependence. U.S. Department of Health and Human Services. 2008

Winickoff J et al. Pediatrics, 2005;115:1013 - 1017

Nicotine has Multiple Effects in the Brain



Nicotine Withdrawal Symptoms

- Cravings for cigarettes
- Irritability, frustration, anger
- Increased appetite
- Tremors
- Dysphoric or depressed mood
- Insomnia
- Anxiety, Restlessness
- Difficulty concentrating
- Slowed cognitive performance



Tobacco Dependence Toolkit

Access Now | ACCP - Internet Explorer

http://tobaccodependence.chestnet.org/access-now

File Edit View Favorites Tools Help

Access Now | What Are The ToolKit Benefits? | Success Stories | Login Here

CHEST
AMERICAN COLLEGE
of CHEST PHYSICIANS


Tobacco Dependence Treatment ToolKit

Access your ToolKit today!

The Tobacco Dependence Treatment ToolKit includes:

- Clinical background, rationale, and approach to the treatment of tobacco dependence
- Correct coding principles for tobacco dependence treatment reimbursement
- Downloadable and printable treatment algorithms, patient assessment, management, and communication tools, and patient education brochures
- Resources for health-care practitioners
- Physician advocacy information

What's Inside



The screenshot shows a preview of the toolkit's content, including an 'Executive Summary' and a list of topics such as Clinical Background, Coding Principles, and Patient Assessment. The interface is clean and professional, with a red header and a white background.

100%

If you can treat asthma, you can treat tobacco dependence

- Goal of asthma therapy:
 - Normal lung function
 - Minimal to no asthma symptoms
- Goal of tobacco dependence therapy
 - Normal brain function
 - Minimal to no symptoms of nicotine withdrawal

If you can treat asthma, you can treat tobacco dependence

- Controller Medications

- Nicotine Patch (OTC)
- Bupropion (Rx)
- Varenicline (Rx)



- Reliever Medications

- Nicotine gum, lozenge (OTC)
- Nicotine inhaler, nasal spray (Rx)

- Severity of disease guides intensity of treatment

- Pre-medicate for at risk situations

On Follow-Up Visits

- If disease is well-controlled
 - Step down medications
- If disease is not well-controlled
 - Evaluate for triggers, adherence, etc.
 - Consider stepping up medication
- Medications are adjusted based on control of the underlying disease -- not on a fixed timetable.

Treating Tobacco Dependence: ARMR Model

- **A**SSESS the disease
- **R**ECOMMEND treatment
- **M**ONITOR for effectiveness and side effects.
- **R**EVISE the treatment plan



Assess

- Assess severity of disease
 - Faegerström Test for Nicotine Dependence
 - Modified Faegerström Tolerance Questionnaire (adolescents)
 - Hooked on Nicotine Checklist (autonomy over smoking)
- Previous experience with smoking cessation

The Fagerstrom Test for Nicotine Dependence

1. **How soon after you wake up do you smoke your first cigarette?**
 - Within 5 minutes (3 points)
 - 5 to 30 minutes (2 points)
 - 31 to 60 minutes (1 point)
 - After 60 minutes (0 points)
2. **Do you find it difficult not to smoke in places where you shouldn't, such as in church or school, in a movie, at the library, on a bus, in court or in a hospital?**
 - Yes (1 point)
 - No (0 points)
3. **Which cigarette would you most hate to give up; which cigarette do you treasure the most?**
 - The first one in the morning (1 point)
 - Any other one (0 points)
4. **How many cigarettes do you smoke each day?**
 - 10 or fewer (0 points)
 - 11 to 20 (1 point)
 - 21 to 30 (2 points)
 - 31 or more (3 points)
5. **Do you smoke more during the first few hours after waking up than during the rest of the day?**
 - Yes (1 point)
 - No (0 points)
6. **Do you still smoke if you are so sick that you are in bed most of the day, or if you have a cold or the flu and have trouble breathing?**
 - Yes (1 point)
 - No (0 points)

Scoring: 7 to 10 points = highly dependent; 4 to 6 points = moderately dependent; less than 4 points = minimally dependent.

Classification of Tobacco Dependence Severity

Adapted from ACCP Tobacco Dependence Treatment Toolkit 3rd Edition, 2010

	Cigarette Use	Nicotine Withdrawal Symptoms	Fagerström Test of Nicotine Dependence
Step 4 Very Severe	> 40/day Time to first cigarette: 0 - 5 min	Constant	8 - 10
Step 3 Severe	20 - 40/day Time to 1st cigarette: 6 - 30 min.	Constant	6 - 7
Step 2 Moderate	6 - 19/day Time to 1st cigarette: 31 - 60 min.	Frequent	4 - 5
Step 1 Mild	1 - 5/day Time to 1st cigarette: > 60 min.	Intermittent	2 - 3
Step 0 Non-daily/Social	Social settings only	None	0 - 1

If chronic medical or psychiatric disease, escalate severity by 1-2 steps

Assess

- Co-morbid conditions
 - Chronic diseases (e.g., CAD, DM)
 - Psychiatric conditions
 - Medications



Recommend

- Base treatment intensity on:
 - Severity of underlying disease
 - Prior experience with tobacco dependence treatment
 - Combination therapy is more effective than single agent therapy



Cessation Treatment Options

- Nicotine replacement products
 - OTC – nicotine patch, gum, lozenge
 - Rx – nicotine patch, inhaler, nasal spray
- Prescription non-nicotine medications
 - Bupropion SR (Zyban)
 - Varenicline tartrate (Chantix)



Stepwise Approach to Treatment

<p>Controller: None</p> <p>Reliever: As needed reliever use may be considered.</p>	<p>Controller: Nicotine patch or Bupropion SR or Varenicline OR Reliever as needed</p>	<p>Controller: Nicotine patch or Bupropion SR Plus reliever as needed OR Varenicline alone.</p>	<p>Controller: Varenicline +Bupropion SR OR Nicotine patch+ Bupropion AND Reliever as needed</p>	<p>Controllers: Varenicline and/or Bupropion-SR AND/OR High Dose Nicotine Patch AND Multiple reliever medications</p>	<p>When withdrawal is controlled</p> <ul style="list-style-type: none"> • Step Down medications, • Monitor, to control maintained
<p>Step 0 Non- daily/Social</p>	<p>Step 1 Mild</p>	<p>Step 2 Moderate</p>	<p>Step 3 Severe</p>	<p>Step 4 Very Severe</p>	<p>Step Down/ Maintenance</p>



Freedom from Tobacco Action Plan

Tobacco use is more than a habit. It's an addiction.

In the green and good to go!

I have no real cravings for tobacco. I'm pretty calm. I feel like my brain can focus normally.

I use medicine to control nicotine cravings every day.

- ☐ Nicotine patch: _____ mg patch _____ # patches, apply once daily.
- ☐ Bupropion IR, SR, XL (Wellbutrin® or Zyban®): _____ mg/day once daily for first ____ days, then _____
- ☐ Varenicline (Chantix ®)
 - ☐ Use Starter Pack as directed
 - ☐ Use continuing month pack, _____ mg tab, _____ times per day
- ☐ Use prior to problem times: _____

Yellow, but not so mellow.

I'm craving tobacco. I may be feeling irritable, anxious, and restless.
It is hard for me to get my brain to focus.

Continue your Green zone EVERY DAY Medicine

Need a rescue? Take a quick-relief nicotine medicine:

- ☐ Gum
- ☐ Lozenge
- ☐ Nasal Spray
- ☐ Inhaler

Take _____ (dose) every _____ minutes as needed.



Seeing red.

I am feeling strong cravings for tobacco. I really need a cigarette now. It may be very hard to get my brain to focus.

In the RED ZONE, take a quick-relief nicotine medicine.

Take _____ (dose) every _____ minutes as needed.

- ☐ Gum
- ☐ Lozenge
- ☐ Nasal Spray
- ☐ Inhaler

Continue your Green zone EVERY DAY Medicine.

If you are in the red zone, contact your physician or tobacco dependence treatment specialist. You may need stronger medicine

Classification of Tobacco Dependence Severity

Adapted from ACCP Tobacco Dependence Treatment Toolkit 3rd Edition, 2010

	Cigarette Use	Nicotine Withdrawal Symptoms	Fagerström Test of Nicotine Dependence
Step 4 Very Severe	>40/day Time to first cigarette 0-5 min	Constant	8-10
Step 3 Severe	20-40/day Time to 1 st cigarette: 6-30 min.	Constant	6-7
Step 2 Moderate	6-19/day Time to 1 st cigarette 31-60 min.	Frequent	4-5
Step 1 Mild	1-5/day Time to 1 st cigarette >60 min.	Intermittent	2-3
Step 0 Non-daily/Social	Social settings only	None	0-1

If chronic medical or psychiatric disease, escalate severity by 1-2 steps

Stepwise Approach to Treatment

Controller: None Reliever: As needed reliever use may be considered.	Controller: Nicotine patch <i>or</i> Bupropion SR <i>or</i> Varenicline OR Reliever as needed	Controller: Nicotine patch or Bupropion SR Plus <i>reliever</i> as needed OR Varenicline alone.	Controller: Varenicline +Bupropion SR OR Nicotine patch+ Bupropion AND Reliever as needed	Controllers: Varenicline and/or Bupropion-SR AND/OR High Dose Nicotine Patch AND Multiple reliever medications	When withdrawal is controlled <ul style="list-style-type: none"> • Step Down medications, • Monitor, to control maintained
Step 0 Non- daily/Social	Step 1 Mild	Step 2 Moderate	Step 3 Severe	Step 4 Very Severe	Step Down/ Maintenance



Freedom from Tobacco Action Plan

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In the green and good to go!

I have no real cravings for tobacco. I'm pretty calm. I feel like my brain can focus normally.

I use medicine to control nicotine cravings every day.

- ☒ Nicotine patch: 21 mg patch 1 # patches, apply once daily.
- ☐ Bupropion IR, SR, XL (Wellbutrin® or Zyban®): mg/day once daily for first days, then
- ☐ Varenicline (Chantix®)
- ☐ Use Starter Pack as directed
- ☐ Use continuing month pack, mg tab, times per day
- ☒ Use prior to problem times: Nicotine gum, 4 mg

Yellow, but not so mellow.

I'm craving tobacco. I may be feeling irritable, anxious, and restless.
It is hard for me to get my brain to focus.

Continue your Green zone EVERY DAY Medicine

Need a rescue? Take a quick-relief nicotine medicine:

- ☒ Gum ☐ Lozenge ☐ Nasal Spray ☐ Inhaler

Take 4mg (dose) every 30 minutes as needed.

Seeing red.

I am feeling strong cravings for tobacco. I really need a cigarette now. It may be very hard to get my brain to focus.

In the RED ZONE, take a quick-relief nicotine medicine.

Take 4 mg (dose) every 20 minutes as needed. ☒ Gum ☐ Lozenge ☐ Nasal Spray ☐ Inhaler

Continue your Green zone EVERY DAY Medicine.

If you are in the red zone, contact your physician or tobacco dependence treatment specialist. You may need stronger medicine



Not ready to quit yet?

- Discuss "5 Rs"
- **R**elevance
- **R**isks
- **R**ewards
- **R**oadblocks
- **R**epetition
- Individualize so treatment is age appropriate and personally relevant



Reduction Toward Cessation

- Use nicotine patch to reduce smoking and prepare for cessation
- Use of NRT to reduce smoking and gain greater control of smoking behavior



Morre D et al. BMJ. 2009 Apr
2;338:b1024

E-cigarettes: NOT RECOMMENDED

- FDA analysis found **carcinogenic and toxic** substances in the vapor of these devices
- Vapor **contains anti-freeze**
- An “introductory” product to get kids hooked
- Use of flavorings (chocolate, strawberry and mint) is designed to appeal to young people



E-Cigarettes

- Liquid nicotine is health risk to young children
- Fine particles in aerosol degrades lung function
- Unknown if exposure to secondhand emissions are harmful
- User can exhale formaldehyde, benzene and other toxins
- No scientific proof of safety



E-Cigarettes



- Dual use dangers
 - Smokers may be using them along with traditional cigarettes
- At present, research regarding safety of e-cigarettes is not conclusive
- Possible health risks of e-cigarettes appear to be far less than the dangers associated with tobacco use
- Not regulated in the U.S.
- Not enough scientific studies on risk

E-Cigarettes and Smoking Cessation

- One study in *Addiction* found e-cigarettes associated with increases in attempts to quit but not smoking cessation
- ***BUT***...the FDA has not found any e-cigarette safe and effective in helping smokers quit
- More studies needed to assess effectiveness
- People need help quitting, not help continuing their habit in more socially acceptable ways
- **Not approved as a cessation device**

Future of E-Cigarettes

- For individuals who switch to vaping (not dual use), can favorably impact standard cigarette use – but what are long-term effects on health??
 - Need to study effectiveness of e-cigarettes to help smokers quit
 - Need to study health status of individuals who have switched from smoking to e-cigarettes
 - Need research on how e-cigarettes can be made safer



Tobacco has a long history of promotion...

SOMETHING WONDERFUL HAPPENS when you change to PHILIP MORRIS!

YOU FEEL BETTER BECAUSE, in case after case, coughs
due to smoking disappear . . . parched throat clears up
. . . that stale, "smoked-out" feeling vanishes.*

**Proof of superiority published in leading medical journals.*



CALL FOR **PHILIP MORRIS**



Cigarette Advertisement, 1953

Before you scold me, Mom ...
maybe you'd better light up a

Marlboro



YOUR CHOICE OF EVERY TYPE • PLAIN END • BEAUTY TYPE • 1000



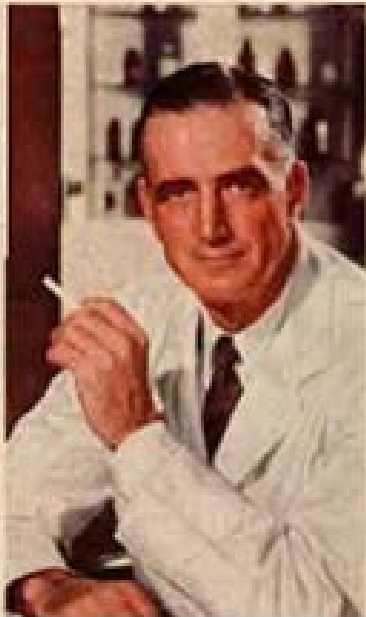
YOUR CHOICE OF EVERY TYPE • PLAIN END • BEAUTY TYPE • 1000

Marketing Marlboro to Mothers 1950's

Smoking is healthy for you?!

According to repeated nationwide surveys,

More Doctors Smoke **CAMELS** than any other cigarette!



**IT'S BETTER
TO BE FIT
THAN FAT**

Don't eat
between meals

EATING between meals
is a waste of food for the
stomach and weakens your
digestive system. It's a
simple plan to stay in
good health — to be fit. Kenitas
may help you here. It's
designed to aid between
meals — not to eat it
between meals. Instead,
there's a middle course
in the opening of a
Kenitas. You'll be delighted
to see how quickly the
stomach empties. The
choice is not between meals.
Try it — you'll like it.



KENITAS
PRIVATE
PROCESS

10 for 6¢ — 20 for 1¢.



• The figures quoted have been
checked and verified by the
FEDERAL BUREAU OF
STATISTICS, DISCOUNT AND
SALES.

20,679* Physicians
say **“LUCKIES**
are less irritating”

“It's toasted”

Your Throat Protection against irritation against cough

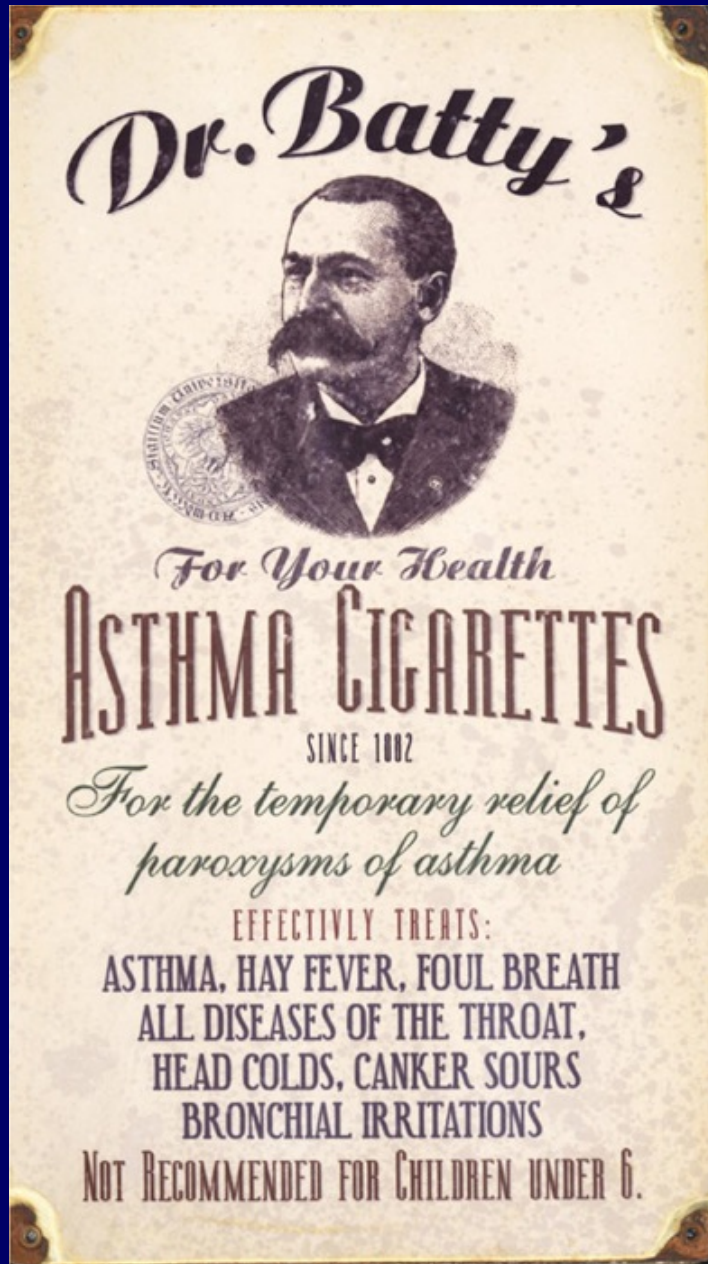
1970's Virginia Slims advertisement



- 1971 ban on advertising on television
- 1998 prohibited tobacco companies from targeting children

1989 Virginia Slims advertisement





We've come a long way –
from this to this



Tobacco Dependence Treatment Resources

- For Patients:

- Quit line: 1-800-QUIT-NOW

- For Providers:

- American College of Chest Physicians
Tobacco Dependence Treatment Toolkit

Questions?

- Phone: 616-464-4816
- Email: Karen.Meyerson@priorityhealth.com
- Websites:
 - www.goldcopd.org
 - <http://www.chestnet.org/Publications/Other-Publications/Tobacco-Dependence-Toolkit>