Understanding and Managing COPD 3.0 CE Hours

Quiz Button

Course Objectives:

The Learning Objectives are

1. Define the condition known as Chronic Obstructive Pulmonary Disease and its most common causes
2. Define the role of the Respiratory Therapist in the treatment of patients with COPD
3. List at least three classes of medications for COPD
4. Discuss how patient education can benefit persons with COPD
5. Discuss current research into COPD and any new initiatives

INTRODUCTION

Chronic Obstructive Pulmonary Disease is another condition for which the Respiratory Therapist can be highly valuable on the disease management team. As with asthma, this is a chronic condition which persons will have to learn techniques and strategies to empower them to engage in positive self-care. In this role, the medical professional can be extremely helpful. COPD is primarily a condition which strikes adults, and in many cases is highly preventable (more in the next section). As with other conditions of modern living, COPD is very much about the environment the individual creates for themselves, but also the ways in which people are affected by the environment around them. Unfortunately, there are also genetic factors, and people with COPD in their family, are also more likely to contract the illness. As with other conditions, there are socio-economic factors in the onset of COPD, and the condition is often seen in families who live with poverty,

possibly due to malnutrition and other factors, such as living near an industrial area.

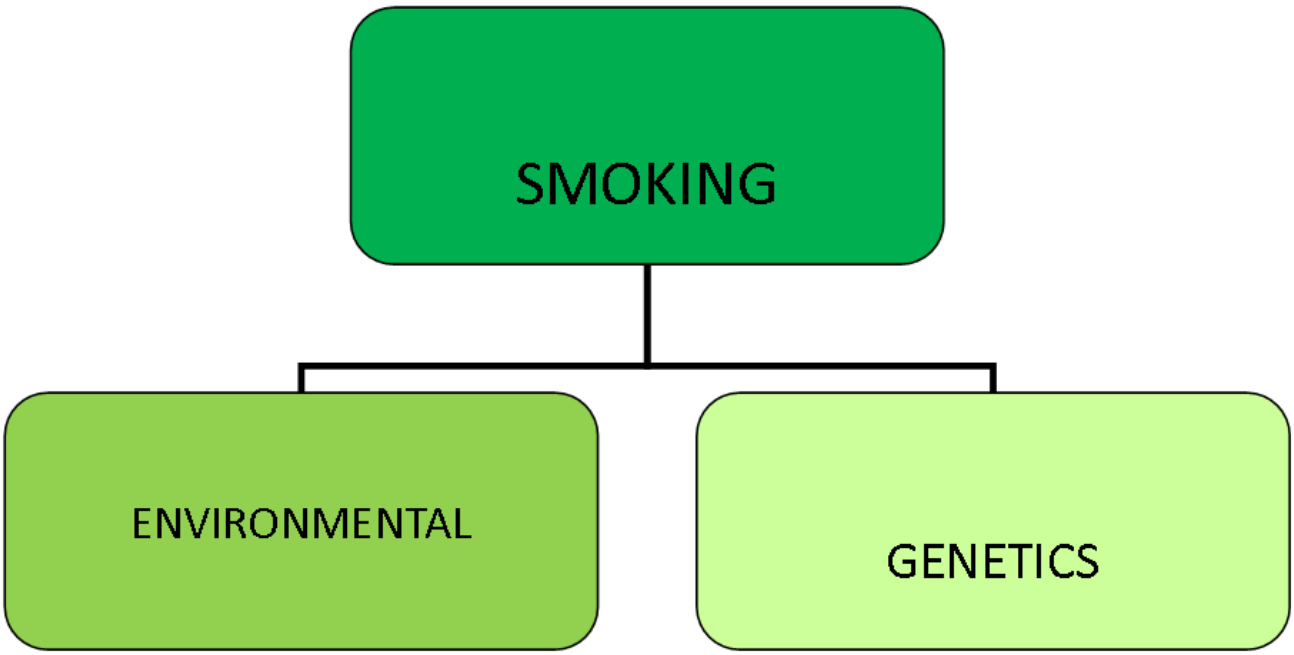
There are, of course, ways to diagnose and treat COPD which the medical professional should be familiar with. In particular, the medical professional plays a significantly important role in the treatment, maintenance, and education of patients with COPD. They can also serve as their advocates in specific instances, such as assisting them with accessing drug programs, just as they do with patients who have other conditions such as asthma. The medical professional becomes one of the most important people in the life of a person with COPD. As a breathing specialist, the medical professional will perform multiple roles for these patients. The CDC lists it as the 4th leading cause of death in the U.S[1].

More About COPD: [2]

Actually, COPD is an umbrella term for two separate diseases—chronic bronchitis (airway disease) and emphysema (parenchymal disease). Worldwide, COPD is a leading cause of death and disability. Experts predict that by 2020, it will be the third most common cause of death—up from sixth place in 1990. COPD has an insidious onset, with symptoms arising only after 50% to 70% of lung function is lost. Lung changes cause increased work of breathing. Persons with COPD lose lung function at two to three times the normal rate. COPD also increases the risk of lung cancer.
COPD has both pulmonary and co-morbid components that contribute to disease severity and related disability. Co-morbid components may include cardiovascular disease, malnutrition with skeletal-muscle wasting, osteoporosis, anemia, increased gastro-esophageal reflux disease, and such psychological processes as depression and anxiety.

CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND ITS MOST COMMON CAUSES

FACTORS IN THE RISE OF COPD



The Signs and Symptoms of COPD

The main symptoms include of COPD have been identified:

- Shortness of Breath
- Persistent Cough
- Sputum Production
- Wheezing
- Chest Tightness

According to the National Heart, Lung, and Blood Institute[3], in order to understand COPD, it helps to understand the basic functions of the lungs and how they work.

Within the lungs, your bronchial tubes branch into thousands of smaller, thinner tubes called bronchioles. These tubes end in bunches of tiny round air sacs called alveoli

Small blood vessels called capillaries run through the walls of the air sacs.

When air reaches the air sacs, oxygen passes through the air sac walls into the blood in the capillaries. At the same time, carbon dioxide (a waste gas) moves from the capillaries into the air sacs. This process is called gas exchange.

The airways and air sacs are elastic (stretchy). When you breathe in, each air sac fills up with air like a small balloon. When you breathe out, the air sacs deflate and the air goes out.

In COPD, less air flows in and out of the airways because of one or more of the following:

- *The airways and air sacs lose their elastic quality.*
- *The walls between many of the air sacs are destroyed.*
- *The walls of the airways become thick and inflamed.*
- *The airways make more mucus than usual, which can clog them*

Here is a brief instructive video: http://www.nhlbi.nih.gov/health/health-topics/topics/copd/diagnosis

Due to the severity of the condition, COPD can become a severely disabling condition in the life of someone who contracts the condition. As their symptoms become worse, they are less able to function. Millions of Americans with this condition end up on long-term disability, unable to work, and living a highly restricted lifestyle. This is why the medical professional has such an important role with this condition. In fact, the medical professional could become one of the primary means of reducing the incidence of COPD in the U.S.

COPD tends to develop very slowly in a person. As they face increasing and prolonged exposure to factors such as tobacco

smoke, environmental pollution, and/or occupational hazards (such as industrial smoke), they will find that their symptoms progress. This is why patient education (which is discussed later in this course) becomes so vital. But, the slow onset of COPD can also be quite deceiving. The person may not be alarmed in the beginning, and may think nothing of a mild cough, or occasional wheezing. If they don't get themselves tested immediately, the disease will have progressed to a dangerous level the longer they wait.

COPD can turn the lips and nails a bluish color. This color change is a sign that you don't have enough oxygen in your blood. Normally, the blood is red. When it's deprived of oxygen, blood turns blue. It's this bluish-colored blood that gives the lips and fingernails their blue hue. A bluish discoloration of the skin is also called **cyanosis.** It's a very serious symptom that warrants an immediate call for emergency medical care. Another serious sign will be the swelling of legs and feet. In order to make up for the damage to one's lungs, the heart needs to pump harder so that it can distribute the oxygen throughout the body. Over time, the heart muscle will also become damaged, and enlarged from all of this extra effort. When the lower extremities begin to swell, this is a sign that the person has likely developed a form of heart failure. The heart can no longer beat as forcefully as it should, and this can lead to blood clots if left untreated.

People who have had COPD for a long time may develop a bulge in their chest. Their chest will take on a barrel-like appearance. This is called **barrel chest.** The reason this occurs is because the person's lungs are so filled with air that they eventually stretch out the rib cage. A barrel chest is serious because it can worsen the existing breathing problems, and make it harder for the person to catch their breath.

There are other serious problems that occur as a result of

COPD. As the person has to exert more effort to breathe, they actually burn up ten times more calories than usual. Shortness of breath and coughing can cause the person to lose interest in eating, which in turn causes serious weight loss. If the body is too thin, then it can't protect you well against infections[4]. Chronic obstructive pulmonary disease (COPD) is an umbrella term that includes emphysema, chronic bronchitis, and sometimes asthma. Emphysema is usually the direct result of years of smoking cigarettes. It affects people who are middle-aged or elderly. Chronic bronchitis, which can occur earlier in life, also can be caused by smoking. Doctors will diagnose COPD using a variety of tests:

- Lung function: this measures how much air you can breathe in and out, how fast you can breathe, and how well you lungs deliver oxygen to your blood
- Spirometry: The machines measures how much air you breath out, and how fast you can do so
- Chest x-ray, CT scan
- Electrocardiogram and Echocardiogram may be used to check the heart

THE ROLE OF THE RESPIRATORY THERAPIST IN THE TREATMENT OF PATIENTS WITH COPD

As with asthma, a multi-disciplinary treatment plan is absolutely essential for people with COPD. Some of the ways in which the medical professional will be involved include the following:

- Early diagnosis: With their understanding of breathing-related problems, the medical professional can step in and help the patient understand whether or not their symptoms are possibly related to COPD.
- Smoking cessation: Educating patients (more in next section) is another role for the medical professional
- Disease management: As with asthma, and other conditions, the medical professional can help the person

manage their condition so that it doesn't progress and become life-threatening

The Importance of Respiratory Therapists In Smoking Cessation

Respiratory therapists understand tobacco addiction, evaluate tobacco use, assess readiness to change, and treat tobacco addiction.

Smoking-related respiratory disorders[5]

- Smoking cessation should be an integral component of treatment for chronic obstructive pulmonary disease (COPD) and other respiratory disorders
- Tobacco smoking is a significant contributor to respiratory disorders. It is a major factor in the development of COPD and lung cancer. Several epidemiological studies have shown that cigarette smoking is the primary factor in causing lung cancer and death from lung cancer. Research has also shown that cigarette smoking is the most important risk factor for COPD.
- Tobacco smoking also negatively affects diseases such as pneumonia and tuberculosis. A recent meta-analysis has shown an association between tobacco smoking and the onset of tuberculosis, such that the relative risk for contracting tuberculosis is higher in individuals who are active smokers (although the mechanism for the higher rates of contraction is still under investigation)

Respiratory therapists should possess the following tobacco treatment competencies:

- Tobacco dependence knowledge and education
- Provide patients with clear and accurate information about tobacco use, strategies for quitting, and the causes and consequences of tobacco use.

- Counseling skills: The ability to demonstrate effective application of counseling theories and establish a collaborative relationship with patients
- Motivation strategies: Help tobacco users feel supported and understood rather than judged. The ability to engage in a process of change to help patients with respiratory disorders move toward quitting
- The ability to be empathic, avoid arguments and confrontations, and support the patient in the need to change. The ability to encourage the patient to make informed, autonomous choices
- Conduct an assessment interview to obtain comprehensive and accurate data for treatment planning
- The ability to understand how to question patients regarding their current and past smoking patterns
- The ability to develop an individualized treatment plan using evidence-based strategies
- The ability to provide clear and accurate information about pharmacotherapy options available and their proper use.
- The knowledge of methods to reduce relapse and provide ongoing support to patients.
- The knowledge of when and how to provide follow-up with patients
- Knowledge of and competence in working with diverse populations
- Knowledge of the methods used for tracking individual progress, record keeping, and outcome measurements
- Knowledge of how to utilize resources available for client support and for professional education in patients.
- Knowledge of the strategies for how to prioritize smoking cessation in patients
- The ability to take a proactive and continuing role with smokers in motivating them to quit.
- The knowledge of how to regularly assess the smoking status of their patients. They must know how to examine

CO in exhaled air, and remember to check the patient's breath, and/or fingernails

- The medical professional must know how to determine the patient's motivation for giving up smoking
- They should be able to continually assess the patient's dependence through biochemical measures or a questionnaire. The patient's smoking status should be clearly documented
- The medical professional should provide the patient with information on pharmacological treatments for smoking cessation, and provide them with information on behavioral support, such as psychosocial interventions

One of the roles of the medical professional is to use appropriate models for smoking cessation. The following is one of the models they should become familiar with:

Transtheoretical Model (TTM)[6] – Based on the idea that individuals engaging in intentional behavior change follow a common pathway that can be broken down into various steps (or stages)

Stages of Change:

Stage	A Tobacco User in this Stage
Precontemplation	Gives no thought to quitting use, and has no intention to quit in the near future (i.e., within next 6 months)
Contemplation	Has begun to examine their tobacco use and desire to quit; Is weighing the pros and cons of quitting tobacco
Preparation	Has made a commitment to quit (usually within next 30 days), and has begun developing a plan for quitting
Action	Has put their plan for quitting tobacco into action (< 6 months)
Maintenance	Has successfully sustained abstinence for at least 6 months

The Process of Change

Cognitive/Experiential Processes	Description (for Tobacco Users)

Consciousness-Raising.	Knowledge and awareness about the individual and their tobacco use is increased
Emotional Arousal	Emotions about the individual's tobacco use, and available treatments or solutions, are aroused.
Self-Reevaluation	Cognitions and emotions regarding the individual, especially with respect to their tobacco use, are reassessed.
Environmental Reevaluation	The impact that the individual's tobacco use has on their environment is reassessed
Social Liberation	Attempts are made to decrease tobacco use in society.

The Context of Change:

Context	Description
Current Life Situation	Current internal and external environment in which the change is to take place (i.e., level of anxiety/depression, financial situation, etc.)
Beliefs and Attitudes	Basic beliefs about how change should happen, what is needed for successful change, general beliefs about oneself, etc
Interpersonal Relationships	Interactions with significant individuals (i.e., spouse, close friends, etc.)
Social Systems	Family system, social network, societal and work systems provide social norms, social reference, as well as incentives or barriers to change
Enduring Personal Characteristics	Personality characteristics (i.e., impulsivisy, self-esteem, conscientiousness, etc.)

TREATMENTS FOR COPD

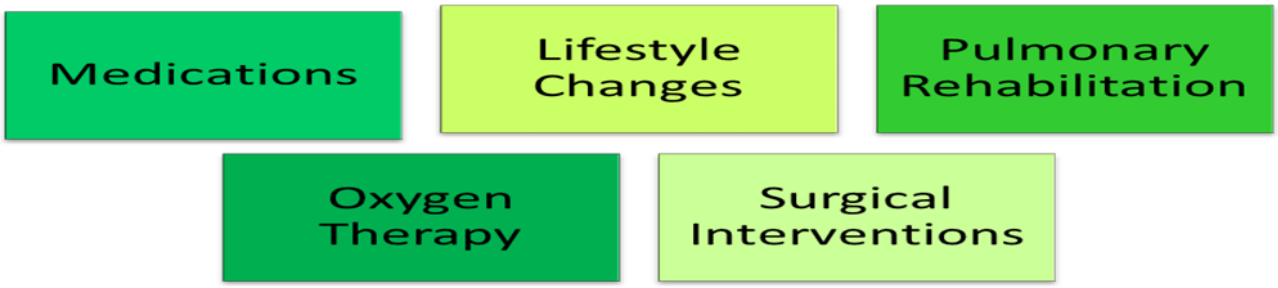
COPD has no cure yet. However, lifestyle changes and treatments can help you feel better, stay more active, and slow the progress of the disease.

The goals of COPD treatment include:

- Relieving a person's symptoms
- Slowing the progress of the disease
- Improving a person's exercise tolerance (your ability to stay active)
- Preventing and treating complications

- Improving a person's overall health

To assist with your treatment, your family doctor may advise you to see a pulmonologist. This is a doctor who specializes in treating lung disorders. There is a wide range of treatments for persons with COPD, everything from medications, to lifestyle changes, to surgery. Surgical options can even include a lung transplant, if the situation is dire enough. Here is a brief diagrammatic look at the various treatment options



Medicines[7]

Bronchodilators

Bronchodilators relax the muscles around your airways. This helps open your airways and makes breathing easier. Depending on the severity of your COPD, your doctor may prescribe short-acting or long-acting bronchodilators. Short-acting bronchodilators last about 4–6 hours and should be used only when needed. Long-acting bronchodilators last about 12 hours or more and are used every day.

Most bronchodilators are taken using a device called an inhaler. This device allows the medicine to go straight to your lungs. Not all inhalers are used the same way. Ask your health care team to show you the correct way to use your inhaler.

If your COPD is mild, your doctor may only prescribe a short-

acting inhaled bronchodilator. In this case, you may use the medicine only when symptoms occur. If your COPD is moderate or severe, your doctor may prescribe regular treatment with short- and long-acting bronchodilators.

Combination Bronchodilators Plus Inhaled Glucocorticosteroids (Steroids)

If your COPD is more severe, or if your symptoms flare up often, your doctor may prescribe a combination of medicines that includes a bronchodilator and an inhaled steroid. Steroids help reduce airway inflammation. In general, using inhaled steroids alone is not a preferred treatment. Your doctor may ask you to try inhaled steroids with the bronchodilator for a trial period of 6 weeks to 3 months to see whether the addition of the steroid helps relieve your breathing problems.

Vaccines

Flu Shots

The flu (influenza) can cause serious problems for people who have COPD. Flu shots can reduce your risk of getting the flu. Talk with your doctor about getting a yearly flu shot.

Pneumococcal Vaccine

This vaccine lowers your risk for pneumococcal pneumonia and its complications. People who have COPD are at higher risk for pneumonia than people who don’t have COPD. Talk with your doctor about whether you should get this vaccine.

Pulmonary Rehabilitation

Pulmonary rehabilitation (rehab) is a broad program that helps improve the well-being of people who have chronic (ongoing) breathing problems.

Rehab may include an exercise program, disease management

training, and nutritional and psychological counseling. The program's goal is to help you stay active and carry out your daily activities.

Your rehab team may include doctors, nurses, physical therapists, respiratory therapists, exercise specialists, and dietitians. These health professionals will create a program that meets your needs.

Oxygen Therapy

If you have severe COPD and low levels of oxygen in your blood, oxygen therapy can help you breathe better. For this treatment, you're given oxygen through nasal prongs or a mask.

You may need extra oxygen all the time or only at certain times. For some people who have severe COPD, using extra oxygen for most of the day can help them:

- Do tasks or activities, while having fewer symptoms
- Protect their hearts and other organs from damage
- Sleep more during the night and improve alertness during the day
- Live longer

Surgery

Surgery may benefit some people who have COPD. Surgery usually is a last resort for people who have severe symptoms that have not improved from taking medicines.

Surgeries for people who have COPD that's mainly related to emphysema include bullectomy (bul-EK-toe-me) and lung volume reduction surgery (LVRS). A lung transplant might be an option for people who have very severe COPD.

Bullectomy

When the walls of the air sacs are destroyed, larger air spaces called bullae (BUL-e) form. These air spaces can become

so large that they interfere with breathing. In a bullectomy, doctors remove one or more very large bullae from the lungs.

Lung Volume Reduction Surgery

In LVRS, surgeons remove damaged tissue from the lungs. This helps the lungs work better. In carefully selected patients, LVRS can improve breathing and quality of life.

Lung Transplant

During a lung transplant, your damaged lung is removed and replaced with a healthy lung from a deceased donor. A lung transplant can improve your lung function and quality of life. However, lung transplants have many risks, such as infections. The surgery can cause death if the body rejects the transplanted lung.

If you have very severe COPD, talk with your doctor about whether a lung transplant is an option. Ask your doctor about the benefits and risks of this type of surgery.

PATIENT EDUCATION FOR PERSONS WITH COPD

Education and self-management are important components of a multidisciplinary approach to management of COPD. Programs for self-management consist of group or one-to-one educational sessions that explain the nature and course of the disease and teach patients how to live with the consequences of the disease and integrate into their community. While the medical professional has a significant role to play, it is vital to remember that one should always remain within the professional boundaries of that role. One area where it will be tempting to help patients is with their psychosocial symptoms. Patients reporting fear and anxiety may benefit from psychosocial support, and the integration of occupational therapy, or social services support into these programs may improve independence in activity. While a patient may believe that because the medical professional is understanding,

knowledgeable, and empathic, that they can unburden themselves of their emotional issues with them. The medical professional has to take great care not to act as the patient's therapist. The medical professional should always refer the patient to an appropriate and certified specialist in the field of behavioral medicine.

Self-management involves preparing an "Action Plan" for prompt treatment of acute exacerbations in order to improve quality of life and reduce the use of health care resources. Although patient self-management through an individualized Action Plan can help with early initiation of therapy, its use depends on the patient being able to recognize the features of an exacerbation.

The medical professional most definitely has one of the key roles in helping patients to remain active, happy, and healthy. As they are likely the professional who will be monitoring their symptoms, they are the ones who will see first-hand when and if the patient's symptoms begin to worsen. The medical professional will use this knowledge to ensure that the patient then receives the appropriate information and referrals to see that their treatment is changed accordingly.

Some of the facts[8] that medical professional 's can pass on to their patients:

- 480,000 people die each year from tobacco-related diseases
- 3,200 children become regular users of tobacco everyday
- Smoking is the leading cause of preventable death
- Secondhand smoke is the third leading cause of preventable death
- Secondhand smoke causes more than 42,000 premature deaths in nonsmokers each year
- Over 23% of our high school students are currently using tobacco products

In passing on this information, the medical professional should always consider that they give the information in the proper context. They can begin the process by asking their patients what they know. There should not be an assumption of a lack of knowledge. Some patients will be far more educated than others, and there will be some patients who find this information frightening, so it should be given in a gentle, and non-judgmental manner.

EDUCATIONAL MATERIALS

Here is an excellent resource that can further guide the medical professional : Clinician's Guide to Treating Tobacco Dependence:	http://www.aarc.org//app/uploads/2014/11/tobacco_guide.pdf
Association for the Treatment of Tobacco Dependence:	http://www.attud.org/findprog.php
Standards For The Diagnosis And Treatment Of Patients With COPD: A Summary Of The ATS/ERS Position Paper	http://www.thoracic.org/statements/resources/copd/copdexecsum.pdf
The American College of Chest Physicians provides these guides for living well:	file:///C:/Users/User/Downloads/LivingWellwithCOPD2014.pdffile:///C:/Users/User/Downloads/LivingWellCOPDLifestyleTool.pdf
Educate patients about their Treatments	file:///C:/Users/User/Downloads/2TREATMENT.pdf
Create a COPD ACTION PLAN	http://www.respiratoryguidelines.ca/sites/all/files/CTS_COPD_updated_Action_Plan_editable_PDF.pdf
Here's an ACTION PLAN from the American Lung Association	http://www.lung.org/lung-disease/copd/awareness/copd-action-plan-generic.pdf
COPD Self -Management Plan & Patient Education Booklet	http://www.copdeducation.org.uk/Category-291/COPD-Self-Management-Plan-and-Patient-Education-Booklet

Psychosocial Issues:

For anyone who has to deal with a long-term, chronic illness, there is always a risk they will become highly dependent on others. They may begin to feel a lack of control over their symptoms, and decreased energy. People with COPD are at risk for depression and anxiety due to the burden of their symptoms, and the functional limitations in their life. They can become socially isolated, and feel as if they must restrict their social interactions. These issues can weigh heavily on the minds of people with COPD. medical professional 's can be helpful by using the following strategies:

- Encourage them to verbalize their feelings
- Work with them and empower them to adopt healthy coping behaviors
- Understand the burden of their symptoms and be empathic in these discussions

- Understand the fears that some patients have of becoming fully disabled
- Understand the concerns that some patients have of losing their jobs and not being able to support themselves, or their family
- Understand that some patients may fear the loss of a relationship due to the onset of the illness, or disability
- Understand the concerns patients will have with regards to access to affordable treatments such as medications or rehabilitation
- Understand the concerns that patients may have with respect to understanding their condition, especially if English is not their first language – Ensure that patients have educational materials in their primary language
- Include family caregivers in discussion when and where appropriate
- Refer patient to a Social Worker or other Counseling Professional
- Remember that patients may have issues with situations such as sexual functioning, especially as lung function declines
- Patients may develop different types of mobility issues that need to be addressed – they can become quite emotional and distressed concerning these issues

A SAMPLE PLAN TO DEVELOP WITH PATIENT: COPD Flare-up Action Plan

Patient Name: _____Date: _____

An action plan is a contract between you and your doctor about how you will manage your COPD flare-ups. The goal of this action plan is to quickly detect and treat COPD flare-ups. Especially watch for a COPD flare-up when:

- You get a cold or flu.
- You feel run down or tired.
- You are exposed to air pollution.
- After weather changes.

5. When your mood changes; such as feeling down or anxious. If you have 1 or more of the following symptoms for 1 to 2 days you are having a COPD flare-up:

- Increased shortness of breath compared to normal.
- Increased amounts of cough and sputum from normal.
- Your sputum changes from its normal colour to a yellow, green or rust colour.

YOUR ACTION PLAN: When you have a COPD flare-up, do the following: (Your doctor will check your action items)

- Call your family doctor immediately for a check-up and medicine
- Take your prescribed prednisone for a COPD flare-up and finish the prescription
- Take your prescribed antibiotic for a COPD flare-up and finish the prescription
- Take 2 – 4 puffs of your blue rescue inhaler, 4 to 6 times per day for shortness of breath
- Other _____

If after taking the above action, your symptoms do not improve in 48 hours, seek medical care immediately.

If you are extremely breathless, anxious, panicky, confused, agitated, fearful or drowsy, call 911 for an ambulance to take you to the emergency room.

When you have a COPD flare-up

1. Start your action plan as instructed by your doctor.
2. If you do not feel better after 48 hours, or if you are getting worse at any time, get medical attention right away.

3. Book an appointment to see your doctor to get COPD flare-up prescription refills.

This action plan is for COPD flare ups only. There are other reasons you may get shortness of breath such as heart problems or pneumonia.

If you develop shortness of breath and symptoms not mentioned on page 1 (abnormal shortness of breath, more cough and sputum, coloured sputum), see a doctor.

Antibiotic Rotation After a COPD flare-up, a different antibiotic may need to be prescribed for your next flare-up. Help your doctor do this by keeping track of the name of the antibiotic, and when you started taking it for each COPD flare-up. Bring this information with you to your doctor appointments.

Antibiotic Name			
Date Taken			

CURRENT RESEARCH INTO COPD

Here are some of the most current research projects in the field of COPD and the treatment of tobacco dependence:

1. Military Culture Enables Tobacco Use:

http://www.cfah.org/hbns/2014/military-culture-enables-tobacco-use

2. Future Research Directions in Chronic Obstructive Pulmonary Disease:

http://www.nhlbi.nih.gov/health-pro/resources/lung/chronic-obstructive-pulmonary-disease-future-research/workshop-summary

There are encouraging indications for future COPD research. Data that support several novel concepts have been presented, there have been unanticipated discoveries, and new experimental approaches and techniques that are aptly suited

to COPD research have been developed. Furthermore, elucidation of cellular pathways that are critically involved in COPD pathogenesis may lead rapidly to clinical trials of potential therapeutics, given the improving capabilities of the pharmaceutical industry for development of mechanism-specific drugs.

3. Emphysema COPD Research Center

http://www.dept-med.pitt.edu/paccm/ebli.html

The Emphysema COPD Research Center (ECRC) is focused on the investigation of fundamental biologic concepts in advanced chronic obstructive lung disease, particularly emphysema. The program utilizes advanced tools in molecular, biochemical, physiologic, and radiographic assessment for research investigations which are predominantly based in clinical medicine.

4. Small study shows beetroot juice improves exercise function of COPD patients:

http://www.medicalnewstoday.com/releases/288492.php

5. 5. Discovery of genes that predispose a severe form of COPD:

http://www.medicalnewstoday.com/releases/287326.php

6. The COPD Clinical Research Network:

http://www.copdcrn.org/ and https://www.clinicaltrials.gov/ct/show/NCT00325897?order=1

7. Healthy eating and lung function:

http://www.webmd.com/lung/news/20140521/diet-tied-to-better-breathing-in-copd-patients

8. 8. Medicines in Development for Chronic Obstructive Pulmonary Disease (COPD)

http://www.phrma.org/research/new-medicines-COPD

9. Chronic Obstructive Pulmonary Disease: Research Highlights

http://sciencewatch.com/articles/chronic-obstructive-pulmonary-disease-research-highlights

10. Chronic Obstructive Pulmonary Disease Research

http://www.ucsfhealth.org/research/chronic_obstructive_pulmonary_disease/

11. Clinical Trials

http://www.nhlbi.nih.gov/health/health-topics/topics/copd/trials

12. COPD Gene Study

http://www.copdfoundation.org/Research/COPDGene-Study/Learn-More.aspx

Much of the current research is focused on the issue of tobacco and environmental pollutions. Unfortunately, even with all of the clinical evidence that smoking is harmful to our health, people continue to engage in the habit of regular cigarette use. For decades, cigarettes were glamorized in the movies, on television, and in magazine advertisements. While this is no longer the case, millions of people are still dependent on tobacco and other harmful agents. The role of the medical professional in educating patients on the dangers of nicotine is a highly important one. They can be strong advocates to help people understand the ways in which cigarettes lead to severe complications of their COPD, and even end up with additional issues such as cancer. Patients can be educated, and medical professional ’s can fulfill this role. The more knowledge the medical professional has, the more empowered they will be in their patient communications.

In addition, research has begun to focus on some of the more modern ideas about curing illnesses such as gene research. However, it is important to keep in mind that these studies are in the very early stages, and not at all at the treatment stage. In the education of patients with COPD, medical professional ’s can certainly play role to help them understand the research that currently takes place. It is vital, however, to be clear with patients about what is currently available, in order not to raise peoples’ hopes about a cure before one is available. Patient communication strategies are always at the core of good patient management. With proper treatment, a progressive attitude, and the right education, patients can get their COPD under control. This is where the medical professional can also be helpful. They can educate their patients to understand that the diagnosis of COPD is not necessarily a death sentence, but a wake-up call to make positive changes in their life. The R. T. is one of the professionals who can empower them to make those changes.

[1] http://www.cdc.gov/Features/COPD/

[2] http://www.americannursetoday.com/when-breathing-is-a-burden-how-to-help-patients-with-copd-2/

[3] http://www.nhlbi.nih.gov/health/health-topics/topics/copd

[4] This information on COPD has been gleaned from this website: http://www.healthline.com/health-slideshow/a-look-at-copd#7

[5] http://mdquit.org/providers/respiratory-therapists

[6] http://mdquit.org/health-behavior-models/transtheoretical-model-ttm

[7] http://www.nhlbi.nih.gov/health/health-topics/topics/copd/trea

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[8] http://www.aarc.org/resources/clinical-resources/tobacco-resources/