UVM Project ECHO
New COPD Guidelines for Patient Care:

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Didactic presentation is recorded. Registered participants will receive the link.

University of Vermont
Larner College of Medicine

Project ECHO

Session Agenda

- Welcome
- Objectives
- Didactic Presentation (30-35 min)
  - Q&A
- Case presentation(s)
  - Clarifying questions
  - Discussion
- Closing Announcements
  - Topic and cases for next session
  - Feedback and evaluation

ECHO Model: All Teach, All Learn

Cohort-based learning on ZOOM

- Have your camera on as much as possible, especially when joining the meeting and during discussions
- Questions and comments are welcome – use the “raise hand” feature or put them in the chat
- This is not a webinar! Participation is key

Case-based learning

- 1-2 participant cases each session using provided template
- Contact Mark Pasanen to present a case

Series Objectives

Learning objectives for this ECHO series include the ability to:

1. Improve prevention, early detection and diagnosis of COPD
2. Implement evidence-based non-pharmacologic and pharmacologic treatments for people with COPD, with adherence to new guidelines
3. Develop and implement strategies to increase lung cancer screening
4. Provide improved care for special populations
5. Provide patient and family-centered care for people with late-stage COPD

CMIE Disclosures

The Robert Larner College of Medicine at The University of Vermont is accredited by the American Nurses Credentialing Center (ANCC), the Accreditation Council for Pharmacy Education (ACPE), and the Accreditation Council for Continuing Medical Education (ACCME), to provide continuing medical education for the healthcare team.

The University of Vermont has approved your application and designates each session a maximum of **1.0 *AMA PRA Category 1 credit(s)***™.

This program has been reviewed and is acceptable for up to **1.0 Nursing Contact Hours**.

The Robert Larner College of Medicine University of Vermont has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for **1.0 AAPA Category 1 CME credits**.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to **1.0 MOC points** in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program; It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM or ABP MOC credit.

This activity was planned by and for the healthcare team, and learners will receive 1.0 Interprofessional Continuing Education (IPCE) credit for learning and change.

Participants should claim only the credit commensurate with the extent of their participation in the activity.

CMIE Disclosures

Interest Disclosures: As an organization accredited by the ACCME to sponsor continuing medical education activities, UVMCMIE is required to disclose any real or apparent conflicts of interest (COI) that any speakers may have related to the content of their presentations.

Meeting Disclaimer: Regarding materials and information received during this educational event, the views, statements, and recommendations expressed during this activity represent those of the authors and speakers and do not necessarily represent the views of the University of Vermont.

UVM Project ECHO: Non-Pharmacologic Treatment of COPD

Oxygen Therapy, Pulmonary Rehab, Interventional and Surgical Interventions

Julia O'Shea, RRT
UVMMC Pulmonary Rehab Coordinator
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Objectives

- **Oxygen therapy-** indications, prescription, and systems.
- **Pulmonary Rehab-** referral process, components, benefits, education, and exercise training.
- **Interventional and Surgical interventions-** endobronchial valves, lung volume reduction surgery, lung transplantation.

Indications for Oxygen Therapy

- Arterial hypoxemia defined as: $PaO_2 \leq 55mmHg$ or $SpO_2 \leq 88\%$
- Continuous use- Long Term Oxygen Therapy (LTOT)
- With exertion only- as determined by 6 minute walk test (6MWT)
- Nocturnal-Nocturnal oximetry test ordered through DME or sleep study

Prescribing Oxygen Therapy

Requirements- Face-to-Face Evaluation within 30 days

Progress note indicating:

- Diagnosis
- Symptoms
- Mobility within and outside the home
- Benefit of oxygen for quality of life
- Flow rates and delivery type (pulse vs continuous)
- Patient informed of need for oxygen- patient DME choice

Qualifying Testing

- LTOT- Resting SpO2 on room air ≤ 88%
- Oxygen titration walk test (must have all 3 below)
  - Resting sat/ABG
  - Saturation ≤ 88% with exertion (or PO2 ≤ 55)
  - Exertion saturation/ABG improve with addition of O2
- NOC Pulse oximetry ≤ 88% x 5 minutes

Prescribing Oxygen Therapy

Order indicating:

- Diagnosis
- Duration
- Flow Rates
- Stationary Flow System
- Standard Concentrator
- Portable Flow System
  - Compressed Gas OR
  - Portable Oxygen Concentrator
- Length of Need
- Indication if oxygen will be used with PAP

Certificate of Medical Necessity

Oxygen Systems

- Stationary home oxygen concentrator
- Portable oxygen concentrator (POC)
- Compressed oxygen
- Settings- continuous flow vs pulse-dose
- Interfaces for delivery- nasal cannula, mask, high flow devices, NIV

Pulmonary Rehabilitation

Dyspnea: The most common and debilitating symptom of chronic lung disease

“. . . Pulmonary rehabilitation has been documented to be the most effective way to decrease dyspnea, improve exercise tolerance and improve health-related quality of life in COPD. The magnitude of benefit in these outcomes well exceeds those for all available pharmacologic treatment options.”

Casaburi, R. Pulmonary Rehabilitation: Advances in the Past 10 Years. *Lung Health Professional Magazine* 2014; 5(1):8-12.

What is Pulmonary Rehab?

- American Thoracic Society Statement
  "Pulmonary Rehabilitation is a multidisciplinary program of care for patients with chronic respiratory impairment that is individually tailored and designed to optimize physical and social performance and autonomy."

- Team of Respiratory Therapists, Physical Therapists, Medical Director, Registered Dietician, Pulmonologists, Exercise Physiologists and more!

Goals of Pulmonary Rehab

Services dedicated to restoring patients who live with chronic lung conditions to their highest possible level of independent function and quality of life within the limitations of their lung conditions and any comorbidities.

EDUCATION

- Maximize home self management, improved compliance
- Recognize changes in signs/symptoms
- Earlier intervention and reduction of exacerbations

EXERCISE

- Improve and maintain good physical functioning
- Support, Resources, Home Exercise and Action Plan

Qualifying Diagnoses for Pulmonary Rehab

- Moderate to very severe COPD as defined by GOLD* classification II, III, & IV

- Long COVID, PASC- suspected or confirmed COVID-19 who experience persistent symptoms that include respiratory dysfunction for at least 4 weeks.

GOLD Grades and Severity of Airflow Obstruction in COPD (based on post-bronchodilator FEV1) Figure 2.7

In COPD patients (FEV1/FVC < 0.7):

GOLD 1:	Mild	FEV1 ≥ 80% predicted
GOLD 2:	Moderate	50% ≤ FEV1 < 80% predicted
GOLD 3:	Severe	30% ≤ FEV1 < 50% predicted
GOLD 4:	Very Severe	FEV1 < 30% predicted

*Global Initiative for Chronic Obstructive Lung Disease 2023, 2024

Qualifying Diagnoses for Pulmonary Rehab

- Chronic respiratory disease when referred by the treating physician. The patient must demonstrate medical necessity, e.g.:
  - Persistent symptoms despite medical therapy
  - Functional limitations
  - Quality of life impairment
  - Increased health care utilization, e.g. ED visits, hospitalizations

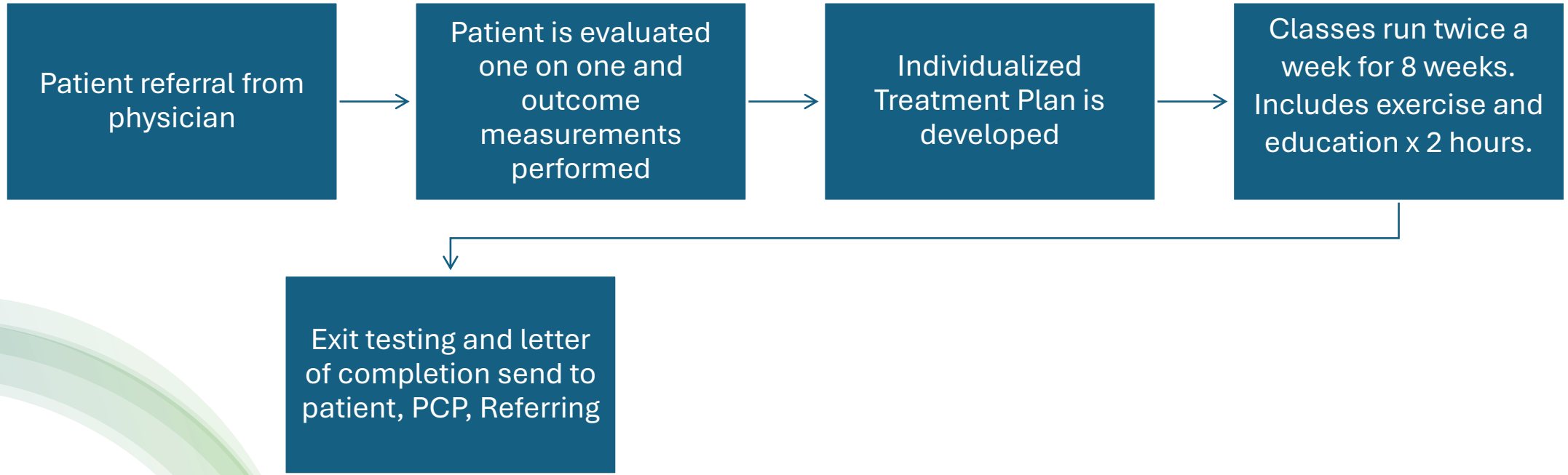
This is not an exhaustive list of diagnosis - lists the most common diagnoses treated in a Respiratory/Pulmonary Therapy program.

- Asthma
- Bronchiectasis
- Interstitial lung disease (ILD/IPF, autoimmune)
- Pulmonary Heart Disease; Pulmonary hypertension, Pulmonary Embolism
- Restrictive lung disease
- Pre/post surgical
- Musculoskeletal disease with respiratory impairment
- Lung Cancer (without metastasis)

Exclusion Criteria for Pulmonary Rehab

- Metastatic cancer
- Severe cognitive impairment (inability to follow directions, inability to remember to perform activities)
- Psychiatric disturbances
- Physical limitations that interfere with exercise such as inability to transfer on and off equipment or help with toileting.
- Significant or unstable medical conditions such as:
  - uncontrolled CHF
  - acute cor pulmonale
  - recent MI
  - unstable angina
  - ischemic heart disease
  - alcohol or substance abuse
  - significant liver dysfunction
  - disabling stroke
  - history of many falls

Pulmonary Rehabilitation Referral Process



Components of Pulmonary Rehab

Exercise

Education

Breathing Retraining

Education Topics

Breathing Retraining
Anatomy of the Respiratory System
Inhaler Technique
Oxygen Therapy
Respiratory Medications
Bronchial hygiene
What to do if you are sick
Tools for Stress Management

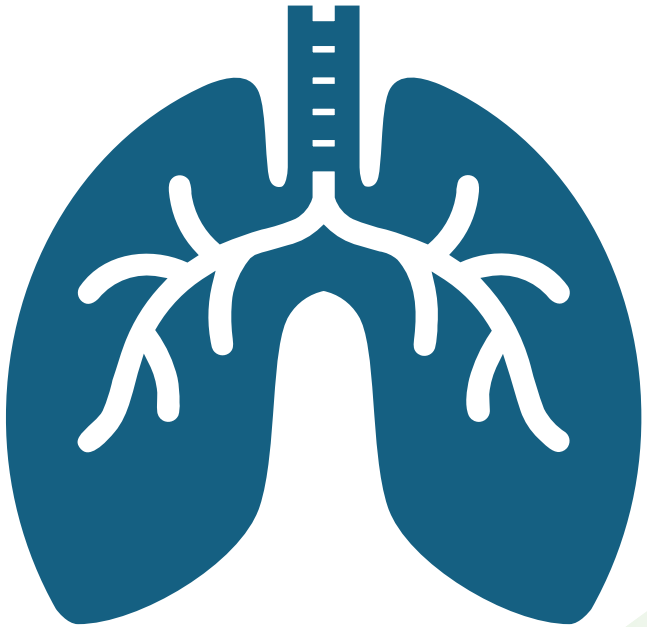
Goals and Wellness
Community Resources
Traveling with oxygen
Benefits of exercise
PFTs
Nutrition for lung disease
Advance Directives
ADLs and energy conservation

Exercise

- Physician prescribed and individualized.
- May take place one to one or in group setting.
- Includes breathing retraining, endurance/stamina, strength/resistance, ROM/flexibility, balance/coordination training.
- Approach is always progressive and emphasizes dyspnea and fatigue control
- Goal: Reconditioning for improved ADL's/independence and quality of life.

Breathing Retraining

- Pursed lip breathing education
- Improved breathing mechanics- nasal breathing, diaphragmatic, respiratory muscle training
- Recovery positions
- Improved tolerance to exercise
- Breathing to promote restfulness and calming of the nervous system



Collaborative Self Management

- Dyspnea management
- Long-term physical activity
- Medication management
- Minimizing exacerbations
- Emergency Action Plan
- Psychosocial Component

Collaborative self-management and self-efficacy is a key component in pulmonary rehabilitation.

Benefits of Pulmonary Rehab

- Reduced hospitalization
- Reduced unscheduled healthcare visits
- Improved exercise capacity
- Reduced symptoms of dyspnea and leg discomfort
- Improved limb muscle strength and endurance
- Improved health-related quality of life
- Improved functional capacity (e.g. activities of daily living)
- Improved emotional function
- Enhanced self-efficacy and knowledge
- Enhanced collaborative self-management
- Potential for increased daily physical activity levels

Interventional and Surgical Interventions

- **Endobronchial valves** - EBVs are removable, one-way valves that reduce lung hyperinflation by allowing the trapped air to escape. Inserted into the lungs via a bronchoscope.
  - Indicated for patients with emphysema who meet specific criteria.
  - Offer potential to improve lung function, quality of life, exercise tolerance, and decrease that lung hyperinflation.
  - UVMMC offers this treatment option.

- **Lung volume reduction surgery -** the surgical removal of diseased, nonfunctioning lung tissue to allow the remaining healthier lung tissue to expand and function more efficiently.
  - Indicated for patients with emphysema who meet specific criteria.
  - Can significantly improve symptoms, exercise tolerance, lung mechanics, and overall survival.
  - NOT offered at UVMMC.

Interventional and Surgical Interventions

- **Lung transplantation –** life-saving treatment for patients with end-stage lung disease who are unresponsive to other medical or surgical interventions.
  - Complex procedure requires meticulous coordination among a diverse interprofessional healthcare team, including pulmonologists, cardiothoracic surgeons, anesthesiologists, intensivists, perfusionists, psychologists, social workers, nurses, and other allied health professionals, to ensure optimal patient outcomes.
  - Referrals from UVMMC Pulmonary for evaluation

References and Resources

- Global Strategy for the Diagnosis, Management and Prevention of COPD, Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2017. Available from: http://www.goldcopd.org/
- AACVPR Guidelines for Pulmonary Rehabilitation Programs. 4th ed. Champaign, IL: Human Kinetics; 2011.
- Spruit MA, Singh SJ, Garvey C, et.al. An official American Thoracic Society/European Respiratory Society statement: Key concepts and advances in pulmonary rehabilitation. Am J Respir Crit Care Med 2013; 188(8):e13-e64.
- CMS Home Use of Oxygen
  - https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?NCDId=169
- National Jewish Provider guide to ordering oxygen
  - www.nationaljewish.org/NJH/media/pdf/Ordering-Oxygen.pdf
- CMS forms Certificate of Medical necessity
  - https://www.cms.gov/medicare/cms-forms/cms-forms/downloads/cms484.pdf
- American Lung Association Oxygen equipment and devices
  - https://www.lung.org/lung-health-diseases/lung-procedures-and-tests/oxygen-therapy/oxygen-delivery-devices
- American Lung Association patient information on Endobroncial Valves
  - https://www.lung.org/lung-health-diseases/lung-procedures-and-tests/ebv-therapy
- Lung Volume Reduction Surgery- NIH StatPearls
  - https://www.ncbi.nlm.nih.gov/books/NBK559329/
- Lung Transplantation- NIH StatPearls

Case Presentation

Bringing Knowledge to Action through interactive, case-based discussions

Participant presents the case and poses the question(s) for the group

↓

Clarifying questions about the case from group to case presenter

↓

Ideas, suggestions, recommendations from participants

↓

Ideas, suggestions, recommendations from ECHO faculty team

↓

Full group discussion

↓

Summary and wrap-up by facilitator

Case Presentation

DO <u>NOT</u> INCLUDE:

Names, Address, DOB, Phone/Fax #, Email address, Social Security #, Medical Record #

Consider the level of detail necessary. Go with less when possible.

The discussion and materials included in this conference are confidential and privileged pursuant to 26VSA Section 1441-1443. This material is intended for use in improving patient care. It is privileged and strictly confidential and is to be used only for the evaluation and improvement of patient care.

UVM Office of Primary Care and AHEC Program

University of Vermont Project ECHO

New COPD Guidelines for Patient Care

FALL 2024 SERIES – Mondays from 12:00–1:00PM

WHO SHOULD ATTEND?
Primary care providers, nurses, and social workers/case managers who care for adults and work in primary care practices.

SCHEDULE	
Oct 7	**Prevention, Early Detection, and Diagnosis of COPD**, *Mark Pasanen, MD*
Oct 21	**Non-Pharmacologic Treatment of COPD (including Pulmonary Rehab and Oxygen Delivery)**, *Julia O'Shea, RRT*
Nov 4	**Pharmacologic Treatment of COPD: Updated Guidelines**, *Katie Menson, DO*
Nov 18	**Management of COPD Exacerbations (including Post-Hospital Care)**, *Mark Pasanen, MD and Kayla Grout, RRT*
Dec 2	**Optimizing Care for COPD: Care Coordination, Lung Cancer Screening, and Care of Special Populations**, *Ram Baalachandran, MD*
Dec 16	**Late-stage COPD and End-of-Life Care Panel**, *Moderator: Mark Pasanen, MD*

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Closing Announcements

- Slides are posted at www.vtahec.org
- Recording of didactic portion will be sent by email to the full cohort
  - **All recordings are for the use of registered participants only**
- Please complete the evaluation survey
- CMIE information and session QR code auto-send after evaluation
- Please contact us with any questions, concerns, or suggestions:
  - Mark.Pasanen@uvm.edu
  - Patti.Smith-Urie@uvm.edu