



Pulmonary Medicine Board Review 2024

Publication date: August 25, 2024
Product expiration date: August 25, 2025



Title: Pulmonary Medicine Board Review 2024

Chair: Sandhya Khurana, MD, FCCP

Vice-Chair: Saadia Faiz, MD, FCCP

Date: August 25-27, 2024

Location: Glenview, IL

Agenda

Sunday, August 25, 2024

7:00 am – 7:15 am	Welcome and Introductions <i>Sandhya Khurana, MD, FCCP</i>
7:15 am – 8:00 am	Pneumonia: Community- and Hospital-Acquired <i>Marcos Restrepo, MD, PhD, FCCP</i>
8:00 am – 8:45 am	Viral, Fungal, and Unusual (Actinomyces and Nocardia) Infections <i>Marcos Restrepo, MD, PhD, FCCP</i>
8:45 am – 9:25 am	Pregnancy and Women's Health in Pulmonary Medicine <i>Stephanie Levine, MD, FCCP</i>
9:25 am – 9:40 am	Panel Q&A <i>All Faculty</i>
9:40 am – 9:55 am	Break
9:55 am – 10:35 am	Diffuse Parenchymal Lung Disease <i>Jay Ryu, MD, FCCP</i>
10:35 am – 11:15 am	Pulmonary Hypertension <i>Debbie Levine, MD, FCCP</i>
11:15 am – 11:55 pm	Lung Transplantation <i>Debbie Levine, MD, FCCP</i>
11:55 am – 12:10 pm	Panel Q&A <i>All Faculty</i>
12:10 pm – 1:20 pm	Lunch
1:25 pm – 1:30 pm	Welcome Back and Review <i>Saadia Faiz, MD, FCCP</i>
1:30 pm – 2:10 pm	Vasculitis and Alveolar Hemorrhage <i>Rodrigo Cartin-Ceba, MD, MS</i>
2:10 pm – 2:50 pm	Eosinophilic Lung Diseases <i>Stephanie Levine, MD, FCCP</i>
2:50 pm – 3:30 pm	Mediastinal Tumors and Other Neoplasms <i>Jay Ryu, MD, FCCP</i>
3:30 pm – 3:45 pm	Panel Q&A <i>All Faculty</i>
3:45 pm – 4:00 pm	Break
4:00 pm – 4:40 pm	Respiratory Failure

Mangala Narasimhan, DO, FCCP

4:40 pm – 5:20 pm

Mechanical Ventilation

Mangala Narasimhan, DO, FCCP

5:20 pm – 5:35 pm

Panel Q&A

All Faculty

5:35 pm – 6:15 pm

Large Group Rapid-Fire SEEK Questions

Jack Buckley, MD, FCCP

Stephanie Levine, MD, FCCP

Monday, August 26, 2024

6:50 am – 7:00 am

Welcome and Introduction

Saadia Faiz, MD, FCCP

7:00 am – 7:40 am

Shock, Sepsis, Hemodynamic Monitoring

Carrie Quill, MD, FCCP

7:40 am – 8:20 am

Nonpulmonary Critical Care Pearls

Carrie Quill, MD, FCCP

8:20 am – 9:00 am

Thromboembolic Disease

Dominick Roto, MD

9:00 am – 9:15 am

Panel Q&A

All Faculty

9:15 am – 9:30 am

Break

9:30 am – 10:10 am

Principles and Practice of Thoracic Ultrasound

Akshay Srikanth, MD

10:10 am – 10:50 am

Pleural Diseases 1

Saadia Faiz, MD, FCCP

10:50 am – 11:30 am

Pleural Diseases 2

Saadia Faiz, MD, FCCP

11:30 am – 11:45 am

Panel Q&A

All Faculty

11:45 am – 1:00 pm

Lunch

Optional Non-CME Lunch Symposia (Regeneron)

1:05 pm – 1:10 pm

Welcome Back and Review

Sandhya Khurana, MD, FCCP

1:10 pm – 1:50 pm

Lung Cancer 1

Gerard Silvestri, MD, Master FCCP

1:50 pm – 2:30 pm

Lung Cancer 2

Gerard Silvestri, MD, Master FCCP

2:30 pm – 3:10 pm

Interventional Pulmonary

Momen Wahidi, MD, FCCP

3:10 pm – 3:25 pm

Panel Q&A

All Faculty

3:25 pm – 3:40 pm	Break
3:40 pm – 4:20 pm	Sleep Disorders 1 <i>Nancy Collop, MD, Master FCCP</i>
4:20 pm – 5:00 pm	Sleep Disorders 2 <i>Nancy Collop, MD, Master FCCP</i>
5:00 pm – 5:15 pm	Panel Q&A <i>All Faculty</i>
5:15 pm – 5:30 pm	Break
5:30 pm – 6:10 pm	Large Group Rapid-Fire SEEK Questions <i>Jack Buckley, MD, FCCP</i> <i>Sandhya Khurana, MD, FCCP</i>

Tuesday, August 27, 2024

7:00 am – 7:10 am	Welcome and Introduction <i>Sandhya Khurana, MD, FCCP</i>
7:10 am – 7:50 am	Symptoms of Pulmonary Disease, Environmental and Occupational Lung Disease <i>Clayton Cowl, MD, MS, FCCP</i>
7:50 am – 8:40 am	COPD <i>Sandhya Khurana, MD, FCCP</i>
8:40 am – 9:10 am	CPET, Respiratory Physiology and Cases <i>Darcy Marciniuk, MD, Master FCCP</i>
9:10 am – 9:30 am	Panel Q&A <i>All Faculty</i>
9:30 am – 9:45 am	Break
9:45 am – 10:35 am	Asthma <i>Sandhya Khurana, MD, FCCP</i>
10:35 am – 11:15 am	Bronchiectasis (Noncystic Fibrosis) and Nontuberculosis Mycobacteria <i>Doreen Addrizzo-Harris, MD, FCCP</i>
11:15 am – 11:55 am	Tuberculosis (TB) and Latent TB Infection <i>Doreen Addrizzo-Harris, MD, FCCP</i>
11:55 am – 12:10 pm	Panel Q&A <i>All Faculty</i>
12:10 pm – 12:50 pm	Lunch
12:50 -12:55 pm	Welcome Back and Review <i>Saadia Faiz, MD, FCCP</i>
12:55 pm – 1:35 pm	Thoracic Radiology 1 <i>Rakesh Shah, MD</i>
1:35 pm – 2:15 pm	Thoracic Radiology 2 <i>Rakesh Shah, MD</i>



2:15 pm – 2:50 pm	Additional Radiology Cases and Radiology Q&A <i>Rakesh Shah, MD</i>
2:50 pm – 3:05 pm	Break
3:05 pm – 3:45 pm	Large Group Rapid-Fire SEEK Questions <i>Darcy Marciniuk, MD, Master FCCP</i> <i>Jack Buckley, MD, FCCP</i>
3:45 pm – 4:00 pm	Wrap-Up and Adjourn

Prerecorded lectures (available online before/after live course)

Cystic Fibrosis – *Holly Keyt, MD*

Pathology I and II – *Andrew Churg, MD*

Respiratory Biology/Immunology – *Rodrigo Cartin-Ceba, MD, MS*

Less Common Pulmonary Disease – *Jay Ryu, MD, FCCP*

Statistics/Epidemiology – *Jack Buckley, MD, FCCP*

Respiratory Physiology and Additional CPET Cases – *Darcy Marciniuk, MD, Master FCCP*

Course Description

This premier course will review the information you should know for the ABIM Pulmonary Medicine Certification Examination. The exam tests your knowledge and clinical judgment in crucial areas of pulmonary medicine. Course content mirrors the content of the exam, as outlined by the ABIM. Whether you need to certify, recertify, or simply review, this course offers a thorough review you can put to the test with confidence.

Course Objectives

After participating in this educational activity, you should be able to:

- Describe the pathophysiology, clinical features, and treatment of common and uncommon pulmonary disorders.
- Assess diagnostic and interpret radiographic, physiologic, and pathologic tests.
- Apply clinical judgment skills to the diagnosis and treatment of patients with chest disease.

Passing Standard

In order to pass this course, participants will be required to complete a pre-test, pass the post exam with a score of 70% or higher, and complete a post evaluation form.

CHEST Learning Category(s)

Learning Category 1: Lecture-based

Maintenance of Licensure

Maintenance of Credit (MOC) offered in medical knowledge.

Scope of Practice – Pulmonary Education

FACULTY



Chair

Sandhya Khurana, MD, FCCP

Professor, Pulmonary & Critical Care Medicine
Director, Mary Parkes Center for Asthma, Allergy & Pulmonary Care
University of Rochester
Rochester, NY

Vice-Chair

Saadia A. Faiz, MD, FCCP

Professor
Department of Pulmonary Medicine
Division of Internal Medicine
The University of Texas MD Anderson Cancer Center
Houston, TX

Doreen Addrizzo-Harris, MD, FCCP

Professor of Medicine
Associate Director, Clinical and Academic Affairs
Director, Pulmonary and Critical Care Fellowship
Co-Director, NYU Bronchiectasis/NTM Program
Division of Pulmonary, Critical Care and Sleep Medicine
NYU Grossman School of Medicine
New York, NY

John (Jack) D. Buckley, MD, FCCP

President, CHEST

Rodrigo Cartin-Ceba, MD

Professor of Medicine, Mayo Clinic College of Medicine and Science
Program Director, Pulmonary and Critical Care Fellowship Program
Research Director, Department of Critical Care Medicine
Consultant, Division of Pulmonary Medicine and Department of Critical Care Medicine
Mayo Clinic
Phoenix, AZ

Andrew M. Churg, MD

Professor of Pathology
University of British Columbia
Pathologist, Vancouver General Hospital
Vancouver, BC, Canada

Nancy A. Collop, MD, FCCP

Professor of Medicine and Neurology
Director, Emory Sleep Center
Emory University
Atlanta, GA

Clayton T. Cowl, MD, FCCP

CHEST, Past-President



Associate Professor of Medicine
Division of Public Health, Infectious Diseases and Occupational Medicine
Joint Appointment, Division of Pulmonary & Critical Care Medicine
Mayo Clinic
Rochester, MN

Saadia A. Faiz, MD, FCCP

Professor
Department of Pulmonary Medicine
Division of Internal Medicine
The University of Texas MD Anderson Cancer Center
Houston, TX

Holly L. Keyt, MD, FCCP

Associate Professor of Medicine
Medical Director of Lung Transplantation
Associate Director of Adult Cystic Fibrosis Program
UT Health San Antonio
San Antonio, TX

Deborah J. Levine, MD, FCCP

Professor of Medicine
Pulmonary Disease and Critical Care and Allergy
Stanford University
Palo Alto, CA

Stephanie M. Levine, MD, FCCP

CHEST, Past President
Professor of Medicine
Division of Pulmonary and Critical Care Medicine
Vice-Chair, Education – Department of Medicine
Staff Physician, South Texas Veterans Health Care System
San Antonio, TX

Darcy D. Marciniuk, MD, Master FCCP, FRCPC, FCAHS

CHEST, Past President
Professor of Medicine – Respiriology, Critical Care, and Sleep Medicine
Associate Vice-President Research University of Saskatchewan
Saskatoon, SK, Canada

Mangala Narasimhan, DO, FCCP

SVP, Director of Critical Care Services
Medical Director of the Acute Lung Injury/VV ECMO Program
Northwell Health
Professor of Medicine
Donald and Barbara Zucker School of Medicine at Hofstra/Norwell
Hempstead, New York

Caroline Quill, MD

Assistant Professor of Medicine



Associate Program Director, Pulmonary & Critical Care Medicine Fellowship
Associate MICU Director
Clinician Educator
University of Rochester Medical Center
Rochester, NY

Marcos Restrepo, MD, FCCP

Professor of Medicine
Division of Pulmonary and Critical Care Medicine – Department of Medicine
University of Texas Health San Antonio
Medical Intensive Care Unit at South Texas Veterans Health Care System Audi L. Murphy Division
San Antonio, TX

Dominick Roto, DO

Assistant Professor of Medicine
Division of Pulmonary and Critical Care Medicine
University of Rochester Medical Center
Rochester, NY

Jay H. Ryu, MD, FCCP

Consultant, Division of Pulmonary and Critical Care Medicine
Dr. David E. and Bette H. Dines Professor of Pulmonary and Critical Care Medicine
Mayo Clinic College of Medicine and Science
Rochester, MN

Rakesh D. Shah, MD, FCCP, FACP

Chief of Thoracic Radiology, Northwell Health
Departments of Radiology and Medicine
North Shore University Hospital
Professor of Radiology
Zucker School of Medicine at Hofstra Northwell
Manhasset, NY

Gerard A. Silvestri, MD, Master FCCP

CHEST, Past President
Hillenbrand Professor of Thoracic Oncology
Division of Pulmonary and Critical Care Medicine
Medical University of South Carolina
Charleston, SC

Akshay Srikanth, MD

Senior Staff Physician
Department of Emergency Medicine, Division of Pulmonary and Critical Care Medicine
Henry Ford Hospital
Detroit, MI

Momen M. Wahidi, MD, FCCP

Professor of Medicine
Director, Interventional Pulmonology and Bronchoscopy
Chief Medical Officer, Duke Patient Revenue Management Organization



Duke University Medical Center
Durham, NC

DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS

The mission and vision of CHEST include our commitment to providing accurate, balanced, evidence-based information to health care professionals participating in this educational activity. To guarantee our accredited continuing education is fair and balanced and that any clinical content presented supports safe, effective patient care, we require all planners, faculty, and others in control of educational content to complete and submit a disclosure form. This form is for disclosure of any relevant financial relationships with ineligible companies within the prior 24 months, that will create a conflict of interest. We value the contributions of those that are committed and passionate about pulmonary medicine and want to be a part of our educational activities; however, it is our commitment to our learners to have continuing education free of commercial bias and marketing.

The process for mitigation of all conflicts of interest is via a review by the educational activity course director/chair, the Education Committee, and/or the Professional Standards Committee to ensure that such situations are properly mitigated and, if necessary, resolved. CHEST educational standards pertaining to conflict of interest is intended to maintain the professional autonomy of the clinical experts inherent in promoting a balanced presentation of science. Through our review process, all CHEST CME activities are ensured of independent, objective, scientifically balanced presentations of information. Disclosure of any or no relevant financial relationships will be made available online in course materials and on-site during all educational activities.

The following faculty members of this activity have disclosed to CHEST that they have a relevant financial relationship with a commercial interest as it relates to the activity:

Name	Role	Disclosure
Addrizzo-Harris, Doreen (MD, FCCP)	Faculty	Clinical Trial, I am PI relationship with Insmed; 2017-2023; PI for research trial relationship with Hill-Rom; 2019-2023; PI for research grant relationship with Zambone; 2018-2021; PI of research trial relationship with Boehringer; 2022-2023; PI for a clinical trial; relationship with AN2; 2021 to present; PI clinical trial relationship with Armata; 4/2024; member DMSB relationship with Mannkind; 5/2024
Collop, Nancy (MD, Master FCCP)	Faculty	Grant relationship with Huxley Medical; 9/1/2024 through 9/1/2025; grant relationship with Zoll; May 1, 2024 through May 1, 2029
Silvestri, Gerard (MD, Master FCCP)	Faculty	Consultant relationship with aztrazeneca; \$1001 - \$5000; Consultant relationship with auris medical; 1001-5000; Scientific Medical Advisor relationship with auris medical; \$20001 - \$100000; Scientific Medical Advisor relationship with biodesix; \$20001 - \$100000; Consultant relationship with biodesix; 20001-100000; Scientific Medical Advisor relationship with olympus america; 5000-20000; Consultant relationship with olympus america; \$1001 - \$5000
Wahidi, Momen (MD, MBA, FCCP)	Faculty	Consultant relationship with Verathon; 2021-present; Consultant relationship with Cook; 2020-Present; Consultant relationship with Pulmonx; 2020-Present; Consultant relationship with Olympus; 2019-Present



The remaining faculty/planner members of this course that are not listed in the grid above have indicated to CHEST that they have no relevant financial relationships with any commercial interests.

Education Committee/Planners

Chair

Hans J. Lee, MD, FCCP

Research, Consultant: Veran Medical, Veracyte, Coridea, Intuitive, Cook Medical, Merit Medical; President: Association of Interventional Pulmonary Program Directors; Education: Intuitive; Focus Group: Cook Medical; Advisory Board: Veracyte.

Vice-Chair

Mark Lavercombe, MBBS, FCCP

No relevant financial disclosures

CHEST CME Staff Planners

The following staff members have no relevant financial relationships to disclose:

Lisa Alvarez

Carolyn M. Jones

Teresa Rodriguez-Aviles

Richard Schuch, Ed.D

CME/CE INFORMATION

CME/CE Claim Instructions

2024 Critical Care Medicine Board Review

To complete the Education Activity Evaluation for **2024 Critical Care Medicine Board Review** claim CME/CE credits and download CME/CE certificates and certificates of attendance (COA), please see the instructions below. **You must complete your evaluation and download your certificate prior to the product expiration date.**

1. Sign in and navigate to your "My Learning" account at education.chestnet.org.
2. Find the course or event in your list and complete all required post course work.
3. Claim credits when prompted.

Your certificate and transcript can be viewed at any time under Claimed Courses on the [Manage CME](#) page.

If you are claiming MOC points, please make sure that your full name, date of birth, and ABIM number listed in your CHEST account matches what is listed in your ABIM account. To prevent delays in receiving MOC points, please check that your ABIM account is current.

If you need help, contact the CHEST Accreditation Team at cme@chestnet.org. For faster assistance, outline the specific problem you are having, and provide your CHEST ID and contact information.

<p>YOU MUST COMPLETE THE POSTCOURSE ASSESSMENT AND EDUCATION ACTIVITY EVALUATION PRIOR TO THE PRODUCT EXPIRATION DATE</p>
--

Physician Credit



The American College of Chest Physicians is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The American College of Chest Physicians designates this enduring material for a maximum of **26 AMA PRA Category 1 Credit™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nursing Credit

Provider approved by the California Board of Registered Nursing, Provider Number 16433, for **26** contact hours.

Nurse Practitioners

The American Academy of Nurse Practitioners Certification Board (AANPCB) accepts *AMA PRA Category 1 Credit™* from organizations accredited by the ACCME. Individuals are responsible for checking with the AANPCB for further guidelines.

Physician Assistants

American Academy of Physician Assistants (AAPA) accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit™* from organizations accredited by ACCME or a recognized state medical society. PAs may receive a maximum of **26** Category 1 credits for completing this activity.

Maintenance of Certification Statement

Successful completion of this CME course enables the participant to earn up to 28 MOC Part 2 Medical Knowledge points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the course. It is the CME course provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC points.

Upon successful completion of this course, CHEST will submit your completion data to ABIM via ACCME's Program and Course Reporting System (PARS) for MOC points. To prevent delay in receiving your ABIM points, please make sure that your ABIM number, birthdate and full name in your CHEST account matches your ABIM account. Please also make sure that your ABIM account is current. After claiming CME credits, please allow 3-5 business days after claiming for credits to show in your ABIM record.

DISCLAIMER

The American College of Chest Physicians ("CHEST") and its officers, regents, executive committee members, members, related entities, employees, representatives, and other agents (collectively, "CHEST Parties") are not responsible in any capacity for, do not warrant, and expressly disclaim all liability for, any content whatsoever in any CHEST publication or other product (in any medium) and the use or reliance on any such content, all such responsibility being solely that of the authors or the advertisers, as the case may be. By way of example, without limiting the foregoing, this disclaimer of liability applies to the accuracy, completeness, effectiveness, quality, appearance, ideas, or products, as the case may be, of or resulting from any statements, references, articles, positions, claimed diagnosis, claimed possible treatments, services, or advertising, express or implied, contained in any CHEST publication or other product. Furthermore, the content should not be considered medical advice and is not intended to replace consultation with a qualified medical professional. Under no circumstances, including negligence, shall any of CHEST Parties be liable for any DIRECT, INDIRECT, INCIDENTAL, SPECIAL or CONSEQUENTIAL DAMAGES, or LOST PROFITS that result from any of the foregoing, regardless of legal theory and whether or not claimant was advised of the possibility of such damages.

Copyright © 2024 by the American College of Chest Physicians.



Copyright not claimed on material authorized by the US Government.

All rights reserved. No part of this publication may be reproduced in any manner without permission of the publisher.

American College of Chest Physicians

2595 Patriot Boulevard

Glenview, IL 60026

Telephone: +1 (224) 521-9800; Fax: +1 (224) 521-9801

chestnet.org