



## Clinical Prep

[Clinical Prep](#) helps bridge the gap between course work and actual patient care experiences. It provides access to highly credible, to-the-point information on common clinical questions that arise in clinical clerkships and similar patient care experiences.

Clinical Prep offers more than 650 core topics essential for medical, NP, and PA students. Within these 650+ core topics, students will find over 50,000 questions. These questions are written by specialists in the field who have first-hand experience addressing issues in a clinical setting. The answers to those questions are taken from carefully selected content from our world-renowned library found right here on the Access verticals. Students can use the browse functionality to review entire topics, or they can use the search functionality to look for a specific answer to a question.

### Clinical Prep Use Case Examples:

## Case 1

**Part 1):** A third-year medical student has been assigned a patient in pulmonary clinic that has a new diagnosis of chronic obstructive pulmonary disease (COPD). The student recalls the overall disease process, but feels in need of a refresher on the diagnosis and initial treatments. The student does not have a specific question, but would like to review some quick clinical questions related to the diagnosis. So, the student goes to [Clinical Prep](#). The student clicks into the “Pulmonary” section and navigates to “Chronic Obstructive Pulmonary Disease (COPD)”.

Clinical Prep >

**About Clinical Prep**

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Ask a Clinical Question...

## Pulmonary

- [Acute Respiratory Distress Syndrome](#)
- [Asbestosis](#)
- [Asthma](#)
- [Berylliosis](#)
- [Bronchiectasis](#)
- [Chronic Obstructive Pulmonary Disease \(COPD\)](#)

Upon clicking into COPD, the student sees a list of questions. As the student browses the list of questions, the student becomes aware of knowledge deficits. For example, they realize that their attending is likely to ask them about the prevalence of COPD. They quickly click to expand this question and see a partial answer. This is enough to answer their question, and they continue to scroll, seeing a question about etiology. They realize that they have the basic understanding of etiology, but could use a refresher:

### Epidemiology

- What is the prevalence of chronic obstructive pulmonary disease (COPD)? CME

Epidemiologic surveys of COPD are often based on the symptoms of chronic bronchitis or physician-diagnosed emphysema/COPD, yielding prevalence rates of greater than or equal to 11.6% in US adults aged greater than or equal to 65. Alternatively, and more consistent with clinical guidelines, COPD is defined spirometrically as chronic airflow obstruction. When established by age-appropriate diagnostic thresholds, spirometry-confirmed COPD has a prevalence of 15.4% in US adults aged greater than or equal to 65.

[View Full Answer](#)
- + How do childhood pulmonary infections impact the risk for developing chronic obstructive pulmonary disease (COPD)? CME
- + What genetic factors are associated with an increased risk for chronic obstructive pulmonary disease (COPD)? CME

[View More](#) ▾

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### Etiology

- What are causes of chronic obstructive pulmonary disease (COPD)? CME

**Chronic Bronchitis**

  - Larger airways
  - Airway remodeling
  - Mucus secretion

**Emphysema**

  - Terminal airways
  - Loss of elastic
  - Loss of elastin

Cellular processes determining chronic bronchitis and emphysema.

[View Full Answer](#)

The student clicks into the “Etiology” question to read the full answer. The student sees that they can click into the reference and also view the full chapter. The student is pressed for time, the patient is due in clinic in 15 minutes, there is not enough time to read the entire chapter. The student would like to

come back to this question, to examine the table more thoroughly and read the full text. The student clicks the star icon to favorite this question to save it for later:

Eligible for CME | Learn More | My CME Last reviewed: 01/01/2018

## What are causes of chronic obstructive pulmonary disease (COPD)? ★

Assign CME Email

Advancing age is also accompanied by a high frequency of COPD risk factors. The most important of these is tobacco smoke, accounting for the majority of COPD cases. In recent cohorts of older Americans, the prevalence of ever-smokers was 56%, including 9% as current smokers, and, among never-smokers, 32% had exposure to second-hand smoke. Respiratory infections also contribute to the onset and progression of COPD. About one-quarter of older Americans report a prior pneumonia, and those aged greater than or equal to 75 have a 10-fold increased rate of influenza hospitalization. Outdoor air pollution is another COPD risk factor. In 2009, 34% of older Americans lived in a major city, a surrogate for exposure to outdoor air pollution. Other COPD risk factors include occupation (freight, stock, and material handlers, and metal and wood workers) and use of biomass fuel for indoor cooking or heating—the prevalence of these exposures are 12% and 18%, respectively, among older nonsmoking Americans.

Answer Source »

FIGURE  
84-1.  
Cellular  
processes  
determining chronic

The student returns to the “All Results” page via the left-hand navigation to browse the rest of the questions on COPD. The student really needs information on treatment, since the patient will need initial prescriptions to manage this newly diagnosed disease. The student uses the “Click to Narrow” options on the left and selects “Treatment” to view only those questions related to treatment of the disease:

Click to Narrow:

All Results  
Description  
Epidemiology  
Prevention  
Etiology  
Diagnosis  
Differential Diagnosis  
**Treatment**  
Prognosis  
Pediatrics  
CME-Eligible Questions

Ask a Clinical Question...

### Chronic Obstructive Pulmonary Disease (COPD)

- + What is the utility of bronchodilators in the management of chronic obstructive pulmonary disease (COPD)?
- + What are the goals of pulmonary rehabilitation in patients with chronic obstructive pulmonary disease (COPD)? CME
- + How does pharmacologic therapy for chronic obstructive pulmonary disease (COPD) impact disease progression? CME
- + What are indications for inhaled corticosteroid therapy in the management of chronic obstructive pulmonary disease (COPD)? CME
- + What is the mechanism of action of anticholinergic medications in the management of chronic obstructive pulmonary disease (COPD)?

The student reads through several of the questions before the patient arrives in clinic and is able to deliver a knowledgeable presentation and a thorough plan of action including an initial treatment regimen.

**Part 2 (may also occur independently of part 1):** The student sees the patient in clinic and is documenting in the note after the visit. During the visit, the student learned that the patient had a diagnosis of atrial

fibrillation. The patient was on apixaban, but the student could not recall indications for anticoagulation in this population. The student returns to [Clinical Prep](#) to find more information about these indications. This time, because the student knew exactly what they were looking for, they did not use the browse feature but instead used the search bar in order to navigate to a specific answer for this question. The student searched “anticoagulation atrial fibrillation” and finds that the first result directly answered the question:

The screenshot shows the Clinical Prep search interface. On the left is a navigation menu with categories like 'All Results', 'Description', 'Epidemiology', 'Prevention', 'Etiology', 'Diagnosis', 'Differential Diagnosis', 'Treatment', 'Prognosis', 'Pregnancy', 'CME-Eligible Questions', and 'Include Special Populations'. The 'Treatment' category is selected. At the top right, there is a search bar with the text 'Ask a Clinical Question...' and a magnifying glass icon. Below the search bar, the search results are displayed for the query 'anticoagulation atrial fibrillation'. The results are under the heading 'Treatment' and include three questions with expandable answers. The first question is expanded, showing a detailed answer about the 2014 American Heart Association/American College of Cardiology/Heart Rhythm Society (AHA/ACC/HRS) consensus guidelines for the management of atrial fibrillation (AF). The second and third questions are collapsed. A 'View Full Answer' link is present under the first question. At the bottom right of the results, there is a 'CME' badge.

Clinical Prep >

Click to Narrow:

Ask a Clinical Question...

results for 'anticoagulation atrial fibrillation'

View Categories List

**Treatment**

- What are recommendations for anticoagulation in patients with atrial fibrillation (AF)?

The recent 2014 American Heart Association/American College of Cardiology/Heart Rhythm Society (AHA/ACC/HRS) consensus guidelines for the management of atrial fibrillation (AF) include a significant change in the recommendations for predicting stroke risk. The new guidelines give a class I recommendation for the use of the CHA2DS2-VASc (C = congestive heart failure; H = hypertension; A2 = age  $\geq$  75 years = 2 points; D = diabetes mellitus; S2 = stroke, transient ischemic attack (TIA), ...

View Full Answer

+ What are recommendations for anticoagulation in patients with paroxysmal atrial fibrillation?

+ What is the indication for anticoagulation in patients with atrial fibrillation following atrioventricular node ablation? CME

## Case 2

An NP student is on a rotation in the intensive care unit and has been assigned a patient with diffuse bilateral pulmonary infiltrates. The student thinks that this patient may have ARDS, but cannot recall exactly how this is diagnosed. The student utilizes the search function of Clinical Prep and types “diagnosis ARDS” into the search bar. The following results appear:

The screenshot shows the Clinical Prep interface. On the left is a navigation menu with options: All Results, Description, Epidemiology, Prevention, Etiology, Diagnosis, Differential Diagnosis, Treatment, Prognosis, Elderly, Pregnancy, Pediatrics, and CME-Eligible Questions. The main content area has a search bar with the text "Ask a Clinical Question...". Below the search bar, the results are titled "results for 'diagnosis ARDS'". Under the "Diagnosis" heading, there are two expandable questions:

- Question 1: "How is acute respiratory distress syndrome (ARDS) diagnosed?" with a camera icon. Below it is a chest radiograph image showing diffuse bilateral alveolar opacities. The text next to the image states: "Chest radiograph reveals diffuse, bilateral alveolar opacities without pleural effusions, consistent with acute respiratory distress syndrome (ARDS). Note that the patient has an endotracheal tube (red arrow)." Below the image is a "View Full Answer" link.
- Question 2: "What are diagnostic criteria for acute respiratory distress syndrome (ARDS)?" with a camera icon. Below it is a table titled "TABLE 322-2 Diagnostic Criteria for ARDS" and a "View Full Answer" link.

The student has clicked to expand the first two questions, both of which are helpful in answering the question. The student chooses to click into the second question and is pleased to find both a comprehensive text explanation and images to supplement the answer.

The screenshot shows the expanded answer for the second question. It includes a text explanation and four figure references:

available evidence, the requirement for pulmonary capillary wedge pressure (PCWP) was removed, in determining volume status, including serum brain natriuretic peptide (BNP) measurement and transthoracic impedance measurement. In addition to physical exam, chest radiography and CT scan can be used to rule out hydrostatic edema as the primary cause of hypoxemia. Assessment.

Reference »

- FIGURE 308e-30**: Chest radiograph reveals diffuse, bilateral alveolar opacities without pleural effusions, consistent with acute respiratory distress syndrome (ARDS). Answer Source »
- FIGURE 28.2**: A chest x-ray showing diffuse, bilateral pulmonary infiltrates in all lung quadrants (acute air-space disease). Answer Source »
- FIGURE 322-2**: A representative anteroposterior chest x-ray in the exudative phase of ARDS shows diffuse interstitial and alveolar opacities. Answer Source »
- Figure 141-3**: Chest CT and plain radiograph in ARDS. A Chest CT scan reveals asymmetric lung injury, with dense consolidation in the dependent lung bases. Answer Source »

## Case 3

A PA student that is on a general medical rotation is seeing an 85-year-old patient with delirium. In learning about this topic, they perform a search on [Clinical Prep](#) for “delirium” and receive the following results:

The screenshot shows a search interface for 'delirium'. On the left is a navigation sidebar with categories like 'Click to Narrow', 'All Results', and 'Include Special Populations'. The 'Elderly' category is selected. The main content area shows search results for 'delirium', with sections for 'Description' and 'Epidemiology'. Each section contains expandable questions, such as 'What is delirium?' and 'What percentage of cases of delirium may be preventable?'. A 'View More' link is also present.

Click to Narrow:

Ask a Clinical Question...

**All Results**

- Description
- Epidemiology
- Prevention
- Etiology
- Diagnosis
- Differential Diagnosis
- Treatment
- Prognosis
- Elderly**
- CME-Eligible Questions

**Include Special Populations**

- Pregnancy
- Elderly
- Pediatrics

results for 'delirium'

**Description**

- + What is delirium?
- + What is terminal delirium?
- + What are the subtypes of delirium?

View More ▾

**Epidemiology**

- + What percentage of cases of delirium may be preventable? CME
- + What are risk factors for delirium?

They did not have a specific question in mind, but wanted to browse the topic. They are curious about how delirium may differ specifically in the elderly population as compared to younger individuals, so using the left-hand navigation bar the student narrows the results to only those questions about the elderly.

Clinical Prep >

Click to Narrow:

**All Results**

Description

Epidemiology

Prevention

Etiology

Diagnosis

Differential Diagnosis

Treatment

Prognosis


**Elderly**

Ask a Clinical Question...

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### results for 'delirium'

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- + Which medications may cause delirium in the elderly? 
- + What are treatments for delirium in the elderly?
- + What follow-up is recommended for elderly patients with delirium?

This filter has allowed the student to quickly suppress any questions in this topic that are not related to this specific patient population.

Find Clinical Prep on AccessMedicine at:

<https://accessmedicine.mhmedical.com/clinicalprepspecialties.aspx>