

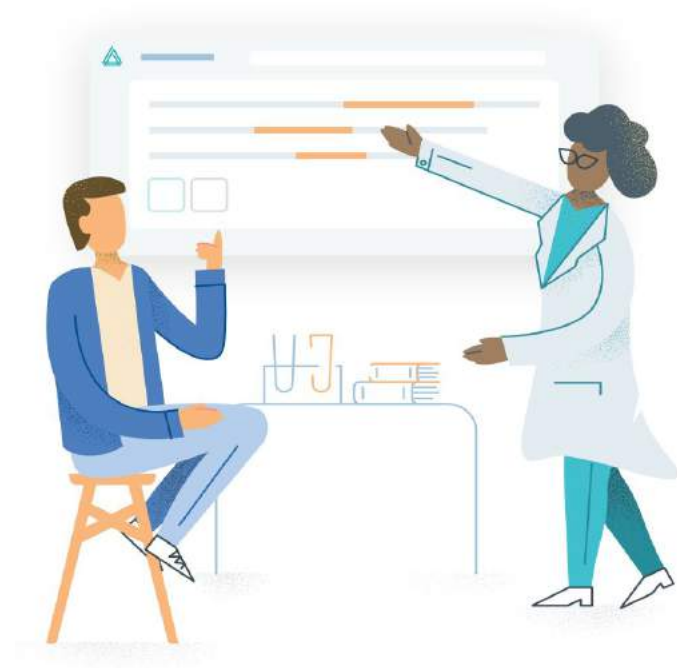
AMBOSS

For Educators



Overview

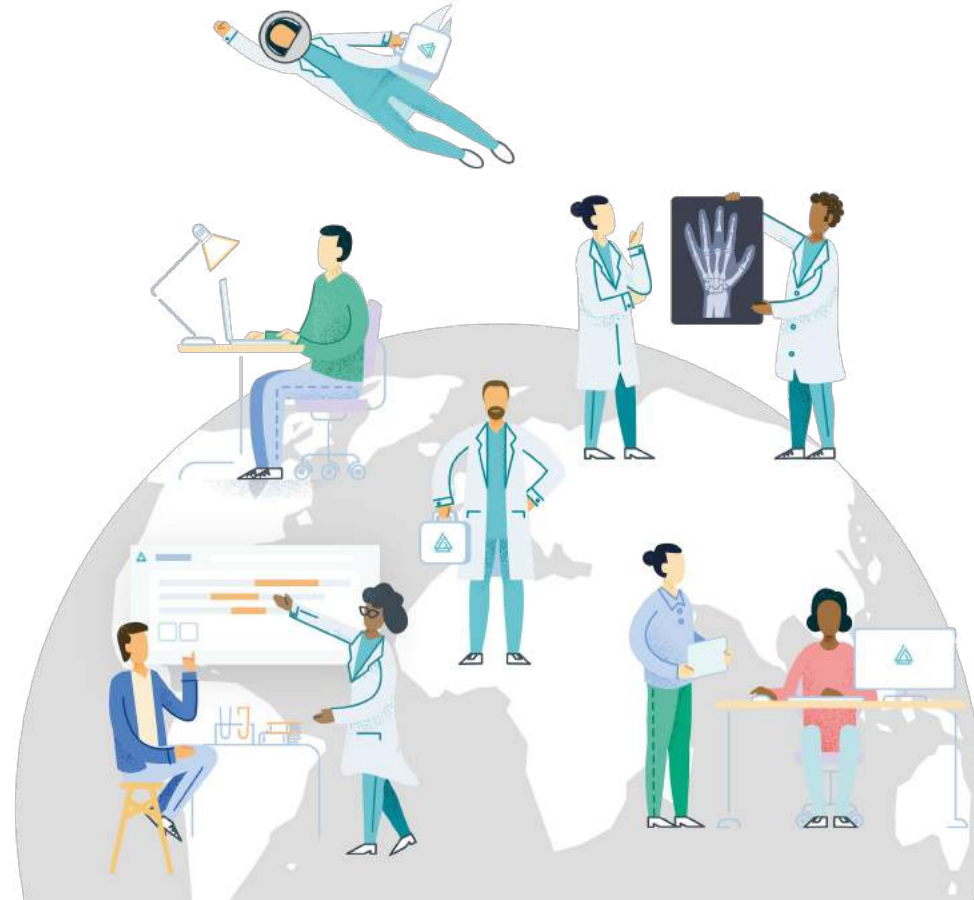
- ✓ What is AMBOSS?
- ✓ Teaching with AMBOSS
- ✓ Learning Analytics



What is AMBOSS?

AMBOSS is an interactive library of 20,000+ medical topics interlinked with a Question Bank with 5,100+ clinical case-based questions.

With all the necessary resources available in one place, AMBOSS delivers up-to-date medical knowledge to nearly two million students, physicians, and faculty around the world.



What is AMBOSS?

Knowledge Library



- ❑ 1,200+ peer-reviewed articles
- ❑ 20,000+ searchable preclinical and clinical medical topics
- ❑ Thousands of high-quality and interactive medical imaging, illustrations, videos, and charts

Question Bank



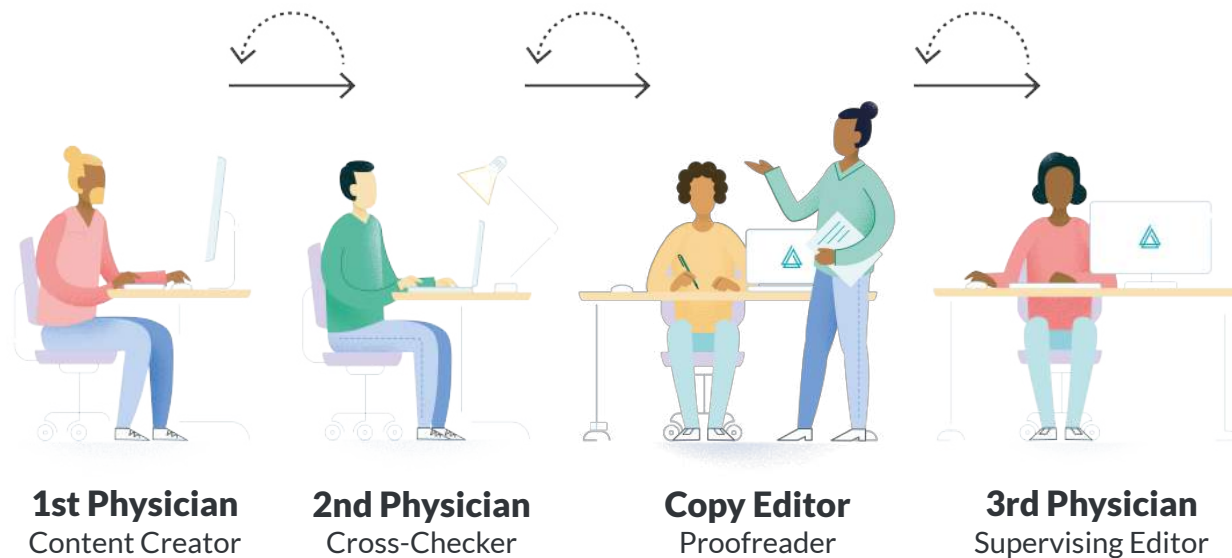
- ❑ 5,120+ ready-to-use clinical case-based questions with 5 difficulty levels
- ❑ All vignettes and answers are linked directly to our Knowledge Library for easy cross-referencing

Analysis Tools



- ❑ Built-in learning analytics help students stay on track and optimize their study time
- ❑ Faculty and students have the ability to monitor progress and address problems early

How is our content **CREATED?**



All of our content is peer-reviewed and continuously updated by our team of 100+ expert physicians.

How can I use **AMBOSS** in my teaching?



Whether you're teaching face-to-face or remotely, AMBOSS offers faculty the problem-based learning tools to support blended or hybrid learning models geared toward evidence-based practice (EBP).

Teaching with **AMBOSS**

Knowledge Library



Knowledge building:

Use our library articles and interactive multimedia to teach and reinforce concepts, ensuring your students internalize the “body of knowledge they need for exams and clinical practice.

Question Bank



Skill building:

Deploy problem-based learning by giving students the opportunity to apply their critical thinking skills to solve clinical vignettes from our QBank. Unique question can be used for formative assessment.

Analysis Tools



Fine-tuning:







Rely on our built-in analytics for teaching and learning recommendations to ensure your students’ weaknesses are identified and addressed early.

Teaching Tip #1







Use the Knowledge Library












Library

-  Basic sciences
-  Clinical knowledge
-  Clinical skills
-  Clerkship survival guide
-  On-call survival guide
-  Osteopathic medicine

Basic sciences

-  By discipline
-  By system
-  AMBOSS content updates
-  Chalk Talk library
-  AMBOSS fact sheets
-  AMBOSS animations

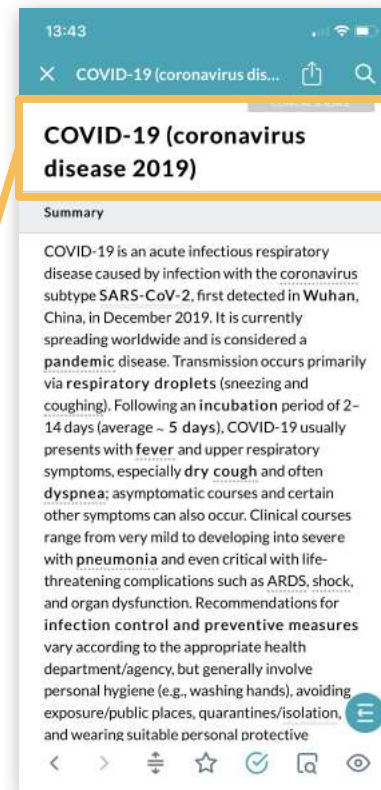
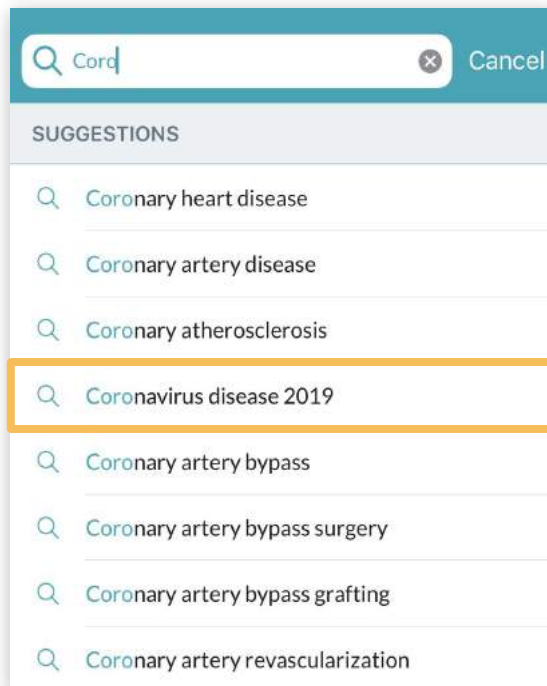
By discipline

-  Anatomy and histology
-  Biochemistry
-  Physiology
-  Immunology
-  Microbiology
-  Pathology
-  Pharmacology
-  Behavioral sciences
-  Social sciences, biostatistics, and epidemiology

The Knowledge Library

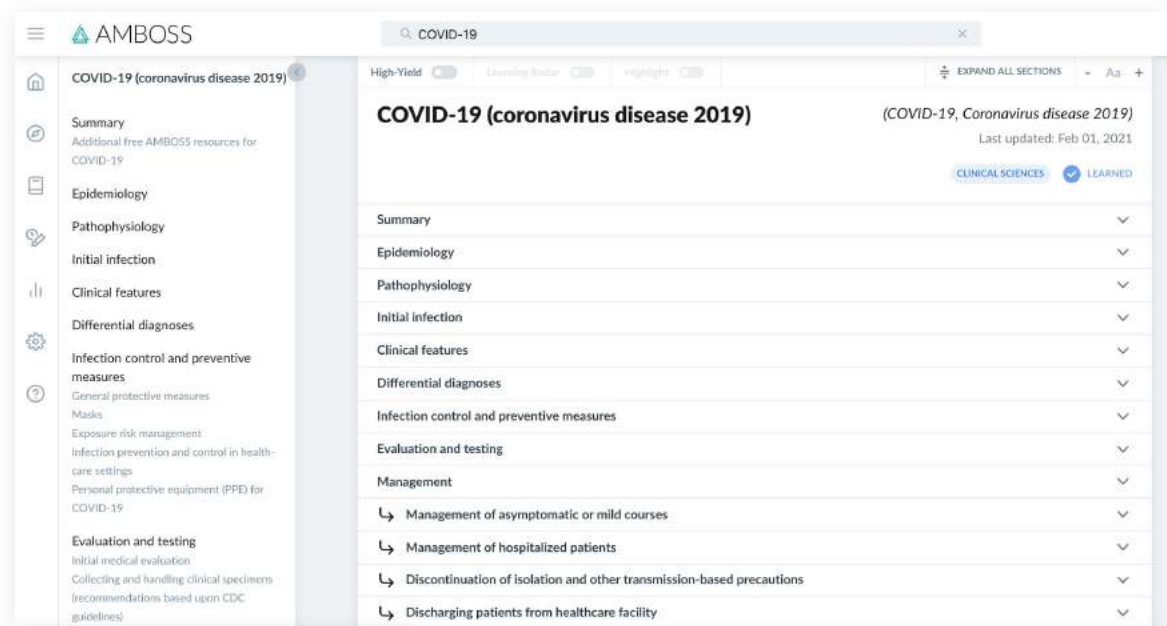
Find everything with our search function

Search the AMBOSS Library for any medical term and instantly find the information you need.



The Knowledge Library

Assign thousands of peer-reviewed articles from our Library



The screenshot displays the AMBOSS interface for a search on COVID-19. The search bar at the top contains "COVID-19". The main content area shows the title "COVID-19 (coronavirus disease 2019)" with a subtitle "(COVID-19, Coronavirus disease 2019)" and a note "Last updated: Feb 01, 2021". A "CLINICAL SCIENCES" tag and a "LEARNED" status are visible. Below the title is a table of contents with expandable sections:

- Summary
- Epidemiology
- Pathophysiology
- Initial infection
- Clinical features
- Differential diagnoses
- Infection control and preventive measures
 - General protective measures
 - Masks
 - Exposure risk management
 - Infection prevention and control in health-care settings
 - Personal protective equipment (PPE) for COVID-19
- Evaluation and testing
 - Initial medical evaluation
 - Collecting and handling clinical specimens (recommendations based upon CDC guidelines)
- Management
 - Management of asymptomatic or mild courses
 - Management of hospitalized patients
 - Discontinuation of isolation and other transmission-based precautions
 - Discharging patients from healthcare facility

Assign specific articles to your students

← → ↻ 🔒 next.amboss.com/us/article/fi0kXh

COVID-19 (coronavirus disease 2019)

Summary
Additional free AMBOSS resources for COVID-19:

Epidemiology

Pathophysiology

Initial Infection

Clinical features

Differential diagnoses

Infection control and preventive measures
General protective measures
Masks
Exposure risk management
Infection prevention and control in healthcare settings
Personal protective equipment (PPE) for COVID-19

Evaluation and testing

OPTIONS EXPAND ALL SECTIONS - Aa +

COVID-19 (coronavirus disease 2019)
(COVID-19, Coronavirus disease 2019) Last updated: Jul 01, 2020

[Edit Article](#) CLINICAL SCIENCES LEARNED

Summary

Epidemiology

Pathophysiology

Initial Infection

Clinical features

Differential diagnoses

Infection control and preventive measures

Evaluation and testing

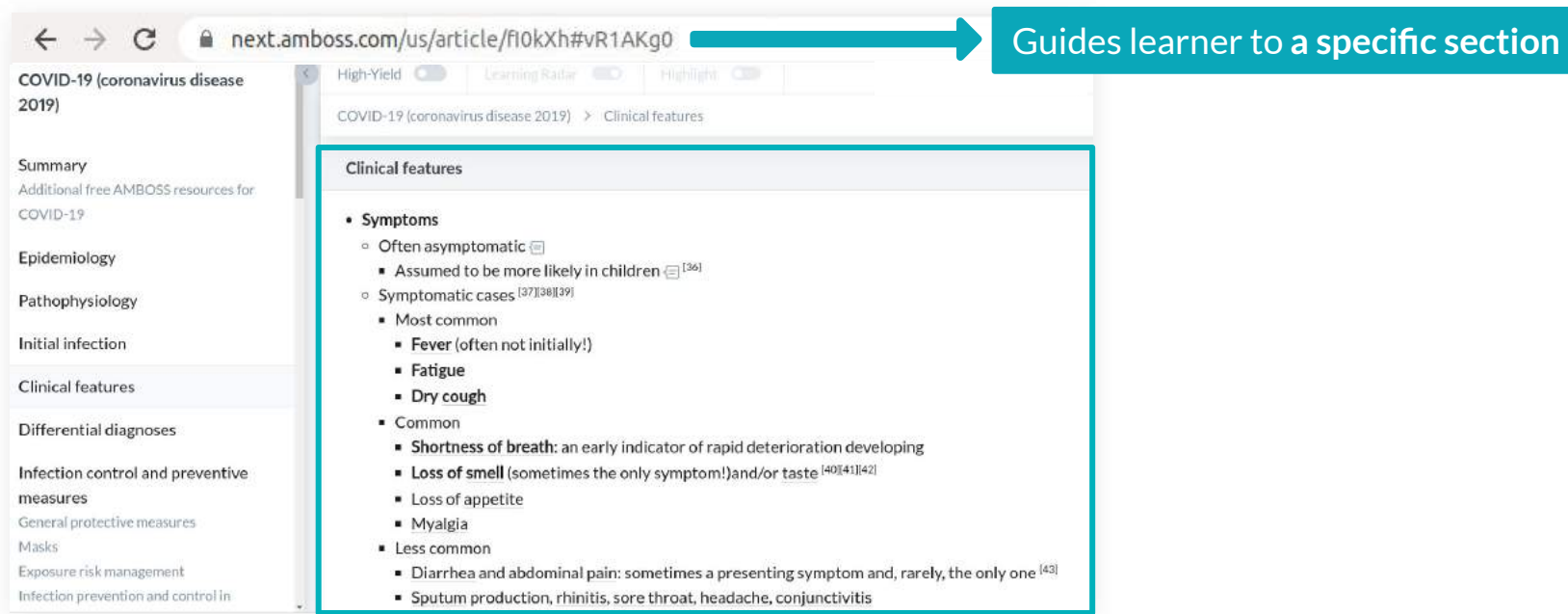
Management

↳ Management of asymptomatic or mild courses

↳ Management of hospitalized patients

Guides learner to a specific article

Assign specific sections to your students



The screenshot shows a web browser displaying the AMBOSS website. The URL is next.amboss.com/us/article/f10kXh#vR1AKg0. The page title is "COVID-19 (coronavirus disease 2019)". The left sidebar contains a table of contents with sections like Summary, Epidemiology, Pathophysiology, Initial infection, Clinical features, Differential diagnoses, and Infection control and preventive measures. The "Clinical features" section is highlighted in blue. The main content area shows the "Clinical features" section, which is further highlighted with a red box. A red arrow points from the "Clinical features" section in the sidebar to a red callout box on the right that says "Guides learner to a specific section".

COVID-19 (coronavirus disease 2019)

Summary
Additional free AMBOSS resources for COVID-19

Epidemiology

Pathophysiology

Initial infection

Clinical features

Differential diagnoses

Infection control and preventive measures
General protective measures
Masks
Exposure risk management
Infection prevention and control in

High-Yield Learning Radar Highlight

COVID-19 (coronavirus disease 2019) > Clinical features

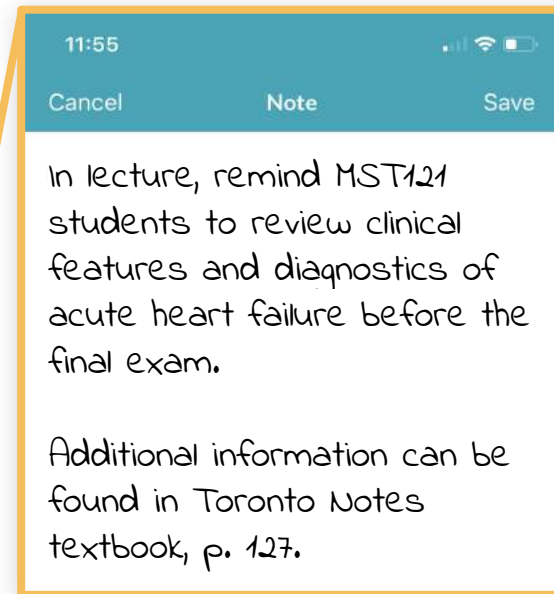
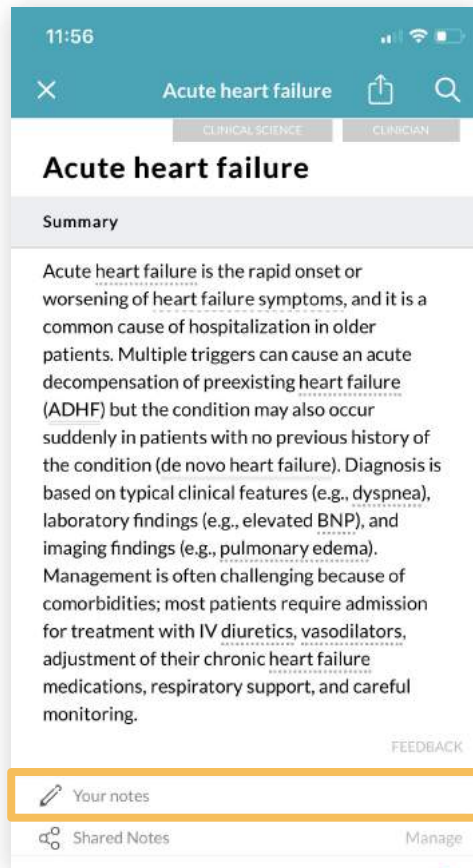
Clinical features

- **Symptoms**
 - Often asymptomatic
 - Assumed to be more likely in children [36]
 - Symptomatic cases [37][38][39]
 - Most common
 - **Fever** (often not initially!)
 - **Fatigue**
 - **Dry cough**
 - Common
 - **Shortness of breath**: an early indicator of rapid deterioration developing
 - **Loss of smell** (sometimes the only symptom!) and/or taste [40][41][42]
 - Loss of appetite
 - Myalgia
 - Less common
 - **Diarrhea and abdominal pain**: sometimes a presenting symptom and, rarely, the only one [43]
 - Sputum production, rhinitis, sore throat, headache, conjunctivitis

The Knowledge Library

Add your own notes to the platform

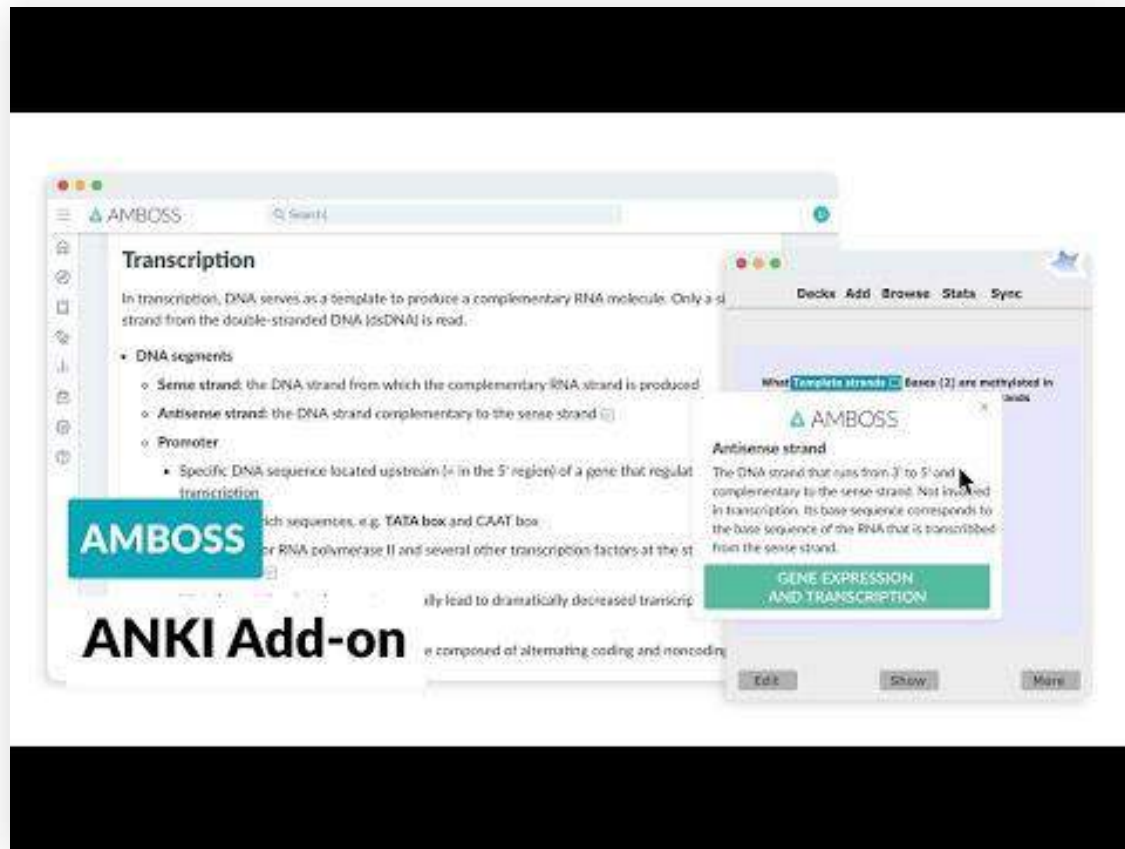
Want to add something relevant to your teaching? Use our popular Notes function and instantly share your knowledge with your students.



Encourage Spaced Repetition with ANKI

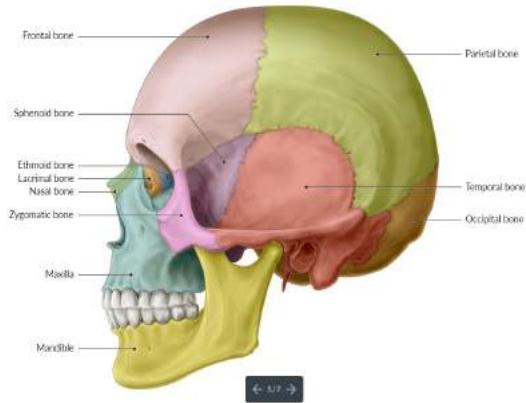
Students can strengthen and consolidate their knowledge using ANKI's media-rich flashcards.

They'll see pop-up definitions, explanations, and our medical images in virtual flashcards that connect directly to our Library.



Reference thousands of medical illustrations, images, and charts in your teaching

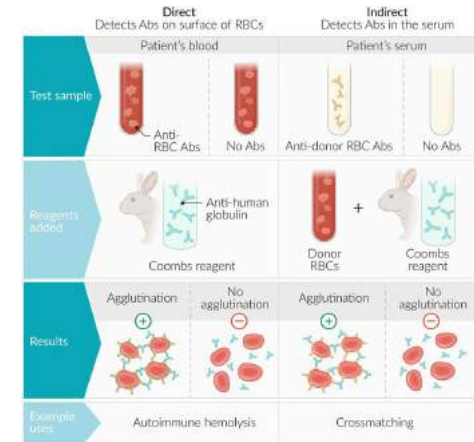
Illustrations



Images



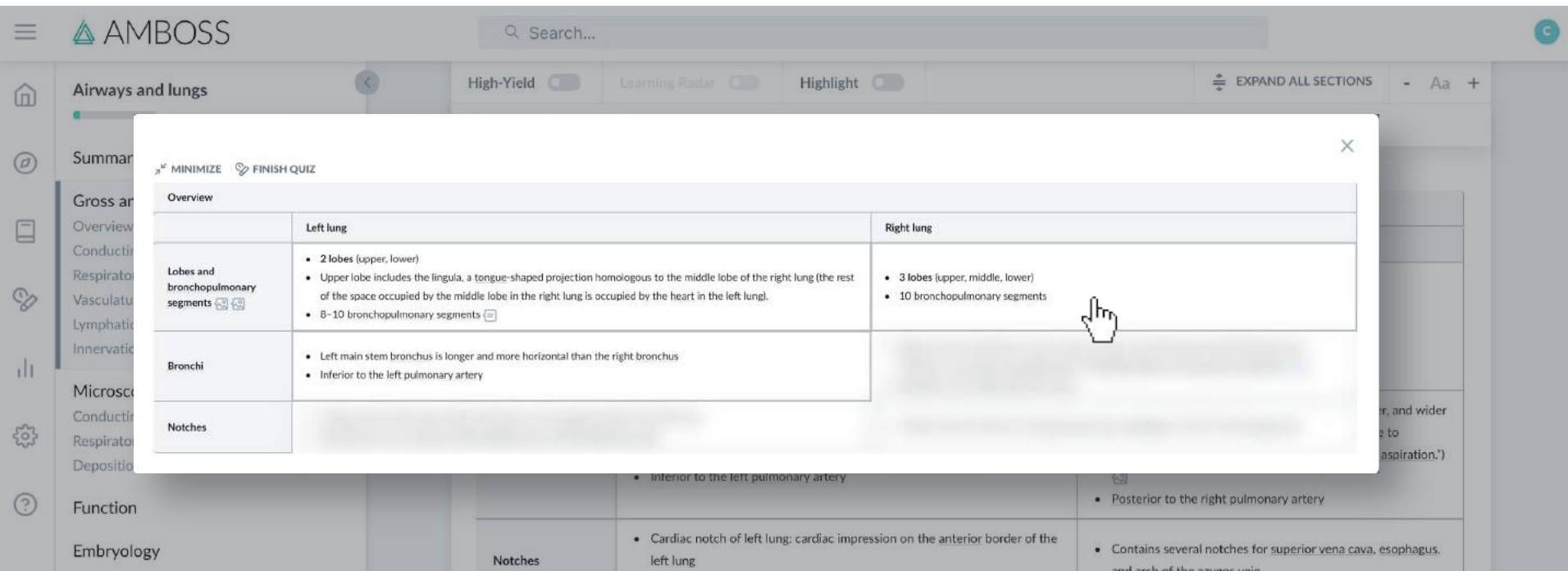
Charts



Our comprehensive collection of visual aids will help your students break down even the most complex topics.

Test your students' knowledge with our built-in quizzes

Small active learning strategies, such as table quizzes, have been proven effective in allowing students to check their understanding of recent material or highlight gaps in their knowledge before moving forward.

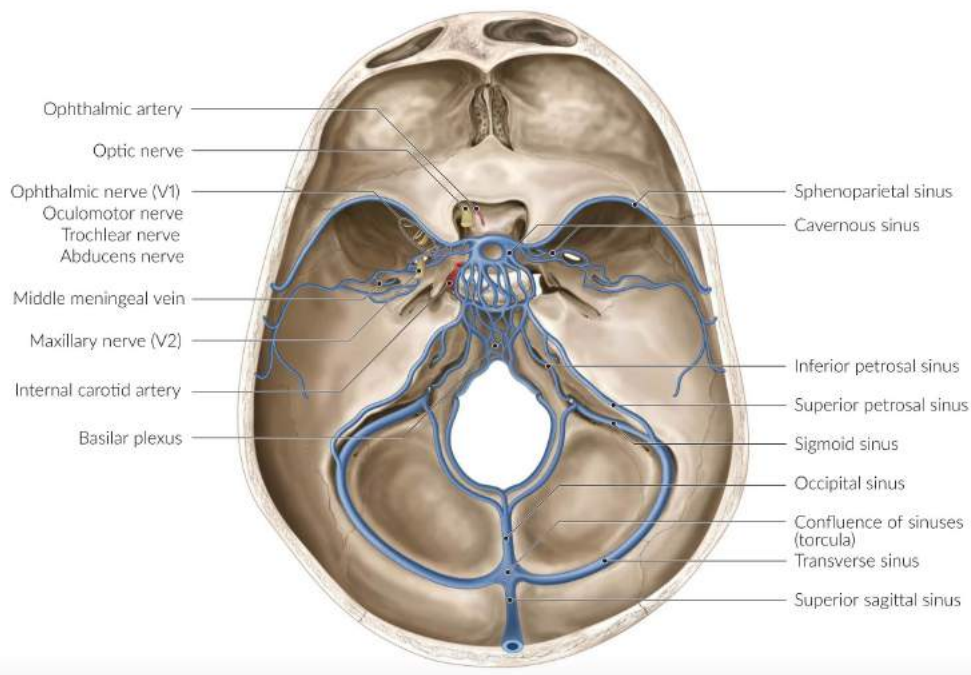


The screenshot shows the AMBOSS interface with a table quiz open. The quiz is titled 'Airways and lungs' and is part of a 'Summary' section. The table compares the 'Left lung' and 'Right lung' across several categories: Lobes and bronchopulmonary segments, Bronchi, and Notches. A hand cursor is pointing at the 'Right lung' column for the 'Lobes and bronchopulmonary segments' row.

Overview	Left lung	Right lung
Lobes and bronchopulmonary segments	<ul style="list-style-type: none"> 2 lobes (upper, lower) Upper lobe includes the lingula, a tongue-shaped projection homologous to the middle lobe of the right lung (the rest of the space occupied by the middle lobe in the right lung is occupied by the heart in the left lung). 8-10 bronchopulmonary segments 	<ul style="list-style-type: none"> 3 lobes (upper, middle, lower) 10 bronchopulmonary segments
Bronchi	<ul style="list-style-type: none"> Left main stem bronchus is longer and more horizontal than the right bronchus Inferior to the left pulmonary artery 	
Notches		

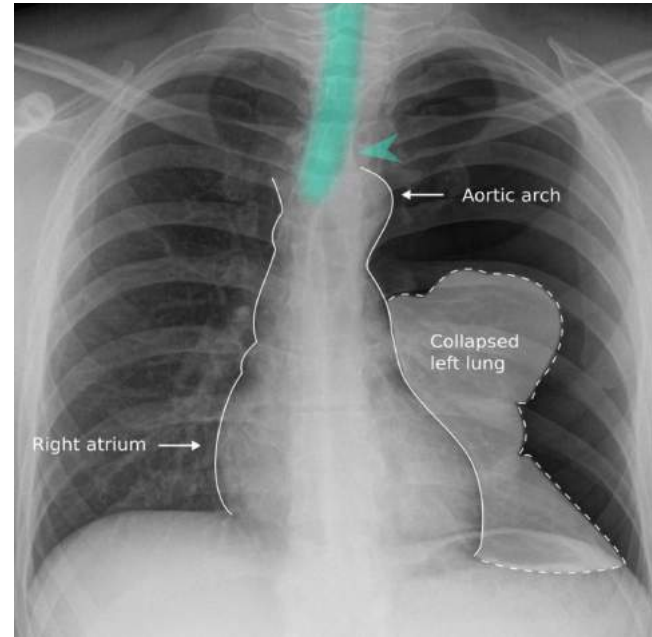
Test your students' knowledge with our built-in quizzes

Our quizzes can be instantly integrated into lectures or assigned to your students for self-directed learning.



Use our interactive medical imaging to teach

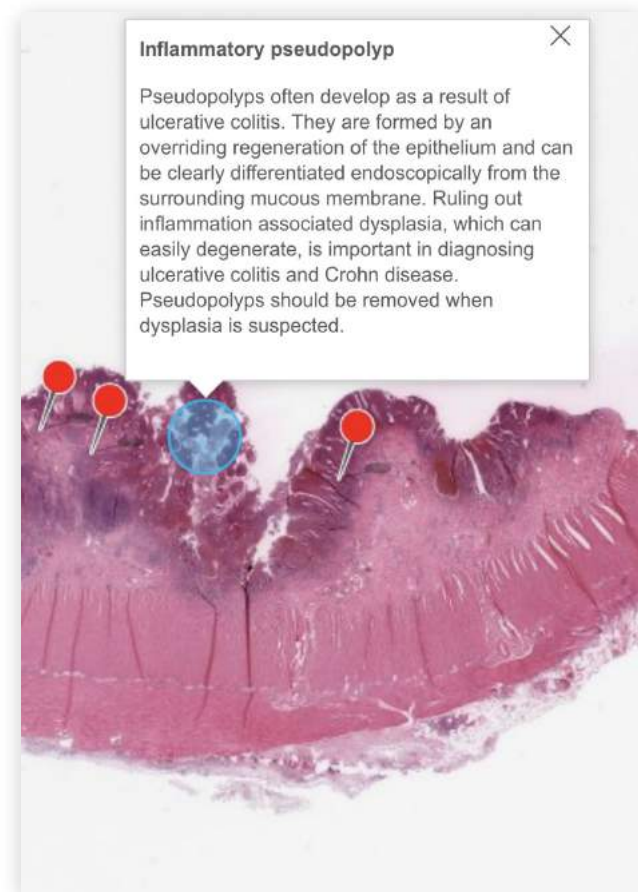
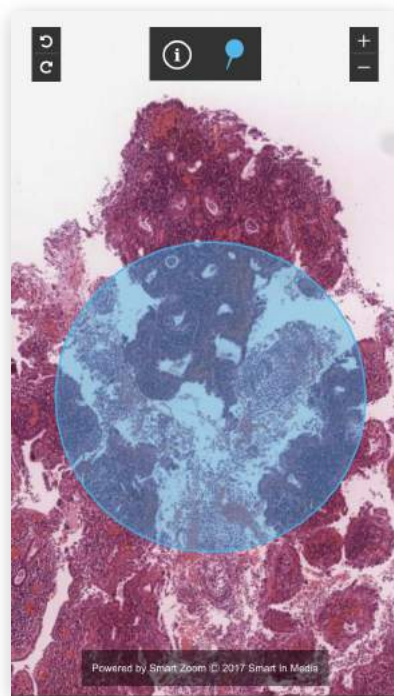
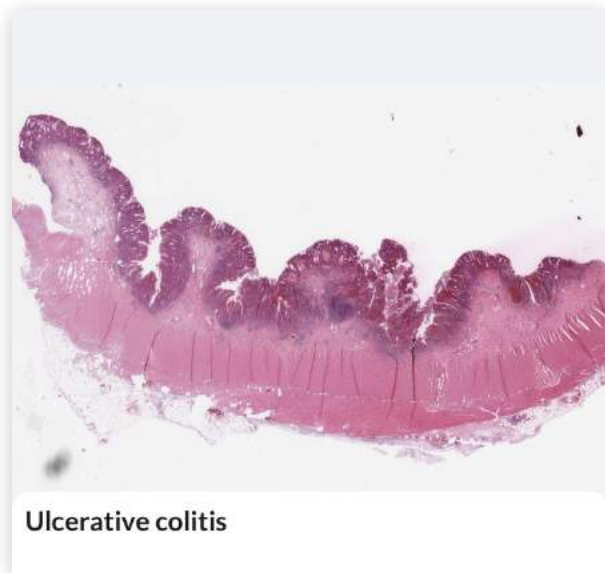
Examine thousands of X-rays, CT scans, ultrasounds, and other high-quality medical images with our overlay feature to sharpen your students' diagnostic skills.



Take a closer look with Smart Zoom

Our virtual microscope allows students to see specimens at any scale.

We even pinpoint the information they need to know.



The Knowledge Library

Incorporate hours of expert video content

Our Library contains hundreds of videos, including chalk talks, explanatory tutorials, and clinical demonstrations.



Click or tap to play

Ask students to review clinical exam protocols in advance

Pneumonia

Treatment

General measures

- Sufficient rest (not absolute bedrest) and physical therapy
- High liquid intake (prevents dehydration, reduces bradycardia)
- Pulse oximetry monitoring
- Oxygen via nasal tube in cases of hypoxia
- Antipyretics, analgesics (e.g., acetaminophen, ibuprofen)
- Expectorants and mucolytics
- Antitussives (e.g., codeine)

Complications

- Parapneumonic pleuritis
 - Fibrous pleuritic inflammation → increased vessel permeability → fibrin-rich exudate deposited on the serosal surface of the pleura
 - May present with pleuritic chest pain, friction rub present
- Parapneumonic pleural effusion (common)
- Pleural empyema

Medical treatment of pneumonia

Antibiotic treatment may be terminated 2-3 days after the fever subsides. In cases of community-acquired pneumonia be treated in the outpatient setting, seven days of antibiotic treatment are usually sufficient!

QR code: CU9B-65 SCORES

Illustration

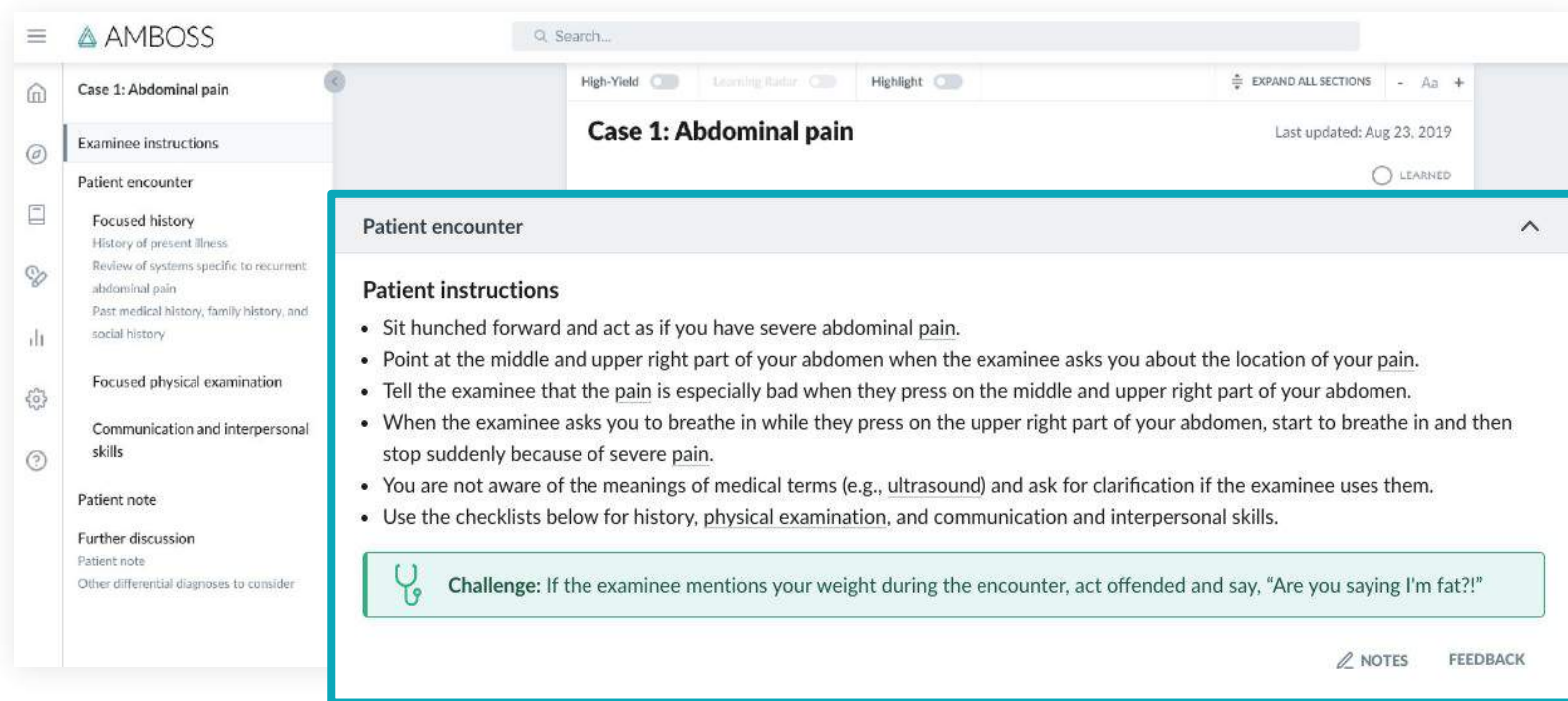
Video

Visual Diagnosis



Click or tap to play

Simulate patient encounters with your students



The screenshot displays the AMBOSS interface for a patient encounter simulation. The main title is "Case 1: Abdominal pain", last updated on Aug 23, 2019. The interface includes a search bar, navigation tabs for "Examinee instructions", "Patient encounter", "Focused history", "Focused physical examination", and "Communication and interpersonal skills", and a "Patient note" section. The "Patient encounter" section is highlighted and expanded, showing "Patient instructions" and a "Challenge" box.

Case 1: Abdominal pain Last updated: Aug 23, 2019

Patient encounter

Patient instructions

- Sit hunched forward and act as if you have severe abdominal pain.
- Point at the middle and upper right part of your abdomen when the examinee asks you about the location of your pain.
- Tell the examinee that the pain is especially bad when they press on the middle and upper right part of your abdomen.
- When the examinee asks you to breathe in while they press on the upper right part of your abdomen, start to breathe in and then stop suddenly because of severe pain.
- You are not aware of the meanings of medical terms (e.g., ultrasound) and ask for clarification if the examinee uses them.
- Use the checklists below for history, physical examination, and communication and interpersonal skills.

Challenge: If the examinee mentions your weight during the encounter, act offended and say, "Are you saying I'm fat?!"

NOTES FEEDBACK

Teaching Tip #2

Use the Question Bank



A 29-year-old man comes to the physician because of a 3-month history of fatigue, weight loss, and multiple painless swellings on his neck and axilla. He reports that his swellings become painful after he drinks alcohol. Physical examination shows nontender cervical and axillary lymphadenopathy. A lymph node biopsy specimen shows giant binucleate cells. Which of the following is the most likely diagnosis?

KEY INFO ATTENDING TIP LABS SAVE FEEDBACK

The giant cells seen on biopsy are likely to be positive for CD15 and CD30. FEEDBACK

A Hodgkin lymphoma 86% ✓

The combination of localized lymphadenopathy, alcohol-induced pain, and B symptoms should raise concern for Hodgkin lymphoma. This patient's age further supports the diagnosis of Hodgkin lymphoma, which has a bimodal age distribution, with the highest prevalence in the 3rd and 6th-8th decades of life. Lymph node biopsy findings can show Reed-Sternberg cells, which are CD15/30-positive, polynuclear giant cells that originate from B cells. Reed-Sternberg cells are pathognomonic for Hodgkin lymphoma and would confirm the diagnosis.

ADDITIONAL INFORMATION FEEDBACK

HODGKIN LYMPHOMA FEEDBACK

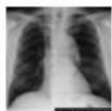
B Diffuse large B-cell lymphoma	7%	—
C Mycobacterial infection	1%	—
D Adult T-cell lymphoma	3%	—
E Acute lymphocytic leukemia	1%	—
F Acute retroviral syndrome	1%	—

The Question Bank

Use our Question Bank for the formative assessment of your students' clinical knowledge

Select from 5,100+ MCQs

A 62-year-old man comes to the physician because of a persistent cough for the past 2 weeks. During this time, he has also had occasional discomfort in his chest. Three weeks ago, he had a sore throat, headache, and a low-grade fever, which were treated with acetaminophen and rest. He has a history of hypertension and hyperlipidemia. His father died of myocardial infarction at the age of 57 years. He has smoked a pack of cigarettes daily for the past 40 years. Current medications include enalapril and atorvastatin. His temperature is 37°C (98.6°F), pulse is 70/min, and blood pressure is 145/90 mm Hg. Physical examination shows no abnormalities. An x-ray of the chest is shown. Which of the following is the most appropriate next step in management?



» Feedback

- A Esophageal manometry ✕
- B CT scan of the chest ✕

Choose the difficulty level

Difficulty

We assign each question a difficulty by using hammers, with 1 hammer meaning least difficult and 5 the most.

- 1 hammer
- 2 hammers
- 3 hammers
- 4 hammers
- 5 hammers
- 5 hammers and a question icon

DONE

Customize your question sessions

- Exam 1+1
T|T
- Systems 1+1
T|T
- Symptoms 1+1
T|T
- Discipline 1+1
T|T
- Articles 1+1
T|T
- Saved questions, organized by folder 1+1
T|T

The Question Bank

Our highlighting feature helps students focus

With the click of a button, students can easily separate the information they need from the distractors to help get them to the right answer.

Highlight



A 76-year-old woman with a history of hypertension and type 2 diabetes mellitus is brought to the emergency department 60 minutes after the acute onset of left-sided abdominal pain and nausea with vomiting. Three weeks ago, she underwent emergency surgical revascularization for acute left lower extremity ischemia. Physical examination shows left upper quadrant tenderness without rebound or guarding. Serum studies show an elevated lactate dehydrogenase level. Laboratory studies, including a complete blood count, basic metabolic panel, and hepatic panel, are otherwise unremarkable. A transverse section of a CT scan of the abdomen is shown. Further evaluation is most likely to show which of the following?

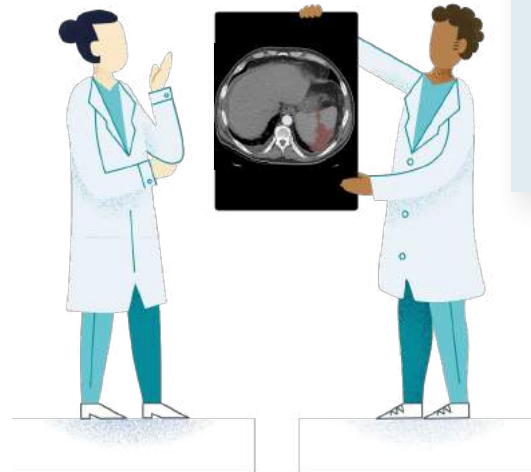


- (A) Absent P waves on electrocardiogram
- (B) Non-compressible femoral vein on ultrasonography
- (C) Infrarenal aortic aneurysm on abdominal CT scan
- (D) Right atrial thrombus on transesophageal echocardiography
- (E) Schistocytes on peripheral blood smear

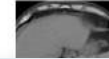
The Question Bank

Unsure? Students can ask the Attending

The Attending gives students a push in the right direction, helping them improve their differential diagnostic skills by giving them a better grasp of the logic of the question.



A 76-year-old woman with a history of hypertension and type 2 diabetes mellitus is brought to the emergency department 60 minutes after the acute onset of left-sided abdominal pain and nausea with vomiting. Three weeks ago, she underwent emergency surgical revascularization for acute left lower extremity ischemia. Physical examination shows left upper quadrant tenderness without rebound or guarding. Serum studies show an elevated lactate dehydrogenase level. Laboratory studies, including a complete blood count, basic metabolic panel, and hepatic panel, are otherwise unremarkable. A transverse section of a CT scan of the abdomen is shown. Further evaluation is most likely to show which of the following?



Attending Tip

This woman's CT findings (wedge-shaped splenic hypodensity) and acute onset of left-sided abdominal pain are consistent with acute splenic infarction. This woman has had two different thromboembolic events in the arterial system.

» Feedback

- (A) Absent P waves on electrocardiogram
- (B) Non-compressible femoral vein on ultrasonography
- (C) Infrarenal aortic aneurysm on abdominal CT scan
- (D) Right atrial thrombus on transthoracic echocardiography

← 8/40



The Question Bank

Right or wrong, there's always an explanation

Students will always be presented with an explanation that details why their answer choice was either correct or incorrect.

Quick explanations and direct links to the Library allow students to review relevant material immediately.

Absent P waves on electrocardiogram ✓

Absent P waves and irregularly irregular RR intervals on electrocardiogram would be consistent with atrial fibrillation, a significant risk factor for atrial thrombus formation due to the rapid, irregular contraction of the atria and subsequent blood stasis. Thrombi formed in the left atrium or left ventricle can fragment into emboli and disperse into the arterial circulation, leading to ischemic events, as seen here. This patient has multiple risk factors for atrial fibrillation, including her age, hypertension, and diabetes.

» Feedback

[Atrial fibrillation](#)

Non-compressible femoral vein on ultrasonography -

Sonographic evidence of a non-compressible femoral vein would be consistent with a deep vein thrombosis (DVT) in the femoral vein. While the patient's acute limb ischemia and splenic infarction were probably caused by embolic events, the emboli both occurred in the arterial system, whereas DVTs result in occlusion of the venous system. Venous emboli from DVTs can travel to the pulmonary vasculature (resulting in pulmonary embolism) but would not enter the systemic vasculature without the presence of a significant right-to-left shunt (e.g., patent foramen ovale), which is uncommon.

» Feedback

13:14
AMBOSS

X Hemostasis and bleeding di...

Hemostasis is the physiological process by which a bleeding stops. Its final result is a **thrombus** (blood clot), which consists of blood cells and

Thrombus

A blood clot formed as the final product of hemostasis. Consists of red blood cells, platelets, and fibrin strands.

Hemostasis and bleeding disorders
→ Hemostasis →

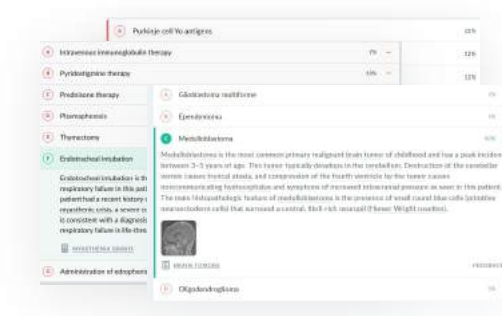
- **Secondary hemostasis:** activation of the coagulation cascade, which results in the formation of a fibrin clot (red thrombus)

Primary hemostasis

- **Definition:** processes involved in the formation of a platelet plug (white thrombus) following endothelial injury
- **Vascular hemostasis**
 - **Endothelial injury** results in:
 - Neural stimulation reflexes and endothelin release → transient vasoconstriction, leading to:
 - Reduced blood flow
 - Platelet accumulation at the vessel walls

Navigation icons at the bottom: back, forward, search, star, checkmark, magnifying glass, and refresh.

Create and assign unique question sets with our University Sessions feature



Over 5,120+ questions to choose from

Place them in an individual folder

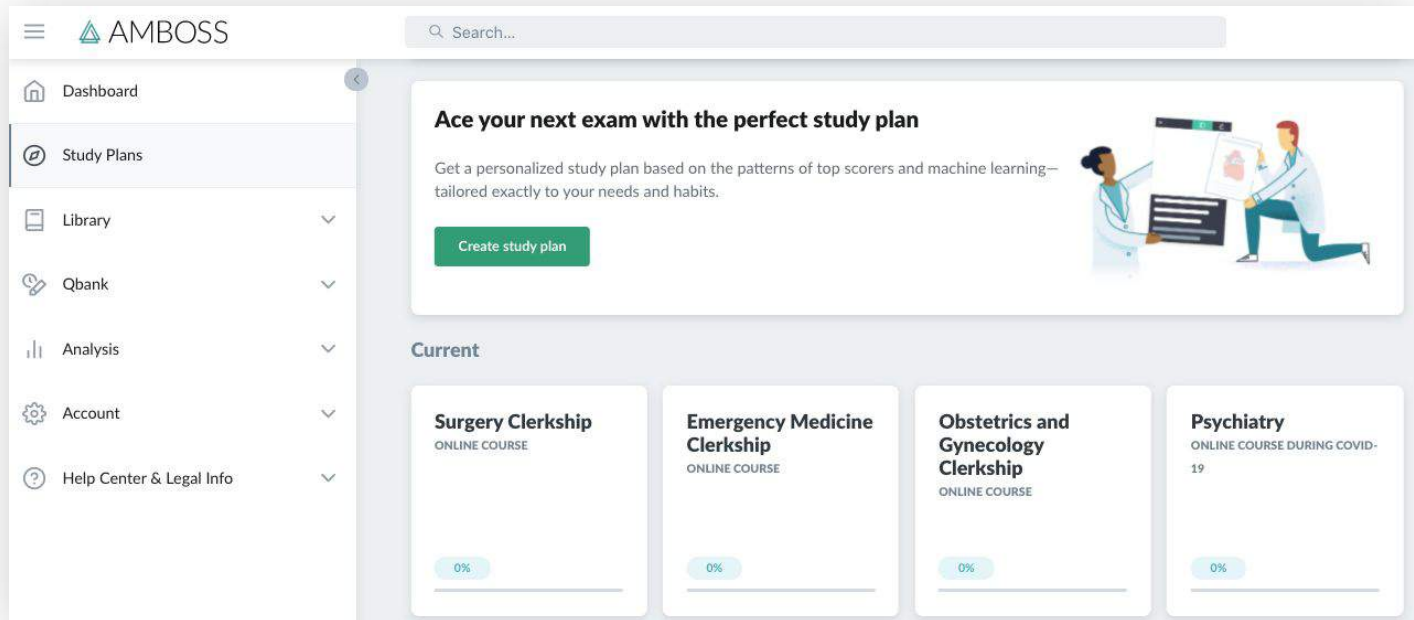
Your students can find them under “My University”



[View our step-by-step tutorial here.](#)

Choose material from our selection of online courses

Our modular courses improve students' knowledge in any subject by pairing articles with question sets. Students can even create their own study plans with topics from your syllabus.



The screenshot displays the AMBOSS dashboard interface. On the left is a navigation sidebar with the following items: Dashboard, Study Plans (highlighted), Library, Qbank, Analysis, Account, and Help Center & Legal Info. The main content area features a search bar at the top. Below it is a promotional banner for a study plan with the text "Ace your next exam with the perfect study plan" and a "Create study plan" button. An illustration of two doctors reviewing a screen is also present. Underneath the banner is a "Current" section with four course cards: Surgery Clerkship, Emergency Medicine Clerkship, Obstetrics and Gynecology Clerkship, and Psychiatry. Each card shows a progress indicator at 0%.

AMBOSS

Search...

Dashboard

Study Plans

Library

Qbank

Analysis

Account

Help Center & Legal Info

Ace your next exam with the perfect study plan

Get a personalized study plan based on the patterns of top scorers and machine learning—tailored exactly to your needs and habits.

Create study plan

Current

Surgery Clerkship
ONLINE COURSE
0%

Emergency Medicine Clerkship
ONLINE COURSE
0%

Obstetrics and Gynecology Clerkship
ONLINE COURSE
0%

Psychiatry
ONLINE COURSE DURING COVID-19
0%

The Question Bank

Choose material from our selection of online courses

With each course module, students are able to mark articles as read and test that knowledge directly through the accompanying Question Bank session.

The screenshot displays the AMBOSS web interface. On the left is a navigation sidebar with options: Dashboard, Study Plans, Library, Qbank, Analysis, Account, and Help Center & Legal Info. The main content area is titled 'Pediatric surgery' and 'Part I (160-240 min)'. Below this, a list of articles is shown, each with a 'LEARNED' status indicator (a blue checkmark in a circle). The articles listed are: Neural tube defects, Necrotizing enterocolitis, Choanal atresia, Cleft lip and cleft palate, Congenital neck masses, Juvenile nasopharyngeal angiofibroma, and Cyanotic congenital heart defects. At the bottom of the interface, there are radio buttons for 'Study mode' (selected) and 'Exam mode'.

Sessions

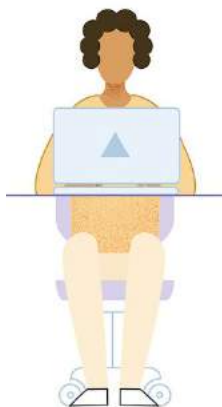
Qbank session on "Pediatric surgery - Part I"

 0/20 QUESTIONS

START

Teaching Tip #3

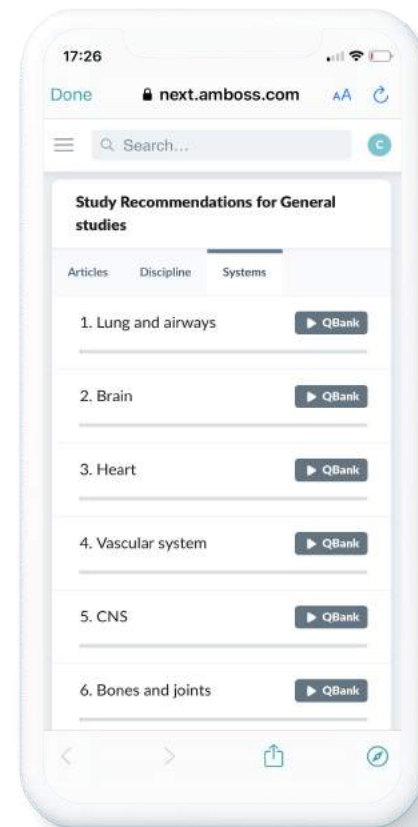
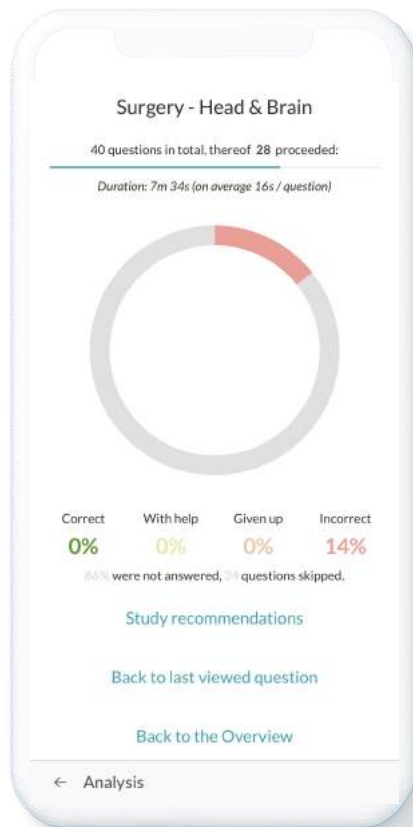
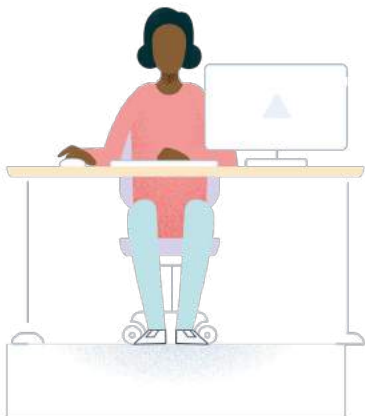
Use Learning Analytics



Learning Analytics

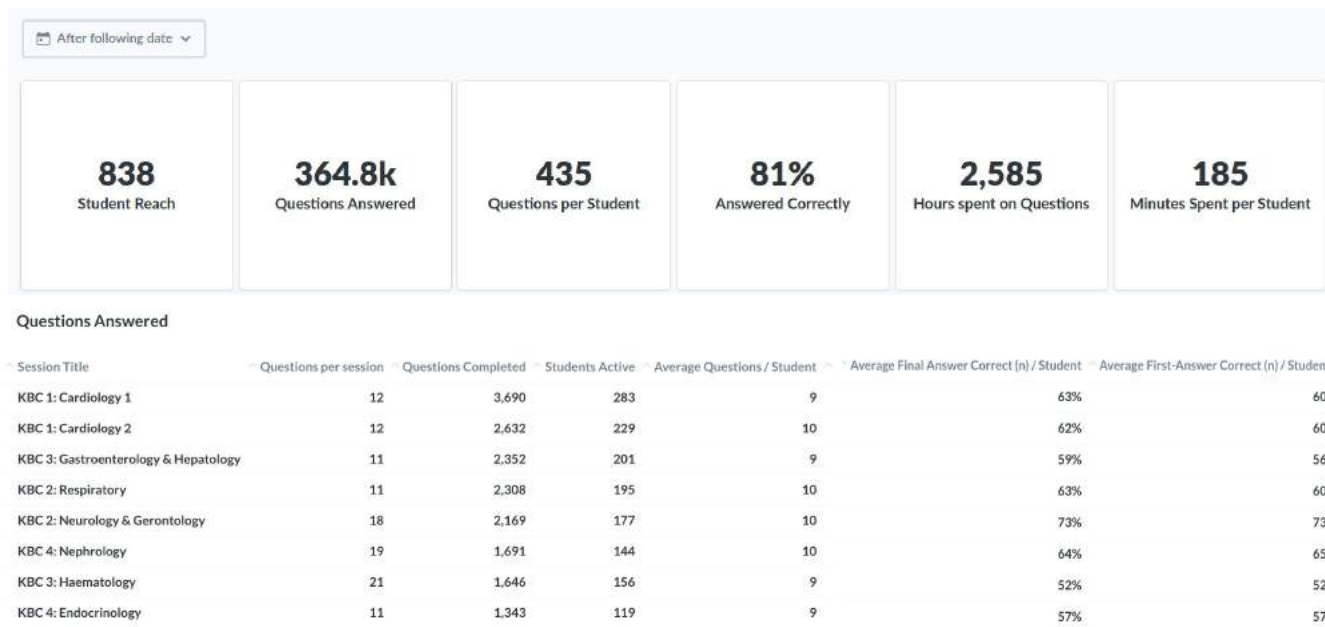
Students stay on track with our learning analytics.

Each student can chart their progress with our built-in learning analytics. They also receive personalized study recommendations to keep them on track.



Visualize the impact of your teaching

We've built powerful Learning Analytics that allow faculty to analyze your the learning and engagement of your students, identify gaps in knowledge, and adjust your teaching.



Want to learn more? Contact us!

Institutions around the world work with us to innovate their medical school curriculums and support self-directed learning for their students.

Our team supports universities and faculty with:

- Integrating custom learning solutions
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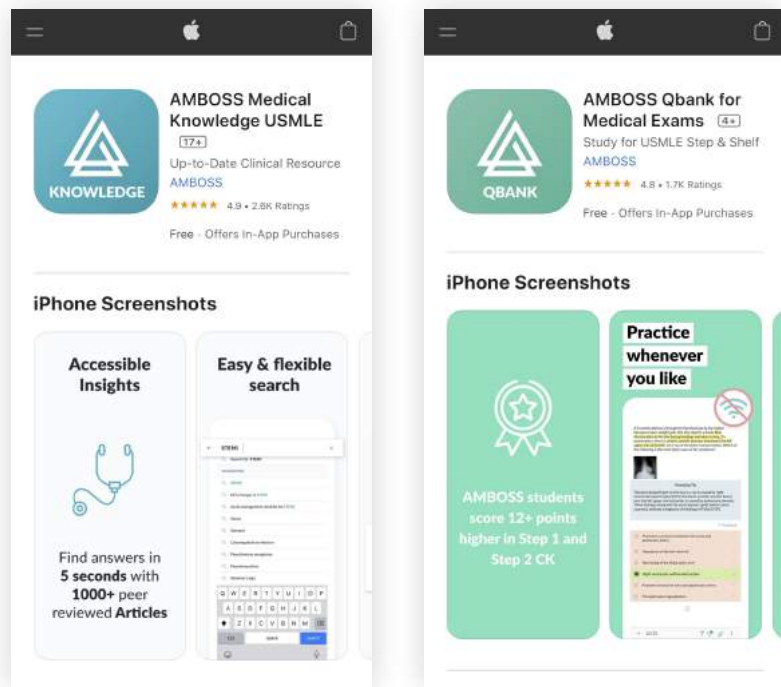


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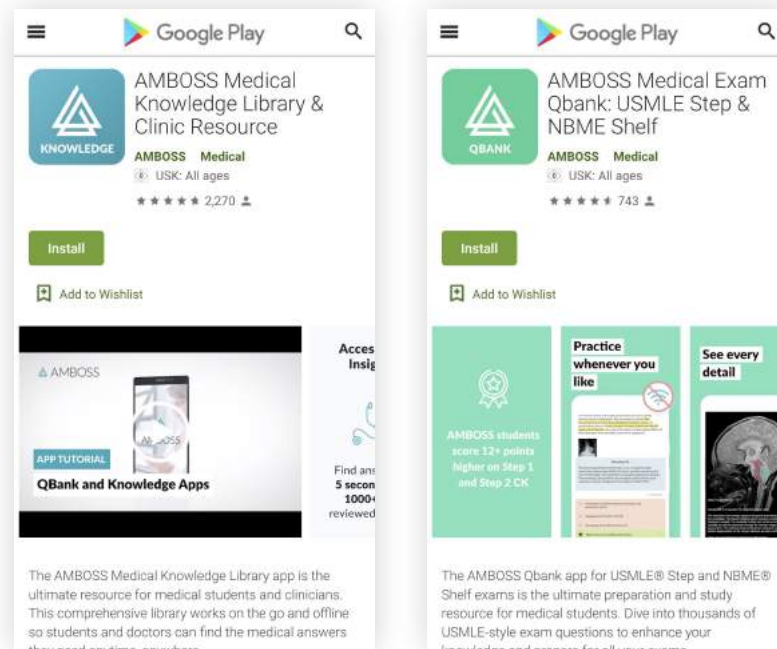
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... and blood
... on her right knee. A CT scan of the
... shown. Which of the following is the most
... appropriate treatment for this patient's condition?

HIGHLIGHT

LABS

ATTENDING TIP

SETTING

Orthopedic surgeries, such as a total knee replacement, often cause prolonged immobilization. This is a significant risk factor for venous stasis.

7%

77%

3%

4%

1%

10%

PERICARDIOCENTESIS

SHOW ALL EXPLANATIONS

NEXT

Endovascular stent-grafting

Tube thoracostomy

Atelase

Piperacillin and tazobactam

Coronary angioplasty

Bunetamide



Pneumothorax

Diagnostic tests

- Arterial blood gas analysis (ABG) to detect respiratory alkalosis
- **C** • Vertical pleura may be visible as a thin line parallel to the chest wall
 - Ipsilateral pleural line with **reduced/absent lung markings**
 - Sudden change in radiolucency
- **Deep sulcus sign** - **shallow and deep costophrenic angles on the affected side**
- If pulmonary disease is present, airway or parenchymal lesions
- Ipsilateral diaphragmatic flattening/inversion and widened intercostal spaces
- **Tracheal deviation** towards the contralateral side

• CT in stable patients
• Concomitant findings