TECHNION
Israel Institute of Technology
FACULTY OF MEDICINE

USMLE PREP LECTURE SERIES
Lecture 2.1

ELITE MEDICAL PREP

Elite Medical Prep Guide for Technion Students from Day 1 to Test day

Last Updated: October 29 , 2018. Delivered: October 29, 2018

Objectives

- Integrated USMLE Step 1 Program
  - Background
  - 2018 Results
  - Plan
- USMLE Basics
- Question Breakdowns—Cardiology
- Resource Reviews

Live Polling

We will be using Poll Everywhere:

www.**pollev**.com/marcelbrusra627

ELITE MEDICAL PREP

How are you feeling today?

Our Team

Our team has published more than 95 academic and research papers

Our tutors boast more than 11 different ~~medical~~ specialties

Our tutors are colleagues. Not freelancers.

We are a group of healthcare professionals who have attained exceedingly high scores on our USMLE exams, and have dedicated our time to helping medical students achieve their own testing and professional goals. We want our students to see the USMLE as an opportunity to shine rather than as a barrier to residency acceptance.

Our Founders

Kenneth Rubin, MD
Co-founder and CEO

Mt Sinai USMLE Course Director

Mt. Sinai | Columbia University

Marcel Brus-Ramer, MD/PhD
Co-founder and President

Board Certified Radiologist
Columbia P&S Online Lecturer

Columbia University | UCSF | Rutgers | Paris Diderot

With nearly 17 years and 10,000+ hours of combined USMLE teaching and tutoring experience, the founders of Elite Medical Prep (“Elite”), Kenneth Rubin, MD and Marcel Brus-Ramer MD/PhD, have developed a unique system of 1-on-1, small group and lecture-based instruction to maximize USMLE preparedness for students of all levels and backgrounds.

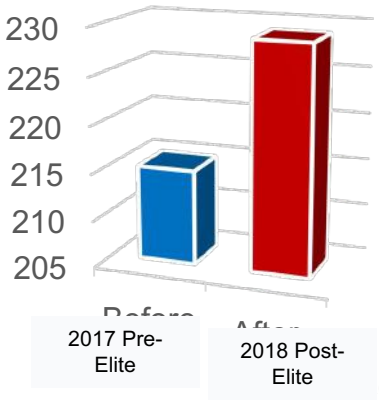
Results at Technion

Data from Elite Medical Prep's work with Technion during the 2017-2018 academic year

*High impact lectures integrated with existing curriculum delivered by Elite Medical Prep's founders: Dr. Brus-Ramer & Dr. Rubin

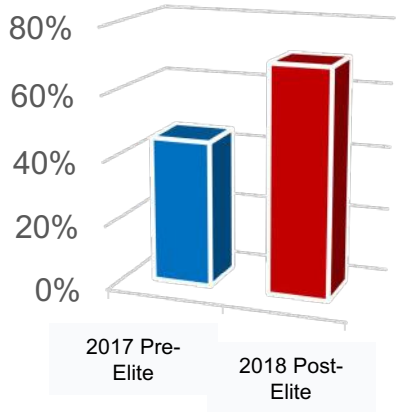
*Online small groups were of 3 students each directed by experienced senior tutors rigorously trained and vetted by Elite Medical Prep

Elite's Integrated Program Significantly Increases Average Step 1 Score Performance.

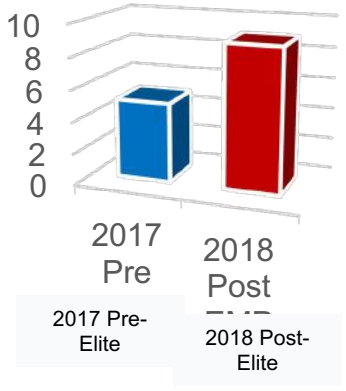


cally significant increase in average score: $p < 0.05$, N = 20 students

Elite's Integrated Program Improves On-Time Test Taking.



Elite's Integrated Program Increases the Number of Strong USMLE Step 1 Performances.



14+ Points higher with Elite

45% Increase in on time Step 1

9 Students scoring >230

ELITE MEDICAL PREP

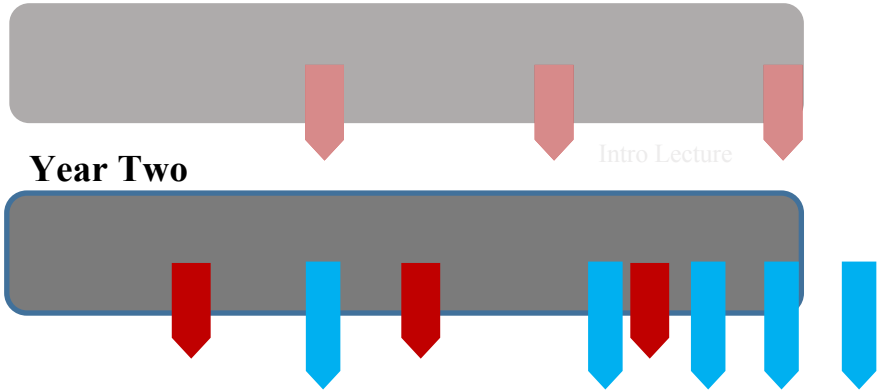
Class Specific Site

- Forum for Q & A
- Lecture Notes
- Calendar
- Content

Step 1 Outline

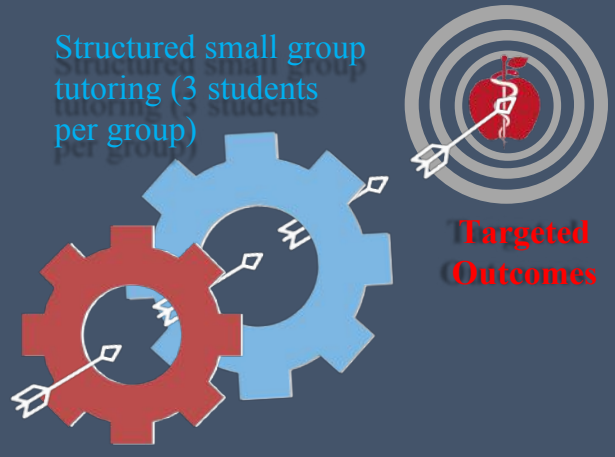
Year One

Year Two



1hr Didactic USMLE Prep lectures delivered by Elite Medical Prep

2hr Intensive Online Small Group sessions offered by Elite Medical Prep



COST

- **$100 per student for 10hr of Tutoring (in groups of 3).**
- **Groups can extend up to 20hr of total tutoring**
  - Arrangements and pricing to be handled on a group-by-group basis

USMLE Step 1 Basics

- Consists of 3 steps: 1,2, and 3
  - **Steps 1 & 2**: most important for residency applications
  - **Step 1** has the most basic science, biochemistry, and general scientific principles
  - **Step 2** is more diagnosis and management-focused
  - **Step 3** is focused on complex management and critical review of literature
- 280 MCQs, 8-hr testing session (7 x 1 hr blocks, 1 hr of break time)
- Scoring – 3-digit; mean 230, SD 20, Pass > 194.
  - Many questions are embedded in clinical vignettes
  - Tests ability to: “apply important concepts of the sciences basic to the practice of medicine”
  - Questions require linking together various pieces of knowledge

Why is the test important?
Why do Residencies care so much?

- Filter applications quickly
- There are tests throughout medical education—you need to show you can pass them
- ~~Pass Test → Get License → Work as a Doctor~~
  - Non-working resident is a major problem for a residency

Basic USMLE Recommendations

- **Develop a Plan**
  - We'll get you started
  - Follow through with it. Start now. Do your best to keep up

Plan creation & follow through

Students who lay out a clear calendar for their dedicated study time tend to have less anxiety and are better prepared on test day.

- **Organ-Based System of Studying**
  - Much preferred to Physio then Pathophys
- **Budget Time To Do All Questions TWICE & review them**
  - Divide: # of Questions / # of Study Days
- **Use external support to help you maintain the schedule**
  - Peers, Family, Friends
  - Programs, Apps
  - Tutors

Basic USMLE Recommendations

- **Develop a Plan**
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  - Follow through with it. Start now. Do your best to keep up
- **Integrate USMLE studying into your school studying**
  - Read First Aid chapter aligned with your Technion curriculum (i.e Cardiology)
  - Puts you ahead of the curve for the USMLE exam
  - Also, helps for school exams

Start your preparations early

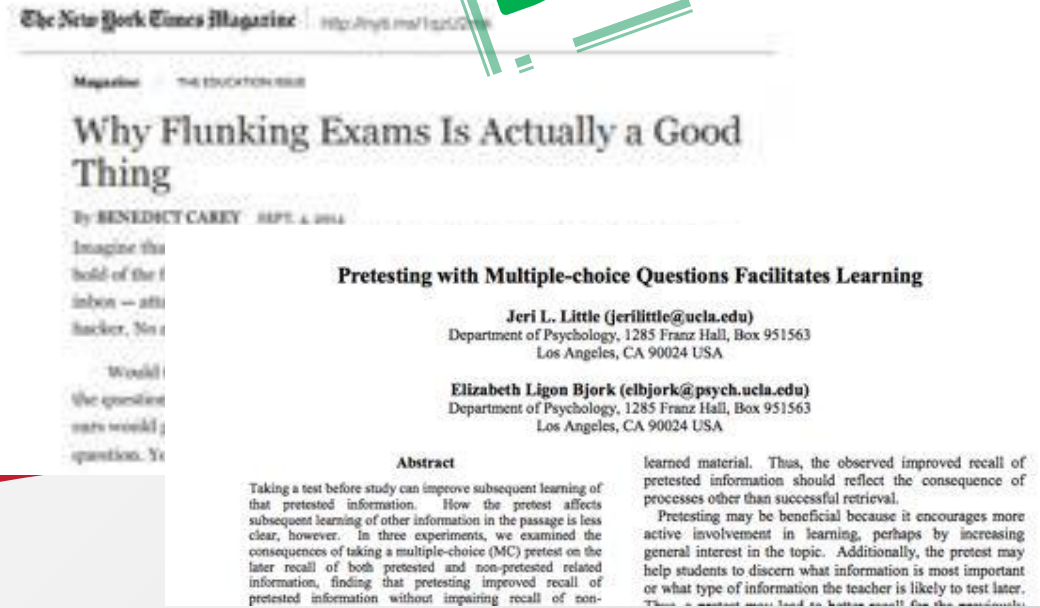
Part of our purpose is to help you get started <u>TODAY</u>

- **Give yourself time to build up your knowledge**
- **Starting early can mean:**
  - Doing Qbank or practice questions
  - Using First Aid during your classes
  - Watching Pathoma videos
  - Reviewing Biochem
- **When?**
  - Now
  - Tomorrow
- **Caveats:**
  - Do not ignore your classes
  - Small but limited amount of time on a **<u>daily</u>** basis

Take many tests & don't save questions

Pre-Test

DO



The New York Times Magazine

Why Flunking Exams Is Actually a Good Thing

By BENEDICT CAREY

Pretesting with Multiple-choice Questions Facilitates Learning

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Abstract

Taking a test before study can improve subsequent learning of that pretested information. How the pretest affects subsequent learning of other information in the passage is less clear, however. In three experiments, we examined the consequences of taking a multiple-choice (MC) pretest on the later recall of both pretested and non-pretested related information, finding that pretesting improved recall of pretested information without impairing recall of non-learned material. Thus, the observed improved recall of pretested information should reflect the consequence of processes other than successful retrieval.

Pretesting may be beneficial because it encourages more active involvement in learning, perhaps by increasing general interest in the topic. Additionally, the pretest may help students to discern what information is most important or what type of information the teacher is likely to test later.

Save Questions

DON'T

= 9200

ELITE MEDICAL PREP

Basic USMLE Recommendations

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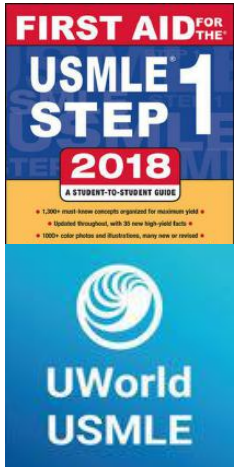
- **Integrate USMLE studying into your school studying**
  - Read First Aid chapter aligned with your Technion curriculum (i.e Cardiology)
  - Puts you ahead of the curve for the USMLE exam
  - Also, helps for school exams
- **Limit your resources**
  - Focus on deeply understanding a limited set of resources
  - More powerful than a superficial understanding of many resources
- **Understand your goals**
  - Current goal: maximize pre-clinical learning.
  - End of year goal: maximize USMLE score
- **Know when to reach out for help**
  - We offer 1:1 private tutoring to any students

Limit your resources.
Prune your medical school notes.

Primary Resources



Limit Your Resources

- First Aid and the Qbank should comprise **>90%** of your study efforts
- Get through Qbank **at least 2x** before taking the exam
  - 1st Pass: mixture of TUTOR mode & TIMED mode
  - Reset the Qbank
  - 2nd Pass: TIMED MODE
- NBMEs and UWorld Self Assessments: 2 PURPOSES
  1. Objective assessment of where you are, and if you are ready to sit for the exam
  2. Exposes you to question prompts from the actual test writers

We recommend taking notes or making flashcards on missed questions

Test questions and question prompts are frequently recycled with minor adjustments

2ndary

WE WILL DISCUSS AT THE END OF THIS LECTURE

ELITE MEDICAL PREP

Basic USMLE Recommendations

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- **Integrate USMLE studying into your school studying**
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  - Current goal: maximize pre-clinical learning.
  - End of year goal: maximize USMLE score

What's the average score?
What is a good score?

Step 1	
Calendar Year	*Mean (SD)*
2014	229 (20)
2015	229 (20)
2016	228 (21)

A score > 249 → top 16%

Step 2 Clinical Knowledge	
Academic Year	*Mean (SD)*
2013-2014	240 (18)
2014-2015	240 (18)
2015-2016	242 (17)

A score > 255 → top 20%

Step 3	
Calendar Year	*Mean (SD)*
2014	222 (16)
2015	225 (16)
2016	225 (15)

A score > 240 → top 16%

What Step 1 score do I need to get into residency?

Specialty	Matched	Unmatched
Anesthesiology	230	208
Child Neurology	229	228
Dermatology	247	239
Diag Radiology	241	221
Emergency Med	230	215
Family Med	218	201
Gen Surgery	232	213
Internal Med	231	210
Internal Med/Peds	233	223
Neurosurgery	244	232
Neurology	230	208
Obstetrics & Gynecology	226	209
Orthopedic Surgery	245	231
Otolaryngology	248	239
Pathology	231	217
Pediatrics	226	206
Physical Med & Rehab	220	205
Plastic Surgery	245	236
Psychiatry	220	205
Radiation Oncology	241	237
Vascular Surgery	237	221
All Combined	230	221

Overall, we recommend students aim for >220 on Step 1 to give a good chance at matching into a residency program

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USMLE Practice Question Breakdown

A 26 year old woman is brought to the emergency department by her roommate because of vomiting for 4 hours. She also has a 2 day history of fatigue and dizziness on standing. She has had severe heartburn for 3 months; treatment with over-the-counter antacids has provided some relief. The vital signs of the patient are T 35.6C (96F), pulse 110/min, and blood pressure 80/55 mm Hg. Physical examination shows marked pallor. Laboratory studies show a hemoglobin concentration of 6 g/dL and hematocrit of 18%. A chest x-ray is obtained (shown) and a pulmonary catheter is inserted and laboratory values are measured.

The patient is most likely experiencing which of the following types of shock?

A) Anaphylactic.

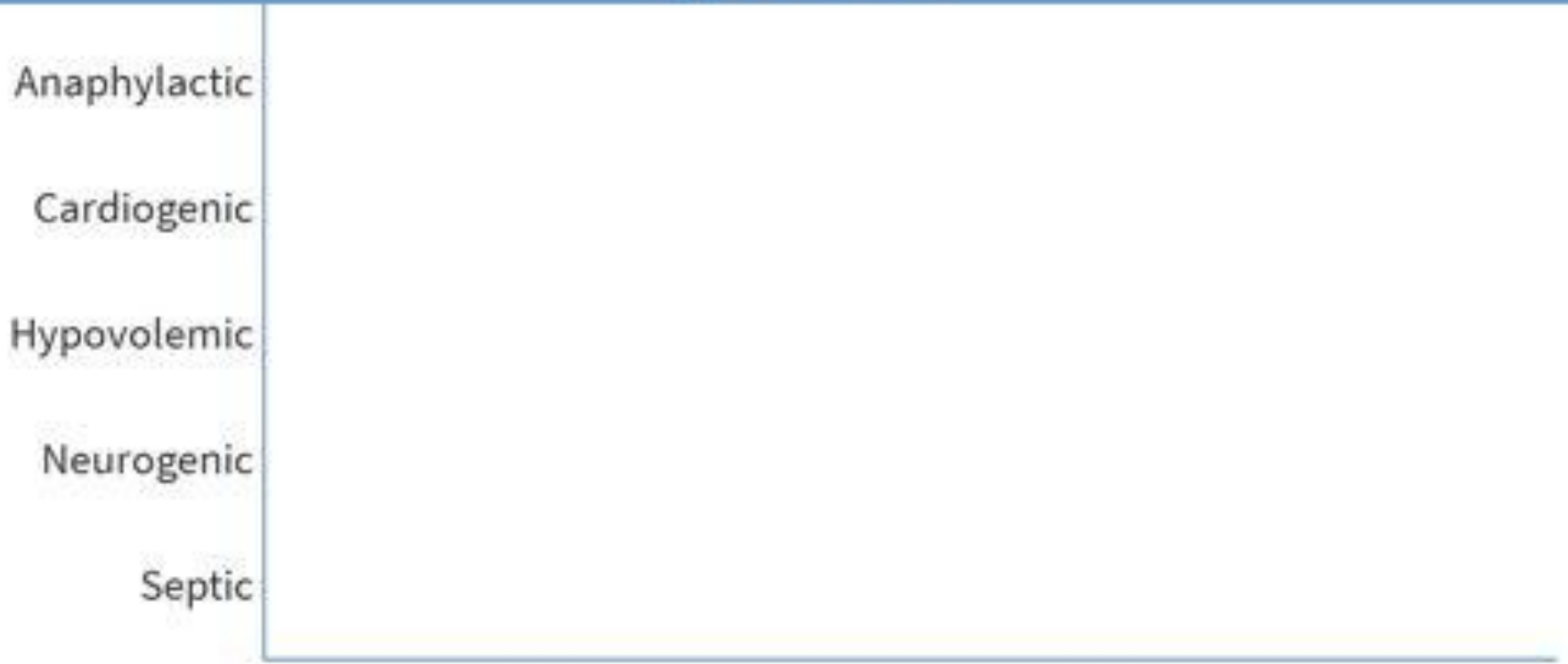
B) Cardiogenic.

C) Hypovolemic.

D) Neurogenic.

E) Septic.

4 STEP TECHNIQUE: The patient is most likely experiencing which of the following types of shock?



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How to Approach a Prompt/Question and Answers

First… Start at the End

1 **Read the question stem.**

- Understand what the question is asking you **to do**
  - Ex: “What’s the most likely diagnosis?”
  - Ex: “What is the underlying mechanism?”
  - Ex: “Which serum marker will be decreased?”
  - Ex: “What is the side effect of the likely drug given?”

  Note: Distractor answers will fit only 1 clue or some of the information given, not ALL

  - Ex: “What’s the next best step?”

  *Note: As a general rule, except in emergencies, the **least** invasive test or procedure that helps the patient is usually correct*

- Allows you to maintain focus. Especially on longer vignettes

- Avoids a Common Pitfall: students know the vignette but answers the ‘wrong’ question about it.

A standardized approach to USMLE prompts ensures you get the most out of each question

USMLE Practice Question Breakdown

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How to Approach a Prompt/Question and Answers

Let the answers help you, not hurt you.

2 **Scan the answer choices**

- See if you can break them down into categories or buckets

- Read the answer choices quickly and categorize them
  - Example:
    A) Anaphylactic.
    B) Cardiogenic.
    C) Hypovolemic.
    D) Neurogenic.
    E) Septic.
- A & E are immune mediated
  - We would expect either signs of allergic reaction, infection, and a history of an exposure.

- B & D are related primary dysfunction of an organ system
  - Look for a clear finding to points to the heart of the autonomic nervous system/spinal cord

- C is massive volume loss
  - Is there a cause?

A standardized approach to USMLE prompts ensures you get the most out of each question

USMLE Practice Question Breakdown

3 A 26 year old woman is brought to the emergency department by her roommate because of vomiting for 4 hours. She also has a 2 day history of fatigue and dizziness on standing. She has had severe heartburn for 3 months; treatment with over-the-counter antacids has provided some relief. The vital signs of the patient are T 35.6C (96F), pulse 110/min, and blood pressure 80/55 mm Hg. Physical examination shows marked pallor. Laboratory studies show a hemoglobin concentration of 6 g/dL and hematocrit of 18%. A chest x-ray is obtained (shown) and a pulmonary catheter is inserted and laboratory values are measured.

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How to Approach a Prompt/Question and Answers

Let the answers help you, not hurt you.

3 **Actively read the prompt, summarizing as you go into your own words**

- As information is given, begin piecing it together into a bigger picture in your own words
  - ➢ Your "big picture" summary will be <u>immensely</u> helpful in selecting an answer

- Summary:
  - ➢ Young woman with acute onset GI symptoms presenting in shock with tachycardia and anemia, but no fever

- Use the summary to help narrow down answer choices.
  - ➢ Always try to use Process of Elimination (POE)
    - ➢ Helps to find the right answer
    - ➢ Helps exclude the wrong answers
    - ➢ Increases your confidence that you are right→ reduces 2nd guessing yourself!

A standardized approach to USMLE prompts ensures you get the most out of each question

USMLE Practice Question Breakdown

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4 

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How to Approach a Prompt/Question and Answers

Learn key normal values. Look at images last /ignore.

4

Strong familiarity w/ lab values will reduce anxiety/confusion later.
Imaging is important in the real world of medicine. Not so much on the test.

- Chem 7 and CBC must be memorized. Vitals must be burned in your memory forever!
  - Develop sense of upper/lower limits for Na, K, Cl, Cr, Ca, BUN, Gluc Hgb, Hct, WBC, Plt
- Look at images LAST, if at all
  - Radiology Imaging – You are NOT a radiologist.
  - Do not need to make radiographic diagnoses
    - Rare exceptions (i.e ptx, free air under diaphragm, Epidural, SDH or SAH)
- Patient Pictures
  - Lesions can be helpful if they are pathognomonic for a disease process
    - i.e mucosal lesions for Peutz-Jeghers.
- Smears/Histology
  - Blood smears helpful for basics: micro vs macrocytosis, and relative cell size
  - Not expected you to identify individual cells or provide detailed analysis

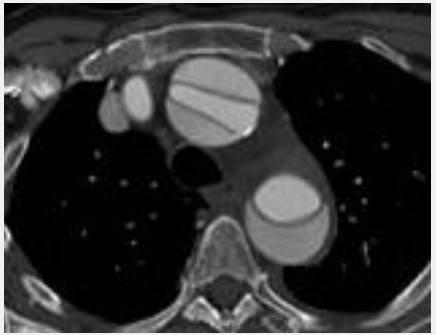
A standardized approach to USMLE prompts ensures you get the most out of each question

How to Approach a Prompt/Question and Answers

Example rare images that are highly helpful

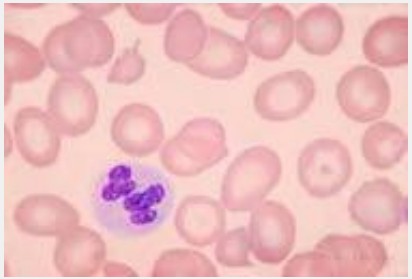
Pneumothorax

Free Air



Dissection

Peutz-Jeghers



Macrocytosis

SDH

Shistocyte

Sturge-Weber

How to Approach a Prompt/Question and Answers

Employing a standardized approach to USMLE prompts ensures you're getting the most out of each question

4

6 g/dL and hematocrit of 18%.

T 35.6C (96F),
pulse 110/min
blood pressure 80/55 mm Hg

Understand the labs, KNOW the normal values

Images are rarely helpful on the USMLE

USMLE Practice Question Breakdown

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EMP's SUGGESTED ORDER. There is no one right way to do this.

1. **The question stem – tells you what the question is asking**
2. **The answer choices – Given you some context as to what the question is about**
3. **The prompt – Summarize key information as it's given in your own words; ensure that the answer matches ALL of the information given, not just some**
4. **Labs and images. EVAL the labs. IGNORE the images.**

USMLE Practice Question Breakdown

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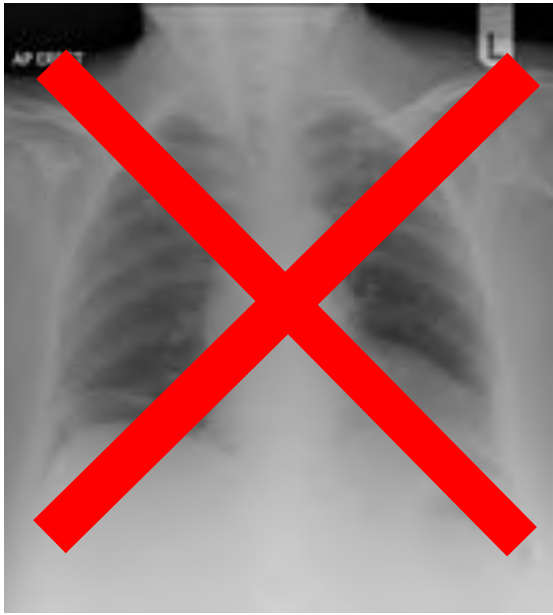

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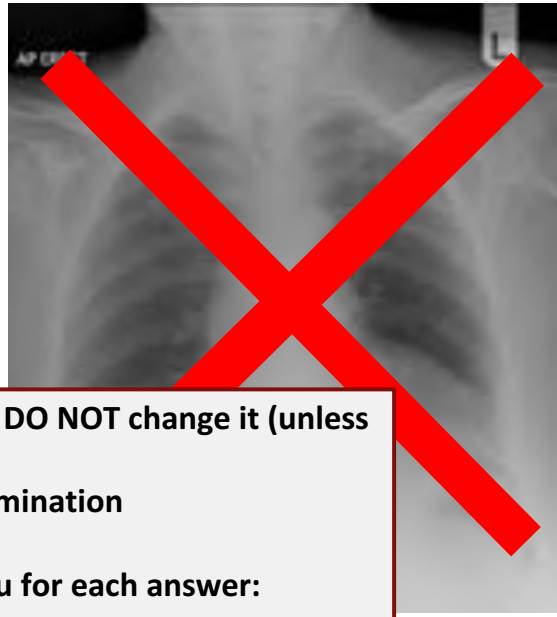

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D) ~~Neurogenic~~.

E) ~~Septic~~.

- **Golden Rule: If an answer jumps out at you, choose it. DO NOT change it (unless you re-read and are 100% sure it's wrong)**
- **If an answer does not jump out at you→ Process of Elimination**

Think about what you would expect the prompt to give you for each answer:
Anaphylactic–
Cardiogenic–
Hypovolemic–
Neurogenic–
Septic–

USMLE Practice Question Breakdown

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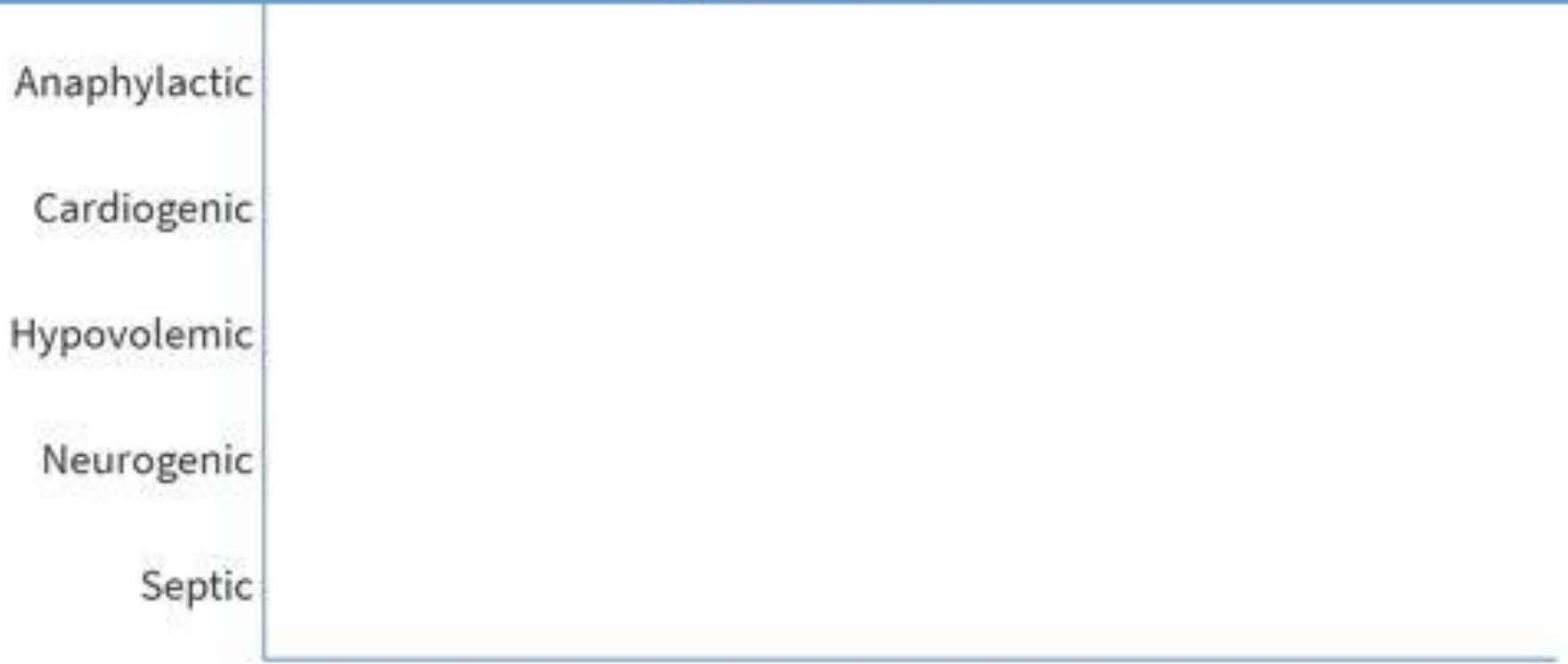
4. **Labs and images. EVAL the labs. IGNORE the images.**

4 STEP TECHNIQUE: The patient is most likely experiencing which of the following types of shock?



Cardio #1

A 1-week-old newborn is brought to the physician because of a 1-day history of difficulty breathing and discoloration of the lower extremities. He was born at term following an uncomplicated delivery. Apgar scores were 8 and 9 at 1 and 5 minutes, respectively. He appears ill. His rectal temperature is 36.4°C (97.5°F), pulse is 160/min, respirations are 52/min, and blood pressure is 80/56 mm Hg in the upper extremities and unobtainable in the lower extremities. The skin, mucous membranes, and nail beds appear dusky, and there is mottled discoloration of the lower extremities. Examination shows moderate intercostal retractions and grunting. The lungs are clear to auscultation. A grade 3/6 holosystolic murmur is heard along the left sternal border. The liver edge is palpated 4 cm below the right costal margin. Arterial blood gas analysis on room air shows:

- PH: 7.45
- PCO2: 28 mm Hg
- PO2: 98 mm Hg

Which of the following is the most likely explanation for the newborn's condition?

A. Closure of the ductus arteriosus
B. Decreased pulmonary vascular resistance
C. Increased pulmonary vascular resistance
D. Intracardiac right-to-left shunt
E. Opening of the ductus arteriosus
F. Tetralogy of Fallot

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Question #1

3 A 1-week-old newborn is brought to the physician because of a 1-day history of difficulty breathing and discoloration of the lower extremities. He was born at term following an uncomplicated delivery. Apgar scores were 8 and 9 at 1 and 5 minutes, respectively. He appears ill. His rectal temperature is 36.4°C (97.5°F), pulse is 160/min, respirations are 52/min, and blood pressure is 80/56 mm Hg in the upper extremities and unobtainable in the lower extremities. The skin, mucous membranes, and nail beds appear dusky, and there is mottled discoloration of the lower extremities. Examination shows moderate intercostal retractions and grunting. The lungs are clear to auscultation. A grade 3/6 holosystolic murmur is heard along the left sternal border. The liver edge is palpated 4 cm below the right costal margin. Arterial blood gas analysis on room air shows:

4
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2
A. Closure of the ductus arteriosus
B. Decreased pulmonary vascular resistance
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D. Intracardiac right-to-left shunt
E. Opening of the ductus arteriosus
F. Tetralogy of Fallot

Start with the question and answers

1 Which of the following is the most likely explanation for the newborn's condition?

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B. Decreased pulmonary vascular resistance
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D. Intracardiac right-to-left shunt
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2

Remember the cyanotic heart diseases: 5"T's"

- **T**ricuspid atresia
- **T**runcus arteriosus
- **T**etralogy of Fallot
- **T**ransposition of the great arteries
- **T**otal anomalous pulmonary venous return

Very High Yield for USMLE

Hard to remember this?
MAKE A FLASHCARD

ELITE MEDICAL PREP

3 Read the prompt and summarize in your OWN words

A **1-week-old** newborn is brought to the physician because of a **1-day history** of **difficulty breathing and discoloration of the lower extremities**. He was born at term following an uncomplicated delivery. Apgar scores were 8 and 9 at 1 and 5 minutes, respectively. He appears ill. His rectal temperature is 36.4°C (97.5°F), pulse is 160/min, **respirations are 52/min**, and blood pressure is **80/56 mm Hg in the upper extremities and unobtainable in the lower extremities**. The skin, mucous membranes, and nail beds appear dusky, and there is **mottled discoloration of the lower extremities**. Examination shows moderate intercostal retractions and grunting. The **lungs are clear** to auscultation. A grade **3/6 holosystolic murmur** is heard along the left sternal border. The liver edge is palpated 4 cm below the right costal margin.

Summary	Newborn with poor perfusion of the lower extremities and different blood pressure in the arms vs. legs

ABGs: You need to be very comfortable interpreting and knowing normal values

Normal Values	Patient Values
➢ pH: 7.35-7.45	➢ pH: 7.45
➢ PCO2: 35-45	➢ PCO2: 28
➢ PaO2: 80-100	➢ PaO2: 98

Interpretation:

Normal pH

HYPERventilation = low PCO2

Good oxygenation

Process of Elimination

Differential BP arms vs legs suggests a **coarctation** of the aorta

A. Closure of the ductus arteriosus
B. Decreased pulmonary vascular resistance
C. Increased pulmonary vascular resistance
D. Intracardiac right-to-left shunt
E. Opening of the ductus arteriosus
F. Tetralogy of Fallot

Process of Elimination

Differential BP arms vs legs suggests a **coarctation** of the aorta

A. Closure of the ductus arteriosus

B. Decreased pulmonary vascular resistance – Would not cause different BP in arms vs legs: Ventilation/PO2 is normal; this is a **normal** in newborns as PDA closes and lungs begin to function

C. Increased pulmonary vascular resistance

D. Intracardiac right-to-left shunt

E. Opening of the ductus arteriosus

F. Tetralogy of Fallot

Process of Elimination

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C. Increased pulmonary vascular resistance – Would not cause different BP arms vs legs ventilation/PO2 is normal

D. Intracardiac right-to-left shunt – Would cause poor oxygenation (PaO2 is normal) and would not cause low BP or different BP arms vs legs

E. Opening of the ductus arteriosus

F. Tetralogy of Fallot

Process of Elimination

Differential BP arms vs legs suggests a **coarctation** of the aorta

A. Closure of the ductus arteriosus

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D. Intracardiac right-to-left shunt – Would cause poor oxygenation (PaO2 is normal) and would not cause low BP or different BP arms vs legs

E. Opening of the ductus arteriosus- Would lead to improved blood flow below the coarctation

F. Tetralogy of Fallot

Process of Elimination

Differential BP arms vs legs suggests a **coarctation** of the aorta

A. Closure of the ductus arteriosus

B. Decreased pulmonary vascular resistance – Would not cause different BP arms vs legs: Ventilation/PO2 is normal; this is a **normal** in newborns as PDA closes and lungs begin to function

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D. Intracardiac right-to-left shunt – Would cause poor oxygenation (PAO2 is normal) and would not cause low BP or different BP arms vs legs

E. Opening of the ductus arteriosus- Would lead to improved blood flow below the coarctation

F. Tetralogy of Fallot – Would cause cyanosis, and not different BP in arms vs legs

Process of Elimination

Differential BP arms vs legs suggests a coarctation of the aorta

A. Closure of the ductus arteriosus – Would make coarctation more pronounced/symptomatic

B. Decreased pulmonary vascular resistance – Would not cause different BP arms vs legs: Ventilation/PO2 is normal; this is a **normal** in newborns as PDA closes and lungs begin to function

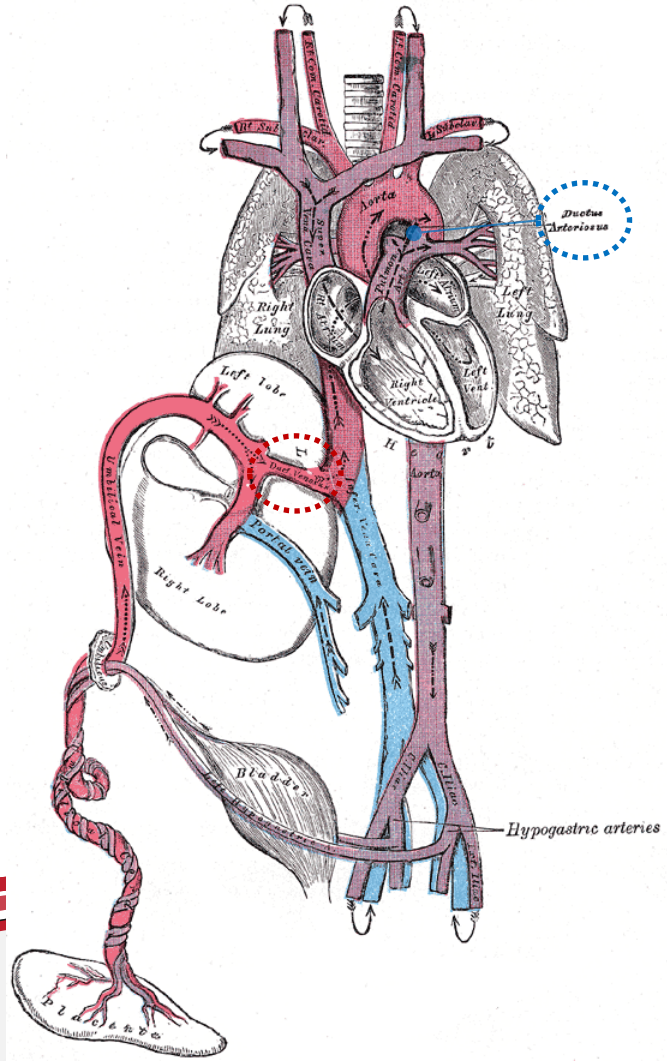
C. Increased pulmonary vascular resistance – Would not cause different BP arms vs legs ventilation/PO2 is normal

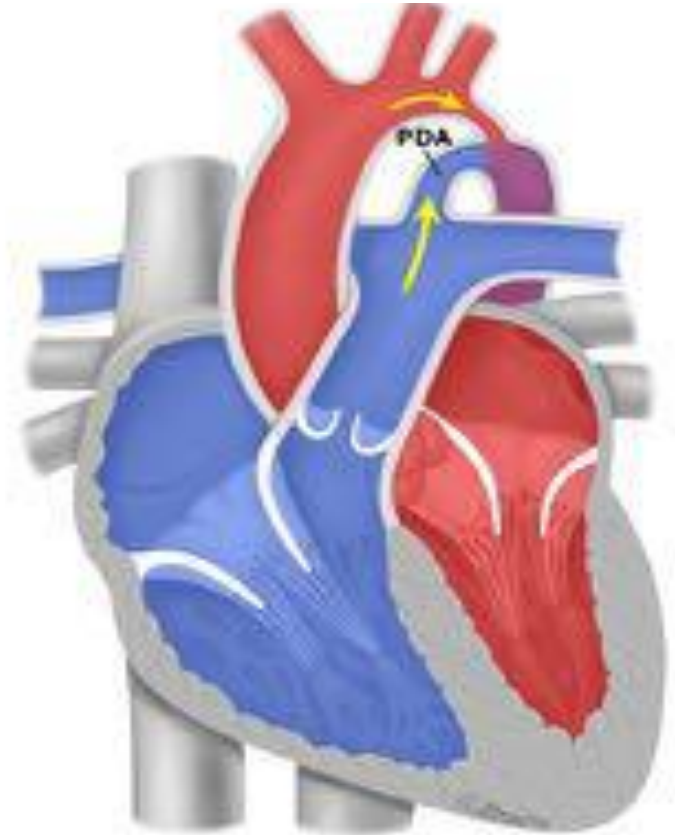
D. Intracardiac right-to-left shunt – Would cause poor oxygenation (PAO2 is normal) and would not cause low BP or different BP arms vs legs

E. Opening of the ductus arteriosus- Would lead to improved blood flow below the coarctation

F. Tetralogy of Fallot – Would cause cyanosis, and not different BP in arms vs legs

Ductus Arteriosus Physiology

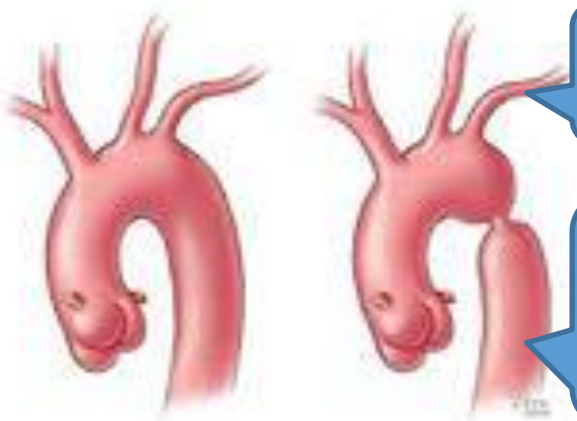




ELITE MEDICAL PREP

Quick review on coarctation and PDA

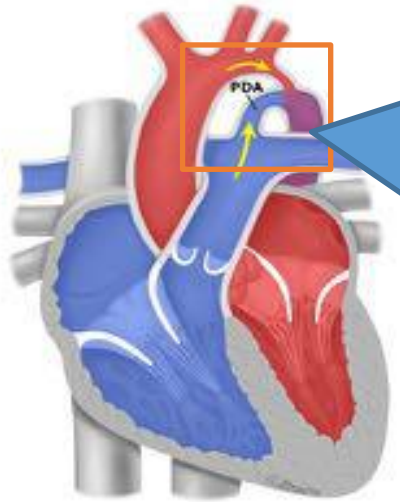
Different blood pressure in arms vs legs is a major clue for <u>Coarctation (young)</u> or AAA (elderly)...



Subclavian blood flow to arms is fine...

... But blood flow below coarctation to legs is impaired

...and an open PDA may have supplied sufficient blood flow below the coarctation before it closed



PDA supplies critical perfusion below the coarctation; many congenital heart diseases are LESS symptomatic if the PDA remains open

<u>Higher level info</u>:
Pre-ductal vs Post-ductal coarctation.
Which is Infantile? Adult?
Which is assoc w/ rib notching?

Cardio #1A

In order to avoid development of progressively worsening heart failure, the medical team wants to maintain the patency of the ductus arteriosus before it completely closes. Which of the following medications would be most effective?

A. Ketorolac
B. Aspirin
C. Zileuton
D. Betamethasone
E. Dinoprostone
F. Clonidine

Cardio #1A: Which of the following medications would be most effective?

Cardio #1A

In order to avoid development of progressively worsening heart failure, the medical team wants to maintain the patency of the ductus arteriosus before it completely closes. Which of the following medications would be most effective?

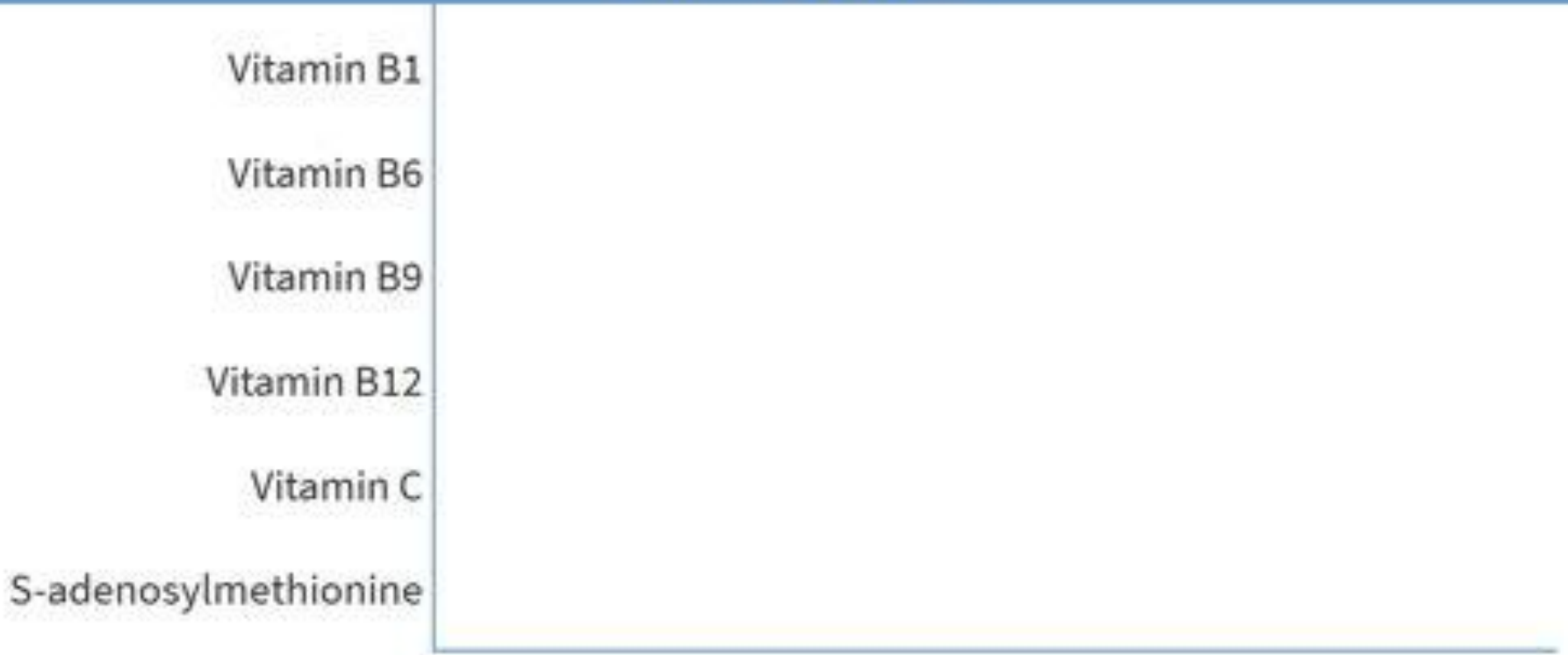
A. Ketorolac
B. Aspirin
C. Zileuton
D. Betamethasone
E. Dinoprostone
F. Clonidine

Cardio #1B

Despite the prostaglandin therapy, the patient is developing worsening symptoms of heart failure and poor blood flow to the kidneys that is exacerbating their clinical status. A low dose medication is given to help reverse these processes and improve cardiovascular function and renal perfusion. This medication mimics an endogenous molecule produced by the body. Which of the following is necessary for the body to synthesize this molecule on its own?

A. Vitamin B1
B. Vitamin B6
C. Vitamin B9
D. Vitamin B12
E. Vitamin C
F. S-adenosylmethionine

CARDIO #1B: Which of the following is necessary for the body to synthesize this molecule on its own?



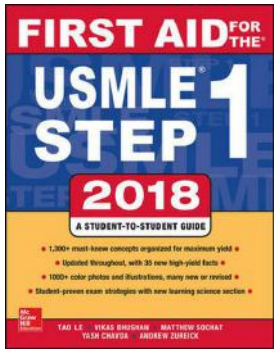
Cardio #1B

Despite the prostaglandin therapy, the patient is developing worsening symptoms of heart failure and poor blood flow to the kidneys that is exacerbating their clinical status. A low dose medication is given to help reverse these processes and improve cardiovascular function and renal perfusion. This medication mimics an endogenous molecule produced by the body. Which of the following is necessary for the body to synthesize this molecule on its own?

A. Vitamin B1
B. Vitamin B6
C. Vitamin B9
D. Vitamin B12
E. Vitamin C
F. S-adenosylmethionine

What to do RIGHT NOW:
Leveraging Qbank. Use First Aid as a supplement to regular studying

What You Need



- **First Aid:**
  - Read the First Aid chapter that corresponds with the topic you are studying during medical school
  - Take notes about important topics or mnemonics you want to remember
  - Annotate the margins with additional information from the Qbank

- **Uworld QBank**
  - Go through the corresponding Qbank questions with the topic you are studying
  - Tutor mode is best as it allows you to fully read the explanations and learn without time pressure
  - The scores aren't as important as the exposure to real test material and high-yield topics

Platform	✓ Key Positives
	✓ Best illustrations ✓ Comprehensive without being overly detailed ✓ Study schedule tool is unmatched ✓ User friendly; Integrated with key resources ✓ Mobile friendly
	✓ Comprehensive, but overly detailed ✓ Guidance Mode in Qbank ✓ Embedded key resources
	✓ User friendly ✓ Great illustrations ✓ Integration with key resources
	✓ Presents path/pathophys in manageable chunks ✓ Passive learning with variable detail
	✓ Well organized and integrated with key resources ✓ Good second source for tough topics ✓ Good integration of pharmacology and physiology
	✓ User friendly ✓ comprehensive for shelf exams ✓ Excellent videos
	✓ Large question bank and practice exams ✓ Mobile friendly
	✓ Good review of basic USMLE tenets with references to First Aid

Exams we recommend for these platforms...

Platform	Step 1
Osmosis	✓
AMBOSS	✓
lecturio	✓
Pathoma	✓
Boards and Beyond™	✗
OnlineMedEd	✗
KAPLAN	✓
usmle	✗

Leveraging Qbank and First Aid as a supplement to regular studying

Maximize your learning	• Add to your school notes and First Aid (margins) based on questions you come across in the Qbank • Make flashcards of key topics and facts you want to remember; especially drugs • As you study the pathophysiology of disease, refer back to first year lectures to first review the normal physiology
Look for patterns	• The USMLE tends to utilize the same phrases/words to describe certain disease processes (i.e fatty-greasy stools = malabsorption) – take note of these • While reviewing Qbank questions, determine what you would expect the prompt to have given you to if the wrong answers were correct

The goal right now is QUALITY, not quantity.

Leveraging Qbank and First Aid as a supplement to regular studying

How you can get the most out of every question

A 26 year old woman is brought to the emergency department by her roommate because of vomiting for 4 hours. She also has a 2 day history of fatigue and dizziness on standing. She has had severe heartburn for 3 months; treatment with over-the-counter antacids has provided some relief. The vital signs of the patient are T 35.6C (96F), pulse 110/min, and blood pressure 80/55 mm Hg. Physical examination shows marked pallor. Laboratory studies show a hemoglobin concentration of 6 g/dL and hematocrit of 18%. A chest x-ray is obtained (shown) and a pulmonary catheter is inserted and laboratory values are measured.

The patient is most likely experiencing which of the following types of shock?

A) Anaphylactic.

B) Cardiogenic.

C) Hypovolemic.

D) Neurogenic.

E) Septic.

- **- What is Hypovolemic Shock?**
- **- What factors in the prompt differentiate it from the other choices?**
- **- How would the vignette change if another answer were the correct one?**
- **- What are the other answer choices? Can I create a mini summary (in bullet 5 points or less)?**

ELITE MEDICAL PREP

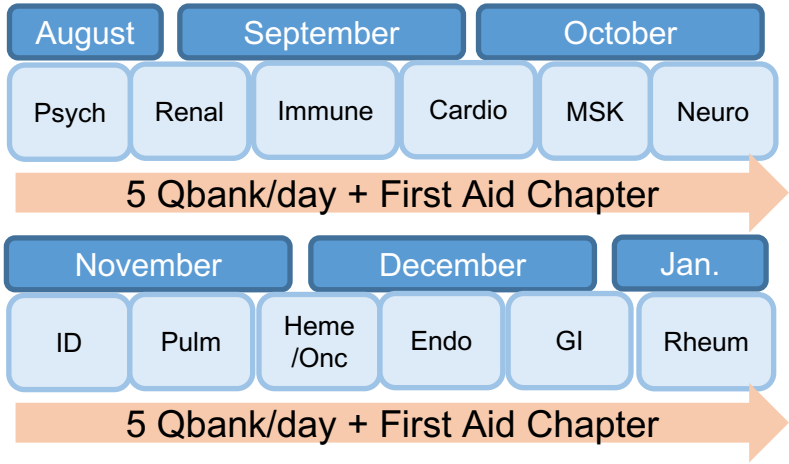
- **Set a Personalized Calendar**
  - Takes the guesswork out of studying
  - Gives you comfort that you are studying the right topics, the right way
  - Takes into account the resources you will be using, your exact timeline until test day, and any personal circumstances (e.g. religious holidays or vacations)

- **General Steps for Right Now:**

  - **3-5 Daily Questions in Qbank (TUTOR MODE)**

  - **Incorporate First Aid into your note taking NOW.**

  - **Get familiar with a flashcard program (Anki, Quizlet, et al)**



FAQs about Setting your study calendar

- **How detailed should I make the calendar at this time?**
  - **Planning down to the hour each day rarely works out**
    - causes more anxiety than it's worth
  - **Stick to the "topic" level. Supplement your classwork w/ FA and a few daily Qs.**
- **What if I get behind?**
  - **Focus on your classwork**
  - **Now is not the time to cram for the USMLE. Slow and steady work is the key here**

Next Steps in our engagement

- **We are available for feedback and questions. A dedicated email has been created for students in your class year at Technion.**
  technion2021@elitemedicalprep.com
- **Please send questions and comments after the sessions to this email. Responses will be prompt and questions relevant to the group will be summarized and shared**
- **Collect feedback from you and the students regarding our service, so that we may better serve you all moving forward**


Thank You.
ELITE MEDICAL PREP