

Best Practices for Online Tutoring



ELITE MEDICAL PREP

Top Tips for Organizing and Managing
Online Medical Tutoring
Learning Specialists & Deans

Presenters
Marcel Brus-Ramer MD PhD
&
Kenneth Rubin MD

Delivered: April 30th, 2020

Outline

- **Introduce Elite Medical Prep's best practices for online medical tutoring.**
- **Discuss adaptations from 1-on-1 to small group tutoring**
- **Open discussion and Q&A**



Disclosures & Our Background

Elite Medical Prep Founders



Marcel Brus-Ramer, MD/PhD

Co-founder and President

Board Certified Radiologist
Columbia P&S Online Lecturer

Columbia University | UCSF |
Rutgers | Paris Diderot

Kenneth Rubin, MD

Co-founder and CEO

Mt Sinai USMLE Step 1
and Step 2 CK Course
Director

Mt. Sinai | Columbia University



TE
MEDICAL
EP

Individual & Group Based Medical Education



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009.

We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.



Small Group Tutoring

Elite Medical Prep runs an integrated small group tutoring program for institutions that has produced outstanding results at ***Technion Medical School.***



Seminar Presentations

Elite Medical Prep delivers highly interactive seminars across different high-yield USMLE topics. Integrated material is presented in the same interactive format used in our board review courses at ***Mt. Sinai Medical School.***



Faculty Development

Elite Medical Prep has developed a unique intensive system for training its tutors. Our team works directly with medical schools to train their faculty & top students in the best methods for peer tutoring.

Elite Medical Prep Founders



Marcel Brus-Ramer, MD/PhD

Co-founder and President

Board Certified Radiologist
Columbia P&S Online Lecturer

Kenneth Rubin, MD

Co-founder and CEO

Mt Sinai USMLE Step 1
and Step 2 CK Course
Director

Columbia University | UCSF |
Rutgers | Paris Diderot



Mt. Sinai | Columbia University

Individual & Group Based Medical Education



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009. We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.



Small Group Tutoring

Elite Medical Prep runs an integrated small group tutoring program for institutions that has produced outstanding results at *Technion Medical School*.

Core services in 1:1 tutoring

- Developed as a natural outgrowth of work in pre-college & pre-medical tutoring
- Small group tutoring aims to take the best of 1:1 and make it more affordable

Our Tutoring Team



- Current & former medical students
- Recently taken these exams
- High scorers: all tutors scored >245
- Tutored professionally for these exams
- Active in education & academic medicine
- Some practicing physicians



SAT to USMLE: Experiences with tutoring

- > 20 years of 1-on-1 tutoring experience across high stakes standardized testing
 - **Pre-college** SAT, ACT, SAT II
 - **College** MCAT, GRE
 - **Medical** USMLE Step 1, 2 CK, 3. Shelf Exams, ABIM
- High stakes MCQ exams have growing importance
- Many tests require separate skills for student to master.
 - ◆ Content Expert \neq Test Expert
- **Tutors for these exams also may need to develop new skills & tools**



1-on-1 Tutoring Best Practices



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009.

We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.

ON-BOARDING



TRACKING



TUTORING/TEACHING CONTENT



1-on-1 Tutoring Best Practices



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009.

We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.



ON-BOARDING

- Detailed consultation prior to tutoring
- Efficient student-tutor pairing process
- Trial session
- Student feedback early & late

TRIAL SESSION



1-on-1 Tutoring Best Practices



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009.

We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.



ON-BOARDING

- Detailed consultation prior to tutoring
- Efficient student-tutor pairing process
- Trial session
- Student feedback early & late

TRIAL SESSION



1-on-1 Tutoring Best Practices



Summary of Training Components

- **CASE STARTS--45min**
- **MOCK INTERVIEW--1-2hr**
- **SETTING UP STUDENT FOR SUCCESS--1hr**
- **ANKI & CALENDAR REVIEW--1hr**
- **TUTOR SHADOWING--1-2hr**
- **SIMULATED SESSION--1-2hr**
- **POLICIES--Quiz Format**

What to expect from Tutor Training

HIRING AND TRAINING

- ▶ Spread out over multiple sessions with different objectives for each session.
 - ▶ Designed to give tutor candidates the opportunity to practice their teaching skills in a controlled setting. Detailed feedback is provided.
 - ▶ Should take 8-10 hours.
 - ▶ Tutors are paid a \$350 training bonus for successful completion of training. The bonus will be paid after the tutor works successfully with one student, approximately 30 hours or 3 months--whichever comes first.
 - ▶ Formal and informal training will continue throughout a tutor's tenure with the organization.
1. **Phone Call** - 15-30 minute conversation with EMP administrator to assess interest and communication skills.
 2. **Tutor Interview**.
 - i. **Case Starts** - 1.0 hour session. Run through 4-6 case vignettes. Deliver top three learning points for students. Assess how well the tutor structures the teaching and hits high-yield points. Delivered by senior instructor.
 - ii. **Mock Teaching** - 1.0 hour session. Work through mock teaching question. Assess tutoring ability and temperament. Debrief after the session.Qualified tutors are invited to formal training and onboarding with senior company personnel--all work is individualized and done online. Tutor candidates must sign the employee covenants to continue with training.
 3. **Setting Students Up for Success** - 1.0 hour session to review new student best tutoring practices to maximize success. Delivered by senior instructor.
 4. **Anki and Calendar** - 1.0 hour session to review best practices for flash card and study schedule creation. Delivered by senior instructor.
 5. **Tutor Session Shadowing** - 1.5-2.0 hour session. Sit in on live tutoring session delivered by a senior instructor. Debrief after the session.
 6. **Simulated Tutor Session** - 1.5-2.5 hour session to work through a multi-part challenge case with feedback and revision.
 7. **Tutor Policies and Conduct** - 1.0-1.5 hour session to review the highest yield points of tutoring policies. Tutor candidates must read and sign the tutoring policies and conduct agreement to successfully complete training.

Additional training sessions will be scheduled as needed on an individual basis.

EVALUATION

Once hired, a tutor's status with the company will be determined by several factors:

- Student feedback and results
- Demonstration of devotion to student success and satisfaction
- Reliability of communication and collaboration with management
- Openness to feedback and mentorship from company leaders
- Adherence to company processes and procedures
- Overall contribution to the Elite Medical Prep team

1-on-1 Tutoring Best Practices



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009. We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.



H&P

ELITE MEDICAL PREP
Marcel Brus-Ramer <marcel@elitemedicalprep.com>

Header Assessment and Plan
2 messages

Jaree Naqvi <jaree.naqvi@elitemedicalprep.com>
Reply-To: jaree.naqvi@elitemedicalprep.com
To: Student <student@elitemedicalprep.com>

Mon, Apr 27, 2020 at 1:36 PM

Hi team,

Please find below my A&P for [REDACTED] whom I met with today for our 2 hour introductory session.

Assessment
[REDACTED] is a current student at Sackler Tel Aviv inbetween her 2nd and 3rd year. She was planning on taking Step 1 by June but had to push back to July 28 because of Prometric closures and unsure if it will be pushed back further still. She feels relieved by pushing back her date as she currently feels very unprepared for the exam. Her main concerns are setting up a study schedule to finish UWorld and asked many questions about which resources to focus on (uses Pathoma, B&B, Sketchy, FA, UWorld, and USMLERx for now) as she does not know where to begin. She also struggles with longstanding test anxiety which makes her panic when taking an exam and makes it difficult for her to narrow down answer choices. In working with her on a challenge case, she has a good approach to questions but gets confused by the details and cannot reliably rule answers in or out. She is averaging 55% on uWorld random blocks and I believe that she has much room for improvement in terms of test taking strategy (and content review) to help her improve her performance. Content-wise, she particularly struggles with cardio and neuro, but feels that she is getting better due to reading First Aid and using USMLERx flashcards over these topics. She has already taken uWorld Self Assessment 1 on which she scored a 180 which was highly discouraging for her. She has 700 questions left to finish her first pass. She has started making her own Anki cards last week over incorrects and is relatively proficient with the software.

Plan
For [REDACTED] my plan is to help her adhere to a study schedule that will help her cover her areas of weakness while exposing her to as many practice questions as possible. As highlighted in the post-session e-mail, her current schedule that we have made is:

- Anki, mainly focusing on Cardio/Respiratory/Renal physiology, Sketchy, and Pathoma chapters 1-3 to reinforce basic concepts before moving on to specific topics
- 2 Blocks of UWorld per day, random, untimed, tutor mode to maximize learning (700 q's left)
- 2-3 subject-specific Boards & Beyond videos per day as structured "lecture time"
- After finishing her first pass of Uworld, she will take NBME 20 and then move on to AMBOSS for 4 weeks, before switching back to uWorld to complete her second pass at a pace of 80 questions per day with built in days off, NBME days, and NBME review days to get her to her target July 28 test date.
- Given that she has 3 months until Step 1 currently, she is to take 2 half days off per week (wakes up at 8am so finish studying by 12pm) to prevent burnout.

We will utilize future tutoring sessions to check in on her adherence to our schedule and make modifications as needed, review NBMEs, complete uWorld blocks together (to assess her test taking strategy and address points of test anxiety), and work on challenge cases together.

TRACKING

- Detailed tutor evaluation (initial)
- Post-session emails for every session
- Documents material coverage, HW, emerging issues

S-O-A-P Note Format

[postsession] Post-session email 4/14/2020 ▾ Inbox X

Boomerang this? the day before ▾ Apr 17, 2020 5:30PM Confirm

Alexandra Rzepecki MD
to: [REDACTED]
Hi [REDACTED]
On 4/14/20, we completed 1 hour of tutoring for your USMLE Step 1 exam.

Tutor hours remaining: 19:25
Topics reviewed: Neuro UWorld questions
Next session: Friday April 17th from 5:30-6:30am EST, then 2 hours on Saturday April 18th
Assignment: continue doing UWorld questions daily, watching Sketchy and Pathoma videos to supplement, reviewing your Anki cards
Score on your last practice tests: 172 on NBME 20 on 3/31/20
Next practice test: TBD
Your USMLE Step 1 exam: May 27, 2020

Another great neuro session—I can definitely see your knowledge base improving! We'll do one more neuro session together (or another topic if you prefer), or move on to doing biostats on Saturday.

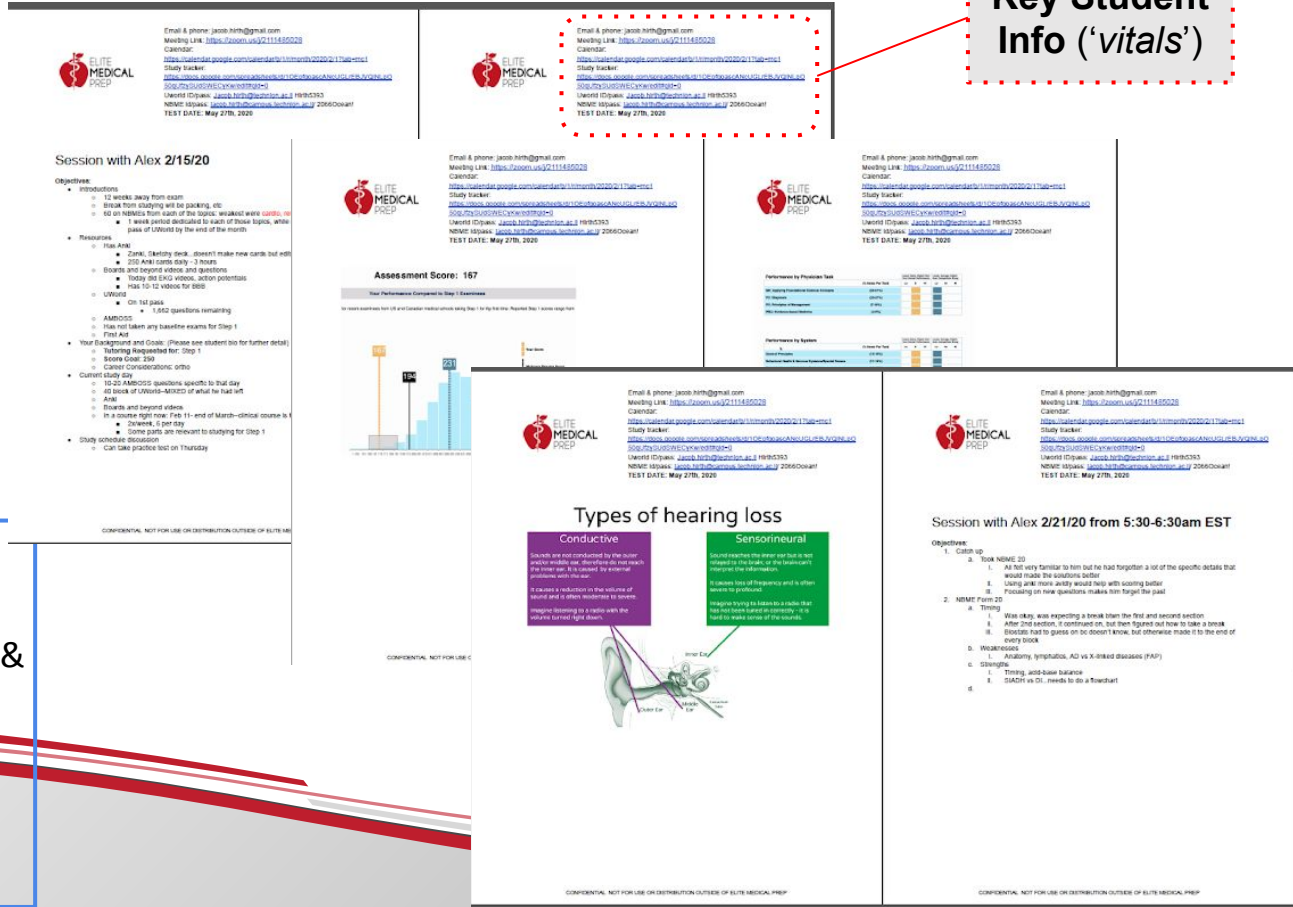
[Here](#) is the link to the biostats videos I mentioned during our session today from OnlineMedEd. They are succinct and very helpful. I highly encourage you to view prior to starting your biostats questions!

Alexandra Rzepecki, MD
ELITE MEDICAL PREP

Key Student Info ('vitals')

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009. We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.

- Online notes & worksheet
 - Available to student, tutor & quality control
- High quality materials specialized for tutoring



1-on-1 Tutoring Best Practices



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009.

We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.

TUTORING/TEACHING CONTENT

- Online notes & worksheet
 - Available to student, tutor & quality control
- High quality materials specialized for tutoring
- Session length 1.5 hr - 2.5 hr

Session with Alex 2/15/20

Objectives:

- 12 weeks away from exam
- Break from studying and no parking, etc.
- 10 on NBMEs from each of the topics, weekend were **cardio**, etc.
- 1 week period dedicated to each of those topics, after pass of USMLE by the end of the month

Resources:

- Has AHA
- Card: Safety deck, doesn't make new cards but with
- 200 AHA cards daily - 3 hours
- Search and legend videos and questions
- Tuesday the EKG videos, action potentials
- Has 10-12 videos for EKG
- USMLE
- 100-100 pack
- 1,500 questions remaining
- AMMO
- Has not taken any baseline exams for Step 1
- First Aid
- Your Background and Goals (Please see student bio for further detail)
- Tutoring Requested
- Score Goal: 250
- Current Concerns
- Current study day
- 10-20 AMMO
- 40 block of USMLE
- Has
- Search and legend
- In a course right
- To week, 1
- Study schedule discussion
- Can See practice

Assessment Score: 157

Test Performance Compared to Step 1 Examinees

Performance by Provisional Test

Performance by System

USMLE Practice 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 pain with eating 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.

Which of the following sets of findings is most consistent with the patient's condition?

	Cardiac Output	Pulmonary capillary wedge pressure	Systemic vascular resistance
A)	↑	↓	↓
B)	↓	no change	↑
C)	↓	↑	↑
D)	↓	↓	↑
E)	no change	no change	↑
F)	↑	↑	↓

AP ERECT

20 from 5:30-6:30am EST

In out he had forgotten a lot of the specific details that would help with solving better. This makes him forget the past.

Is a break item the first and second section. Found on, but then figured out how to take a break. So doesn't know, but otherwise made it to the end of.

2 vs X-rayed diseases (PAP)

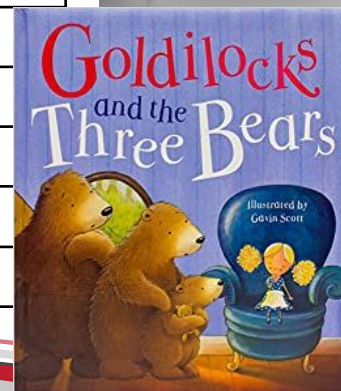
in a flashback

USMLE Practice 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 pain with eating 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.

Which of the following sets of findings is most consistent with the patient's condition?

	Cardiac Output	Pulmonary capillary wedge pressure	Systemic vascular resistance
A)	↑	↓	↓
B)	↓	no change	↑
C)	↓	↑	↑
D)	↓	↓	↑
E)	no change	no change	↑
F)	↑	↑	↓



1-on-1 Tutoring Best Practices



1-on-1 Tutoring

Elite Medical Prep tutors have been providing the highest level of medical tutoring since 2009.

We have developed a 'Structured Personalization' system that ensures consistently high impact tutoring sessions.



ON-BOARDING

- Detailed consultation prior to tutoring
- Efficient student-tutor pairing process
- Trial session
- Student feedback early & late

TRACKING

- Post-session emails to document
- Detailed tutor evaluation (initial)

TUTORING/TEACHING CONTENT

- Online notes & worksheet
- High quality materials specialized for tutoring
- Session length 1.5 hr - 2.5 hr



Small Group Based Medical Education



Small Group Tutoring

Elite Medical Prep runs an integrated small group tutoring program for institutions that has produced outstanding results at *Technion Medical School*.



Small group tutoring is effective

- Currently completed 3rd year of structured small group tutoring
- Improved on-time test taking. Increased average score
- Adaptations: Started small groups earlier
 - beginning of 2nd year
 - utilized flipped classroom concept

amee 2019
Abstract Book

ABSTRACT BOOK

#10JJ Poster - Teaching and Learning 2

10JJ12 (89)

Date of Presentation: Wednesday, 28 August 2019

Time of Session: 08:30-10:15

Location of Presentation: Hall/Foyer F, Level 0

Importance of Small-Group Tutoring for Improved Step 1 Performance

AUTHOR(S):

- Marcel Brus-Ramer, Tel Aviv University, Israel (Presenter)
- Kenneth Rubin, Elite Medical Prep, USA
- Nina Kagan, Tel Aviv University, Israel

ABSTRACT

Background: Preparing graduating students for Step 1 of the USMLE is an area of increasing interest for medical schools. A significant concern is the percentage of students not taking Step 1 on time, passing with weak scores, or failing. We decided to research the effectiveness of small-group online tutoring by experienced, trained USMLE tutors.

Summary of Work: In 2017-18, Elite Medical Prep LLC (EMP, www.elitemedicalprep.com) created an integrated Step 1 program, taught at the Technion - Israel Institute of Technology. An optional small group component was offered so students could work online with an experienced USMLE tutor. These were 5 two-hour sessions over a 2-3 month period. Small group tutors employed a structured methodology based on the USMLE Step 1 content outline.



Small Group Best Practices

- Technically more challenging for the tutor
 - Consider starting tutors w/1-on-1 tutoring
- Use of structured materials is strongly recommended
- Optimal group size is between 3 to 5 students
- Small group meeting time:
 - 2 to 2.5 hr in length per session
 - Better used **BEFORE start** of dedicated USMLE study
 - Recommend **10 to 20 hr** of total group tutoring time



Technion: Experiences with Lectures & Small Group



- Technion American Medical School
 - ◆ Small US style med school (~35 students/year) embedded w/in a major Israeli medical school & university
 - ◆ Many students w/background of weak MCAT scores
 - ◆ **Problems:** students delaying Step 1; some failing Step 1
- EMP Intervention was small group w/linked introductory lectures
 - ◆ Small groups run by experienced tutors
- Subsequent years: earlier start of small group intervention was requested.



Q&A and Open Discussion

- Challenges encountered with tutor management/training
 - Uneven tutor performance
 - Tutor turnover
 -
- Challenges with student management
 - Students needing/wanting more tutoring
 - Student under-utilizing tutoring

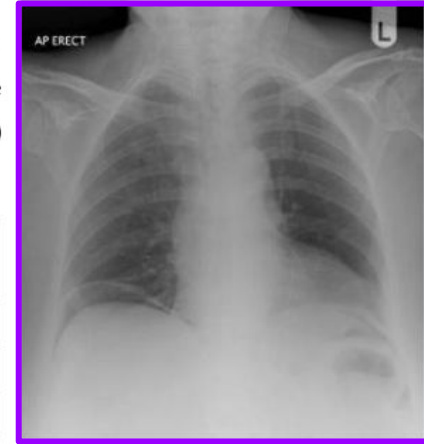
Multiple Challenges in One Question

Multi-step question that assumes understanding of the diagnosis

Clinical vignette with multiple lines of clinical history and data

Radiographic imaging

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 pain with eating 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. Which of the following sets of findings is most consistent with the patient's condition?



Testing application of core physiology concepts

	Cardiac Output	Pulmonary capillary wedge pressure	Systemic vascular resistance
A)	↑	↓	↓
B)	↓	no change	↑
C)	↓	↑	↑
D)	↓	↓	↑
E)	no change	no change	↑
F)	↑	↑	↓

Answers in table format with up/down answer choices

Live Polling

Live Polling at:

www.pollev.com/smartland010

ELITE
MEDICAL
PREP

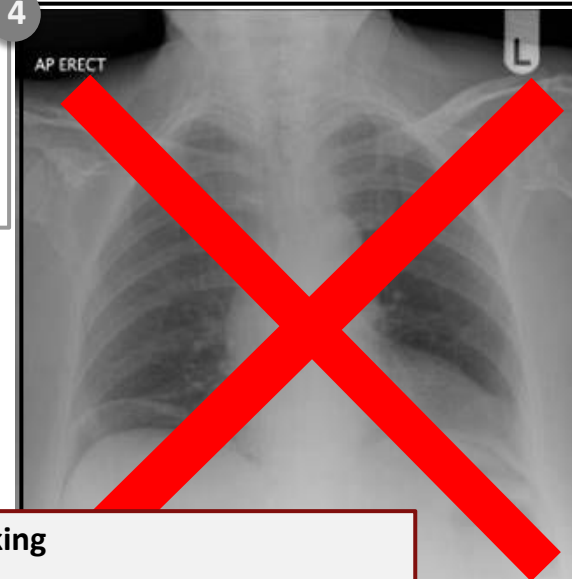
USMLE Style Questions:

From great challenges come stronger learning

- Good use of USMLE Questions can lead to better retention of material and lead to great lessons
- USMLE Step 1 questions pose significant cognitive challenges to students but also can help set learning expectations
- Questions can also demonstrate the context and application of the material students are learning
 - Lectures and small groups/PBL, etc.
- Integrating USMLE Questions into teaching helps maintain student engagement.

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 pain with eating 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.
- 4 Which of the following sets of findings is most consistent with the patient's condition?



2

	Cardiac Output	Pulmonary capillary wedge pressure	Systemic vascular resistance
A)	↑	↓	↓
B)	↓		
C)	↓		
D)	↓		
E)	no change		

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

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

Part B

A patient in the early stages of hemorrhagic shock is most likely to have which of the following?

- A) Decreased myocardial contractility
- B) Decreased renal sympathetic nerve activity
- C) Flushing due to cutaneous vasodilation
- D) Increased delivery of sodium to the macula densa
- E) Increased renal blood flow due to sympathetic activation
- F) Increased ventilatory rate due to tissue ischemia**
- G) Sweating due to parasympathetic stimulation of sweat glands

Part C

In a patient who is hemorrhaging, which of the following is an adaptive response that helps to maintain mean arterial pressure?

- A) Decreased end-diastolic volume
- B) Increased end-systolic volume
- C) Increased venous compliance
- D) Inhibition of secretion of ADH (vasopressin)
- E) A fluid shift from interstitial to vascular compartments
- F) Release of atrial natriuretic peptide

Part D

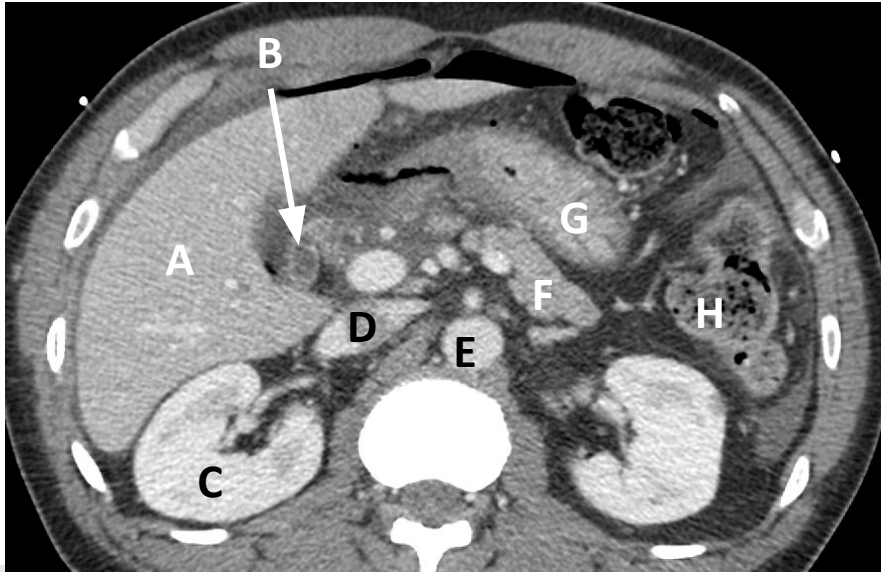
In a patient who is hemorrhaging, which of the following changes in body fluid volume or osmolality is most likely seen?

	Intracellular		Extracellular	
	Volume	Osmolality	Volume	Osmolality
A)	No change	No change	↓	No change
B)	↓	↑	↓	↑
C)	↑	↓	↓	↓
D)	No change	No change	↑	No change
E)	↓	↑	↑	↑
F)	↓	↓	↑	↓

Part E

After the patient's blood pressure and volume status are stabilized, she is scheduled to undergo surgery to treat the likely source of hypovolemia and free intra-abdominal air. Immediately prior to going to the operating room, a CT of the abdomen and pelvis is performed to assist with surgical planning. Which of the following structures on the axial CT image through the abdomen is the likely source of the free air and associated hypovolemia?

- A.
- B.
- C.
- D.
- E.
- F.
- G.



RECALL

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.

Thank you

Questions?

marcel@elitemedicalprep.com

ken@elitemedicalprep.com



Amy Petty, PhD, MD Candidate; \$235/hr

- Phi Beta Kappa from Winthrop University, B.S. with Honors, Chemistry and Biology Double-Major, 2012
- Matriculated in Duke Medical Scientist Training Program 2012; Recently defended PhD in molecular cancer biology/immunology
- Scored: 264 on USMLE Step 1
- Achieved honors in all clinical rotations
- Years of experience as TA, mentor, and tutor in premedical and medical settings
- Published academic author

