UNIVERSITY OF CALIFORNIA BERKELEY

AMSA

AMERICAN MEDICAL STUDENT ASSOCIATION

6th General Meeting:
What is the USMLE?

AMSA MCAT Auction!

- Kaplan MCAT Advantage! Course
  - Valued at $1,900
  - Starting Bid: $1,200
  - Bidding increments of $10.00
  - Good for 5 years

- E-mail wong.alexander@live.com to place a bid! *

*PLEASE PUT **AMSA AUCTION** IN THE SUBJECT*

UCSF Mentorship Program

- Be paired with a current medical student at UCSF!
- Applications will be out by next Thursday, 10/18 after the General Meeting and will be due the following week on Thursday 10/25
- Please contact Wei at wquan@berkeley.edu if you have any questions

Upcoming Volunteer Opportunities

- **Making Strides Breast Cancer Walk** (Sat. 10/20)
  - Golden Gate Park
  - Kickoff breakfast, 5-mile walk through park
- **Chaparral House** (Sun. 10/21)
- **Berkeley Project** (Sat. 11/3)
  - If you haven't signed up yet, sign up NOW
  - 1600/2000 spots full
  - Specify "Team AMSA"

Email donghanyao@gmail.com to sign up for all events!

University of Colorado School of Medicine

- Friday, October 26th

  8:30-9:30 am, 229 Dwinelle

Kaplan Free MCAT Practice Test

- October 13th, 2012
  10 am, Boalt Hall

  What better way to prepare for the MCAT than by taking a crack at a practice test? Next month,, we're giving you just that chance—FREE here on the Cal campus. With our practice test, you'll:

- Experience the exam under proctored conditions
- Receive a detailed score analysis
- Learn exclusive strategies to help you improve your score
- Receive discounts on Kaplan courses, just for attending

  Don't miss out on this chance to get Test Day experience before your exam date rolls around. Email joe.hostetler@kaplan.com with any questions, and we hope to see you there!

AMSA 6th General Meeting

What is the USMLE?

Presented by the Student Life/PMSG committee

United States Medical Licensing Examination

- Graduates of medical school with an MD degree are required to pass this examination before they can practice medicine in the U.S.
- There are a total of 4 exams
- Step 1 - usually taken at the end of your 2nd year in med school
- Step 2 CS (Clinical Skills) - taken during your 4th year in med school
- Step 2 CK (Clinical Knowledge)
- Step 3 - taken after your 1st year of residency

USMLE®

United States Medical Licensing Examination®

Search

Home | Bulletin | FAQs | Apply | Step 1 | Step 2 CK | Step 2 CS | Step 3 | Practice Materials | Scores & Transcripts | Test Accommodations | Security

United States Medical Licensing Examination

What is USMLE?

The **United States Medical Licensing Examination ®** (USMLE®) is a three-step examination for medical licensure in the United States and is sponsored by the Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners® (NBME®).

The USMLE assesses a physician's ability to apply knowledge, concepts, and principles, and to demonstrate fundamental patient-centered skills, that are important in health and disease and that constitute the basis of safe and effective patient care. Each of the three Steps of the USMLE complements the others no

USMLE Bulletin of Information

The **Bulletin** includes information on all aspects of USMLE, such as eligibility requirements, scheduling test dates, testing, and score reporting. **You must review** and become familiar with the Bulletin before completing your application for USMLE Step 1, Step 2 (CK and CS), or Step 3. Start reading the Bulletin of Information »

Download the PDF version of the 2012 Bulletin »
Download the PDF version of the 2013 Bulletin »

Why else is the USMLE important?

- It is a strong deciding factor in determining where you will be doing your residency training after medical school
- Step 1 and Step 2 are generally seen as the most important parts
- If you choose to go to a Caribbean/non-U.S. medical school, you are required to take the USMLE step 1 and step to get your ECFMG certification before you can apply for residency programs in the U.S.

Step 1 Administrations

Examinees from US/Canadian Schools	2010		2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
MD Degree	19,842	90%	19,810	93%
1st Takers	18,116	92%	18,312	94%
Repeaters**	1,726	61%	1,498	70%
DO Degree	2,039	80%	2,211	88%
1st Takers	1,964	82%	2,145	89%
Repeaters**	75	41%	66	65%
Total	21,881	89%	22,021	92%

Examinees from Non-US/Canadian Schools	2010		2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
1st Takers	14,203	70%	14,855	73%
Repeaters**	4,656	33%	4,621	36%
Total	18,859	61%	19,476	64%

* Represents data for examinees tested in 2011 and reported through February 8, 2012.
** 'Repeaters' represents examinations given, not number of examinees.

Step 2 CK Administrations

Examinees from US/Canadian Schools	2009 - 2010*		2010 - 2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
MD Degree	18,218	96%	18,903	96%
1st Takers	17,493	97%	18,225	97%
Repeaters**	725	68%	678	68%
DO Degree	1,002	91%	1,092	93%
1st Takers	982	92%	1,071	93%
Repeaters**	20	70%	21	57%
Total	19,220	96%	19,995	96%

Examinees from Non-US/Canadian Schools	2009 - 2010*		2010 - 2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
1st Takers	11,422	83%	11,594	82%
Repeaters**	2,484	52%	2,304	50%
Total	13,906	78%	13,898	77%

* Data for Step 2 CK are provided for examinees tested during the period of July 1 to June 30.
** 'Repeaters' represents examinations given, not number of different examinees.

Step 2 CS Administrations

Examinees from US/Canadian Schools	2009 - 2010*		2010 - 2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
MD Degree	18,087	97%	18,294	98%
1st Takers	17,518	97%	17,852	98%
Repeaters**	569	92%	442	91%
DO Degree	40	90%	67	88%
1st Takers	38	89%	67	88%
Repeaters**	2	†	0	N/A
Total	18,127	97%	18,361	98%

Examinees from Non-US/Canadian Schools	2009 - 2010*		2010 - 2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
1st Takers	11,775	76%	11,899	79%
Repeaters**	3,428	65%	3,143	67%
Total	15,203	74%	15,042	77%

* Data for Step 2 CS are provided for examinees tested during the period of July 1 to June 30.
** 'Repeaters' represents examinations given, not number of different examinees.
† Performance data not reported for categories containing fewer than 5 examinees.
N/A - not applicable.

Step 3 Administrations

Examinees from US/Canadian Schools	2010		2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
MD Degree	18,448	95%	18,314	96%
1st Takers	17,332	96%	17,486	97%
Repeaters**	1,116	75%	828	74%
DO Degree	14	100%	18	94%
1st Takers	14	100%	18	94%
Repeaters**	0	N/A	0	N/A
Total	18,462	95%	18,332	96%

Examinees from Non-US/Canadian Schools	2010		2011*	
	Number Tested	Percent Passing	Number Tested	Percent Passing
1st Takers	9,182	83%	8,830	84%
Repeaters**	2,759	61%	2,244	60%
Total	11,941	78%	11,074	79%

* Represents data for examinees tested in 2011 and reported through February 8, 2012.
** 'Repeaters' represents examinations given, not number of different examinees.
† Performance data not reported for categories containing fewer than 5 examinees.

USMLE Step 1

- Tests general knowledge of the **basic sciences** that are required for the practice of medicine
- Multiple-Choice
- Contains questions on all the organ systems of the human body
- Required to know normal processes, abnormal processes, principles of therapeutics, and psychosocial, cultural, and environmental considerations for each organ system

Step 1 (continued)

- Generally viewed as the hardest exam out of the three
- According to the National Residency Match Program, the step 1 scores has been viewed as the most important criteria for selecting students
- Vast majority of residency programs cite the Step 1 scores as a basis for selecting applicants to interview, including some 80% of residency programs in anesthesiology, OB/GYN, pediatrics, and family medicine

Example Question #1

3-y/o boy with h/o of poor cuddling presents with severely delayed language and social development; PE reveals below normal intelligence with unusual calculating abilities and repetitive behaviors

Answer: Autism

USMLE Step 2 Clinical Knowledge (CK)

- Multiple choice questions
- Questions focus on the principles of clinical science that are deemed important for the practice of medicine under supervision during residency
- Topics include diseases of the different organ systems of the human body as well as congenital anomalies, injury, poisoning, etc.
- For each organ system, you are required to understand health and health maintenance, mechanism of disease, diagnosis, and principles of management

USMLE Step 2 Clinical Skills (CS)

- Tests your ability to apply medical knowledge, skills, and understanding of clinical science essential for the provision of patient care under **supervision**
- Not a written test
- Begin with an on-site orientation and will have 12 patient encounters, and 15 minutes for each.
- You first perform a physical examination on a standardized patient and ask him/her any relevant questions

Step 2 CS (continued)

- In addition to in-person patient encounters, you will also be required to do telephone patient encounters
- Lastly, you will also have 10 minutes to complete a patient note and record your findings as well as any future diagnostics studies you would order for the patient

USMLE Step 3

- Assesses whether you can apply medical knowledge and understanding of biomedical and clinical science essential for the **unsupervised** practice of medicine.
- Consists of multiple choice questions and and computer-based case simulation
- Tests disorders/diseases of all the human body organ systems as well as behavioral ar pregnancy disorders

How long are they?

- Step 1 is an 8 hr computer-based exam, with 322 multiple choice questions divided into seven blocks of 46 questions. Each block is 1 hr long with the remaining block being a 1 hr break
- Step 2 CK is a 9 hr exam with 352 multiple choice questions divided into 8 blocks of 44 questions each. Each block is 1 hr long with the remaining block being a 1 hr break
- Step 3 is a 2 day examination completed within 8 hours. First day of testing includes 336 multiple-choice questions divided into 7 blocks of 48 items each. Each block is 1 hr long with an

How long are they? (continued)

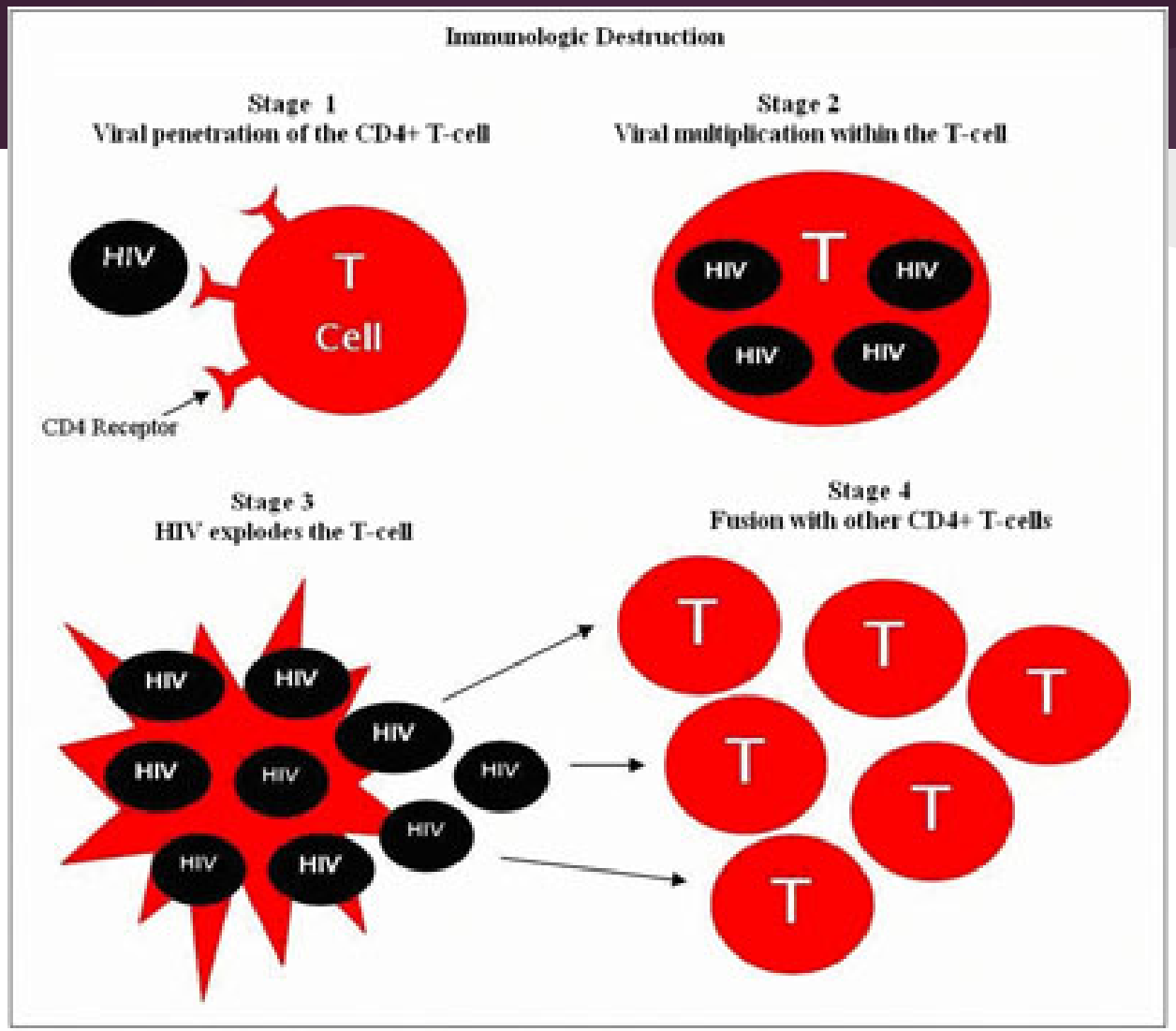
- 1 hr break.
- 2nd day of testing includes 144 multiple-choice questions divided into 4 blocks of 36 items. Each block takes 45 minutes. Then there are 12 case simulations for which 4 hours are allowed. 1 hr remaining is for a break
- In comparison, the MCAT is only around 4 hours and 5 minutes long, 3 sections with 144 questions. No writing section for 2013, instead optional experimental section included

- MCAT includes Physical Sciences, Verbal Reasoning, and Biological Sciences

HIV/AIDS

What is HIV/AIDS?

- HIV stands for "Human Immunodeficiency Virus"
- It attacks the immune system
- It destroys certain white blood cells - specifically T lymphocytes - which prevents the body from fighting off disease
- The virus, then, continues making copies of itself and destroying the body slowly - this can take up to 10-12 years
- Last stage of HIV is AIDS ("Acquired Immunodeficiency Syndrome")


Immunologic Destruction
Stage 1
Viral penetration of the CD4+ T-cell
HIV
T
Cell
CD4 Receptor
Stage 2
Viral multiplication within the T-cell
HIV
T
HIV
HIV
HIV
Stage 3
HIV explodes the T-cell
HIV
HIV
HIV
HIV
HIV
HIV
HIV
HIV
Stage 4
Fusion with other CD4+ T-cells
T
T
T
T
T
T
T

Common Ways to Get HIV/AIDS

- Having unprotected sex with someone who already has HIV
- Sharing needles with someone who already has HIV
- Breast-feeding from someone who already has HIV
- **YOU DO NOT GET HIV FROM SHAKING HANDS OR SHARING A GLASS WITH SOMEONE WHO ALREADY HAS HIV**

USMLE Question

WHAT ARE COMMON PRESENTING SIGNS OF THE VIRAL PRODROME OF HIV, I.E., ACUTE RETROVIRAL SYNDROME?

Take a guess with people around you!

Fever? Migraines? What do you think?

USMLE Question

WHAT ARE COMMON PRESENTING SIGNS OF THE VIRAL PRODROME OF HIV, I.E., ACUTE RETROVIRAL SYNDROME?

- Fever
- Fatigue
- Headache
- Rash
- Weight Loss
- Pharyngitis - inflammation of the pharynx (section of the alimentary canal, behind mouth)
- Lymphadenopathy - swollen lymph nodes, disease of lymph nodes

HIV/AIDS continued

- This virus, as stated before, attacks the immune system
- Without a strong immune system, one's body cannot fend disease
- Thus, the body becomes sick and experiences all the symptoms (previous slide)
- But there are tests and treatments which can help! To be continued…

USMLE Question #2

What is the diagnosis for the following patient?

22 year old female college student who is 20% below her ideal weight complains of not having any menstrual cycles and "feeling fat"

Answer:

Anorexia Nervosa!

What is Anorexia Nervosa?

- Eating and psychological disorder characterized by refusal to maintain normal body weight and extreme fear of becoming obese
- Results in life-threatening weight loss
- 90% of cases are female
- Prevalence: 1% in adolescent females

Symptoms of Anorexia Nervosa

- Body weight: 85% or less than typical for someone of similar build, age, and height
- Intense and overwhelming fear of gaining weight or becoming fat
- Belief that body weight, shape and size relate to self-confidence

Types of Anorexia Nervosa

- Restricting type: person restricts food intake on their own and does not engage in binge-eating or purging behavior
- Binge eating/purging type: person self-induces vomiting or misuses laxatives, diuretics or enemas

Criteria for Diagnosis of Anorexia Nervosa

- Refusal to maintain body weight at or above minimally normal weight for age and height (less than 85% of expected weight)
- Intense fear of gaining weight or becoming fat, even though person is underweight
- Self-perception that is grossly distorted, excessive emphasis on body weight in self-assessment and weight loss that is either minimized or not acknowledged completely
- At least 3 consecutive periods are missed (or menstrual periods only occur after hormone is administered)

USMLE Question #3

What is the diagnosis for the following patient?

60 year old presents with gradual onset of pill-rolling tremor; physical
examination: masked facies, stooped posture, shuffling gait, muscle rigidity

Answer:

Parkinson's Disease

What is Parkinson's Disease?

- Chronic and progressive movement disorder
- Scientists believe this is caused by loss of dopamine-producing brain cell
- Usually happens slowly, over a period of many years
- Men are one and a half time more likely to have Parkinson's Disease than women.
- A late middle age disease, but in the past several years, more cases of "early-onset"

Symptoms

- Symptoms continue and worsen over time
- Tremor of the hands, arms, legs, jaw, and face
- Slowness of movement
- Rigidity of the limbs and trunk
- Impaired balance and coordination

- Diagnosed with neurological Exam

USMLE Question #4

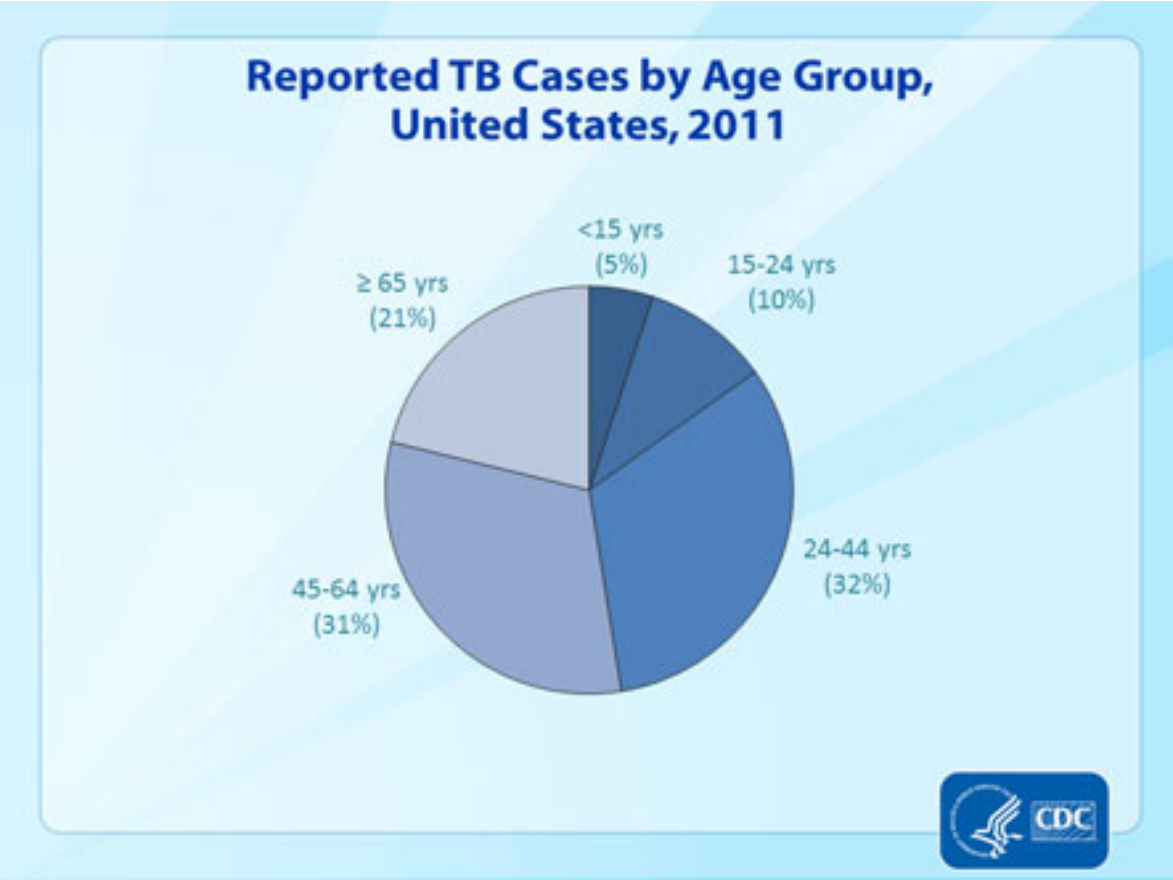
What is the diagnosis for the following patient?

41 year old comes in with fevers and night sweats, weight loss, cough, and hemoptysis (coughing blood).

Test: PPD, positive

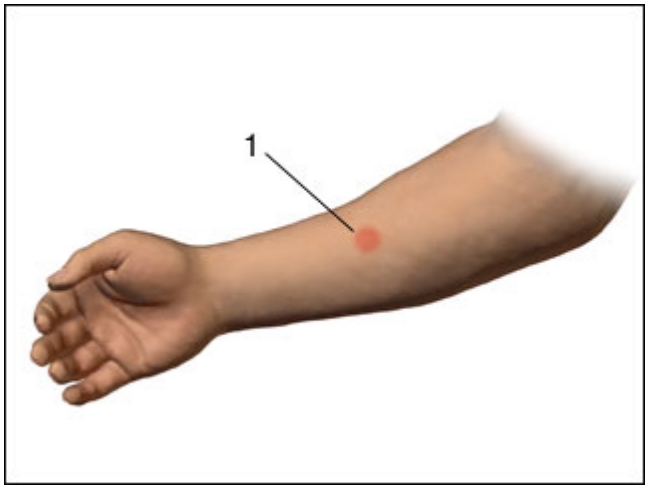
Answer:

Tuberculosis

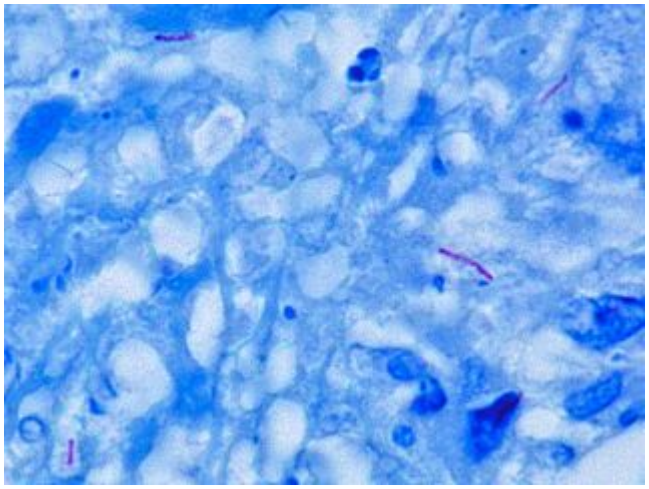


Tuberculosis (TB)

- USMLE: "TB can be diagnosed with clinical and radiologic signs of secondary TB and **acid-fast bacilli** in sputum"



skin test



acid-fast bacilli

TB Transmission

- If untreated, TB kills **more than 50%** of those infected
- About **80%** of the population of most countries in Africa & Asian test positive for TB, while **5-10%** of the population in the U. S. test positive
- About 90% of people infected with the TB bacteria (*Mycobacterium tuberculosis*) are **asymptomatic**, with a 10% chance that the infection will progress to **active TB**
- **Treatment:** antibiotics

TB and bones


MYCOBACTERIUM TUBERCULOSIS-INDUCED SKELETAL CHANGES
IN A JUVENILE FROM PREHISTORIC CENTRAL CALIFORNIA
UNIVERSITY OF THE
PACIFIC
Introduction
Materials
Methods
RESULTS I
RESULTS II
Discussion
Conclusions
References
A
B
C

19-y/o with an 8-month h/o deteriorating grades and social withdrawal presents with auditory hallucinations; PE shows odd thinking patterns, tangential thoughts, and flattened effects.

answer: schizophrenia

68-y/o veteran presents with complaints of vivid flashbacks, hypervigilance, and difficulty falling asleep for the past several years; patient appears very anxious during the PE

Answer

Posttraumatic stress disorder

6-y/o presents with 8-month h/o hyperactivity, inattentiveness, and impulsivity both at school and at home; PE and W/U are WNL

Answer

ADHD - attention deficit hyperactivity disorder

85-y/o man presents with back pain, weight loss, and weak urinary stream; PE; palpable firm nodule on digital rectal examination (DRE) W/U PSA up