INFECTIOUS DISEASE JEOPARDY

A PEA IN THE POD	WAR GAMES	THE AFTERMATH	PRESUMPTIVE REMEDY	ODIFEROUS FOLIAGE
$100	$100	$100	$100	$100
$200	$200	$200	$200	$200
$300	$300	$300	$300	$300
$400	$400	$400	$400	$400
$500	$500	$500	$500	$500

A PEA IN THE POD $100

These 2 vaccines should be given to all pregnant women during each of their pregnancies.

What are:
1) Tdap Vaccine
2) Inactivated Influenza Vaccine?

A PEA IN THE POD- $200

You are a new IM attending, setting up your practice in Phoenix, AZ, and you have hired a 25 year-old medical assistant who is of Filipino descent. Soon after she begins working for you, she tells you that she is pregnant with her first child.

At this time, she is 30 weeks pregnant. She has developed a cough and myalgias for the past week and went to her OB for a check up. The OB diagnosed her with asthma related to GERD and gave her a bronchodilator. She comes to you because her cough is getting worse and she has had fatigue and low grade fevers. She asks you if she could have the flu, but it is currently August, and not influenza season.

This is what you suspect and ***this*** is what you order to make a diagnosis.

What is coccidioidomycosis and what is coccidioidomycosis serology by EIA?

A PEA IN THE POD $300

Mother-to-Child-Transmission (MTCT) of HIV accounts for approximately 10% of new infections of HIV globally each year. Untreated mothers with HIV can transmit the infection to their infants during pregnancy, labor and delivery, and by breastfeeding. ***These 3 things*** can reduce the risk of transmission of HIV to an unborn baby from up to 30% to less than 2%.

What is:

1) Starting treatment for HIV immediately when diagnosed during pregnancy. (30% of women not even tested.)
2) Having a scheduled C-section before labor starts when HIV viral load is detected.
3) Not breastfeeding the baby?

A PEA IN THE POD $400

Your patient is 32 weeks pregnant and is diagnosed with primary syphilis infection and she is negative for HIV infection. She has had a reaction to penicillin antibiotics with wheezing and urticaria. ***This*** is the appropriate treatment for this patient for her syphilis.

What is desensitization therapy and subsequent penicillin G benzathine 2.4 million units IM x 1?

BONUS: What is important to tell the patient to say regarding her penicillin allergy after desensitization therapy?

A PEA IN THE POD- $500

The IDSA guidelines recommend screening for asymptomatic bacteriuria in pregnant women at 16 weeks gestation. ***These*** are the ***three*** benefits to treating asymptomatic bacteriuria in pregnancy.

What are:

1) Reduce the risk of pyelonephritis in pregnancy from 20-35% to 1-4%

2) Reduce the risk of low birth weight infant

3) Reduce the risk of preterm delivery

BONUS: What other population should be screened for asymptomatic bacteriuria?

WAR GAMES- $100

A 41 y/o M is ready to be discharged after a 2 day course of vancomycin for his purulent SSTI from his leg. The culture site grew MRSA sensitive to all antibiotics tested except erythromycin and oxacillin, and the double disk diffusion test (D-test) was positive.

This is the anti-MRSA antibiotic you should avoid due to inducible resistance.

What is:
Clindamycin?

WAR GAMES- $200

An 18 y/o M with pMHx of gunshot wound to the back in March 2018, which caused multiple injuries including T10 paraplegia with neurogenic bladder and bowel, presents with F/C and flank pain and was found to have MDR e. coli pyelonephritis. His ED urine cx grew the following:

Escherichia coli	MIC	Susceptibility
Ampicillin	>/=32	R
Amoxicillin/Clavulanate	>32	R
Cefazolin	>64	R
Ceftriaxone	>=64	R
Cefepime	>/=16	R
Ertapenem	<=0.5	S
Meropenem	<=0.25	S
Gentamicin	</=1	S
Tobramycin	</=1	S
Ciprofloxacin	>/=4	R
Trimthroprim/Sulfa	>/=320	R
Nitrofurantoin	</=16	S

This is the mechanism of e. coli resistance and this is the most appropriate antibiotic therapy.

What is Extended Spectrum Beta-Lactamase and What is ertapenem?

WAR GAMES- $300

You are treating a patient for staph aureus bacteremia and have her on vancomycin as you wait for susceptibilities to result. You notice that she is S to vancomycin with an MIC ≥2. This is what you should do next.

What is:
Switch her antibiotic to daptomycin?

WAR GAMES- $400

You patient presents with abdominal pain, fever and diarrhea. WBC 40,000 and Cr 1.8. You are worried about a severe c. diff infection. She told you she was treated for a UTI 3 weeks ago.

This is the class of antibiotic she was most likely given and this is the mechanism of virulence.

What is a fluoroquinolone and what is NAP1 C. difficile strain with excessive exotoxin production producing hypervirulence?

WAR GAMES- $500

Which two of the U of A COM Phoenix Internal Medicine Faculty are current members of the Antimicrobial Stewardship Committee?

THE AFTERMATH- $100

Your patient is on a 6 week course of daptomycin for MRSA bacteremia associated with osteomyelitis. The prescribing ID physician has ordered weekly CBC, CMP, ESR and CRP for monitoring. This is the other lab you suggest also be monitored with the use of daptomycin.

What is:

CPK

(daptomycin is associated with side effect of myopathy)?

THE AFTERMATH- $200

This is the class of medications you must stop prior to starting a patient on linezolid and this is the side effect you are worried about?

What is:
Selective serotonin reuptake inhibitor (SSRI)
and
serotonin syndrome?

THE AFTERMATH- $300

You just admitted a 38 y/o F with a history of CF for a pulmonary CF exacerbation. You receive an admission packet from the CF coordinator which includes the patient's home medication list as well as prior micro results. The recommended starting antibiotics include levaquin, tobramycin, fluconazole and azithromycin.

This is the concern you have regarding this combination of drugs.

What is:
QT-prolongation?
Check an EKG and monitor the QT interval with use of these agents

THE AFTERMATH- $400

Your patient is diagnosed with AIDS with a CD4 count of 10. His presenting symptoms included subacute hypoxic respiratory failure and a bronchoalveolar lavage revealed PJP on DFA. He is started on IV Bactrim therapy and steroids and is discharged from the hospital on oral therapy. When you see him one week later, he is markedly improved and you note that his creatinine is 1.3 mg/dL (previously 0.7 mg/dL.) The rest of his labs are unchanged.

This is the most appropriate next step in management of this patient.

What is to continue Bactrim therapy for PJP pneumonia?

BONUS: What is the mechanism for the increase in serum creatinine?

THE AFTERMATH- $500

Your patient recently immigrated from Sudan and was diagnosed with pulmonary TB after presenting to the ED with night sweats and hemoptysis.

You started him on treatment with ***these 4*** drugs, and these are the side effects you should educate your patient on (1 per drug).

What are:
Rifampin: Orange Urine/Tears
Isoniazid: Hepatotoxicity and Neuropathy
Pyrazinamide: Hepatotoxicity and Interstitial Nephritis
Ethambutol: Color blindness

BONUS: What other drug used for lupus causes abnormalities of color vision?

PRESUMPTIVE REMEDY- $100

These are three categories of patients that should receive empiric coverage for Listeria as you treat them for bacterial meningitis.

Who are:

1) Age >50
2) Immunocompromised (impaired cell-mediated immunity: lymphoma, chemo, high-dose glucocorticoids)
3) Neonates (age <1 month)

PRESUMPTIVE REMEDY- $200

A 58 y/o F presents to your clinic after suffering a cat bite to her right hand. She is afebrile but has a puncture wound with no surrounding erythema.

This is the recommended antibiotic to start for prophylaxis .

What is:
Amoxicillin-clavulanate?
Coverage for: *staph, strep, pasteurella species, capnocytophagia canimorsus and anaerobes*

PRESUMPTIVE REMEDY- $300

You are admitting a cirrhotic patient overnight who presents with confusion, abdominal pain and fever. His exam is consistent with peritonitis. You appropriately sample the ascites fluid and the cell count of the fluid returns at 3000 neutrophils and the gram stain is negative.

This is the likely diagnosis and this is the appropriate antibiotic regimen to start empirically.

What is secondary peritonitis and what is zosyn, cefepime and flagyl, or imipenum?

PRESUMPTIVE REMEDY- $400

A 65 y/o M with a hx of ESRD on HD is being admitted to the ICU with a diagnosis of community acquired pneumonia. The ED physician asks you for your recommendation for what antibiotics to start.
This is your recommendation:

What is:
Ceftriaxone +
Azithromycin +
Vancomycin?

If your patient has RFs for pseudomonas, anti-pseudomonal beta-lactam should be chosen.

PRESUMPTIVE REMEDY- $500

In a patient who presents with acute diarrhea, these are the three categories of patients who warrant empiric antibiotic coverage.

What are:

1) Severe disease – fever, >6 stools per day, volume depletion warranting hospitalization
2) Features suggestive of invasive bacterial infection (bloody or mucoid stools)
3) Host factors that increase the risk of complications (age >70 and comorbidities such as cardiac disease and immunocompromising conditions)?

ODIFEROUS FOLIAGE- $100

This very potent antifungal agent is known for causing a type 1 RTA, characterized by profound hypomagnesemia, hypokalemia, and acidosis. It is the “A” listed in the pneumonic “CATLS”, in which each letter stands for a cause of a type 1 RTA.

What is Amphotericin (also known as Ampho-terrible)?

BONUS: What do the other letters in CATLS stand for?

ODIFEROUS FOLIAGE- $200

You are a resident in the U of A COM Phoenix Internal Medicine Program on inpatient wards. You are pregnant with your first baby, and are seeing a patient on the oncology floor with disseminated zoster in airborne isolation. You have received the varicella vaccine series and have proven immunity to the herpes zoster virus.

This is the appropriate additional precaution you take to avoid harming your unborn baby.

What is:
No additional precautions are necessary?
http://text.apic.org/toc/infection-prevention-for-occupational-health/pregnant-healthcare-personnel

ODIFEROUS FOLIAGE- $300

Your 55 year old hospitalized patient tells you that she had a reaction to penicillin many years ago that she thinks was a “rash.” She denies lip or tongue swelling, and cannot recall the reaction. You feel strongly that the patient needs an IV first generation cephalosporin for treatment of her MSSA blood stream infection.

This is the appropriate management of the patient at this time.

What is to go ahead and give the Ancef first with a test dose procedure (graded exposure)?

ODIFEROUS FOLIAGE- $400

You are seeing a 30- year old African American woman in your clinic with complaints of dysuria. She is a new patient, having moved to Phoenix recently from the Atlanta area. She has had urgency and bladder pressure for 2 days and comes to see you for a possible UTI. She has had as UTI approximately 5 years ago and has not had any similar symptoms since.

On exam, she is afebrile, and appears well. She is mildly tender with suprapubic palpation. A urine dip reveals leukocyte esterase and nitrites. You prescribe Bactrim DS 1 po BID for 3 days. She returns to your office 1 week later with scleral icterus and dark urine.

This is the most likely diagnosis.

What is G6PD deficiency?
(Up to 10% of African Americans are G6PD deficient)

ODIFEROUS FOLIAGE- $500

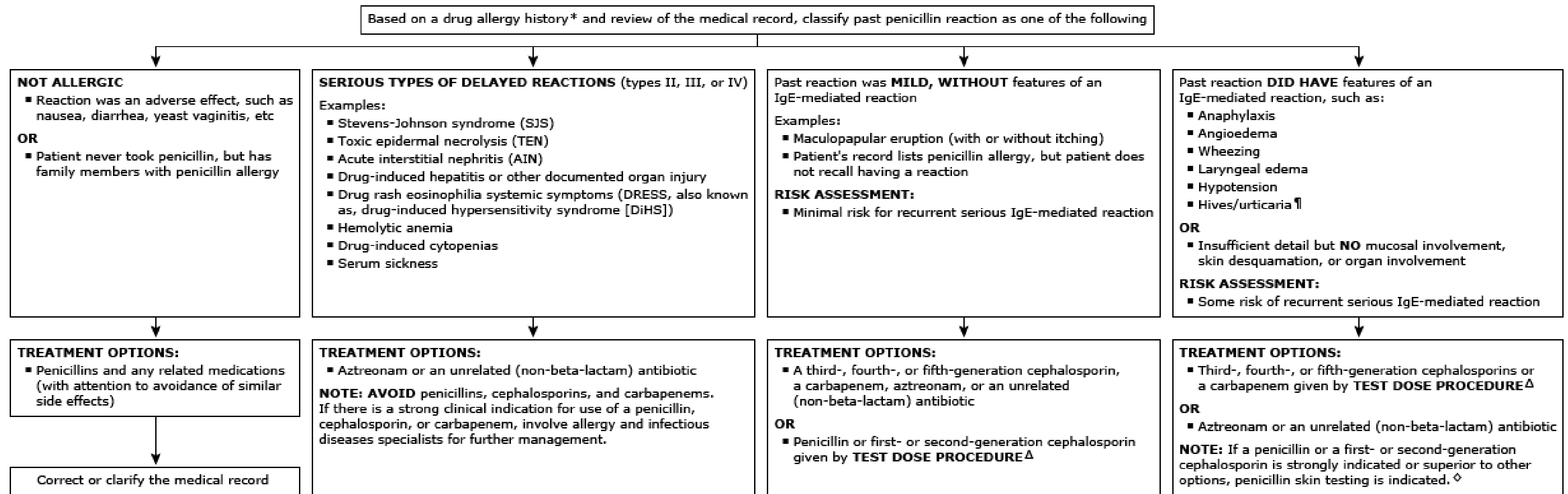
Your patient requires diuresis for cirrhosis and portal hypertension related anasarca. She tells you that her doctor told her she cannot take Lasix because she has a "sulfa allergy".

On further questioning, the patient described a morbilliform rash but no angioedema or urticaria.

This is what you tell her regarding the safety of Lasix.

The hypersensitivity reaction to Bactrim resulting in a morbilliform rash does NOT cross react with other sulfa containing drugs that are NOT antimicrobials.

Approach to the patient with a past penicillin reaction who requires antibiotics



This algorithm is intended for use in conjunction with the UpToDate content on choice of antibiotics in penicillin-allergic hospitalized patients. It is oriented toward hospitalized patients but also applies to outpatients if test dose procedures can be performed in an appropriately monitored setting with the staff and equipment needed to manage allergic reactions, including anaphylaxis.

IgE: immunoglobulin E.

* Ask the following:

1. What exactly were the symptoms?
   - Raised, red, itchy spots with each lesion lasting less than 24 hours (hives/urticaria)?
   - Swelling of the mouth, eyes, lips, or tongue (angioedema)?
   - Blisters or ulcers involving the lips, mouth, eyes, urethra, vagina, or peeling skin (seen in SJS, TEN, other severe type IV reactions)?
   - Respiratory or hemodynamic changes (anaphylaxis)?
   - Joint pains (seen in serum sickness)?
   - Did the reaction involve organs like the kidneys, lungs, or liver (seen in DRESS, other severe type IV reactions)?
2. What was the timing of the reaction after taking penicillin: Minutes, hours, or days later? Was it after the first dose or after multiple doses?
3. How long ago did the reaction happen? (After 10 years of avoidance, only 20% of patients with IgE-mediated penicillin allergy will still be allergic).
4. How was the reaction treated? Was there a need for urgent care or was adrenaline/epinephrine administered?
5. Has the patient tolerated similar medications, such as ampicillin, amoxicillin, or cephalexin since the penicillin reaction?