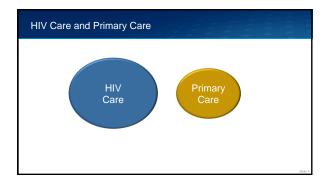
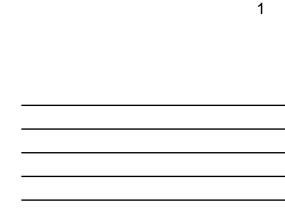
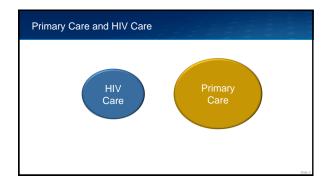


Financial Relationships With Ineligible Companies (Formerly Described as Commercial Interests by the ACCME) Within the Last 2 Years:

Dr. Spach has no financial relationships with any ineligible companies to disclose. (Updated 9/25/2022)

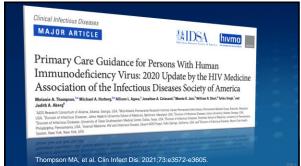








2





New Body Changes

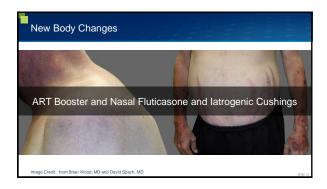
- A 44-year-old man with extensive HIV drug resistance starts on new regimen of darunavir boosted with ritonavir (BID) plus maraviroc plus tenofovir alafenamide-emtricitabine plus doravirine. He takes OTC meds for GERD and seasonal allergies.
- About 3 month later he complains of some easy bruising and enlarged abdomen
- About 6 months later he has developed weight gain and major body changes.



Image Credit: from Brian Wood, MD and David Spach, MD

New Body Changes

- A 44-year-old man with history of NNRTI HIV drug resistance starts on new regimen of darunavir boosted with ritonavir (BID) plus tenofovir alafenamide-emtricitabine plus doravirine. He takes OTC meds for GERD and seasonal allergies.
- About 3 month later he complains of some easy bruising and enlarged abdomen
- About 6 months later he has developed weight gain and major body changes.
 Nasal fluticasone



Key Points: Booster Induced Cushing;s

- Boosters (RTV or COBI) can cause major increase in some corticosteroids via CY3A4 inhibition
- · Can occur with oral, nasal, inhaled, injectable corticosteroids
- Any person on RTV or COBI should have discussion about:
- OTC corticosteroids
- Steroid injections



- A 48-year-old woman with multi-drug resistance HIV is starting a new ART regimen. She takes methadone at a dose of 85 mg per day, citalopram 40 mg daily. She had HCV coinfection (treated and cured) and has F4 fibrosis. A regimen of Dolutegravir-Rilpivirine plus Fostemsavir is suggested based on genotype.
- The pharmacist has a serious concern about this regimen.
- · Any ideas what that concern might be?

Polypharma

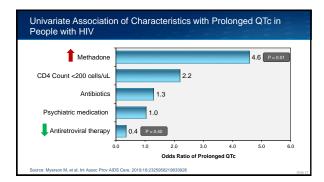
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Increased QTc and Risk of Torsades de Pointes

- Prolonged QTc: >440 milliseconds in men or >460 milliseconds in women Nisk for Torsades de Pointes QTc >500 milliseconds Baseline increase >60 milliseconds



Predictors of Prolonged QTC (>450 milliseconds)

- Higher methadone doses (p = 0.005)
- ARV-Naïve (p = 0.036)
- Hepatitis C-induced cirrhosis (p = 0.008)

Source: Vallecillo G, et al. Clin Infect Dis. 2013:57:1189-94.

Antiretroviral Therapy and Meds QTc

- Most ART protective against prolonging QTc
- Important ART meds with risk for prolonging QTC
- Efavirenz
- Rilpivirine
- Fostemsavir



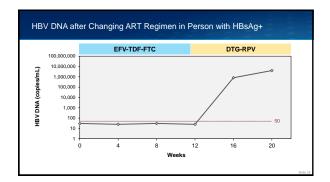
Regimen Switch

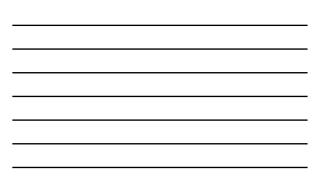
- A 45-year-old with CD4 count 546 cells/mm³ has been taking efavirenztenofovir DF-emtricitabine for many years and they are now finally ready to get on a newer regimen. Prior genotypes show no HIV drug resistance and HIV RNA has been undetectable for years.
- The plan is to switch to a 2-drug regimen: Dolutegravir-Rilpivirine.
- What are some important things you should consider/check prior to making this switch?

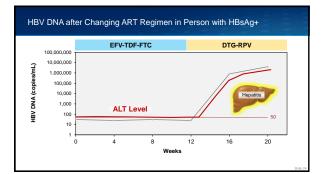
Regimen Switch to Dolutegravir-Rilpivirine

What are some important things you should consider/check?

- HBV status?
- Taking acid suppression medications (rilpivirine)?







Antiretroviral Regimens that do NOT Adequately Treat HBV

- Dolutegravir-abacavir-lamivudine
- FDA-Approved 2-Drug Regimens
- Dolutegravir-lamivudine
- Dolutegravir-rilpivirine
- Cabotegravir-rilpivirine (long-acting injectable)
- Any NRTI-sparing Regimen

Key Points: HBV Reactivation when Switching ART Regimen

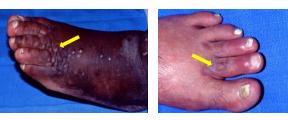
Always check HBV status when starting or switching ART
HBV "flares" can be serious







Two Feet and Same Diagnosis



age Credits: David H. Spach, MD

Key Points: Visceral KS

- "Screen" for Visceral KS in all with Cutaneous KS
- Gastrointestinal
- Asymptomatic: Hemoccult
- Positive hemoccult: Endoscopy
- Pulmonary
- Asymptomatic: CXR
- Symptomatic or Abnormal CXR: CT +/- bronch



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Oral Discomfort

 This 31-year-old is newly diagnosed with HIV and a CD4 count of 126 cells/mm³. He complains that his mouth and tongue burns when eating spicy food or drinking acidic foods like orange juice.



What is the likely diagnosis?

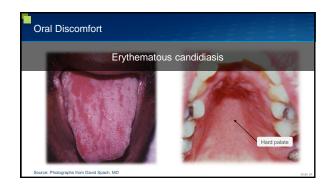
Oral Discomfort

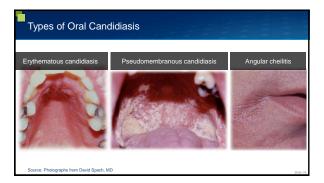
 This 31-year-old is newly diagnosed with HIV and a CD4 count of 126 cells/mm³. He complains that his mouth and tongue burns when eating spicy food or drinking acidic foods like orange juice.



What is the likely diagnosis?

Source: Photograph from David Spach, MD







ER Visit

- A 33-year-old woman with HIV with CD4 count 3 months ago 86 cells/mm³ is seen in ER with fatigue, an intermittent headache, and a little confusion. She has not been taking ART for last 6 months.
- Head CT normal, except for mild atrophy. Lumbar puncture CSF analysis shows normal glucose and protein; 6 nucleated cells and no RBCs. Bacterial and fungal cultures are sent. HSV PCR and Syphilis serologic testing sent.
- She is observed in ER for 1 hour and mental status stable and headache improved and she is sent home, with scheduled follow-up in 3 days.

ER Visit

- She returns to ER 2 days later more confused and with severe headache.
- What may have been missed?

ER Visit

- She returns to ER 2 days later more confused and with severe headache.
- What may have been missed?

Cryptococcal meningitis and increased intracranial pressure

Key Points: Cryptococcal Meningitis (CM) in Persons with AIDS

- Clinical presentation can be subtle
- <u>Serum CrAq</u> positive in >95%
- CSF WBC count usually <30 cells/m³ and often "normal"
- ALWAYS check CSF opening pressure
- Management of increased opening pressure critical



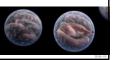
Diarrhea

- A 36-year-old woman who was recently diagnosed with HIV and has a CD4 count 82 cells/mm³ presents with a 1 weeks history abdominal cramping and 10-12 loose watery stools per day.
- Stool culture and O &P are both negative

Diarrhea

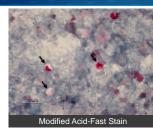
e: CDC

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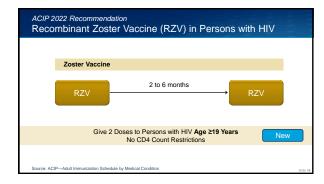
Diagnosis of Cryptosporidiosis

- Not detected with O & P
- Diagnostic Tests
- Modified acid-fast stain - Enteric pathogens PCR
- Immunofluorescence











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CDC /ACIP

- Adult Immunization Schedule by Medical Condition - https://www.cdc.gov/vaccines/schedules/hcp/imz/adult-conditions.html
- HHS: Opportunistic Guidelines
- Immunizations for Preventable Diseases in Adults and Adolescents with HIV
 https://clinicalinfo.hiv.gov/en/guidelines/hiv-clinical-guidelines-adult-and-adolescent-opportunistic-infections/immunizations?view=full

- National HIV Curriculum
 Basic HIV Primary Care: Immunizations in Adults
 https://www.hiv.uw.edu/go/basic-primary-care/immunizations/core-concept/all



Primary Care Guidance for Persons with HIV Recommendation (HIVMA) Screening for Bone Mineral Density in Persons with HIV

• Who?

- All postmenopausal women age ≥50 years - All men age ≥50 years
- What Screening Tool?
- Dual-energy X-ray absorptiometry (DXA)



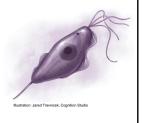
MIDSA hiving



Screening for Trichomoniasis in Person Having Receptive Vaginal Sex

• Why

- High prevalence in persons with HIV
 Reproductive morbidity
- How Wet mount (low sensitivity) - NAAT (highly sensitive)
- What sample for NAAT in Women Vaginal swab Urine



Screening Recommendations for Trichomoniasis

- CDC 2021 STI Treatment Guidelines
 Women: screen at entry to care and at least annually thereafter
 Men: screening not recommended
- HIVMA 2020 Primary Care Guidance
 Perform annually in persons having (receptive) vaginal sex
 Screen Using NAAT

Important Things Missed in Primary Care

- 1. Iatrogenic Cushing's with Booster-Corticosteroid
- 2. Methadone and QTC
- HBV Reactivation and Lack of HBV coverage with 2-drug ART regimens
 KS/ Visceral KS
- 5. Erythematous candidiasis/Preferred Rx Flu
- 6. Cryptococcal meningitis/Opening Pressure
- 7. Cryptosporidiosis
- 8. Screening for vaccines
- 9. Screening for bone mineral density
- 10. Screening for trichomoniasis

