

TOPIC INFO

TOPIC:	PERSONALIZING HIV TREATMENT AND PREVENTION IN 2020
SPEAKER:	RENA PATEL
TITLE:	ASSISTANT PROFESSOR, DIVISION OF ALLERGY AND INFECTIOUS DISEASES
AFFILIATION	UW
TIME:	30 minutes

PRACTICE GAP ANALYSIS: PERSONALIZING HIV TREATMENT AND PREVENTION IN 2020

Describe the problems or gaps in practice this activity will address:

What are you trying to change?

Despite the availability of effective antiretroviral therapy, many cases of HIV infection continue to be diagnosed at advanced stages, as evidenced by low CD4 cell counts. Nationally, the proportion of patients who receive AIDS diagnoses at or within 12 months of their HIV diagnosis in 2010 was 32% (299). Since 2006, CDC has recommended efforts to increase HIV testing by streamlining the consent process and expanding opt-out testing to all health-care settings, including those serving persons at risk for STDs (122). HIV testing facilitates early diagnosis, which reduces the spread of disease, extends life expectancy, and reduces costs of care. However, rates of testing remain low: CDC estimates that in 2008, only 45% of adults aged 18–64 years had ever been tested (300), and that during 2006–2009 approximately 41% of persons with newly diagnosed HIV infection had never been previously tested (301). Comprehensive HIV treatment services are usually not available in facilities focusing primarily on STD treatment (e.g., STD clinics). In such settings, patients with a new diagnosis of HIV infection or those with an existing diagnosis of HIV infection who are not engaged in regular on-going care should be linked promptly to a health-care provider or facility experienced in caring for HIV-infected patients (70). Providers working in STD clinics should be knowledgeable about the treatment options available in their communities, educate HIV-infected persons about their illness, and link these patients to HIV-related care and support services. Provision of care also should include behavioral and psychosocial services, especially for alcohol and drug addiction and for mental health problems.

What is the problem?

The following are specific recommendations that apply to testing for HIV infection.

HIV screening is recommended for all persons who seek evaluation or treatment for STDs. This testing should be performed at the time of STD diagnosis (e.g., early syphilis, gonorrhea, and chlamydia) in populations at high risk for HIV infection.

HIV testing must be voluntary and free from coercion. Patients must not be tested without their knowledge.

Opt-out HIV screening (notifying the patient that an HIV test will be performed, unless the patient declines) is recommended in all health-care settings.

Specific signed consent for HIV testing should not be required. General informed consent for medical care is considered sufficient to encompass informed consent for HIV testing.

Use of Ag/Ab combination tests is encouraged unless persons are unlikely to receive their HIV test results.

Preliminary positive screening tests for HIV infection must be followed by additional testing to definitively establish the diagnosis.

Providers should be alert to the possibility of acute HIV infection and perform an antigen/antibody immunoassay or HIV RNA in conjunction with an antibody test. Persons suspected of recently acquired HIV infection should be referred immediately to an HIV clinical-care provider.

How did you assess and/or measure these issues?

How was the educational need/practice gap for this activity identified? Place an X by each source utilized to identify the need for this activity.

Attach copies of documentation for each source indicated (REQUIRED)

* please make sure when selecting your needs assessment data and references that you highlight applicable components.

Method	Example of required document
Previous participant evaluation data	Copy of tool and summary data
Research/literature review	Abstract(s) or articles
<input checked="" type="checkbox"/> Expert Opinion	Summary
Target audience survey	Copy of tool and summary data
Regulatory body requirements	Requirements summary
Data from public health sources	Abstract, articles, references
Other (describe)	

Describe the needs of learners underlying the gaps in practice:

What are the causes of the gaps in practice? Check all that apply	
<input checked="" type="checkbox"/> Lack of awareness of the problem,	Poor self-efficacy,
<input checked="" type="checkbox"/> Lack of familiarity with the guideline,	Inability to overcome the inertia of previous practice, and
Non-agreement with the recommendations,	Presence of external barriers to perform recommendations
Other	
Why does the gap exist? Check all that apply	
<input checked="" type="checkbox"/> Lack of Knowledge competence	Lack of time to assess or counsel patients
Performance-based.	Cost / Insurance/reimbursement issues
Lack of consensus on professional guidelines	Patient Compliance Issues
Other:	
What do learners need to be able to know or do to be able to address the gaps in practice?	
<p>Explain your CME Objectives here</p> <p>The Knowledge gap can be reduced by</p> <p>Recognize currently recommended options for initial HIV treatment regimens.</p> <p>Recognize currently recommended options for HIV prevention; and</p> <p>Drug-drug interactions and other management considerations for a non-HIV specialist.</p>	

CME OBJECTIVES : PERSONALIZING HIV TREATMENT AND PREVENTION IN 2020

<p>State at least three or more things that participants should be able to do after they participate in this CME activity. Please note these objectives should be measurable, specific, actionable and timely.</p> <p>Upon completion of this activity, attendees should be able to:</p>
1 Recognize currently recommended options for initial HIV treatment regimens.
2 Recognize currently recommended options for HIV prevention; and
3 Drug-drug interactions and other management considerations for a non-HIV specialist.
<p>The ACCME does not want you to use the words - think, understand, know, appreciate, learn, comprehend, be aware of, be familiar with, etc. as they are not measurable.</p> <p>You can use words such as Analyze, Categorize, Classify, Compare, Conclude, Construct, Critique, Define, Demonstrate, Describe, Discuss, Evaluate, Identify, List, Name, Outline, Show</p>

COMPETENCIES: PERSONALIZING HIV TREATMENT AND PREVENTION IN 2020

What ACGME or IOM related competency is associated with this activity? (check all that apply)

<input checked="" type="checkbox"/>	Patient Care	Practice-Based Learning and Improvement	Medical/Clinical Knowledge
	Procedural Skills	Interdisciplinary Teams	Teams and Teamwork
	Communication Skills	Professionalism	Systems-based Practice
	Quality Improvement	Utilization of Informatics	Evidence-based Practice

What is the activity designed to change

<input checked="" type="checkbox"/>	<p>Competence - (knowing how to do something)</p> <p>Selecting this option requires the CME activity being planned provide participants with an opportunity to:</p> <ul style="list-style-type: none"> hear information related to advances or best practice hear examples of application in practice of information presented
	<p>Performance- (actually doing something)</p> <p>Selecting this option requires the CME activity being planned provide participants with an opportunity to:</p> <ul style="list-style-type: none"> practice what they have learned during the CME activity receive feedback about doing what they have learned during the CME activity
	<p>Patient Outcomes- (actually measure change in patients)</p> <p>Selecting this option requires the CME activity track change in patient outcomes:</p> <ul style="list-style-type: none"> provide tangible improvements and data to support overall change to patient outcomes

What potential barriers do you anticipate attendees may encounter when incorporating new objectives into their practice?

<input checked="" type="checkbox"/>	Lack of time to assess or counsel patients	Other – describe:
	Cost	
	No perceived barriers	
	Lack of administrative support/resources	
	reimbursement issues	
	Insurance/	

Describe how will this educational activity address these potential barriers and the strategies used?

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RESULTS: PERSONALIZING HIV TREATMENT AND PREVENTION IN 2020

please describe the results expected (outcomes) for this activity in terms of specific improvements in patient care and/or other work related to the practice of medicine.

	Your description
<input checked="" type="checkbox"/>	Improvements in patient care based on evidence-based treatment
	Reduce Health care costs
	Streamline care of patients

MEASURING YOUR SUCCESS: PERSONALIZING HIV TREATMENT AND PREVENTION IN 2020

Will use pre-and post CME activity questionnaire to measure success.

Please provide 3 questions and answers that will asked to the audience before and after your talk. The answer to these questions should be in your presentation. Please highlight the correct answer and limit your possible answers to a maximum of 4 with only one correct answer. The others can be partially correct or wrong

Question 1. Which of the following is a recommended initial HIV treatment option for most people living with HIV?

	Answers
1	Efavirenz/tenofovir/emtricitabine (EFV/TDF/FTC)
2	Dolutegravir/tenofovir/emtricitabine or dolutegravir/abacavir/lamivudine (DTG/TDF [or TAF]/FTC or DTG/ABC/3TC)
3	Bictegravir/tenofovir/emtricitabine (BIC/TAF/FTC)
	Feedback: Please provide a detail feedback (MOC) requirements for above questions in three groups

1. Efavirenz/tenofovir/emtricitabine (EFV/TDF/FTC): **Wrong Answer.**
Efavirenz-containing ART is no longer recommended for initial HIV treatment by the U.S. DHHS HIV treatment guideline (i.e. Table 6a):
https://files.aidsinfo.nih.gov/contentfiles/lvguidelines/AA_Tables.pdf
2. Dolutegravir or bictegravir in combination with other antiretrovirals (e.g. DTG/TDF [or TAF]/FTC, DTG/ABC/3TC, or BIC/TAF/FTC): **Correct Answer.**
3. No treatment is necessary as a cure for HIV already exists for all persons living with HIV: **Wrong answer,**
as no cure currently exists for all people living with HIV; only a few individuals have achieved undetectable viral copies in the plasma without antiretrovirals, including when undergoing stem cell transplant for the primary malignancy. Reference: Douek 2018 (<https://www.iasusa.org/wp-content/uploads/2018/04/25-4-121.pdf>) and Martin & Siliciano 2016 (<https://www.ncbi.nlm.nih.gov/pubmed/26526767>).

Question 2: Which of the following oral treatments can be used for prevention of HIV, i.e. PrEP, in persons at risk for acquiring HIV?

Answers

- 1 Tenofovir/emtricitabine (TDF [or TAF in limited subpopulations]/FTC)
- 2 Efavirenz/tenofovir/emtricitabine (EFV/TDF/FTC)
- 3 Bictegravir/tenofovir/emtricitabine (BIC/TAF/FTC)
- 4 Male or female condoms

Feedback: Please provide a detail feedback (MOC) requirements for above questions in three groups

1. Tenofovir/emtricitabine (TDF [or TAF in limited subpopulations]/FTC): **Correct Answer**
 - i. Currently, the only oral therapeutics recommended by the U.S. DHHS for prevention of HIV is tenofovir/emtricitabine, with TAF formulations approved by the FDA in transgender women and men who have sex with men:
 - ii. <https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2017.pdf>
 - iii. <https://www.fda.gov/news-events/press-announcements/fda-approves-second-drug-prevent-hiv-infection-part-ongoing-efforts-end-hiv-epidemic>
2. Efavirenz/tenofovir/emtricitabine (EFV/TDF/FTC): **Wrong Answer.**
 - i. are used for treatment for people living with HIV, but not for prevention.
3. Bictegravir/tenofovir/emtricitabine (BIC/TAF/FTC): **Wrong Answer.**
 - i. are used for treatment for people living with HIV, but not for prevention.
4. Male or female condoms): **Wrong Answer.**
 - i. Condoms can be used for prevention of HIV but are not an oral therapeutic

Question 3: Which of the following potential drug-drug interactions may reduce the efficacy of the HIV medication or the other medication?

Answers

- 1 Dolutegravir or bictegravir and polyvalent cation products (e.g. iron or calcium supplements or multivitamins)
- 2 Most boosted protease inhibitors and most statins, anticoagulants (e.g. warfarin or apixaban), or antiplatelet (e.g. clopidogrel), and corticosteroid (including inhaled, intranasal, or injectable) agents
- 3 Efavirenz and certain hormonal contraceptives (e.g. oral pills or subdermal implants)

Feedback:

1. Dolutegravir or bictegravir and polyvalent cation products (e.g. iron or calcium supplements or multivitamins): **Wrong Answer.**
Dolutegravir or bictegravir in combination with polyvalent cation products (e.g. iron or calcium supplements or multivitamins) can cause decreased absorption of the antiretroviral. According to the U.S. DHHS HIV treatment guidelines, starting at Table 21a to 21d, the above drug-drug interactions are noted. They are also some of the most common drug-drug interactions encountered clinically when co-managing HIV patients with other specialists.
https://files.aidsinfo.nih.gov/contentfiles/lvguidelines/AA_Tables.pdf
2. Most boosted protease inhibitors and most statins, anticoagulants (e.g. warfarin or apixaban), or antiplatelet (e.g. clopidogrel), and corticosteroid (including inhaled, intranasal, or injectable) agents. **Correct Answer.**

Most boosted protease inhibitors have many drug-drug interactions with common other therapeutics, including those listed above. According to the U.S. DHHS HIV treatment guidelines, starting at Table 21a to 21d, the above drug-drug interactions are noted. They are also some of the most common drug-drug interactions encountered clinically when co-managing HIV patients with other specialists.

https://files.aidsinfo.nih.gov/contentfiles/lvguidelines/AA_Tables.pdf

3. Efavirenz and all hormonal contraceptives (e.g. oral pills, injectables, or subdermal implants). **Wrong Answer:** Efavirenz and only certain hormonal contraceptives (e.g. oral pills and subdermal implants) have drug-drug interactions reducing the hormonal contraceptive efficacy. According to the U.S. DHHS HIV treatment guidelines, starting at Table 21a to 21d, the above drug-drug interactions are noted. They are also some of the most common drug-drug interactions encountered clinically when co-managing HIV patients with other specialists.

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