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HIV Prevention: Current Tools in the Toolbox

- Abstinence
- Safe Sex Practice
 - Barrier Methods
- Treatment as Prevention
 - One HIV positive partner on treatment to prevent transmission to a HIV negative partner
- Post-Exposure Prophylaxis
 - Tenofovir-emtricitabine plus dolutegravir or raltegravir x 4 weeks
- Pre-Exposure Prophylaxis
 - Truvada® (Tenofovir–emtricitabine)
 - Descovy ® (Tenofovir-alafenamide-emtricitabine)

So what is PrEP?

- 1 pill once a day to prevent the transmission of HIV
 - Truvada[®]
 - Descovy[®]
- FDA Approved for use as PrEP >18yo in 2012
 - <18yo since 2018</p>
- PrEP is Effective
 - iPrEX Trial (2010): 73% efficacy (N=2499 MSM)
 - Partners PrEP Trial (2011): 62% effective in F, 83% effective in M (N = 4759 hetero M-F couples)
 - Bangkok Tenofovir Study (2013): 49-70% reduction in acquisition of HIV (N = 2413 injection drug users)
 - Kaiser Permanente Study (2015): 657 PrEP users (mostly MSM)
 - 30% diagnosed with an STI at 6 months
 - 50% diagnosed with an STI at 12 months
 - NO NEW HIV INFECTIONS!!



Men who have sex with men (MSM)	Heterosexual women and men	Injection Drug Users (IDU)
HIV+ sex partner	HIV+ sex partner	HIV+ injecting partners
Recent bacterial STI	Recent bacterial STI	Sharing injection equipment or needles
Multiple sex partners	Multiple sex partners	Risk of sexual acquisition (see columns on left)
Inconsistent condom use	Inconsistent condom use (with MSM, IDU, high risk partners)	
Commercial sex worker	Commercial sex worker	

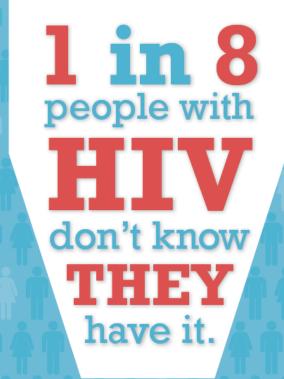
Additional high risk individuals: • Transgender individuals

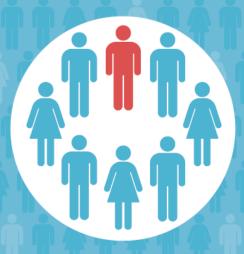
- Individuals using stimulant drugs

CDC HIV PrEP Clinical Practice Guidelines, 2014 www.cdc.gov/hiv/pdf/prepguidelines2014.pdf

So what's the catch?

- MSM on PrEP vs not on PrEP
 - 25X more likely to contract GC
 - 11X more likely to contract CT
 - 45X more likely to contract Syphilis
- Side Effects of taking a daily medication
 - G
 - Headache/Dizziness
 - Truvada:
 - decreased bone density over time, potential renal toxicity (<4%),
 - Preg Category B
- Cost
 - ~\$1,540 a month
- Strings Attached
 - Actually....not really a bad thing





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Let's Talk About those Strings

- Requirement for HIV testing at least every 3 months
 - Along with other STI testing at the discretion of the provider, based on accepted guidelines
- Need for baseline lab testing prior to initiation with periodic monitoring
 - HIV test
 - BMP
 - Hepatitis Serology (particularly Hep B)
 - STI testing (GC/CT/RPR, 3 site if possible/appropriate)
 - UPT
- Face to face encounters with providers for counseling
 - Condom Use
 - Harm Reduction
 - Promotion of Adherence
 - Assess for other risky behavior (you know, the drugs and rock & roll part)



- Data is insufficient compared to adult data
- Must be evaluated in context to local laws and regulations regarding minor consent
- Adherence to taking a daily medication
- Stigma
- Cost
- Lack of perceived risk among adolescents

So who should prescribe PrEP?

- Primary Care Docs? (Pediatricians, FM, IM, OB-GYN, Med-Peds)
 - More access to patients who would potentially benefit
 - But, less likely to have confidence in knowledge regarding use and monitoring
 - Also, more of a time crunch in seeing patients, in regards to screening questions
- Subspecialists? (Adolescent Med, ID)
 - Not as much access to the general population
 - But, more training in the use of PrEP and expected course and monitoring
 - Also, more time to complete screening questions during most visits

Time	Assessment	Labs	Counseling	Rx
Initial Visit	Indications/contraindications of use Readiness for daily medication Baseline risky behavior	HIV/RPR/GC/CT BMP Hep A/B/C U/A +/- Urine hCG +/-	Risk reduction Safe Sex Practice STI surveillance Expected Side effects Management/Monitoring	30 day supply (or 30d + 2 refills)
1 Month Visit	Side Effects Change in risky behavior	BMP (if borderline at baseline or r/o kidney disease) Urine hCG +/-	Risk reduction Safe Sex Practice STI surveillance Management/Monitoring	6o day supply (or none)
3 Month Visit	STI symptoms	HIV Urine hCG +/-	Risk reduction Safe Sex Practice STI surveillance Management/Monitoring	90 day supply

Time	Assessment	Labs	Counseling	Rx
6 Month Visit	STI symptoms	HIV/RPR/GC/CT Urine hCG +/- BMP +/-	Risk reduction Safe Sex Practice STI surveillance Expected Side effects Management/Monitoring	90-day supply
9 Month Visit	STI symptoms	HIV Urine hCG +/-	Risk reduction Safe Sex Practice STI surveillance Management/Monitoring	90-day supply
12 Month Visit	STI symptoms	HIV/RPR/GC/CT HCV (MSM, IDU, Mult Part) U/A BMP +/- Urine hCG +/-	Risk reduction Safe Sex Practice STI surveillance Management/Monitoring	90-day supply

