Diagnosing, Treating and Preventing HIV for AYA - Pediatric Grand Rounds-9-19-25-Meeting Recording

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59m 56s

Kamat, Deepak M started transcription

EM **Eric McGrath** 0:04

Hello.

Kamat, Deepak M 1:08

Getting it periodically and it does work. I I did try this morning and the first thing I tried was the CME code and it worked for me in first attempt. It's my great pleasure to introduce today's grand round speakers. This first speaker is Doctor Laura Benjamins.

Who is a professor of adolescent medicine at Wayne State University School of Medicine, where she also received her medical degree. She completed her residency in pediatrics at Baylor College of Medicine and Primary Care and Adolescent.

Yeah.

Medicine Fellowship at McGovern Medical School at the University of Texas Health Science Center at Houston. She also received her MPH at the same university. For 10 years, she served as medical director for Harris County Juvenile.

Probation and was director of the.

Academy Academy of HIV Medicine and currently works with Horizons. Sorry I missing line here. Juvenile provision and was director of.

MD PhD program at the UT Houston before moving back to Michigan into 2021. She's is credential as an HIV specialist through the American.

Academy of HIV Medicine currently works with the Horizon Project Ryan White funded clinic that.

That provides care to children, teens and adolescents, young adults living with and exposed to HIV. Her research interests include sexually transmitted infections and HIV as well as program that so.

Youth involved in juvenile justice system. My phone is not working properly. Anyway, I'm I'm trying to introduce Doctor Eric Magrath, who is A. professor of pediatrics in Department of Pediatrics at Wayne State University's School of Medicine.

In Detroit, he attended Wayne State University School of Medicine for his medical duty. After completing his Pediatric residency and Pediatric infectious disease fellowship at the Children's Hospital in Michigan, he joined Wayne State faculty in the Department of Pediatrics in 2010. He served in division.

Eric McGrath 3:18
2.

Kamat, Deepak M 3:32
Infectious Diseases at Children's Hospital Michigan through 2020, but left Children's Hospital in the same year to help found Wayne Pediatrics, the Wayne State University designated clinical Service - group for Pediatric crave currently as A. Pediatric infectious disease and prevention specialist.
For veins Paediatrics, he serves as the medical director for Ryan White HRSA funded Horizon Project Clinics, taking care of infants, children and young girls exposed or living with HIV, along with sexually assault survivors in the same age group. His research interests.
Funding and publications have been related to HIV treatment and prevention, along with vaccine studies, clinical trials, paediatric epidemiology and infectious control.
Doctor Benjamins and Dr. Magrath, thank you very much for joining us this morning. We're looking forward to your presentation.

Laura Benjamins 4:29
Thank you so much for having us.

Eric McGrath 4:29
Thank you.

Laura Benjamins 4:34
So we're going to be taking turns giving this talk. I have the first part of the talk and then Doctor McGrath will have the second part. We really appreciate this opportunity to be here this morning. This is something that we feel very passionately about. So we're really excited to be able to share this information with you. So thank you.
Eric, if you can go to the next slide.
We have no commercial financial disclosures. We do want to let you know that

mostly we'll be using generic names. However, we will be including some commercial names for familiarity.
So as I mentioned, the first part of the talk, I'll be going over some cases of some patients that we've recently diagnosed with HIV. Couple of the cases were actually from Houston, TX as well. Through the discussion of these cases, we Hope, to inform you about what the different HIV tests are.
Including time to positivity and how that may influence whether or not you make the diagnosis of acute HIV or HIV disease, as well as review the current guidelines for testing.
And then Doctor McGrath will be taking over the second part and the objectives for that will be to review some of the current viral separation rates that we're seeing not only nationwide, but also in our own clinic, the Horizons project. And he'll also be reviewing current guidelines for pre-exposure prophylaxis as well as post-exposure prophylaxis.

EM **Eric McGrath** 5:50
Yes.
5.

LB **Laura Benjamins** 6:09
So I'm starting with A. case. This is actually A. patient that presented when I was in Houston. At the time when I was on the faculty there at McGovern Medical School, I had to cover the Pediatric inpatient Service - at one of the major hospitals in the Medical Center there several times throughout the year. And this was A. person that presented.
One weekend when I was on call. When I was on call, I also had to take transfer call, which many of you are probably familiar with. If A. patient needed to be transferred from an outside hospital, it had to go through me and there was usually the resident on call on the phone with me at that time as well.
So I still very vividly remember this. I was on call. It was Friday night, was late in the evening and my pager goes off and this is the main information that I got at that time. This is A. 17 year old previously healthy male who presented to an outside facility. He had malaise and diffuse rash.
On exam meals I had diffused generalized lymphatic.
And leukopenia. And that's pretty much all I knew about him at that time. But there

was something that I just had this gut feeling that he could potentially have acute HIV. Kind of my my spivey senses went up and I told the resident on call, please order an HIV test on this patient, even though we didn't know anything about his risk factors.
Didn't know anything else about him. I just had this gut feeling, as I've mentioned. And she said, Oh yeah, yeah, we ordered A. fourth generation HIV test. And I said no, no, please get A. viral load as well. And I'll explain in A. minute why.
You can go to the next slide. Thank you. So we treated him for his acute rhabdo. Initially, he denied any what would be considered high-risk behaviors. He told us that he had had two lifetime partners. Both were females. He used condoms consistently, denied any IV drugs use.
We tested them for gonorrhea, chlamydia, hepatitis, syphilis. All of these tests were negative.
And then you can see here that our initial screening test came back repeatedly borderline. However, what was labeled as the confirmatory test for HIV antibodies came back negative. So does anybody want to volunteer what they think is going on in this situation?
You could either put it in the chat or if you want to unmute, what do you think is the explanation for these lab results?
Eric can go ahead and go to the next slide. It's OK.
So.
When we got his viral load back, you can see here it was Greater than 10 million. I also very vividly remember talking to the attending who was taking over Monday morning, giving sign out to her Sunday night saying here are the lab results. It was before we got the viral load and she said she was going to cancel it. She was not going to.
She said, you know, we have the 4th generation. I think it was A. false positive because our confirmatory test said the antibody was negative and I told her please do not cancel the viral load. And luckily she didn't because he had acute HIV and I'll explain in A. minute the timing to positivity for various tests and what this means. But he very clearly was not negative. He had Greater than 10 million copies.
So in terms of the different tests that we're currently using, the 4th generation is usually what we're using for screening. After A. person is infected with HIV, the first thing that will go up is the viral load, and that's usually detectable in the blood somewhere between 10 and 30 days after infection.

However, we're not usually using that test when we're screening. The test that we're currently using, the 4th generation, incorporates both the P24 antigen, which actually presents A. little bit earlier than the antibodies do for HIV. So after somebody is infected, the P24 antigen is usually detectable about 18.
To 45 days after infection, whereas antibodies may not present anywhere from 20 to 90 days, so it may be up to three months after A. person is infected that they actually have detectable antibodies.
The problem with the 4th generation test is that it doesn't tell you which component of this is positive. If you get A. positive test, it could be either because of the P24 antigen or because of the antibodies. Eric, if you could go to the next slide please.
So the current testing algorithm, what is recommended is if you have A. positive or an indeterminate 4th generation HIV test, the next step is then to do the antibody differentiation. And if that's positive, we usually then go get A. viral load as well just to get A. sense of where.
The person is with their disease process. However, if this 4th generation, if the antibody test is negative, the next step is also to get a viral load because they might be in that window where they've not yet developed the antibodies, but they do have the acute infection.
So I think what's a little bit confusing about this is that, as in the case with the attending that I was checking out to, if you don't understand what the different tests are, the different components, or the time to positivity, you might falsely assume that a person is not infected.
So just like the patient that I just presented, the 4th generation was borderline. He had not yet developed the antibodies, yet probably the 4th generation was borderline because of that P24 antigen starting to become detectable. But clearly he was in that acute phase with a very elevated virus.
And I partly feel like we maybe should even just bypass that antibody step, just because if you have a positive 4th generation and they don't have the antibodies yet, you're going to be getting a viral load. If they do have antibodies, you're probably going to be getting a viral load.
Anyway, and really important to kind of understand that time into positivity and what these different test results mean. Otherwise you might be missing a diagnosis, which could have easily happened in this case. All right, Eric.
So the next case is a young man that I met here in Detroit. I actually met him several years ago now. So this is a little bit of an older case, but he was 19 when I met him.

And because of his risk factors, I recommended that he started on pre-exposure prophylaxis with emtracitabine and tinosis.
And every time I would see him, I would go over his risk factors, talk to him about this, talk about the importance of starting on it, because he probably has a one in three lifetime risk of acquiring HIV based on his risk factors. You can see here he's had multiple sexually transmitted infections, numerous lifetime partners.
It's not always protected, and for about a year he kind of went back and forth about whether he would start on it or not. But sometimes say I'm going to be changing my lifestyle. I'm not going to be doing these activities anymore, but never ended up starting starting to take the medication.
I saw him. This is now about three years ago. In October, he had a positive chlamydia test in his urine, and his fourth generation HIV test was negative. He swore up and down to me that he had not had sex for at least a few months, and so I felt. Comfortable, although not confident, that hopefully this negative 4th generation test was accurate. All of his other STI's were negative.
So shortly after I saw him, a couple of weeks later, he started feeling sick. He had fever, headache, stomach ache, vomiting, diarrhea, kept passing out. He was dehydrated. Tonight had any cough or congestion, though, although he did report also a sore throat.
He went to an emergency room in our Medical Center here in Detroit, and his vital signs were actually stable when he first went, so they released him without much of A workup. He continued to not feel well, so he went to another Uh and waited for about 5 hours. After not being seen, he decided to leave, but continued to pass out. So his.
Grandmother who was really worried about him, took him, took him to a third Uh. At that Uh, they gave him some Zofran, some IV fluids. He was feeling better. They said, oh, this is probably a viral illness. They did do a little bit more of a workup, including, you know, an EKG and a chest X-ray in addition to flu, COVID and RSV tests that were all negative.
Labs at that time were remarkable for some thrombocytopenia and the lymphocytes. He was also quite dehydrated.
One thing I do want to note is that at all three facilities, nobody obtained a sexual history. Nobody did an HIV test at any of these three locations.
So I saw him a couple days later for an Uh follow-up and his throat was continuing to feel quite bad. It was getting worse and he did have significant erythema and

exudate on his tonsils and the posterior oropharynx and his rapid strep test was positive.
So we treated him with penicillin. There was some concern of a peritonsillar abscess starting to form. So we also initiated Augmentin. But because I knew him and I knew his history, I was still concerned, even though I had this positive strep test, that he could still have acute HIV.
And unfortunately, you can see from the labs here, his fourth Gen. was reactive, his antibodies were indeterminate. So he was probably still in that window where he had not yet developed antibodies, or at least not fully, and his viral load was greater than 3,000,000 copies.
We don't always see a low CD4 count at the beginning of an infection, but sometimes with acute HIV you can see a low CD4 count. We actually had a CD4 on him prior to this that was within normal limits and so this is probably representative of of his acute infection.
And the reason I point him out is that again, three different facilities, nobody tested him for HIV. He had another diagnosis that potentially could have explained his symptoms. However, because I knew him in his history, I also did this additional testing for HIV and this is another.
Situation where he probably could have very easily been missed if that hadn't been done. We were able to bring him back into the clinic a couple days later. We started him immediately on bictegravir, emtricitabine and tenofovir, alphenamide within about a month or so he was virally suppressed. We continue to see him in our clinic and he's now on one of the injured.
Detectable antiretrovirals that Doctor McGrath is going to be talking about and he remains undetectable to this day. So luckily we were able to not only diagnose him, but get him started very quickly on treatment.
So this third case is a young man that we met in the past year here in Detroit. He was 13 when we met him. Mom reported him that reported that he had started losing weight in June of 2024, so a little over a year ago. He was seen in the emergency room near his home.
Around that time for vomiting, he was treated and sent home. In July, he noticed a left axillary lymph node and told his mom about it. They had set up an appointment with his primary care doctor, but unfortunately they missed that appointment. He continued to lose weight, lose hair, his lymphadenopathy.
Worsened and then several months later he actually noticed a rash on his rash as well

as a sore on his penis and was finally seen in clinic in September. And luckily that physician did test for HIV as well as syphilis and unfortunately this young man was positive for both, so you can see.
His viral load was over 1,000,000 copies and his RPR was elevated as well. Now unclear exactly how I presented back in June. Unfortunately he missed that appointment with his doctor, but given his age, I think a lot of people would have been hesitant to test him for HID as well, despite the fact that he had.

Margaret R Farrell, MD 18:42
Excuse.

Laura Benjamins 18:48
Very clear signs of it. So again, just emphasizing how important it is to keep that differential in your mind. All right, Eric.
So this map just shows you, this is the most current data that we have from 2023 and it's estimated in the United States that there are over 39,000 new HIV diagnoses during that time. And you can see that the higher prevalence rates consistently tend to be in the southern region.
Of the United States.
If you can, Yep. Thank you. So among those 39,000 new diagnoses, youth ages 13 to 24 account for about one in seven new diagnoses, at least in 2023. This number is actually down from previous years, so up until about 2023.

Margaret R Farrell, MD 19:26
Yeah.

Laura Benjamins 19:42
This age group accounted for about one in five new diagnoses. So this is really good news that that rate has gone down in this age group. However, the age group that's right above that 25 to 35 age range has actually gone up in the most recent years.
As I mentioned, for particular patients with certain demographics and risk factors, lifetime risks can be up to one in three, which is quite high and is why I really implored that first, that second patient that we were talking about to please start on the the pre-exposure prophylaxis.
Access just because I knew the lifetime risk was so high for him. About 60% of youth

with HIV do not know that they are positive, and this age group is the least likely out of any age group to be linked to care.
You can go to the next slide. Thank you. So we often talk about the HIV continuum of care and what this represents is out of all of those known to be infected, how many patients are then linked to care, engaged and retain started on antiretrovirals and have viral suppression.
And this is a study from 2020. Luckily, the rates are a little bit better since that time, but the trends are still persisting in that teens and young adults are still much lower among each of these columns than we really need them to be.
So just to give you an idea, in order to get anywhere close to ending the HIV epidemic, we really need these numbers to be in the high 90s, so 90% for each column. And this was looking at 13 different urban cities throughout the United States, HIV care centers, particularly teens and young adults.
And you can see along this continuum, the numbers are really very, very low and far below what we need them to be to get anywhere close to ending an epidemic.
So what are some of the current testing recommendations? Because the first step in that continuum is identifying that somebody is positive. Well, the AAP came out with a statement in 2011 recommending that between ages 11 and 21, all sexually active patients should be screened for STI's now.
Talk in a minute about why that may be difficult to ascertain whether a patient is truly is sexually active or not. They said that routine HIV screening should be offered at least once by 16 to 18, but only in areas where the prevalence of HIV is above a certain threshold.
Both Detroit and Houston, not sure about San Antonio, but I know at least for a practice in Houston, we definitely were above that threshold in our cities. In lower prevalence areas, they recommend testing only those with risk factors and to test quote UN quote high risk youth annually. They also recommend testing in urgent care facilities.
Emergency rooms and it should be routine and not require a separate consent. If you could please go to the next slide, but how do we decide who's at risk? I think that's where it gets really tricky and I'll talk in a minute about why I advocate for non risk based testing.
So when I was in Houston, I worked with Susan Totalero at the School of Public Health, and she did this study among 7th graders in Houston, about 1300, and found that nearly 7% of 7th graders had reported ever being forced to have sex.

And this is something that they may not be ready to disclose to you when you're meeting them, especially if it's in an urgent care setting where they have no established rapport with the people that are seeing them. Looking at the Youth Risk Behavior Surveillance Survey from 2019, unfortunately, they don't ask.
The.
Same questions anymore, but at least from 2019 you can see that among 9th to 12th graders or high school students, nearly half of them had had sexual intercourse, 3% before the age of 13, 9% or nearly ten of them, one out of 10, had four or more lifetime partners, and more than half had not used a condom during the last sexual intercourse.
So I would argue that probably most teens are at risk. Another thing I just want to highlight is that another study by Di Clemente in 2011. This is a study where they interviewed over 14,000 teens and simultaneously collected urine samples for testing. For gonorrhea and chlamydia, among the teens who said I have not had any sex in the 12 months prior to this survey, 10% of them ended up testing positive for an STI. So just to kind of highlight that we can't always trust our.
History taking from a teen, and there are a variety of reasons for that. They may not feel comfortable disclosing it. They may be afraid to disclose it. There's multiple factors, but just to know that when you're getting a sexual history from a teenager, to take it with a grain of salt.
So the CDC recommends testing starting at age 13 and not risk based and so this is what I usually practice. If it is a person that has known risk factors then they do recommend testing them at least annually. This should be opt out screening without a separate consent and most hospitals now.
Have as part of their generalized consent form, a statement saying that you are likely to be tested or you may be tested for communicable diseases including HIV. So there's no longer that requirement for a separate consent form. You should have a discussion with your patient about testing. It's not something I feel you should do behind their back, but it should be a lot easier.
than it used to be.
So you can go to the next slide after this. When I was in Houston, we wanted to look at how are we doing as clinicians in terms of following these recommendations. So the CDC came out with their recommendations in 2006 recommending non risk based screening started at age 13. AEP came.
Out with their recommendations in 2011 saying screen at least once between 16 and

18 and the United States Preventive Task Force came out in 2013 saying that you should screen starting around 15. So again, we have all these different recommendations that are a little bit different from each other, but we did want to see did the.
Release of these recommendations have any impact on our testing practices. So the Youth Risk Behavior Surveillance Survey in 2015, those youth in high school recommended about only 10% of the time or only 10% of them reported ever being tested for HIV.
This actually went down in the next survey to 9% in 2019. In our clinics, we did a cart review looking at 1200 patients. We looked at 2010 versus 2015 to see, you know, did the screening practice change because of these guidelines we looked at both pediatric.
Pediatric and adolescent clinics and found our overall testing rate to be consistent with what the teens were reporting of about 10% can go to the next slide. When we looked at Pediatric versus our adolescent clinics, we did see a big difference as well in that unfortunately the testing rates among the general Pediatric.
Pediatricians did go down during that time frame, despite these recommendations, although it did go up in the adolescent clinic, still not where it needs to be.
And our rationale for routine non risk based screening is that we know doing that has been successful in other scenarios. HIV is a serious health condition that can be detected by reliable and inexpensive testing. A fourth generation test is is probably like 10 to $15. It's really not that expensive.
It often persons living with HIV will often visit multiple healthcare settings years before their diagnosis. And I think some of our cases kind of highlighted that. And we know that prevention strategies that incorporate universal HIV testing have been highly effective. So if you think about blood donation.
We no longer see people acquiring HIV through a blood transfusion because we screen all donated blood. We don't screen blood based on risk factors. We also have seen a tremendous decrease in maternal to child transmission of HIV because of routine testing of all pregnant women. We don't do that based on risk.
We test or the recommendation is to do first and 3rd trimester testing of all pregnant people and because of that we have seen and in addition to other measures that are taken, we've seen a tremendous decrease in the transmission from mother to child, but again because it's universal and not risk based and that's why I.

Really advocate for doing the same thing for our teens and young adults.
All right, next slide. And I believe this is where Eric takes over.

Eric McGrath 28:47

Yeah, thank you so much. So in the case where the the patients come to us with a new diagnosis and and we basically confirmed it one way or the other either through doing additional testing or we already.
Have the testing. We begin antiretroviral therapy right away nowadays and and this was kind of a surprise for me when I first was in training and all there was a time as some of you may remember when we didn't start a RT right away and I think some of that had to do with the tolerability.
Of the medications that were available at the time. But now it's not only that we treat the patients, you know, that are diagnosed, but also that we think about it a little bit differently too, that in a concept of starting the ART.
Early and having the patient get to an undetectable status with their viral load also works as a prevention mechanism in a sense for a public health from a public health standpoint. So optimally we will diagnose early and start the ART.
Very quickly.
In even this week, I had a new diagnosis come in and we did what we like to call.
Rapid start now and for those of you that are unfamiliar, basically a concept is that you keep hopefully some some ART in your office, one of the maybe the recommended guidelines starting options which I'll go through quickly.
And once you have had the patient sort of history get obtained and and you've had the testing, if they come to you and they've already had the positive tests, you can start the medication literally.
While they're in the clinic with you and you can even watch them sometimes take the first dose and make sure they tolerate it OK as far as their ability to swallow the pill and all. But we know that by starting it quickly, we can increase the uptake and adherence overall.
Decrease time to linkage to care because they're basically already in your clinic. In most cases now with the current integrase inhibitors, we've seen a very short time to viral suppression in those who are able to take it every day and so.
We think that that's helping to decrease the overall risk of transmission. So this is the treatment as prevention and and in in this day and age undetectable equals untransmittable. So that is pretty well defined among the.

Population that we take care of and we try to get the the patients to undetectable as soon as we can for a variety of reasons, but certainly with the public health concept of not transmitting the infection and one of those national programs that was started several years ago.
Was a funding line called EHE or Ending the HIV Epidemic and it identified areas in the country and this really sort of overlays upon the map that Doctor Benjamin showed earlier. And so it targeted with extra funding and support those areas in the country with highest the highest incident rate.
And I'm just going to take you to Detroit, because Detroit was actually on the, although it wasn't the whole state in a sense with the program, it was targeted to Detroit and Wayne County with a higher incidence overall.
But I mean not necessarily higher than some of the surrounding areas on the map, but just in general for our whole state, it was identified as an increased incidence zone and if you look at the national viral suppression, which is one of our.
Targets in the in the Ryan White funded Clinic Horizons project. One of our targets is to improve viral suppression and you can see like at these relatively recent data pulled I think from the MDHHS reports.
And from national data.
On hiv.gov and other ones, nationally we're at about 65% in Wayne County. So closer to home here, that's the county that Detroit is in. We're at 67%, but locally even in our.
Relatively somewhat. Some people would consider the patients in our age range difficult to treat. In the pediatric realm, we've been able to achieve 100% viral load suppression in our clinics.
Which varies sometimes just based on the way they calculate it and if we get a new patient, but in the horizons, which is actually the subpopulation, that's the young adults and includes adolescents as well, we've been able to.
Relatively stably get above 90% and so we're proud of that, but I think it has to do with the the program that we have. It's a it's a very supportive program and the Ryan Way funding allows us to have some extra support.
Navigators, advocates and social workers, psychologists that really support those patients. You probably know that when the patients are initially diagnosed, we we obtain this sort of battery of initial testing. One of the things to keep in mind is that. Some of the antiretrovirals that we're starting, they work so fast and and they're pretty well tolerated in general these days. So we usually even though there was

some guidance in a sense to to not do genotype resistance testing.
We've gone ahead and done that because we may never have the patient have another detectable viral load after starting. So we have been doing that in a sense and we did find interestingly some of our newer diagnosed patients have.
Some baseline resistance and we think that may be from some of the transmission patterns and networks in our area, but we get a CD 4 count viral load genotype. We usually get the hepatitis B serologies.
Kind of baseline CBCCMP lipid profile, either A1C or fasting glucose urinalysis and a pregnancy test if it's appropriate. And I don't want to dwell on these because.
You know, they're relatively nuanced toward those who take care of patients with HIV. But you know, for patients who have never been on any other medication, you can use the bictegravir TAF FTC, which is a fixed dose triple combo once a day pill. It's pretty well.
Tolerated in pregnancy. Sometimes it's recommended to start Dalutegavir with either Truvada or Descovy, which is a combination of of one of these tenofovir versions and then.
Um, the other Uh drug as well. And then there's Uh-1 new medication, Uh Dietegavir 3TC, which I have not used much, but um, it's the two drug combo that's still by mouth.
And it's fixed dose once a day and that's also available and FDA approved for once a day dosing for other patients who've maybe been on a CAB long acting injectable as Aprotude, which I'll talk about.
There's a different recommendation for those to start in case there may have been some resistance that developed overtime.
Which again brings me to prep. So I've always considered my job in a way to work, you know, to treat infection, but also to prevent infection and one of those, those developing and emerging ways to do it.
In in an emphasis to end the HIV epidemic is to employ PrEP, which is again pre-exposure prophylaxis. So my take on this is pretty much anybody who wants it should at least be evaluated to see if.
It's a good fit for them, but there's other risk factors which I'll show you and this slide really hasn't been updated. Just to add, the newest one we have now is called lenocaprevir, which made news in June.
When it got approved, I have a slide on that, but either we have the two pills, either Truvada or Descovy and then Apritud, which is a a long-acting dose of cabotegravir

which can be given and it works to prevent HIV without taking a daily pill.
And then again, this is the June 2025 FDA approval for the long-acting lenacapravir injections. This they they call this one yes to go like almost like yes to go. But basically for adults and adolescents who are over 77 lbs, this can be given as a long-acting injection.
It's a sub Q injection and it it lasts for six months basically with a with a very a few oral doses recommended. So this I think is probably a really essential tool.
And helping to end the epidemic without spending too much time on it. We know that it's, you know, targeted for some groups in a sense that might have a higher incidence of HIV.
But it does require follow up and even if we want to prescribe it, you know the conditions have to be right. In a sense the patient has to be willing and accepting to take it, which in the case of the non-injectables means again a daily pill that they're taking to prevent something and I think some of our young.
Patients, as Doctor Benjamin's mentioned, have a little bit of a hard time with it. I don't know if it's theoretical or more emotional, but for some reason the oral pills, they just they're they're forgotten about sometimes. We just see that sometimes and we do see that.
There is a bit of a, you know, with the goal of having everyone like 50%, we're not able to get all those who might need prep or or want prep the prep they.
Need and the coverage is not equal either. So the the the easiest way sort of is if somebody comes to the clinic and asks for prep as long as they have some form of insurance, at least in Michigan State insurance covers this.
And we we can offer it. If you look at these sort of algorithms or flow charts, it's a risk based indication. But again, all of them end with this idea that even in those who don't meet a risk factor, you can discuss PrEP and prescribe it.
If the patient really wants it, other risk factors are discordant HIV partners where the partner may be diagnosed, but the other patient or your patient may be negative at this time and then if they've had a series of multiple partners.
A multiple STI's, et cetera. And also injection drug use is a risk factor, especially if they're sharing equipment. So these injectables for prep with the with the two that we are using the most are.
Apritude probably and I've been trying to talk up yes ago. I think apritude once you take the initial dose and the the dose in a month after that it's every two months um and so.

If you can handle the injection, you know it's good at preventing HIV in cisgender women and cisgender men and transgender women who have sex with men. So this, you know, is a is a relatively high incidence group.
So they're appropriate for this and then yes to go again is the long-acting injectable just approved like I mentioned. But there has been some report of the like nodules that form at the injection sites even because it is subcue, not intramuscular like the aperitude. So we've had some hesitation.
by some of the clients and kind of not looking forward to that and kind of thinking maybe Afrotuita is right for them or the long-acting cabotegravir. This was the New England Journal paper earlier from, what was it last year, I think, yeah, 2024, that just showed that basically in the
Study that was done. There were zero participants that acquired HIV in the long acting lenacapavir injection group for PrEP and but there were actually some breakthrough cases, I think 39 in.
One of the oral groups and 16 in the other oral groups. So it showed, you know, at least in this case, to be wildly effective at prevention.
Now flipping gears a little bit, post exposure prophylaxis is is the opposite in a sense. The patient would would not be known to be, for instance, at high risk, but in the case of a sexual assault, which we also care for at Horizons.
We like to recommend post exposure prophylaxis optimally within 4 hours after exposure, but certainly within three days and then after three days or 72 hours, it's sort of case by case, but we we keep our phone numbers available and widely circulated to be able to.
You know, do phone consult for this as needed and we usually give the treatment for 28 days. One of the problems is, and I'll get to it, is the tolerability of some of the other medications that are given post sexual assault.
And the ability for the patients to actually take these multi medication regimens. So for substantial risk for HIV acquisition, it would of course be sexual assault or other exposures that would involve.
You know, blood, semen, vaginal, rectal secretions, potentially breast milk or other body fluids. Negligible ones would be if there were just a urine, saliva, sweat, tears or nasal secretion. So we would, you know.
Discuss those with the our referral center is usually what's called Avalon and they're the sexual assault, more or less the forensic exam group that refers a lot of the patients to our group for the actual testing for the STIs and the blood tests.

And the serial testing that's needed, along with making sure that they're tolerating the PEP. OK, so each one of these cases really needs a baseline testing about every three months, at least in the case of PrEP. And in the case of PEP, it should be done right away.
As a baseline along with the other STI workups, most of the patients that we've taken care of have been to the Uh and so a lot of this is done in the Uh setting in the post exposure patients. But if the patients are seeking PrEP, we may be doing this.
Sometimes the rapid test is done in our clinic setting as well. It takes about 20 minutes and then on each visit subsequently for PrEP, we have to make sure the patient didn't acquire HIV in the intercurrent time period because.
Remember that PrEP is not full treatment and so if they actually acquire HIV, they need a full regimen. Now in the PEP standpoint, the the testing is at baseline, usually one month, three months and six months.
And those patients have to come back on that sort of, you know, schedule.
Again, one of the issues that we come, we hear about a lot, including this week, I heard of a patient who couldn't tolerate her HIV prophylaxis after a sexual assault because basically she was taking the Truvada, which is once a day, but the Icentris, which is twice a day.
And along with that, she was recommended to take her metronidazole for the risk of possible either Trichomonas or BV. And then she had also been given a doxycycline and that, you know, doxycycline alone can cause stomach upset.
Indigestion, reflux, vomiting. So when you Add all four of these together, in some cases it's just too much. And a lot of times the patients just can't tolerate that many medications. And so we always want them to call us and, you know, kind of discuss what's happening.
And see if we can prioritize maybe one or, you know, our two PEP medications and and then get the serial testing done, including the testing for the STI's like gonorrhea and chlamydia, because sometimes we could use an alternate regimen.
That might be faster.
I think these patients are really importantly need to be called within a few days after starting them on medications to make sure that they're tolerating these multi medication regimens and see if they need counseling or other support services.
Along with a lot of these patients in the post exposure group from sexual assault may need to talk to a specialist in forensic interviewing, which is another one of our affiliated clinics, Kids Talk with Deena Nazar.

Who does those evaluations? So we work with them and there's in our area here and you may have this locally too. We have a lot of clinics that are associated with Wayne State, but there's other ones like Cork town and prevention groups and the STI clinic, so.
At least locally here, we have a variety of places where patients can go for testing and follow up. In general, we take care of patients based on the different age groups, so we generally take anyone under 25 for care and then other than that, we may refer them to one of our local partners which are mentioned here.
But in summary, I don't know if Doctor Benjamins wants to come back on, but we we encourage you to test your patients for HIV. Be aware of how acute HIV can present in the different ways. I think we had at least three cases with.
Somewhat different presentations where you know doing extra testing and knowing the time to positivity and the different limitations of the test can really come into play and then offering HIV prep or HIV post exposure prophylaxis to those who are at risk.
In a timely way, these are different hotlines. Um.
That are available nationally, which may may apply to you or your center, or you may have a local expert where you're comfortable referring them. But in either case, usually there's you know you can either do do a local referral.
Or call these lines for guidance and then we thank you for your attention and we can take any questions now.

Kamat, Deepak M 48:51
Thank you, Doctor Benjamins and Doctor McGrath for that wonderful presentation on HIV prevention and management. Let's see, there is a question by Doctor Lipsitt. Why is quantitative testing not always done? Is it because of cost?

EM

Eric McGrath 48:52
And.
3.

LB

Laura Benjamins 49:12
That's probably one of the reasons. I mean, also when you're doing screening, you want something that's highly sensitive. The viral load is very specific, so it tells you that they truly have the disease. But when you're screening, you want to make sure

that you're not.
Um, falsely missing anybody. And so you want the sensitivity to be quite high and part of the reason is cost as well, yes.

Eric McGrath 49:36
Yeah. In fact, there's a flag for cost. I think that comes up a lot of times. Even when we ordered the labs, it'll put a dollar value, at least on our Epic that we use that shows you like 3 or $5 signs for that for the RNA or the DNA PCR. So I think that's heavily emphasized and.
Probably why it's not more universally done.


Kamat, Deepak M 50:01
Other questions, comments for Doctor Benjamins and Doctor McGrath?

Laura Benjamins 50:14
Does anybody want to share if they're routinely testing their teens for HIV in their their clinics and what are some barriers that maybe you come up against?


Kamat, Deepak M 50:26
There's a comment by Doctor Parmar. Great lecture. I'm recently moved from Detroit area. I'm impressed and happy with the outreach you guys have in the area.

Laura Benjamins 50:37
Thank you. Thank you for that comment.
I see the comment that you test, but you're in child abuse Pediatrics, so it's routine. I know that for a lot of pediatricians that I've worked with, there's often the concern that you might be offending a family by offering the testing, or there are often issues with confidentiality if the parent can see the results.
To.
What I try to do to minimize some of that is just make sure the family understands that this is routine standard of care. I have a letter that I provide to new patients and their families explaining that as part of your child's visit, these are some things that we might talk about. These are things that are confidential. These are things that I can't keep.
Confidential if they want to, you know, if they tell me that they want to hurt

themselves or somebody's been hurting them. And I in that letter I explained per the CDC guidelines, we may also be testing your child for HIV so that I make it standard of care routine. This is not saying anything about your child.
This is what the recommendations are. And so I think the more we can kind of normalize it and standardize it, the less we'll run up against some of those barriers of it being perceived as something negative.

Kamat, Deepak M 51:59
This is a comment by Doctor Mandlik. In general Pediatrics, we do offer testing to every teen well child visit. The state Medicaid does require screening, but confidentiality is a concern.

LB

Laura Benjamins 52:08
Mhm.
Absolutely, yeah.

Williams, Janet F (Dr.) 52:13
But.
I wanted to ask what is routine in the emergency or acute setting when someone does come in with sexual assault? What is their testing or or potential post exposure prophylaxis?

EM

Eric McGrath 52:15
OK.
3.

Williams, Janet F (Dr.) 52:34
Exposure treatment routine.

LB

Laura Benjamins 52:41
Well, I'm not sure about your area, but yeah, I know.

Williams, Janet F (Dr.) 52:41
Do they use them? Do they use the meds? Do they? No, I mean just general Pediatrics. Do do they test for HIV routinely? Do they do automatically treat or not?

Eric McGrath 52:44
OK.

Laura Benjamins 52:59
So I know in our area there we've been trying to make sure there's kind of a universal protocol. We've been working closely with a lot of the agencies. I would say most of the patients that we've seen do have at least HIV testing. Sometimes some of the other sexually transmitted infections aren't always done and a lot of them are offered.

Eric McGrath 53:05
You.

Laura Benjamins 53:19
At least a starter three day supply of the HIV medications if they're within that 72 hour window. So it depends on when the patient presents as well. But then we run into issues of are the families able to then get the remaining doses for the next.

Eric McGrath 53:24
4.

Laura Benjamins 53:29
Right.

Eric McGrath 53:35
Yeah.

Laura Benjamins 53:38
25 days. So we've been trying to work a lot with the different agencies that see patients after a sexual assault to ensure that really rapid follow-up time, that communication, that support, you know, if they can't for some reason get the medications from the pharmacy or they can't afford it for some.

Eric McGrath 53:52
Oh.

Laura Benjamins 53:58
Reason their insurance doesn't cover it. We have free samples that we could provide, but Eric, I would say that most of our Uh's at least have been doing that pretty consistently recently.

Eric McGrath 54:08
Yeah, the one thing we learned that was interesting is that the the group that gets the sort of actual forensic samples, they actually encourage them not to do the the the swabs, if you will, or the urine testing up front. They want to get their swabs first. And so in some cases they have have deferred doing, for instance, urine, GC, chlamydia or rectal or oral GC and chlamydia testing with the concept that they're waiting for the the sort of sexual assault forensic swabs to be done first.
So if there's any delay in the group here, at least it's called Avalon. I know there's other, you know, names of these organizations, but locally they'll try to let them do that their forensic swabs first and then get any sort of infectious disease types.
Of swell STI swabs that are needed, but the blood testing can certainly be done, you know, for HIV, syphilis, hep B, hep C, those can be drawn at any point. It's just a matter of making sure that I think they get the highest yield for the forensics type of evaluation when there is a concern.

Williams, Janet F (Dr.) 55:11
Yeah.

Eric McGrath 55:21
For a sexual assault first, that's optimal to improve their yield and then doing those swabs are testing maybe afterwards and and we have seen sometimes they get missed and I do wonder if it's part of that in a sense they were waiting for the other group to get their swabs 1st and then.
You know, it's very overwhelming for the families. We hear that a lot, you know, because they're recommended, they're talking to the police sometimes they have legal in court related challenges along with making a lot of follow-ups both with.

Therapy counseling, but also with forensic interviewing if they need to go. And so these, you know, we just try to help and support them through it by making our clinic available, you know, sort of the days that we're open, if anytime they're available, we try to fit them in.
But yeah, it's, I think the process at least here locally is improved in the standardization of what's done. But again, not every patient goes to an Uh. Sometimes they go right to the Avalon Center for the testing and then we end up being the first clinic as an outpatient to do those blood.
Tests or the OR the other swabs for the STI workup.

Williams, Janet F (Dr.) 56:33
Yeah.
So thank you for that and the excellent presentation. I I have one comment and if there's time and another question, but the comment is I do think that part of the reason why a teen or anybody might not disclose is who's with them.
The who's with them might be the person who assaulted them. You know, you said this statistic on the 7th graders that had had sexual forced sex it and so they may not want to answer that because of who's with them or who they think may find out, right?

Laura Benjamins 57:04
Yeah.
Yeah.

Williams, Janet F (Dr.) 57:15
Parent. In other words, I don't know. Doctor Kamat, may I ask the? I'll ask the other question and if somebody else has a question, then answer that first. I'm.

Laura Benjamins 57:17
Absolutely.
Well, and I do want to say one thing too, I'm so sorry about Uh testing. I just want to mention that when I was in Houston, we were we instituted a program at the Memorial Hermann Hospitals as well as the two county hospitals in Houston to do routine testing for HIV and Hep C if any blood was being drawn on a patient that came to the Uh's there.

Kamat, Deepak M 57:27
And like.

Williams, Janet F (Dr.) 57:37
Mhm.
Yeah.

Laura Benjamins 57:46
But that was only for 17 and up, and we actually were able to diagnose a fairly large percentage of new diagnoses, both for HIV and Hep C, as well as we were able to capture a lot of people who had fallen out of care.
Before I left Houston, we were trying to get the Uh's to also start testing teens, so below 17 routinely as well in the Uh, and we were meeting a little bit of resistance for that. But the routine testing in Uh is not only for sexual assaults, but for any visit can be highly effective too, so.

Williams, Janet F (Dr.) 58:16
Yeah.

Laura Benjamins 58:19
Just wanted to mention that.

Kamat, Deepak M 58:21
Doctor Williams, go ahead and ask you a question.

Williams, Janet F (Dr.) 58:21
Right.

Laura Benjamins 58:21
I'm sorry. Go ahead.

Williams, Janet F (Dr.) 58:23
I I'm sorry to say I missed on your very first case the acute exposure. What was his acute exposure? Did he admit to something?

Laura Benjamins 58:37
I mean, he he probably had unprotected, unprotected sex. You know, like the exact timing, I'm not sure, but he it.


Williams, Janet F (Dr.) 58:45
Oh, OK. Well, he didn't.

Laura Benjamins 58:48
Yeah, he he often, I think he often was ashamed to be completely transparent about about everything that he'd been doing. And that partly was due to some family beliefs. You know, he and I have established a really good rapport, but he's, you know, most of our patients want to tell us what we want to hear.


Williams, Janet F (Dr.) 59:01
Yeah.

Laura Benjamins 59:08
Here and want to make us happy and so yeah.


Williams, Janet F (Dr.) 59:09
Sure. Oh, OK. I didn't know it. Since you said he staunchly denied anything, I thought maybe something came up. But anyway, thank you so much. That was outstanding.


Kamat, Deepak M 59:20
Any other questions, comments?
I don't see any. So Doctor, thank you, Doctor Benjamins and Doctor McGrath for that wonderful presentation. Thank you all for attending this morning's grand round. I'm going to conclude and we'll see you next Friday. Have a wonderful week. Thank you.


Williams, Janet F (Dr.) 59:45
Thank you.

Laura Benjamins 59:45
Thank you, everyone.

Eric McGrath 59:46
By everyone.

Kamat, Deepak M stopped transcription