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## Sexual Assault Nurse Examiner Program Guidance Document

# PROPHYLAXIS MEDICATIONS

MAY 29, 2018

Sexual Violence shatters lives, wounds communities, and perpetuates injustice. The Florida Council Against Sexual Violence leads, informs, and inspires the people of Florida to create safe and just communities.

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#### **INTRODUCTION**

A sexual assault nurse examiner (SANE) uses the nursing process from the moment the victim of a sexual assault (patient) arrives at the facility to the time of discharge from the facility. The nursing process consists of five phases / steps (assessment, diagnosing, planning, implementing and evaluation) which the SANE utilizes as a matter of course when working with every patient. Discharge instructions and care is derived from the SANE's assessment and diagnoses while working with the patient.

The assessment phase is the phase where the SANE obtains the patient's medical and sexual assault histories and conducts a head to toe physical assessment. The SANE uses the information acquired from the patient and the head to toe assessment to formulate the diagnoses. From the diagnoses emerge the planning and implementation phases of the nursing process, which result in the SANE's treatment, and discharge planning instructions and actions.

Every patient presenting for a medical forensic examination (MFE) has been shaped by life experiences beyond the recent assault. A patient's experiences related to age, race, sex, gender identity and/or expression, socio-economic status, sexual orientation, cultural identity, religious affiliation (or non-affiliation), and immigration status may have been life-affirming, or discriminatory and oppressive, or both. SANEs are expected to consider the current situation in the context of the patient's life, honor the patient's decisions, and treat each patient with respect. In doing so, the SANE can provide victim-centered care throughout the MFE.

It is best practice to prophylactically treat all patient survivors for the three most common STIs acquired from a sexual assault. This document will focus on the prophylaxis medications offered to the patient for the prevention of sexually transmitted infections and patient education (STI) after a sexual assault.

This Guidance Document assumes the patient is medically stable and will be discharged from your agency to a safe place.

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#### A. PROPHYLAXIS MEDICATIONS

The CDC and International Association of Forensic Nurses (IAFN) recommend prophylaxis medication after a sexual assault to prevent gonorrhea, chlamydia, trichomonas, bacterial vaginosis, HIV and pregnancy. The provision of prophylaxis medication for STIs and HIV is based on the patient's sexual assault history. The provision of emergency contraception is based on the sexual assault history, the patient's menstrual cycle, and current contraceptive use and type (if any).

The most commonly diagnosed sexually transmitted infections after a sexual assault are: gonorrhea, chlamydia, bacterial vaginosis, and trichomonas. However, a SANE must assess and discuss the risk(s) of acquiring HIV and Hepatitis B after a sexual assault. Other vaccinations for consideration are human papilloma virus (HPV) and tetanus.

How a patient receives prophylactic medication varies among agencies. Some facilities provide the medications on site, others refer the patient to their primary health care provider, county health department, university health care center, community health clinic or hospital, while others provide prescriptions to take to the pharmacy. The **best practice** is providing the medication on site.

#### B. GENERAL GUIDELINES

- Informed consent to provide prophylactic medication should be obtained; if a patient declines the medication this should be documented.
- Patients should be given information in a language they understand.
- If the sexual assault history indicates STI prophylaxis is warranted, encourage the patient to accept the medication.
- Consider giving an anti-emetic 15 minutes prior to patient taking the medication.
- Observe the patient for an allergic reaction for 30 minutes after the medication has been taken.
- HIV post-exposure medication (nPEP) and hepatitis B vaccine should be discussed, and access to treatment should exist.
- Follow up care (testing, immunizations, counseling, and treatment) should be encouraged and a process for providing such care in place.
- Doing baseline cultures is not recommended nor a best practice.<sup>13</sup>
- Test-of-cure to detect therapeutic failure (i.e., repeat testing 1–2 weeks after completing therapy) is not advised for persons treated with the recommended or alternative regimens, unless therapeutic adherence is in question, symptoms persist, or reinfection is suspected.
- CDC recommends follow up testing if a patient has STI symptoms after receiving treatment.
- All patients should practice abstinence or use a barrier method for 7 days after medication has been taken.
- Follow your agency's protocols.

#### C. <u>THE THREE MOST COMMON SEXUALLY TRANSMITTED INFECTIONS WITH A SEXUAL</u> <u>ASSAULT, TREATMENT AND PATIENT EDUCATION</u>

#### CDC Recommended sexual assault sexually transmitted infection medication<sup>1</sup>

**Gonorrhea**: Ceftriaxone sodium (Rocephin) 250 mg IM in a single dose PLUS

**Chlamydia**: Azithromycin (Zithromax) 1 gm PO single dose PLUS

**Trichomonas**: Metronidazole (Flagyl) 2 gm PO single dose OR Tinidazole (Fasigyn or Tindamax) 2 gm PO single dose

#### 1. GONORRHEA

#### Ceftriaxone (Rocephin) 250 mg IM in a single dose

- May be diluted with 0.9 ml of 1% xylocaine to prevent patient discomfort
- Inject in a large muscle (gluteus maximus preferred)
- May inject in deltoid if the muscle is large and a small (22 gauge) needle is used
- May be given in pregnancy (Category B)
- Caution should be exercised when Rocephin is administered to a nursing woman, low concentrations of ceftriaxone are excreted in human milk <sup>10</sup>
- On average, the incubation period for chlamydia and gonorrhea can be two to six days.
- If an allergy to penicillin exists, allergic reactions to first-generation cephalosporins occur in <2.5% of persons with a history of penicillin allergy and are uncommon with third-generation cephalosporins (e.g., ceftriaxone and cefixime).<sup>1</sup> Use of ceftriaxone or cefixime is contraindicated in persons with a history of an IgE-mediated penicillin allergy (e.g., anaphylaxis, Stevens Johnson syndrome, and toxic epidermal necrolysis).<sup>1</sup>

#### **ALTERNATIVE TREATMENTS**

- Cefixime (Suprax) 400 mg PO single dose PLUS Azithromycin (Zithromax) 1 gm PO single dose (see note below)
- If patient has a cephalosporin allergy (Rocephin and Suprax are both cephalosporins) give:

Gemifloxacin 320 mg PO single dose **PLUS** 

Azithromycin 2 gm PO single dose **OR** Gentamicin 240 mg IM single dose

- If patient is allergic to azithromycin, Doxycycline 100 mg twice a day for 7 days can be used in combination with ceftriaxone or Cefixime
  - Doxycycline cannot be given in pregnancy

**NOTE**: If the alternative treatment, Cefixime and Azithromycin, is given instead of Ceftriaxone for Gonorrhea, the Azithromycin one gram is sufficient to also treat the Chlamydia (there is no need to give 2 grams of Azithromycin)

#### PATIENT EDUCATION FOR CEFTRIAXONE:

- Abstinence or barrier method for 7 days after medication has been taken
- May be tender at the site of injection

#### 2. <u>CHLAMYDIA</u>

#### Azithromycin (Zithromax) 1 gm PO single dose

- May be given in pregnancy Category B
- Male genital chancroids are also treated by Zithromax (it does not treat genital chancroids in women)
- The incubation period for chlamydia is poorly defined (CDC). Some literature states 2 6 days and others up to 3 weeks.
- Most infected people are asymptomatic and lack abnormal physical examination findings. Men are more likely to exhibit symptoms.
- Abstinence or barrier method for 7 days after medication has been taken OR

#### Doxycycline (Doryx) 100 mg PO twice a day for 7 day

- DO NOT give in pregnancy
- DO NOT give to a nursing mother unless the patient stops breastfeeding or will dispose of pumped milk and temporarily provide formula for the infant

#### PATIENT EDUCATION FOR DOXYCYCLINE:

- Abstinence or barrier method for 7 days after medication has been taken
- On average, the incubation period for chlamydia and gonorrhea can be two to six days.
- If diarrhea occurs the patient should be assessed for clostridium difficile (even two to three months later)
- Limit sun exposure or artificial violet light (due to photosensitivity)
- Do not take antacids (they decrease the absorption)
- Drink plenty of water (reduces chance of esophageal irritation and ulceration)
- Consider giving antiemetic 30 minutes before giving

#### **IF PATIENT CANNOT TAKE DOXYCYCLINE: ALTERNATIVE TREATMENTS**

- Erythromycin base 500 mg orally 4x/day for 7 days **OR**
- Erythromycin ethyl succinate 800 mg orally 4x/day for 7 days OR
- Levofloxacin7 500 mg 1x/day orally for 7 days OR
- Ofloxacin9 300 mg orally 2x/day for 7 days

#### 3. TRICHOMONIASIS

#### Metronidazole (Flagyl) OR Tinidazole (Fasigyn or Tindamax) 2 gm PO single dose

- Metronidazole and Tinidazole treats bacterial vaginosis as well
- DO NOT give in the first three months of pregnancy and use with caution if in the second or third trimester
- DO NOT give if breastfeeding unless the patient stops breastfeeding or will dispose of pumped milk and temporarily provide formula for the infant
- DO NOT give if allergic to tetracycline

- DO NOT give if on an anticoagulant (increases prothrombin time)
- About 70% of women and men do not have symptoms when infected. When symptoms do occur they typically begin 5 to 28 days after exposure.

#### **IF PATIENT CANNOT TAKE FLAGYL: ALTERNATIVE TREATMENTS**

- Erythromycin base 500 mg orally 4x/day for 7 days OR
- Erythromycin ethyl succinate 800 mg orally 4x/day for 7 days OR
- Levofloxacin7 500 mg 1x/day orally for 7 days OR
- Ofloxacin9 300 mg orally 2x/day for 7 days

#### PATIENT EDUCATION FOR METRONIDAZOLE OR TINIDAZOLE:

- Abstinence or barrier method for 7 days after medication has been taken
- If the patient has had alcohol within 24 48 hours of the assault, taking Flagyl will cause severe nausea and vomiting. -Advise the patient to take the Flagyl, at a minimum, once 24 hours has passed, and do not drink alcohol for a minimum of 24 hours after taking it.
- Do not take antacid within 2 hours before or after, as it decreases absorption.
- Symptoms: Itching, a bad smelling thin vaginal discharge, burning with urination, and pain with sex.
- Get emergency medical help if you have any of these signs of an allergic reaction: hives; difficulty breathing; swelling of your face, lips, tongue, or throat.
- If you experience these serious side effects, contact your health care provider:
  - diarrhea that is watery or bloody;
  - headache with chest pain and severe dizziness, fainting, fast or pounding heartbeats;
  - nausea, upper stomach pain, itching, loss of appetite, dark urine, claycolored stools, jaundice (yellowing of the skin or eyes); or
  - severe skin reaction; fever or sore throat.
- Patient can choose whether or not to accept medication upon being informed.
- Support the patient's decision.

STI FOLLOW UP CDC recommended STI prophylaxis: Rocephin 250mg IM or IV; Zithromax 1 G po; Flagyl 2G po				
prophylaxis ?	STI Cultures	Testing		
	Not necessary unless patient	6 weeks, 3 and 6 months if		
Yes	reports symptoms of STI	desired		
		6 weeks, 3 and 6 months if		
Νο	1-2 weeks post assault	desired		
*All pregnant women referred for				
STI evaluation 1-2 weeks post-				
assault regardless of STI prophylaxis	1-2 weeks post assault	6 weeks, 3 and 6 months		

\*\*\*All patients will be referred for HIV testing at 6 weeks post-assault regardless of nPEP status

#### D. EMERGENCY CONTRACEPTION (EC)

Emergency contraception is available in the form of pills or a Copper T IUD.

- Levonorgestrel 1.5 mg PO single dose (Plan-B / Plan-B One-Step; Take Action; Next Choice / Next Choice One Dose; My Way; After Pill; Fallback; Opicion One Step) OR or as a split dose (1 dose of 0.75 mg of levonorgestrel followed by a second dose of 0.75 mg of levonorgestrel 12 hours later) OR
- 2. Yuzpe (combined estrogen and progestin in 2 doses) 100  $\mu$ g of ethinyl estradiol plus 0.50 mg of levonorgestrel PO followed by a second dose of 100  $\mu$ g of ethinyl estradiol plus 0.50 mg of levonorgestrel PO 12 hours later
- 3. Ella 30 mg PO single dose (ulipristal acetate UPA)
  - EC pills should be taken as soon as possible within 5 days (120 hours) of unprotected sexual intercourse.
  - Any of the above medications: consider giving antiemetic 30 minutes before giving any of the above.
  - Ella is more effective in patients weighing 165 pounds or more, and is more effective than Levonorgestrel after 72 hours post coitus.
  - Any of the above medications do not work if patient is already pregnant.
  - Any of the above medications: will not abort an already existing pregnancy.
  - Explain in layman's terms how emergency contraception works.

#### Mechanism of Action not completely understood but known to:

- > Delay or inhibit ovulation
- Cause minor changes to the endometrium after ovulation, which may prohibit implantation
- > Interfere with the corpus luteum function
- > Thicken the cervical mucous, trapping sperm
- > Alter the tubal transport

#### PATIENT EDUCATION

- EC is most effective if given within the first 120 hours of unprotected intercourse (the earlier it is taken the more effective it will be).
- Abstain from sexual intercourse or use barrier contraception for the next 7 days after starting or resuming regular contraception or until her next menses, whichever comes first.
- With the progestin-only pill or combined EC pills, the patient can resume or start any birth control method right away. For the next 7 days, the patient must also use a barrier method (condoms, diaphragm, and spermicides) along with the regular birth control method, or patient is not to have sexual intercourse.
- No tests or procedures are needed after taking EC.
- The next period (menses) may not occur at the expected time. Irregular bleeding or spotting in the week or month after taking EC pills may occur and it goes away on its own.

- Short-term side effects of EC pills can include the following: headache, nausea and vomiting (especially if you are taking combined EC pills), breast tenderness, abdominal pain, dizziness, fatigue.
- Have a pregnancy test if a period does not occur within a week of when expected.
- If the patient received Ella (ulipristal acetate) and wants to resume or start using a hormonal birth control method (pill, patch, ring, implant, shot, or hormonal IUD), a waiting period of 5 days after taking Ella is needed.
- Using a hormonal birth control method and taking Ella at the same time can reduce the effectiveness of both medications.

#### Copper T IUD

Emergency insertion of a copper IUD up to 5 days after sex can reduce pregnancy risk by more than 99% (An IUD must be inserted by a trained professional and is the most effective contraceptive method available<sup>9</sup>)

## Catholic Church, Directive 36, *Ethical and Religious Directives for Catholic Health Care* includes:

- Compassionate and understanding care should be given to a person who is the victim of sexual assault.
- A female who has been raped should be able to defend herself against a potential conception from the sexual assault.
- It is not permissible, however, to initiate or recommend treatments that have as their purpose or direct effect the removal, destruction, or interference with the implantation of a fertilized ovum.

#### E. ADDITIONAL CDC AND INTERNATIONAL ASSOCIATION OF FORENSIC NURSES <u>RECOMMENDED SEXUAL ASSAULT SEXUALLY TRANSMITTED INFECTION MEDICATION</u> <u>CONSIDERATIONS</u>

#### 1. HUMAN IMMUNODIFFICIENCY VIRUS (HIV)

Updated Guidelines for Antiretroviral Postexposure Prophylaxis After Sexual, Injection Drug Use, or Other Nonoccupational Exposure to HIV— United States, 2016

**Preferred** 3-drug regimen treatment for adults and adolescents aged  $\geq$  13 years, including pregnant women, with normal renal function (creatinine clearance  $\geq$  60 mL/min) (Appendix I)

**Truvada<sup>c</sup> PO once daily (**a fixed dose combination of Tenofovir DF 300 mg PO and emtricitabine 200 mg) *with Raltegravir 400 mg* twice daily *or* Dolutegravir 50 mg once daily

<u>ALTERNATIVE TREATMENT</u> for otherwise healthy adults and adolescents Truvada<sup>c</sup> PO once daily (a fixed dose combination of Tenofovir DF 300 mg PO and emtricitabine 200 mg)

AND

Darunavir (DRV) 800 mg and Ritonavira (RTV) 100 mg once daily

# If the patient is given HIV medication, the importance of a follow up visit cannot be stressed enough. An optimal time for a first medical follow-up contact is 24 to 48 hours following discharge.

Preventive treatment for a non-occupational exposure to HIV is determined based on risk. See the CDC's algorithm for risk assessment of HIV, Appendix II. If the patient is at high risk for contracting HIV, the CDC recommends providing the patient with a 3 to 5 day supply of the medication. When clinicians are not experienced using anti-retroviral therapy (ART) or when information from source persons indicate the possibility of antiretroviral resistance, consultation with infectious disease or other HIV experienced clinicians should be considered.

## Sexual assault survivors often decline nPEP, and many who do initiate it do not complete the full 28-day course.

- Assess risk for HIV infection in the assailant, if possible. Test that person for HIV (ideally the HIV FDA approved rapid test or in a lab that is able to provide results within the hour). If positive, the assailant should be tested for their viral load.
- Consider a separate consent form for HIV prophylaxis and include the patient's agreement to obtain follow up care.
- nPEP must be given less than or equal to 72 hours to be effective, the earlier the patient begins the therapy the more effective nPEP will be.
- The patient can be provided a 3–5-day supply of nPEP and scheduled for followup at a time that allows for provision of the remaining 23 days of medication without interruption in dosing.
- If nPEP is started, it is best to perform CBC and serum chemistry as a baseline.
- Patient should receive follow-up HIV tests at 4-6 weeks, 3 months, and 6 months to determine whether infection has occurred.
- Provide counseling about HIV transmission prevention to consensual partners (condoms until six month HIV test completed and negative).
- Discuss reporting and confidentiality.
- Women should not breastfeed, if risk of HIV transmission is high (i.e. known HIV positive assailant).

#### National Clinician's Post Exposure Prophylaxis Hotline (PEP Line) (1-888-448-4911),

available 7 days a week from 9AM – 2AM at no charge for assistance with nPEP questions

#### Special Considerations for Vulnerable Populations and HIV Prophylaxis

• Refer pregnant women to infectious disease physician and obstetrician for care. If the assailant is known to be HIV positive, nPEP should be started as soon as possible and is effective for preventing HIV transmission the baby. Per CDC's, *HIV Among Pregnant Women, Infants and Children,* "Advances in HIV research, prevention, and treatment have made it possible for many women living with HIV to give birth without transmitting the virus to their babies. The annual number of HIV infections through perinatal transmission have declined by more than 90% since the early 1990s. Today, if a woman takes HIV medicine daily as prescribed throughout pregnancy, labor, and delivery and gives HIV medicine to her baby for 4-6 weeks after delivery, the risk of transmitting HIV to the baby can be as low as 1% or less."

- HIV can be transmitted in breast milk; women with HIV in the United States should not breastfeed their babies.
- Inmates studies indicate that the risk for becoming infected in prison is probably less than the risk outside prison.
- Injection drug users a history of injection drug use should not deter clinicians from prescribing nPEP if the possible exposure provides an opportunity to reduce the risk of consequent HIV infection.

#### PATIENT EDUCATION

- Most common side effect is nausea; other possible side effects are headaches, fatigue, vomiting, and diarrhea.
- Follow up and clinical management by a physician is a must for close monitoring of liver enzymes.
- nPEP must be taken in its entirety to be effective.
- Severe adverse effects are rare from nPEP.
- nPEP is effective, but not 100%. Condoms should be used with sex partners, and safe injection practices should be followed while taking nPEP.
- The patient may qualify for partial or total reimbursement for medicines and clinical care costs through the Office for Victims of Crime, funded by the US Department of Justice.
- Use condoms to prevent sexual transmission.
- Avoid pregnancy and breastfeeding.
- Avoid needle-sharing.
- Refrain from donating blood, plasma, organs, tissue, or semen.

Most Florida rape crisis centers do not offer HPV, Tetanus, and Hepatitis B vaccines. However, the SANE can educate the patient and recommend seeking the vaccine from the county health department. If in college, the patient should contact the university health center or their primary health care provider.

#### 2. <u>HUMAN PAPILLOMA VIRUS (HPV)</u> Per CDC 2015 Guidelines:

- The majority of all HPV-associated cancers are caused by HPV 16 or 18, and the three vaccines target these HPV types.
- HPV vaccination is recommended for female survivors aged 9–26 years and male survivors aged 9–21 years.
- For men having sex with men (MSM) who have not received HPV vaccine or who have been incompletely vaccinated, vaccine can be administered through age 26.
- The vaccine should be administered to sexual assault survivors at the time of the initial examination, and follow-up doses administered at 1–2 months and 6 months after the first dose.

#### 3. HEPATITIS (HBsAg) NON-OCCUPATIONAL EXPOSURE

Follow your agency's protocol.

#### Heptavax 1 cc IM now and repeat at 1 month and 6 months

- Assess if the patient has received one, two or all three Heptavax doses.
- If the patient has not received the HBsAg vaccine, discuss with the patient and refer.
- If previously vaccinated, but did not receive post vaccination testing, refer the patient for follow up post vaccination testing.

#### PATIENT EDUCATION

- If the first vaccine is given within the first 48 hours, the vaccine will protect the patient from this exposure (even if the patient does not receive the others).
- The hepatitis B vaccine series should be completed to obtain maximum immunity against future exposures.
- Follow-up doses of the vaccine should be administered 1–2 and 4–6 months after the first dose, **if indicated.** See Appendix III for prophylaxis guidance.

#### 4. <u>TETANUS</u>

**Diphtheria and Tetanus Toxoids (DT) Vaccine 0.5cc IM single dose (**DT is the booster dose for adolescents and adults for tetanus)

- Tetanus: bacteria is found in soil, dust, and manure, and usually enters in through cuts or puncture wounds caused by contaminated objects
  - Refer the patient who is at risk for tetanus and has not received a tetanus vaccine (DT) within the last 10 years.
  - Being at risk for tetanus will depend on the sexual assault history and the last time she/he/they had a tetanus vaccine.
- Diptheria: spreads from person to person through secretions from coughing or sneezing
  - $\circ$  Very rare.
  - Since vaccination began, reports of cases for both diseases have dropped by about 99%.
  - Can cause a thick coating to form in the back of the throat.
  - It can lead to breathing problems, heart failure, paralysis, and death.

#### PATIENT EDUCATION

- Tetanus
  - Very uncommon (an average of 30 reported cases each year), <u>https://www.cdc.gov/tetanus/about/index.html</u>
  - All adults should have a tetanus booster vaccine every 10 years.
  - If exposed to clostridium tetani and a vaccine has not been given within the last 10 years, painful muscle contractions may occur, making it hard to open the mouth or swallow ("lockjaw").
  - Other symptoms: headache, fever, jerking or staring (seizures), painful stiffness all over.

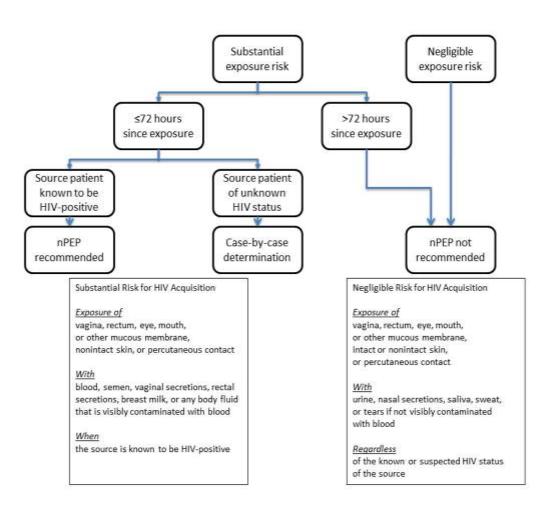
### **APPENDIX I**

Updated Guidelines for Antiretroviral Post-exposure Prophylaxis After Sexual, Injection Drug Use, or Other Nonoccupational Exposure to HIV—United States, 2016 from the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services

	Preferred/ alternative	Medication
		A 3-drug regimen consisting of
		tenofovir DF 300 mg <b>and</b> fixed dose combination
Adults and adalassants area $> 12$		emtricitabine 200 mg (Truvadac) once daily
Adults and adolescents aged $\geq$ 13		with
years, including pregnant women, with normal renal function		raltegravir 400 mg twice daily or
(creatinine clearance $\geq$ 60 mL/min)	Preferred	dolutegravir 50 mg once daily
(,,		A 3-drug regimen consisting of
		tenofovir DF 300 mg <b>and</b> fixed dose combination
		emtricitabine 200 mg (Truvada) once daily
		with
		darunavir 800 mg (as 2, 400-mg tablets) once daily
		and
Alternative		ritonavir <sub>b</sub> 100 mg once daily
		A 3-drug regimen consisting of
		zidovudine <b>and</b> lamivudine, with both doses adjusted to
		degree of renal function
Adulta and adalassants agod $> 12$		with
Adults and adolescents aged ≥ 13 years with renal dysfunction		raltegravir 400 mg twice daily or
(creatinine clearance ≤59 mL/min)	Preferred	dolutegravir 50 mg once daily
	Treferred	A 3-drug regimen consisting of
		zidovudine <i>and</i> lamivudine, with both doses adjusted to
		degree of renal function
		with
		darunavir 800 mg (as 2, 400-mg tablets) once daily
		and
Alternative		ritonavir₀ 100 mg once daily
		A 3-drug regimen consisting of
		tenofovir DF, emtricitabine, and raltegravir,
		with each drug dosed to age and weightd
Children aged 2–12 years	Preferred	
		A 3-drug regimen consisting of
		zidovudine <i>and</i> lamivudine
		with
		raltegravir
		lopinavir/ritonavirb,
Alternative		with raltegravir and lopinavir/ritonavir dosed to age and weightd
		A 3-drug regimen consisting of
		tenofovir DF <b>and</b> emtricitabine <b>and</b> lopinavir/ritonavir <sub>b</sub> ,
Alternative		with each drug dosed to age and weight

#### **APPENDIX II**

#### CDC's HIV Antiretroviral Post-exposure Prophylaxis Algorithm



Updated Guidelines for Antiretroviral Post-exposure Prophylaxis After Sexual, Injection Drug Use, or Other Non-occupational Exposure to HIV—United States, 2016 from the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services

#### **APPENDIX III**

#### **HEPATITIS B: Post Exposure Prophylaxis of Persons with Non-occupational Exposure**

Guidelines for post exposure prophylaxis* of persons with non-occupational exposure† to blood or body fluids that contain blood, by exposure type and vaccination status				
Source of exposure	Unvaccinated person§	Previously vaccinated person ¶		
HBsAg-positive source Percutaneous (e.g., bite or needlestick) or mucosal exposure to HBsAg-positive blood or body fluids	Administer hepatitis B vaccine series and HBIG	Administer hepatitis B vaccine booster dose		
Sex or needle-sharing contact of an HBsAg-positive person	Administer hepatitis B vaccine series and HBIG	Administer hepatitis B vaccine booster dose		
Victim of sexual assault/abuse by a perpetrator who is HBsAg positive	Administer hepatitis B vaccine series and HBIG	Administer hepatitis B vaccine booster dose		
Victim of sexual assault/abuse by a perpetrator with unknown HBsAg status	Administer hepatitis B vaccine series	No treatment		
Percutaneous (e.g., bite or needlestick) or mucosal exposure to potentially infectious blood or body fluids from a source with unknown HBsAg status	Administer hepatitis B vaccine series	No treatment		
Sex or needle-sharing contact of person with unknown HBsAg status Abbreviations: HBIG = hepatitis B immu	Administer hepatitis B vaccine series	No treatment		

Abbreviations: HBIG = hepatitis B immune globulin. HBsAg = hepatitis B surface antigen. \* When indicated, immunoprophylaxis should be initiated as soon as possible, preferably within 24 hours. Studies are limited on the maximum interval after exposure during which post exposure prophylaxis is effective, but the interval is unlikely to exceed 7 days for percutaneous exposures or 14 days for sexual exposures. The hepatitis B vaccine series should be completed. † These guidelines apply to non-occupational exposures. Guidelines for management of occupational exposures have been published separately and also can be used for management of non-occupational exposures, if feasible. Source: CDC. CDC guidance for evaluating health-care personnel for hepatitis B virus protection and for administering post exposure management. MMWR Recomm Rep 2013;62(No. RR-10). § A person who is in the process of being vaccinated but who has not completed the vaccine series should complete the series and receive treatment as indicated. ¶ A person who has written documentation of a complete hepatitis B vaccine series and who did not receive post vaccination testing.

CDC. Postexposure prophylaxis to prevent hepatitis B virus infection. MMWR Recomm Rep 2006;55 (No. RR-16).

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