Physical and Sexual Abuse
In Children
Emergency Department Management
Clinical Practice Guideline

Clinical Practice Guideline
Protocol Approved by: Division of Pediatric Emergency Medicine
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SSMHealth
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SUSPECTED CHILD ABUSE
CLINICAL PRACTICE GUIDELINE (CPG)

Injuries from child abuse account for significant morbidity and mortality in the pediatric population. It also accounts for long term disability when these children become adults. Despite best efforts to intervene, abuse still goes unrecognized and misdiagnosed. In one study on abusive head trauma, 30% of the infants were misdiagnosed the first time they sought medical care. In order to reduce this risk we must have a high index of suspicion in the right clinical situation and have a strong assessment tool to evaluate these children.

The first step in the assessment is a detailed and thorough history for the event. A member of the ED team should take this history. Consult services will obtain their own history but their histories usually are not as detailed as an ED history and may not include PMD, family and medical histories, etc. These details are very important to distinguish abuse from accidental injury. Secondly, social work should be consulted on all patients where there is a concern for abuse. The social worker will perform an assessment of the social situation (i.e. family dynamics), who lives in the home, the number of children, history of domestic violence, drug or alcohol issues, history of Missouri Children's Division or DCFS involvement, etc. Social workers do not obtain a medical history.

The appropriate studies and consults are ordered at the discretion of the ED attending. Once preliminary results are obtained, it is the responsibility of the ED attending to make the determination as to whether the injury is suspicious for abuse or not. If the injury is deemed concerning for abuse, then the social worker will make the report to Children's Division or the Division of Children and Family Services and also contact the appropriate Law Enforcement. All victims of child abuse who are being admitted to the hospital, even if for non-medical reasons, i.e. for social reasons, must have a Trauma Consult.

The following is a clinical pathway to aid in the evaluation of an infant or child who is suspected to be the victim of physical[1-17] or sexual[18,19] abuse. As always, Advanced Trauma Life Support (ATLS) guidelines should be followed.

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Age 0 - 2

Concern for Physical Abuse

- **Abuse suspected by history, or**
- **Injury pattern is suspicious for abuse including:**
  - Bruising, particularly in a non-ambulatory child
  - Burns
  - Fracture in non-ambulatory child
  - Long bone fracture inconsistent with the reported mechanism
  - Abusive Head Injury or Skull Fracture
  - Intra-abdominal injury
  - Socially isolated

Physical Abuse Suspected

- **Social Work Consult**
- **Skeletal Survey**
- **Labs: CBC, CMP, Lipase, Bag UA**

As Clinically Indicated

- ***Additional Lab Studies***
  - PT/PTT INR, Urine Tox Screen, Type and Screen
- **Opthomology Consult**
- **Head, C-spine, Abd CT**
- **Trauma Consult**
- **Hematology Consult**

Age 0 - 2

Skeletal Surveys

- ***Complete Skeletal Survey (preferably at a Pediatric facility)*** **Indicated when:**
  - Abuse suspected by history, or
  - Injury pattern is suspicious for abuse including:
    - Bruising, particularly in a non-ambulatory child
    - Burns
    - Fracture in non-ambulatory child
    - Long bone fracture inconsistent with the reported mechanism
    - Abusive Head Injury or skull fracture
    - Intra-abdominal injury
    - Socially isolated
- ***Repeat Survey*** **is Indicated In 3 Weeks whenever:**
  - Abuse is still supected after initial evaluation
- ***Complete Skeletal Survey*** **Indicated for *Sibling* when:**
  - Sibling is twin of primary patient
  - Sibling is < 1 year old

CT

- **Head and C-spine CT Indicated when:**
  - Intracranial injury suspected by history (e.g. apnea, seizures) or physical findings (e.g. facial bruising, scalp swelling, abnormal neuro exam)
  - Posterior rib fractures or metaphyseal fractures
- **Abdominal CT Indicated (in consultation with the trauma service) for:**
  - Clinical signs of intra-abdominal trauma
  - Elevated Lipase or LFT's (AST or ALT > 80)

Ophthamalogic Studies

- ***Ophthamologic Consult with Indirect Ophthalmoscopic Exam*** **Indicated when:**
  - Abusive head trauma is suspected by history or physical exam or studies (e.g. cerebral edema, intracranial hemorrage, skull fracture)
  - Injury pattern includes multiple fractures or multiple system injuries

Lab Studies

- **Suspected child abuse with blunt trauma (e.g. intra-abdominal injury, head injury, or fracture suspicious for abuse)**
  - CBC, CMP, Lipase, Bag UA
  - If head injury is suspected, add PT/PTT/INR and Type & Screen
- **Suspected child abuse with isolated cutaneous injuries (e.g. bruising)**
  - CBC, PT/PTT, INR
  - If extensive hematoma's, consider UA, myoglobin, CPK, renal panel

Consultations

- **Ophthamology (as clinically indicated, as above)**
- **Neurosurgery (if abnormal head CT or skull fracture)**
- **Orthopaedics (for all fractures)**
- **Trauma Surgery (for all admissions and as clinically indicated)**
- **Hematology (when clotting abnormality suspected)**
- **Social Work for all evaluations**

Age 2 - 5

Concern for Physical Abuse

- **Abuse suspected by history, or**
- **Abuse suspected by clinical examination**

Physical Abuse Suspected

- **Social Work Consult**
- **Selective Radiologic Studies**
  - Complete skeletal survey if disabled or immobilized (e.g. CP, neuromuscular disorders)
- **Labs: CBC, CMP, Lipase, UA (Bag UA if not toilet trained)**

As Clinically Indicated

- ***Additional Lab Studies***
  - PT/PTT INR, Urine Tox Screen, Type and Screen
- **Opthomology Consult**
- **Head, C-spine, Abd CT**
- **Trauma Consult**
- **Hematology Consult**

Age 2 - 5

Radiological Studies

- ***Selective Radiologic Studies*** **Indicated when:**
  - Abuse suspected by history, or
  - Abuse suspected by clinical examination
- ***Complete Skeletal Survey (preferably at a Pediatric facility)*** **Indicated when:**
  - Child is disabled or immobilized, including children with:
    - CP
    - Neuromuscular disorders
- ***Repeat Studies*** **are Indicated In 3 Weeks whenever:**
  - Abuse is still supected after initial evaluation

CT

- **Head CT Indicated for**
  - Facial or neck bruising
  - Neurological symptoms upon presentation or by history
- **Abdominal CT Indicated (in consultation with the trauma service) for**
  - Clinical signs of intra-abdominal trauma
  - Elevated Lipase or LFT's (AST or ALT > 80)

Ophthamalogic Studies

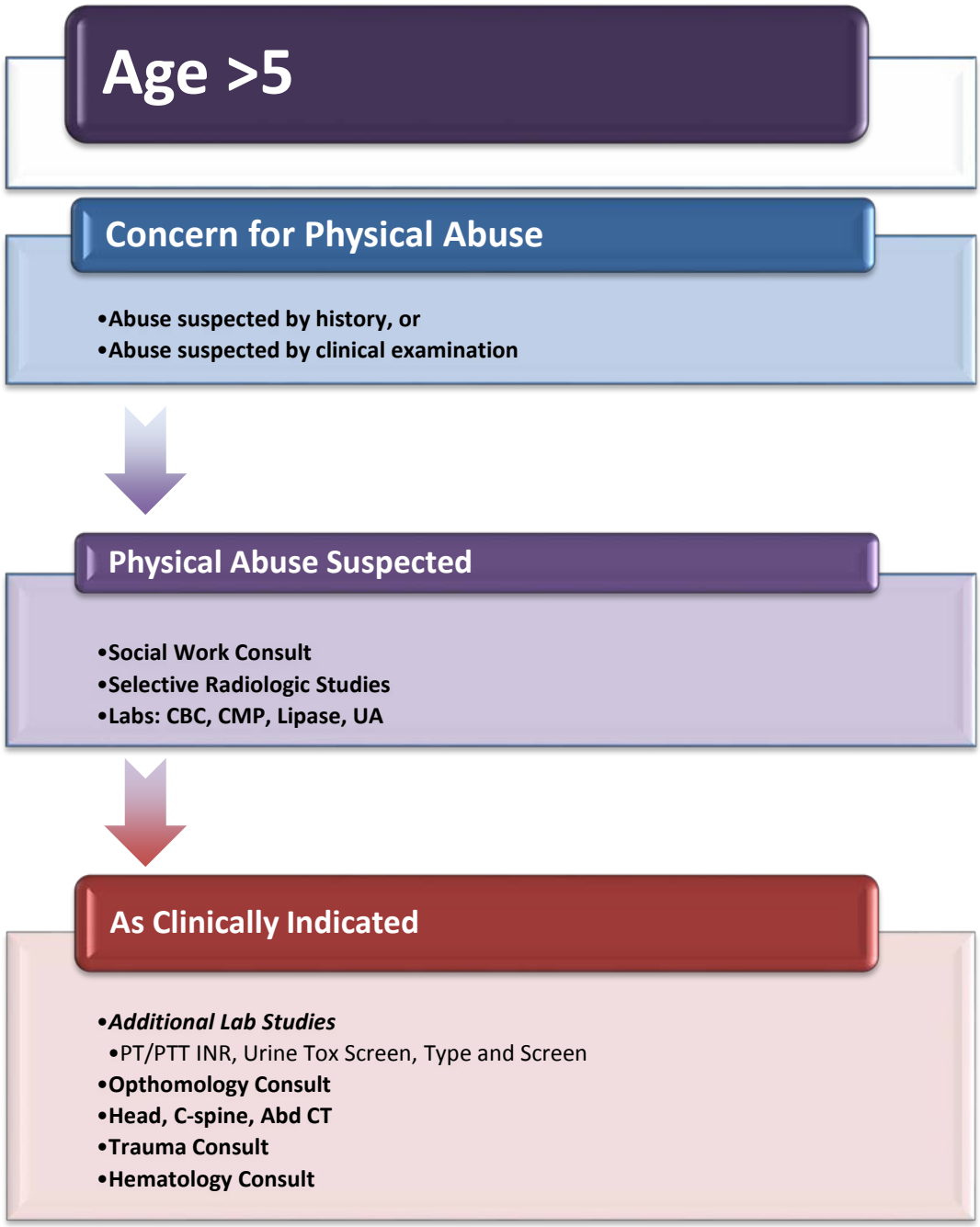
- ***Ophthamologic Consult with Indirect Ophthalmoscopic Exam*** **Indicated when:**
  - A facial or head injury is c/w abuse

Lab Studies

- **Suspected child abuse with bunt trauma (e.g. intra-abdominal injury, head injury, or fracture suspicious for abuse)**
  - CBC, CMP, Lipase, Bag UA
  - If head injury is suspected add PT/PTT INR
- **Suspected child abuse with isolated cutaneous injuries (e.g. bruising)**
  - CBC, PT/PTT, INR
  - If extensive hematoma's, consider UA, myoglobin, CPK, renal panel

Consultations

- **Ophthamology when facial or head injury is c/w abuse**
- **Neurosurgery if abnormal head CT or skull fracture**
- **Orthopaedics for fractures**
- **Trauma Surgery for all admissions**
- **Hematology**
- **Social Work for all evaluations**


Age >5
Concern for Physical Abuse
•Abuse suspected by history, or
•Abuse suspected by clinical examination
Physical Abuse Suspected
•Social Work Consult
•Selective Radiologic Studies
•Labs: CBC, CMP, Lipase, UA
As Clinically Indicated
•Additional Lab Studies
•PT/PTT INR, Urine Tox Screen, Type and Screen
•Opthomology Consult
•Head, C-spine, Abd CT
•Trauma Consult
•Hematology Consult

Age > 5

Radiological Studies

- ***Selective Radiologic Studies*** **Indicated when:**
  - Abuse suspected by history, or
  - Abuse suspected by clinical examination
- ***Repeat Studies*** **are Indicated In 3 Weeks whenever:**
  - Abuse is still supected after initial evaluation

CT

- **Head CT Indicated for**
  - Facial or neck bruising
  - Neurological symptoms upon presentation or by history
- **Abdominal CT Indicated (in consultation with the trauma service) for**
  - Clinical signs of intra-abdominal trauma or elevated LFT's
  - Elevated Lipase or LFT's (AST or ALT > 80)

Ophthamalogic Studies

- ***Ophthamologic Consult with Indirect Ophthalmoscopic Exam*** **Indicated when:**
  - A facial or head injury is c/w abuse

Lab Studies

- **Suspected child abuse with blunt trauma (e.g. intra-abdominal injury, head injury, or fracture)**
  - CBC, CMP, Lipase, Bag UA
  - If head injury is suspected add PT/PTT INR
- **Suspected child abuse with isolated cutaneous injuries (e.g. bruising)**
  - CBC, PT/PTT, INR
  - If extensive hematoma's, consider UA, myoglobin, CPK, renal panel

Consultations

- **Ophthamology when facial or head injury is c/w abuse**
- **Neurosurgery if abnormal head CT or skull fracture**
- **Orthopaedics for fractures**
- **Trauma Surgery for all admissions**
- **Hematology**
- **Social Work for all evaluations**

Child Protection Guidelines for Post-Pubertal Victims of Sexual Abuse

Acute Assault (assault occurring less than 72 hours prior to presentation)

1. Perform a Sexual Assault Evidence Collection Kit.
2. If sexually active and symptomatic of a previously acquired sexually transmitted infection, consider testing indicted areas by history or exam. Use Urine NAAT or swab for Gonorrhea, Chlamydia cervical & penile infections only. For pharyngeal or rectal GC infections you must obtain a culture and place on chocolate agar plate. For rectal Chlamydia infection use viral transport media. If you are concerned for Trichomonas using TRICH pouch for both penile and cervical specimens. Serology studies include Hepatitis B & C, HIV and RPR for Syphilis.
3. Regardless of symptomatology, treat for Gonorrhea, Chlamydia and Trichomonas.*
4. Serology reflective of the assault is not obtained at this time but at 6, weeks, 3 and 6 months post assault for Hepatitis B & C and HIV, and RPR for Syphilis.
5. Administer prophylaxis for pregnancy if urine HCG is negative.
6. Administer Hepatitis B if no history of immunization for Hepatitis B or history unknown.
7. Administer prophylaxis for HIV if assault meets high risk criteria. **
8. Follow up with PMD or GYN based on treatment plan and examination.

Sub-Acute Assault (assault occurring more than 72 hours but less than 2 weeks prior to presentation)

1. Do not perform a Sexual Assault Evidence Collection Kit.
2. If victim is sexually active and symptomatic of a previously acquired sexually transmitted infection consider obtaining cultures and serology as stated above.
3. Regardless of symptomatology, treat for Gonorrhea, Chlamydia and Trichomonas*.
4. Serology reflective of the assault is not obtained at this time but 6 weeks, 3 and 6 months post assault for Hepatitis B & C, HIV and RPR for Syphilis.
5. Do not provide prophylaxis against pregnancy or HIV.
6. Follow up with GYN or PMD based on treatment plan and examination.

Non-Acute Assault (assault occurring greater than 2 weeks prior to presentation)

1. Do not perform a Sexual Assault Evidence Collection Kit.
2. Obtain testing for Gonorrhea, Chlamydia and Trichomonas as indicated by disclosure and area.
3. Obtain serological studies for Hepatitis B & C, and HIV, and RPR for Syphilis at 6 weeks, 3 months and 6 months post assault.
4. Treat if clinically indicated.
5. Do not provide any prophylaxis against pregnancy or HIV.
6. Follow up with GYN or PMD based on treatment plan and examination.

* *Acute Rape Prophylaxis Guidelines*

** *HIV Post Exposure Prophylaxis Guidelines*

Child Protection Guidelines for Pre-Pubertal Victims of Sexual Abuse

Acute Assault (assault occurring less than 72 hours prior to presentation)

1. Perform a Sexual Assault Evidence Collection Kit.
2. Do not obtain cultures or Urine NAAT Studies
3. Do not obtain serologic studies.
4. Do not treat with antibiotics.
5. Prophylaxis for Hepatitis B if no history of immunization or unknown history.
6. Prophylaxis for HIV if assault meets high risk criteria. **
7. Follow up in SAM Clinic in 2 weeks post assault for cultures.
8. Obtain serologic studies in 6 weeks, 3 and 6 months post assault for RPR for Syphilis, Hepatitis B & C and HIV.

Sub-Acute Assault (assault occurring between 72 hours and 2 weeks prior to presentation)

1. Do not perform a Sexual Assault Evidence Kit.
2. Do not obtain cultures or Urine NAAT studies.
3. Do not obtain serologic studies.
4. Do not treat with antibiotics.
5. Prophylaxis with Hepatitis B if no history of immunization or history unknown.
6. Follow up in SAM Clinic 2 weeks post assault to obtain cultures.
7. Obtain serologic studies for RPR for Syphilis, Hepatitis B & C and HIV 6 weeks, 3 and 6 months post assault.

Non-Acute Assault (assault occurring greater than 2 weeks prior to presentation)

1. Do not perform a Sexual Assault Evidence Collection Kit.
2. Obtain urine NAAT for Gonorrhea & Chlamydia from DIRTY urine if female victim and vaginal contact genital vaginal oral contact by disclosure or by suspicion on exam (i.e. injury discharge). From rectal and oral sites must use culture. For male prepubertal victims you may also use urine NAAT for GC and Chlamydia testing.
3. If vaginal or penile discharge is present obtain a culture for Trichomonas as well.
4. GC cultures from the throat and rectums use chocolate agar plate.
5. Chlamydia from the rectum use viral transport media.
6. Obtain serology for, Hepatitis B & C, HIV and RPR for Syphilis at 6 weeks, 3 months and 6 months post assault.
7. Administer antibiotics if clinically indicated.*
8. Do not provide prophylaxis for HIV or Hepatitis.

** *HIV Post Exposure Prophylaxis Guidelines*

Child Protection Team Guidelines for Victims of Ongoing Sexual Assault

The management of children and adolescents who are victims of ongoing sexual abuse is often more difficult. Medical decision making must take into account when the last assault has taken place, as well as the length of time over which the abuse has occurred, the pubertal age of the child and the presence or absence of symptoms.

The following are guideline to assist you in your management of each individual case. As always, each specific case management should incorporate your clinical judgment and the individual needs of the patient.

1. Perform a Sexual Assault Evidence Kit if the last assault occurred within 72 hours of presenting to the Emergency Department.
2. Obtain appropriate specimens for Gonorrhea, Chlamydia, on both pre and post pubertal victims as indicated by the disclosure and area.
3. Obtain Trichomonas on all post pubertal victims and pre pubertal victims with a discharge.
4. If it has been at least 6 weeks since an assault, obtain serology for Hepatitis B & C, HIV and RPR for Syphilis.
5. Serology should be repeated at 3 and 6 months post the most recent assault.
6. Prophylaxis for HIV should be offered if the most recent assault has occurred in the last 72 hours and meets the high risk criteria.
7. If female patient is post pubertal and most recent assault occurred within the last 72 hours offer prophylaxis for pregnancy prevention after obtaining a negative urine HCG.
8. Initiate Hepatitis B immunization if most recent assault occurred within 2 weeks and victim does not have a history of immunization against Hepatitis B or history is unknown.

CHILD PROTECTION GUIDELINES FOR VICTIMS OF SEXUAL ABSUE
GENITAL SPECIMEN COLLECTION

SPECIMEN COLLECTION

If discharge if noted on any victim of a sexual assault obtain a specimen of the discharge, culture, Urine NAAT even if the timing is not appropriate. Victims often do not disclose the extent of their assault on the first visit. This is especially true of pre pubertal victims. Nothing is lost in getting a specimen at this time.

POST-PUBERTAL VICTIMS of SEXUAL ABUSE

- If the adolescent female is sexual active and able to cooperate with a pelvic exam, perform cervical swabs for both DNA and detection of sexual transmitted infections with either culture media or Urine NAAT Tests for GC and Chlamydia. You do not have to obtain cultures. Use a calgi swab for a Trichomonas specimen and use pouch.
- For the male victim, use Urine NAAT tests and Trichomonas pouch.

PRE-PUBERTAL VICTIMES of SEXUAL ABUSE

GIRLS

Do not perform a pelvic examination on a pre-pubertal child. In place of vaginal cultures we can now use Urine NAAT tests for Gonorrhea and Chlamydia If there is discharge, obtain a culture for Trichomonas. This does not have to be intravaginal but may be form the introits.

BOYS

If a boy has a penile discharge, use a calgi swab and sample the discharge for both Gonorrhea and Chlamydia and Trichomonas. You do no need to go into the urethra. If no discharge is noted and there is a history or discharge, exposure to STI etc. and you may use Urine NAAT.

CHILD PROTECTION GUIDELINES FOR VICTIMS OF SEXUAL ABSUE
SPECIMEN COLLECTION

PHARYNGEAL SPECIMENS:
To obtain cultures for Gonorrhea use a throat culture and the chocolate agar media. Do not culture the pharynx for Chlamydia.

ANAL SPECIMENS:
To obtain anal cultures for Gonorrhea, use a calgi swab and plate the specimen on the chocolate agar media and then place into viral transport media for a culture for Chlamydia.

CHILD PROTECTION GUIDELINES for VICTIMS of SEXUAL ABUSE
LABORATORY STUDIES

Serology Studies:

- Hepatitis B Panel includes: IgM Antibody, Surface antibody and Surface antigen
- Hepatitis C antibody
- HIV Abbott HIV Ag/AB Combo tests for HIV p 24 antigen and antibodies to HIV type 1 and HIV type 2
- RPR for Syphilis

ACUTE RAPE PROPHYLAXIS

(Post-pubertal patients)

CHLAMYDIA

Azithromycin 1 gram PO in single dose

Or

Doxycycline 100 mg PO BID for 7 days (cannot be used in pregnancy)

GONORRHEA

Ceftriaxone 250 mg IM

Or

Spectinomycin 2 grams IM if cephalosporin allergy

Or

Zithromax 2 grams if allergic to PCN

TRICHOMONAS

Metronidazole 2 grams PO in a single dose

PREGNANCY PREVENTION

Plan B 1 tablet PO in ED

ANTI-NAUSEA

Zofran 4 mg in ED and discharge home with additional dose

ACUTE RAPE PROPHYLAXIS

(Pre-pubertal patients)

GONORRHEA

<45 Kg Ceftriaxone 25 -50 mg/kg IV or IM

Max 125 mg

>45Kg Ceftriaxone 250 mg IM

Chlamydia

<45 Kg Erythromycin 50 mg/kg/day ÷ 4 doses for 14 days

>45 kg & <8 years Zithromax 1 gram times one

>8 Zithromax 1 gram po times one or Doxycycline 100 mg bid × 7 days

Trichomonas

Metronidazole 15 mg/kg/day ÷ tid for 7 days

ACUTE RAPE PROPHYLAXIS

(All Victims)

HEPATITIS B (Both pre and post-pubertal patients)

- Unvaccinated and perpetrator status is unknown initiate vaccination series with Hepatitis B Vaccine.
- Unvaccinated and perpetrator is known to be Hepatitis B positive administer HBIG and initiate Hepatitis B Vaccine.

CHILD PROTECTION GUIDELINES for VICTIMS of SEXUAL ABUSE
HIV Post Exposure Prophylaxis

Transmission of HIV is a rare but potential consequence of a sexual assault. In the majority of cases, the HIV status of the alleged perpetrator is unavailable at the time the victim is receiving medical care. Post exposure prophylaxis is often the only option available to the victim.

The efficacy of post exposure prophylaxis in cases of sexual assault is unknown. The risks are related to the medications provided and include nausea, vomiting, abdominal discomfort, elevated liver enzymes and megaloblastic anemia. It is theorized post exposure prophylaxis is most efficacious when administered within 24 hours so the first dose should be administered in the ED.

To minimize the risks, it is recommended that these medications only be offered to those victims who are at high risk of being exposed to and acquiring HIV.

The CDC and the American Academy of Pediatrics have established criteria for patients for whom prophylaxis should be offered. These victims include those:

1. Assaulted by a perpetrator who is known to be HIV positive or involved in HIV high risk behavior.
2. Assaulted by a stranger or multiple assailants.
3. Where there is anal or vaginal penetration with ejaculation.
4. Where there is anal or vaginal penetration and mucosal injury.
5. Who are assaulted within 72 hours of presenting to the Emergency Department.

Additional criteria includes:

1. The patient must agree to take all medications for a total for 28 days.
2. He or she cannot have a history of allergies to any of the prescribed medications.
3. He or she cannot be HIV positive.

Prior to beginning the regime, the patient must have a baseline CBC and LFT's checked. Also, an HIV should be obtained as well but the result does not need to know prior to the initiation of the first dose. After completion of the regime, a second CBC and ALT must be performed. Child Protection will follow up on these patients checking on their compliance and any side effects from the medications. They are to call Child Protection after discharge for follow up.

DRUG REGIME:
The recommended drug regimen is Zidovudine (Retrovir) in combination with Lamivudine (Epivir) and Kaletra (Lopinavir & Retonavir). Above 45 kg Combinvir may be given in place of Zidovudine and Lamivudine individually.

DOSAGES:
ZIDOVUDINE (RETROVIR): Children less than 45 kg

180-240 mg/m2 every 12 hours with max dose of 200 mg

LAMIVUDINE (EPIVIR): Children less than 45 kg
4mg/kg/dose every 12 hours with max dose 150 mg

COMBIVIR (ZIDOVUDINE&LAMIVUDINE) Children over 45 kg
Zidovudine 300 mg & Lamivudine 150 mg every 12 hours

KALETRA (LOPINAVIR & RETONAVIR) Infants greater than 6 months
7 to 15 kg 12mg/kg of the LPV every 12 hours
15 to 40 kg 10 mg/kg of the LPV every 12 hours
12 years of age or 40 kg 400 mg of LPV every 12 hours
18 years of age 800 mg of LPV once daily

SEXUAL ASSAULT EVIDENCE COLLECTION

Sexual Assault Evidence Collection Kits are available in the GYN Room. A kit should be completed on any patient who presents within 72 hours of a sexual assault.
Evidence is often present on the clothing the victim wore at the time of the assault. Evidence can even be transferred onto clothing if the victim changes after the assault. This is especially true with children who are victims of sexual assault. When any victim arrives to the Emergency Department, ask about the clothing they are wearing. If you decide to collect their clothing, have them undress on a clean sheet placed on the floor to avoid contamination. Each item of clothing should be placed in its own bag, sealed and identified with pt's name and item of clothing. All the bags then should be placed in one large bag and labeled with pt's name and sealed. The bag is then given to the appropriate Law Enforcement agency.

Ask if the victim was licked, kissed or bitten. Victims often do not volunteer this information and need to be questioned. This is another valuable source of DNA evidence. The area in question should be swabbed with a sterile water moistened cotton tip swab on a wood base. The swab should be rolled across the area. It should then be placed in the drier. A second dry swab should then be rolled across the area and placed in the drier. Please obtain two swabs from each area. Swabs from the same area may be placed in the same cardholder. Label the area they are from on the cardholder and sheet. The information sheet, the cardholders and are then placed in the evidence kit and sealed.

The Blue Max Light can aid in detection of dried secretions that may yield DNA evidence. The light is shone on the patient's skin while viewing through the orange filter. Any area that fluoresces should be swabbed in the manner described above.