

## Improving Team Approaches to the Pregnant HIV+ Patient

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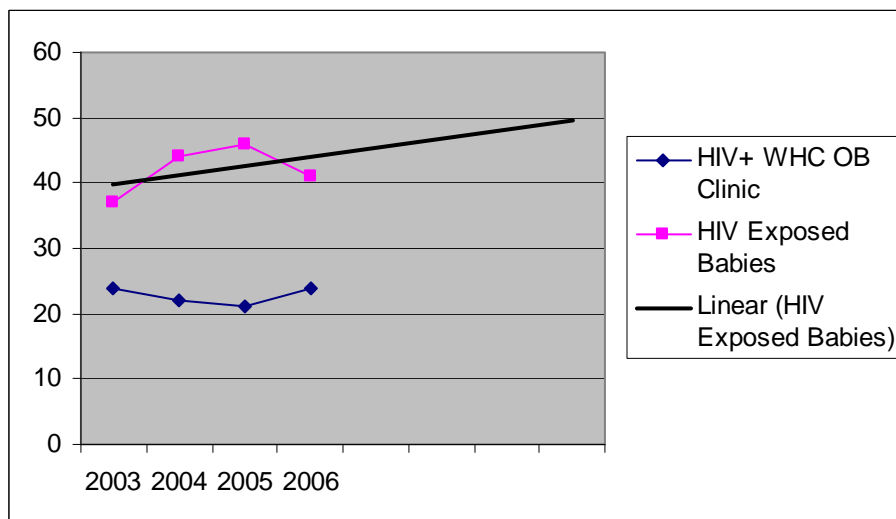
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### Background:

Currently in the US, between 6,000 and 7,000 HIV infected women give birth annually (1). Between 1992 and 2003, estimated cases of perinatally acquired AIDS declined 94% in the United States, from 912 cases to 58 cases (1). This was a great public health success, largely due to recommendations made by the US Public Health Service in 1994 and 1995 (1) and implementation by caregivers across the country. While many medical and obstetrical strategies have been found to decrease transmission rates, Mother-to-child HIV transmission still accounts for over 90% of all AIDS cases in US children, and has resulted in 16,000 perinatally HIV infected children since the beginning of the epidemic (2). While the numbers of perinatally HIV infected children continue to decrease, current trends in heterosexual acquisition of HIV infection amongst females could eventually translate into increasing rates of perinatal infection.

WHC performs the most deliveries of all hospitals in D.C., averaging 4,400/year. Known HIV+ patients are referred to WHC from local hospitals and community clinics for care during pregnancy. At WHC, all pregnant women are initially screened utilizing the opt-out approach, or if presenting to Labor & Delivery with no prenatal care, screened with the Rapid HIV test. Out of the 4,400 annual births, in 2003-2006, between 37-46 babies born were HIV exposed per year, representing 1% of all births. HIV treatment strategies and medication information are rapidly changing compared to typical Obstetrical management issues, and therefore a team approach must be implemented for optimum mother and baby outcomes. This remains a goal and a challenge, as the CDC sponsored "Enhanced Perinatal Surveillance" data from 24 sites from 1999 through 2001 showed that 1 in 8 (12%) HIV-infected women did not receive prenatal care, and 1 in 10 (10%) did not get tested for HIV before giving birth (1).

HIV+ Pregnant Patients and HIV-Exposed babies WHC 2003-2006



### Creating the Team:

A program has been created to improve communication and coordinate care between the High Risk Perinatal and Infectious Disease services. The team consists of the High Risk Perinatal service, Infectious Disease service, social workers from both departments, and a community based HIV support service which accepts pregnant HIV+ women and follows their families until the neonate is 18 months of age.

The High Risk Perinatal service consists of residents, obstetricians, perinatologists, a certified nurse midwife, research team, social workers, and nurses. The nurse midwife facilitates team communication by participating in both ID and OB weekly rounds.

The High Risk Perinatal service (HRPS) sees HIV+ pregnant women in the WHC OB/GYN Clinic. Between 2003 and 2006, the HRPS cared for between 21-27 patients/year. As perinatally HIV-infected youth come of reproductive age, the HRPS has also seen increases in pregnant perinatally infected women, often transferring from nearby Children's National Medical Center. In 2006, 4 such patients presented for pregnancy care, and delivered at WHC, with initial neonatal DNA PCRs all being negative. Other HIV exposed babies born at WHC are patients from community based private practices or HMOs, or patients who receive no prenatal care.

The Infectious Disease service (IDS) cared for 768 HIV-positive clients in 2006. Out of this cumulative group, 369 were female, with 35% of their total clientele reported a risk factor of Heterosexual contact for HIV infection. This is consistent with the District of Columbia's data regarding AIDs cases of Adult Females by Race/Ethnicity and mode of transmission from 1980-2002, showing heterosexual contact to represent 28.4% of black females mode of transmission, 26.2% of white females, and 44% of Hispanic females (3). Yet these numbers are lower than the CDC's reported national trends among women, where HIV transmission is estimated to occur 79% through sexual contact with men (many of whom are IDUs or also have sexual contact with men) and 19% through injection drug use (1). The number of women seen at WHC IDS who were HIV-positive and pregnant during 2006 totaled 22, with all 22 receiving HAART during pregnancy. 214 females seen in 2006 by the IDS were of reproductive age, representing 60% of female clients seen in 2006 having the potential for pregnancy.

### Testing & Linkage:

As pregnancy is known in the Obstetric literature as an opportune time for access to medical care, education during prenatal care on both HIV and pregnancy is thorough, frequent, and supportive. Testing and linkage to care for both HIV and pregnancy are integral steps in initiating the care model utilized at WHC.

Once testing has been performed at the Initial Prenatal Visit, if the patient has no prior knowledge of HIV infection, the nurse midwife is notified to follow up with disclosure of test results and transfer into the HRPS. The patients who are already known HIV+ may present to the HRPS through routine onset of prenatal care at WHC via ID or OB clinic, and then transfer in to the HRPS with known HIV diagnosis. Another means of referrals is from outside clinics or community programs, as the WHC HRPS has become known as a referral center for pregnant HIV+ mothers in the District of Columbia. The ID service is contacted by the HRPS, and patient contact facilitated

directly. This is an integral component of the patient's experience, as often the newly diagnosed HIV+ patient who is also pregnant may be initially hesitant to access ID care and overwhelmed at the thought of HIV while pregnant. Facilitation of linkage to care may be a time-consuming experience for the providers; however, it remains a necessary step in assisting the frightened and vulnerable patient to access care. While pregnancy is thought of as a time of happiness and as an important turning point in aspects of anatomical, physiological and psychosocial changes (4), coupled with the diagnosis of HIV, may present more emotional challenges and stresses than are yet recognized in the literature.

Continuity of prenatal care is coordinated by the same nurse midwife, and communication is facilitated between the HRPS and IDS by the institution's utilization of the same computer based charts.

#### Challenges:

- Timely access
- Coordinating multiple services
- Achieving virologic suppression and optimum health status prior to delivery
- Disclosure during or after pregnancy
- Both parents aware of newborn's HIV exposure or not
- Education about HIV, pregnancy, and preventing mother-to-child transmission

#### Challenges Discussion:

Current challenges include access to IDS and HRPS in a timely manner as described above. Other challenges include coordinating the multiple services patients may need assistance with accessing, such as nutritional support, mental health services, community advocacy and support, medical care, and prenatal care. When multiple providers are components of each service, it is easier for a patient to get "lost in the shuffle." Therefore at WHC we have found a coordinator is key to follow-up.

Another highly relevant local issue is partner disclosure. Individuals vary in their reasons for avoiding partner disclosure, and timing of disclosure. During pregnancy, newly diagnosed HIV+ patients may inform their partners when they are informed of the new diagnosis, or may choose not to inform partners. Similarly, HIV+ women who become pregnant may or may not have notified partners prior to the pregnancy. It can be a stressful experience for both the patient and provider when partners or family are not notified, as social supports may be diminished. Once the neonate is discharged home with the parents, medication administration could potentially become an issue with partners who are not aware of neonate's exposure to HIV in utero and delivery. The privacy and confidentiality of patients must be upheld, yet many providers are concerned about public health risks and compliance with pediatric care if both parents aren't aware of neonate's HIV exposure.

Therefore multiple attempts to facilitate a discussion about disclosure, including timing of disclosure, fears of disclosure, possible outcomes of disclosure, stresses, and relationship issues, are begun with patients once trust is established. Simultaneously maternal knowledge gaining of risks of Mother-to-Child transmission are reviewed with patient. Goals of HRPS and IDS are discussed with patient in time for delivery. Patients

are engaged with ongoing discussions. Handouts about medical treatment, management of medications, and understanding laboratory testing are provided. Patients are also directed to support groups, community groups, and mental health treatment to facilitate any needs identified.

#### Conclusion:

Successful outcomes can be many for the mother/infant pair. These may include maternal knowledge gaining of HIV, adherence to HAART, compliance with prenatal and Infectious disease care, viral load undetectable by 35-37 weeks gestation, improved social supports and relationships, acceptance of safer sex behaviors, improved health behaviors, and ultimately prevention of Perinatal HIV transmission and partner transmission.

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