Disclosures. All authors: No reported disclosures.

2521. Prevalence and Associated Factors of Protective Antibody Responses against Diphtheria, Tetanus, and Pertussis among HIV-Infected Thai Adolescents Stable on Combination Antiretroviral Treatment

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Background. To assess the prevalence and associated factors of protective antibodies against diphtheria, tetanus, and pertussis among HIV-infected adolescents stable on combination antiretroviral treatment (cART).

Methods. A multicenter seroprevalence study was conducted. Perinatally HIV-infected Thai adolescents (11–25 years) who had previous evidence of severely immune suppression (CD4 < 15% or < 200 cells/mm³), were currently stable on cART (CD4 > 350 cells/mm³ for > 6 months or CD4 > 200 cells/mm³ with viral suppression [VS; HIV RNA < 50 copies/mL] for > 12 months) and had completed a 5-dose series of diphtheria, tetanus, whole cell pertussis (DTPw) vaccine during childhood were enrolled. Adolescents who received immunosuppressive agents or blood components within 6 months were excluded. Protective antibodies for diphtheria, tetanus, and pertussis were defined as diphtheria toxoid IgG ≥ 0.1 IU/mL, tetanus toxoid IgG ≥ 0.1 IU/mL, and anti-pertussis toxin IgG ≥ 1.5 IU/mL, respectively. Logistic regression analysis was performed to identify factors associated with protective antibody response to each antigen.

Results. Of 150 adolescents, 47% were male, a median age was 19 years. Forty (27%) and 0 (0%) adolescents had ever received tetanus, diphtheria (Td) or tetanus, diphtheria, acellular pertussis (Tdap) vaccine during adolescence, respectively. A median duration since the last dose of DTPw/Td vaccine was 12 years. At enrollment, 67% of adolescents were on NNRTI-based cART regimens, a median cART duration was 13 years. A median CD4 was 29%, and 90% had VS. Prevalence of protective antibodies against diphtheria, tetanus, and pertussis were 37%, 82%, and 52%, respectively. Proportion of adolescents with protective antibodies and geometric mean concentrations of antibodies to all antigens declined over time after the last immunization (Figures 1–3). Associated factors of protective antibodies to diphtheria, tetanus and pertussis are shown in Table 1.

Conclusion. Although having completed a 5-dose series of DTPw during childhood, significant proportion of our perinatally HIV-infected adolescents had no protective antibodies to those antigens, particularly diphtheria and pertussis, when entering adolescence. Tdap vaccination is a crucial strategy to prevent such diseases in the future.

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2522. Prescription Drug Use Among Women with HIV Who Are of Childbearing Potential

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Background. In the context of medication safety, women with HIV who are of childbearing age potentially represent a particular challenge given the prevalence of unplanned pregnancies. Despite this, significant gaps in the literature exist characterizing prescription drug use in this cohort. Our study describes medication use and identifies medications that are contraindicated during pregnancy in a cohort of women with HIV who are of childbearing age.

Methods. Women with HIV aged 18-45 years who presented to an academic medical center between January 2016 and December 2017 were included for analysis. Patients were excluded if they were prescribed any form of contraception, received permanent sterilization, or were post-menopausal. The number of individual medications prescribed in the electronic medical record during the study period were documented. Chronic medications, defined as those prescribed for longer than 3 months, were analyzed. Patients were identified as experiencing polypharmacy if prescribed 5 or more medications at one time. In addition, contraindicated medications were reviewed and documented.

Results. A total of 213 patients met inclusion criteria for review. Of these, 169 (79%) and 66 (31%) patients experienced polypharmacy when including and excluding antiretrovirals, respectively. When antiretrovirals were included the mean number of medications prescribed was 7.48 (SD = 3.87) and 3.92 (SD = 3.75) when excluded. Of the 213 patients included, 64 (30%) were prescribed medications contraindicated during pregnancy. The majority of contraindicated medications were angiotensin converting enzyme inhibitors, angiotensin receptor blockers, statins, and hydroxychloroquine. This cohort of women of child bearing potential (WOCBP) only 60 patients (28%) had been prescribed prenatal vitamins.

Conclusion. In this cohort of WOCBP with HIV, polypharmacy was observed in the majority of women. In addition, a third of these women were prescribed medications that are contraindicated during pregnancy. Given the potential impact of contraindicated medications on the developing fetus, our data supports the importance of preconception counseling on this issue as well as understanding the potential safety implications for mother and the fetus.

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2523. Optimizing Disclosure of HIV Status to a Diverse Population of HIV-Positive Pediatric Patients at an Urban HIV Clinic in the Southeastern United States
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Background. Developmentally-appropriate disclosure of human immunodeficiency virus (HIV) status to children living with HIV (CLWH) is essential to achieve optimal health outcomes, but stigma and fear result in delaying disclosure into adolescence. The American Academy of Pediatrics recommends disclosure of HIV status to school-age children. The objective of this quality improvement (QI) project was to increase the proportion of CLWH > 10 years of age who are disclosed about their HIV status from 57% to 80% by 18 months.

Methods. The Institute for Healthcare Improvement’s Model for Improvement was utilized for this QI project. This model accelerates quality improvement by implementing Plan-Do-Study-Act (PDSA) cycles to determine whether changes lead to improvement. The target population included CLWH followed at an urban pediatric HIV clinic. The primary outcome measure was the proportion of children > 10 years of age who are disclosed about their HIV status. PDSA cycles included monthly clinic check-ins to discuss new disclosures, quarterly team meetings to discuss implementation of new changes to improve disclosure and modifying a note template to prompt providers to document disclosure status and plan for undisclosed patients. Our process measure was the proportion of undisclosed children who have a documented disclosure status/plan. Annotated run charts were used to track the data.

Results. Prior to our first PDSA cycle, 57% of CLWH > 10 years of age were disclosed to about their HIV status, and none of the undisclosed children had a disclosure status/plan documented in their medical record. The proportion of CLWH disclosed to about their HIV status increased to 66% since meeting with the team regularly to discuss disclosure status (figure). Four months after introduction of the modified note template, the proportion of CLWH with documentation of their disclosure status and plan increased to 54%.

Conclusion. Team awareness of the importance of disclosure and a modified clinic note template were associated with increases in the proportion of CLWH with age-appropriate HIV disclosure and documentation of disclosure status. Future interventions will involve adapting methods of step-wise disclosure which have been proven effective in other settings.