

MTN-023/IPM 030: Phase 2a Safety Study of a Vaginal Ring Containing Dapirivine in Adolescent Females

Protocol Chairs:

Katherine Bunge, MD

Kathleen Squires, MD





Youth and HIV

- United States 2010
 - 2009 CDC demographic report
 - 39% of all new infections diagnosed in individuals 13-29 years of age

Diagnoses of HIV Infection Among Adults and Adolescents by Age in 2010

- Majority of women with HIV diagnosed during their reproductive yrs

Age, Yrs	Estimated Number of HIV Diagnoses
Younger than 13	185
13-14	30
15-19	1878
20-24	6415
25-29	5758
30-34	5039
35-39	4660
40-44	4830
45-49	4460
50-54	3124
55-59	1825
60-64	945
65 or older	718



Youth and HIV

- Global

- UN AIDS/WHO 2013

- 64% of all infections reported to occur in women 15-24 years of age
 - In sub-Saharan Africa, young women 2xs more likely to acquire HIV
 - Between 2001 and 2009, AIDS-related deaths increased only in adolescents 10-19 years of age



Young Women: HIV Risk Factors

- ❑ Biologic factors
- ❑ Lack of awareness regarding safe sexual practices
- ❑ Cultural and gender incapacity to insist on male partner condom use
- ❑ Psychosocial factors
- ❑ Sociocultural context

Young Women: Risk Perceptions

- **STI awareness** (Kahn, Pediatrics 2013)
 - Survey of women who received HPV vaccination
 - 339 adolescents 13-21 years of age administered questionnaire immediately, 2 and 6 months after vaccine
 - Majority reported HPV vaccine did not protect against other STDs and need for safe sexual behaviors
 - Sexually inexperienced (43%)
 - Subjects who perceived the vaccine decreased STI risk were less likely to initiate sexual activity; decrease in risk behaviors
 - Sexually experienced
 - Most subjects reported condom use during most recent sexual encounter



Young Women: Risk Perceptions

- Initiation of ART (Agwu, JAMA Pediatrics 2014)
 - HIV Research Network chart review
 - 1500 HIV-infected adolescents 12-24 years of age
 - 30-45% presented for care and initiated ART with CD4 <350 cells/mm³



Study Sites

□ MTN

- University of Alabama at Birmingham

- Craig Hoesley, MD

□ ATN

- Montefiore Medical Center

- Donna Futterman, MD

- The Fenway Institute/Fenway Community Health

- Keneth Mayer, MD

- Univ of Colorado Denver School of Medicine

- Daniel Reirden, MD



Study Subjects and Design

□ Subjects

- HIV-uninfected, sexually experienced females
- 15-17 years old (N=96)

□ Design

- Two-arm, randomized (3:1), double-blind, placebo-controlled phase 2 trial

□ Duration

- 12 weeks

Study Regimen

- Group A
 - Dapirivine (25 mg) VR
 - N =72

- Group B
 - Placebo VR
 - N=24

- Inserted every 4 weeks



Objectives

□ Primary

- To assess the safety of dapivirine (25 mg) administered via a silicone ring to HIV-uninfected adolescent females
 - Grade 2 AEs, judged to be related to study product
 - Grade 3 or higher AEs



Objectives

- Secondary
 - Acceptability
 - Attitudinal questionnaires
 - Adherence
 - Frequency of VR removals and expulsions
 - Pharmacokinetics
 - Dapivirine concentrations in plasma and vaginal fluid



MTN-023/IPN 030: Summary

- Dapivirine VR being studied in females across the age spectrum
- MTN-023 is a safety study of dapivirine VR in adolescent females
- Critical need for preventive modalities in this population at high risk of HIV infection