MTN 003D Overview: An Exploratory Study of Potential Sources of Efficacy Dilution in the VOICE Trial

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Outline

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Study Team and Key Roles

Core/US
- **Chair**: Ariane van der Straten
- **Co-chairs**: Liz Montgomery, Barbara Mensch
- **Operations (FHI 360)**: Kaila Gomez, Stephanie Horn
- **Data coordination (RTI/WGHI)**: Miriam Hartmann
- **MTN Core**: Beth Galaska Burzuk
- **DAIDS**: Jeanna Piper

Site Teams
- **UZ-UCSF**: Nyaradzo Mgodi, Petina Musara, Imelda Makhala, Otilia Munaiwa
- **MU-JHU**: Clemensia Nakabiito, Carolyne Akello, Teopista Tibaijuka, Josephine Nabukerra
- **MRC**: Neetha Morar, Kubashni Woeber, Funeka Mthembu
- **DTHF**: Zoe Duby
Background: Dilution of Efficacy*

- DSMBs futility results:
  Tenofovir vaginal gel & oral tablet stopped

* Masse et al., 2009
Sources of Efficacy Dilution

* Masse et al., 2009
Adherence

P24_1G. Please rate your ability, over the past 4 weeks, to insert gel exactly as you were instructed.

1. [ ] Very poor
2. [ ] Poor
3. [ ] Fair
4. [ ] Good
5. [ ] Very good
6. [ ] Excellent

We are most interested in knowing on how many days you inserted gel. So if you cannot remember which day(s) exactly you did insert gel, please guess. We prefer that you indicate that you missed some days, even if you cannot remember which exact days you missed.

NOTE: Q25aG repeats going backwards 7 days starting with yesterday.

25aG. Yesterday (x-day) did you insert gel?

1. Yes
2. No
3. Don’t remember
MTN 001 Trial: discrepancy between self report and plasma drug level

• After observed dosing, ALL had detectable plasma TFV
• After 6 weeks of home dosing:

**Daily TFV oral tablet**

38% of participants: had TFV plasma levels inconsistent with daily dosing
BUT reported 100% adherence

**Daily TFV vaginal gel**

48% of participants: had undetectable TFV plasma levels
BUT reported 100% adherence

Minnis et al., 2012; van der Straten M2012
MTN-001: Adherence to Vaginal Gel

- Those reporting 100% adherence were more likely to have undetectable drug level (p=0.02)
11. In the past 3 months how many times have you had anal sex? By anal sex we mean when a man puts his penis inside your anus.

0 ➔ Skip to Q12
1
2
3
4
5
6
7 or more times

Reported 1 or More Anal Sex Acts in the Past 3 Months?
Study Objectives

- **Primary:**
  - to explore larger contextual issues and specific aspects of the VOICE trial that positively and negatively affected participants’ actual and reported product use
  - to explore the reasons, motivations, and context of engaging in receptive anal intercourse (and rectal use of gel among VOICE participants in the gel group)

- **Secondary:**
  - to explore participants’ risk perceptions and motivations to participate in VOICE and the association of these factors with product use or non-use in a prevention trial setting
Study Sites & Sample

- Uganda
  - Kampala (MU-JHU, n=20)

- Zimbabwe
  - Chitungwiza (Seke South and Zengeza, n=20)

- South Africa
  - Durban (Isipingo and Overport, n=40)
Population & Sample Size

- Former VOICE participants

<table>
<thead>
<tr>
<th>Study group:</th>
<th>Tablet Users</th>
<th>Gel Users</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reported Anal Sex</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Sero-converters</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>All other women</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>40</strong></td>
<td><strong>80</strong></td>
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Study Design & Data Collection Tools

- Qualitative Exploratory Study
- Instruments:
  - Demographic survey
  - In-depth interview Guide
- Tools:
  - VOICE timeline
  - Rating Scale Show Card
  - Body Mapping Template
Study Timeline and Updates

- **May 012**: Protocol v1.0 approved
- **July 012**: Qualitative training (Durban)
- **Sept 012**: Full IRB approval (MRC), First IRB approval (MUJHU)
- **1 Oct 012**: Protocol specific training
- **Oct 012**: All sites activated, Data collection starts
- **Dec 012**: Data collection ENDS, Data coding and analysis ongoing
- **May 013**: Analysis finished, Main manuscript written