

# Infant Heel Sticks

---

Lisa Noguchi, MSN

Microbicide Trials Network

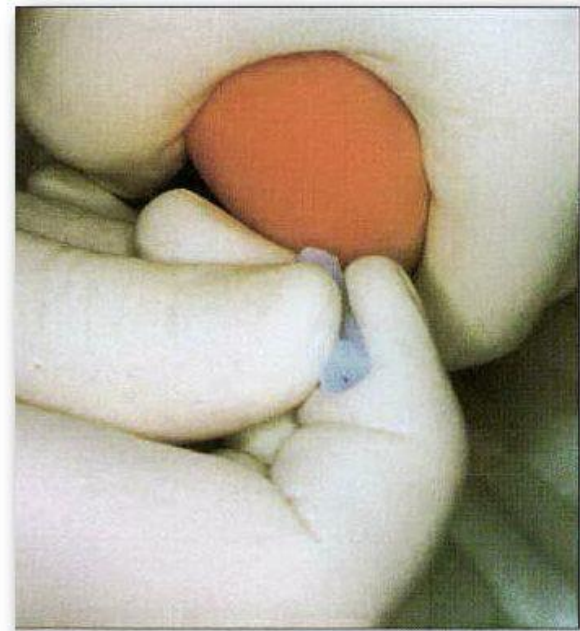
2013 MTN Regional Meeting



# Protocol Requirement

---

- Mothers diagnosed with HIV infection may elect to have their infants tested for HIV infection
- Infants diagnosed with HIV will be tested for HIV-1 drug resistance mutations as soon as possible after diagnosis of HIV



# Blood Volumes

**Table 12-2  
Suggested Volumes for Infant Blood Collection**

| <b>Visit Type</b>                     | <b>Total Blood Volume (ml)*</b> | <b>Purpose</b>          |
|---------------------------------------|---------------------------------|-------------------------|
| Initial HIV testing with confirmation | EDTA tube: 2 ml                 | HIV DNA, HIV RNA        |
| Resistance Testing                    | EDTA tube: 3ml**                | Resistance testing      |
| Interim Visit                         | Varies                          | As clinically indicated |

*\* Volumes may vary depending on each site's testing platforms. Please confirm with the testing lab to determine minimum volume requirements. Sites are responsible for ensuring that specimen volumes do not exceed what is described in the informed consent process. The MTN NL may request details of collection containers and volumes for this purpose.*

*\*\*A minimum of 1 ml plasma must be available for resistance testing to be done.*

# Do

---

- Do explain to parent(s)
- Do reassure parent(s)
  - Sample required is relatively small
- Do have a few site staff learn and feel comfortable with procedure
- Do limit number of attempts on tough sticks (very important)

# Do (continued)

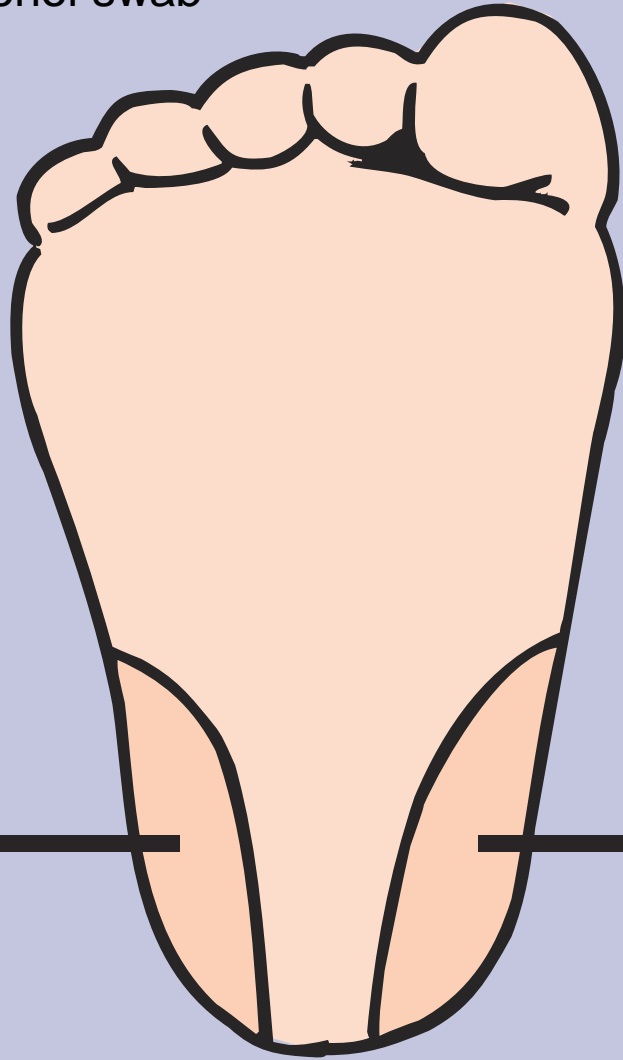
---

- Do glove hands
- Do swaddle infant with foot exposed, reduce noise & light
- Do consider a few drops of bottle in baby's mouth
  - Sweet liquid may decrease pain perception (evidence based!)
- Do warm foot – 5 minutes



Shhh!

Cleanse foot with alcohol swab  
Let skin air dry



Choose site:

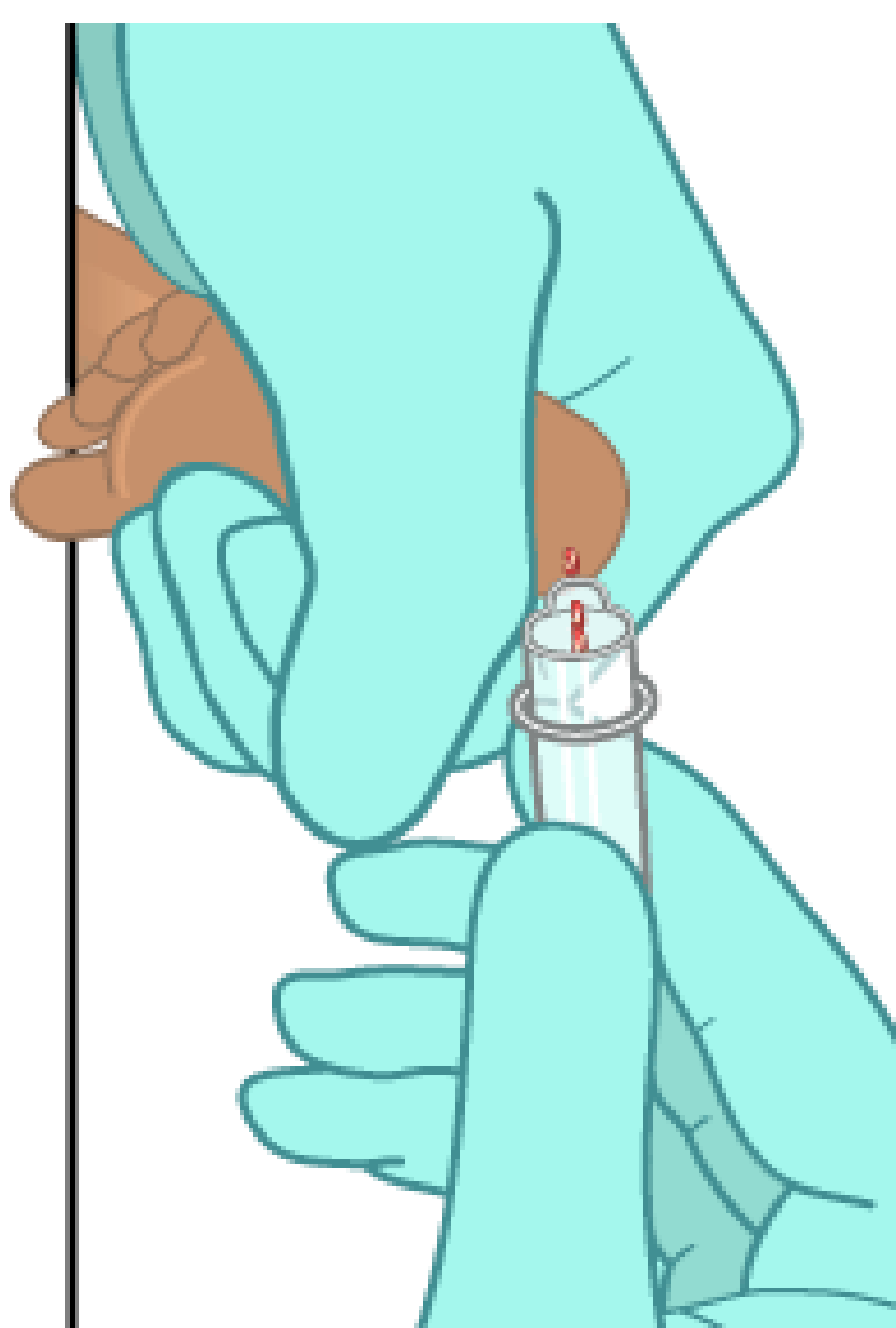
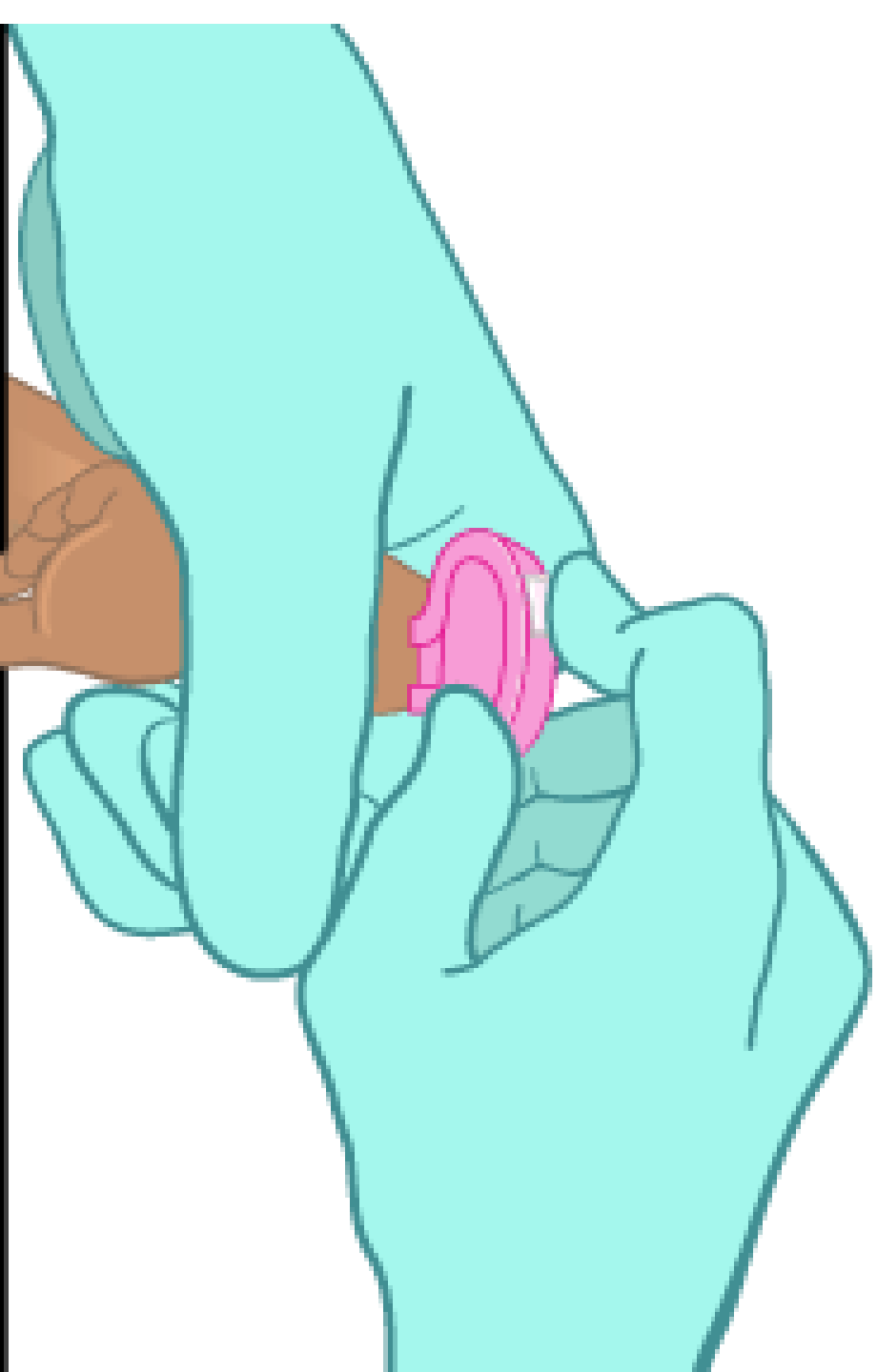
**YES**

**YES**









# Do (continued)

---

- Do follow site SOP and all relevant policies for discarding biohazard sharps
- Do gently wipe away 1<sup>st</sup> drop of blood with sterile gauze
- Do apply gentle pressure with thumb and ease intermittently as drops of blood form
  - Apply pressure so that incision is open

# Do (continued)

---

- Do elevate foot after blood collection
- Do press sterile gauze pad against puncture site until bleeding stops
- Do bandage the collection site
  - Bandages not always required in healthy, HIV-negative newborns
  - Bandage may be reassuring for parents and prevent soiling of items with blood

# Don't

---

- Don't do heel stick if any of the following are present on the sampling area
  - Significant injury, infection, anomaly, edema
- Don't use the wrong size lancet
  - 0.85 mm incision depth is for small-for-gestational-infants and premature infants who weigh more than 1 kg
  - **1 mm incision depth is for term infants aged 6 months or younger**

# Don't (continued)

---

- Don't squeeze too hard!
  - Can lead to hemolysis and pain
- Don't squeeze without releasing pressure intermittently
  - Need to allow capillaries to refill to collect additional drops
- Don't collect drops from adjacent skin, whenever possible
  - Can interfere with some assays

# Questions?

---



Clinical:

[mtn016mgmt@mtnstopshiv.org](mailto:mtn016mgmt@mtnstopshiv.org)

Laboratory:

[mtnnetworklab@mtnstopshiv.org](mailto:mtnnetworklab@mtnstopshiv.org)

# Acknowledgements

---

MTN is funded by NIAID (5UM1AI068633), NICHD and NIMH, all of the U.S. National Institutes of Health