HIV Care for Transgender Women

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National: Transwomen and HIV

- **HIV Prevalence** (Herbst et al. 2008)
  - 28% overall prevalence
  - 56% among African-American

- **Less likely to receive HAART** (Melendez et al, 2005)
  - 59% vs. 82%

- **Less likely to be adherent** (Sevelius et al, 2010)
  - less confidence in ability to integrate treatment regimens into daily lives
  - fewer positive interactions with health care providers

- **Stigma associated with poor adherence** (Sayles 2009)
# Indications for Initiating ART:

No different for transwomen

<table>
<thead>
<tr>
<th>Clinical Category</th>
<th>Recommendation</th>
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</thead>
<tbody>
<tr>
<td>• History of AIDS-defining illness</td>
<td>Initiate ART</td>
</tr>
<tr>
<td>• CD4 &lt;350 cells/mm³</td>
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<tr>
<td>• CD4 350-500 cell/mm³</td>
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<tr>
<td>• Pregnant women</td>
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<tr>
<td>• HIV-associated nephropathy</td>
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<tr>
<td>• Hepatitis B co-infection, when HBV treatment is indicated*</td>
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*Treatment with fully suppressive drugs active against both HIV and HBV is recommended.*
The Hormone Bridge

A study of HIV+ transgender women seen in a NY Clinic found combining hormone therapy with HIV care:

- Stopped their self-medication of hormones
- Stopped their sharing of needles to inject hormones
- Increased their adherence with their HIV meds
- Increased their condom use
- Decreased their reliance on sex work to pay for hormones

HIV-Related Drug Interactions
# Available Antiretroviral Agents: Jan 2011

<table>
<thead>
<tr>
<th>NRTIs</th>
<th>PIs</th>
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<tbody>
<tr>
<td>Abacavir (Ziagen)</td>
<td>Atazanavir (Reyataz)</td>
</tr>
<tr>
<td>Didanosine (Videx)</td>
<td>Darunavir (Prezista)</td>
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<tr>
<td>Emtricitabine (Emtriva)</td>
<td>Fosamprenavir (Lexiva)</td>
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<tr>
<td>Lamivudine (Epivir)</td>
<td>Indinavir (Crixivan)</td>
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<tr>
<td>Stavudine (Zerit)</td>
<td>Lopinavir/ritonavir (Kaletra)</td>
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<tr>
<td>Tenofovir (Viread)</td>
<td>Nelfinavir (Viracept)</td>
</tr>
<tr>
<td>Zidovudine (Retrovir)</td>
<td>Ritonavir (Norvir)</td>
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<tr>
<td>3TC/ABC (Epzicom)</td>
<td>Saquinavir (Invirase)</td>
</tr>
<tr>
<td>3TC/ABC/ZDV (Trizivir)</td>
<td>Tipranavir (Aptivus)</td>
</tr>
<tr>
<td>3TC/ZDV (Combivir)</td>
<td></td>
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<tr>
<td>FTC/TDF (Truvada)</td>
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<table>
<thead>
<tr>
<th>NNRTIs</th>
<th>Fusion Inhibitors (FIs)</th>
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<tbody>
<tr>
<td>Delavirdine (Rescriptor)</td>
<td>Enfuvirtide (Fuzeon)</td>
</tr>
<tr>
<td>Efavirenz (Sustiva)</td>
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</tr>
<tr>
<td>Nevirapine (Viramune)</td>
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<tr>
<td>Etravirene (Intelence)</td>
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<table>
<thead>
<tr>
<th>Multiple Class</th>
<th>Integrase Inhibitor</th>
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<tbody>
<tr>
<td>Atripla (EFV/FTC/TDF)</td>
<td>Raltegravir (Isentress)</td>
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<tr>
<th>CCR5 Inhibitor</th>
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<tr>
<td>Maraviroc (Selzentry)</td>
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Hormones and Antiretrovirals

- Most evidence based on oral contraceptives
  - Oral contraceptives are ethinyl estradiol
  - NOT the same as 17-β estradiol or CEE

- Most interactions decrease estrogen levels
  - This may be an issue if estrogen is continued and antiretrovirals are stopped
  - This may lead to dangerously high estrogen levels with associated risk of adverse effects
Drug Interaction

Estrogen levels are **DECREASED** by:

- Nelfinavir
- Nevirapine
- Ritonavir
- Lopinavir
- Rifampin
- Progesterone
- Dexamethasone
- Naphthoflavone
- Sulfamidine
- Carbamazepine
- Phenytoin
- Phenobarbital
- Phenylbutazone
- Benzoflavone
- Sulfinpyrazone

[www.hivwebstudy.org](http://www.hivwebstudy.org)
Drug Interaction

Estragen levels are **INCREASED** by:

- Isoniazid
- Fluvoxamine
- Fluoxetine
- Indinavir
- Efavirenz
- Sertraline
- Paroxetine
- Diltiazem
- Verapamil
- Cimetidine

- Astemizole
- Itraconazole
- Ketoconazole
- Fluconazole
- Miconazole
- Clarythromycin
- Erythromycin
- Grapefruit
- Triacetyloleandomycin

www.hivwebstudy.org
Antiretrovirals and Estrogens

- **Protease Inhibitors (PI)**
  - Most PI’s decrease estrogen levels
  - Atazanavir and Indinavir decrease estrogen levels
  - Amprenavir and Fosamprenavir reduced 20% by estrogen

- **Non-nucleosides (NNRTI)**
  - Nevirapine decreases estrogen levels
  - Efavirenz increases estrogen levels

- **No known significant interactions with other classes**
HIV and Hormones: Take Home

- Amprenavir and Fosamprenavir are the only antiretrovirals should **not** be co-administered with estrogen due to risk of virologic failure.

- Several HIV medications change the levels of estrogens, therefore estrogen dose adjustment may be necessary.

- Gender confirming hormone therapy is not contraindicated in HIV disease
CASES