



# **HIV Care for Transgender Women**

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# National: Transwomen and HIV

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- **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

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Clinical Category	Recommendation
<ul style="list-style-type: none"><li>• History of AIDS-defining illness</li><li>• CD4 &lt;350 cells/mm<sup>3</sup></li><li>• CD4 350-500 cell/mm<sup>3</sup></li><li>• Pregnant women</li><li>• HIV-associated nephropathy</li><li>• Hepatitis B co-infection, when HBV treatment is indicated*</li></ul>	<p>Initiate ART</p>



\*Treatment with fully suppressive drugs active against both HIV and HBV is recommended.

# The Hormone Bridge

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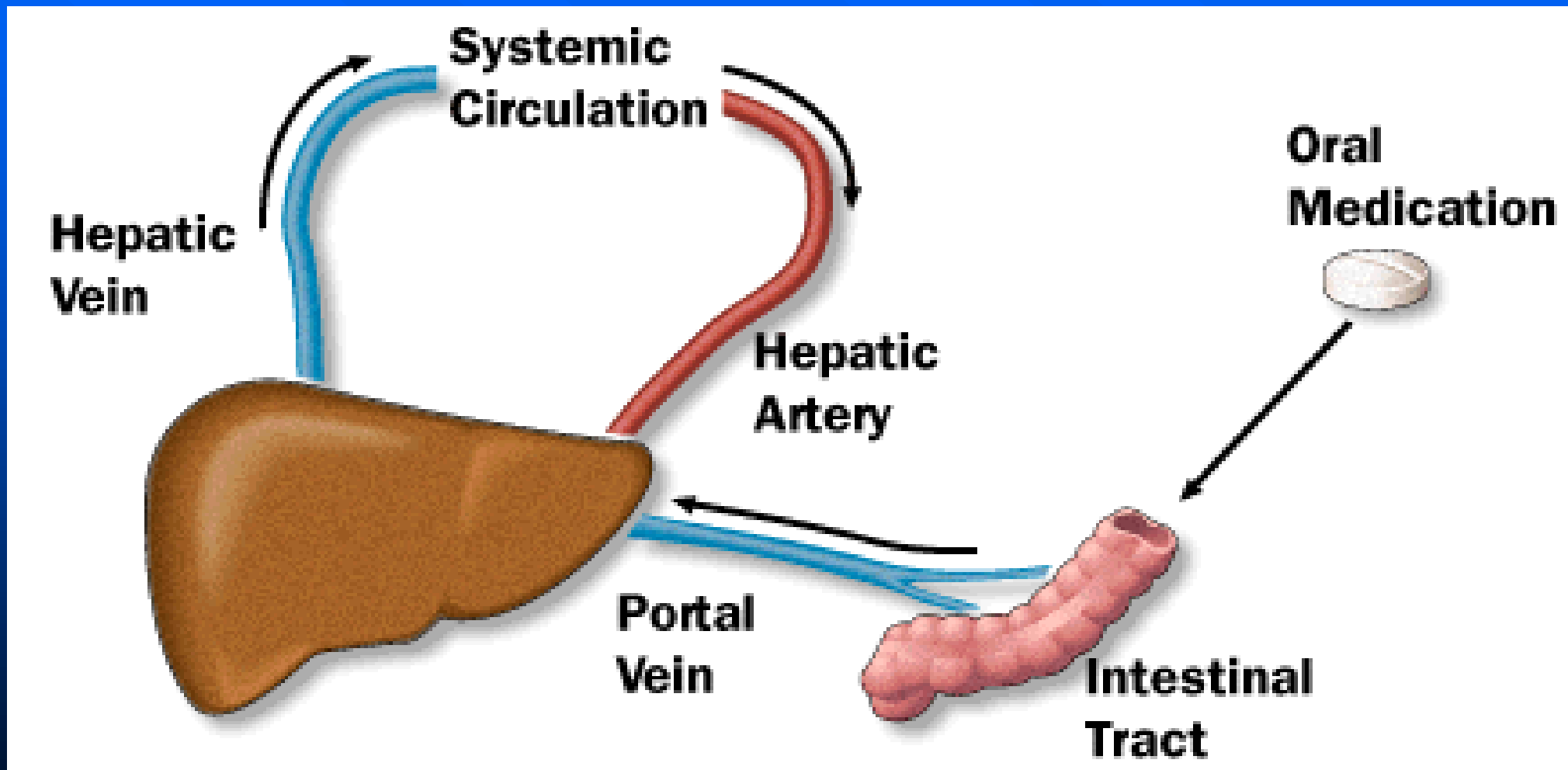
**A study of HIV+ transgender women seen in a NY Clinic found combining hormone therapy with HIV care:**

- **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**

**Grimaldi J. & Jacobs J. (1998) The HIV hormone bridge: connecting impoverished HIV+ transsexual sex workers to HIV medical care. *AIDSLine*, ICA12/98406957. Available online at: <http://www.aegis.com/aidsline/1998/dec/m98c1575.html>**



# HIV-Related Drug Interactions



# Available Antiretroviral Agents: Jan 2011

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## NRTIs

Abacavir (Ziagen)  
Didanosine (Videx)  
Emtricitabine (Emtriva)  
Lamivudine (Epivir)  
Stavudine (Zerit)  
Tenofovir (Viread)  
Zidovudine (Retrovir)  
3TC/ABC (Epzicom)  
3TC/ABC/ZDV (Trizivir)  
3TC/ZDV (Combivir)  
FTC/TDF (Truvada)

## NNRTIs

Delavirdine (Rescriptor)  
Efavirenz (Sustiva)  
Nevirapine (Viramune)  
Etravirene (Intelece)

## Multiple Class

Atripla (EFV/FTC/TDF)

## PIs

Atazanavir (Reyataz)  
Darunavir (Prezista)  
Fosamprenavir (Lexiva)  
Indinavir (Crixivan)  
Lopinavir/ritonavir (Kaletra)  
Nelfinavir (Viracept)  
Ritonavir (Norvir)  
Saquinavir (Invirase)  
Tipranavir (Aptivus)

## Fusion Inhibitors (FIs)

Enfuvirtide (Fuzeon)

## Integrase Inhibitor

Raltegravir (Isentress)

## CCR5 Inhibitor

Maraviroc (Selzentry)



# Hormones and Antiretrovirals

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- **Most evidence based on oral contraceptives**
  - Oral contraceptives are ethinyl estradiol
  - NOT the same as 17- $\beta$  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

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Estrogen levels are **DECREASED** by:

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





# Drug Interaction

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Estragen levels are ***INCREASED*** by:

- Isoniazid
- Fluvoxamine
- Fluoxetine
- Indinavir
- Efavirenz
- Sertraline
- Paroxetine
- Diltiazem
- Verapamil
- Cimetidine
- Astemizole
- Itraconazole
- Ketoconazole
- Fluconazole
- Miconazole
- Clarythromycin
- Erythromycin
- Grapefruit
- Triacetyloleandomycin



# Antiretrovirals and Estrogens

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- **Protease Inhibitors (PI)**
  - Most PI's decrease estrogen levels
  - Atazanivir 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



# Expert Advice at Your Fingertips

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