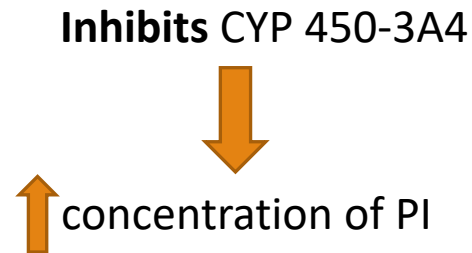


Session 1 & 2 Review

ART Regimen: Building Blocks

3 meds

- 2 fully active
- PI needs a **ritonavir** “booster”



Core

Backbone

INSTI

+

NRTI

+

NRTI

PI

+

NRTI

+

NRTI

NNRTI

+

NRTI

+

NRTI

Nucleoside Reverse Transcriptase Inhibitor NRTI

Tenofovir [TDF]

- Need for HIV-HBV co-infxn [alternative = entecavir]
- Dose reduction for CrCl <50

Lamivudine [3TC]

- Well, tolerated
- in all 1st & 2nd line regimens

Abacavir [ABC]

- Hypersensitivity reaction = absolute contraindication

Zidovudine [AZT]

- Q12hr dosing
- NOT if hgb <8
- Watch for anemia

Available Combo Pills

- ABC/3TC
- TDF/3TC
- AZT/3TC

Core

?

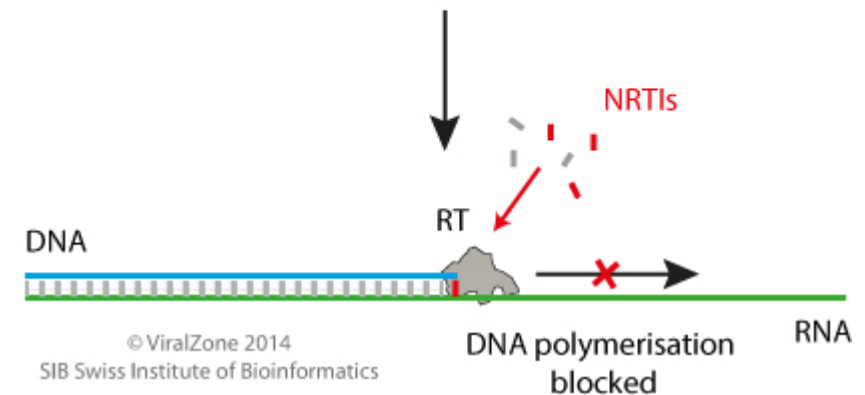
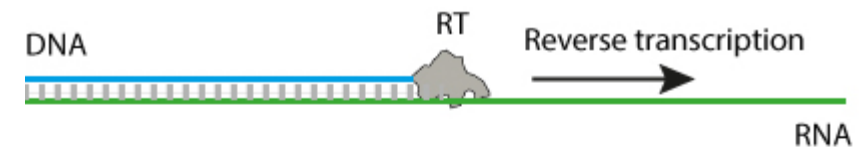
+

Backbone

NRTI

+

NRTI



Non-Nucleoside Reverse Transcriptase Inhibitor NNRTI

Nevirapine [NVP]

- **1st line**, but not for ART start
- SE: hypersensitivity reaction, rash, hepatitis

Efavirenz [EFV]

- **1st line**, but not for ART start
- SE: neuropsych, insomnia, nightmares, dizziness, gynecomastia

Available Single Tablet Regimen

- AZT / 3TC / NVP
- TDF / 3TC / EFV – “**B+**”
 - Very similar to “Atripla”

Core

NNRTI

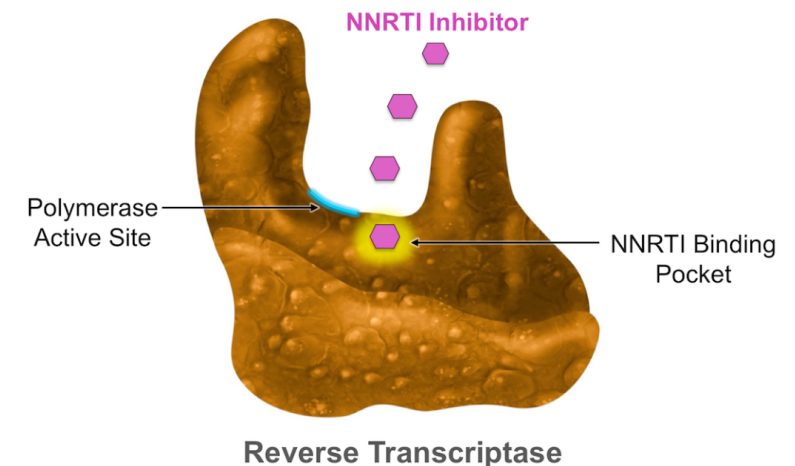
+

Backbone

NRTI

+

NRTI



Protease Inhibitor PI

Lopinavir / ritonavir [LPV/r – Kaletra]

- 2nd line
- diarrhea

Atazanavir / ritonavir [ATV/r]

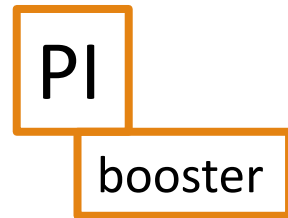
- 2nd line
- Do NOT use with rifampicin for MTB tx
- Benign hyperbili/jaundice

Darunavir / ritonavir [DRV + r]

- 3rd line
- Must take separately

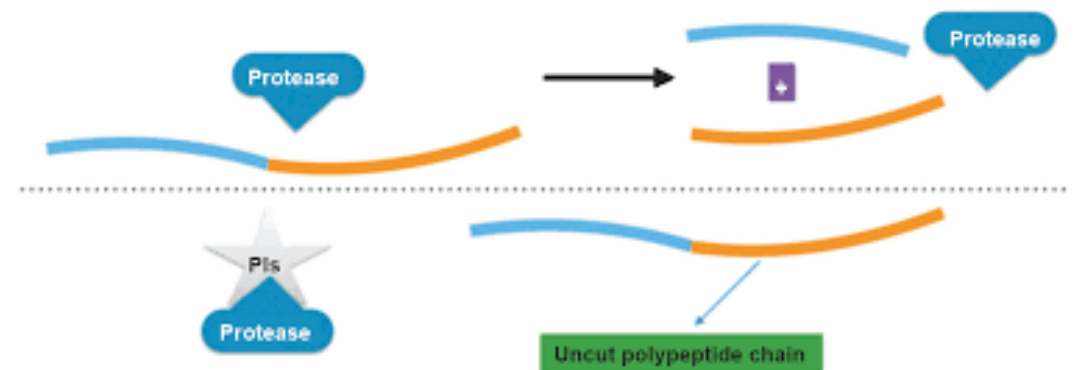
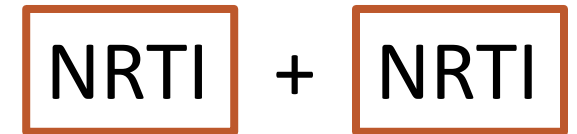
Not Available in Single Tablet Regimen

Core



+

Backbone



Integrase Strand Transfer Inhibitor INSTI

Dolutegravir [DTG]

- **1st line** for patients 30kg + without childbearing potential
- WHO: 1st line treatment for pregnant women
- SE mild: HA, insomnia, nausea
 - Check LFTs before/after initiation if known liver disease
- BID with rifapentine for MTB treatment

Available Single Tablet Regimen

- TDF / 3TC / DTG

Core

INSTI

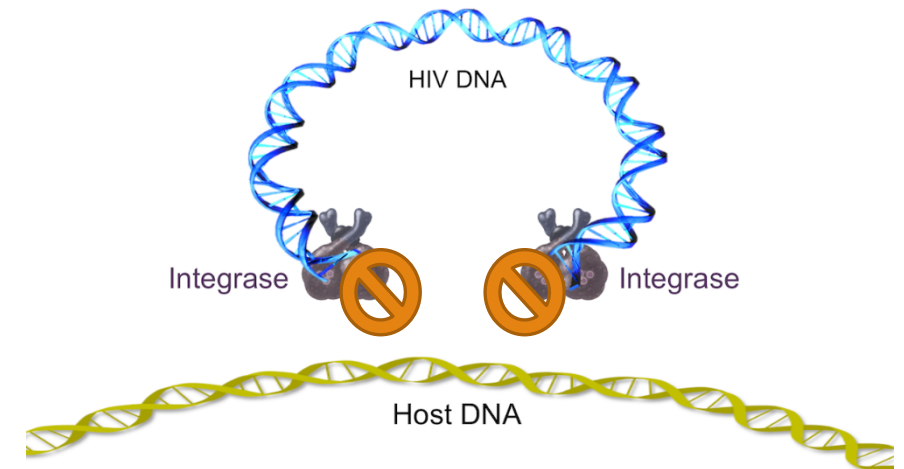
+

Backbone

NRTI

+

NRTI



ART key

DTG

dolutegravir

ATV/r

atazanvir / ritonavir

LPV/r

lopinavir / ritonavir

DRV + r

darunavir / ritonavir

NVP

nevirapine

EFV

efavirenz

TDF

tenofovir

ABC

abacavir

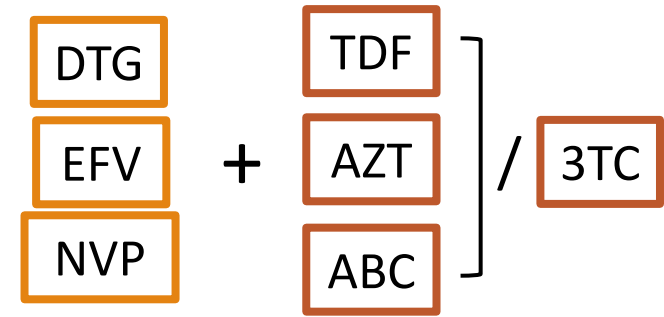
3TC

lamivudine

AZT

zidovudine

First Line ART



START

Core Backbone

Men 30kg
Women 45yo + DTG / TDF / 3TC

Women of "B+"
childbearing
potential EFV / TDF / 3TC

Patients
< 30kg NVP / AZT / 3TC

Not for START

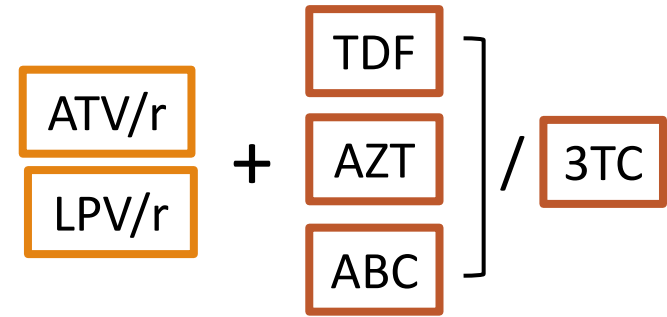
Core Backbone

DTG + AZT / 3TC
ABC / 3TC

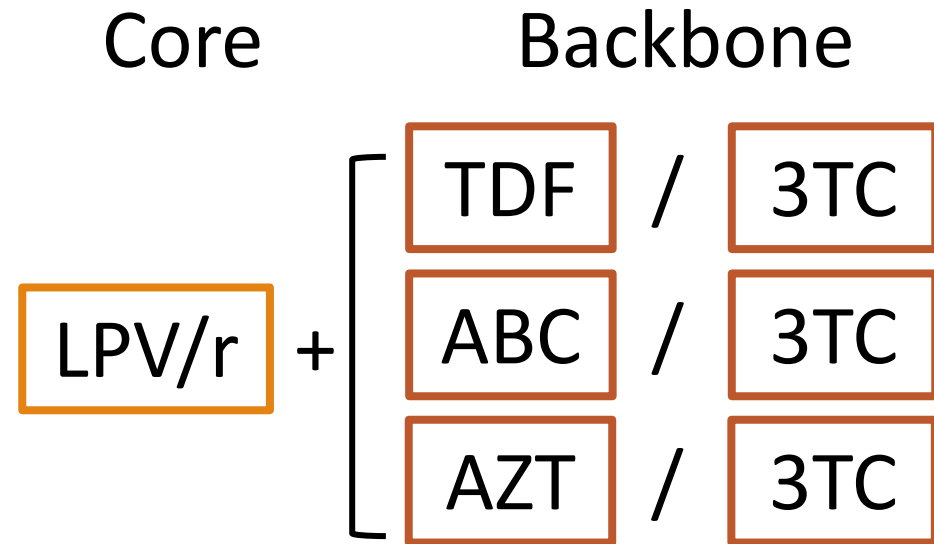
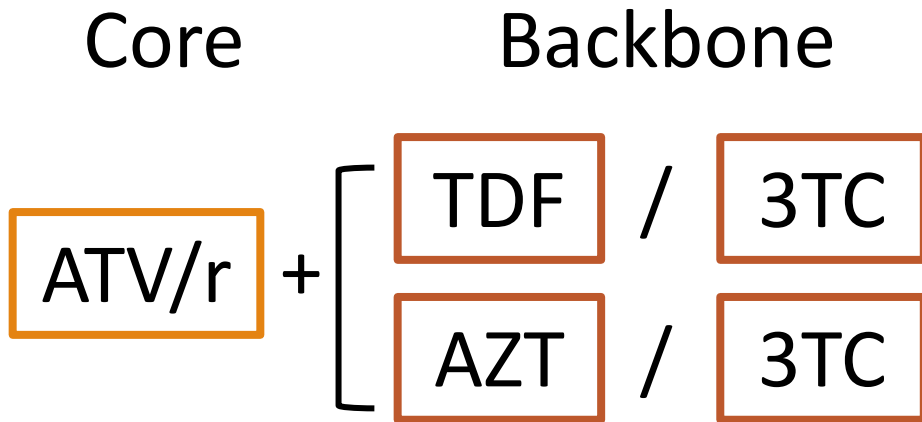
EFV + AZT / 3TC

NVP + TDF / 3TC
ABC / 3TC

2nd line ART



Not for START*



*1st line START
for < 3yo IF
extra support

3rd line ART

2 Core Agents

DRV + r + **DTG***

*DTG is BID if INSTI resistance

Backbone

TDF / 3TC
ABC / 3TC
AZT / 3TC

Assumes likely resistance to at least 2 prior agents

- Assumes failure to prior treatment with core of:

ATV/r or **LPV/r** or **DTG**

- For likely NRTI resistance, “flip” the backbone (or follow genotype)

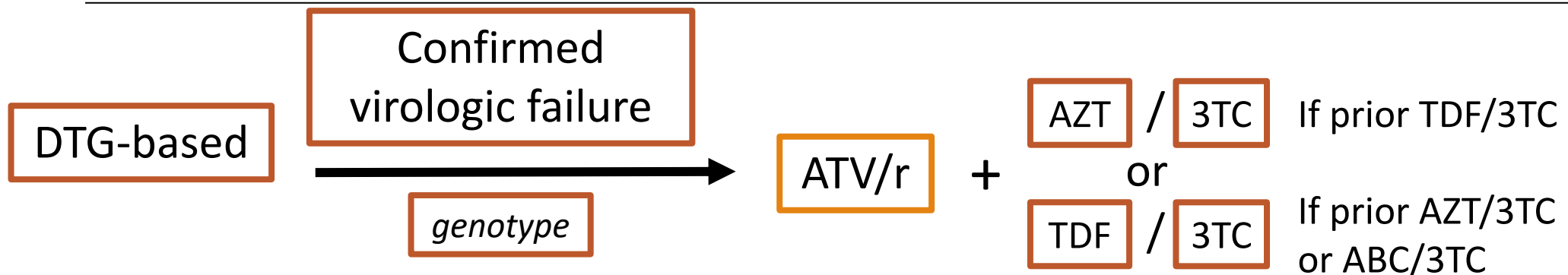
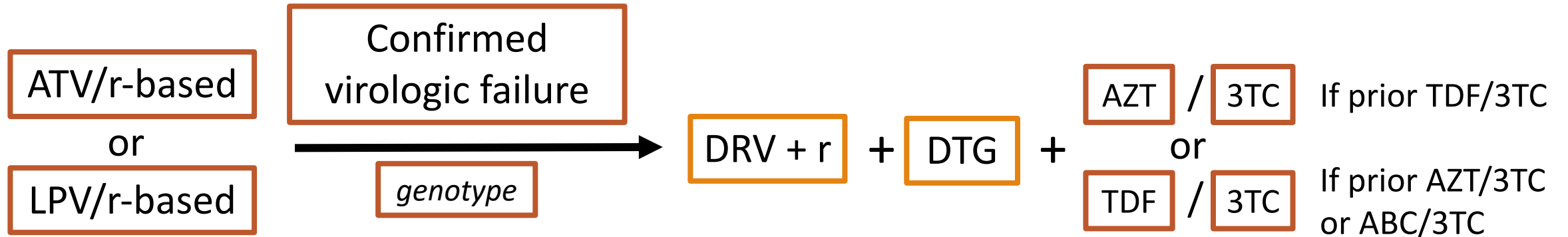
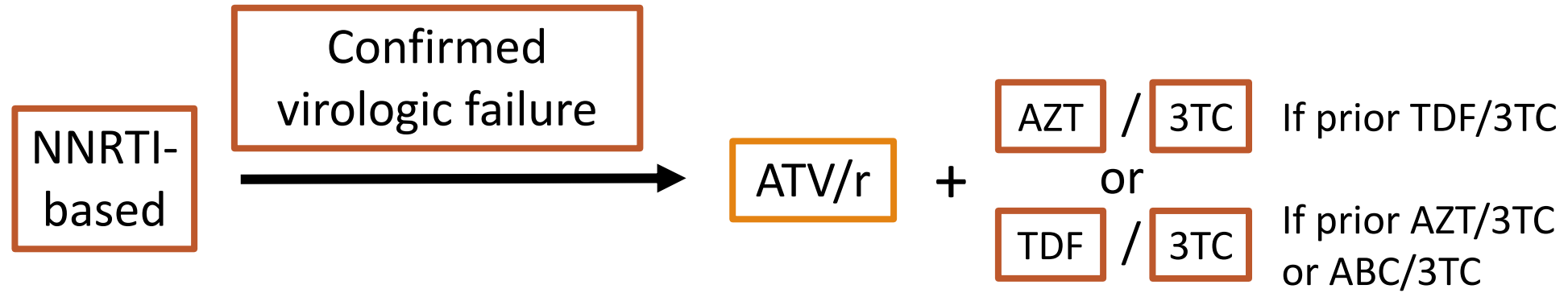
If failed on:

Switch to:

ABC or **TDF** → **AZT**

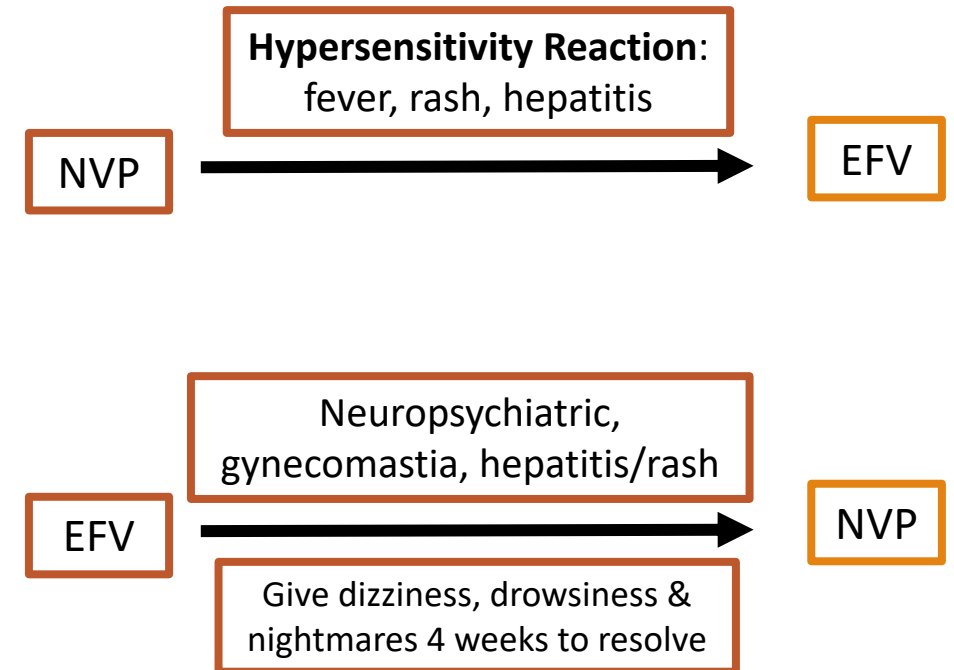
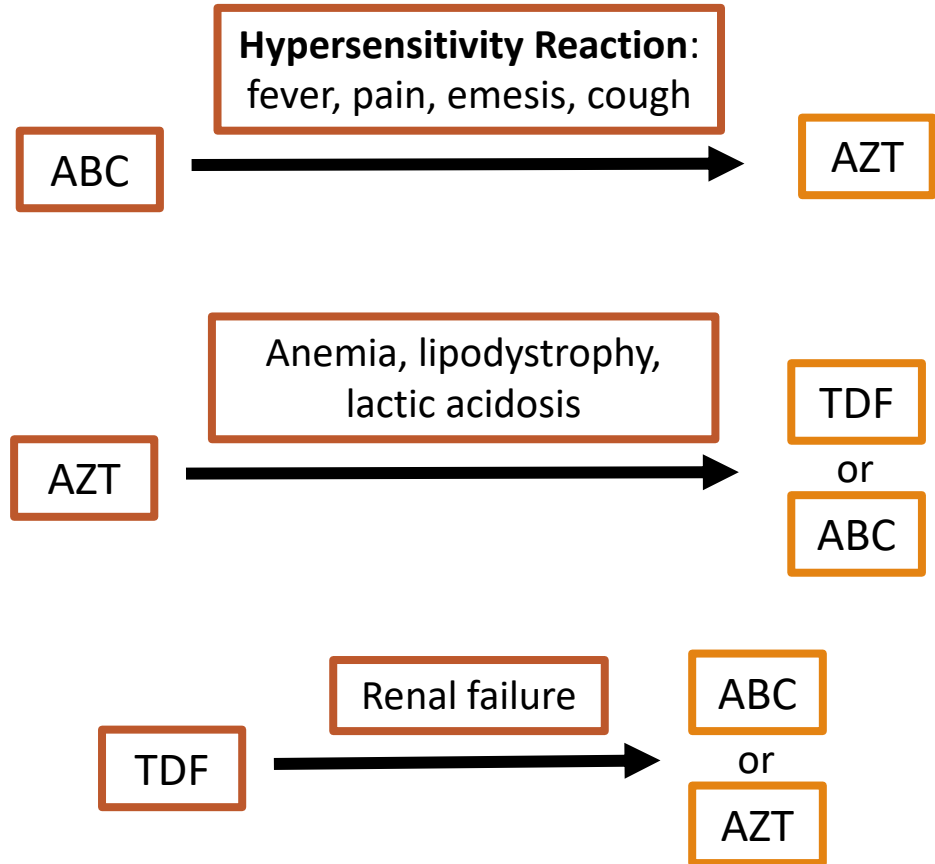
AZT → **TDF**

Initial Treatment Failure (go to Alt 1)

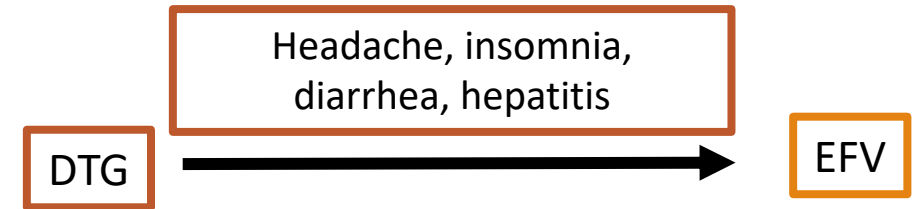
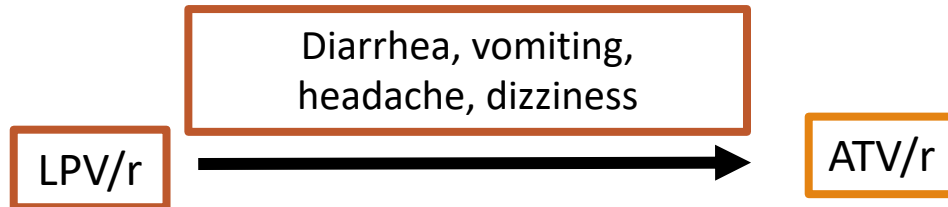
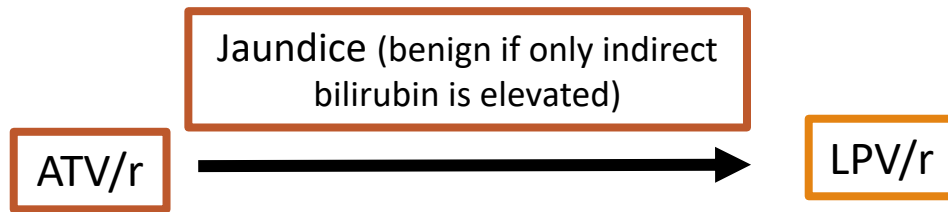


Any suspected hypersensitivity reaction =
STOP the ART & DO NOT re-challenge

NRTI & NNRTI Switches by adverse effects



PI & INSTI Switches by adverse effects



Case

32 year old female

- Weight loss and diarrhea for 6 months
- BMI now 18
- HIV diagnosed by rapid testing 1 month ago

How do you counsel?

What is your next step?

Case (cont)

1 months later you see her in clinic

- Reports full adherence
- Diarrhea has stopped, weight is same as on start
- Notes that she has been feeling depressed

What do you review?

What are your next steps?

Case (cont)

She returns for 2nd month review

- Nightmares developed
- She has stopped her ART for the past 2 weeks entirely

What is your next step?

Case (cont)

You have switched your patient to a DTG-based regimen. Her 6 month viral load returns **detectable** but $< 1,000$.

What is your next step?

Case (cont)

She discloses that her husband is a truck driver who travels a 3-day route each week. She has not disclosed to him for fear of his reaction and therefore does not take ART on days when he is home to avoid inadvertent disclosure.

How do you respond?

Cases

55yoM with CKD recently started on DTG/ABC/3TC develops a cough and vomiting 2 weeks after starting.

- What is going on? Do you switch ART, and if so to what?

23yoF planning pregnancy soon sees you in clinic for new HIV diagnosis & ART start.

- How do you counsel her on ART options?

34yoF presents with suicidal ideation after starting ART recently. She does not know her meds and medical records are missing.

- What ART might she be on, and what do you suggest?

Cases

59yoM with HTN on NVP/TDF/3TC presents with 20lb weight loss and polyuria over 3 months.

- What do you suspect? What studies do you order? What is your recommendation?

63yoF on NVP/AZT/3TC notes an increasingly protuberant abdomen and thinning facial soft tissue.

- What do you suspect? What is your recommendation?

33yoM on NVP/TDF/3TC has VL 2,350 after IAC and 3 months of good adherence.

- What is your recommendation?

43yoF on LPV/r/TDF/3TC with chronic diarrhea without weight loss for 3 months.

- What do you suspect? What is your recommendation?