Adult third-line ART update

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Disclosures

• Speaker fees and honoraria from Gilead Sciences, AbbVie, Cipla, Mylan, Aspen, Sanofi, Pfizer and Janssen

• Conference sponsorship from BD, Gilead, Janssen, Merck, Cipla and Mylan

• Part of ART optimisation collaborations

• Funding from USAID, Unitaid, SAMRC and study drug donations from ViiV Healthcare and Gilead Sciences for ART optimisation studies
SA has largest ARV programme: > 5 million
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- ZDV
- 3TC
- PI/r (LPV or ATV)

Failure

XTC, other nukes

- Darunavir
- Dolutegravir
- Etravirine

239 000

1600 Since 2013

Moorhouse et al, 26th IWHDRTS; Personal communication
SA has largest ARV programme: > 5 million

Moorhouse et al, 26th IWHDRS; Personal communication
With continued ARV scale up...

TDF + XTC + Efavirenz

ZDV + 3TC + PI/r (LPV or ATV)

Failure

Failure

XTC, other nukes

Darunavir | Dolutegravir | Etravirine
Second-line

TDF + XTC + EFV

ZDV + 3TC + PI/r (LPV or ATV)

Toxicity
Pill burden
Cost

Darunavir
Raltegravir
Etravirine

Moorhouse et al, 26th IWHDRTS
As more patients fail PI/r regimens...

- TDF + XTC + Efavirenz

  Failure

- ZDV + 3TC + PI/r (LPV or ATV)

  Failure

- XTC, other nukes

- Darunavir, Dolutegravir, Etravirine

Moorhouse et al, 26th IWHDRTS
As more patients fail PI/r regimens...

TDF + XTC + Efavirenz

ZDV + 3TC

SUSTAINABILITY?

Darunavir, Dolutegravir, Etravirine

Moorhouse et al, 26th IWHDRTS
So how many adults failing PI/r-based ART are accessing third-line ART?

Moorhouse et al, 27th IWHDRTS; SAHCS 2018
Provincial spread

WC numbers do not increase from 2014, as third-line ART was decentralised to province.

Moorhouse et al, 27th IWHDRTS; SAHCS 2018
As more patients fail PI/r regimens...

TDF + XTC + Efavirenz

ZDV + 3TC

Failure

XTC, other nukes

Darunavir + Dolutegravir + Etravirine

Stream line? Task shifting?

Moorhouse et al, 26th IWHDRTS
The algorithm

1. Eligible for third line ART? PI score > 15
2. DRV/r PLUS 3TC/FTC PLUS AZT/TDF (lowest score)
3. TDF/AZT 30 – 59 OR DRV > 15
4. Add InSTI
5. TDF/AZT > 29 AND DRV > 15 AND ETR < 29
6. Add ETR
The algorithm

Eligible for third line ART?
PI score > 15

DRV/r PLUS 3TC/FTC PLUS
AZT/TDF (lowest score)
The algorithm
The algorithm

- Add InSTI
  - TDF/AZT > 29 AND DRV > 15 AND ETR < 29
  - Add ETR

Moorhouse et al, 26th IWHDRTS
Drugs used in third-line ART (adults)

Adult third-line antiretroviral usage

- Darunavir
- Raltegravir
- Dolutegravir
- Etravirine

Moorhouse et al, 27th IWHDRTS; SAHCS 2018
DRV 400 mg is now available in SA

• Currently patients on DRV in third-line receive DRV/r 600/100 mg bid
• A small proportion of third-line patients have no DRV RAMs, and in such patients it may be possible to use DRV/r 800/100 mg daily instead of DRV/r 600/100 mg bid to, reducing pill burden, dosing frequency and side effects
• Patients initiating third-line ART: if DRV score (Stanford) is zero on all genotypes, may initiate DRV 800/100 mg daily
• Switching patients already on third-line: the patient’s VL must be LDL, AND the DRV score (Stanford) MUST be zero on all genotypes the patient has had done
Initiating third-line ART

**PI/r + 2NRTI**

**VL > 1000 copies/mL (confirmed)**

**Genotype: PI/r score ≥ 15 AND DRV score ≤ 0**

**DRV/r 800/100 mg once daily + 2NRTI ± DTG ± ETR**
On DRV/r based third-line ART (600/100 mg bid)

Check VL

LDL

Check all previous genotypes

DRV score ≤ 0 (Stanford)

Switch DRV/r to 800/100 mg

Retain rest of third-line regimen
What is new in third-line?

Third-line antiretroviral therapy programme in the South African public sector: cohort description and virological outcomes

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Final thoughts

• Third-line applications have increased in a non-linear trajectory since 2013
• Quality of applications
• What impact will the introduction of dolutegravir-based regimens have on second- and third-line ART?
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