

# Development of an Algorithm to Determine Appropriate Third-line Antiretroviral Regimens in Patients Failing Protease Inhibitor-based Regimens

M Moorhouse<sup>1</sup>, F Conradie<sup>2</sup>, G Maartens<sup>3</sup>, WDF Venter<sup>1</sup>, M Moosa<sup>4</sup>, K Jamaloodien<sup>5</sup>, and MP Fox<sup>6</sup>

University of Witwatersrand, Faculty of Health Sciences, Gauteng, South Africa; 3 Division of Clinical Pharmacology, Department of Medicine, University of Cape Town; 4 Department of Infectious Disease, Division of Internal Medicine, Nelson R. Mandela School of Medicine, University of KwaZulu-Natal, KwaZulu Natal, South Africa; 5 National Department of Health, South Africa; 6 Department of Global Health, Boston University School of Public Health, MA, USA; Department of Epidemiology, Boston University School of Public Health, MA, USA; Health Economics and Epidemiology Research Office, Department of Internal Medicine, School of Clinical Medicine, Faculty of Health Sciences, University of the Witwatersrand, Gauteng, South Africa.

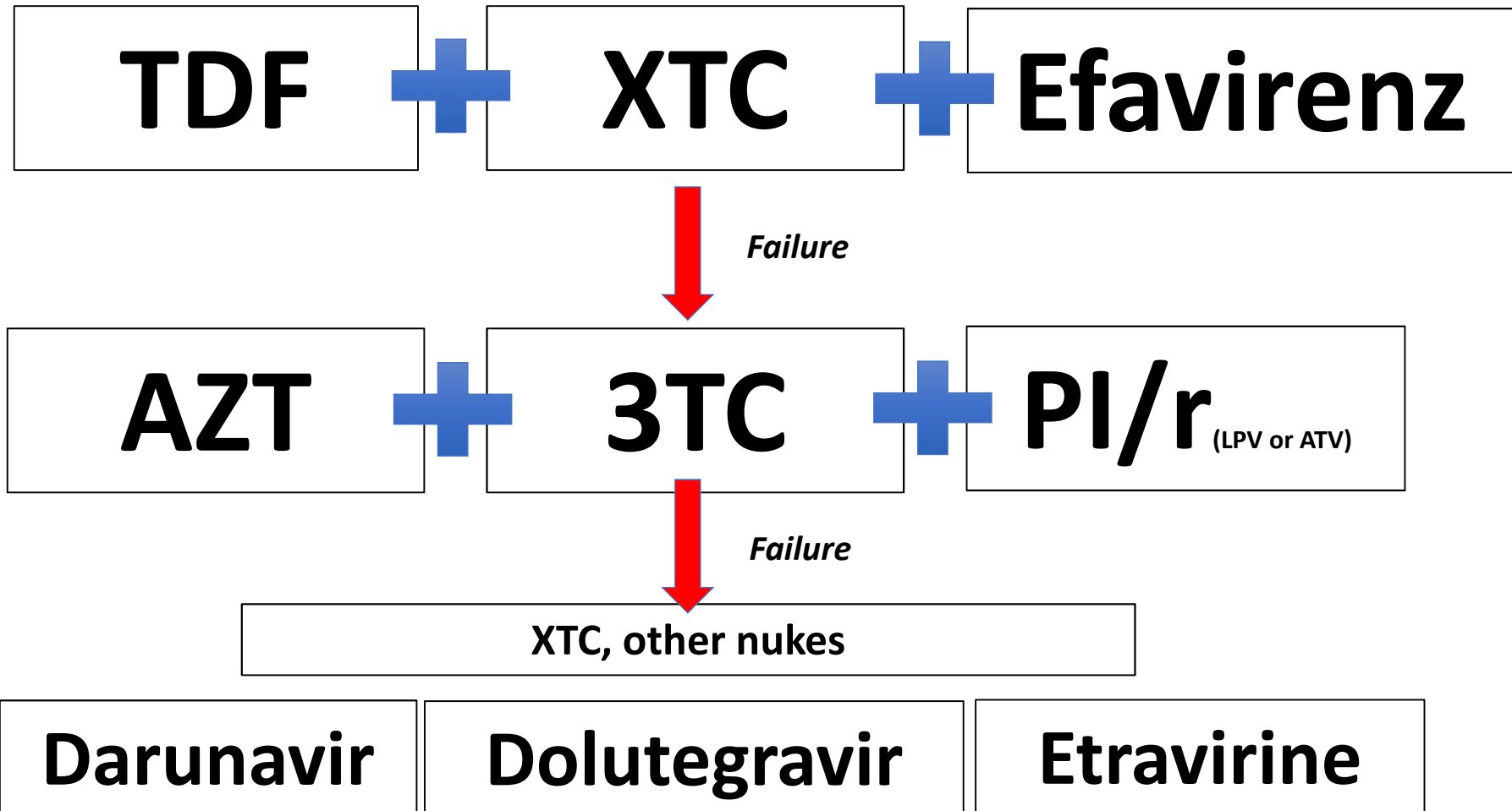


# Disclosures

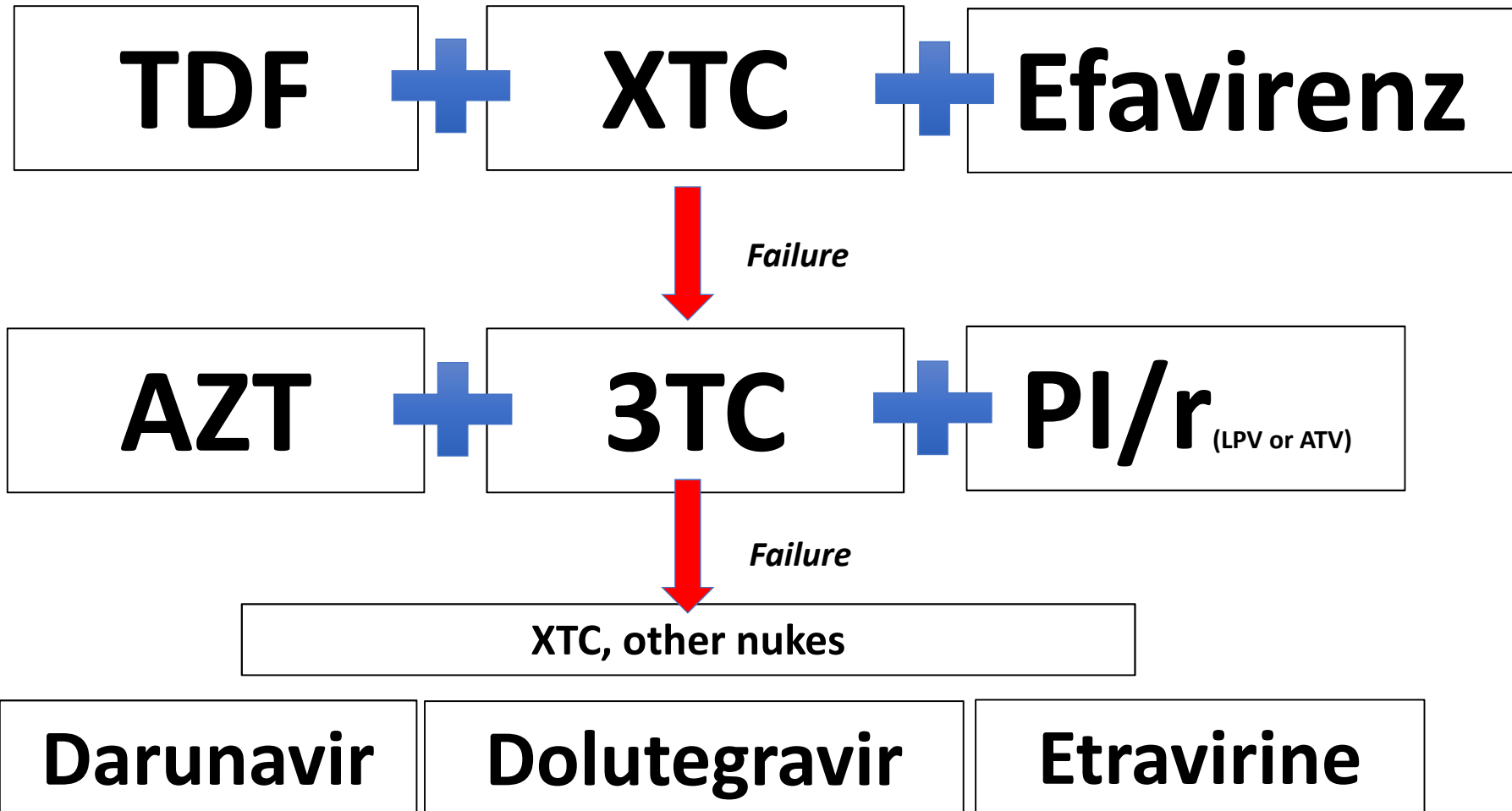
- Speaker fees and honoraria from Gilead Sciences, AbbVie, Cipla, Mylan and Janssen, and has received conference sponsorship from BD, Gilead, Merck, Cipla and Mylan.
- Part of ART optimisation collaborations
- Funding from USAID, Unitaid and study drug donations from ViiV Healthcare and Gilead Sciences
- Member of National Adult Third-line Committee



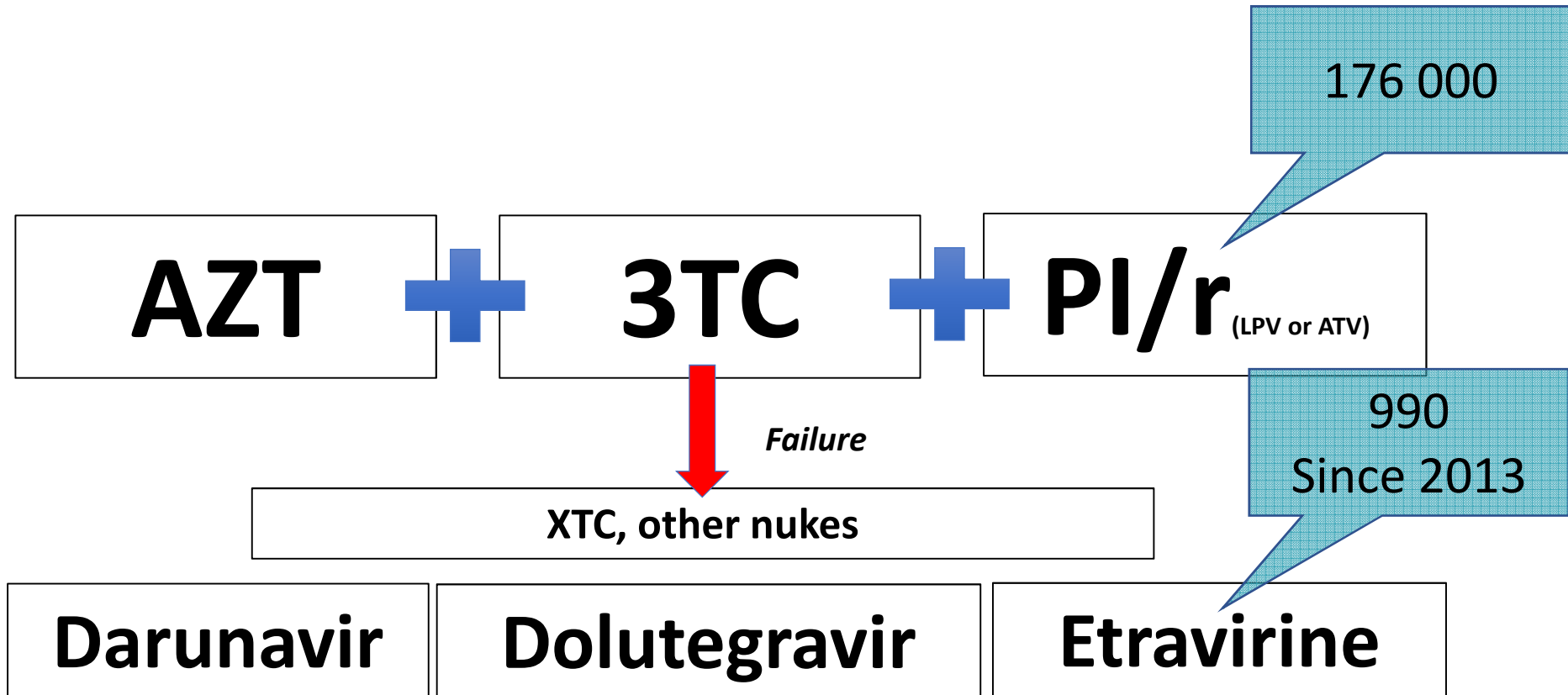
# Background



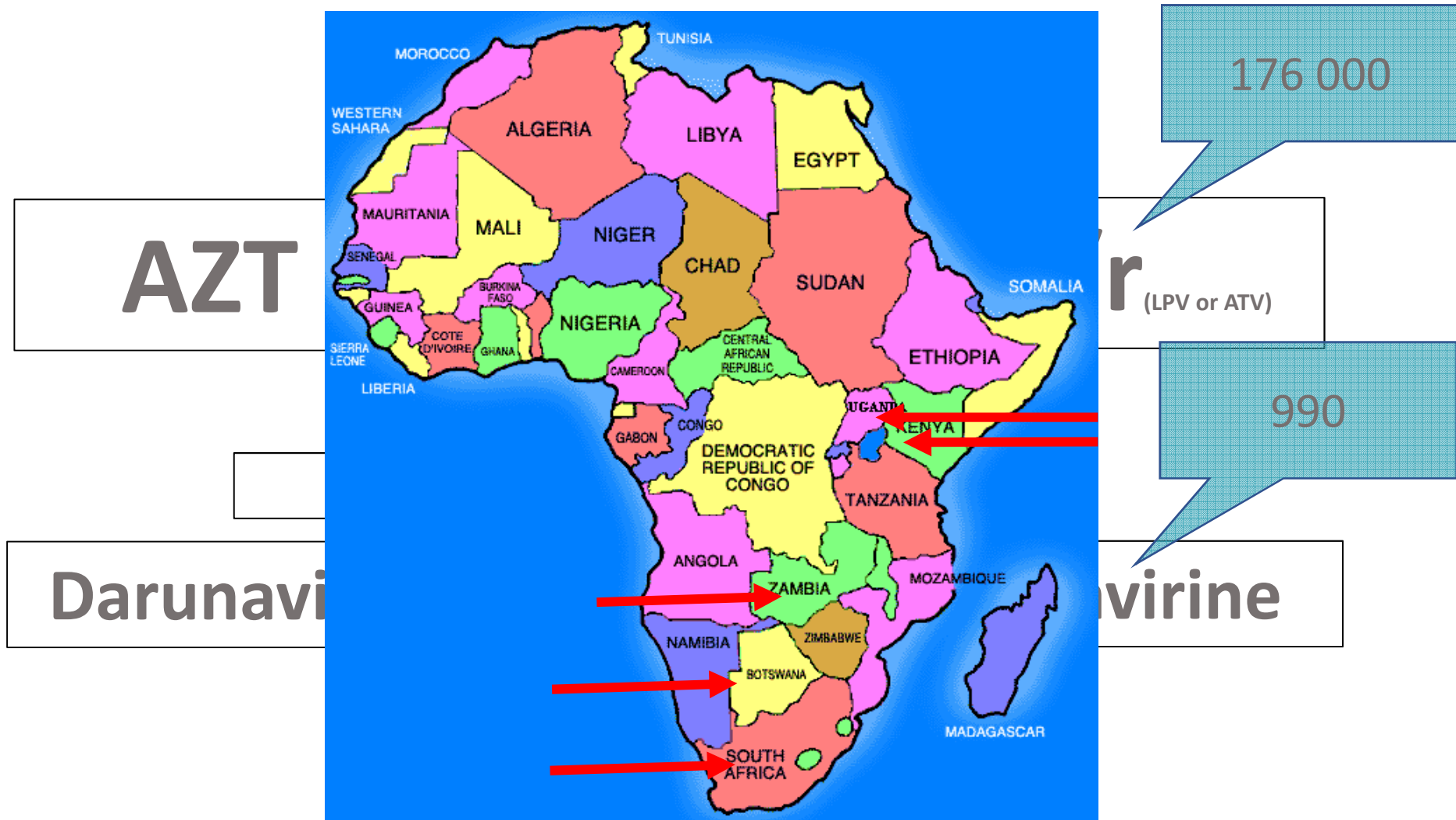
SA has largest ARV programme:  
4 million



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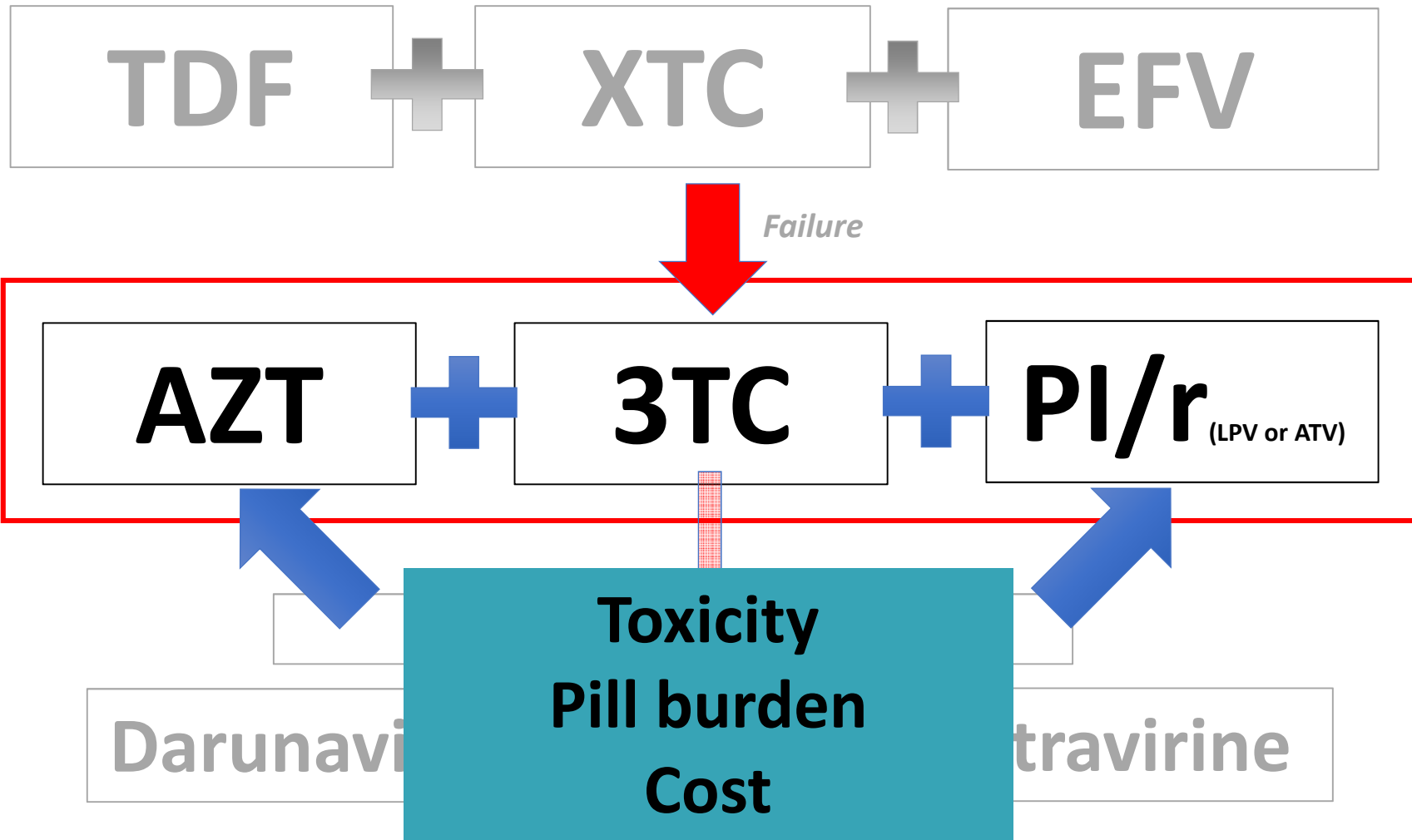
SA has largest ARV programme:  
4 million



With continued ARV scale up...

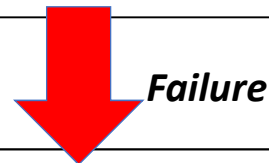
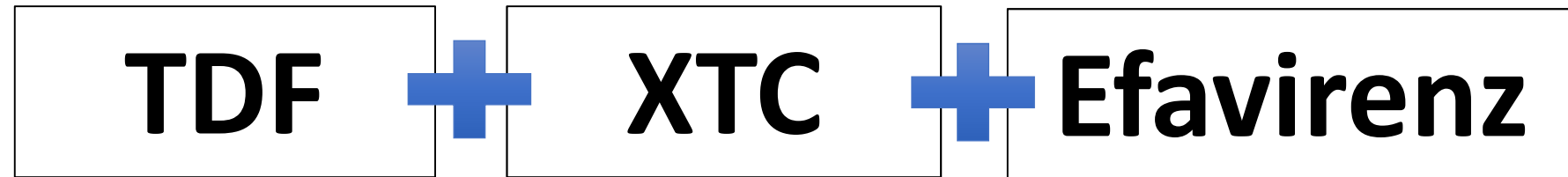


# Second-line





As more patients fail PI/r regimens...



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**TDF** + **XTC** + **Efavirenz**



**AZT** + **3TC**

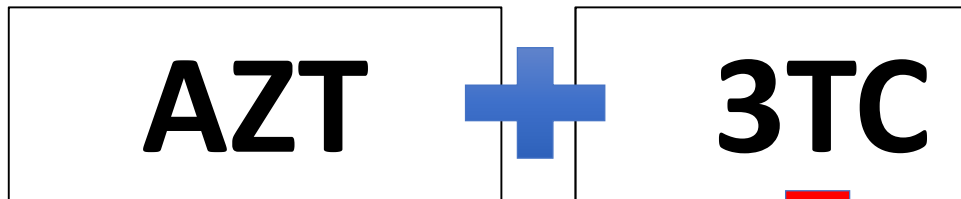
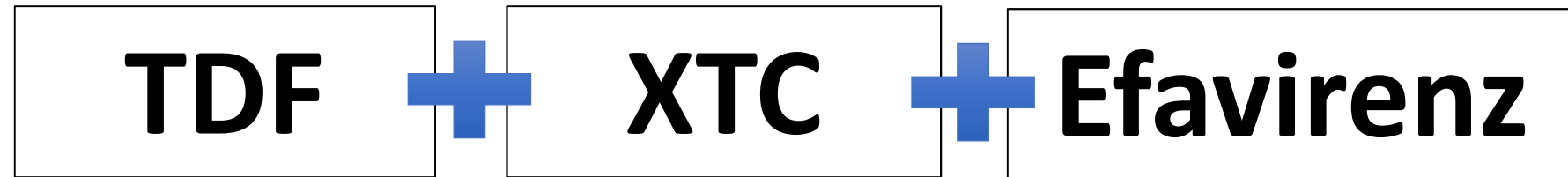


SUSTAINABILITY?

XTC, other nukes

**Darunavir**   **Dolutegravir**   **Etravirine**

As more patients fail PI/r regimens...



Stream line?  
Task shifting?

XTC, other nukes



# Methods

- Centralised committee assesses third-line eligibility, making regimen recommendations for each case
- By examining patterns of resistance and subsequent regimens selected, committee developed an algorithm to determine appropriate third-line ART.

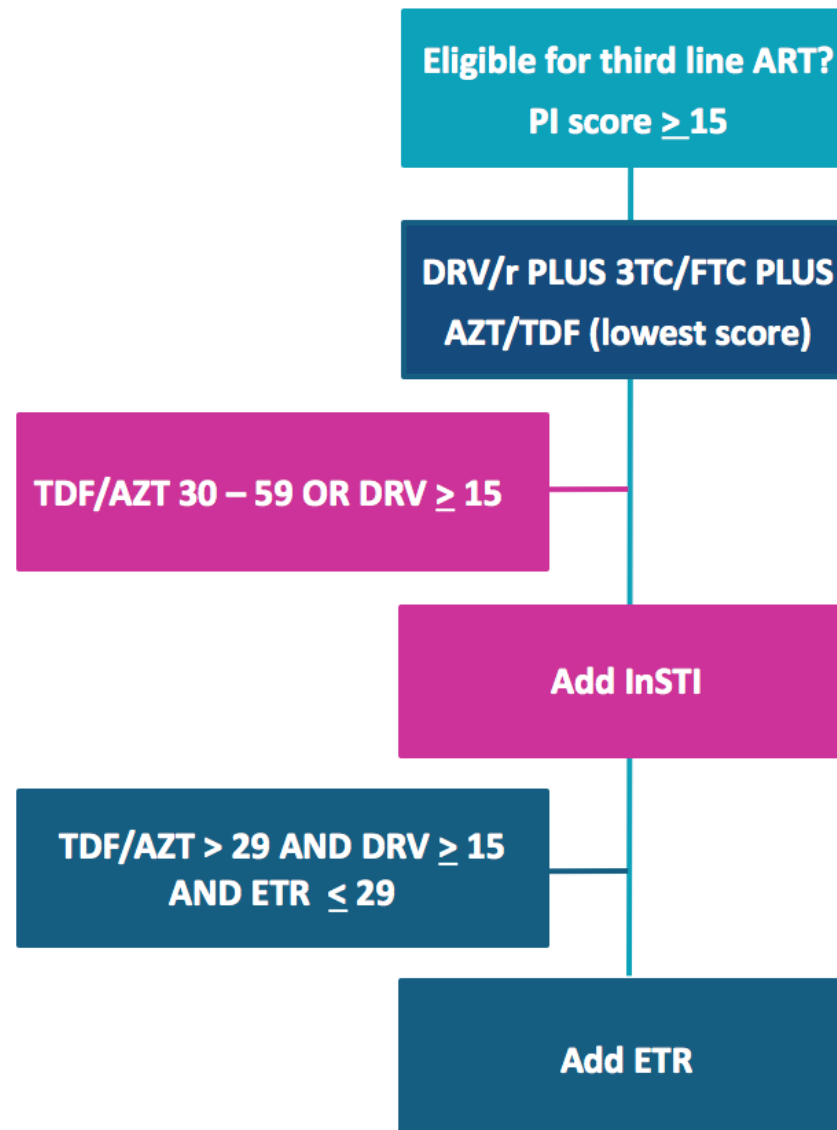
Eligibility criteria:

≥ 1 year PI/r-based ART

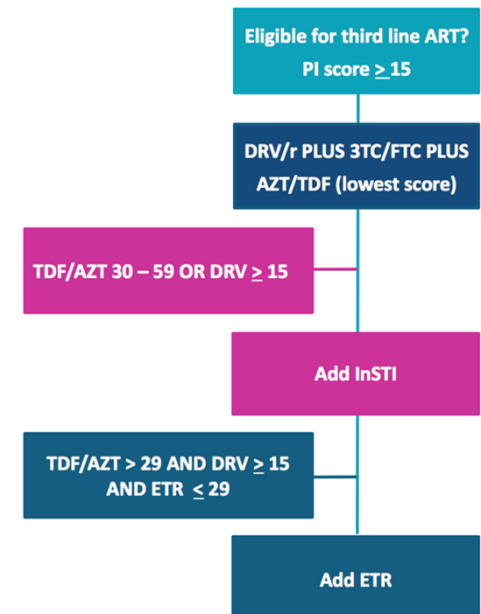
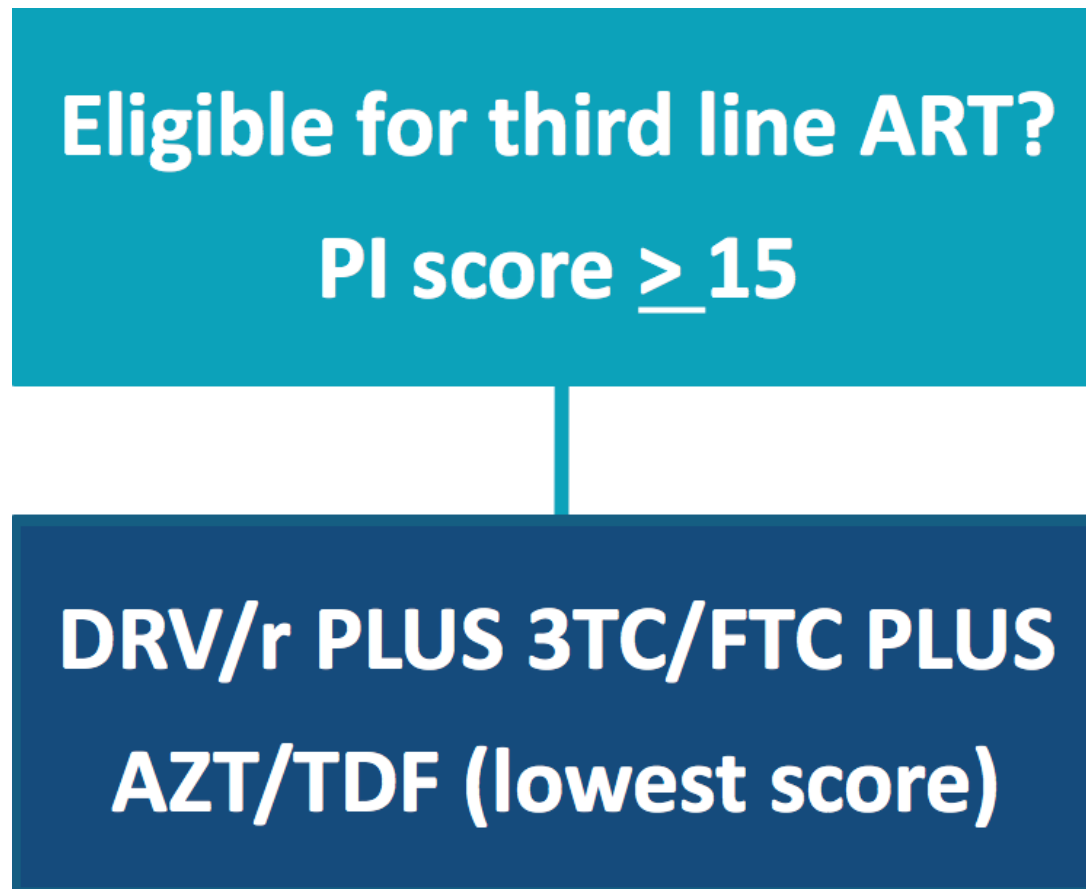
VF despite optimised adherence

Genotype: PI/r resistance

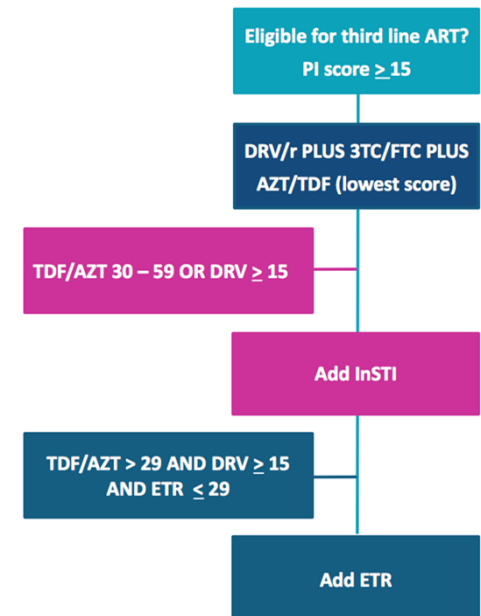
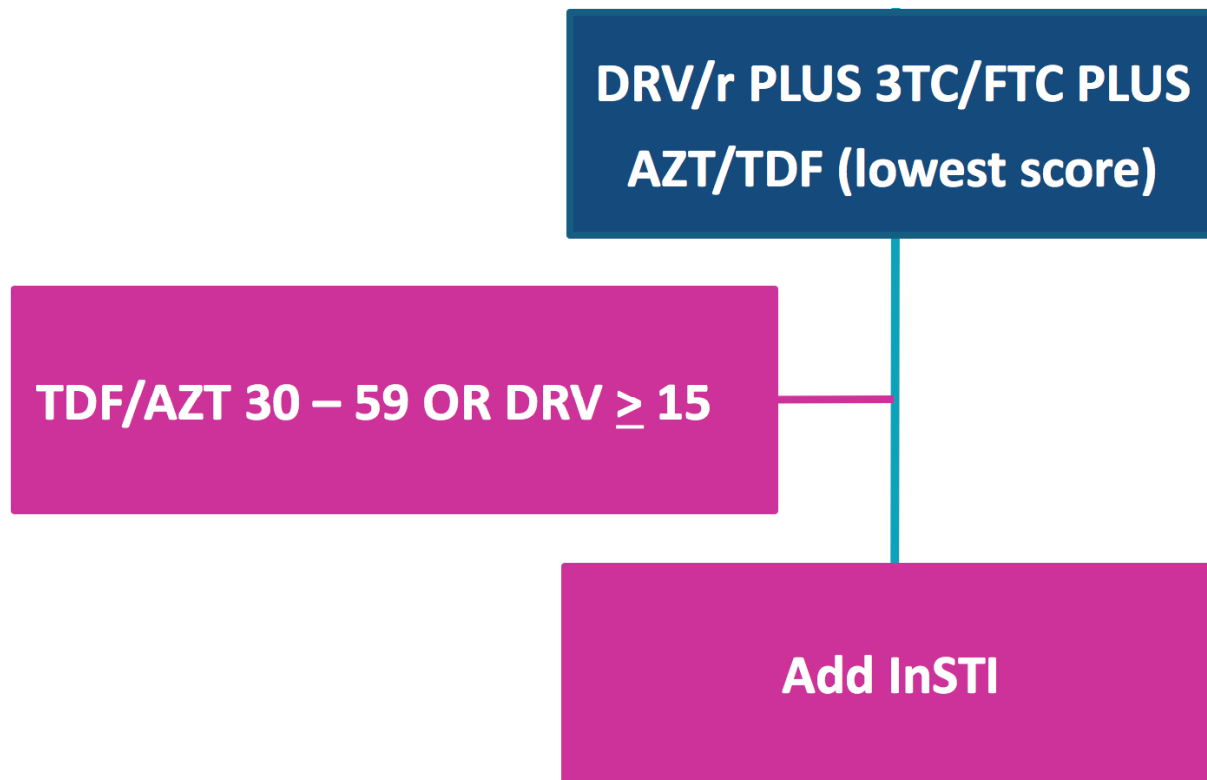
# Results: The algorithm



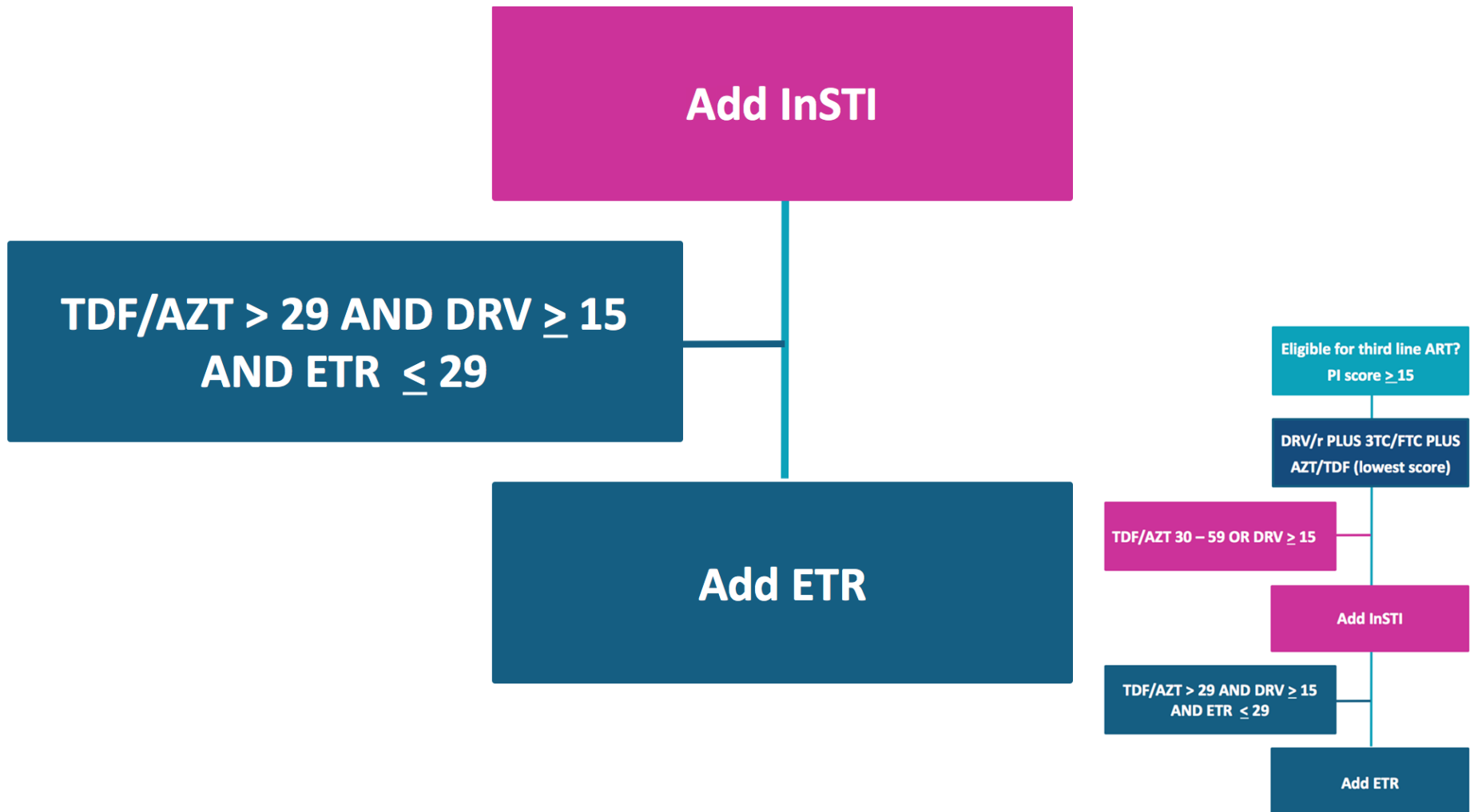
# The algorithm



# The algorithm



# The algorithm





# Conclusions

- Developing an algorithm to determine appropriate ART regimens for patients failing PI-based ART has:
  - Streamlined the third-line process significantly
  - Simplified third-line ART
- Public health approach to third-line ART?
- Facilitates decentralisation and task-shifting
- Could be useful in other resource-limited settings



# Thanks

- Third-line Committee
- Collaborators
- Third-line soldiers

