



# Case Presentation

## ART FAILURE



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# Case presentation

## ART FAILURE

- Background
- First Assessment
- Subsequent Assessments
- Contributing Factors
- Summary of CD4 & VL results
- Discussion







# The clinic





# Demographic data

- Mrs Z. S.
- Age: 48yr female from Umlazi.
- Speaks Zulu and Xhosa.
- Cannot read and write.
- She lives with her family in a household of 4 at Glebelands Hostel. Husband also resides in Bizana, Eastern Cape.
- Self employed, running a spaza shop.
- Referred by the local clinic to our facility for testing: recurrent bacterial respiratory infections, oral candidiasis, shingles, pruritis and skin rashes.







## SUBSEQUENT ASSESSMENTS

- The recovery was uneventful.
- No symptoms related to ARVs adverse events identified.
- Adherence was reportedly good and pill count always balancing.
- Attended all clinic appointments.
- She reported 100% condom use.
- Not disclosed to her partner yet. (11/02/2008).





# MEDICATION ADHERENCE

- No symptoms related to adverse effects of ARVs making it difficult to take ARVs.
- She reported taking all doses of her ARVs, reminded by TV programmes.
- No history of pill count imbalance.
- No evidence of being tired from taking ARVs.
- Takes ARVs before her family members without fear because she disclosed her status, but not comfortable taking these before her friends or visitors.





# TRADITIONAL MEDICATION

- Z.S actively practices African traditional religion.
- Does not affect adherence to ARVs.
- She takes herbal medications and uses Immunizer for minor ailments.





# FIRST ASSESSMENT

- Loss of weight < 10% of Initial Body Weight.
- No Pulmonary TB, HPT, DM, ASTHMA, EPILEPSY.
- Para 4. Previous Caesarean section.
- Condom not used but plans to abstain.
- Genital discharge treated at local clinic.
- Not on Bactrim prophylaxis.
- Reports no use of traditional medications and immune boosters.
- ARV naive. No sNVP for PMTCT.
- Papulo-Pruritic Eruptions.
- Baseline CD4 count: 193 & VL : 44200 (Reg 1a : 30/05/05)







# PSYCHOSOCIAL FACTORS

- First wife in a customary union.
- Z.S has only one sexual partner; the second man.
- Never concurrent sexual relationships.
- Her husband : married another wife; 1 long term relationship: two other consorts.
- Finds emotional and treatment support from sister and eldest son.
- Teetotaler, with no drug use.
- Seen by adherence counsellor for the detectable viral loads.



Date	CD4 Count	Viral Load
12/04/2005	193	44200
30/05/2005	Reg 1 a initiated	
26/08/2005	180	<40
22/02/2006	205	
25/08/2006		6500
10/04/2007	235	13000
24/08/2007	235	56000
14/02/2008	Reg 2 initiated: AZT/Ddi/Kaletra	<20
10/04/2008	252	27000
19/08/2008		7400
12/09/2008	93	
18/02/2009	311	30000
15/07/2009	173	11000
02/02/2009	247	
22/07/2010	229	



- Partner was started on ARVs. He was very ill and on Reg 1a.
- Baseline VL was done; to be repeated in 12 Weeks.
- He was admitted at PMMH and referred to IALCH for Emphyema and PTB.
- She avoided the clinic and kept sending son to collect medications for both of them.







# Discussion

- Discuss the protocols for switching treatment in cases of treatment failure.
- How do we manage patients in the absence of proven genotypic resistance.
- How do we manage this patient with virological failure on Regimen 2.





# Practical advise

- Optimal virologic response = maximal virologic suppression. VL < 400 in 24 weeks and < 50 in 48 weeks.
- Transient Viral blips up to 1000 copies/ml may not lead to development and replication of new resistance mutations.
- Prolonging a failing reg. can cause addition of more resistance mutation and also compensatory mutations that may increase fitness of resistant strain. May limit future treatment options.
- Persistent low-level viraemia (VL 50 -200) not Virologic failure; not reason to change treatment.
- Some highly treatment experienced will not have maximum Virologic suppression.





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