

Clinical cases

DR TM ROSSOUW

September 2005

- 6/12 old child
- PMTCT history unknown
- Clinically
 - On TB Rx x 2/52 – pulmonary
 - Oral Candida
- Laboratory
 - CD4 111 (10.5%)
 - VL > 3M
- Assessment
 - WHO Stage 3, CDC B3
- Plan
 - Start d4T, 3TC, LPV/r

Response to Treatment

- Adherence
 - Never missed a dose
- Clinically
 - October 2005
 - Failure to thrive
 - November 2005
 - Non-specific lymphadenitis
 - Anaemia
 - December 2005
 - HIV encephalopathy
 - Weight loss
 - Deep abscess

Response to Treatment

- February 2006
 - Adherence
 - Never missed a dose
 - Parents well-educated
 - Mother travels, aunt carer
 - Clinically
 - WHO Stage 4
 - Laboratory
 - CD4 164 (9.78%)
 - VL > 3 M

Response to Treatment

- Adherence
 - Never missed a dose
- Clinically
 - April 2006
 - Lymphadenopathy, oral candida
 - June 2006
 - Developmental delay
 - September 2006
 - PTB

Response to Treatment

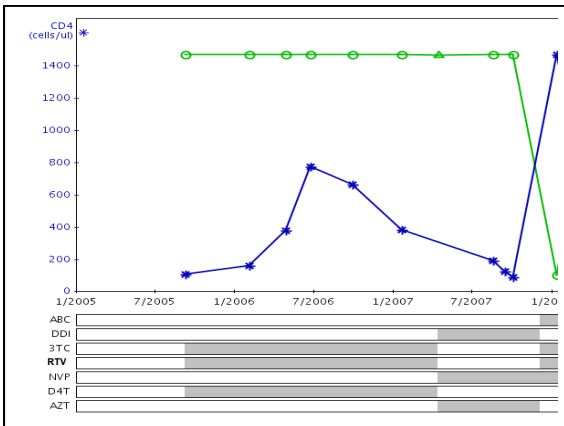
- January 2007
 - Adherence
 - Never missed a dose
 - Clinically
 - WHO Stage 4
 - Laboratory
 - CD4 385 (9.6%)
 - VL > 3 M
- April 2007
 - Switch to AZT, ddI, NVP

Response to Treatment

- **Adherence**
 - Never missed a dose
- **Clinically**
 - August 2007
 - Pancytopenia
 - Persistent.
 - All haematological markers normal. BMA
- **Laboratory**
 - October 2007
 - CD4 91 (11.7%)
 - VL > 3M
- **December 2007**
 - Switch to ABC, 3TC, NVP, LPV/r

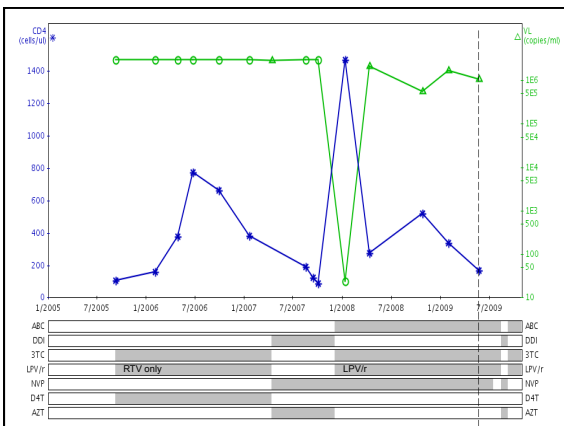
Success!

- **January 2008**
 - CD4 1467 (26.5%)
 - VL < 25



Was It Really True?

- **April 2008**
 - CD4 277 (8%)
 - VL 2 200 000



	ANRS 2006-07 4-2-9	HVDB v6.4.1	REGA v6.4.1	REGA v7.1	REGA v7.1.1	REGA v8.0.1	HVDB v5-1.3	ANRS V2008-17
NRTI:	AZT	R	I	I	I	I	I	R
	DDC	NA	NA	R	NA	NA	NA	NA
	DDI	S	R	I	R	R	R	S
	3TC	R	R	R	R	R	R	R
	D4T	R	R	R	R	R	R	R
	ABC	S	R	R	R	R	R	S
	FTC	R	R	R	R	R	R	R
	TDF	I	I	S	S	S	S	I
NNRTI:	NVP	R	R	R	R	R	R	R
	DLV	NA	I	R	R	R	I	NA
	EFV	R	R	R	R	R	R	R
	ETV	S	NA	NA	S	S	S	I
PI:	SQV/r	NA	R	R	NA	NA	CI	NA
	SQV/r	R	R	R	R	R	I	R
	RTV	NA	NA	R	NA	NA	NA	NA
	IDV	R	R	R	NA	NA	R	R
	IDV/r	R	R	R	R	R	R	R
	NFV	R	R	R	R	R	CI	R
	FPV	NA	I	I	I	I	I	NA
	FPV/r	R	I	I	I	I	I	R
	LPV/r	I	I	I	I	I	S	I
	ATV	NA	I	R	R	R	CI	NA
	ATV/r	S	I	R	R	R	I	S
	TPV/c	I	I	S	I	I	I	R
	DRV/r	S	I	NA	S	S	S	I
EE:	FTC	S	NA	I	S	S	R	NA
INI:	RTG	NA	NA	NA	NA	NA	S	NA

AZT	R (67N 215Y)	I (67N 69D 215Y 184V 184V)	I (67N 215Y 184V)	I (67N 215Y 184V)	I (67N 215Y 184V)	I (67N 215Y 184V)	I (67N 215Y 184V)	R (67N 69D 215Y 184V 75T)	R (67N 215Y)
DDI	S (69D 215Y 184V)	R (67N 69D 215Y 184V 75T)	I (67N 69D 215Y 184V 75T)	R (67N 69D 215Y 184V 75T)	R (67N 69D 215Y 184V 75T)	S (115F 215Y)	R (67N 69D 215Y 184V 75T)	S (69D 215Y 184V)	S (69D 215Y 184V)
3TC	R (184V)	R (69D 215Y 184V)	R (67N 215Y 184V)	R (67N 215Y 184V)	R (67N 215Y 184V)	R (67N 215Y 184V)	R (67N 215Y 184V)	R (69D 215Y 184V)	R (184V)
D4T	R (67N 215Y 75T)	R (67N 69D 215Y 184V 75T)	R (67N 69D 215Y 184V 75T)	R (67N 69D 215Y 184V 75T)	R (67N 69D 215Y 184V 75T)	R (115F 215Y)	R (67N 69D 215Y 184V 75T)	R (67N 215Y 184V)	R (67N 215Y 184V)
ABC	S (67N 115F 215Y 184V)	R (67N 69D 115F 215Y 184V 75T)	R (67N 115F 215Y 184V)	R (67N 115F 215Y 184V)	R (67N 115F 215Y 184V)	R (67N 115F 215Y 184V)	R (67N 115F 215Y 184V)	R (67N 69D 115F 215Y 184V 75T)	S (67N 115F 215Y 184V)
FTC	R (184V)	R (69D 215Y 184V)	R (67N 215Y 184V)	R (67N 215Y 184V)	R (67N 215Y 184V)	R (115F 215Y 184V)	R (69D 215Y 184V)	R (184V)	R (184V)
TDF	I (67N 69D 215Y)	I (67N 69D 215Y 184V 75T)	S (67N 215Y 184V)	S (67N 215Y 184V)	S (67N 215Y 184V)	S (115F 215Y)	I (67N 69D 115F 215Y 184V 75T)	I (67N 69D 215Y)	I (67N 69D 215Y)

NVP	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)
DLV	NA	I (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	I (188L)	NA
EFV	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)	R (188L)
ETV	S	NA	NA	S (188L)	S (188L)	S (188L)	S (188L)	I (188L)	S

SQV/r	R (20R 10F 90M 82A 62V 73T)	R (10FY 90M 82A 71V 54V 73T)	R (20R 10F 90M 82A 71V 54V)	R (20R 10F 58E 90M 82A 71V 73T)	R (20R 10F 58E 90M 82A 71V 73T)	I (90M)	R (10FY 90M 82A 71V 54V 73T)	R (20R 10F 90M 82A 62V 15V 73T)
IDV/r	R (20R 90M 82A 361 71V 54V)	R (10FY 90M 82A 71V 54V 73T)	R (20R 10F 90M 82A 361 71V 54V)	R (20R 10F 90M 82A 71V 62V 54V 73T)	R (20R 10F 90M 82A 71V 62V 54V 73T)	R (20R 10F 90M 82A 71V 62V 54V 73T)	R (10FY 90M 82A 71V 54V 361 71V 54V)	R (20R 90M 82A 361 71V 54V)
NFV	R (90M 82A 361 71V 54V)	R (10FY 90M 82A 71V 54V 73T)	R (90M 82A 361 71V 54V)	R (20R 10F 58E 90M 82A 71V 62V 54V 73T)	R (20R 10F 58E 90M 82A 71V 62V 54V 73T)	Cannot interpret	R (10FY 58E 90M 82A 71V 71V 54V)	R (90M 82A 361 71V 54V)
FPV/r	R (10F 90M 82A 361 62V 54V)	I (10FY 90M 82A 71V 54V 73T)	R (20R 10F 90M 82A 54V)	R (20R 10F 58E 90M 82A 54V)	R (20R 10F 58E 90M 82A 54V)	R (20R 10F 58E 90M 82A 54V)	R (10FY 90M 82A 71V 54V 361 62V 54V)	R (10F 90M 82A 361 62V 54V)
LPV/r	I (20R 10F 90M 82A 71V 63P 54V)	I (10FY 90M 82A 71V 54V 73T)	I (20R 10F 90M 82A 71V 54V 73T)	I (20R 10F 90M 82A 71V 54V 73T)	I (20R 10F 90M 82A 71V 54V 73T)	R (20R 10F 90M 82A 71V 54V 73T)	R (10FY 90M 82A 71V 54V 54V)	R (20R 10F 90M 82A 71V 63P 54V)
ATV/r	S (10F 90M)	I (10FY 90M 82A 71V 54V 73T)	R (20R 10FY 90M 82A 361 71V 54V 73T)	R (20R 10F 58E 90M 82A 71V 54V 73T)	R (20R 10F 58E 90M 82A 71V 54V 73T)	R (20R 10F 58E 90M 82A 71V 54V 73T)	R (10FY 58E 10FY 90M 82A 71V 54V 73T)	R (S)(10F 90M)
TPV/r	I (20R 69K 58E 361 54V)	I (10FY 58E 90M 82A 71V 54V 73T)	S (20R 69K 58E 90M 82A 361 71V 54V)	I (20R 69K 10F 58E 41K 90M 54V 73T)	I (20R 69K 10F 58E 41K 90M 54V 73T)	I (20R 69K 10F 58E 41K 90M 54V 73T)	R (S8E 90M 82A 69K 58E 361 54V 73T)	R (10F 90M 82A 54V 73T)
DRV/r	S (10FY 90M 82A 71V 54V)	I (10FY 90M 82A 71V 54V)	NA	S (73T)	S (73T)	S (73T)	I (10F 90M 82A 54V 73T)	S

Conclusion

- The obvious
 - PMTCT
 - Adherence
 - Care giver
- The not so obvious
 - Drug malabsorption
 - Drug metabolism
 - Stem cell infection of HIV?

FIRST Collaborators

- Medical Research Council
 - Biomedical Informatics
 - Biostatistics unit
- Free State Department of Health
 - Health Systems Research
- University of the Free State
 - Center of Excellence
 - Dept of Internal Medicine
 - Dept of Medical Virology
- University of Pretoria
 - Dept of Immunology
- University of Cape Town
 - Knowledge Translation Unit
- University of East Anglia
 - Health Services Research Unit
- University of Toronto
 - Clinical Evaluation Unit
- Stanford University
 - Center for AIDS Research