HIV-infected children in the context of the Niger Initiative on Antiretroviral Access (INAARV), Niger (West Africa)

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Background

Pediatric HIV/AIDS estimates in Niger

- Children <15yrs living with HIV/AIDS (UNAIDS 2006) : **8 900**
- Children <15yrs in need of ART (WHO/UNAIDS/UNICEF 2007): **3 600**

Free care and ARV treatment for HIV-positive children is available since 2004, thanks to INNARV and technical support provided by the NGO Solthis

We report here an evaluation of the national pediatric cohort in its entirety

Methods

Cohort study of all children with confirmed HIV infection and those with presumptive severe HIV disease followed up in all HIV centers in Niger.

***Inclusion criteria*:** **HIV infected children**: PCR+ at any age or serology+ and age >18 months
Children with severe HIV disease (presumptive diagnosis): HIV antibody+ at any age (or HIV antibody+ mother) and WHO stage III or IV and/or advanced or severe immunodeficiency

Results

Whole national pediatric cohort: **565** children

Severe HIV (presumptive diagnosis):	311
HIV-:	62
HIV+ confirmed:	**133**
HIV exposed and symptomatic:	**59**

Study period: November 2004 – May 2008

Children included in the study: **192**

Characteristics at inclusion

Enrollment

Clinical symptoms	143	(75%)
Malnutrition programs	26	(14%)
PMTCT post-natal follow-up	22	(11%)

HIV-associated immunodeficiency at inclusion (WHO classification)

	<1 year	1 – 3 yrs	3 – 5 yrs	> 5 yrs	TOTAL
Not significant	1 (CD4 >35%)	2 (CD4 >30%)	4 (CD4 >25%)	0 (CD4 >20%)	**6 (9%)**
Mild	0 (CD4 30-35%)	1 (CD4 25-30%)	1 (CD4 20-25%)	0 (CD4 15-20%)	**2 (3%)**
Advanced	1 (CD4 25-30%)	4 (CD4 20-24%)	6 (CD4 15-19%)	0 (CD4 10-14%)	**11 (15%)**
Severe	10 (CD4 <25%)	31 (CD4 <20%)	13 (CD4 <15%)	2 (CD4 <10%)	**56 (73%)**

Antiretroviral treatment

	1st line	*2nd line*
2NRTI + 1NNRTI	**67%**	**72%**
D4T/3TC/NVP	31	6
D4T/3TC/EFV	1	-
AZT/3TC/NVP	40	19
AZT/3TC/EFV	-	1
2NRTI + IP	**29%**	**28%**
D4T/3TC/NFV	26	-
AZT/3TC/NFV	5	7
AZT/3TC/LPV/r	-	2
ABC/DDI/LPV/r	-	1
N.A.	4%	-
TOTAL	**108**	**36**

25% of patients are on 2nd line ART

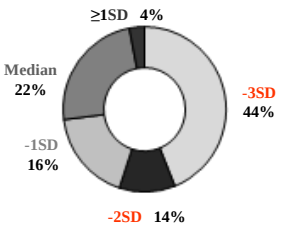
Follow up

Patients on ART (n=108)		*Patients without ART (n=83)*	
Median follow-up : 9 months [IQR:4-17]		Median follow-up : 2 months [IQR:0-8]	
Lost to follow-up :	44 (41%)	Lost to follow-up :	48 (58%)
Deaths :	8 (7%)	Deaths :	10 (12%)
Still followed :	56 (52%)	Still followed :	25 (30%)

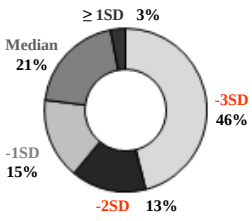
Demographical and clinical characteristics at inclusion

Male sex	M = 79 (42%)
Median age	23 months [IQR: 12 – 46]
WHO clinical stage	
I	78 (41%)
II	16 (8%)
III	71 (37%)
IV	20 (11%)
N.A.	6 (3%)
Median Hb (g/dL) (n=56)	8.7
Ongoing OI prophylaxis	172 (90%)

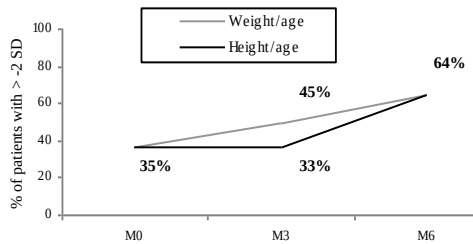
Z-score Weight for Age



Z-score Height for Age



Z-score progression on ART



Conclusions

Most children enrolled in the pediatric cohort are symptomatic, identified at a late phase of HIV infection.

Active and early screening in high risk groups (i.e. malnourished children) and an improvement of infant PMTCT follow-up is crucial to the successful implementation of pediatric care.

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