

ARROW study design and baseline characteristics



AntiRetroviral Research fOR Watoto

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ARROW STUDY DESIGN

A 5-year, open-label randomized trial in 1200 HIV-infected children from 3 sites in Uganda (n=800) and one in Zimbabwe (n=400), addressing two strategic management questions:

1. Can children on Anti-Retroviral Therapy (ART) be safely monitored by clinical assessment, without routine laboratory monitoring of toxicity or CD4 count?

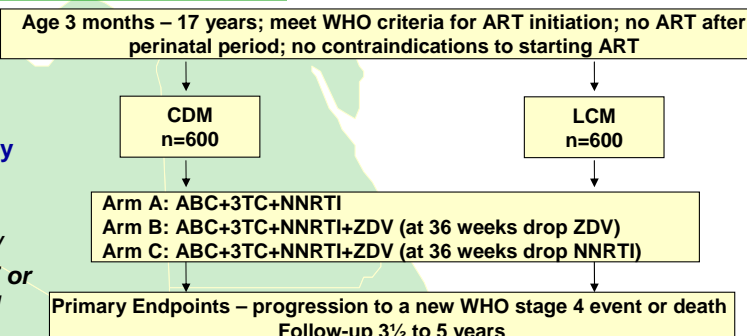
Clinically Driven Monitoring (CDM)

Clinical & laboratory monitoring 12 weekly, but haematology / biochemistry results only returned to clinician if grade 4 AE or requested for a clinical reason ; CD4 results not returned versus

Laboratory and Clinical Monitoring (LCM)

Clinical & laboratory monitoring 12 weekly ; All results returned

2. Does induction with 4 drugs, followed by 3-drug maintenance, improve outcome in those with high viral loads?



First-line drugs are:

NNRTI: Abacavir (ABC); Lamivudine (3TC); Zidovudine (ZDV)
NTI: Nevirapine (NVP); Efavirenz (EFV)

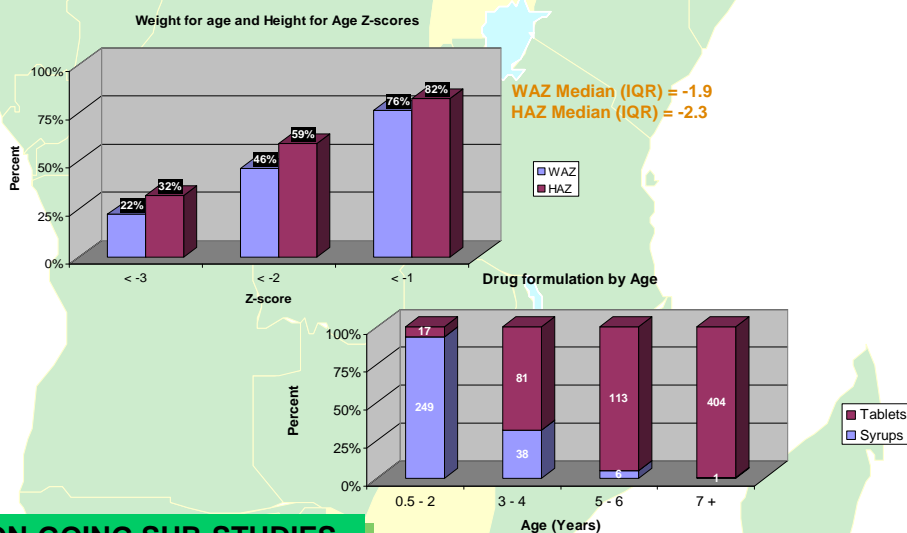
- First use worldwide of scored tablets (which can be dispersed) of ABC, 3TC and Combivir (3TC+ZDV), dosed according to WHO weight-band tables
- First use of ABC as first-line therapy in African children

BASELINE CHARACTERISTICS

Characteristics	Number	Percent
Children randomised up to and including 30 May 2008	870	73%
Sex	Male	439
	Female	431
Vertical Exposure	857	99%
Age (years)	0.5 – 2	253
	3 – 6	227
	7 – 12	367
	13 +	23
WHO stage	I	17
	II	238
	III	511
	IV	104
CD4 percent	0 – 4 %	156
	5 – 9 %	196
	10 – 14 %	236
	15 + %	271
	Missing	11

ARROW PARTICIPANTS

- Are younger than most African cohorts of children starting ART (Median age 6; one third of ARROW children <2 years)
- Are severely immuno-compromised (Median CD4% 11; two thirds of ARROW children <15%)
- Are markedly wasted and stunted (Approx. 50% z-score <-2)
- Are switching to tablets at an early age (Median=3.9 years)



ON-GOING SUB-STUDIES

- Adherence, Acceptability and Pharmacokinetics of scored tablets in all children and of syrups versus tablets in young children
- Pharmacokinetic data on twice versus once daily ABC and 3TC
- Effects of Malnutrition on Pharmacokinetics of ABC, 3TC, ZDV and EFV
- Immunological and Virological responses to ART

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