IMPLEMENTING THE TEST AND TREAT POLICY FOR ALL HIV INFECTED CHILDREN UNDER 15 YEARS OF AGE
UGANDA’S EXPERIENCE

Eleanor Namusoke-Magongo
Program Officer Pediatric HIV Care and Treatment
AIDS Control Program
Ministry of Health-Uganda
Presentation Outline

- Objectives
- Methods
- Results
- Discussion
- Key messages
Objectives

1. To document the decision making process for updating the national treatment guidelines.

2. To document the implementation process of the test and treat guidelines in Uganda

3. To document the program and patient outcomes for HIV infected children under 15 years of age during the test and treat guidelines in Uganda. (ART coverage, New ART initiates, retention, VL)
METHODS

Review of Program reports and documents

Retrospective review of patient level data from 160 selected health care facilities. 59% were Health centre IV
Timelines for the guidelines adaptation and roll out out

- **Aug 2013**: TWG meetings to adapt guidelines
- **Nov 2013**: Approval of guidelines
- **Feb 2014**: Medicines in warehouses
- **Mar 2014**: Further planning meeting
- **May 2014**: Full scale roll out started
- **July 2014**: Scale up to over 80% of ART sites
- **Mar 2015**: Preparation of guidelines

**Prep documents**
- Revised guidelines
- Roll out plan
- Training curriculum/Job aides
- Quant. & Procuring
- Planning meeting with implementers
Programmatic Rationale for guideline roll out

• Promote “efficient” use of resources

• Removing barriers to ART initiation- “simplifying ART initiation”
  • Low access to CD4 among children
  • Late access to CD4 among children
  • Delayed ART initiation among children eligible by CD4 alone.

• Better retention for children on ART compared to those on Pre-ART

• Other benefits to children.
Promoting “efficient” use of resources

Based on WHO 2013 guidelines, 83% of the estimated 176,948 children in Uganda would be eligible for ART. (spectrum estimates)

- Eligible for ART: 146,535 (83%)
- Not Eligible for ART: 30,413 (17%)

Effort required to identify eligible and the potential delay to initiate ART was considered not an effective use of resources.
Patient level data from 160 health facilities confirmed spectrum estimates. 83% of children were eligible at enrolment in pre-ART.

Proportion of children under 15 years who are eligible for ART at enrolment into Pre-ART based on 2013 WHO treatment guidelines (2012/13)

<table>
<thead>
<tr>
<th>Age in Year</th>
<th># enrolled in Pre-ART</th>
<th>Assessed for eligibility N (%)</th>
<th>Number Eligible</th>
<th>%age Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>5,053</td>
<td>5053**</td>
<td>5053</td>
<td>100%</td>
</tr>
<tr>
<td>5-9</td>
<td>2026</td>
<td>1483(73%)</td>
<td>613</td>
<td>41%</td>
</tr>
<tr>
<td>10-14</td>
<td>1,134</td>
<td>823(73%)</td>
<td>412</td>
<td>50%</td>
</tr>
<tr>
<td>Total</td>
<td>8,213</td>
<td>7359(90%)</td>
<td>6078</td>
<td>83%</td>
</tr>
</tbody>
</table>

*Eligibility was assessed by either CD4 done within 3 months of enrolment or WHO clinical staging or both.

** All under 5’s are eligible irrespective of CD4 count or clinical stage
CD4 access was low, late and delayed ART initiation

Less than half of children receive CD4 within 3 months of enrolment
In 2013, One in every 4 children with CD4 received it after 194 days (6 months)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number newly enrolled in HIV care</td>
<td>4299</td>
<td>3914</td>
<td>3572</td>
<td>773</td>
</tr>
<tr>
<td>Received at least 1 CD4 test N (%)</td>
<td>2840 (66%)</td>
<td>2712 (69%)</td>
<td>2105 (59%)</td>
<td>347 (45%)</td>
</tr>
<tr>
<td>Median (IQR) time to 1st CD4 test (days)</td>
<td>62 (0-302)</td>
<td><strong>28 (0-194)</strong></td>
<td>1 (0-81)</td>
<td>0 (0-8)</td>
</tr>
<tr>
<td>Received 1st CD4 test within 1 months of enrolment into HIV care N (%)</td>
<td>1228 (29%)</td>
<td>1406 (36%)</td>
<td>1390 (39%)</td>
<td>294 (38%)</td>
</tr>
<tr>
<td>Received 1st CD4 test within 3 months of enrolment into HIV care N (%)</td>
<td><strong>1531 (36%)</strong></td>
<td><strong>1701 (43%)</strong></td>
<td><strong>1607 (45%)</strong></td>
<td><strong>332 (43%)</strong></td>
</tr>
</tbody>
</table>

1 in every 3 children in HCIV & general Hosp received CD4 within 3 months in HCIV & Hosp

Children who were eligible by CD4 alone were initiated later (28 days) than those with Both CD4 & staging (10 days) or clinical staging alone (Same day).
Program and patient outcomes
ART coverage increased from 22% in 2013 to 32% in 2014

N= total number of children living with HIV
74% increase in number of children newly initiated on ART (11,000 in 2013 Vs 20,000 in 2014)

Fig: Number of Children newly initiated on ART

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5-14 yr</td>
<td>1158</td>
<td>1957</td>
<td>1167</td>
<td>983</td>
<td>2200</td>
<td>3306</td>
<td>4105</td>
<td>2719</td>
</tr>
<tr>
<td>2-4 yr</td>
<td>601</td>
<td>694</td>
<td>793</td>
<td>574</td>
<td>822</td>
<td>1048</td>
<td>1362</td>
<td>1125</td>
</tr>
<tr>
<td>&lt;2 yr</td>
<td>819</td>
<td>979</td>
<td>1096</td>
<td>803</td>
<td>910</td>
<td>859</td>
<td>917</td>
<td>892</td>
</tr>
</tbody>
</table>
Proportion of children initiated on ART at HCIII increased from 25% in Oct-Dec 2013 to 33% in July-Sept’2014.

“Removing initiation criteria simplifies initiation at public health facilities”
Less than half of the HIV infected infants are identified however once identified, 95% are initiated on treatment.

**EID cascade 2013**
- Estimated HIV+ infants: 9172
- Number tested HIV+: 3987
- Number initiated on ART: 3697
- 57%
- 7%

**EID cascade 2014**
- Estimated HIV+ infants: 8549
- Number tested HIV+: 3774
- Number initiated on ART: 3578
- 56%
- 5%
6 month ART retention before and after implementing the “test and treat” program in Uganda*

<table>
<thead>
<tr>
<th>Description</th>
<th>Before test and treat July-Sept’2013 cohort</th>
<th>After test and treat “July-Sept 2014 cohort.”</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All children under 15 years</td>
<td>590/757(78%)</td>
<td>845/1122(75%)</td>
<td>0.2</td>
</tr>
<tr>
<td>&lt;2 years</td>
<td>217/296(73%)</td>
<td>182/260(70%)</td>
<td>0.4</td>
</tr>
<tr>
<td>2-4 years</td>
<td>186/222(84%)</td>
<td>235/321(73%)</td>
<td>&lt;0.001**</td>
</tr>
<tr>
<td>5-9 years</td>
<td>120/151(79%)</td>
<td>283/355(80%)</td>
<td>0.9</td>
</tr>
<tr>
<td>10-14 years</td>
<td>67/88(76%)</td>
<td>145/186(78%)</td>
<td>0.7</td>
</tr>
<tr>
<td>Centers of excellence</td>
<td>117/117(100%)</td>
<td>106/109(97%)</td>
<td>0.1</td>
</tr>
<tr>
<td>Special clinics</td>
<td>140/161(87%)</td>
<td>151/174(87%)</td>
<td>0.9</td>
</tr>
<tr>
<td>Regional referral Hospitals</td>
<td>132/165(80%)</td>
<td>230/270(85%)</td>
<td>0.2</td>
</tr>
<tr>
<td>General Hospitals</td>
<td>72/114(63%)</td>
<td>128/189(68%)</td>
<td>0.4</td>
</tr>
<tr>
<td>HCIV</td>
<td>103/173(60%)</td>
<td>195/343(57%)</td>
<td>0.6</td>
</tr>
<tr>
<td>HCI II</td>
<td>26/27(96%)</td>
<td>35/37(95%)</td>
<td>0.8</td>
</tr>
</tbody>
</table>

*The denominator for calculating retention was number of patients initiated on ART and not the net current cohort. Therefore the retention rates in this table may not be an accurate measure of retention.
** P-value less than 0.05 is significant.

Retention among those initiated when “not sick” Vs “sick” was 82% Vs 79%
Overall the 12 month retention rates were similar for children initiated in 2013 Vs 2014 (87% before Vs 86% after)
Most children were viral suppressed however viral suppression was lowest in the age group 2-4 years.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number received viral load test</th>
<th>Number with suppressed viral load</th>
<th>% with suppressed viral load</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2</td>
<td>43</td>
<td>35</td>
<td>81%</td>
</tr>
<tr>
<td>2-4</td>
<td>168</td>
<td>128</td>
<td>76%</td>
</tr>
<tr>
<td>5-9</td>
<td>246</td>
<td>211</td>
<td>86%</td>
</tr>
<tr>
<td>10-14</td>
<td>336</td>
<td>289</td>
<td>86%</td>
</tr>
<tr>
<td>Overall</td>
<td>793</td>
<td>663</td>
<td>84%</td>
</tr>
</tbody>
</table>

Only 5% of those initiated in 2014. Viral load testing started in August 2014 and has not reached full scale yet.
Positive experiences

• Increased pediatric coverage

• By removing eligibility criteria more children are being initiated at public health facilities.

• Successful training approach.
  • Site based training
  • Focus on training health workers to use guideline Job aides.
  • Trained about 12,000 health care workers
  • Fast country wide roll out.
Developed and pre tested DOCUMENTS FOR CAPACITY BUILDING

### Pediatric, Adolescent and Adult ARV Dosing by Formulation

<table>
<thead>
<tr>
<th>Fixed-dose Combination Tablets</th>
<th>Single-dose Tablets/Capsules</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARV</strong></td>
<td><strong>NVP</strong></td>
</tr>
<tr>
<td><strong>ARV 600mg</strong></td>
<td><strong>NVP 200mg</strong></td>
</tr>
<tr>
<td>1 BD</td>
<td>1 BD</td>
</tr>
<tr>
<td>1.5 BD</td>
<td>1.5 BD</td>
</tr>
<tr>
<td>2 BD</td>
<td>2 BD</td>
</tr>
<tr>
<td>3 BD</td>
<td>3 BD</td>
</tr>
</tbody>
</table>

*Note: Dosing may vary based on weight and age.*

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**SUMMARY OF THE NATIONAL ANTIRETROVIRAL TREATMENT GUIDELINES**

Feb 2014
Challenges

• Low retention

• Commodities
  • Estimated cost increase for pediatric ARV’s for scale up to 54,000 new children over 2 years was $32 m vs $26 million for 35,000 new children using the WHO guidelines
  • New initiates have been less than target- Y1- 20,000 Vs planned 28,000. May be lower in Y2.
  • Stock out at warehouse level especially of ABC/3TC due to global supply chain challenges early 2015. resolved in April. Facility stocks were stable except in 10% of public health facilities.
  • Future- By December 2013, last UNITAID supplies for Ped ARV’s for public sector will be used up. There will likely be stock out in public health facilities.
  • There are discussion for PEPFAR to meet the GAP pending approval of COP 15.
KEY MESSAGES

• Removing eligibility criteria has operationalized decentralization of pediatric ART at public health setting and improved ART access to children in rural areas.

• Thoughtful, careful and as early as possible planning is important.
  • Funding for commodities, training, delivery of medicines to site.
    • Reality check: Set realistic targets.

• Plan strategies to retain children and adolescents in HIV care and treatment; could be before or during roll out.

• HCT must remain focus to ensure more HIV infected children are identified.
Acknowledgments

WHO for supporting the country to do this review

Uganda ministry of health

Paediatric ART subcommittee

AIDS development partners and Implementers