
Linking Infant Diagnosis to Treatment

Dorothy Mbori-Ngacha
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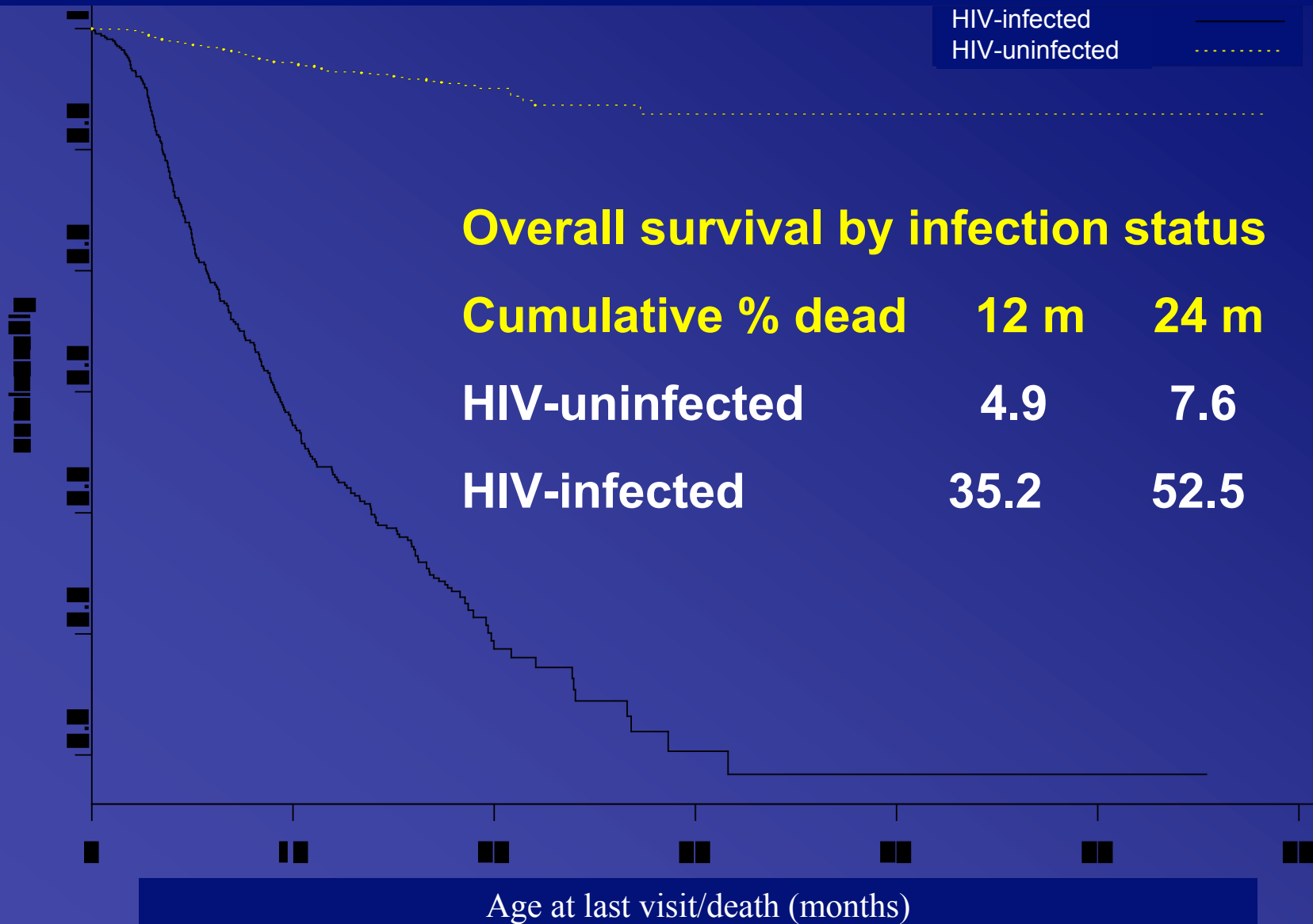
Context

- >88% of women in Kenya make at least one antenatal visit
- 60% of MCH facilities in Kenya now have PMTCT services
- 80% of infants attend clinic at 6 weeks
- HIV treatment programs are scaling-up but <3% of people on treatment and children

Introduction

- Rapid progression of HIV disease in infants and high early mortality of infected infants
- HIV diagnosis should be made at the earliest opportunity
- Clinical criteria fail to identify the majority of children who need ART before the age of 18 months

Ghent Group: 3468 exposed (707 HIV-infected) children in 6 African countries - Lancet 2004;364: 1236-43.



Entry points

- PMTCT programs
 - Identifying the HIV exposed child
 - Systematic follow-up (CTX prophylaxis, nutrition support)
 - Establish HIV infection status
- Clinical services
 - Out patient department
 - Paediatric in-patient wards

Areas for Action

1. Algorithms for diagnosis
2. Infrastructure and Technology
3. Training
4. Procurement and Supplies
5. Referral & linkages with HIV care and treatment programs

Algorithms: Antibody test

- Liberal use of antibody testing to identify the HIV exposed children in our service
- More targeted use of DNA PCR to identify HIV infected children
 - Early enough to initiate treatment and avert deaths
 - Maximum yield

Algorithms: Antibody test

- Antibody testing in the **well child**
 - Infants of unknown HIV exposure status at 6-weeks or at first contact
 - All HIV exposed infants at 12 & 18 months

Algorithms: Antibody test

- Antibody testing in all sick children admitted to hospital
- Antibody testing of out-patient children with following indicator conditions
 - Failure to thrive
 - Pneumonia
 - Developmental delay
 - Recurrent visits/admissions

Algorithms: DNA PCR

- DNA PCR testing in PMTCT programs at 6 week for the well **non breastfeeding** infants
- DNA PCR testing in PMTCT programs at 14 week for the well **breastfeeding** infant
 - Allows identification of children infected early who are more likely to progress rapidly
 - Linked to a visit already made by >70% of women in Kenya
- If HIV+ link to care and treatment per guidelines
- If HIV- use antibody to diagnose 9, 12, 18 months

Infrastructure

- DNA PCR available in research laboratories
- Establish a network of regional laboratories
- Logistics of transferring samples
- Quality assurance

Training

- Development and training of providers on algorithms
- Sample collection
- Communication about results
- Laboratory personnel

PMTCT Program experience: Kenyatta National Hospital

- 90% of all mothers attending ANC return for 6-week visit
- DBS samples taken at 6-week visit
- Turn around time too long 4-6 weeks
- Rejection rate of samples too high
 - ? Sample collection criteria too stringent

Diagnostic HIV testing

- Routine antibody screening of all patients admitted to paediatric wards
 - HIV test acceptance ~90%
- HIV infection exposure in 50% of patients majority aged < 2 years
- HIV infection confirmed in 67% of exposed infants
- Need to expand to the out-patient department

Operational issues

- Linking antenatal record and infant record
 - New card developed and being piloted
- Human resources
- Integration of services – PMTCT/MCH and HIV care and treatment

No matter what your level of resources, there is always something that can be done for HIV-affected children



**African Network for Care of
Children Affected by HIV/AIDS**