

# **Introduction to South and South-East Asia Regional Paediatric ART Guidelines**

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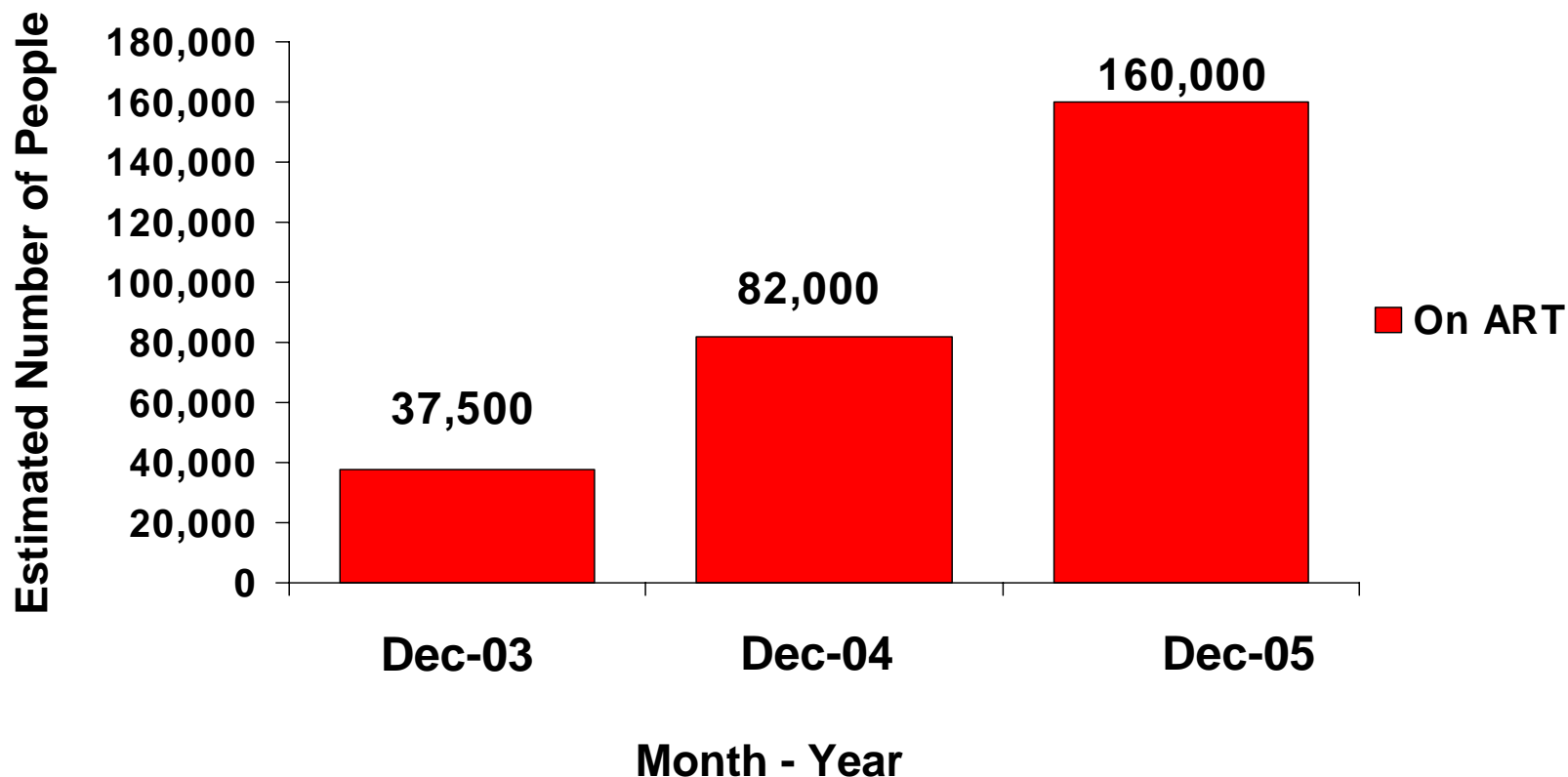
# Outline of the Presentation

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- Objectives of the guideline.
- Why a regional guideline – what is different from the global guideline?
- Overview of the guideline.
- Structure and contents.

# ART Coverage has Increased 4-fold in South-East Asia, Dec 2003-5

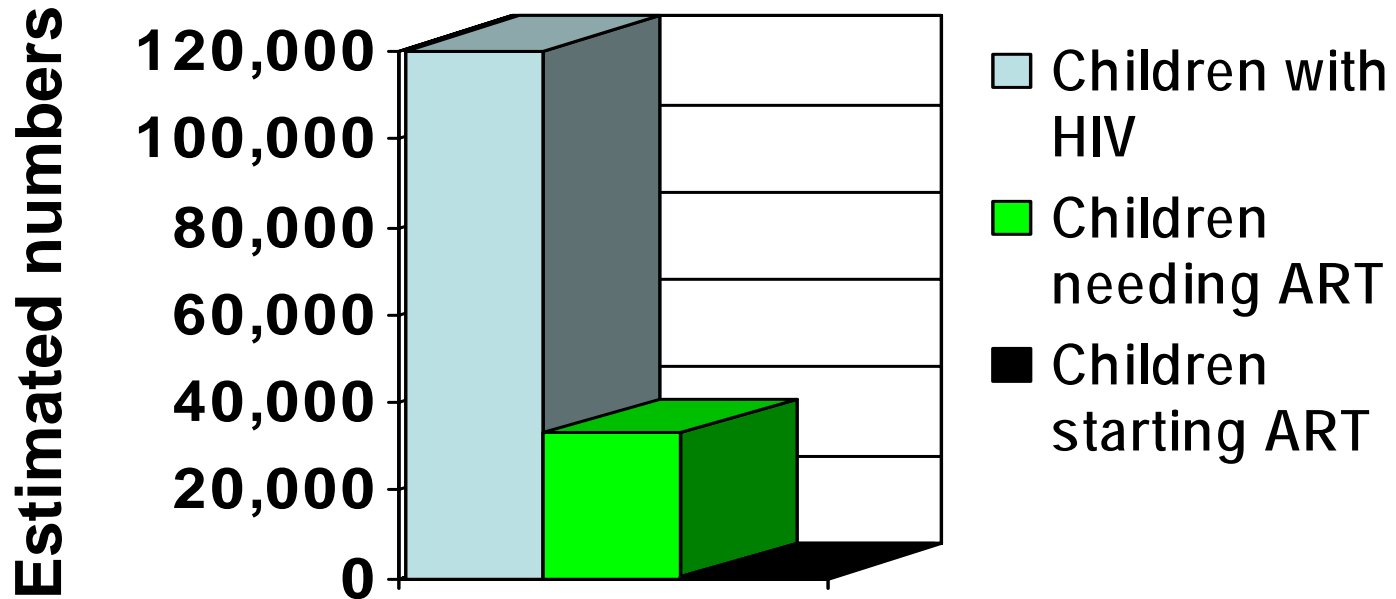
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**Total need by the end of 2005: 900,000 (<20%)**

# Less than 1% of children in South-East Asia were receiving ART in 2005

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Source: WHO

# Objectives

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- Strengthen national capacity for providing universal access to quality treatment and care to children exposed to or infected with HIV.
- Provide guidance for appropriate ART in resource-limited settings of South and South-East Asia

# Target Audience

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- Physicians and other health care providers.
- National AIDS programme managers; Maternal and Child health programme managers and health planners.
- NGOs and other civil society organizations.

# Why a Regional Guideline?

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- Need for user-friendly clinical manual
  - Concise and practical information
  - Information presented in figures, tables and algorithms
- Provide guidance for national clinical guidelines.
- Assist national policy makers/programme managers in strategy formulation.

# Overview of the Guideline

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# Key areas

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- Diagnosis of HIV infection , HIV staging, CTX prophylaxis and treatment
- Treatment failure and second line therapy
- IRIS – Immune reconstitution inflammatory syndrome
- Opportunistic infections
- Pediatric formulations

# Approach: Managing a virtual patient

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- First contact:
  - Child with known HIV exposure
  - Sick child suspected with HIV but exposure status unknown
- Diagnostic steps
- When to start ART with and without confirmed HIV diagnosis
- What first line drugs
  - Co-infection with TB

# Approach: Managing a virtual patient

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- Monitoring after starting ART
- Evaluate response
- Manage drug toxicity
- ART failure
- Switching to second-line drugs
- Diagnosis and management of OIs

# Structure and Contents

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# Assessment and management at the first visit

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- **Assessment and management at the first visit in**
  - **child with known HIV exposure**
  - **a sick child suspected to have HIV infection**

# Diagnosis of HIV infection in children

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- Excluding HIV infection in infants and children
- Diagnosing HIV infection in children less than 18 months of age
  - Unknown HIV exposure
  - Breastfeed
  - Initial negative HIV but presenting subsequently with symptoms of HIV
- Diagnosing HIV infection in children above 18 months

# Assessment and management

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- Assessment and management of HIV-exposed children <18 months, when diagnosis of HIV infection is not confirmed or when diagnosis is not possible
- Cotrimoxazole (CTX) Prophylaxis
  - Starting CTX in an infant born to an HIV-positive mother
  - Initiation of CTX prophylaxis in children

# Assessment and management after HIV infection is confirmed

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- HIV staging in children using clinical and immunological criteria
- Cotrimoxazole
- Need to start ART
- Concomitant medications
- OI signs and symptoms
- Growth and nutrition
- Counseling and social support

# Starting ART

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- Starting ART using clinical criteria
- Starting ART in children < 18 months without a confirmed diagnosis of HIV infection with signs severe HIV when diagnosis is not confirmed
  - Presumptive diagnosis of severe HIV disease
    - Same as global guidelines
    - Severe immunodeficiency
      - » CD4 < 25% in < 12 months
      - » CD4 < 20% in 12-35 months

# Prepare to start ART

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- Prepare the caregiver
- Prepare the child
- Agree on the treatment plan
- Assess treatment preparedness and factors that may affect adherence

# Monitoring HIV-infected children not on ART

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- Monitoring growth and development
- Early detection of children requiring ART
- Management of inter-current illnesses
- Ensuring patient compliance with treatment and CTX prophylaxis
- Monitoring treatment outcome and side-effects
- Counseling

# Recommended first line ART

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- **Recommended first-line ART regimen: 2 nucleoside reverse transcriptase inhibitors (NRTIs) + 1 non-nucleoside reverse transcriptase inhibitor (NNRTI)**
  - Step 1: Select Two NRTIs  
Along with Lamivudine select one of Zidovudine, Abacavir or Stavudine
  - Step 2: Select One NNRTI  
Select either Nevirapine or Efavirenz
- **Alternative first-line regimen if the child has co-infection with tuberculosis**

# Ensuring long-term adherence

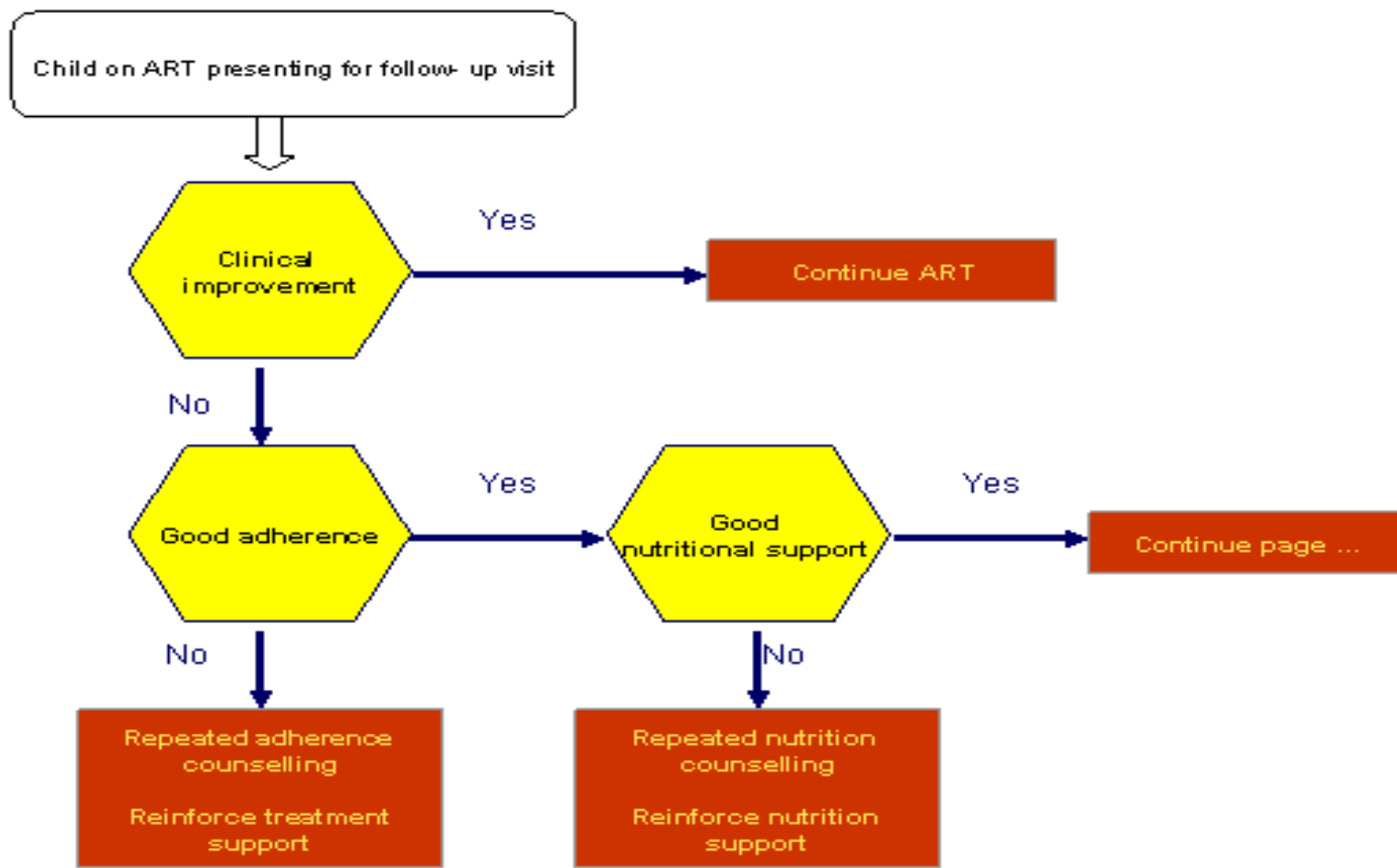
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- Team effort by health care worker, the caregiver and child
- Reasons for non-adherence
  - Missed doses
  - Incorrect dosing
  - Side effects
  - Others

# Monitoring after initiation of ART

Items	Before or at ART initiation	Month 1	Month 2	Month 3	Month 6	Every 6 months
Clinical evaluation, history and physical examination	X	X	X	X	X	X
Weight, height	X	X	X	X	X	X
Calculation of ART dose	X	X	X	X	X	X
Concomitant medications	X	X	X	X	X	X
Check ART adherence		X	X	X	X	X
Hb and WBC	X					
Full chemistry						
Pregnancy test in adolescent girls	X					
CD4% or count	X					X
OI or IRIS work up treatment						

# Evaluate the response to ART



# Managing ARV drug toxicity

- Guiding principles in the management of ART drug toxicity
- Severe toxicities associated with specific first-line antiretroviral drugs and potential drug substitutions

# Immune reconstitution inflammatory syndrome (IRIS)

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- Definition
- Frequency
- Timing
- Signs and symptoms
- Most common IRIS events
- Management

# Antiretroviral treatment failure

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- Clinical criteria for treatment failure
  - Growth faltering
  - Loss of neuro-developmental milestones or development of encephalopathy
  - New opportunistic infections or malignancies
  - Recurrence of infections such as refractory oral candidiasis; esophageal candidiasis

# Antiretroviral treatment failure

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- Immunological criteria for treatment failure

## **Type 1**

- Development of age-related severe immune deficiency after initial immune recovery.

## **Type 2**

- New progressive age-related severe immune deficiency, confirmed with at least one subsequent CD4 measurement.

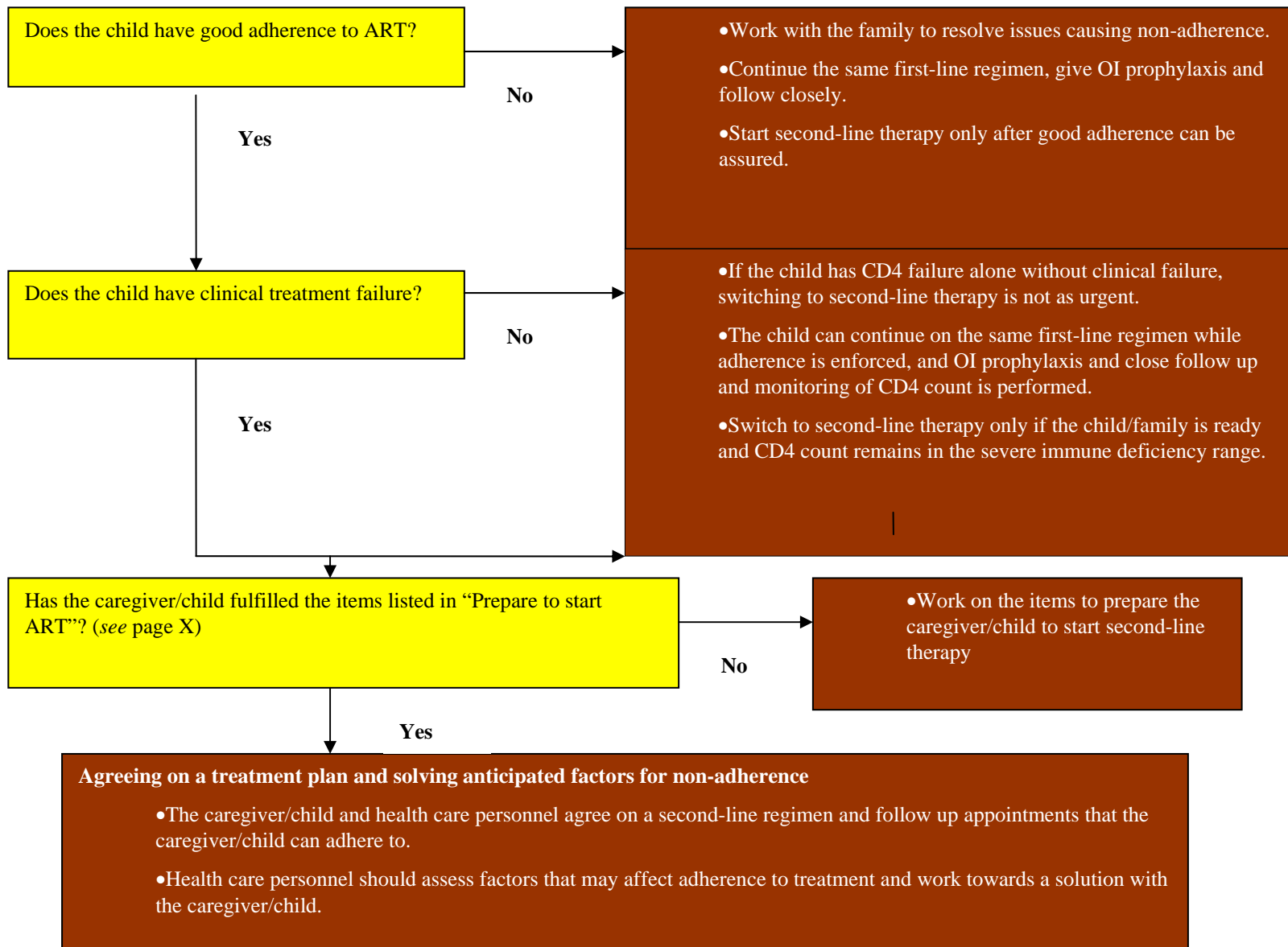
## **Type 3**

- Rapid rate of decline to below threshold of age-related severe immune deficiency.

# Plan before switching to second-line regimen

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- Investigate adherence and reinforce support prior to any change in regimen.
- Switching to a second-line regimen is not an emergency.
- Ensure that the child is on appropriate OI prophylaxis.
- Continue the regimen until the child is ready to switch to a second-line regimen



# Recommended second-line regimens in infants and children in the event of treatment failure of first-line regimens

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- Expert consultation is recommended possible when ART failure is suspected
- Recommended second-line regimen if the first-line regimen is 2 NRTI + 1 NNRTI = 2 new NRTIs + 1 PI

*(Preferred Protease Inhibitors: Lopinavir; Saquinavir)*

- Recommended second-line regimen if the first-line regimen is 3NRTI = 1NRTI + 1NNRTI + 1PI

# Tuberculosis

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- Guidance for TB contact screening and management when tuberculin skin test and chest X-ray in different situations
- Diagnosis of pulmonary and extrapulmonary TB
- Case definition of TB
- TB treatment

# Clinical diagnosis and management of OIs in HIV infected children

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- Common opportunistic infections
- Clinical manifestations
- Diagnosis
  - Definitive diagnosis
  - Laboratory diagnosis
  - Histological diagnosis
- Treatment

# MANAGEMENT OF HIV INFECTION AND ANTIRETROVIRAL THERAPY IN INFANTS AND CHILDREN



A Clinical Manual

