



Department of Health
Republic of South Africa



Post-natal follow-up

April 2008



SOUTH AFRICANS AND AMERICANS
IN PARTNERSHIP TO FIGHT HIV/AIDS

ark
absolute return for kids





When to test ?

- in most cases infant HIV status will be established by :
 - asking the mother
 - by checking the child's and/or mother's health card
 - or by requesting a history of maternal HIV testing in pregnancy, labour or the postpartum period

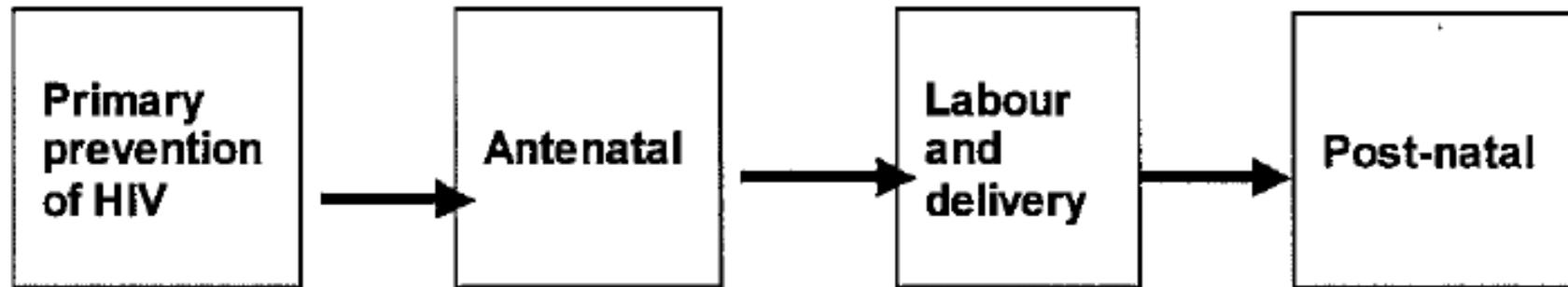
HIV Testing of infants in South Africa

- previously no systematic and structured care plan that included early testing at 6 weeks
- 85% of HIV-exposed infants were lost to follow-up from clinics providing services for PMTCT at 1 year of age
- 75 – 80% already lost to follow-up at 6 months of age

Scale up of HIV-related prevention, diagnosis, care and treatment for infants and children June 2008 p.33,62

THE FOUR STAGES OF PMTCT INTERVENTION OUTLINED IN THE GUIDELINE ARE AS FOLLOWS:

Figure 1: Four stages of PMTCT



E. Infants born to women who received optimal PMTCT or HAART

(groups A-C above that have had ≥ 4 weeks of treatment) should receive **sdNVP** as soon after birth as possible within a 72-hour period. AZT prescribed according to regulatory requirements should be commenced soon after birth and be administered for **7 days**.



KZN PROVINCIAL LABORATORY SERVICES PMTCT VIROLOGY REQUEST FORM	PMTCT BARCODE	FACILITY
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PATIENT DETAILS

MOTHER'S SURNAME		MOTHER'S FIRSTNAME	
INFANT SURNAME		INFANT FIRSTNAME	
INFANT DATE OF BIRTH	<input type="text"/>	INFANT ID#	<input type="text"/>

DATE BREAST FEEDING STOPPED	<input type="text"/>
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TESTS REQUIRED (PLEASE TICK APPROPRIATE BOX)

Time Collected	<input type="text"/>	H	<input type="text"/>	Date Collected	<input type="text"/>					
HIV ELISA	(CHILDREN OLDER THAN 15 MONTHS IF RAPID TEST POSITIVE)								<input type="checkbox"/>	<input type="checkbox"/>
HIV DNA PCR	(CHILDREN 6 WEEKS TO 15 MONTHS ONLY)								<input type="checkbox"/>	<input type="checkbox"/>

NURSE/DOCTOR DETAILS

NAME	<input type="text"/>	SIGNATURE	<input type="text"/>	TEL#	<input type="text"/>				
FACILITY TO WHICH RESULT TO BE POSTED		<input type="text"/>							

SAMPLES WILL NOT BE PROCESSED IF ANY INFORMATION IS MISSING.



Table 1 - Antiretroviral Protocols for Pregnant Women and Infants

CLINICAL DECISION	REGIMEN FOR WOMAN	REGIMEN FOR INFANT
PMTCT regimen for ALL groups of women from 28 weeks of pregnancy unless already on HAART		
<p>CD4 cell count >200, continue with this PMTCT regimen</p> <p>CD4 cell count ≤200 continue AZT up to point HAART initiated.</p>	<ul style="list-style-type: none"> ▪ AZT started from 28 weeks onwards AND ▪ sd NVP + AZT at onset of labour on a 3 hourly basis ▪ If in false labour continue with AZT 	<p>Sd-NVP + AZT for 7 days*</p> <p>AZT for 28 days if</p> <ul style="list-style-type: none"> • Mother received < 4 weeks AZT during pregnancy • Mother received < 4 weeks HAART or • Mother only received sdNVP
HAART regimens (1a and 1b). If on AZT as above need to switch to regimens below		
<p>CD4 cell count ≤200 or WHO stage IV HAART group</p>	<ul style="list-style-type: none"> ▪ d4T + 3TC + NVP (Regimen 1b) ▪ Preferred regimen for pregnant women ▪ Begin at any gestation ▪ d4T + 3TC + EFV (Regimen 1a), ▪ For pregnant women on regimen 1a, switch EFV to NVP in the first trimester ▪ If presenting after first trimester, continue regimen 1a ▪ Continue through labour, delivery and postnatal periods ▪ After the first trimester, if women develop NVP-associated toxicity, then NVP should be substituted with EFV 	<p>Sd-NVP + AZT for 7 days*</p> <p>AZT for 28 days if</p> <ul style="list-style-type: none"> • Maternal HAART < 4 weeks



ARVs given soon after birth to infants born to women who are HIV-positive have been found to be an effective strategy for reducing MTCT whether maternal ARVs are received or not and forms the basis of a post-exposure prophylaxis strategy. The administration of sdNVP and a 7-day course of AZT prescribed by a registered health professional (in line with the relevant legislation and regulations) to the infant have been shown to be effective in reducing MTCT. In instances where there has been only sdNVP given to the mother or she has had less than 4 weeks of AZT or HAART regimen, the infant will require sdNVP and 28 days of AZT.



***Indications for 28day AZT to infant:**

1. Mother received <4 weeks of AZT during pregnancy
2. Mother received <4 weeks of HAART or
3. Mothers who received only sdNVP
4. Mother did not receive any ARVs during pregnancy (unbooked mothers / who have not taken any ARVs during pregnancy and labour



Table 3 - PMTCT Infant Dosing Guide

Drug	Weight	Dose	Notes
NVP syrup (10mg/ml)	>2kg	0.6ml (6mg) Stat	To be administered as soon as possible after birth as a single dose (sdNVP)
	< 2kg	0.2ml/kg stat (2mg/kg)	
AZT syrup (10mg/ml)	>2kg	1.2ml 12 hrly (12mg 12 hrly)	For 1 week if mother received 28 days of AZT or HAART, otherwise for 4 weeks. Administered with a 2ml syringe



Table 7: PMTCT Infant Dosing Guide

Drug	Weight	Dose	Notes
NVP syrup (10mg/ml)	>2kg	0.6ml (6mg) Stat	To be administered as soon as possible after birth as a single dose (single dose NVP)
	< 2kg	0.2ml/kg stat	
	Pre- term < 34 weeks	Consult with a senior or specialist	
AZT syrup (10mg/ml)	>2kg	1.2ml 12 hrly (12mg 12 hrly)	For 1 week if mother received > 28 days of AZT or HAART, otherwise for 4 weeks. Administered with a 2ml syringe
	<2kg full term infant	2mg/kg 12 hrly	For 1 week if mother received > 28 days of AZT or HAART, otherwise for 4 weeks. Administered with a 2ml syringe
	Pre term < 34 weeks	Consult with a senior or specialist	

Source: Adapted from Policy and guidelines for the implementation of the PMTCT Programme, NDoH 2008



Entries into the PMTCT Register

- Issuing of Nevirapine 200mg/ AZT 300mg/ Nevirapine Suspension
- **STAT DOSES**
- Single Tablets are to be recorded in register eg AZT 300mg/ NVP 200mg – 1 tablet
- **PREPACKS**
- AZT 300mg- 60s = 1 unit
- AZT Syrup-10mls – 1 unit
- AZT Syrup – 20mls = 1 unit
- AZT Syrup- 30mls= 1 unit
- AZT Syrup – 75mls= 1 unit

Responsibility: Nursing Staff

AZT syrup dispensing

- Newborn term infant weighs 1.8kg at birth. Mother only received 3 weeks of AZT prior to delivery. What should you dispense ?
- **INFANT:**
 - **WEIGHT** of infant 2mg AZT syrup per kilogram
 - **DURATION** of treatment 28 days
 - **VOLUME** of syrup → size of bottle



Assume mother CD4 > 200 as she did not receive HAART



Neonatal follow-up

- 6 days - screen mother and newborn for infection
- 6 weeks - post-partum check-up, PAP for mother, start baby immunisations, give MTV and Bactrim
- "6 months" perform CD4 on mother

IMCI = Integrated management of Childhood illness is an approach to management of child health, developed by WHO & UNICEF to focus on the well being of the *whole* child; aims to ↓ death, illness and disability, and to promote improved growth & development in children < 5 years

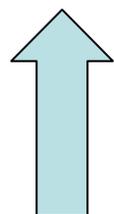


Foetal abnormalities
NNJ
Adherence to AZT
Latching to breast (if BF)

NEWBORN FOLLOW - UP

STOP Bactrim if PCR
negative and mom *not* BF

Time



Birth

6 hours

6 days

6 weeks
4 weeks for prems

3 months
Complete
immunisations

6 months
CD4

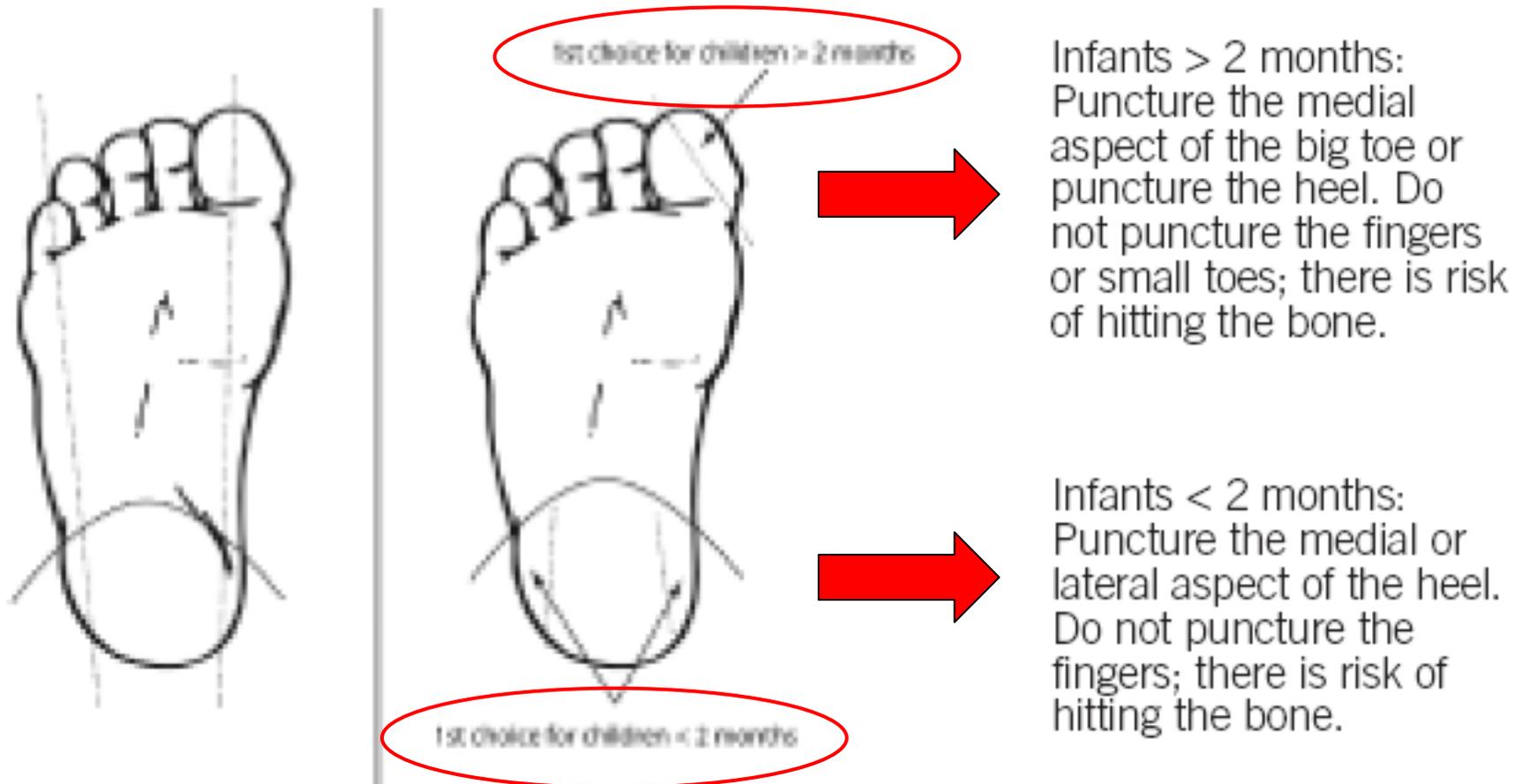
18 months
recheck HIV
status if
negative

Regular visits:

6 & start Bactrim, 10, 14 weeks
Once a month till 1 year
Every 3 months till 2 years

- Repeat PCR 6 weeks after cessation of BF
- Repeat HIV test at 18 months if HIV negative - **ELISA**
- Obtain birth certificate within 28 days

Puncture sites for collection of DBS



ICAP Infant Diagnosis Manual – *Diagnosis of HIV infection in Infants p.49*

FBC

CD4

VIRAL
LOAD

ALT



Monitoring of children on ART

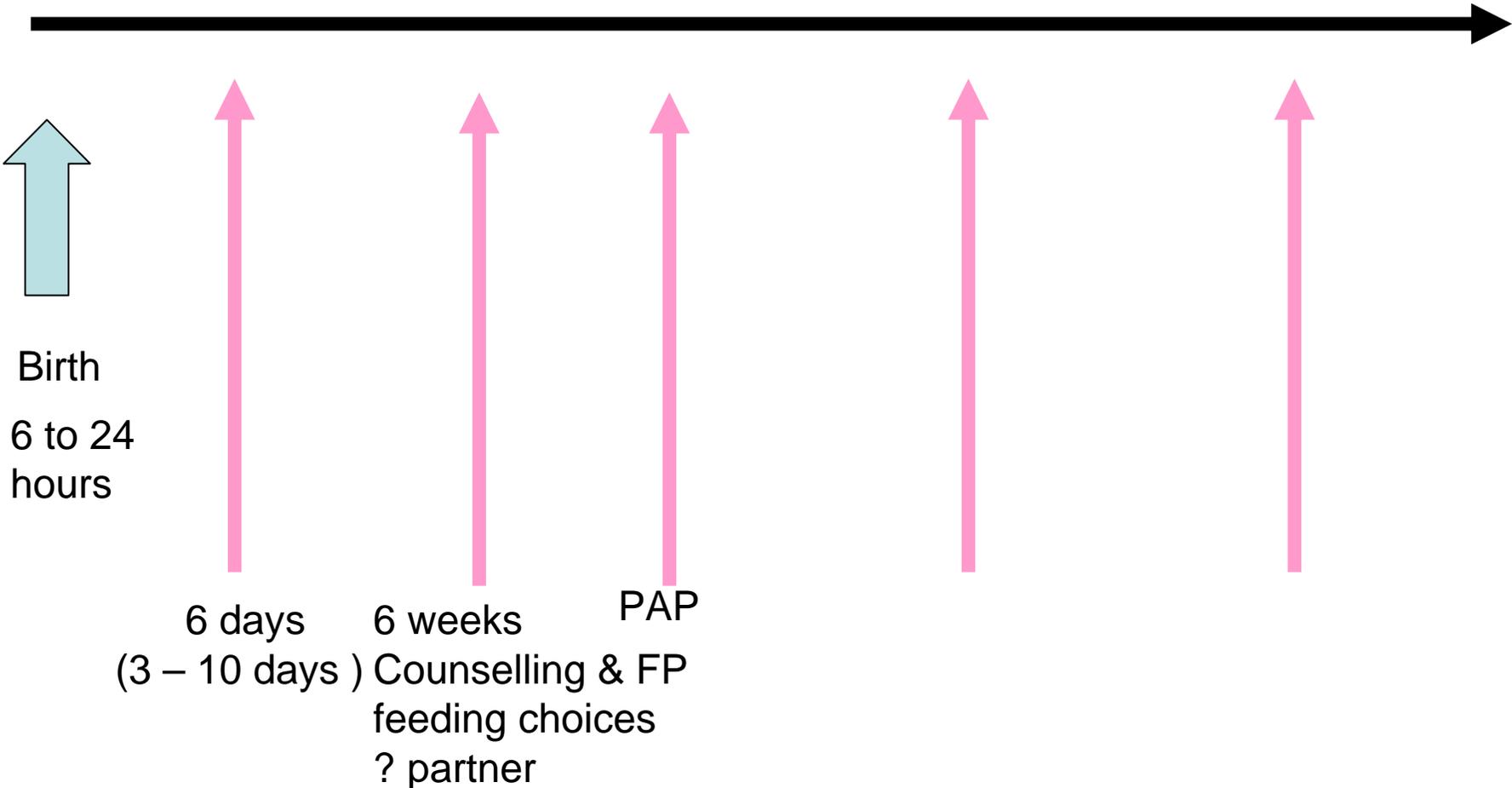
Closing the Gap

- Retest all infants at **18 months** :
 - if mothers do not disclose their breast feeding practices or mix feeds perform a PCR 6 weeks after cessation
 - date of *total* cessation of breast feeding perform a PCR 6 weeks after cessation
 - pre-mastication of food mother / caregiver
 - sexual assault of children
PCR 98% sensitivity and specificity

Infant and Young child Feeding policy

- growth monitoring should be performed at every child visit
- 0 – 2 years : weighed monthly
- 2 – 5 years age : weigh every 3 months
- if the infant is HIV negative, mother should be counselled on feeding options and the risks of transmission (? risk of post-partum infection of mother)

MATERNAL FOLLOW - UP



Repeat PAP after delivery
Repeat CD4* and refer to
either HIV Wellness or ARV
services

- Dependent on previous CD4 (< or > 200)
and when last taken

CD4 evaluation

- **MOTHER**

1. check previous result
2. check when last done

- **INFANT**

1. Perform first CD4 if PCR positive
2. Refer to nearest Paediatric ARV clinic for follow-up

**If more > 500,
perform once a year**

**If between 350 and 500,
every 6 months**

**If between 200 and 350,
check every 3 to 6
months**

Check clinical status:
Well
or
sick
(TB, underweight, repeated
hospitalisations
OIs etc)

KZN - CD4 count at 6 weeks post-natally

Annex 2. Essential postnatal care for HIV-exposed infants and young children

1. Completion of antiretroviral prophylaxis regimen as necessary
2. Routine newborn and infant care, including routine immunization and growth monitoring
3. Co-trimoxazole prophylaxis
4. Early HIV diagnostic testing and diagnosis of HIV-related conditions
5. Continued infant feeding counselling and support, especially after HIV testing and at 6 months
6. Nutritional support throughout the first year of life, including support for optimal infant feeding practices and provision of nutritional supplements and replacement foods if indicated
7. Antiretroviral therapy for children living with HIV, when indicated
8. Treatment monitoring for all children receiving antiretroviral therapy
9. Isoniazid prophylaxis when indicated
10. Counselling on adherence support for caregivers
11. Malaria prevention and treatment where indicated
12. Diagnosis and management of common childhood infections and conditions and Integrated Management of Childhood Illness (IMCI)
13. Diagnosis and management of tuberculosis and other opportunistic infections

AGE AT PCP DIAGNOSIS

Perinatally acquired HIV, USA, 1981-90

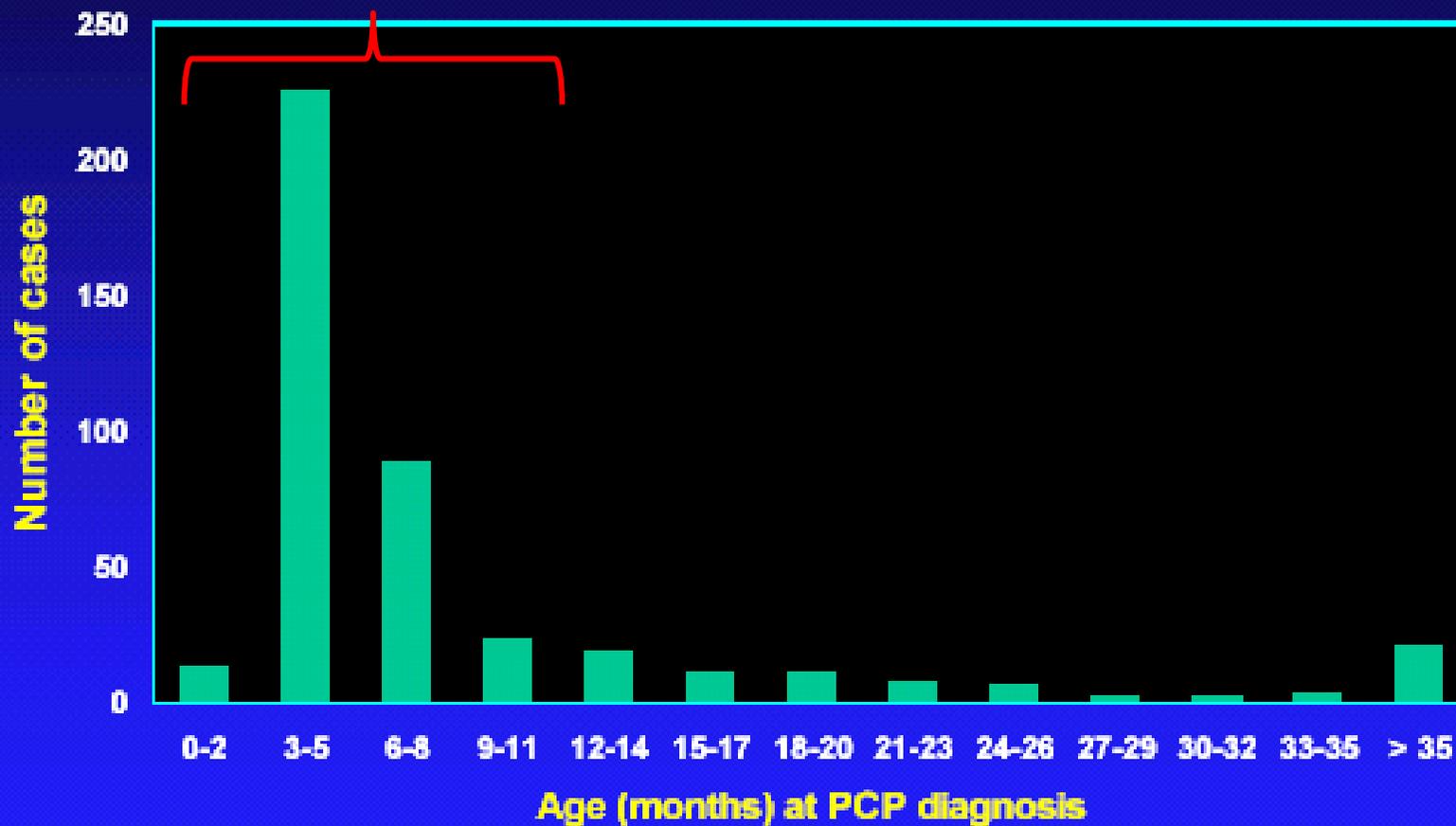
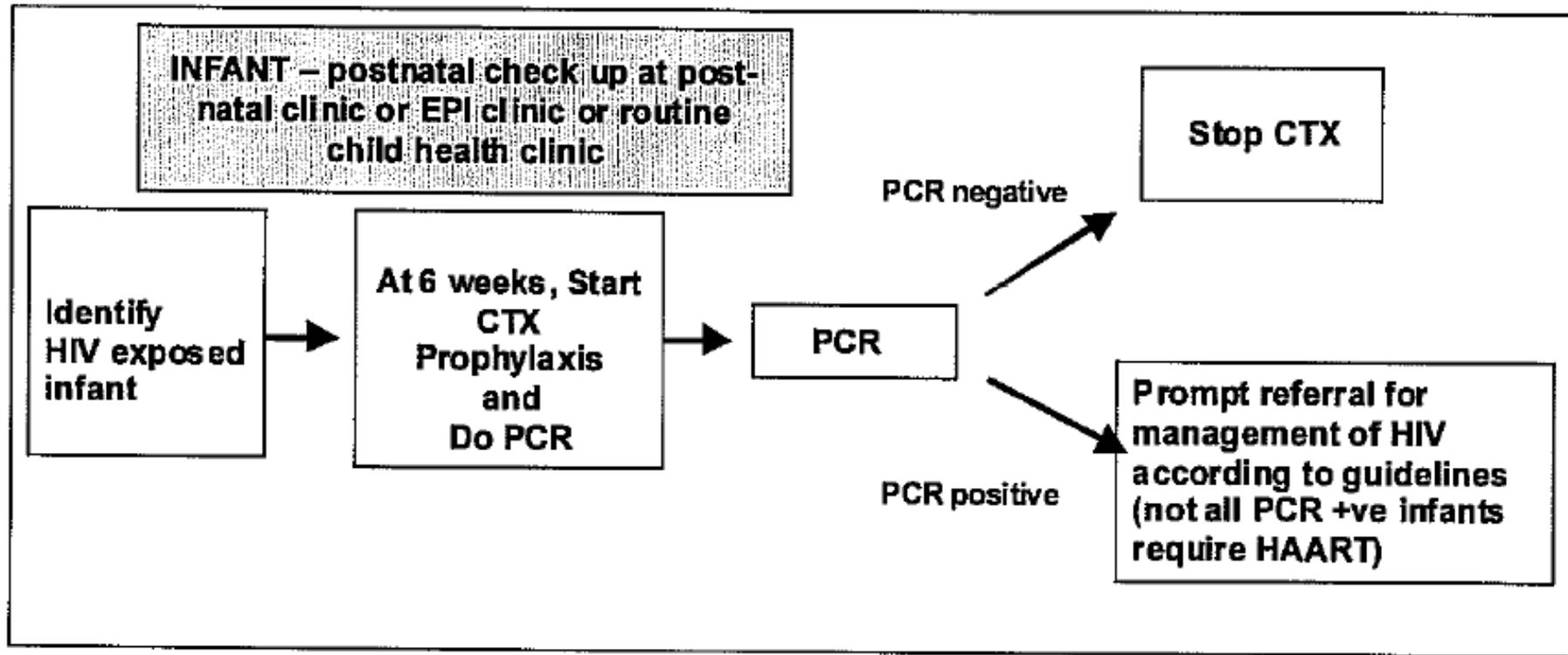
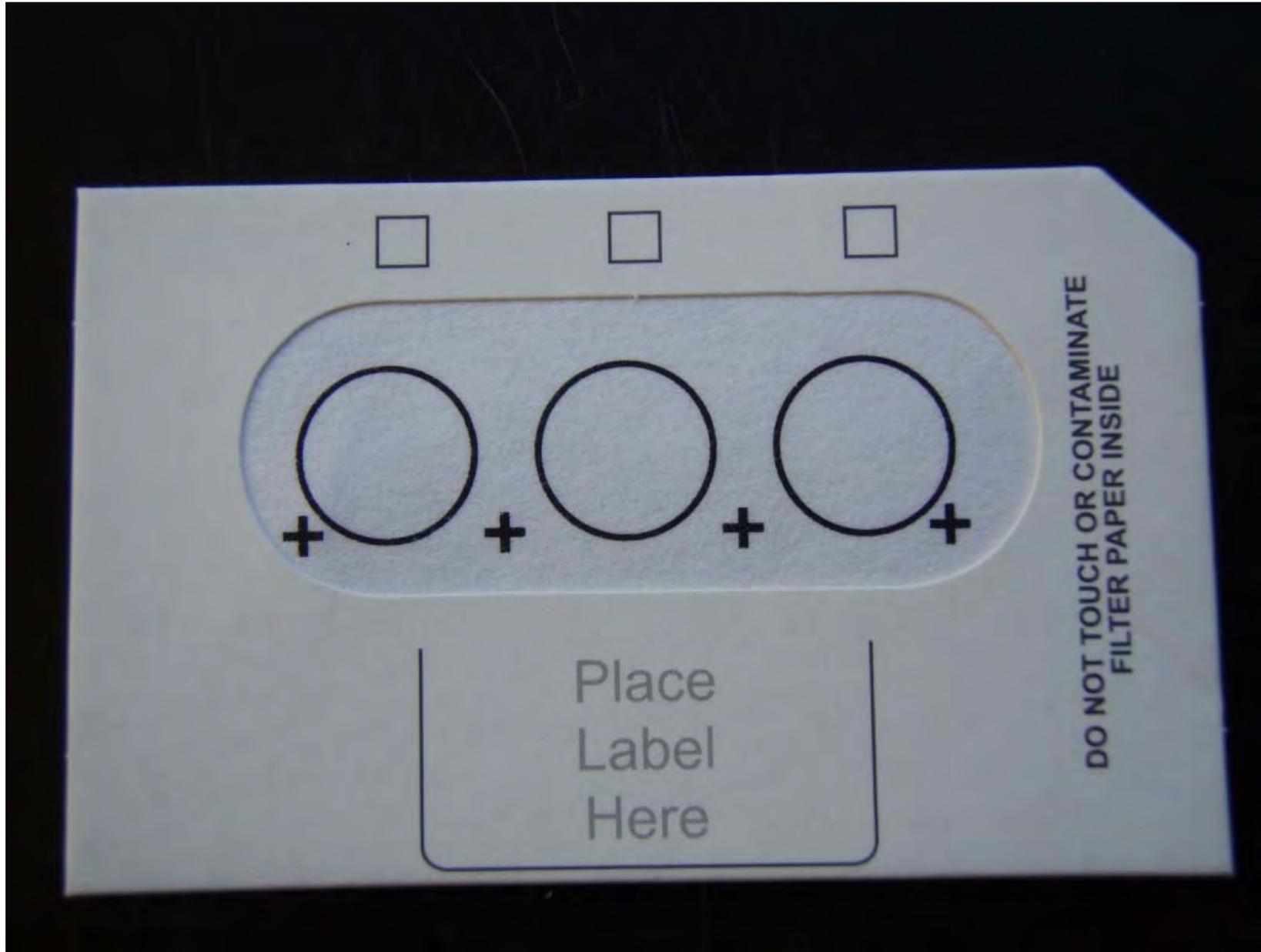


Figure 4: Postnatal PMTCT intervention for infants that are exclusively formula fed



*In 2006, SA government statistics showed the HIV status of only $\pm 3\%$ of infants born each year in the public sector hospitals



DBS card

Figure 5: Postnatal PMTCT intervention for infants that are exclusively breastfed

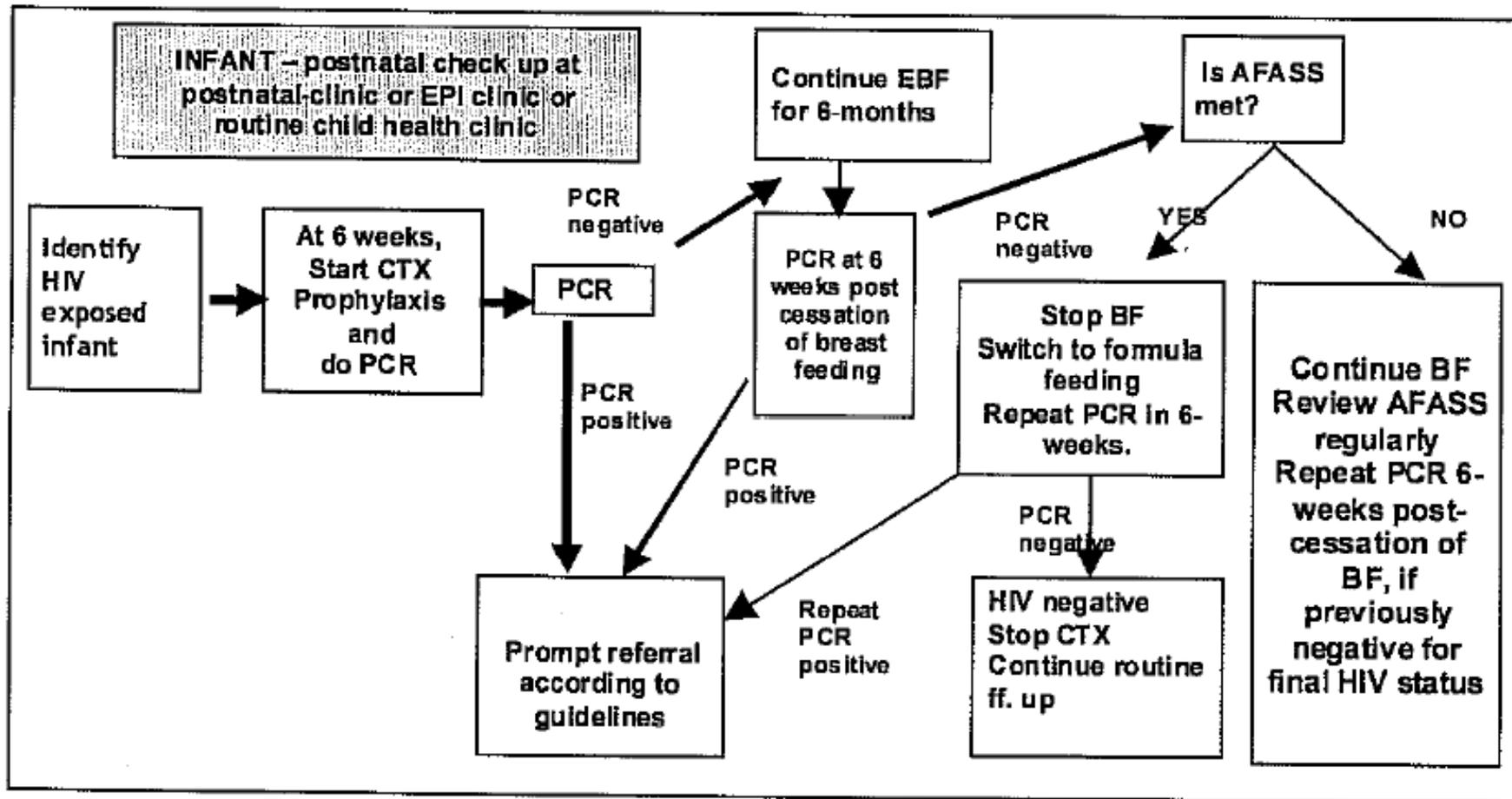
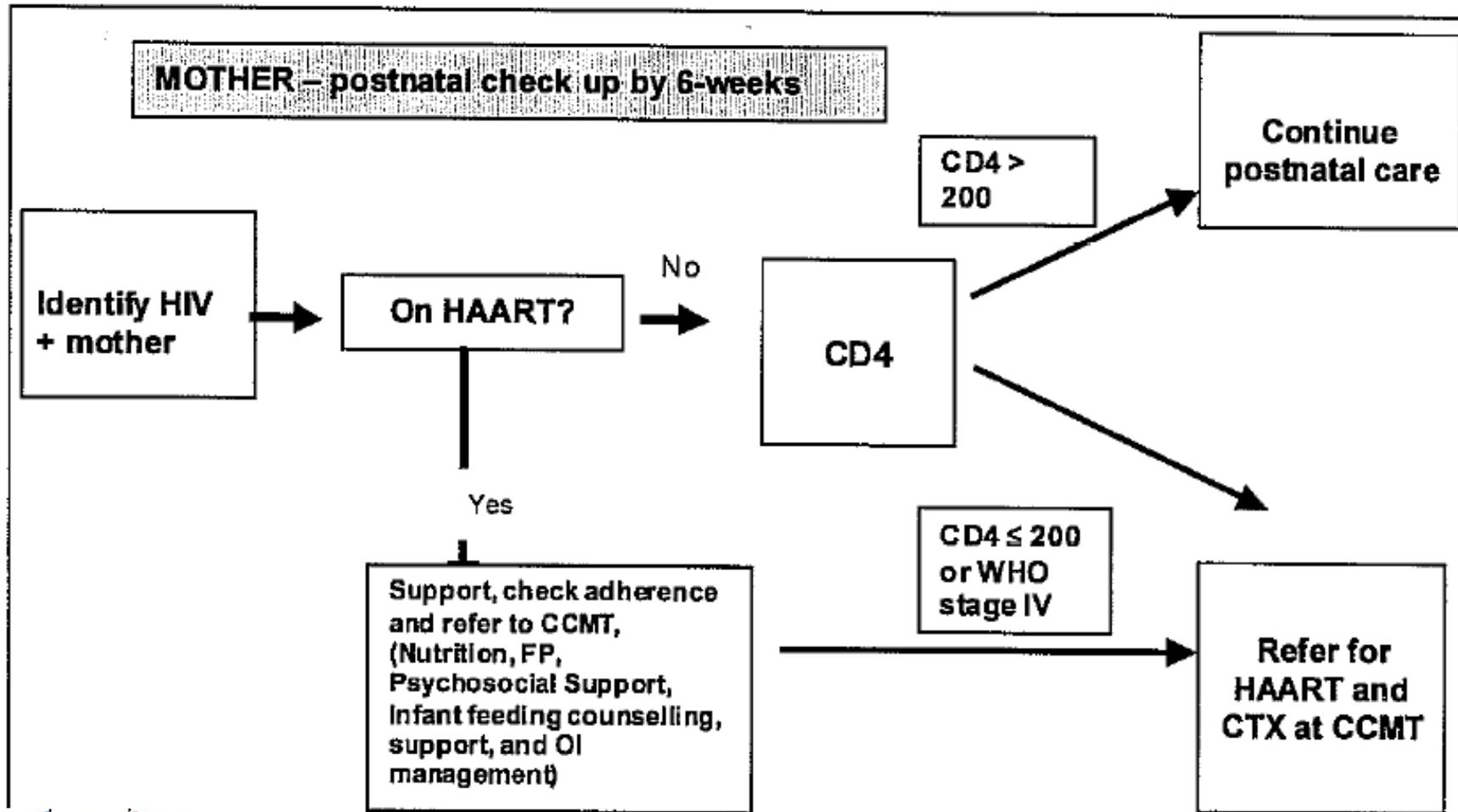


Figure 6: Postnatal care for mothers



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USAID
FROM THE AMERICAN PEOPLE

PMTCT – Summary

MOTHER

Test pregnant mother before 34 weeks

Start AZT from 28 weeks

Refer for HAART of CD4 < 200 or Stage IV

Administer sdNVP in 1st stage of labour

Provide FF for 6 months for mothers who meet AFASS*

INFANT

28 days AZT to new born if:

mother had < 4 weeks AZT during pregnancy

mother received < 4 weeks HAART

mother received only sdNVP

unbooked mom (NO ARVs taken)

Rest all get 7 days of AZT

Bactrim from 6 weeks age to all HIV exposed and HIV + infants (stop Bactrim if PCR negative)

PCR at 6 weeks, repeat 6 weeks after cessation of BF

AIM

Reduce transmission by 50%



*AFASS = available, feasible, acceptable, sustainable, safe

Postpartum

- Comprehensive care and support services within family and community context.
- The mother should be supported and assisted to provide the infant feeding option decided upon in the ANC.
- Family planning should be discussed again before discharge.
- Health care workers should be aware of the common postnatal infections – urinary tract infections, chest infections, infected episiotomy, postpartum sepsis and caesarean wound sepsis.



Postpartum

- Education about breast and perineal care and disposal of soiled infected sanitary material.
- The mother needs to be re-evaluated in the post partum period and referred for HAART if qualifies.
- Pap smear is done at 6 weeks postpartum.

Exit opportunities ?

Ensure patients remain HIV negative

Infants born to woman living with HIV who have not received ARV drugs during pregnancy

- give sdNVP plus four weeks of AZT immediately after delivery solely for post-exposure prophylaxis
- give as soon as neonate can tolerate oral feeding and within 12 hours following delivery
- if delayed for more than 2 weeks, it is unlikely to have any benefit

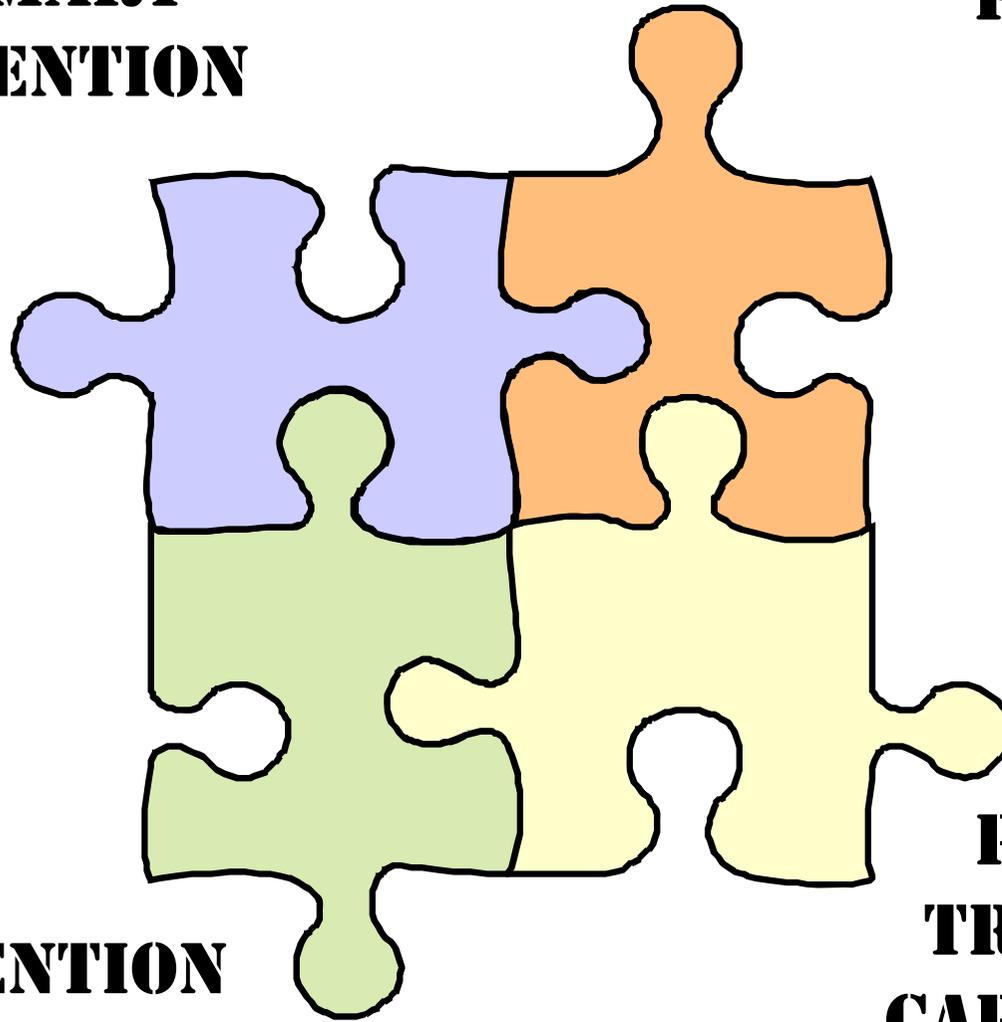


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**PRIMARY
PREVENTION**

**PREVENTION OF
UNPLANNED
PREGNANCIES**



**PREVENTION
OF HIV
TRANSMISSION**

**PROVIDING
TREATMENT &
CARE TO WOMEN
CHILDREN AND
FAMILIES**