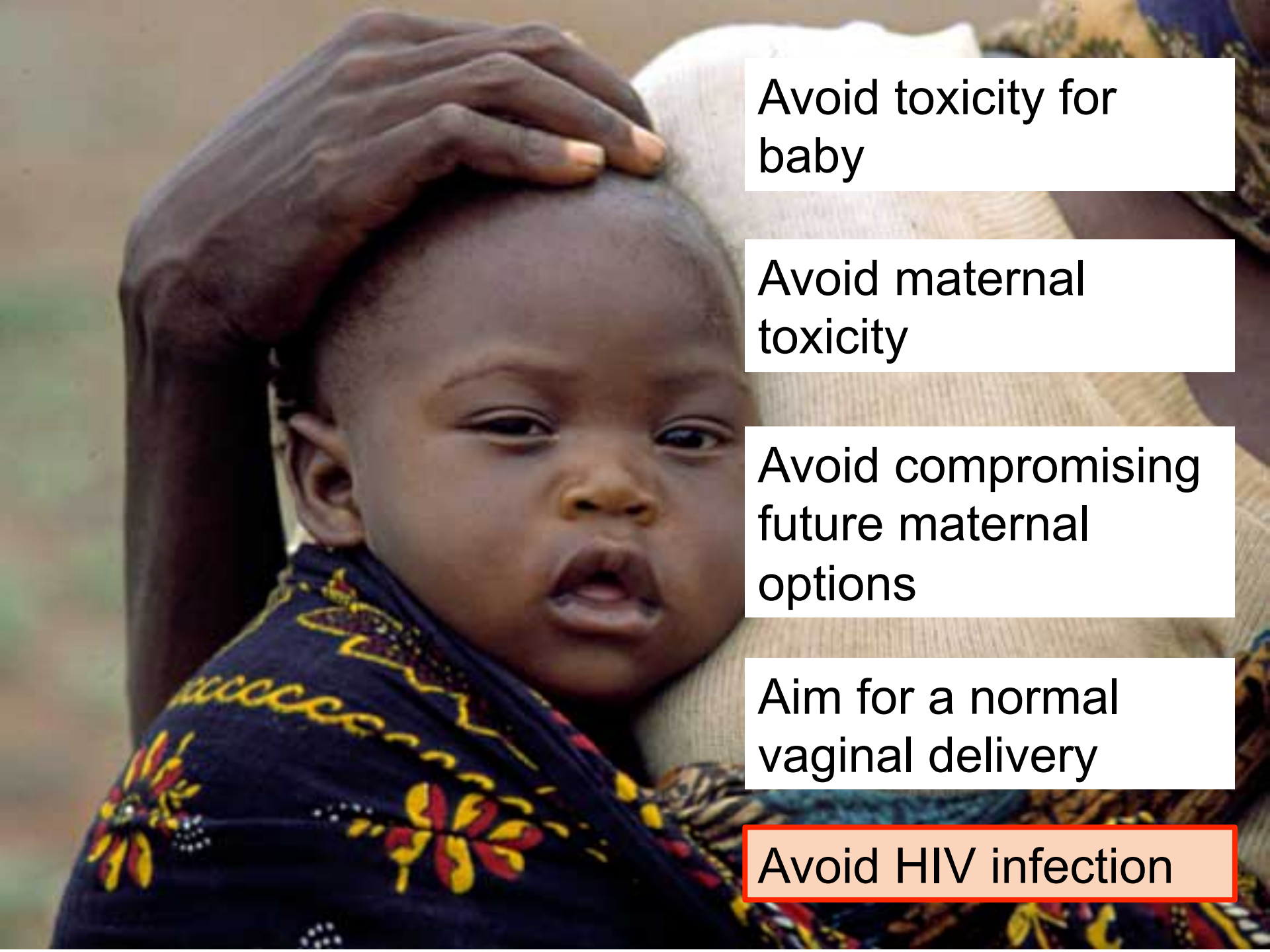

Avoid toxicity for baby

Avoid maternal toxicity

Avoid compromising future maternal options

Aim for a normal vaginal delivery

Avoid HIV infection

Managing ART during pregnancy

Antiretroviral medication

WHAT ?

WHEN ?

DO YOU STOP OR CHANGE ANYTHING ?

Antiretroviral medication

WHAT ?

WHEN ?

DO YOU STOP OR CHANGE ANYTHING ?

BHIVA pregnancy guidelines
Women conceiving on HAART

- Women conceiving on effective ART should continue this even if it contains efavirenz or does not contain zidovudine
- Exceptions are:
  - Protease inhibitor monotherapy (intensify if possible)
  - The combination of stavudine and didanosine

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Women not yet on HAART

- All pregnant women should start ART
- Women can take *temporary* HAART and stop after delivery
- *But* START study results in 2015 showing clinical benefit of HAART at all CD4 counts **NOW WHO recommendation**
- Over recent years *more* women continuing

Antiretroviral medication

WHAT ?

WHEN ?

DO YOU STOP OR CHANGE ANYTHING ?

Which NRTIs?

- Abacavir/lamivudine (Kivexa)
  - Not if hepatitis B carrier/HIV VL>100,000/HLA +ve
- Tenofovir/emtricitabine (Truvada) or
- Tenofovir/lamivudine
  - NRTIs of choice if HBV +ve
- Zidovudine/lamivudine (Combivir)
  - Not if hepatitis B carrier/HIV VL>100,000/HLA +ve

Issues for the newly diagnosed pregnant woman

- Her own diagnosis
- Existing children
- Disclosing to partner/family
- Immigration issues
- Housing issues
- Breastfeeding
- Teenager
- IVDU

What about drug safety during pregnancy

Antiretroviral Pregnancy Registry 1/89- 7/14: First Trimester

Prospective Cases

			% Birth Defect
Lamivudine	C	140/4485	3.1% (2.6-3.7)
Ritonavir	B	60/2[illegible]	2.4%(1.8-3.0)
Tenofovir	B	[illegible]/1[illegible]50	2.3%(1.[illegible])
Emtricitabine	B	41/1721	2.[illegible]-3.2)
Lopinavir	[illegible]	29/121[illegible]	[illegible]%(1.6-3.4)
Nevirapine	B	[illegible]	2.9%(1.9-4.0)
Atazanavir	B	[illegible]/993	2.2%(1.4-3.3)
Abacavir	[illegible]	28/957	2.9%(1.9-4.2)
Efavirenz	D	19/825	2.3% (1.4-3.6)
Darunavir	C	7/293	2.7% (1.0-4.9)

2.8% (2.5 – 3.3%)

1st trimester any ARV exposure

2.7-2.[illegible]

C general birth defect surveillance

Antiretroviral Pregnancy Registry 1/89- 7/14: First Trimester

Prospective Cases

			% Birth Defect
Lamivudine	C	140/4485	(2.6-3.7)
Ritonavir	B	60/25	2.4%(1.8-3.0)
Tenofovir	B	28	2.3%(1.7-3.0)
Emtricitabine			2.4%(1.7-3.2)
Lopinavir			2.2%(1.6-3.4)
Nevirapine			2.9%(1.9-4.0)
Atazana			2.2%(1.4-3.3)
Ab			2.9%(1.9-4.2)
E virenz			2.3% (1.4-3.6)
Darunavir			2.7% (1.0-4.9)

2.8% (2.5 – 3.3%)

2.7-2

1st trimester any ARV

C general

RECOMMENDED

atazanavir + ritonavir

or darunavir + ritonavir

or efavirenz/nevirapine

tenofovir + emtricitabine

or

abacavir + lamivudine

Single tablet regimens (STR) in pregnancy

- Well tolerated single tablet regimens should be considered in pregnant women with adherence or tolerability issues

Antiretroviral medication

WHAT ?

WHEN ?

DO YOU STOP OR CHANGE ANYTHING ?

When should women start HAART in pregnancy?

- As soon as is practical
- Start around 14 weeks if viral load >30,000c/ml
- Start by **minimum of** 24 weeks at the latest if viral load <30,000c/ml
- Consider starting **before** 14 weeks if viral load >100,000c/ml

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Late presenters

- Include an integrase inhibitor in the regimen of a woman who presents:
  - Late (>28 weeks)
  - In labour

  - This will result in a more rapid fall in the viral load

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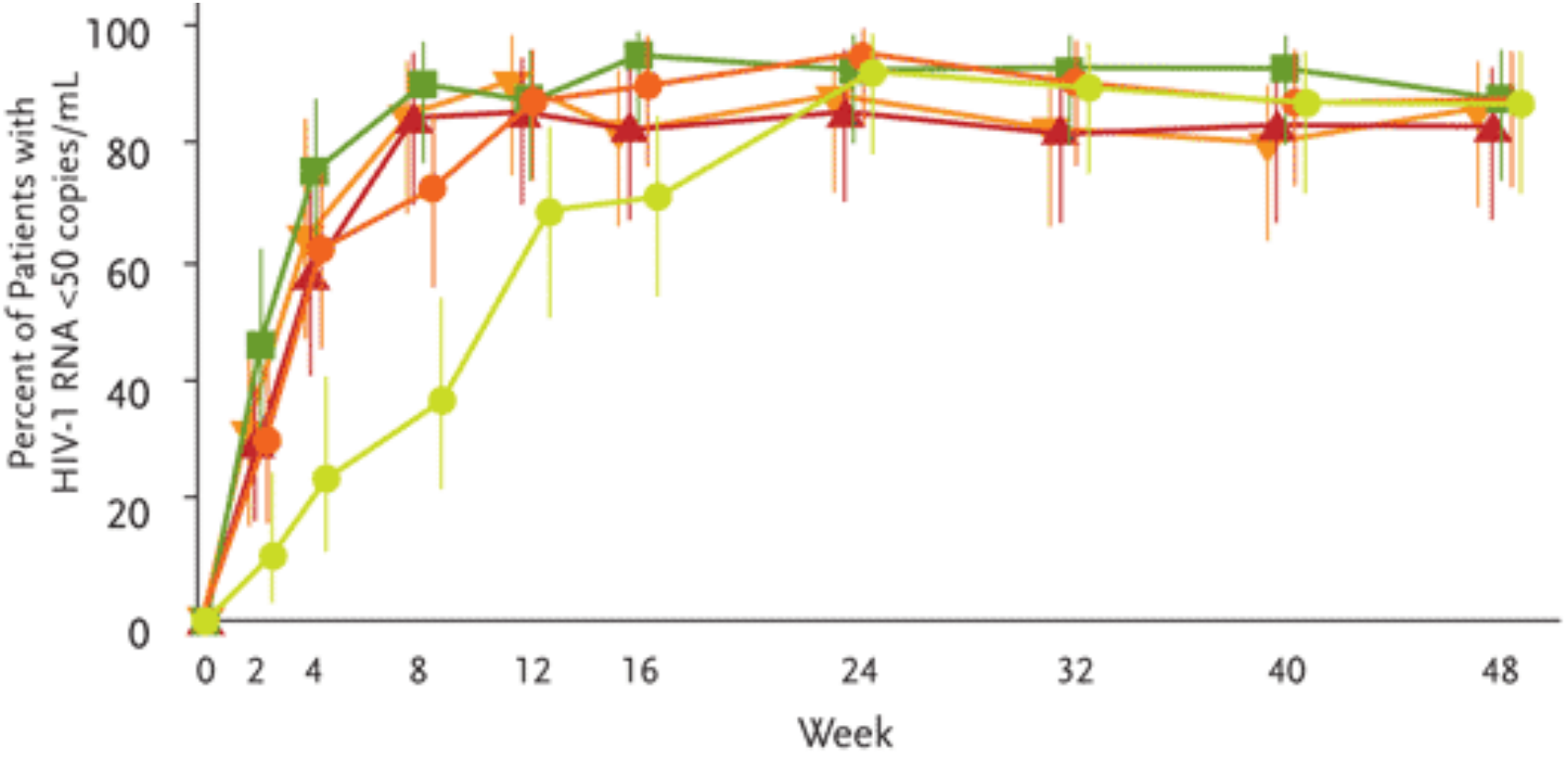
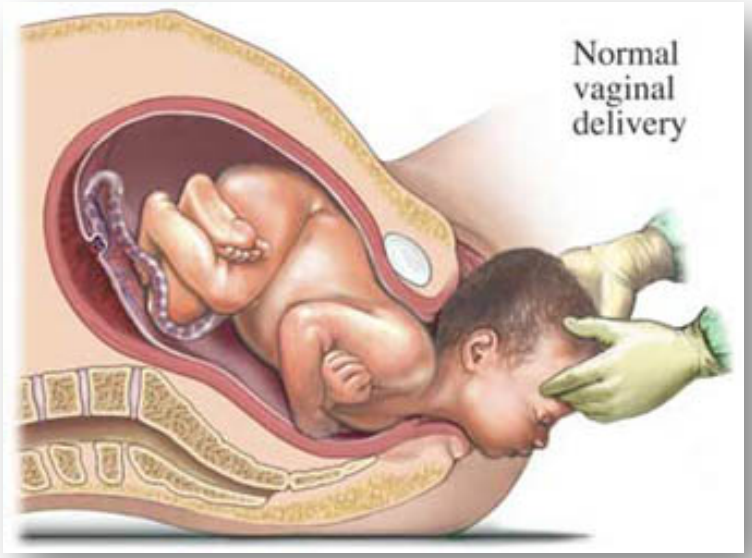
Efficacy differences of raltegravir vs. efavirenz through week 48



Which is the safest way to deliver the baby?

Caesarean versus normal vaginal?



BHIVA guidelines 2008

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Viral load and mode of delivery

- If VL <50 c/ml a vaginal delivery is **recommended**
- If VL > 400 c/ml a PLCS is **recommended**
- If VL 50-399 c/ml a PLCS should be **considered** taking into account:
  - the actual viral load,
  - the trajectory of the viral load,
  - length of time on treatment,
  - adherence issues,
  - obstetric issues
  - woman's wishes.

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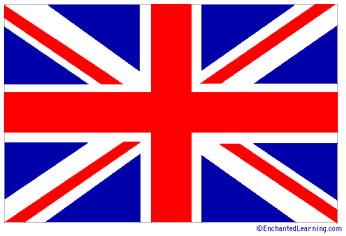
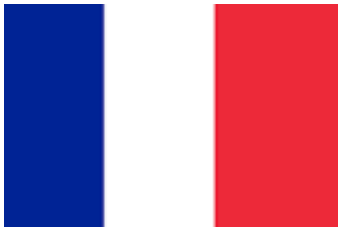
Viral load and vaginal delivery



< 50c/ml

(50-399*)

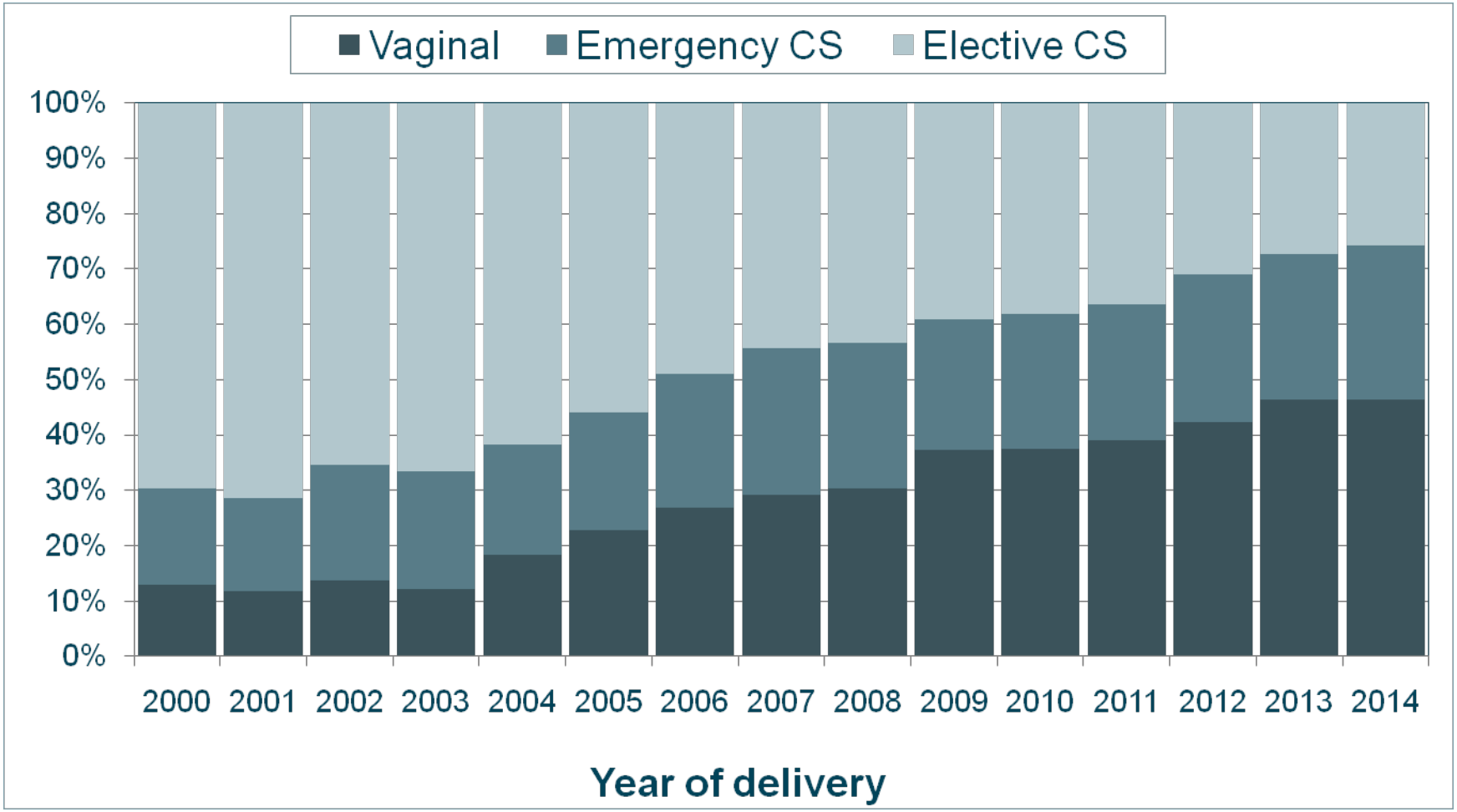


<400c/ml

<1000c/ml

Mode of delivery for diagnosed women UK 2000-2014

National Study of HIV in Pregnancy and Childhood
NSHPC



Potential reasons for high rate of emergency Caesarean sections

- Women commencing HAART too late
  - Viral load not yet low enough at onset of labour
- Increased rate of pre-term birth in HIV
  - Viral load not yet low enough at onset of labour
- Concern about length of time membranes are ruptured
  - Data from *pre-HAART* era
- Concern about artificial rupture of membranes
  - Data from *pre-HAART* era

Results: term deliveries

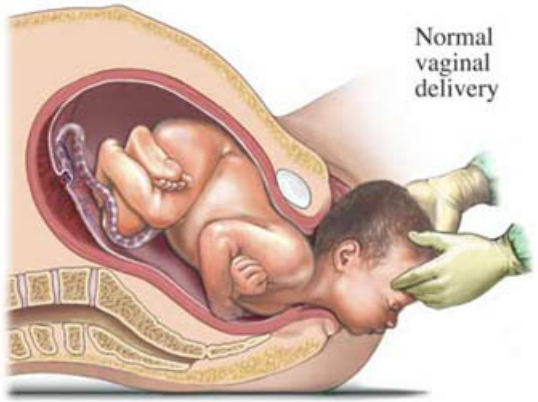
National Study of HIV in Pregnancy and Childhood
NSHPC

MTCT rates by duration of ROM among term deliveries

Duration of ROM	All term infants	Term infants with VL <50c/ml
<4 hour	0.34% (3/892)	0.12% (1/809)
4 to <24hour	0.69% (5/726)	0.15% (1/655)
≥24 hours	0.00% (0/60)	0.00% (0/55)
Total	0.48% (8/1678)	0.13% (2/1519)

For women with VL<50: no significant difference in MTCT for ROM ≥4 hr v ROM<4hr OR: 1.14 (95% CI: 0.07, 18.27)

Obstetric issues



- Women with a viral load of <50c/ml can be managed from the obstetric point of view as if they are HIV negative
- No concerns regarding length of time of rupture of membranes in women with a viral load of <50c/ml *
- Perform artificial membrane rupture if clinically indicated
- No need to wash the baby

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** Duration of ruptured membranes and mother-to-child HIV transmission: a prospective population-based study. H Peters et al BJOG 2015 May 22*

Infant Treatment

- Initiated within 4 hours of birth for 4 weeks
- Zidovudine monotherapy if all goes according to plan
- Triple therapy (zidovudine, lamivudine, nevirapine) if maternal viral load not fully suppressed and/or uncontrolled situation
- All infants vaccinated for hepatitis B

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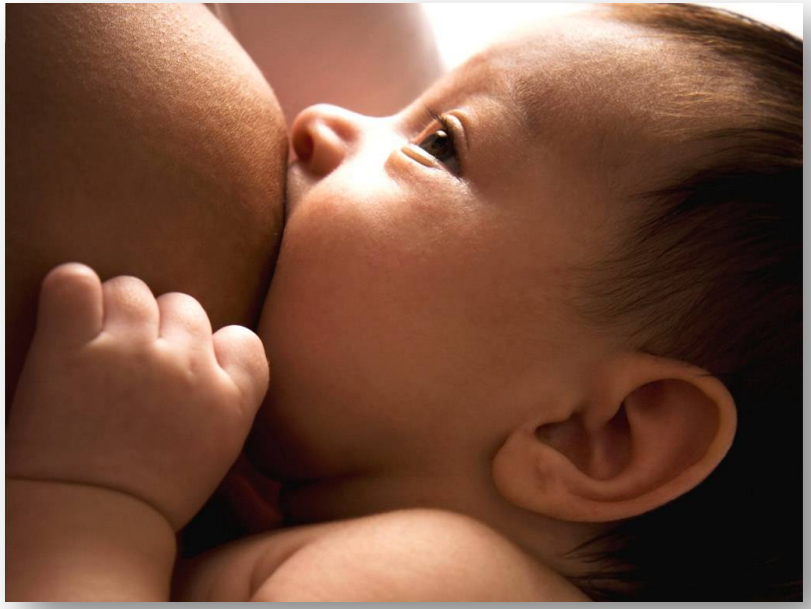
What about breast feeding?



Infant feeding recommendations

- **Formula feeding is recommended**
- But if a woman on HAART with a viral load <50c/ml wishes to breastfeed, she will be supported
  - Exclusive breastfeeding
  - As short a period as possible
  - Not longer than 6 months
  - Infant and mother require monthly follow up

BHIVA and CHIVA position statement – Infant feeding in the UK 2010

Aim for today – contraception/ HIV

- What are the benefits and effectiveness?
- Which are the recommended types?
- What is the potential for increased risk of HIV acquisition, transmission, and progression?
- What is the potential for ARV drug interactions?

Aim for today – MTCT

- ARV medication
  - Do you stop or change any ARV?
  - What to start?
  - When to start?
- Which is the safest way to deliver the baby?
- What about breast feeding?

Discussion and questions?