NORTHWEST AIDS EDUCATION AND TRAINING CENTER

Perinatal ARV Treatment Update: 2012

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Perinatal ARV Treatment Update: 2012

- Background
- Pregnant Patient with HIV:
  - Scenario 1: Never Received ARV's
  - Scenario 2: On ARV's and Doing Well
  - Scenario 3: Virologic Breakthrough
- Peripartum Treatment

Background

- Transmission can occur *in utero*, during delivery, or via breastfeeding
- PMTCT/EMTCT requires: antepartum & intrapartum care, infant prophylaxis
- Overall risk of transmission:
  - 14-26% (developed world), 21-43% (developing world)
  - AZT alone: 8-10%; **3-Drug ART: 1-2%**

Mofenson L et al, NEJM 1999;341(6):385-393

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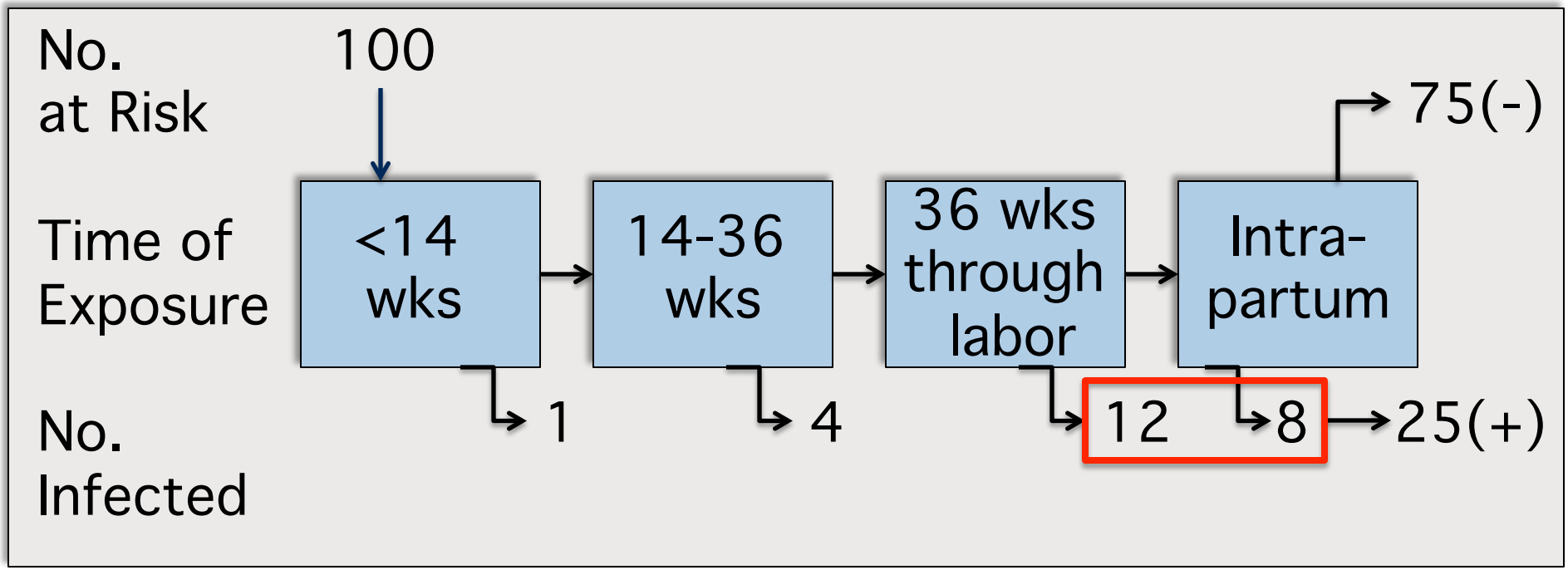
Transmission Risk During Pregnancy

- French Prospective Study on Pediatric HIV Infection,1995:
  - 35% during pregnancy (92% in last 2 months)
  - 65% during delivery
- Kourtis et al, 2001:
  - 20% during first 36 weeks of pregnancy
  - 48% during last 4 weeks through labor
  - 32% during delivery

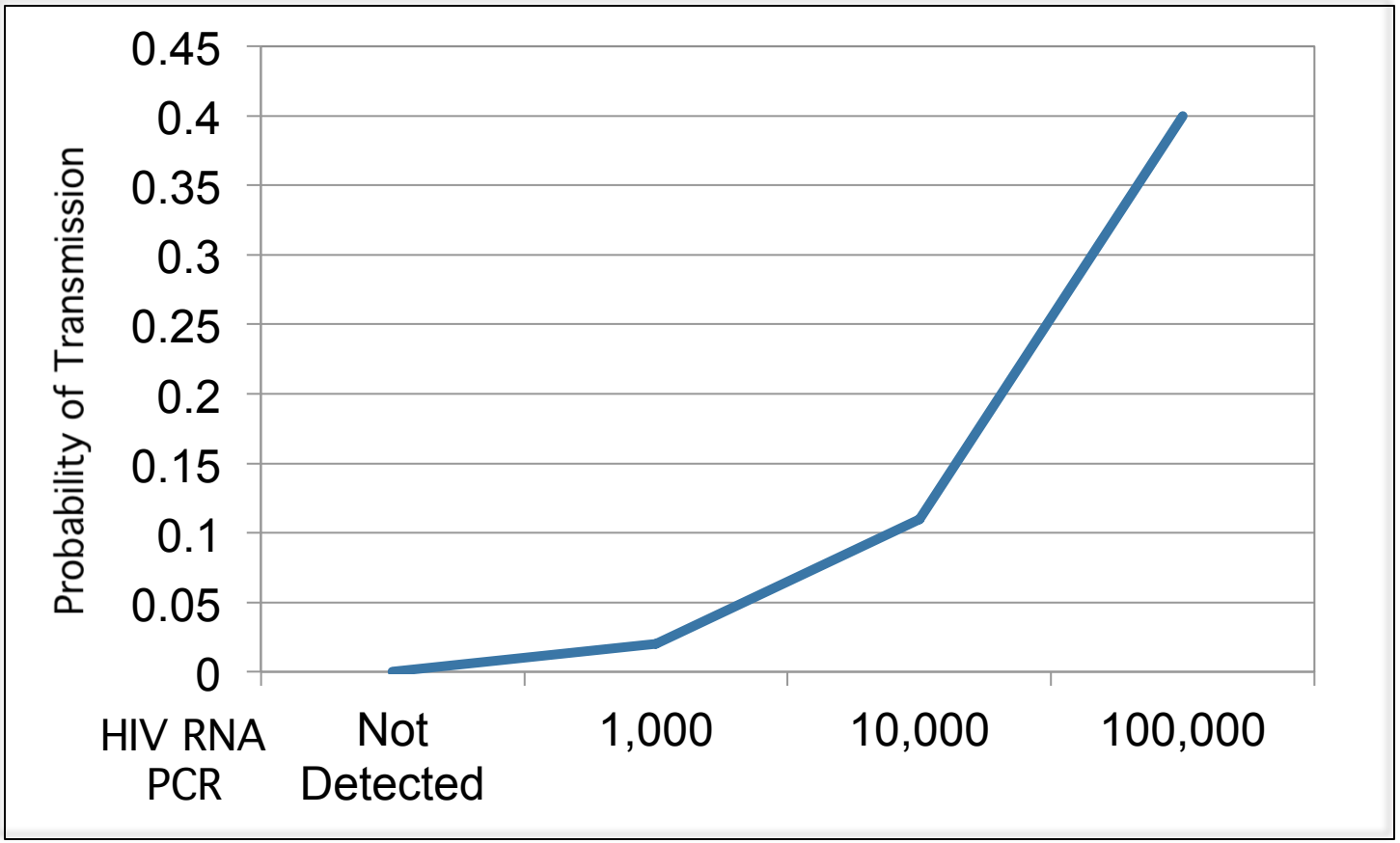
1. Rouzioux C et al, Am J Epi 1995;142(12):1330-1337.
2. Kourtis AP et al, JAMA, 2001;285(6):709-712.

Transmission Risk At Each Stage in the Absence of ARV Therapy



Adapted from: Kourtis AP et al, JAMA, 2001;285(6):709-712.

Risk of Perinatal HIV Transmission
By Maternal RNA PCR Near Delivery



O'Shea S et al. Journal of Medical Virology, 1998;54:113–117

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Background

- ≈200 infants/year still infected perinatally
  - Perinatally-acquired HIV leads to: more non-adherence, more high-risk behavior, worse outcomes
- Barriers: lack of testing, late diagnosis, lack of awareness, difficulties with adherence
- Most important predictor: maternal HIV RNA

1. CDC Fact Sheet, http://www.cdc.gov/hiv/topics/perinatal/resources/factsheets/perinatal.htm
2. Tassiopoulous K et al. *Clin Infect Dis* 2012 Nov 7; [e-pub]

Scenario 1: Never Received ARV's

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- All need combination ART, regardless of CD4/VL
- ***When to start?***
  - Earlier better, but in 1st trimester weigh benefits vs. side effects and possible fetal effects
  - Base decision on timing, CD4 count, VL, symptoms
  - Always do genotype, but if late in pregnancy, don't wait for result
- **What to start?**
  - 2 NRTI's with high placental passage + recommended 3rd drug

HHS Guidelines 2012: http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.

Scenario 2: On ARV's and Doing Well

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- If tolerating ARV's and VL suppressed:
  - On recommended regimen → continue
  - Other regimen → switch to recommended regimen if feasible
- ****Key change**: **OK to continue** efavirenz (Atripla) if tolerating and VL suppressed
  - **Avoid** efavirenz in women of child-bearing potential

HHS Guidelines 2012: http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.

Recommended ARV's in Pregnancy: 2012

Preferred	Alternative	Use in Special Circumstances	Insufficient Data
AZT, 3TC	**Tenofovir, FTC**	***Raltegravir***	**Rilpivirine**
Lopinavir	**Abacavir**	**Efavirenz**	**Etravirine**
Atazanavir	***Darunavir***	*DDI, D4T*	**Maraviroc**
Ritonavir	Saquinavir	Indinavir	**Elvitegravir**
Nevirapine		Nelfinavir	Tipranavir
			Fosamprenavir
			Enfuvirtide

Italic = category change in 2012

Monitoring During Pregnancy

HIV RNA	CD4 Count	Resistance Assay
Initial visit	Initial Visit	Initial visit if VL >500-1,000 copies
2-4 wks after ARV initiation or change	At least every 3 mo thereafter	If suboptimal virologic suppression or any virologic failure
Monthly until undetectable		
At least every 3 mo thereafter		
At 34-36 wks for delivery planning		

Scenario 3: Virologic Breakthrough

Scenario 3: Virologic Breakthrough

- Perform resistance assay, change ARV's
- Remember to increase dose of PI's in 3rd trimester
  - Lopinavir-ritonavir: add 1-2 extra tabs or a pediatric tab
  - Atazanavir: increase from 300 mg to 400 mg daily
- Other factors: drug-drug interactions, medication intolerance (GERD, nausea/vomiting, etc)
- Intensify? "discussed but not endorsed"

HHS Guidelines 2012: http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.

Peripartum

- C-section at 38 wks if HIV RNA >1,000 copies
- ****Key Change**: IV AZT only if VL >400 copies
  - Hold oral AZT if part of regimen
  - IV AZT: 2 mg/kg/hr x 1 hour then 1 mg/kg/hr until delivery
  - If HIV dx during labor, IV AZT is only maternal treatment
- Avoid: fetal scalp monitoring, episiotomy, forceps
- Continue ARV's for mother post-partum

HHS Guidelines 2012: http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.

Other Key Points from Guidelines

- Initial screening: Hep C and TB added
- New: ARV's for serodiscordant couples & PREP
- ARV-OCP interactions updated
- Remember breastfeeding not recommended
- New: ARV's and pre-term labor
  - Benefits outweigh risks

HHS Guidelines 2012: http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.

Summary

- Ok to continue efavirenz if doing well
- Boosted atazanavir now ‘preferred,’ boosted darunavir now ‘alternative,’ raltegravir now ‘use in special circumstances’
- IV AZT only if VL >400 copies/mL near delivery
- See guidelines for new discussions on serodiscordant couples, PREP, preterm labor
- Still C-section if VL >1,000 copies/mL; still no breastfeeding

HHS Guidelines 2012: http://aidsinfo.nih.gov/contentfiles/lvguidelines/PerinatalGL.pdf.

Antiretroviral Pregnancy Registry

- Remember to register your patients: www.apregistry.com