Table 5. Comparison of Intrapartum/Postpartum Regimens for HIV-1-Infected Women in Labor Who Have Had No Prior Antiretroviral Therapy (Scenario #3)

Drug Regimen	Source of Evidence	Maternal Intrapartum	Infant Postpartum	Data on Transmission	Advantages	Disadvantages
ZDV	Epidemiologic data, U.S.; compared to no ZDV treatment	2 mg/kg intravenous bolus, followed by continuous infusion of 1 mg/kg/hr until delivery	2 mg/kg orally every six hours for six weeks*	Transmission 10% with ZDV compared to 27% with no ZDV treatment, a 62% reduction (95% CI, 19– 82%)	Has been standard recommendation	Requires intravenous administration and availability of ZDV intravenous formulation Adherence to six week infant regimen Reversible, mild anemia with 6 week infant ZDV regimen
ZDV/3TC	Clinical trial, Africa; compared to placebo	ZDV 600 mg orally at onset of labor, followed by 300 mg orally every three hours until delivery AND 3TC 150 mg orally at onset of labor, followed by 150 mg orally every 12 hours until delivery	ZDV 4 mg/kg orally every 12 hours AND 3TC 2 mg/kg orally every 12 hours for seven days	Transmission at six weeks 9% with ZDV-3TC vs. 15% with placebo, a 42% reduction	Oral regimen Adherence easier than six weeks of ZDV	Requires administration of two drugs
Nevirapine	Clinical trial, Africa; compared to oral ZDV given intrapartum and for one week to the infant	Single 200 mg oral dose at onset of labor	Single 2 mg/kg oral dose at age 48–72 hours**	Transmission at six weeks 12% with nevirapine compared to 21% with ZDV, a 47% reduction (95% CI*, 20–64%)	Inexpensive Oral regimen Simple, easy to administer Can give directly observed treatment	Unknown efficacy if mother has nevirapine-resistant virus Transient nevirapine resistance mutations detected at 6 weeks postpartum in 19% of women receiving single-dose intrapartum nevirapine, and 46% of infants who became infected despite receiving nevirapine
ZDV- Nevirapine	Theoretical	ZDV 2 mg/kg intravenous bolus, followed by continuous infusion of 1 mg/kg/hr until delivery AND Nevirapine single 200 mg oral dose at onset of labor	ZDV 2 mg/kg orally every six hours for six weeks AND Nevirapine single 2 mg/kg oral dose at age 48–72 hours**	No data	Potential benefit if maternal virus is resistant to either nevirapine or ZDV Synergistic inhibition of HIV replication with combination in vitro	Requires intravenous administration and availability of ZDV intravenous formulation Adherence to six week infant ZDV regimen Unknown if additive efficacy with combination Transient nevirapine resistance mutations detected at 6 weeks postpartum in 15-25% of women receiving single-dose intrapartum nevirapine with ZDV or other antiretroviral drugs

ZDV, zidovudine; CI, confidence interval; 3TC, lamivudine

^{*} ZDV dosing for infants <35 weeks gestation at birth is 1.5 mg/kg/dose intravenously, or 2.0 mg/kg/dose orally, every 12 hours, advancing to every 8 hours at 2 weeks of age if ≥30 weeks gestation at birth or at 4 weeks of age if <30 weeks gestation at birth [121].

^{**}If the mother received nevirapine less than one hour prior to delivery, the infant should be given 2 mg/kg oral nevirapine as soon as possible after birth and again at 48-72 hours [231].