

Appendix 1. Adjusted Analysis of Imputed Characteristics Associated With a Cesarean Delivery Versus a Vaginal Delivery Among HIV-Infected Women in the PACTG/IMPAACT Cohort (N=6,444)

Characteristic	Reference category	Category	Adjusted odds ratio, AOR (95% CI) ¹
Guideline period	1998-1999	2000-2008	1.67 (1.43-1.95)
		2009-2013	1.95 (1.61-2.36)
Age at delivery (years)	<25	25-30	0.93 (0.81-1.07)
		>30	1.16 (1.01-1.34)
Timing of HIV diagnosis	Prior to pregnancy	During pregnancy	1.01 (0.88-1.16)
First trimester of ARV use	First	No ARV use	0.40 (0.27-0.59)
		Second	0.97 (0.84-1.11)
		Third	0.89 (0.72-1.09)
First CD4 cell count in pregnancy (cells/mm ³)	≥500	<200	1.15 (0.96-1.39)
		200-<350	0.95 (0.81-1.10)
		350-<500	0.94 (0.81-1.10)
Last HIV viral load before delivery (copies/ml)	<500	500-<1,000	1.52 (1.17-1.97)
		1,000-<10,000	1.84 (1.53-2.21)
		≥10,000	1.99 (1.61-2.45)
Ruptured membranes in labor	No	Yes	0.14 (0.12-0.15)
Gestational age at delivery (weeks)	<32	32-<37	2.21 (1.59-3.05)
		37-<40	1.83 (1.36-2.48)
		≥40	1.11 (0.80-1.53)

¹Logistic regression models were run for each imputation (N=30). The adjusted odds ratios and confidence intervals shown are the combined estimates from all of the regression models.

Appendix 2. Adjusted Analysis of Imputed Characteristics Associated With an HIV-Associated Cesarean Delivery Versus a Non-HIV-Associated Cesarean Delivery Among HIV-Infected Women in the PACTG/IMPAACT Cohort (N=2,886)

Characteristic	Reference category	Category	Adjusted odds ratio, AOR (95% CI) ¹
Guideline period	1998-1999	2000-2008	1.83 (1.44-2.32)
		2009-2013	0.65 (0.48-0.88)
Age at delivery (years)	<25	25-30	0.82 (0.66-1.01)
		>30	0.64 (0.52-0.79)
Timing of HIV diagnosis	Prior to pregnancy	During pregnancy	1.46 (1.19-1.80)
First trimester of ARV use	First	No ARV taken	0.55 (0.29-1.02)
		Second	0.96 (0.78-1.17)
		Third	1.43 (1.07-1.92)
First CD4 cell count in pregnancy (cells/mm ³)	≥500	<200	1.13 (0.87-1.47)
		200-<350	1.33 (1.05-1.68)
		350-<500	1.15 (0.90-1.45)
Last HIV plasma viral load before delivery (copies/ml)	<500	500-<1,000	2.14 (1.51-3.03)
		1,000-<10,000	3.86 (3.05-4.89)
		≥10,000	4.25 (3.28-5.49)
Gestational age at delivery (weeks)	<37	37-<40	3.04 (2.38-3.89)
		≥40	1.07 (0.76-1.50)

¹Logistic regression models were run for each imputation (N=30). The adjusted odds ratios and confidence intervals shown are the combined estimates from all of the regression models.

Appendix 3. Adjusted Analysis of Imputed Characteristics Associated With an HIV-Associated Cesarean Delivery Versus a Non-HIV-Associated Cesarean Delivery Comparing Guideline Periods 1998-1999, 2000-2008, and 2009-2013 (N=2,886)

Characteristic	Reference category	Category	Multivariable analysis comparing guideline period		
			1998-1999 Adjusted odds ratio, AOR (95% CI) ¹	2000-2008 Adjusted odds ratio, AOR (95% CI) ¹	2009-2013 Adjusted odds ratio, AOR (95% CI) ¹
Woman's age at delivery (years)	<25	25-30	1.12 (0.66-1.91)	0.82 (0.63-1.06)	0.61 (0.36-1.03)
		>30	1.18 (0.70-1.97)	0.68 (0.52-0.88)	0.24 (0.12-0.49)
Timing of HIV diagnosis	Prior to pregnancy	During pregnancy	1.00 (0.61-1.64)	1.56 (1.21-2.01)	2.12 (1.17-3.87)
First trimester of ARV use	First	No ARV taken	0.15 (0.02-1.23)	0.79 (0.38-1.66)	
		Second	0.84 (0.51-1.40)	0.90 (0.70-1.17)	1.28 (0.74-2.20)
		Third	1.24 (0.65-2.37)	1.46 (1.02-2.09)	3.26 (1.24-8.57)
First CD4 cell count in pregnancy (cells/mm ³)	≥500	<200	0.77 (0.39-1.51)	1.24 (0.90-1.72)	0.78 (0.37-1.61)
		200-<350	0.98 (0.55-1.73)	1.49 (1.12-1.99)	0.87 (0.45-1.67)
		350-<500	0.82 (0.46-1.47)	1.27 (0.95-1.70)	1.24 (0.64-2.39)
Last HIV plasma viral load in pregnancy (copies/ml)	<500	500-<1,000	1.32 (0.62-2.79)	2.02 (1.31-3.10)	3.69 (1.35-10.08)
		1,000-<10,000	1.11 (0.64-1.92)	4.20 (3.15-5.61)	12.46 (6.23-24.93)
		≥10,000	0.99 (0.54-1.81)	5.38 (3.87-7.48)	11.13 (5.23-23.70)
Gestational age at delivery (weeks)	<37	37-<40	6.47 (3.17-13.18)	2.80 (2.09-3.76)	1.94 (0.98-3.82)
		≥40	1.61 (0.67-3.83)	1.24 (0.83-1.86)	0.18 (0.02-1.47)

¹Logistic regression models were run for each imputation (N=30). The adjusted odds ratios and confidence intervals shown are the combined estimates from all of the regression models.

Appendix 4. Frequency of Indications for Cesarean Delivery Among HIV-Infected Women in the PACTG/IMPAACT Cohorts From 1998 to 2013

Indication	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	N=196 n (%)	N=282 n (%)	N=352 n (%)	N=298 n (%)	N=203 n (%)	N=203 n (%)	N=176 n (%)	N=130 n (%)	N=144 n (%)	N=117 n (%)	N=139 n (%)	N=159 n (%)	N=144 n (%)	N=129 n (%)	N=145 n (%)	N=69 n (%)
Repeat c-section	31 (16%)	42 (15%)	57 (16%)	59 (20%)	46 (23%)	52 (26%)	39 (22%)	36 (28%)	49 (34%)	37 (32%)	38 (27%)	68 (43%)	59 (41%)	59 (46%)	73 (50%)	29 (42%)
HIV infection	31 (16%)	122 (43%)	169 (48%)	134 (45%)	83 (41%)	81 (40%)	84 (48%)	44 (34%)	41 (28%)	32 (27%)	42 (30%)	29 (18%)	26 (18%)	28 (22%)	23 (16%)	8 (12%)
Arrest disorder	49 (25%)	33 (12%)	45 (13%)	30 (10%)	25 (12%)	23 (11%)	15 (9%)	14 (11%)	16 (11%)	15 (13%)	19 (14%)	22 (14%)	24 (17%)	20 (16%)	22 (15%)	8 (12%)
Maternal indication	8 (4%)	9 (3%)	8 (2%)	10 (3%)	3 (1%)	6 (3%)	4 (2%)	5 (4%)	8 (6%)	5 (4%)	7 (5%)	1 (1%)	7 (5%)	5 (4%)	3 (2%)	5 (7%)
Fetal indication	77 (39%)	76 (27%)	73 (21%)	65 (22%)	46 (23%)	41 (20%)	34 (19%)	31 (24%)	30 (21%)	28 (24%)	33 (24%)	39 (25%)	28 (19%)	17 (13%)	24 (17%)	19 (28%)
Missing indication	3	0	1	5	6	12	9	7	25	9	22	10	13	6	8	3
This table is a subset of the 2,886 women with an available indication for cesarean delivery among the women who had a cesarean delivery in this cohort (n=3,025). Those with a missing indication are not included in the percentage tabulations or column total in order to correspond to figure 2.																

Venkatesh KK, Morrison L, Livingston EG, Stek A, Read JS, Shapiro DE, et al. Changing patterns and predictors of mode of delivery among human immunodeficiency virus-infected pregnant women in the United States. *Obstet Gynecol* 2018; 131.

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