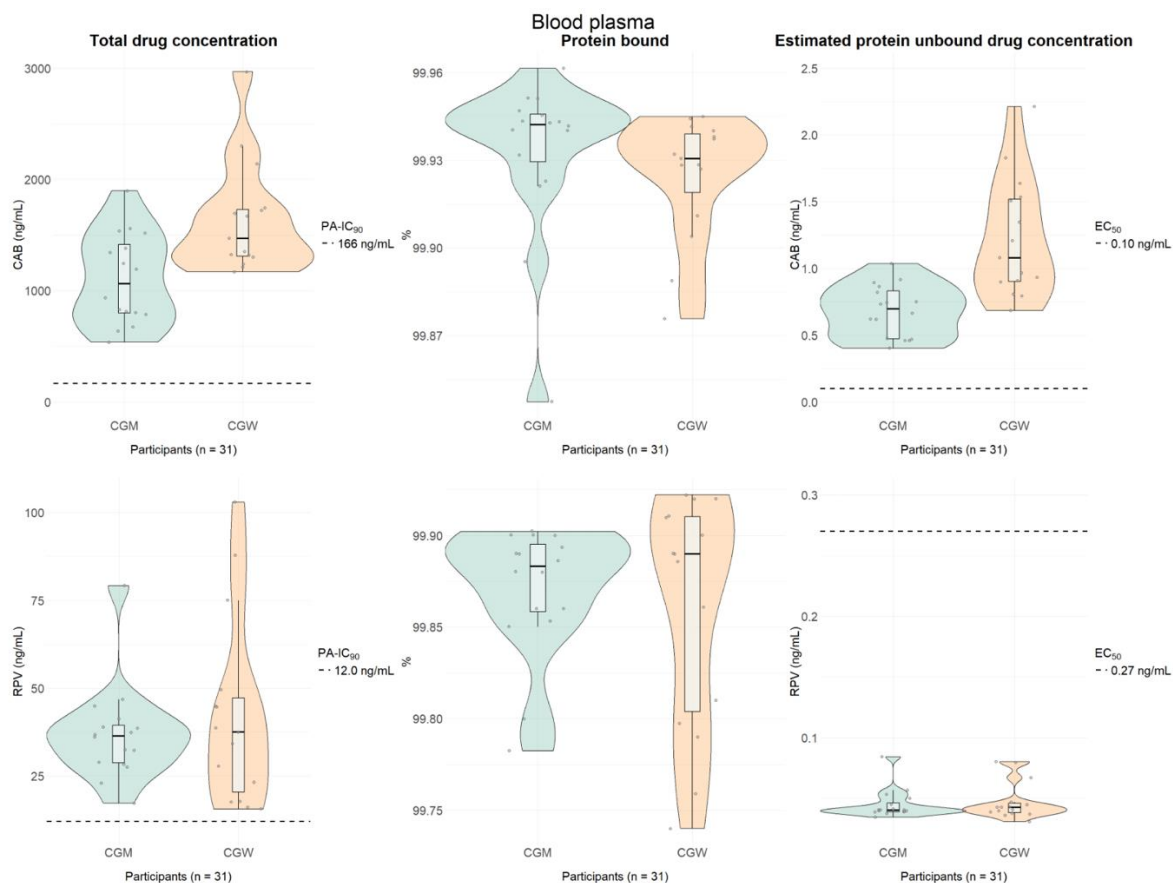


## Supplementary Material

**Figure 1S.** Cabotegravir and Rilpivirine Concentrations in blood plasma



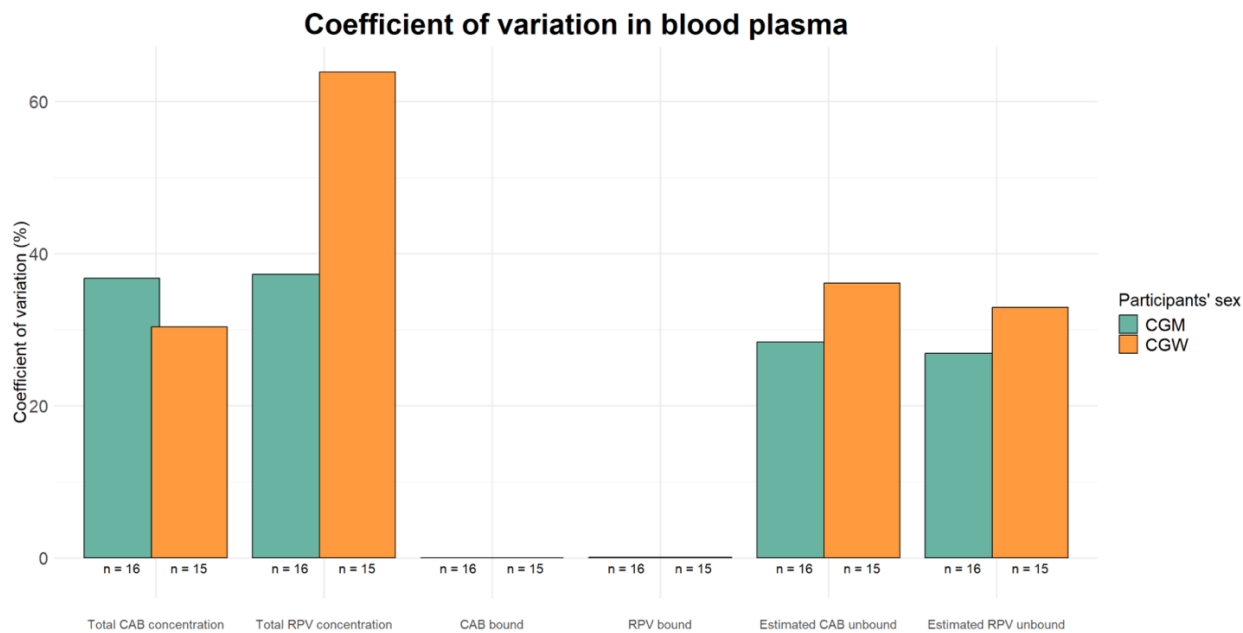
CGM: cisgender men; CGW: cisgender women.

**Table 1S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in blood plasma

	Total Drug C <sub>trough</sub> (%)	Protein-bound (%)	Estimated Protein-unbound Ctrough (%)
<b>Cabotegravir</b>	CGW 30.36 ; CGM 36.75	CGW 0.02 ; CGM 0.03	CGW 36.16 ; CGM 28.4
<b>Rilpivirine</b>	CGW 63.89 ; CGM 37.3	CGW 0.06 ; CGM 0.04	CGW 32.94 ; CGM 26.9

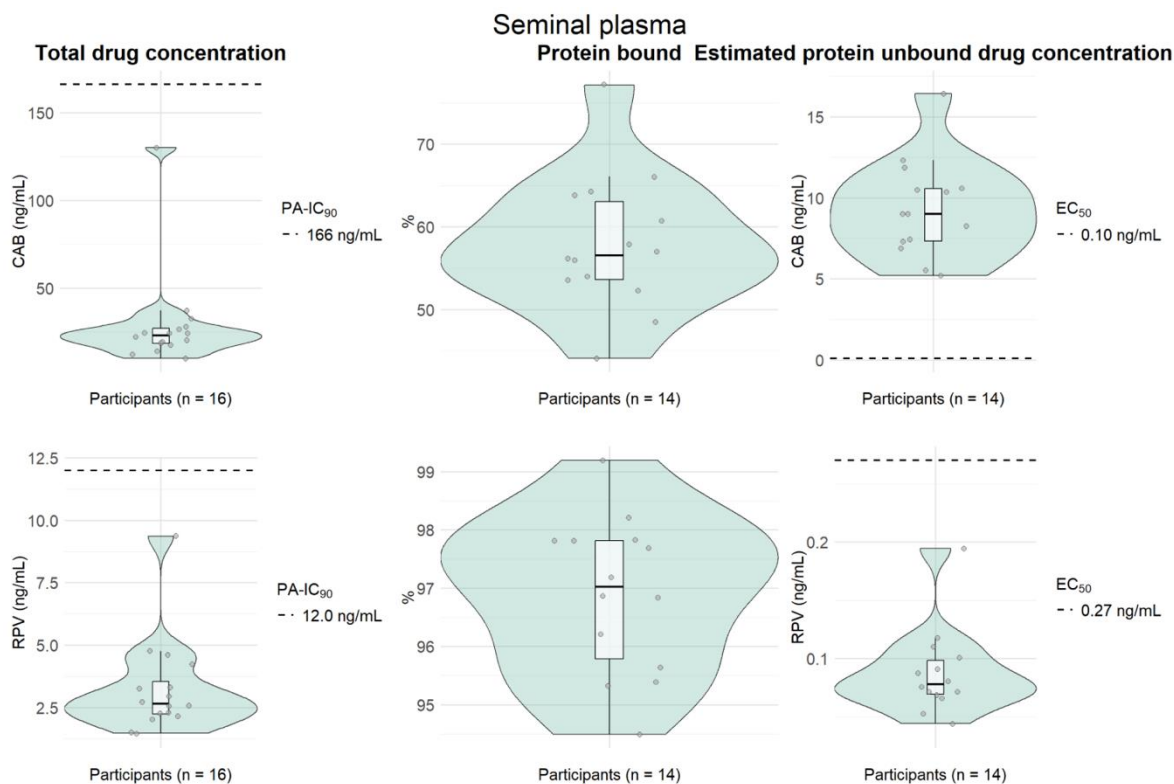
CGM: cisgender men; CGW: cisgender women.

**Figure 2S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in blood plasma



CGM: cisgender men; CGW: cisgender women.

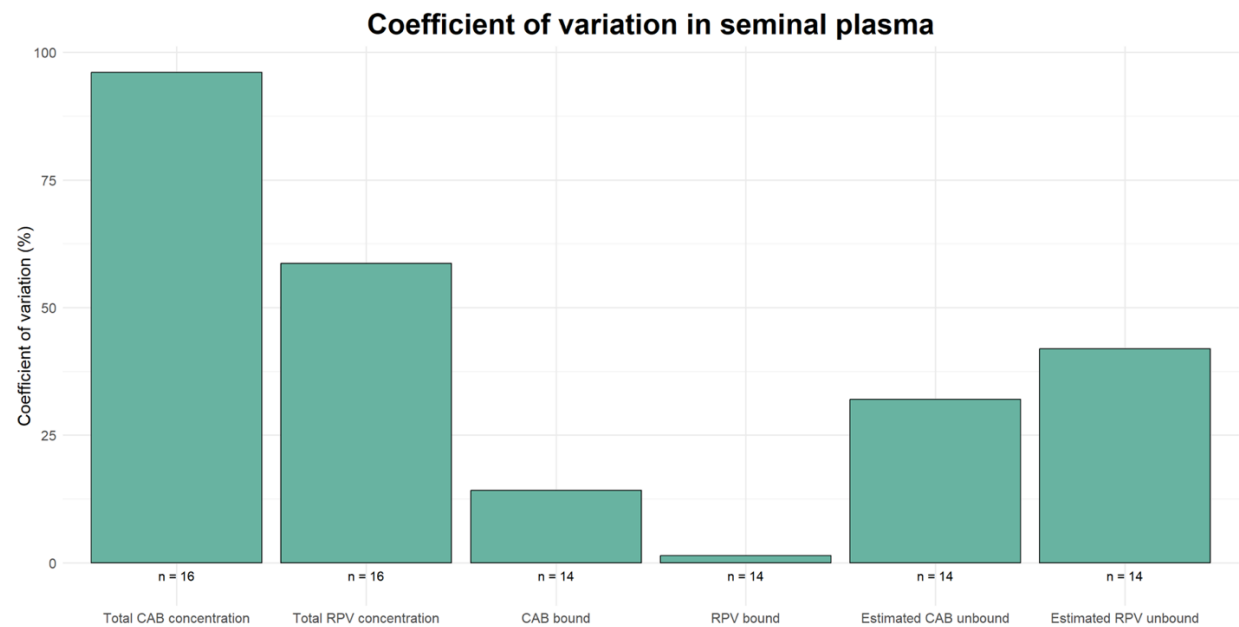
**Figure 3S.** Cabotegravir and Rilpivirine Concentrations in seminal plasma



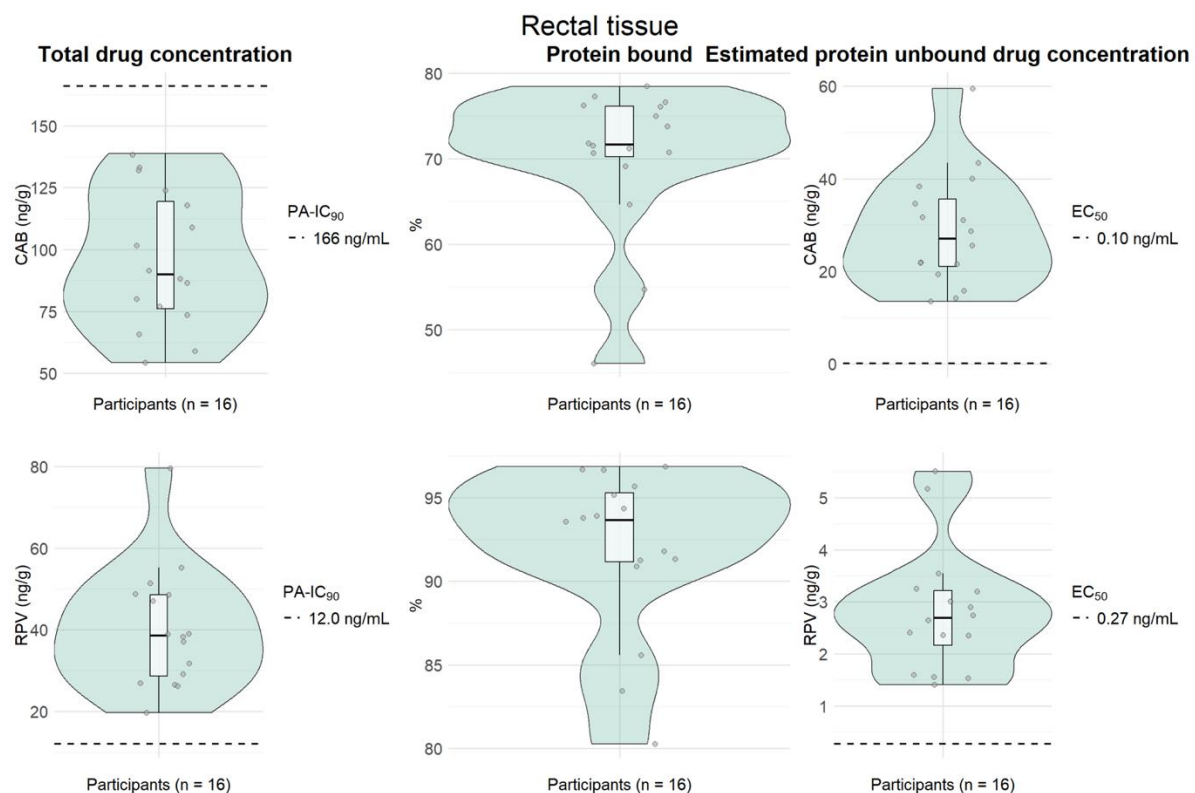
**Table 2S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in seminal plasma

	Total Drug C <sub>trough</sub> (%)	Protein-bound (%)	Estimated Protein-unbound Ctrough (%)
Cabotegravir	96.11	14.16	31.99
Rilpivirine	58.68	1.37	41.91

**Figure 4S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in seminal plasma



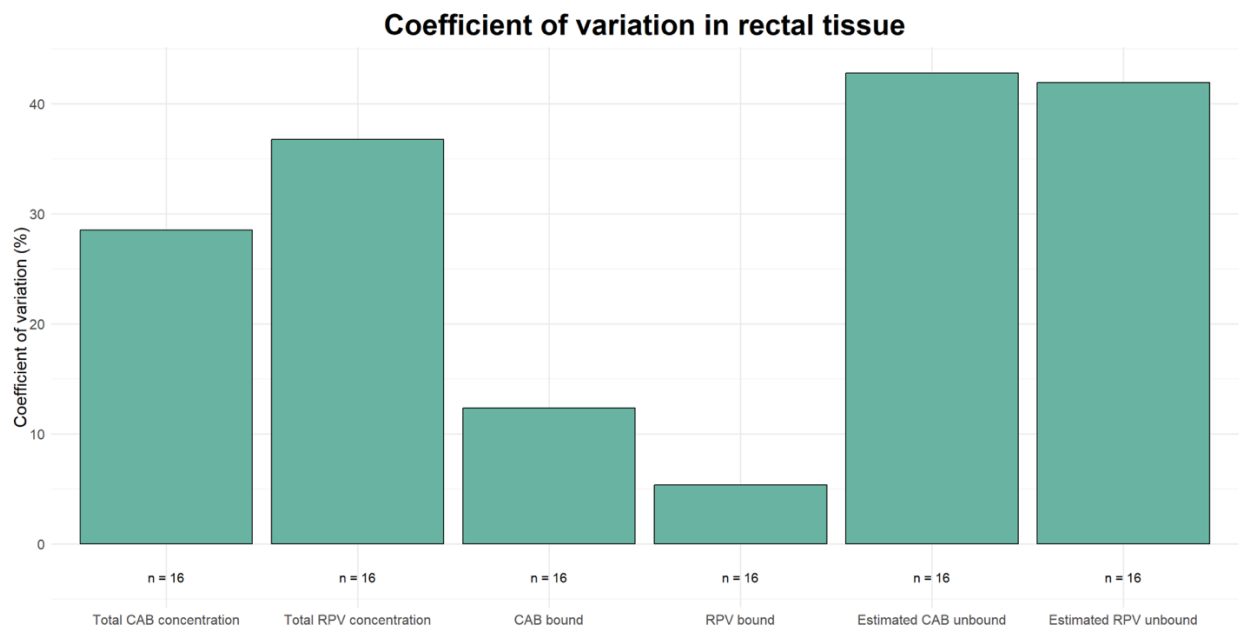
**Figure 5S.** Cabotegravir and Rilpivirine Concentrations in rectal tissue



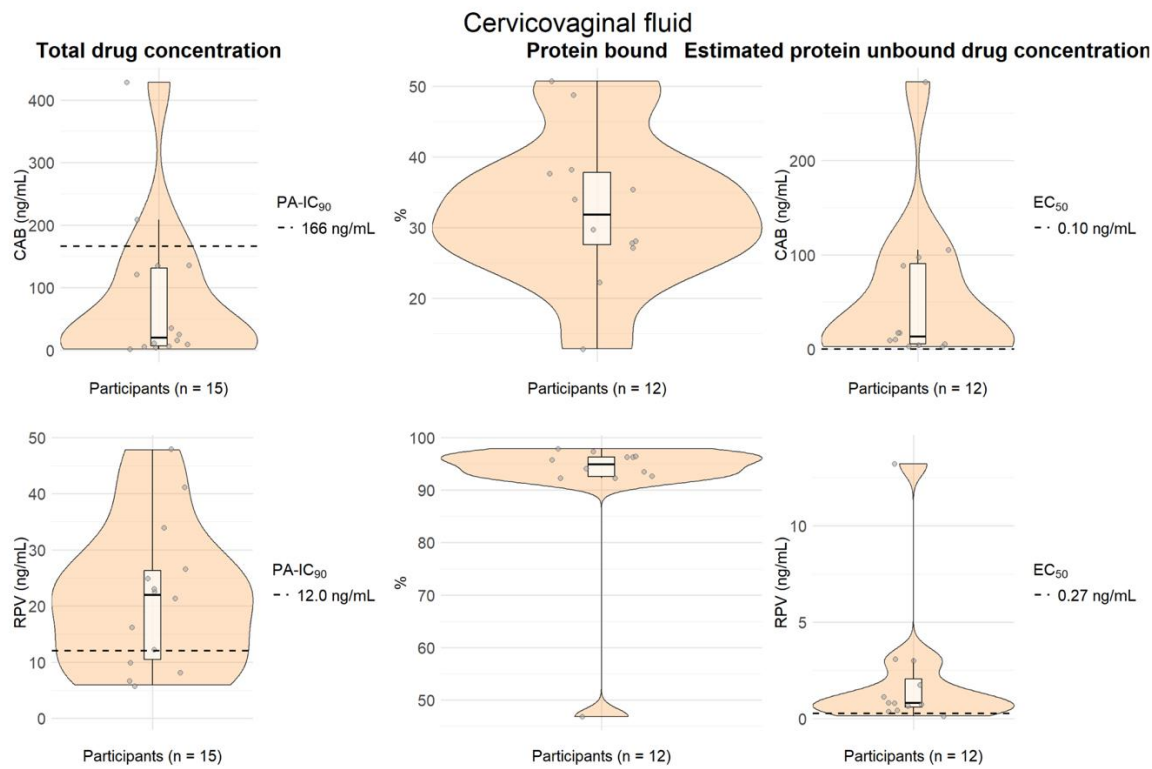
**Table 3S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in rectal tissue

	<b>Total Drug C<sub>trough</sub>(%)</b>	<b>Protein-bound (%)</b>	<b>Estimated Protein-unbound Ctrough (%)</b>
<b>Cabotegravir</b>	28.51	12.35	42.81
<b>Rilpivirine</b>	36.76	5.33	41.94

**Figure 6S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in rectal tissue



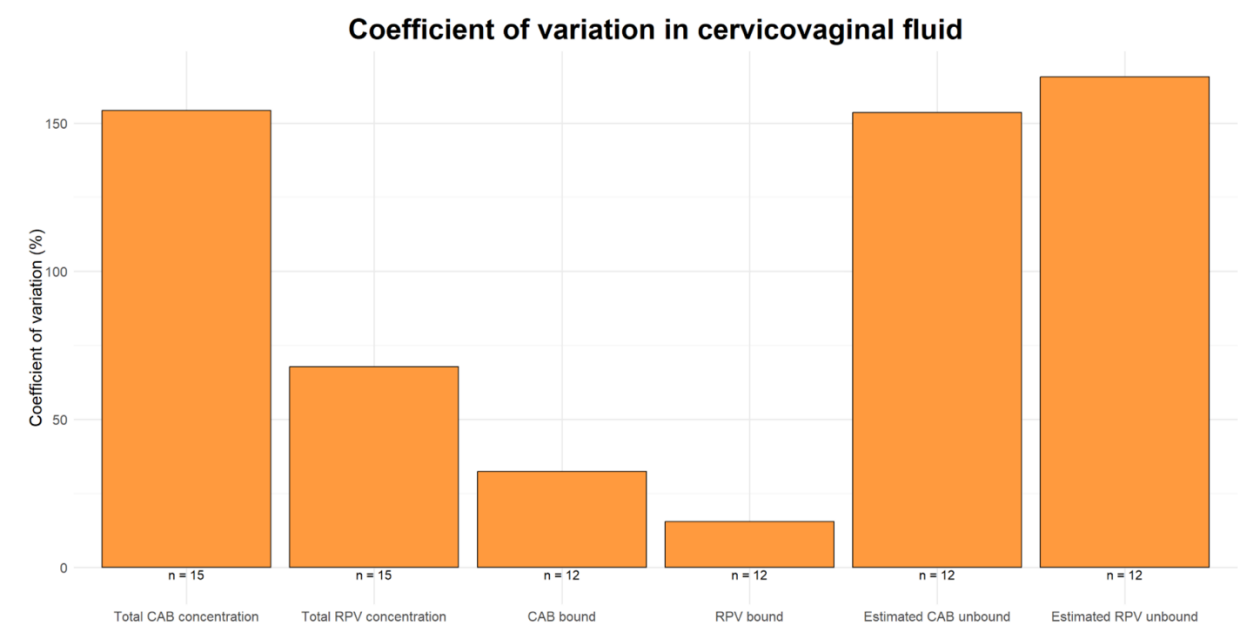
**Figure 7S.** Cabotegravir and Rilpivirine Concentrations in cervicovaginal fluid



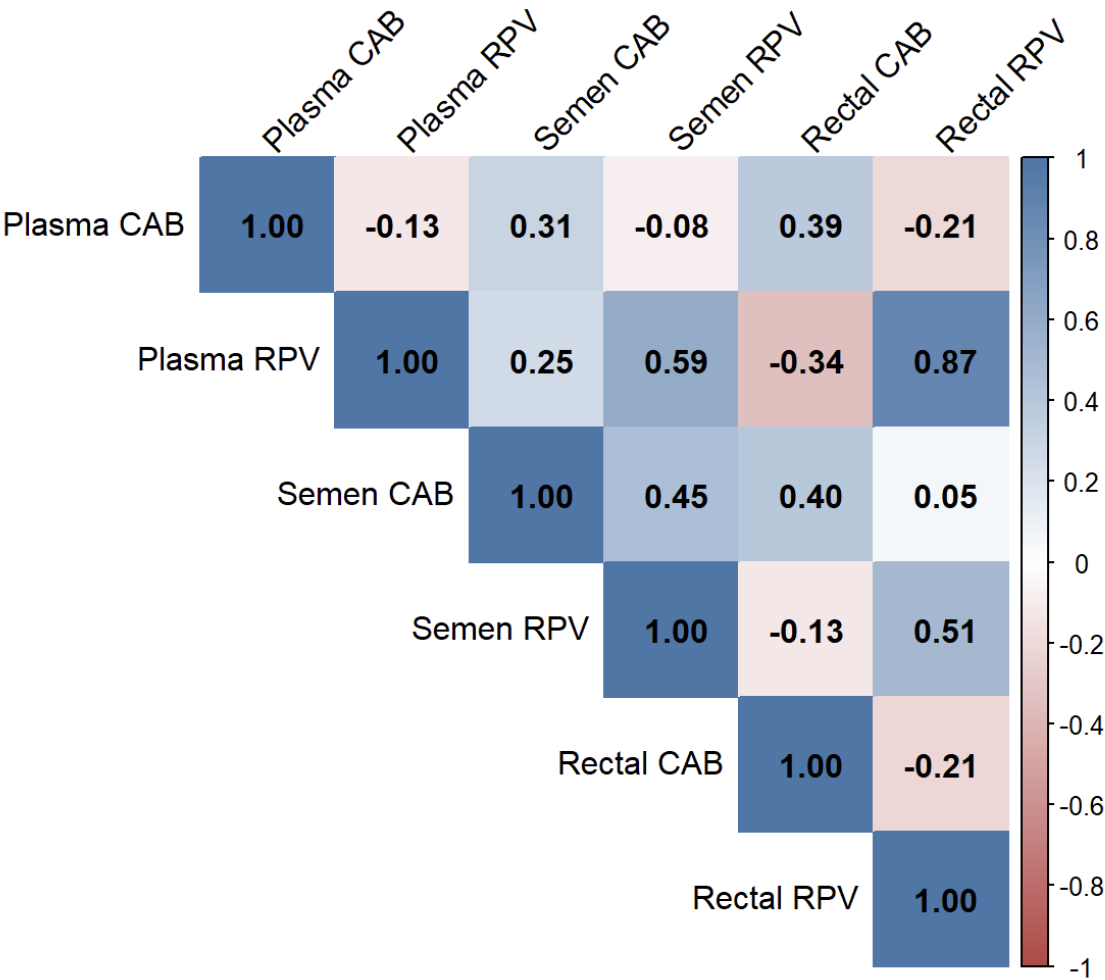
**Table 4S.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in cervicovaginal fluid

	Total Drug C <sub>trough</sub> (%)	Protein-bound (%)	Estimated Protein-unbound Ctrough (%)
Cabotegravir	154.2	32.38	153.54
Rilpivirine	67.76	15.43	165.63

**Figure 8.** Coefficient of Variation of Cabotegravir and Rilpivirine concentrations in cervicovaginal fluid



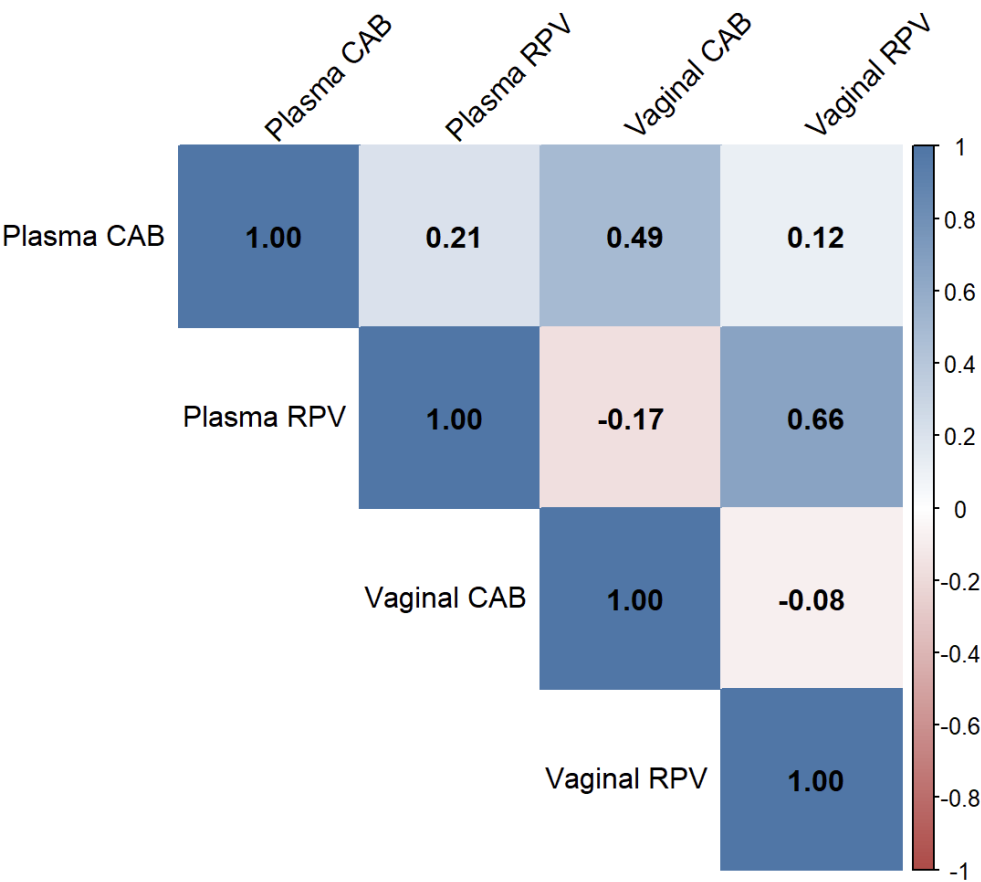
**Figure 9S.** Correlation between Cabotegravir and Rilpivirine concentrations in seminal, rectal fluid and blood plasma. Correlation between Cabotegravir and Rilpivirine concentrations at each compartment.



**Table 5S.** Correlation between Cabotegravir and Rilpivirine concentrations in seminal, rectal fluid and blood plasma. Correlation between Cabotegravir and Rilpivirine concentrations at each compartment.

Spearman Correlation Analysis		
Variable 1	Variable 2	Spearman Correlation [95% CI]
Plasma CAB	Plasma RPV	-0.126 [-0.669;0.473]
Plasma CAB	Semen CAB	0.306 [-0.33;0.727]
Plasma CAB	Semen RPV	-0.081 [-0.718;0.527]
Plasma CAB	Rectal CAB	0.388 [-0.12;0.841]
Plasma CAB	Rectal RPV	-0.209 [-0.683;0.33]
Plasma RPV	Semen CAB	0.253 [-0.257;0.648]
Plasma RPV	Semen RPV	0.59 [0.167;0.845]
Plasma RPV	Rectal CAB	-0.344 [-0.787;0.256]
Plasma RPV	Rectal RPV	0.871 [0.56;0.964]
Semen CAB	Semen RPV	0.455 [-0.077;0.821]
Semen CAB	Rectal CAB	0.397 [-0.118;0.798]
Semen CAB	Rectal RPV	0.053 [-0.4;0.506]
Semen RPV	Rectal CAB	-0.127 [-0.694;0.49]
Semen RPV	Rectal RPV	0.509 [-0.03;0.857]
Rectal CAB	Rectal RPV	-0.215 [-0.788;0.433]

**Figure 10S.** Correlation between Cabotegravir and Rilpivirine concentrations in cervicovaginal fluid and blood plasma. Correlation between Cabotegravir and Rilpivirine concentrations at each compartment.



**Table 6S.** Correlation between Cabotegravir and Rilpivirine concentrations in cervicovaginal fluid and blood plasma. Correlation between Cabotegravir and Rilpivirine concentrations at each compartment.

Spearman Correlation Analysis		
Variable 1	Variable 2	Spearman Correlation [95% CI]
Plasma CAB	Plasma RPV	0.209 [-0.348;0.713]
Plasma CAB	Vaginal CAB	0.492 [-0.078;0.854]
Plasma CAB	Vaginal RPV	0.12 [-0.461;0.631]
Plasma RPV	Vaginal CAB	-0.168 [-0.652;0.409]
Plasma RPV	Vaginal RPV	0.664 [0.237;0.871]
Vaginal CAB	Vaginal RPV	-0.082 [-0.594;0.502]