

Dual Protease Inhibitor Dosing Recommendations

PI Combination	Standard Dose (single PI)	Combo Dose (dual PI)	With NNRTI (EFV or NVP)	Details
atazanavir fosamprenavir	400mg QD 1400mg BID	ATV 300mg QD RTV 100mg BID FAPV 700mg BID **see footnote**	No clinical data	ATV appears to boost APV levels similarly to RTV boosted APV. However, in subsequent studies APV was shown to decrease ATV levels. No formal recommendation has been made.
atazanavir saquinavir	400mg QD 1600mg BID (Fortovase)	400mg QD 2000mg QD (Invirase 500mg)	No clinical data	<i>Alternate dosing:</i> PI experience may warrant higher SQV concentrations. Addition of RTV 100mg daily to SQV 1500mg/ATV 300mg daily may be optimal. ^{1, 3}
atazanavir lopinavir/ritonavir	400mg QD 400mg/100mg BID	No clinical data	No clinical data	<i>Potential dosing:</i> 300mg QD + 400mg/100mg BID Effects of LPV on ATV exposure unknown.
fosamprenavir lopinavir/ritonavir	1400mg BID 400mg/100mg BID	Not Recommended	No clinical data	1400mg BID + 533mg/133mg BID produced concentrations greater than FAPV 1400mg BID alone.
saquinavir lopinavir/ritonavir	1600mg BID 400mg/100mg BID	1000mg BID 400mg/100mg BID	No clinical data	Saquinavir C _{min} ↑ 16-fold. 500mg SQV film coated tablet is recommended to decrease pill burden.
indinavir lopinavir/ritonavir	800mg Q8H 400mg/100mg BID	600mg BID 400mg/100mg BID	No clinical data	Dose indicated from prescribing information. Alternative doses have been evaluated.

PI Combination	Standard Dose (single PI)	Combo Dose (dual PI)	With NNRTI (EFV or NVP)	Details
nelfinavir lopinavir/ritonavir	1250mg BID 400mg/100mg BID	1000mg BID 533mg/133mg BID	No clinical data	Lopinavir C _{min} ↓ 38%; AUC ↓ 27%, offset by increased dose. Administer with moderate meal for optimal absorption.
nelfinavir saquinavir	1250mg BID 1600mg BID	1250mg BID 1200mg BID	No clinical data	Up to 300% ↑ in SQV exposure. Administer with moderate meal for optimal absorption.
fosamprenavir saquinavir ritonavir	1400mg BID 1600mg BID	700mg BID 1000mg BID 200mg BID	No clinical data	SQV exposure decreased slightly by FAPV; which is compensated by increase of RTV to 200mg BID ²

- 1 Schutz M, Sargent S, Kakuda T. Optimizing dosing strategies for the combination of atazanavir plus saquinavir. AIDS. 2004 Mar 5;18(4):704-5.
- 2 Boffito M, Dickinson L, Hill A, Back D, et al. Steady-State Pharmacokinetics of Saquinavir Hard-Gel/Ritonavir/Fosamprenavir in HIV-1-Infected Patients. J Acquir Immune Defic Syndr, 2004, 37: 1376-1384.
3. Boffito M, Kurowski M, Kruse G, et al. Atazanavir enhances saquinavir hard-gel concentrations in a ritonavir-boosted once-daily regimen. AIDS. 2004 Jun 18;18(9):1291-7.
4. Steady-state pharmacokinetics of atazanavir given alone or in combination with saquinavir hard-gel capsules or amprenavir in HIV-1-infected patients. Eur J Clin Pharmacol. 2005 Aug;61(7):545-9. Epub 2005 Jul 23.

**No formal studies have been conducted with ATV, FAPV and RTV. APV has been shown to decrease ATV levels in the presence of TDF (Ref. #4). PI experienced patients may require RTV boosted dosing. Our current recommendation is ATV 300mg daily, FAPV 700mg BID and RTV 100mg BID. Monitor for hyperbilirubinemia. It is unknown if RTV will offset any decrease in ATV levels elicited by FAPV.