



Resource: ART Drug-Drug Interactions

April 2023

Table 29: Inhaled and Injected Corticosteroids (also see drug package inserts)		
→ Fluticasone, triamcinolone, budesonide, and methyl prednisone [a]		
Class or Drug	Mechanism of Action	Clinical Comments
<ul style="list-style-type: none"> • NRTIs • Dolutegravir (DTG) • Bictegravir (BIC) • Cabotegravir (CAB) • Raltegravir (RAL) • Doravirine (DOR) • Fostemsavir (FTR) 	No significant interactions reported.	No dose adjustments are necessary.
Elvitegravir (EVG), boosted	<p>Risk of Cushing’s syndrome occurs when boosted EVG is coadministered with the following corticosteroids:</p> <ul style="list-style-type: none"> • Intranasal or inhaled: Fluticasone, mometasone, ciclesonide, budesonide, triamcinolone • Systemic: Betamethasone, budesonide, prednisolone, prednisone, dexamethasone • Injectable: Betamethasone, triamcinolone 	<ul style="list-style-type: none"> • Fluticasone, mometasone, ciclesonide, budesonide, triamcinolone (intranasal or inhaled): Do not coadminister unless potential benefits outweigh risk; consider alternative corticosteroid (e.g., beclomethasone). • Betamethasone, budesonide (systemic): Do not coadminister unless potential benefits outweigh risk. • Prednisolone, prednisone (systemic): Do not coadminister unless potential benefits outweigh risk; if use cannot be avoided, use for shortest effective duration. • Betamethasone, triamcinolone (injectable): Do not coadminister unless potential benefits outweigh risk. • Dexamethasone (systemic): Do not coadminister unless potential benefits outweigh risk; consider alternative corticosteroid. Beclomethasone and flunisolide are likely safe alternatives.
Boosted PIs	<ul style="list-style-type: none"> • Boosted PIs are strong inhibitors of CYP3A, and many corticosteroids are substrates of these enzymes. • Risk of Cushing’s syndrome occurs when boosted PIs are coadministered with the following corticosteroids: <ul style="list-style-type: none"> – Intranasal or inhaled: Fluticasone, mometasone, ciclesonide, budesonide, triamcinolone – Systemic: Betamethasone, budesonide, dexamethasone – Injectable: Betamethasone, triamcinolone 	<ul style="list-style-type: none"> • Use beclomethasone if possible. Because this agent is less likely to be affected by boosted PIs, it is less likely to cause symptoms of Cushing’s syndrome and other systemic corticosteroid adverse effects. • Fluticasone, mometasone, ciclesonide, budesonide, triamcinolone (intranasal or inhaled): Do not coadminister unless potential benefits outweigh risk; consider alternative corticosteroid (e.g., beclomethasone).

Table 29: Inhaled and Injected Corticosteroids (also see drug package inserts)

→ Fluticasone, triamcinolone, budesonide, and methyl prednisone [a]

Class or Drug	Mechanism of Action	Clinical Comments
		<ul style="list-style-type: none"> • Betamethasone, budesonide (systemic): Do not coadminister unless potential benefits outweigh risk. • Prednisolone, prednisone (systemic): Concomitant use is contraindicated unless potential benefits outweigh risk; if use cannot be avoided, use for shortest effective duration. • Betamethasone, triamcinolone (injectable): Concomitant use is contraindicated unless potential benefits outweigh risk. • Dexamethasone (systemic): Concomitant use is contraindicated unless potential benefits outweigh risk; consider alternative corticosteroid. Consider beclomethasone or flunisolide as safe alternatives.
Rilpivirine (RPV)	Dexamethasone is a CYP3A inducer, which is primarily responsible for metabolism of RPV.	Dexamethasone (systemic): <ul style="list-style-type: none"> • Concomitant use is contraindicated; consider alternative steroids. • If using more than a single oral or IM dose, consider an alternative NNRTI after consultation with experienced HIV care provider (see package inserts for Cabenuva and Edurant).
<ul style="list-style-type: none"> • Efavirenz (EFV) • Etravirine (ETR) 	Coadministration may reduce corticosteroid concentrations.	Dexamethasone (systemic): Consider alternative corticosteroid for long-term use; if benefits of use outweigh risks, monitor for virologic response.
Lenacapavir (LEN)	<ul style="list-style-type: none"> • Moderate inhibition of CYP3A4 and P-gP potentially increases corticosteroid concentrations and the related risk of Cushing's syndrome and adrenal suppression. • Dexamethasone (systemic): Decreased LEN levels expected with dexamethasone doses >16 mg/day. 	<ul style="list-style-type: none"> • Dexamethasone, hydrocortisone (systemic): Initiate at lowest dose and titrate slowly to achieve clinical effect; monitor for adverse effects. • Dexamethasone (systemic): Do not coadminister with dexamethasone doses >16 mg/day.

Abbreviations: ARV, antiretroviral; CYP, cytochrome P450; NRTI, nucleoside reverse transcriptase inhibitor; P-gP, P-glycoprotein; PI, protease inhibitor.

Note:

- a. Short-term therapy with oral prednisone or prednisolone is not expected to cause significant drug-drug interactions with ARVs in most cases; however, increased monitoring may be required if a patient is taking an ARV, including a boosted PI, that has adverse effects that are the same as those of prednisone, such as insulin resistance. Particular caution may be necessary for patients predisposed to insulin hypersensitivity. Long-term therapy with oral steroids (>2 weeks) is not recommended unless undertaken with guidance from an experienced HIV care provider.