

CORTICOSTEROIDS:
INHALED, INTRANASAL, INJECTABLE, ORAL

	INSTIs		NNRTIs		PIs
	<ul style="list-style-type: none"> • BICTEGRAVIR (<i>Biktarvy</i>) • DOLUTEGRAVIR (<i>Tivicay, Triumeq, Juluca</i>) • RALTEGRAVIR (<i>Isentress</i>) 	<ul style="list-style-type: none"> • ELVITEGRAVIR/ COBICISTAT (<i>Stribild, Genvoya</i>) 	<ul style="list-style-type: none"> • DORAVIRINE (<i>Pifeltro, Delstrigo</i>) • RILPIVIRINE (<i>Edurant, Complera, Odefsey, Juluca</i>) 	<ul style="list-style-type: none"> • EFAVIRENZ (<i>Sustiva, Atripla</i>) • ETRAVIRINE (<i>Intelence</i>) • NEVIRAPINE (<i>Viramune</i>) 	Boosted with ritonavir (<i>Norvir</i>) or cobicistat <ul style="list-style-type: none"> • ATAZANAVIR (<i>Reyataz, Evotaz</i>) • DARUNAVIR (<i>Prezista, Prezcobix, Symtuza</i>) • LOPINAVIR (<i>Kaletra</i>)

INTRANASAL OR ORAL INHALATION

<ul style="list-style-type: none"> • Beclomethasone (<i>Qvar, Beconase</i>) 					
<ul style="list-style-type: none"> • Budesonide (<i>Pulmicort, Symbicort, Rhinocort</i>) • Ciclesonide (<i>Alvesco</i>) • Mometasone (<i>Asmanex, Zenhale, Nasonex</i>) 		Potential ↑ systemic corticosteroid and risk of Cushing's syndrome and adrenal failure.			Potential ↑ systemic corticosteroid and risk of Cushing's syndrome and adrenal failure.
<ul style="list-style-type: none"> • Fluticasone (<i>Flovent, Advair, Flonase, Avamys</i>) 		Potential ↑ systemic corticosteroid and risk of Cushing's syndrome and adrenal failure. Avoid combination.			Potential ↑ systemic corticosteroid and risk of Cushing's syndrome and adrenal failure. Avoid combination.

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INJECTABLE

• Triamcinolone		Potential ↑ systemic corticosteroid and risk of Cushing's syndrome and adrenal failure.			Potential ↑ systemic corticosteroid and risk of Cushing's syndrome and adrenal failure.
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ORAL

• Dexamethasone	Potential for ↓ bictegavir with chronic dexamethasone; intermittent dexamethasone is OK	Potential for ↑ dexamethasone and ↓ INSTI with chronic dexamethasone; intermittent dexamethasone is OK	Potential for ↓ NNRTI with chronic dexamethasone; intermittent dexamethasone is OK	Potential for ↓ dexamethasone and ↓ NNRTI with chronic dexamethasone; intermittent dexamethasone is OK	Potential for ↑ dexamethasone and ↓ PI with chronic dexamethasone; intermittent dexamethasone is OK
	Dolutegravir, raltegravir		More than single dose of dexamethasone is contraindicated with rilpivirine		

Legend:



No dose adjustment required.

Use combination with caution. Adjustment in drug dose or frequency or additional/more frequent monitoring may be required. May wish to consult with a pharmacist knowledgeable in HIV drug interactions.

Contraindicated/avoid combination.

Mechanism of Drug Interactions, Management and Monitoring

Class	Mechanism of interaction	Main interacting ARVs	Management	Monitoring
Dexamethasone (oral)	<p>Dexamethasone is a substrate of CYP3A4.</p> <p>With chronic administration, dexamethasone induces CYP3A4</p>	<p>Ritonavir- or cobicistat boosted regimens may increase dexamethasone.</p> <p>NNRTIs efavirenz, etravirine, nevirapine may decrease dexamethasone.</p> <p>PIs, NNRTIs, elvitegravir, possibly bictegravir</p>	<p>Use with caution or switch to non-interacting antiretroviral if chronic administration is required.</p> <p>Pulse dosing of dexamethasone is OK. Daily/chronic dexamethasone may decrease antiretroviral drugs and should be avoided if possible. Rilpivirine is contraindicated with more than a single dose of dexamethasone.</p>	<p>Monitor for symptoms of Cushing's syndrome (moon face, buffalo hump, obesity, striae, acne, hirsutism, hypertension, osteoporosis, glucose intolerance, increased risk of infections)</p> <p>Plasma cortisol and ACTH could be done if adrenal suppression is suspected.</p> <p>Monitor for dexamethasone efficacy</p> <p>Antiretroviral efficacy.</p>
Budesonide Fluticasone Mometasone (inhaled, intranasal)	Inhibition of CYP3A4	Protease inhibitors (PI) with ritonavir or cobicistat, elvitegravir/cobicistat (Stribild, Genvoya)	Prefer beclomethasone which does not interact because it is not metabolised by CYP3A4.	<p>Monitor for symptoms of Cushing's syndrome (moon face, buffalo hump, obesity, striae, acne, hirsutism, hypertension, osteoporosis, glucose intolerance, increased risk of infections).</p> <p>Plasma cortisol and ACTH could be done if adrenal suppression is suspected</p>
Ciclesonide (inhaled)	Inhibition CYP3A4 of the active metabolite of the ciclesonide.	Protease inhibitors (PI) with ritonavir or cobicistat, elvitegravir/	Use with caution.	Monitor for symptoms of Cushing's syndrome (moon face, buffalo hump, obesity, striae, acne, hirsutism,

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	Potential but does not seem to be clinically significant.	cobicistat (Stribild, Genvoya)		hypertension, osteoporosis, glucose intolerance, increased risk of infections). Plasma cortisol and ACTH could be done if adrenal suppression is suspected.
Triamcinolone Injection	Inhibition of CYP3A4	Protease inhibitors (PI) with ritonavir or cobicistat, elvitegravir/cobicistat	Cushing's syndrome and adrenal suppression have been reported after even single injections of triamcinolone. There is insufficient information to indicate whether other injectable steroids present a lower risk. Consider use of an alternate anti-inflammatory agent or modify to a non-interacting antiretroviral regimen if possible.	Monitor for symptoms of Cushing's syndrome (moon face, buffalo hump, obesity, striae, acne, hirsutism, hypertension, osteoporosis, glucose intolerance, increased risk of infections) Plasma cortisol and ACTH could be done if adrenal suppression is suspected

A MANAGEMENT TOOL FOR **HIV** DRUG-DRUG INTERACTIONS

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