

**DTG Interactions Chart
on the back cover**

Dolutegravir (DTG) Interactions

A Guide For Health Care Workers and Patients



**Produced by the National HIV & TB Health Care Worker Hotline, Medicines Information Centre,
Division of Clinical Pharmacology, Faculty of Health Sciences, University of Cape Town.**

**For more information on DTG interactions or to get copies of this booklet, contact us on 0800 212 506.
This service is free to all health care workers.**








**MEDICINES
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Based on the 2019 ART Clinical Guidelines for the Management of HIV in Adults, Pregnancy, Adolescents, Children, Infants and Neonates, Updated March 2020.

This publication was supported by funding provided by the Global Fund to Fight AIDS, Tuberculosis and Malaria through the National Department of Health of South Africa and the NDoH Pharmacovigilance Centre for Public Health Programmes. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Global Fund or the National Department of Health of South Africa.

HOW TO USE THIS GUIDE: THE 5 C's


















STEP 1	CHECK
	Check if your patient is taking any of the interacting drugs on the Dolutegravir (DTG) Interactions Chart on the back cover.
STEP 2	CHOOSE
	<p>Choose a patient information leaflet listed in this guide:</p> <ul style="list-style-type: none"> • Patient on ARVs with DTG + a calcium supplement with food • Patient on ARVs with DTG + an iron/ferrous supplement with food • Patient on ARVs with DTG + calcium + iron/ferrous supplements with food <p style="text-align: right;">} Please flip over page for instructions on how the patient can take DTG when limited access to food</p>
STEP 3	COUNSEL
	Counsel your patient on how to take DTG, their supplement/s and other medicine/s, using the patient information leaflet.
STEP 4	COMPLETE
	Fill in times that suit your patient to take their medicines on the patient information leaflet – see examples on next pages.
STEP 5	CUT
	Cut/tear out the completed patient information leaflet and give it to your patient.

Please note that not all DTG drug interactions are listed in this guide. If you need more information, please use these resources:




















- Call the National HIV & TB Health Care Worker Hotline on 0800 212 506/021 406 6782
- Send an SMS or “please call me” to 071 840 1572
- Refer to the EML/ARV Interaction Book, available at www.mic.uct.ac.za
- Access the SA HIV/TB Hotline App available on Google Play and App Store for iPhone
- Go to the Liverpool HIV Drug Interaction Checker at <https://www.hiv-druginteractions.org/checker>

How to complete a DTG information leaflet for the patient WITH FOOD: Example

- A woman, 32, presents for an antenatal visit at 26 weeks of pregnancy.
- She is HIV-positive, on TLD (tenofovir + lamivudine + dolutegravir) once daily in the morning.
- She takes calcium carbonate twice daily, ferrous sulphate once daily and folic acid once daily.
- The patient reports that she is well, with occasional heartburn.
- Due to financial struggles, she doesn't always have food.
- After discussion with your patient, complete the sections below morning and night with a time that suits the patient. See blue arrows.

Patient on ARVs with dolutegravir (DTG) + calcium + iron/ferrous supplements WITH FOOD		
 Morning	    ARVs (DTG) calcium with food	REMEMBER Take calcium and iron at least 4 hours apart: calcium + 4 HOURS → iron
+ at least 4 hours		
 Morning	  OR  iron with food OR without food	HEARTBURN? Heartburn medicine (antacids) can be taken with OR without food BUT must be separated from ARVs (DTG): ARVs (DTG) + 2 HOURS → antacids OR antacids + 6 HOURS → ARVs (DTG)
+ at least 4 hours		
 Night	  OR  calcium with food OR without food	OTHER MEDICINES? Tell your health care worker: Especially for TB, epilepsy or diabetes   
 20:00	DTG + calcium + iron/ferrous	

How to complete a DTG information leaflet for the patient WITHOUT FOOD: Example

Patient on ARVs with dolutegravir (DTG) + calcium + iron/ferrous supplements WITHOUT FOOD		
 Morning  08:00	 ARVs (DTG)	 without food
+ at least 2 hours		
 Morning  10:00	 calcium	 OR  with food OR without food
+ at least 4 hours		
 Afternoon  14:00	 iron	 OR  with food OR without food
+ at least 4 hours		
 Night  20:00	 calcium	 OR  with food OR without food

REMEMBER

Always take calcium at least 2 hours **AFTER** ARVs (DTG):

ARVs (DTG) **+ 2 HOURS** → calcium

ALSO

calcium must be separated from iron:

calcium **+ 4 HOURS** → iron

HEARTBURN?

Heartburn medicine (antacids) can be taken with OR without food

BUT

must be separated from ARVs (DTG):




ARVs (DTG) **+ 2 HOURS** → antacids

OR

antacids **+ 6 HOURS** → ARVs (DTG)

OTHER MEDICINES?

Tell your health care worker:
Especially for TB, epilepsy or diabetes










ACKNOWLEDGEMENTS

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DISCLAIMER

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Patient on ARVs with dolutegravir (DTG) + a calcium supplement **WITH FOOD**

 <p>Morning</p> <hr/> <p><i>Fill in time that suits patient e.g. 08:00</i></p>	    <p>ARVs (DTG) calcium with food</p>
<p>DTG + calcium</p>	
 <p>Night</p> <hr/> <p><i>Fill in time that suits patient e.g. 20:00</i></p>	  <p>OR</p>  <p>calcium with food OR without food</p>

HEARTBURN?


Heartburn medicine (antacids) can be taken with OR without food

BUT

must be separated from ARVs (DTG):

ARVs
(DTG)

+ 2 HOURS




antacids

OR

antacids


+ 6 HOURS





ARVs
(DTG)

OTHER MEDICINES?




Tell your health care worker:
Especially for TB, epilepsy or diabetes















Patient on ARVs with dolutegravir (DTG) + a calcium supplement **WITHOUT FOOD**

 Morning <hr/> <i>Fill in time that suits patient</i> <i>e.g. 08:00</i>	 ARVs (DTG)	 without food
--	--	--


+ at least 2 hours

 Morning <hr/> <i>Fill in time that suits patient</i> <i>e.g. 10:00</i>	 calcium	 OR  with food OR without food
--	---	---

 Night <hr/> <i>Fill in time that suits patient</i> <i>e.g. 20:00</i>	 calcium	 OR  with food OR without food
--	---	---

REMEMBER


Always take calcium at least 2 hours
AFTER ARVs (DTG):

ARVs (DTG) + 2 HOURS  calcium


HEARTBURN?

Heartburn medicine (antacids) can be
taken with **OR** without food

BUT
must be separated from ARVs (DTG):




ARVs (DTG) + 2 HOURS  antacids

OR

antacids + 6 HOURS  ARVs (DTG)

OTHER MEDICINES?

Tell your health care worker:
Especially for TB, epilepsy or diabetes

Patient on ARVs with dolutegravir (DTG) + an iron/ferrous supplement WITH FOOD



Morning



ARVs (DTG)



iron



with food

Fill in time that suits patient
e.g. 08:00

HEARTBURN?

Heartburn medicine (antacids) can be taken with OR without food

BUT

must be separated from ARVs (DTG):

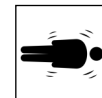
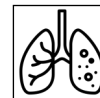
ARVs (DTG) **+ 2 HOURS** → antacids

OR

antacids **+ 6 HOURS** → ARVs (DTG)

OTHER MEDICINES?

Tell your health care worker:
Especially for TB, epilepsy or diabetes



DTG + iron/ferrous

Patient on ARVs with dolutegravir (DTG) + an iron/ferrous supplement **WITHOUT FOOD**



Morning

Fill in time that suits patient
e.g. 08:00



ARVs (DTG)



without food

+ at least 2 hours



Night

Fill in time that suits patient
e.g. 20:00



iron



OR



with food OR without food

REMEMBER

Always take iron at least 2 hours

AFTER ARVs (DTG):

ARVs
(DTG)

+ 2 HOURS



iron

HEARTBURN?

Heartburn medicine (antacids) can be taken with OR without food

BUT

must be separated from ARVs (DTG):

ARVs
(DTG)

+ 2 HOURS



antacids

OR

antacids

+ 6 HOURS

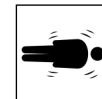
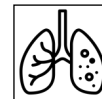


ARVs
(DTG)






OTHER MEDICINES?

Tell your health care worker:






Especially for TB, epilepsy or diabetes








Patient on ARVs with dolutegravir (DTG) + calcium + iron/ferrous supplements WITH FOOD

 Morning <hr style="border-top: 1px dotted black;"/> <i>Fill in time that suits patient e.g. 08:00</i>	    ARVs (DTG) calcium with food
--	--

+ at least 4 hours

 Morning <hr style="border-top: 1px dotted black;"/> <i>Fill in time that suits patient e.g. 12:00</i>	    iron with food OR without food
--	---

+ at least 4 hours

 Night <hr style="border-top: 1px dotted black;"/> <i>Fill in time that suits patient e.g. 20:00</i>	    calcium with food OR without food
--	--

REMEMBER

Take calcium and iron at least 4 hours apart:

calcium + 4 HOURS iron

HEARTBURN?

Heartburn medicine (antacids) can be taken with OR without food




BUT

must be separated from ARVs (DTG):

ARVs (DTG) + 2 HOURS antacids
 OR
 antacids + 6 HOURS ARVs (DTG)
















OTHER MEDICINES?

Tell your health care worker:
Especially for TB, epilepsy or diabetes

DTG + calcium + iron/ferrous

Patient on ARVs with dolutegravir (DTG) + calcium + iron/ferrous supplements **WITHOUT FOOD**

 <p>Morning</p> <p><i>Fill in time that suits patient e.g. 08:00</i></p>	 <p>ARVs (DTG)</p>  <p>without food</p>
<h2>+ at least 2 hours</h2>	
 <p>Morning</p> <p><i>Fill in time that suits patient e.g. 10:00</i></p>	 <p>calcium</p>  <p>with food</p> <p>OR</p>  <p>without food</p>
<h2>+ at least 4 hours</h2>	
 <p>Afternoon</p> <p><i>Fill in time that suits patient e.g. 14:00</i></p>	 <p>iron</p>  <p>with food</p> <p>OR</p>  <p>without food</p>
<h2>+ at least 4 hours</h2>	
 <p>Night</p> <p><i>Fill in time that suits patient e.g. 20:00</i></p>	 <p>calcium</p>  <p>with food</p> <p>OR</p>  <p>without food</p>

REMEMBER

Always take calcium at least 2 hours
AFTER ARVs (DTG):

ARVs (DTG) **+ 2 HOURS** → calcium

ALSO

calcium must be separated from iron:

calcium **+ 4 HOURS** → iron

HEARTBURN?

Heartburn medicine (antacids) can be taken with OR without food

BUT

must be separated from ARVs (DTG):




ARVs (DTG) **+ 2 HOURS** → antacids

OR

antacids **+ 6 HOURS** → ARVs (DTG)




OTHER MEDICINES?

Tell your health care worker:
Especially for TB, epilepsy or diabetes



NATIONAL HIV & TB HEALTH CARE WORKER HOTLINE

 0800 212 506 021 406 6782	 pha-mic@uct.ac.za E-MAIL
 SMS/PLEASE CALL ME/WHATSAPP 071 840 1572	 www.mic.uct.ac.za WEBSITE
 FACEBOOK HIV & TB Health Care Worker Hotline, South Africa	 FREE ANDROID & APPLE APP SA HIV/TB Hotline

Contact us - we will gladly assist you! This service is free

What questions can you ask?

The National HIV & TB Health Care Worker Hotline provides information on queries relating to:

- Pre-exposure prophylaxis (PrEP)
 - Post exposure prophylaxis (PEP)
 - HIV testing
 - Management of HIV in pregnancy & PMTCT
 - Drug interactions
 - Treatment/prophylaxis of opportunistic infections
 - Drug availability
 - Adherence support
- Management of tuberculosis
 - Antiretroviral Therapy (ART)
 - ~ When to initiate
 - ~ Treatment selection
 - ~ Recommendations for laboratory and clinical monitoring
 - ~ How to interpret and respond to laboratory results
 - ~ Management of adverse events

Who answers the questions?

The centre is staffed by specially-trained pharmacists. They have direct access to the latest information databases, reference sources and a team of clinical consultants.

When is this service available?

The hotline operates from Mondays to Fridays 8:30am - 4:30pm.



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Health Care Worker Dolutegravir (DTG) Interactions Chart

INTERACTING DRUGS	EFFECT OF INTERACTION	RECOMMENDATION
TUBERCULOSIS (TB)		
Rifampicin	↓ DTG	<ul style="list-style-type: none"> • Increase DTG dose to 50 mg 12-hourly • If on TLD FDC, take DTG 50 mg 12 hours after TLD dose
EPILEPSY		
Carbamazepine Phenobarbital Phenytoin	↓ DTG	<ul style="list-style-type: none"> • Avoid coadministration if possible • Alternative agents that may be used with DTG include valproate, lamotrigine, levetiracetam and topiramate • If an alternative agent cannot be used, double DTG dose to 50 mg 12-hourly for carbamazepine
⚠ Valproate is contraindicated in pregnancy and in women of childbearing potential		
DIABETES		
Metformin	↑ DTG	<ul style="list-style-type: none"> • Maximum metformin dose 500 mg 12-hourly
MULTIVITAMINS, ANTACIDS, SUCRALFATE & NUTRITIONAL SUPPLEMENTS		
Calcium	↓ DTG	<ul style="list-style-type: none"> • Interaction occurs if DTG and calcium are taken together on an empty stomach • To prevent this, take together, with food • If taking without food: take the calcium supplement a minimum of 2 hours AFTER or 6 hours BEFORE DTG
Iron		<ul style="list-style-type: none"> • Interaction occurs if DTG and iron are taken together on an empty stomach • To prevent this, take together, with food • If taking without food: take the iron supplement a minimum of 2 hours AFTER or 6 hours BEFORE DTG
Mg ²⁺ - or Al ³⁺ -containing antacids		⚡ Take calcium & iron at least 4 hours apart
Zinc or Sucralfate		<ul style="list-style-type: none"> • We do not know if food intake prevents this interaction • Antacids should be taken a minimum of 2 hours AFTER or 6 hours BEFORE DTG
St. John's Wort		<ul style="list-style-type: none"> • We do not know if food intake prevents this interaction • Zinc or sucralfate should be taken a minimum of 2 hours AFTER or 6 hours BEFORE DTG
St. John's Wort		<ul style="list-style-type: none"> • Avoid coadministration due to insufficient data to make a dosing recommendation

Abbreviations: TLD = Tenofovir (TDF) + Lamivudine (3TC) + Dolutegravir (DTG); FDC = Fixed Dose Combination; Mg²⁺ = Magnesium; Al³⁺ = Aluminium