# A cross-sectional survey of the knowledge, attitudes and practices of South African health care workers in the field of HIV and factors affecting that knowledge.

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We invite you to take part in a research study being run by the National HIV & TB Health Care Worker Hotline at the University of Cape Town (UCT). This study has ethical approval from the UCT Faculty of Health Sciences Research Ethics Committee (HREC Reference: 357/2020).

We know you are extremely busy and appreciate your taking the time to help us with this short survey, which should take no longer than 15 minutes to complete.

# STUDY PURPOSE

The overall aim of the study is to establish and understand the knowledge, attitudes and practices on parts of the new dolutegravir-based ART guidelines and to establish whether you have received enough support and training about them. The study is open to all health care workers in the field of HIV in South Africa.

Participation is entirely anonymous and voluntary and there will be no negative consequences of any kind, whether you choose to participate or not. We have invited you to participate as we believe you can provide useful information that is relevant to the study.

#### **INCENTIVE**

Should you wish to receive a pack of our printed tools and be entered into a draw for a hamper worth R1 000, you can leave your details for postage at the end of the survey. This is entirely voluntary and, to protect your anonymity, these details will be stored separately from your responses to the survey.

### **DATA SECURITY**

You do not need to fill in any identifying information to complete the survey. All information provided will be stored securely and in accordance with South Africa's Protection of Personal Information Act.

# WHAT WILL THE RESULTS OF THE STUDY BE USED FOR?

The anonymous findings will be used to design interventions to assist health care workers and improve the transfer of important ART-related information to the patient. They will be reported to relevant parties and, if deemed useful, training recommendations will be made at a national level. The results will also be submitted for publication in a relevant medical journal (all data anonymous).

# WHO CAN I CONTACT, IF I HAVE CONCERNS?

If you have questions about the ethics of the study and your rights as a participant, you can contact Ms. Lamees Emjedi at the Human Research Ethics Committee, Faculty of Health Sciences, telephone (office): 021 406 6338. If you have concerns or questions regarding the survey, you can contact the investigator, Ms. Briony Chisholm, at briony.chisholm@uct.ac.za.

Please ensure that you have read the information about the study.
Do you consent to participate?
○ Yes ○ No

The survey consists of mostly multiple choice questions and should take no longer than 15 minutes to complete. You may stop at any point and, if you wish to return to the survey to complete it, you can.

PLEASE CLICK ON 'NEXT PAGE' TO START THE SURVEY.

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DEMOGRAPHICS		
(Section 1 of 6)		
This section includes questions on demographics e.g. which province you work in, your		
profession. There are nine questions in this section	n.	
How did you hear about the survey?	<ul> <li>Word of mouth/from a colleague</li> <li>E-mail</li> <li>SMS</li> <li>Social media (Facebook, Twitter)</li> <li>Other</li> </ul>	
Please specify how you accessed the survey.		
Please specify through which organisation you accessed the survey.		
In which province do you work?	<ul> <li>Eastern Cape</li> <li>Free State</li> <li>Gauteng</li> <li>KwaZulu-Natal</li> <li>Limpopo</li> <li>Mpumalanga</li> <li>North West</li> <li>Northern Cape</li> <li>Western Cape</li> <li>Outside of South Africa</li> </ul>	
What is your profession?	<ul> <li>○ Community health worker</li> <li>○ Counsellor</li> <li>○ Doctor</li> <li>○ Person not involved in HIV care</li> <li>○ Nurse</li> <li>○ Pharmacist</li> <li>○ Other health care worker/allied profession</li> </ul>	
Please specify your profession.		
What is your age?		
For how many years having you been working with HIV patients?		
In which area do you primarily work?	○ Rural ○ Urban	
In which sector do you primarily work?	<ul><li>○ Public</li><li>○ Private</li></ul>	



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At which type of facility do you primarily work?	<ul> <li>Mobile Clinic</li> <li>Satellite Clinic</li> <li>Primary Health Clinic</li> <li>Community Health Clinic/Centre</li> <li>District Hospital</li> <li>Regional Hospital</li> <li>Tertiary Hospital</li> <li>Specialised Hospital</li> <li>Private Practice</li> <li>Private Hospital</li> <li>Other</li> </ul>
Please specify which type of facility.	
On what device have you accessed the survey?	<ul><li>Cellphone</li><li>Tablet</li><li>Desktop computer (PC)</li><li>Laptop computer</li></ul>

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GUIDELINES AND TRAINING	
(Section 2 of 6)	
The following questions will be about sections of the	e new (2019) ART/PMTCT guidelines. There
are seven questions in this section.	
Have you received training on the use of dolutegravir (DTG)?	<ul><li>Yes</li><li>No</li></ul>
Who gave you training on the use of dolutegravir (DTG)? Pick all that apply.	☐ Department of Health ☐ Training from a colleague who was trained ☐ I'm not sure ☐ Online training ☐ Non-governmental organisation (NGO) ☐ Other
Please specify which online training.	
Please specify which NGO.	
Please specify who you received training from.	
Did the training include a section on the potential interactions of dolutegravir (DTG) i.e. how other medicines affect it?	<ul><li>Yes</li><li>No</li><li>I'm not sure</li></ul>
Please rate the following statement on the scale:	
I feel confident with my knowledge of the interactions of some medicines with dolutegravir (DTG).	Strongly disagree Neutral Strongly agree (Place a mark on the scale above)
Do you have easy access to the 2019 guidelines (e.g. on your desk, wall or phone)?	○ Yes ○ No
Which of the following 2019 guidelines do you have daily access to?  Pick all that apply.	<ul> <li>□ Online ART Guidelines</li> <li>□ Online PMTCT Guidelines</li> <li>□ Hard copy ART Guidelines</li> <li>□ Hard copy PMTCT Guidelines</li> <li>□ HIV Hotline posters online</li> <li>□ HIV Hotline posters printed</li> <li>□ App</li> <li>□ Other</li> </ul>
Please specify which App.	
Please specify which other guidelines you have access to.	
If there are any other concerns or issues you'd like to bring up regarding access to guidelines, we'd welcome your thoughts.	



INTERACTIONS		
(Section 3 of 6)		
This section is on some of the potential interactions of dolutegravir (DTG) i.e. how other		
medicines affect it.		
Are you aware that dolutegravir (DTG) interacts with some other medicines?	<ul><li>○ Yes</li><li>○ No</li></ul>	
Thinking about the potential interactions with dolutegravir (DTG): please indicate which of the following medicines you think can interact and/or affect DTG. We have included just some commonly used examples but there are many others available.  Pick all that apply.	☐ Calcium e.g. calcium gluconate ☐ Iron e.g. ferrous sulphate ☐ Oral contraceptives ☐ Magnesium- and aluminium-containing antacids e.g Milk of Magnesia, sucralfate ☐ Rifampicin ☐ Metformin ☐ Carbamazepine ☐ Lamotrigine ☐ Phenobarbitone ☐ Phenytoin ☐ Sodium valproate ☐ None of the above	
Thinking about the patients you've seen on dolutegravir-based regimens. Which of the following combinations have you come across in patients under your care?  Pick all that apply.	□ Dolutegravir-based regimen and calcium □ Dolutegravir-based regimen and iron □ Dolutegravir-based regimen and oral contraceptives □ Dolutegravir-based regimen and antacid □ Dolutegravir-based regimen and rifampicin □ Dolutegravir-based regimen and metformin □ Dolutegravir-based regimen and carbamazepine □ Dolutegravir-based regimen and lamotrigine □ Dolutegravir-based regimen and phenobarbitone □ Dolutegravir-based regimen and phenytoin □ Dolutegravir-based regimen and sodium valproate □ I have not seen any patients on these combinations □ I'm not sure	



# **INTERACTIONS AND REGIMENS** (Section 4 of 6) This section is on how regimens should be changed, if at all, due to the interactions of dolutegravir (DTG). ☐ I'm not sure Which of the following ways to take dolutegravir (DTG) and calcium, e.g. calcium gluconate, would you ☐ Take them together, with food tell your patients to use? ☐ Take them together, on an empty stomach ☐ If food not available, take calcium at least 2 hours before or 6 hours after DTG Pick all that apply. $\square$ If food not available, take calcium at least 2 hours after or 6 hours before DTG ☐ No dosing adjustment of either is necessary ☐ Other Please specify how you would tell the patient to take their dolutegravir (DTG) and calcium. How would you counsel your patient who is taking ☐ I'm not sure dolutegravir (DTG) and iron, e.g. ferrous sulphate? ☐ No dosing adjustment of either is necessary ☐ If food not available, take iron at least 2 hours Pick all that apply. before or 6 hours after DTG ☐ If food not available, take iron at least 2 hours after or 6 hours before DTG ☐ Take them together, with food ☐ Take them together, on an empty stomach ☐ Other Please specify how you would tell the patient to take their dolutegravir (DTG) and iron. How would you counsel the patient who is taking ☐ I'm not sure ☐ No dosing adjustment of either is necessary dolutegravir (DTG) and a magnesium- and/or ☐ Take antacids at least 2 hours before or 6 hours aluminium-containing antacid, e.g. Milk of Magnesia, sucralfate? after DTG ☐ Take antacids at least 2 hours after or 6 hours Pick all that apply. before DTG Take them together, with food Take them together, on an empty stomach ☐ Other Please specify how you would tell the patient to take their dolutegravir (DTG) and magnesium- and/or aluminium-containing antacids. ☐ I'm not sure In patients who are on dolutegravir (DTG) and metformin, what dosage of metformin would you use? No more than 500 mg metformin 12-hourly No less than 500 mg metformin 12-hourly ☐ No dosage change, just take them together, with Pick all that apply. food They should not be used together at all No dosage change of either is necessary Other Please specify how you would tell the patient to take their dolutegravir (DTG) and metformin.



In patients who are on dolutegravir (DTG) and rifampicin, how would you adjust dosing of the two medicines?	<ul> <li>☐ I'm not sure</li> <li>☐ No dose adjustment of either is necessary</li> <li>☐ Double the dose to DTG 50 mg 12-hourly</li> <li>☐ Double the dose of rifampicin, by weight</li> </ul>
Pick all that apply.	☐ Other
Please specify how you would tell the patient to take their dolutegravir (DTG) and rifampicin.	
In patients who are on dolutegravir (DTG) and carbamazepine, how would you adjust dosing of the two medicines?	<ul> <li>☐ I'm not sure</li> <li>☐ No dose adjustment of either is necessary</li> <li>☐ Double the dose of DTG to 50 mg 12-hourly</li> <li>☐ Double the current dose of carbamazepine</li> </ul>
Pick all that apply.	☐ They should not be used together, unless there is no other option ☐ Other
Please specify how you would tell the patient to take their dolutegravir (DTG) and carbamazepine.	
In patients who are on dolutegravir (DTG) and phenobarbitone, how would you adjust dosing of the two medicines?	<ul> <li>☐ I'm not sure</li> <li>☐ No dose adjustment of either is necessary</li> <li>☐ Double the dose of DTG to 50 mg 12-hourly</li> <li>☐ Double the current dose of phenobarbitone</li> </ul>
Pick all that apply.	☐ They should not be used together ☐ Other
Please specify how you would tell the patient to take their dolutegravir (DTG) and phenobarbitone.	
In patients who are on dolutegravir (DTG) and phenytoin, how would you adjust dosing of the two medicines?	<ul> <li>☐ I'm not sure</li> <li>☐ No dose adjustment of either is necessary</li> <li>☐ Double the dose of DTG to 50 mg 12-hourly</li> <li>☐ Double the current dose of phenytoin</li> </ul>
Pick all that apply.	<ul><li>☐ They should not be used together</li><li>☐ Other</li></ul>
Please specify how you would tell the patient to take their dolutegravir (DTG) and phenytoin.	
Would you like training on dolutegravir (DTG) and its interactions?	<ul><li>Yes</li><li>No</li><li>Unsure</li></ul>
Would you like further training on dolutegravir (DTG) and its interactions?	<ul><li>Yes</li><li>No</li><li>Unsure</li></ul>
Which method of training would you prefer?	<ul><li>☐ Face-to-face training</li><li>☐ Online training (computer)</li></ul>
Pick all that apply.	<ul><li>☐ Online training (cell phone)</li><li>☐ Hardcopy toolkits e.g. posters, booklets</li><li>☐ Other</li></ul>

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Please specify what other training you'd like.	
If there are any other concerns or issues you'd like to bring up regarding interactions and/or training,	
we'd welcome your thoughts.	



COUNSELLING	
(Section 5 of 6)	
In this section, we ask five questions on counselling	patients.
Which patients, if any, do you counsel about the potential interactions with dolutegravir (DTG)?  Pick all that apply.	<ul> <li>None</li> <li>Patients who are being initiated on DTG</li> <li>Pregnant women on DTG</li> <li>At every visit for patients taking DTG</li> <li>Other</li> <li>I don't see patients</li> </ul>
Please specify which other patients you counsel.	
Please rate the following statement on the scale:  I feel confident with counselling my patients on how to take their dolutegravir (DTG) when they are taking medicines that may interact with DTG.	Strongly disagree Neutral Strongly agree (Place a mark on the scale above)
What makes it hard, for you as a busy health care worker, to counsel your patients on how to take their dolutegravir (DTG) with interacting medications?  Pick all that apply.	<ul> <li>No challenges</li> <li>Lack of time</li> <li>I am not sure of the interactions I should be counselling them on</li> <li>I received no training on how to counsel patients on interactions</li> <li>I don't have access to the guidelines</li> <li>Patients are not interested</li> <li>I'm not sure</li> <li>Other</li> </ul>
Please specify what makes it hard for you to counsel patients on the interactions of dolutegravir (DTG).	
Do you feel like any of the following may make it easier/simpler to tell your patients on dolutegravir (DTG) about these interactions?  Pick all that apply.	<ul> <li>□ Posters for the wall detailing the interaction</li> <li>□ A desk-top guide on the interactions</li> <li>□ A patient-friendly leaflet for the patient to take home</li> <li>□ Stickers for pill containers</li> <li>□ Guidance on an App specific to interactions of DTG</li> <li>□ None of these</li> <li>□ Other</li> </ul>
Please specify what other things would make it easier for you to counsel patients on interactions with dolutegravir (DTG).	
If there are any other concerns or issues you'd like to bring up regarding counselling patients on dolutegravir (DTG) interactions, we'd welcome your thoughts.	



COVID-19 PANDEMIC	
(Section 6 of 6)	
In this short, final section, we will ask three question	ons on what impact the global COVID-19
pandemic has had on your routine day's work.	
Do you think the COVID-19 pandemic has impacted the care of your patients on ARVs?	<ul><li>○ Yes</li><li>○ No</li><li>○ I'm not sure</li></ul>
What has been your biggest concern(s) about your being able to care for your patients during the COVID-19 pandemic?  Pick all that apply.	<ul> <li>□ Pressure on staff to switch patients to dolutegravir-based regimens</li> <li>□ Pressure on patients to go onto dolutegravir-based regimens</li> <li>□ Patients not collecting their ARVs</li> <li>□ Limited time to counsel on risks and benefits of dolutegravir</li> <li>□ Limited time to counsel patients on interactions</li> <li>□ Worse adherence</li> <li>□ Missing adverse effects to ARVs</li> <li>□ None</li> <li>□ I don't know</li> <li>□ Other</li> </ul>
Please specify what other concern(s) you have about your being able to care for your patients during the COVID-19 pandemic.	
If there are any other concerns or issues you'd like to bring up regarding the COVID-19 pandemic, we'd welcome your thoughts.	
Thank you for participating in this survey.	
We hope to use the data collected to provide you with support	in the workplace.
PLEASE CLICK ON SUBMIT TO FINISH THE SURVEY.	
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