Dear student

You have sustained an injury which exposes you to infection with blood-borne pathogens. Foremost among these is HIV. Fortunately, we have very good and effective antiretroviral therapy available that can be used for post-exposure prophylaxis. It is, however, important that you make an informed decision about the medication that we are about to prescribe.

The most important thing is that you have as much information about your patient as possible. This includes HIV diagnosis, ART regimen and response to treatment – HIV viral load in the past 3 months. This helps us to construct the appropriate regimen for you; however, even if this information is not available, we will be able to offer you treatment that should be protective.

Our antiretroviral therapy options for post-exposure prophylaxis currently consist of a backbone of 2 NRTIs: either tenofovir disoproxil fumarate (TDF) with emtricitabine (FTC)/ lamivudine (3TC) or zidovudine (AZT) with 3TC, depending on your patient's treatment history. The third drug is an integrase inhibitor, raltegravir (RAL) or dolutegravir (DTG), or if there is reason to believe that your patient might have resistance to an integrase inhibitor, we will use a protease inhibitor such as ritonavir-boosted atazanavir (ATV/r).

There are some differences between RAL and DTG we should carefully consider before we decide on the right regimen for you. We have been using RAL for the past few years and students do very well on it and experience minimal side effects. It is, however, not co-formulated so is given as either a twice-daily dose or a once-daily dose that consists of 3 individual tablets. The advantage is that it is safe in pregnancy and has very few clinically relevant drug interactions. DTG is a new integrase inhibitor and is now the preferred first-line treatment option for HIV-infected patients since it has a high barrier to resistance and is co-formulated with TDF, 3TC. The downside is that it has some drug interactions, especially with metformin, and that there are concerns about its safety when used in the first trimester of pregnancy. A trial in Botswana has demonstrated 5 neural tube defects on DTG out of 1683 pregnancies, for an incidence of 0.3%. This is statistically significantly higher than the background incidence of neural tube defects of 0.1%. No neural tube defects have been reported from developed world countries and it may reflect a difference in folic acid supplementation, but we are not sure. The risk for a neural tube defect is therefore very low and you may well decide to go for this option, but we will advise against using DTG if you are planning to become pregnant or are not using reliable contraception at the moment. Importantly, no neural tube defects have been reported with RAL.

RAL and DTG both have very few side effects, but more cases of insomnia have been reported on DTG, and it is slightly more prone to cause headache, nausea and diarrhoea but the incidence of these side effects is really low – generally below 1%.

It is also important to realise that both RAL and DTG should not be taken at the same time as multivitamins and supplements that contain calcium, iron or magnesium/ aluminium since they can decrease the plasma concentration of RAL and DTG and make them less effective. Calcium and iron supplements can be taken at the same time as RAL or DTG if taken with food. However, calcium and iron supplements must be taken at least 4 hours apart from each

other. Magnesium/aluminium containing antacids decrease RAL and DTG concentrations regardless of food intake and should be taken a minimum of 2 hours before or 6 hours after taking RAL or DTG.

Should you experience any side-effects, please report it so that we can propose treatment for it and/or adapt your ARV regimen.

Please indicate below that you have read this document and are aware of the following by placing your initials in the space provided:

1. Importance of completing the 28-day course of post-exposure prophylaxis _____

2. Importance of reporting any other medication that you are currently taking _____

3. Interactions between RAL/ DTG and calcium, iron or magnesium/ aluminium _____

4. Importance of using condoms if sexually active until at least the 6-week HIV test result and preferably until the 6-month HIV test result is available _____

5. Risk of neural tube defects with DTG _____

6. The need for effective contraception while taking DTG and preferably until you have received your HIV result at 6 weeks _____

The regimen that we propose for your management is: TLD (Tenofovir+ Lamivudine+ Dolutegravir)__

By signing below, you indicate that you understand the information provided to you and are satisfied with the proposed regimen.

_____	_____
Student name	Counsellor name
_____	_____
Student signature	Counsellor signature
_____	_____
Date	Date