

Availability of antiretroviral drugs and patient adherence: a comparison between Malta and Norway

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INTRODUCTION

Newer antiretroviral drugs (ARVs) are recommended as first line agents because they are more tolerable in terms of adverse events, and achieve faster viral suppression. Discontinuation of antiretroviral treatment (ART) due to adverse events was shown to be 4% (16/414) in patients on newer ARVs compared to 14% (58/419) in patients on older ARVs.

Malta and Norway have the same prevalence of HIV (0.1%) but different incidence rates. Malta reported an HIV incidence rate of 14.5 per 100,000 population in 2016 compared to 4.2 per 100,000 population in Norway.

AIMS

To compare the availability of ARVs in Malta and Norway.

To determine factors associated with availability of ARVs and patient adherence in Malta and Norway.

METHOD

In this mixed-methods comparative cross-sectional study, data from the dispensing database at Mater Dei Hospital in Malta and the Norwegian Prescription Database was collected to determine the ARVs provided and the proportion of newer ARVs used in Malta and Norway. Using ARV refill dates from dispensing data, adherence to ART was determined using the proportion of days covered (PDC) method to

investigate adherence as a factor associated with ARV availability. Using interviewer-administered questionnaires, face-to-face interviews were conducted with pharmacists in Malta and Norway responsible for ART provision to determine other factors associated with the availability of ARTs.

RESULTS

ART was provided free of charge by the national health services in Malta and Norway. Twenty four percent (N=38605) of ARV prescriptions in Norway were for newer ARVs compared to 5% (N=5657) of prescriptions in Malta (Figure 1).

Patients in Malta and Norway showed comparable levels of adherence to ART. Seventy one percent (N=3991) of patients in Norway and 75% of patients (N=265) in Malta had the desired adherence level at a PDC $\geq 95.0\%$.

Challenges hampering the availability of newer ARV provision in Malta included challenges in drug forecasting and absence of HIV-allocated funding.

Pre-exposure prophylaxis (PrEP) is free of charge in Norway, not in Malta.

Norway spends more money on ART which could explain the higher availability of newer more expensive ARVs as well as PrEP in Norway.

Malta spends €4.5 per capita and 2.8% (€1.8 million) of the national pharmaceutical expenditure on ART, while Norway spends €12.26 per capita and 5.2% (€61,316,302) of the national pharmaceutical expenditure on ART.

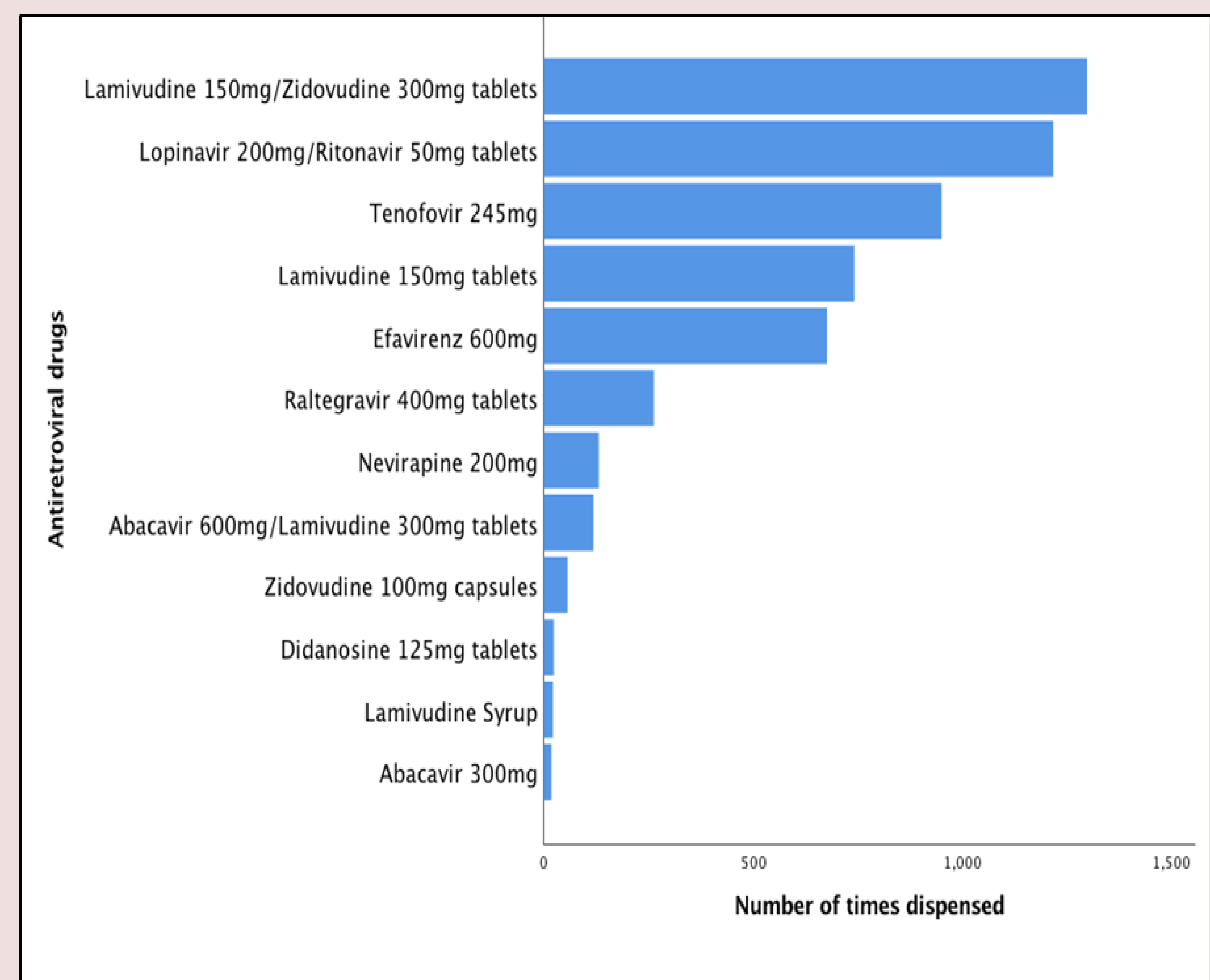


Figure 1: Most frequently prescribed antiretroviral drugs in Malta

CONCLUSION

This study identified barriers to availability of newer ARVs that need to be addressed.

In both countries, the small market size and procurement mechanisms in use kept the cost of procuring ARVs high.

Better policies that promote the availability and use of newer ARVs in Malta need to be put in place. Efforts should be made to improve adherence to ART in Malta and Norway.

Increasing expenditure on ARVs and providing newer ARVs in Malta could reverse the increasing trend of HIV incidence in Malta.