

## performance against NICE guidelines targets

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### BACKGROUND

The prevalence of Type 2 Diabetes Mellitus (T2D) in people living with HIV (PLWH) is higher than in the HIV-negative population. We conducted a clinical audit to identify patients with T2D amongst our cohort of PLWH, and evaluate whether diabetic control and standard of care meet current NICE guidelines.

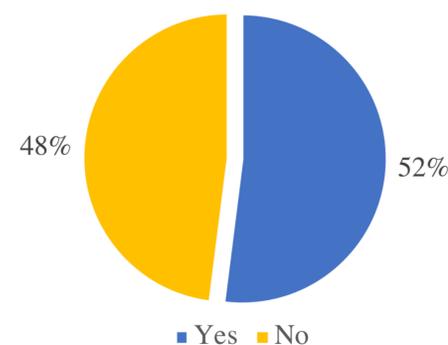
### METHOD

PLWH seen at Chelsea and Westminster Hospital clinical sites with T2D were identified via an electronic search of laboratory tests (up to December 2015), using the following criteria: Hb1Ac > 48mmol/mol (or  $\geq 6.5\%$ ); fasting glucose > 6.9 mmol/L; glucose level >11.1 mmol/L. Electronic and laboratory records of patients were individually reviewed to confirm T2D and gather clinical data.

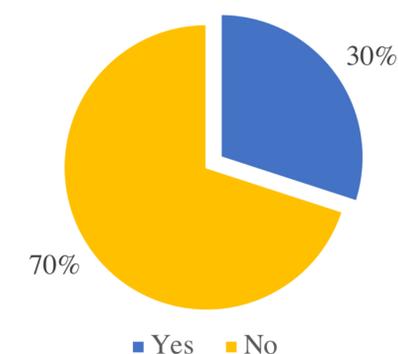
### RESULTS

- **9131** available patient records, with T2D prevalence of 3%.
- **256 patients** with T2D, 224 (88%) were males and 47% White British;
- **HIV control:** Current ARV treatment include: darunavir/ritonavir (35.1%), efavirenz (23.8%) or raltegravir (20.4%). TDF/FTC backbone was used in 1/3 of patients (32.8%), followed by ABC/3TC (15.6%).
- 85.2% had suppressed HIV RNA (<20 copies/mL) and median CD4+ cell count of 637 cells/mm<sup>3</sup>.
- **Past exposure to older ARVs:** zidovudine: 38.7%, stavudine: 33.2%, didanosine: 29.7%, saquinavir: 13.3% and 7.42% for indinavir.
- **Most common comorbidities:** Cardiovascular disease - 54.3%, Dyslipidemia and Chronic kidney disease - 17.2%.
- **Diabetic medication:** 62% of patients were on metformin, followed by sulphonyureas (31.3%), insulin (25.0%), peptide analogues (17.2%), and 15.6% on diet control only.
- **Diabetic Monitoring:**
  - Almost half (48%) of PLWH were not meeting desirable blood pressure(BP) targets
  - Approximately 70% did not have LDL-cholesterol within T2D desirable ranges
  - Only 23.4% had Hb1Ac levels checked every six months
  - 48% had yearly checks of urine protein:creatinine ratio (uPCR),
  - Only 4.3% had their urine albumin:creatinine ratio (uACR) checked yearly.

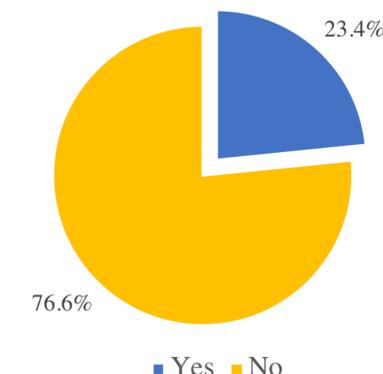
**Figure 1.** % of Patients Meeting NICE Blood Pressure Targets



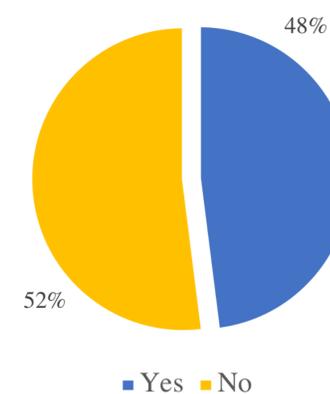
**Figure 2.** % of Patients Meeting LDL Cholesterol Targets



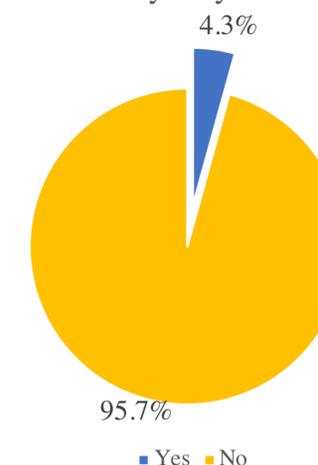
**Figure 3:** Hb1Ac levels checked every six months



**Figure 4.** uPCR checked every six months



**Figure 5.** uACR checked yearly



### CONCLUSION

The majority of PLWH affected by T2D did not meet NICE targets nor were monitored appropriately.

Improved monitoring, modification of/or review of ARV treatment and updating of anti-diabetic prescribing (such as use of SGLT-2 inhibitors) in combination with better communication with primary care physicians may improve management.

As a result of this audit and to ensure better management and monitoring of PLWH diagnosed with T2D, we have initiated a specialist Metabolic/HIV clinic.