Trends in late presentation and missed opportunities

HH. Lim¹, J. Ahir¹, E. Ong¹
¹Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, NE1 4LP

Introduction
Late presentation of HIV has been associated with worse clinical outcome for patients, increased cost of treatment as well as increased risk of transmission in the community. In the North East region, the percentage of the late presenter among newly diagnosed HIV patients in 2016 is 46.7%, which is among the highest in UK. An audit was undertaken on the newly diagnosed HIV cases reviewed in our Infectious Disease (ID) clinic at Royal Victoria Infirmary and Newcroft Genito-Urinary Medicine (GUM) Clinic to identify the trend of late presenters and possible missed opportunities for early diagnosis via indicator condition testing.

Method
This is a retrospective case note and database record review of the newly diagnosed HIV patients diagnosed at Infectious Disease Unit at RVI and Newcroft GUM clinic diagnosed from 2007 to 2017. Late presenter is defined as patient presenting with CD4 T-cell count below 350 cells/mm³ or presenting with AIDS-defining event regardless of CD4 count. Previous indicator condition is defined as those outlined in BHIVA 2008¹ and NICE 2017 Quality Standard² as indication for offering HIV test, but was not performed.

Results
Overall, the total number of newly-diagnosed HIV cases (2007-2017) is 510 cases (mean age: 25, range 19-81) where the majority are diagnosed at ID Unit (58%; 297). 65% (332) of patients are of White British ethnicity and male patients constitute 80% (408) of patients. From 2007 to 2017, homosexual transmission was seen in 77% (165) of all patients diagnosed in GUM clinic and 35% (105) of patients in ID clinic. The average median CD4 upon diagnosis for the newly diagnosed HIV patients has increased from 274 in 2007 to 420 in 2017. However, the median CD4 on diagnosis (2007-2017) for patients in ID unit remains low at 232 (0-1442), compared to 437 (15-1180) for patient in GUM clinic. From 2007 to 2017, the percentage of late presenters among the newly diagnosed HIV patients diagnosed is 54%. On average, a higher proportion of ID clinic patients are late presenters (69%) compared to GUM clinic (39%). Since 2007, an average 40% of patients have previous indicator condition documented prior to the diagnosis of HIV in a yearly basis, before it declined to an average of 15% annually from 2015 onwards. For the review of 2017, there are 34 newly diagnosed HIV cases recorded in total, mostly from ID clinic (25; 74%). 61% (18) of them are homosexual transmission and 82% (27) are male patients. Overall, half of all patients (17) were late presenters. Late presenters were more likely among heterosexuals (64%; 9) compared to homosexuals (44%; 8). 6(24%) patients from ID clinic have indicator condition documented compared to 1(11%) from GUM clinic.

Discussion
Despite the introduction of BHIVA 2008/NICE 2017 guidelines, the number of late presenters have remained consistently high in our cohort. In 2017, our data showed higher percentage of late presenter from heterosexual transmission group compared to homosexuals. This may be partly due to targeted campaigns aimed at early testing among the high risk homosexual individual. Our previous clinical indicator rate may not reflect the true number due to restricted audit within NUTH setting, as compared to the national audit conducted in 2016 which showed 30% of cases having missed opportunities for earlier diagnosis. In conclusion, a comprehensive and structured retrospective audit framework of all HIV late presenters should be formulated to identify and address key areas of missed opportunities in different healthcare setting.

References: