

VLs Rates among patients ranged from 5000 to 10 million copies/ml, with a large majority of patients (42.55%) whom VL was estimated from 10 000 and 100 000 copies/ml. Most prevalent HIV-1 subtypes were subtype B (74%); and CRF02\_G (26%). Drug resistance exploration showed that 17% of the studied group carry at least one resistant mutation that confers resistance to non-nucleoside reverse transcriptase inhibitors (NNRTIs), and 13% have at least one NRTI resistance mutation, while no major resistance mutation was detected for protease inhibitors (IPs). Detected mutations were as follows: M41L, K70E, M184V, L210W and T215C/D/S, responsible for nucleoside RT inhibitor (NRTI) resistance; K103N/S M230L and V106I, responsible for non-nucleoside RT inhibitor (NNRTI) resistance; M46L and L90M, responsible for protease inhibitor (PI) resistance.

The primary resistance rate observed in the study group was estimated at 8.5% (4/47). This rate describes the primary resistance level in this region as a moderate level (between 5 and 15%), requiring continuous monitoring of resistance in patients immediately after diagnosis of infection and prior to initiation of treatment antiretroviral.

**Disclosure of interest statement** Nothing to declare.

#### P17.29 UGT1A1\*6 POLYMORPHISMS ARE PREDICTIVE OF HIGH PLASMA CONCENTRATIONS OF DOLUTEGRAVIR IN JAPANESE INDIVIDUALS

<sup>1</sup>H Yagura\*, <sup>2</sup>D Watanabe, <sup>2</sup>M Ashida, <sup>1</sup>H Kushida, <sup>1</sup>K Tomishima, <sup>2</sup>K Hirota, <sup>2</sup>M Ikuma, <sup>2</sup>K Yajima, <sup>2</sup>D Kasai, <sup>2</sup>Y Nishida, <sup>2</sup>T Uehira, <sup>3</sup>M Yoshino, <sup>2</sup>T Shirasaka. <sup>1</sup>Department of Pharmacy, National Hospital Organization Osaka National Hospital; <sup>2</sup>AIDS Medical Center, National Hospital Organization Osaka National Hospital; <sup>3</sup>Department of Pharmacy, National Hospital Organization Himeji Medical Center

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**Background** Dolutegravir (DTG), an HIV integrase inhibitor, is metabolised mainly by glucuronidation via UDP-glucuronosyltransferase 1A1 (UGT1A1). Several UGT1A1 polymorphisms have been correlated with UGT1A1 expression level or enzymatic activity. We compared the effect of two polymorphic alleles in this gene, UGT1A1\*6 and UGT1A1\*28, on plasma DTG concentrations in Japanese HIV-1-infected patients.

**Methods** The plasma trough DTG concentration was measured in 69 HIV-1 patients taking DTG at Osaka National Hospital, and UGT1A1 genetic screening (\*6 and \*28) was performed. UGT1A1 was genotyped using the sequence method. Plasma was sampled immediately before taking DTG, and plasma DTG concentrations were determined using a liquid chromatography-mass spectrometry.

**Results** In the 69 patients who received DTG, the frequencies of UGT1A1\*6 and UGT1A1\*28 were 23% and 13%, respectively. The plasma trough concentrations of DTG in patients homozygous for UGT1A1\*6 (n = 7, median: 1.4 µg/mL) were significantly higher those in the patients carrying the normal allele (n = 32, median: 0.89 µg/mL; p = 0.011). The plasma trough concentrations of DTG in patients homozygous for UGT1A1\*28 (n = 3, median: 1.2 µg/mL), compound heterozygous for UGT1A1\*6 and UGT1A1\*28 (n = 2, 0.98 and 1.2 µg/mL, respectively), and heterozygous for UGT1A1\*6 and UGT1A1\*28 (n = 15 and 10, median: 1.1 and 1.0 µg/mL, respectively) were not significantly different from those in the patients homozygous for the normal allele.

**Conclusion** The plasma trough concentration of DTG was significantly higher in patients who were homozygous for UGT1A1\*6

than in those with the normal allele. This finding suggests that the presence of UGT1A1\*6 influences the plasma DTG concentration.

**Disclosure of interest statement** Authors do not have any commercial or other association that might pose a conflict of interest.

#### P17.30 A FEASIBILITY STUDY ASSESSING FERTILITY IN HIV-SERODISCORDANT COUPLES ATTEMPTING PREGNANCY IN KISUMU, KENYA

<sup>1</sup>O Mmeje\*, <sup>2</sup>A Murage, <sup>3</sup>B Njoroge, <sup>4</sup>S van der Poel, <sup>5,6</sup>CR Cohen. <sup>1</sup>University of Michigan, Department of Obstetrics and Gynecology; <sup>2</sup>Aga Khan University, Nairobi, Kenya; <sup>3</sup>Kenya Medical Research Institute (KEMRI), Centre for Microbiology Research; <sup>4</sup>Department of Reproductive Health and Research Including the HRP Special Research Programme, World Health Organization, Geneva, Switzerland; <sup>5</sup>Family AIDS Care and Education Services (FACES); <sup>6</sup>University of California, San Francisco, Department of Obstetrics, Gynecology & Reproductive Sciences

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**Background** HIV-serodiscordant couples desiring children face the difficult choice between risking transmission through condomless intercourse to become pregnant and the social stigmatisation of being childless. In sub-Saharan Africa, 14.3 million women are HIV-infected and many exercise their reproductive right to achieve pregnancy; however, though often overlooked, fertility problems due to tubal damage, menstrual cycle irregularities, and diminished ovarian reserve may affect these women.

**Methods** A study of female positive/male negative (♀+/♂-) HIV-serodiscordant couples using timed vaginal insemination (TVI) as a safer method of conception was conducted in Kenya. A fertility evaluation was offered to couples unable to achieve pregnancy after six cycles of TVI. Men completed a semen analysis and women a hystero-salpingo-contrast-sonography (HyCoSy) to investigate the uterus, ovaries, and fallopian tubes.

**Results** Fifteen of 23 ♀+/♂- HIV-serodiscordant couples were eligible for fertility evaluations; 14 consented; and seven completed male and female fertility assessments. The mean age of the men and women who completed fertility evaluations was 33.7 (std. dev. = 4.58), and 30 (std. dev. = 5.41) years, respectively. Fertility evaluations determined that three women had bilateral fallopian tube occlusion with one male partner having decreased sperm motility; and four women had unilateral/bilateral fallopian tube patency. Seven couples declined or were unable to complete a full couple evaluation. Of the 14 women evaluated, six (46%) had an HIV RNA viral load (≥400 copies/mL); six (46%) had an undetectable HIV RNA viral load; and two declined serum assessment.

**Conclusion** Amongst HIV-serodiscordant couples attempting to achieve pregnancy, underlying male and/or female factor infertility and inadequate viral suppression may be present. As safer conception interventions are integrated into HIV care programs, a fertility evaluation should be offered, if feasible and available, to HIV-affected individuals/couples planning a pregnancy, to optimise their conception efforts, decrease HIV transmission, and assess their potential to conceive without assistance.

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