## IMPACT OF NEPAL EARTHQUAKE 2015 ON ART ADHERENCE, ART RESISTANCE, MENTAL HEALTH PROBLEMS AND SOCIAL ISSUES AMONG PEOPLE LIVING WITH HIV IN EARTHQUAKE-AFFECTED AREA IN NEPAL: A LONGITUDINAL STUDY.

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**Background:** A massive earthquake on 25th of April 2015 in Nepal claimed more than 8,600 lives and severe damage in infrastructures disrupted health service delivery. Impact of the disaster on persons living with HIV/AIDS (PLHA) who actually need more than 95% ART adherence to prevent treatment failure and drug resistance, was unknown. Therefore, we assessed impact of earthquake on PLHA on adherence to ART, treatment failure, and ART resistance including other social issues such as stigma, post-traumatic stress disorder and social support.

**Methods:** Information was collected in two stages; at 6 months and 12 months of post-earthquake in earthquake-affected area in Nepal. Total 305 PLHAs were interviewed and 40 blood samples from ART treatment failure cases were taken, Logistic regression analysis was done for measuring associations while HIV-1 genomic fragments were amplified to identify drug resistance mutations (DRMs)

**Results:** Findings revealed that around 13% of the PLHA reported treatment failure while only 8% of participants were sub optimally adherent to ART. Around 44% of the participant had post-traumatic stress disorder(PTSD) symptoms and 49.8% were experienced stigmatized. Around 4% had never disclosed their HIV status to anyone. ART adherence was significantly associated with HIV sero- positive disclosure and PTSD due to earthquake. Interestingly, 21.9% (7/32) of treatment failure PLHA had major DRMs.

**Conclusions:** This study revealed that PTSD and disclosure of HIV status were significantly associated with adherence to ART. PTSD and adherence level to ART were in positive progression over the six-month time, however, appearance of considerably high rate of DRMs was posing threat to PLHIV. Promotion of social stigma elimination for HIV status disclosure and to enhance psychosocial counseling was needed to reduce PTSD for maintaining optimal adherence to ART and reduce ART drug resistance in earthquake-affected area.

## **Disclosure of the Interest Statement:**

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