

was used to determine relationship between missed doses and well-being.

**Findings:** Mean age was 38.5 years. 837 (65.3%) were females. Pearson correlation showed a significant negative correlation between Wellbeing and Missed doses for one month.  $r = - .131$ ,  $n = 1281$ ,  $p < 0.0005$ . Patients self-assessment of wellbeing negatively correlates with missed doses and thus adherence.

**Interpretation:** Self-assessment of poor well-being is a risk factor for poor adherence to ARVs and interventions' to integrate mental health assessments and interventions to improve sense of wellbeing into HIV programming in Nigeria is desirable to improve adherence.

**Source of Funding:** PEPFAR Nigeria.

**Abstract #:** 1.021\_NCD

### The Association between Fasting Blood Glucose and Liver Cancer Risk in Chinese Males: A Prospective Cohort Study

X. Feng<sup>1</sup>, G. Wang<sup>2</sup>, Z. Lv<sup>3</sup>, S. Chen<sup>4</sup>, L. Wei<sup>5</sup>, Y. Chen<sup>5</sup>, W. Yang<sup>5</sup>, S. Wu<sup>4</sup>, M. Dai<sup>5</sup>, N. Li<sup>5</sup>, J. He<sup>5</sup>; <sup>1</sup>National Cancer Centre/Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China, <sup>2</sup>Kailuan General Hospital, Tangshan, China, <sup>3</sup>National Cancer Center/ Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, Beijing, China, <sup>4</sup>Kailuan (group), Tangshan, China, <sup>5</sup>National Cancer Center/ Cancer Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China

**Background:** Fasting blood glucose (FBG) has been suggested to be associated with the risk of cancer, however, the relationship hasn't been studied in detail among Chinese people. A large prospective cohort was performed to investigate the association between FBG levels and incident liver cancer risk in Chinese males.

**Methods:** Employees and retirees in Kailuan Group were encouraged to participate in routine checkups every two years since July 2006, and 109,380 males participated in the checkup at least once were recruited in the Kailuan male cohort study. FBG levels at baseline were tested, Cox proportional hazards regression models and restricted cubic spline (RCS) were used to evaluate the association between baseline FBG and risk of liver cancer in males. Interaction effect of FBG and HBV infection was also analyzed.

**Findings:** By 31 December 2014, there were 659,243 person-years of follow-up, taking 6.89 years of median follow-up period, and 267 liver cancer cases occurred. Compared with males in normal FBG range ( $3.9 \leq \text{FBG} < 6.1 \text{ mmol/L}$ ), males in impaired fasting glucose (IFG:  $6.1 \leq \text{FBG} < 7.0 \text{ mmol/L}$ ) and diabetic range ( $7.0 \text{ mmol/L} \leq \text{FBG}$ ) were associated with a 60% (95% CI: 1.09–2.36) and a 59% (95% CI: 1.07–2.35) higher liver cancer risk, respectively. Pertinent results of sensitivity analyses concerning potential confounders (i.e. extreme BMI, HBV infection and liver cancer cases within the first two years in the cohort) cannot alter the main finding, especially in males with diabetic FBG ( $18.5 \leq \text{BMI} < 30 \text{ kg/m}^2$ : HR=1.61, 95% CI: 1.07–2.43; HBsAg negative: HR=1.77, 95% CI: 1.09–2.88; excluding cases within 2 years: HR=1.63, 95% CI: 1.02–2.60). Moreover, FBG levels tended to show a positive

dose-response association with liver cancer in the RCS model. The HBsAg positivity did not statistically modify the effect of any FBG levels (IFG: S=1.59, 95% CI: 0.70–2.15;  $\text{FBG} \geq 7.0 \text{ mmol/L}$ : S=1.12, 95% CI: 0.53–2.06), even though the hazard ratios were much higher in the HBsAg positive than in HBsAg negative males.

**Interpretation:** In summary, this study provides further evidence that high FBG levels ( $\text{FBG} \geq 6.1 \text{ mmol/L}$ ) are modest associated with increased risk of liver cancer in Chinese males.

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### Prevalence of Presbyopia, Presbyopia Correction Coverage and Barriers to Uptake Eye-Care Services for Near-Vision Impairments among Indigenous Population in Northern part of Bangladesh

N. Ferdousi; National Institute of Ophthalmology & Hospital, Dhaka, Bangladesh

**Background:** Presbyopia is an age-related loss of lens accommodation that results in an inability to focus at near distances. Uncorrected presbyopia is the most common cause of visual impairment and has a substantial impact on quality of life. The purposes of this study were to determine the prevalence of presbyopia, presbyopia correction coverage (PCC) and self-perceived barriers to accessing services for near vision impairment in financially challenged, mostly illiterate indigenous population in northern rural part of Bangladesh.

**Methods:** This population-based, cross-sectional study was carried-out in an organized eye-camp on men and women of 40 years of age and above. Presbyopia was defined to be able to see the N8 optotype at a distance of 40 cm or able to see at least one more line with the addition of a plus lens with at least +1.00 dioptre. PCC was defined as:  $\text{met-need}/\text{total need} \times 100$ . Presbyopic people were provided with glasses free of cost and those needed distance correction were referred appropriately. Participants were asked about self-perceived barriers to uptake eye-care services for near vision impairment.

**Findings:** Among 396 participants, 210 were female and 186 were male. The mean age of the participants was 53.48 years. 87% of the participants were illiterate, 11% had little education and only 1.5% completed graduation. 233 (58.8%) participants identified the need for presbyopic correction. Age adjusted data showed a significantly higher needs of presbyopic correction in female than male ( $p < 0.001$ ). The unmet need was 57.8% and the met need was only 1%. The PCC was 1.71%. The common barriers mentioned to uptake services for near vision impairment were financial incapability (34%), lack of awareness that simple spectacles usage could improve vision (23%), and setting priority (11%).

**Interpretation:** Even though it can be easily corrected with spectacles, presbyopia correction coverage remains significantly very low