European Respiratory Society
Annual Congress 2012

Abstract Number: 1421

Publication Number: P4010

Abstract Group: 6.2. Occupational and Environmental Health

Keyword 1: Comorbidities **Keyword 2:** Monitoring **Keyword 3:** Occupation

Title: Presence of hypertension (HT), ischemic heart diseases (IHD) and a family history of hypertension are independently associated with reduced peak expiratory flow (PEF) values

Dr. Komalkirti 14008 Apte drkomalapte@crfindia.com MD [1], Dr. Monica 14009 Barne drmonica@crfindia.com MD [1], Dr. Bill 14010 Brashier bbrashier@crfindia.com MD [1], Ms. Sapna 14011 Madas sapna@crfindia.com [1], Dr. Jaideep 14012 Gogtay jgogtay@cipla.com MD [2], Ms. Sushmeeta 14014 Chhowala sushmeeta@cipla.com [2], Mr. Basant 14015 Pachisia bpachisia@yahoo.com [2] and Dr. Sundeep 14016 Salvi ssalvi@crfindia.com [1]. [1] Research, Chest Research Foundation, Pune, Maharashtra, India, 411014 and [2] Research, CIPLA LTD., Mumbai, Maharashtra, India .

Body: Background: Reduced lung function has been shown to be an independent predictor of cardiovascular mortality in patients of hypertension and IHD in earlier studies. We aimed to study the association between HT, IHD and PEF values amongst road transport workers from Andhra Pradesh State in India. Methods: 7,154 bus drivers, conductors, garage workers and office-based workers of the Andhra Pradesh State Road Transport Corporation (APSRTC) were randomly selected from 24 bus depots and administered a health questionnaire, underwent blood pressure monitoring and performed peak flow metry using the EU scale peak flow meter (Breathometer®, Cipla Ltd., India). Current, past and family histories of cardiovascular and respiratory ailments were captured. Associations between PEF values and HT and IHD were studied using the chi square test and the values expressed as odds ratios. Results: Presence of HT, IHD and a family history of HT were independently associated with low PEF values, defined as less than 80% predicted PEFR value [OR 1.3, 95% CI 1.1 – 1.5, p=0.008; OR 1.9, 95% CI 1.2 – 3.0, p=0.004; OR 1.2, 95% CI 1.0 – 1.4, p=0.039 respectively]. No difference in odds ratios were observed between different occupations. Conclusion: PEF values less than 80% predicted are strongly associated with presence of HT, family history of HT and presence of IHD. Reduced peak flow values should stimulate the need for performing a cardiovascular assessment.