

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 138

**Publication Number:** 4868

**Abstract Group:** 6.1. Epidemiology

**Keyword 1:** Epidemiology **Keyword 2:** COPD - diagnosis **Keyword 3:** Longitudinal study

**Title:** GOLD classifications and mortality in COPD: The HUNT study

Mrs. Linda 1087 Leivseth linda.leivseth@ntnu.no<sup>1</sup>, Mr. Ben Michael 1088 Brumpton ben.brumpton@ntnu.no<sup>1</sup>, Prof. Tom Ivar Lund 1089 Nilsen tom.nilsen@svt.ntnu.no<sup>3</sup>, Dr. Xiao-Mei 1092 Mai xiao-mei.mai@ntnu.no<sup>1</sup>, Prof. Dr Roar 1090 Johnsen roar.johnsen@ntnu.no MD<sup>1</sup> and Prof. Dr Arnulf 1091 Langhammer arnulf.langhammer@ntnu.no MD<sup>2</sup>. <sup>1</sup> Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway, NO-7491 ; <sup>2</sup> HUNT Research Centre, Department of Public Health and General Practice, Norwegian University of Science and Technology, Levanger, Norway, NO-7600 and <sup>3</sup> Department of Human Movement Science, Norwegian University of Science and Technology, Trondheim, Norway, NO-7491 .

**Body:** Background: How different Global Initiative for Chronic Obstructive Lung Disease (GOLD) classifications of pre- and post-bronchodilator chronic obstructive pulmonary disease (COPD) predict mortality is unclear. Objective: To examine the association of pre- and post-bronchodilator COPD grades and the new ABCD groups with mortality, and to compare their informativeness in relation to mortality. Methods: We studied 1875 people with pre-bronchodilator COPD who participated in the Norwegian Nord-Trøndelag Health Study 1995-97 and followed up on all-cause mortality until May 2012. The associations of COPD grades and ABCD groups with mortality were estimated by sex specific adjusted hazard ratios (HRs) from Cox regression and standardized mortality ratios (SMRs). To evaluate the best predictor of mortality we assessed informativeness using the difference in twice the log-likelihood of a Cox regression model with and without each measure. Results: Mortality increased gradually from COPD grade 1 to 4. People with pre-bronchodilator COPD without post-bronchodilator COPD did not have increased mortality compared to COPD grade 1 or the general population. In general, HRs and SMRs were similar in groups A and B, and C and D. Relative to post-bronchodilator lung function, pre-bronchodilator lung function was 73-99% as informative, while relative to COPD grades, ABCD groups were 20-48% as informative in predicting mortality. Conclusions: Post-bronchodilator lung function was better than pre-bronchodilator lung function and COPD grades were better than ABCD groups at predicting mortality. Our population-based study supports the use of post-bronchodilator COPD grades over the new ABCD groups when predicting mortality in people with COPD.