Supplemental Digital Content 1. Hazard Ratios for Mortality During Follow-up (1.5.1976 – 31.12.2010) According to Dyspnea Level (0 vs. 1, 2, 3, 4)a in 1975 for Individual and Pairwise Analyses.

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| --- | --- | --- | --- |
|  | **Individuals (cluster for family)** |  | **Pairwise** |
|  | **Basic, age and sex****adjusted** | **+ Pack years****smoked 81 adj.** | **Fully****adjusted b** |  | **Basic** | **+ Pack years****smoked 81 adj.** | **Fully****adjusted b** |
|  | **HR (95 % CI)** | **HR (95 % CI)** | **HR (95 % CI)** |  | **HR (95 % CI)** | **HR (95 % CI)** | **HR (95 % CI)** |
| **All**  | **n = 25 503** | **n = 25 145** | **n = 24 619** |  | **n = 25 503** | **n = 25 145** | **n = 24 619** |
|  Level 1 dyspnea | 1.26 (1.19-1.34) | 1.17 (1.11-1.24) | 1.14 (1.08-1.21) |  | 1.22 (1.09-1.37) | 1.9 (1.06-1.33) | 1.18 (1.05-1.34) |
|  Level 2 dyspnea | 1.83 (1.69-1.99) | 1.69 (1.56-1.84) | 1.56 (1.43-1.70) |  | 1.85 (1.56-2.19) | 1.78 (1.50-2.13) | 1.75 (1.44-2.11) |
|  Level 3 dyspnea | 2.08 (1.80-2.40) | 1.98 (1.71-2.30) | 1.87 (1.61-2.16) |  | 1.79 (1.32-2.41) | 1.78 (1.31-2.43) | 1.76 (1.27-2.44) |
|  Level 4 dyspnea | 2.42 (2.06-2.85) | 2.17 (1.84-2.56) | 1.97 (1.66-2.35 |  | 2.52 (1.76-3.61) | 2.34 (1.61-3.41) | 2.23 (1.50-3.32) |
| **No lung disease** **or cough in 1975 c** | **n = 20 800** | **n = 20 554** | **n = 20 155** |  | **n = 20 800** | **n = 20 554** | **n = 20 155** |
|  Level 1 dyspnea  | 1.23 (1.16-1.32) | 1.16 (1.08-1.24) | 1.13 (1.05-1.21) |  | 1.15 (0.995-1.33) | 1.13 (0.97-1.31) | 1.13 (0.97-1.32) |
|  Level 2 dyspnea | 1.71 (1.54-1.90) | 1.63 (1.47-1.80) | 1.51 (1.35-1.68) |  | 1.61 (1.24-2.11) | 1.53 (1.16-2.01) | 1.48 (1.11-1.98) |
|  Level 3 dyspnea | 2.03 (1.64-2.51) | 1.96 (1.56-2.47) | 1.81 (1.44-2.26) |  | 2.03 (1.22-3.39) | 1.96 (1.15-3.31) | 1.77 (1.01-3.09) |
|  Level 4 dyspnea | 2.32 (1.82-2.97) | 2.25 (1.74-2.91) | 2.02 (1.54-2.65) |  | 1.66 (0.82-3.36) | 1.53 (0.73-3.19) | 1.59 (0.73-3.43) |
| **Healthy in 1981 d** | **n = 14 627** | **n = 14 467** | **n = 14 275** |  | **n = 14 627** | **n = 14 467** | **n = 14 275** |
|  Level 1 dyspnea  | 1.29 (1.15-1.44) | 1.16 (1.04-1.30) | 1.12 (0.998-1.26) |  | 1.29 (1.00-1.67) | 1.23 (0.94-1.61) | 1.17 (0.88-1.55) |
|  Level 2 dyspnea | 2.03 (1.62-2.53) | 1.65 (1.29-2.10) | 1.46 (1.14-1.88) |  | 3.40 (1.69-6.83) | 2.84 (1.40-5.77) | 3.16 (1.46-6.88) |
|  Level 3 dyspnea | 3.77 (1.72-8.24) | 3.55 (1.62-7.80) | 3.42 (1.53-7.62) |  | 1.84 (0.10-34.29) | 1.60 (0.09-28.2) | 1.41 (0.06-34.9) |
|  Level 4 dyspnea | 5.86 (2.09-16.48) | 5.37 (2.03-14.23) | 4.21 (1.01-17.5) |  | No result  | No result | No result |
| **DZ** |  |  |  |  | **n = 16 159** | **n = 15 946** | **n = 15 609** |
|  Level 1 dyspnea |  |  |  |  | 1.24 (1.08-1.42) | 1.20 (1.04-1.39) | 1.20 (1.03-1.39) |
|  Level 2 dyspnea |  |  |  |  | 1.89 (1.53-2.34) | 1.79 (1.43-2.23) | 1.69 (1.34-2.14) |
|  Level 3 dyspnea |  |  |  |  | 1.86 (1.27-2.73) | 1.80 (1.21-2.66) | 1.86 (1.21-2.84) |
|  Level 4 dyspnea |  |  |  |  | 2.29 (1.46-3.58) | 2.08 (1.31-3.32) | 2.01 (1.23-3.30) |
| **MZ** |  |  |  |  | **n = 7 362** | **n = 7 265** | **n = 7 128** |
|  Level 1 dyspnea |  |  |  |  | 1.14 (0.91-1.42) | 1.09 (0.86-1.37) | 1.10 (0.87-1.40) |
|  Level 2 dyspnea |  |  |  |  | 1.87 (1.31-2.65) | 1.86 (1.29-2.68) | 1.95 (1.33-2.88) |
|  Level 3 dyspnea |  |  |  |  | 2.14 (1.10-4.16) | 2.12 (1.09-4.15) | 1.86 (0.94-3.69) |
|  Level 4 dyspnea |  |  |  |  | 4.31 (1.84-10.10) | 4.10 (1.73-9.71) | 3.49 (1.43-8.52) |

a Reference group had no dyspnea symptoms in 1975
b Full model: adjusted for pack years smoked in 1975, physical activity met index 1975, BMI 1975, social class 1975 and alcohol grams per day 1975
c No reported bronchitis, emphysema or asthma or persistent cough in 1975
d Did not report any illnesses in 1981, apparently healthy