

Suppl 1. Subgroup Analysis Between Four Groups Participants and Lung Cancer Incidence

Group	Events/total (%)	Model 1 HR (95% CI) ^a	P	Model 2 HR (95% CI) ^b	P
Age (years)					
≤ 59					
NENN group	45/3,981 (1.1)	Ref		Ref	
E group	65/2,243 (2.9)	2.545 (1.740 - 3.723)	< 0.001	1.950 (1.298 - 2.931)	< 0.001
N group	94/1,904 (4.9)	4.417 (3.096 - 6.302)	< 0.001	3.819 (2.613 - 5.582)	< 0.001
E + N group	59/792 (7.4)	6.619 (4.489 - 9.760)	< 0.001	5.333 (3.522 - 8.074)	< 0.001
60 - 64					
NENN group	45/2,809 (1.6)	Ref		Ref	
E group	78/1,819 (4.3)	2.670 (1.850 - 3.853)	< 0.001	2.641 (1.768 - 3.944)	< 0.001
N group	99/1,488 (6.7)	4.237 (2.979 - 6.028)	< 0.001	4.447 (3.010 - 6.572)	< 0.001
E + N group	76/700 (10.9)	7.061 (4.883 - 10.212)	< 0.001	6.050 (4.001 - 9.150)	< 0.001
65 - 69					
NENN group	46/1,545 (3.0)	Ref		Ref	
E group	45/1,149 (3.9)	1.313 (0.871 - 1.981)	0.194	1.091 (0.703 - 1.694)	0.697
N group	96/902 (10.6)	3.724 (2.621 - 5.293)	< 0.001	3.389 (2.331 - 4.927)	< 0.001
E + N group	81/534 (15.2)	5.408 (3.766 - 7.768)	< 0.001	4.619 (3.133 - 6.809)	< 0.001
70 - 74					
NENN group	23/705 (3.3)	Ref		Ref	
E group	35/608 (5.8)	1.770 (1.046 - 2.996)	< 0.001	1.664 (0.948 - 2.921)	0.076
N group	60/443 (13.5)	4.393 (2.716 - 7.104)	< 0.001	4.454 (2.664 - 7.504)	< 0.001
E + N group	56/327 (17.1)	5.709 (3.513 - 9.279)	< 0.001	5.028 (2.959 - 8.543)	< 0.001
Sex					
Women					
NENN group	50/3,764 (1.3)	Ref		Ref	
E group	84/2,269 (3.7)	2.729 (1.923 - 3.873)	< 0.001	2.465 (1.691 - 3.592)	< 0.001
N group	163/2079 (7.8)	5.954 (4.336 - 8.175)	< 0.001	5.608 (3.975 - 7.912)	< 0.001
E + N group	100/884 (11.3)	8.209 (5.838 - 11.542)	< 0.001	7.270 (5.019 - 10.532)	< 0.001
Men					
NENN group	109/5,276 (2.1)	Ref		Ref	
E group	139/3,550 (3.9)	1.772 (1.378 - 2.278)	< 0.001	1.532 (1.171 - 2.004)	0.002
N group	186/2,658 (7.0)	3.352 (2.646 - 4.247)	< 0.001	3.218 (2.497 - 4.147)	< 0.001
E + N group	172/1,469 (11.7)	5.363 (4.214 - 6.825)	< 0.001	4.368 (3.363 - 5.674)	< 0.001
Smoking status					
Former smoker					
NENN group	70/5,020 (1.4)	Ref		Ref	
E group	67/2,643 (2.5)	1.680 (1.201 - 2.350)	0.002	1.454 (1.016 - 2.082)	0.041
N group	163/2,572 (6.3)	4.499 (3.399 - 5.955)	< 0.001	4.099 (3.029 - 5.545)	< 0.001
E + N group	118/1,011 (11.7)	7.663 (5.688 - 10.323)	< 0.001	6.380 (4.620 - 8.809)	< 0.001
Current smoker					
NENN group	89/4,020 (2.2)	Ref		Ref	
E group	156/3,176 (4.9)	2.116 (1.631 - 2.747)	< 0.001	2.016 (1.524 - 2.668)	0.002
N group	186/2,165 (8.6)	3.895 (3.025 - 5.015)	< 0.001	3.893 (2.966 - 5.111)	< 0.001
E + N group	154/1,342 (11.5)	4.942 (3.803 - 6.422)	< 0.001	4.576 (3.447 - 6.075)	< 0.001
Smoking, pack-years					
30 - 59					
NENN group	72/6,276 (1.1)	Ref		Ref	
E group	108/3,476 (3.1)	2.571 (1.908 - 3.465)	< 0.001	2.275 (1.657 - 3.123)	< 0.001
N group	200/3,222 (6.2)	5.291 (4.041 - 6.929)	< 0.001	4.771 (3.578 - 6.362)	< 0.001
E + N group	139/1,378 (10.1)	8.181 (6.147 - 10.889)	< 0.001	6.904 (5.079 - 9.384)	< 0.001
60 - 89					
NENN group	52/2,034 (2.6)	Ref		Ref	
E group	72/1,668 (4.3)	1.644 (1.150 - 2.349)	0.006	1.626 (1.104 - 2.394)	0.014
N group	100/1,102 (9.1)	3.700 (2.646 - 5.174)	< 0.001	3.678 (2.546 - 5.314)	< 0.001
E + N group	85/690 (12.3)	4.841 (3.425 - 6.842)	< 0.001	4.487 (3.060 - 6.581)	< 0.001
60 - 89					
NENN group	35/730 (4.8)	Ref		Ref	
E group	43/675 (6.4)	1.281 (0.820 - 2.002)	0.277	1.196 (0.743 - 1.923)	0.461
N group	49/413 (11.9)	2.532 (1.640 - 3.908)	< 0.001	2.566 (1.616 - 4.075)	< 0.001
E + N group	48/285 (16.8)	3.559 (2.297 - 5.515)	< 0.001	3.227 (2.020 - 5.157)	< 0.001
Family history of lung cancer					
No					
NENN group	130/7,312 (1.8)	Ref		Ref	
E group	170/4,623 (3.7)	1.980 (1.575 - 2.489)	< 0.001	1.804 (1.413 - 2.304)	< 0.001
N group	276/3,817 (7.2)	4.063 (3.298 - 5.006)	< 0.001	3.870 (3.089 - 4.848)	< 0.001
E + N group	205/1,855 (11.1)	5.922 (4.748 - 7.385)	< 0.001	4.967 (3.903 - 6.322)	< 0.001
Yes					
NENN group	29/1,728 (1.7)	Ref		Ref	
E group	53/1,196 (4.4)	2.425 (1.541 - 3.817)	< 0.001	1.873 (1.153 - 3.043)	0.011
N group	73/920 (7.9)	4.684 (3.046 - 7.204)	< 0.001	4.358 (1.754 - 6.896)	< 0.001
E + N group	67/498 (13.5)	7.579 (4.891 - 11.742)	< 0.001	6.301 (3.959 - 10.028)	< 0.001

Model 1a: adjusted for age. Model 2b: adjusted for age, gender, race/ethnicity, education level, marital status, smoking status, smoking pack-year, BMI and family history of lung cancer. NENN group: non-emphysema and non-nodules; E group: emphysema without nodules; N group: nodules without emphysema; E + N group: nodules with emphysema.