Supplementary Material 7. Mortality effects of daily ambient PM2.5 exposure and their modification by consecutive days of exposure to high concentrations of PM2.5 in seven major cities in Korea from 2006 to 2019, with and without adjustment for daily ozone and nitrogen dioxide concentration.

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Single-pollutant model of PM2.5 | | Two-pollutant model of PM2.5 | | | |
|  |  | with adjustment for ozone | | with adjustment for nitrogen dioxide | |
|  |  | % change1 | 95% CIs | % change1 | 95% CIs | % change1 | 95% CIs |
| **All-cause (non-traumatic, A00 - R99) mortality** | | | | | | | |
| Basic model | | 0.40 | 0.20, 0.61 | 0.30 | 0.12, 0.47 | 0.26 | 0.08, 0.45 |
| Effect modification model | |  |  |  |  |  |  |
| Consecutive days2 | No | 0.40 | -0.04, 0.84 | 0.28 | -0.21, 0.77 | 0.25 | -0.23, 0.74 |
| 1st days | 0.69 | 0.27, 1.10 | 0.54 | 0.14, 0.94 | 0.56 | 0.09, 1.03 |
| 2nd days | 0.37 | 0.10, 0.63 | 0.20 | -0.02, 0.43 | 0.17 | -0.07, 0.40 |
| 3rd days | 0.21 | -0.08, 0.51 | 0.14 | -0.15, 0.43 | 0.09 | -0.17, 0.34 |
| 4th days | 0.49 | -0.02, 1.00 | 0.32 | -0.01, 0.66 | 0.30 | -0.04, 0.64 |
| 5th or more days | 0.30 | -0.19, 0.79 | 0.24 | -0.16, 0.64 | 0.20 | -0.16, 0.57 |
| **Respiratory (J00 - J98) mortality** | | | | | | | |
| Basic model | | 0.45 | -0.15, 1.05 | 0.47 | -0.10, 1.05 | 0.47 | -0.14, 1.08 |
| Effect modification model | |  |  |  |  |  |  |
| Consecutive days2 | No | 0.26 | -0.79, 1.33 | 0.22 | -0.80, 1.24 | 0.07 | -0.98, 1.14 |
| 1st days | 0.99 | 0.12, 1.87 | 0.84 | 0.00, 1.68 | 0.79 | -0.10, 1.68 |
| 2nd days | 0.14 | -0.64, 0.92 | 0.19 | -0.56, 0.95 | 0.17 | -0.61, 0.96 |
| 3rd days | 0.18 | -0.70, 1.06 | 0.24 | -0.60, 1.08 | 0.22 | -0.64, 1.08 |
| 4th days | 1.29 | 0.27, 2.32 | 1.33 | 0.36, 2.32 | 1.31 | 0.32, 2.32 |
| 5th or more days | 0.08 | -0.85, 1.02 | 0.03 | -0.83, 0.89 | 0.01 | -0.86, 0.89 |
| **Cardiovascular (I00 - I99) mortality** | | | | | | | |
| Basic model | | 0.35 | -0.03, 0.73 | 0.25 | -0.09, 0.59 | 0.12 | -0.24, 0.49 |
| Effect modification model | |  |  |  |  |  |  |
| Consecutive days2 | No | 0.79 | 0.10, 1.48 | 0.60 | -0.02, 1.23 | 0.46 | -0.18, 1.10 |
| 1st days | 0.78 | 0.22, 1.35 | 0.58 | 0.07, 1.09 | 0.41 | -0.12, 0.95 |
| 2nd days | 0.48 | -0.02, 0.97 | 0.35 | -0.10, 0.80 | 0.22 | -0.25, 0.68 |
| 3rd days | 0.08 | -0.47, 0.63 | 0.09 | -0.40, 0.59 | -0.04 | -0.54, 0.47 |
| 4th days | 0.65 | 0.00, 1.31 | 0.46 | -0.13, 1.05 | 0.35 | -0.25, 0.95 |
| 5th or more days | 0.33 | -0.65, 1.32 | 0.33 | -0.36, 1.03 | 0.23 | -0.40, 0.86 |
| City specific estimated effects were from quasi-Poisson generalized additive models (GAMs) with two-day moving average (the average over the current and previous day, lag 0-1) of PM2.5 concentration and they were pooled with the same consecutive day strata using random-effects meta-analyses.  1 The % increase mortality risks per 10 μg/m3 increase in PM2.5 concentration  2 the six-strata categorical variable designating the number of consecutive days with daily mean PM2.5 concentrations of equal or more than 35 μg/m3 | | | | | | | |