Supplementary Table S1. Percentage increase (95% *CI*) of first aid volume of neurological diseases for each 10 μg/m^3 increment in NO_2 by selecting different lag times

Group	Modelling choices	Season	Percentage increase in onset (95% *CI*)[b]		
			Lag0–2	Lag0–4	Lag0–6
All [a]	Main model	Full year	3.68 (2.74, 4.63) *	5.27 (4.16, 6.39) *	6.50 (5.27, 7.74) *
		Cold season	4.94 (3.64, 6.25) †	6.55 (5.02, 8.12) †	8.20 (6.50, 9.92) †
		Warm season	1.23 (0.36, 2.85)	2.50 (0.60, 4.44)	2.83 (0.67, 5.04)
	Lag period: 5 days	Full year	3.71 (2.77, 4.66) *	5.56 (4.44, 6.70) *	
		Cold season	5.33 (3.83, 6.85) †	7.58 (5.83, 9.35) †	
		Warm season	1.62 (0.33, 3.62)	2.79 (0.58, 5.06)	
	Lag period: 9 days	Full year	3.63 (2.70, 4.58) *	5.32 (4.23, 6.41) *	6.44 (5.20, 7.70) *
		Cold season	5.20 (3.70, 6.71) †	7.24 (5.52, 8.98) †	8.61 (6.72, 10.54) †
		Warm season	1.44 (0.49, 3.41)	2.47 (0.25, 4.73)	3.02 (0.61, 5.49)
Females	Main model	Full year	3.57 (2.19, 4.97) *	4.57 (2.95, 6.22) *	5.91 (4.11, 7.74) *
		Cold season	4.99 (3.11, 6.89) †	6.16 (3.95, 8.43) †	7.85 (5.40, 10.35) †
		Warm season	0.88 (1.53, 3.35)	1.29 (1.57, 4.22)	1.50 (1.75, 4.87)
	Lag period: 5 days	Full year	3.60 (2.21, 5.00) *	5.08 (3.44, 6.75) *	
		Cold season	4.87 (3.01, 6.76) †	6.88 (4.63, 9.17) †	
		Warm season	0.92 (1.46, 3.36)	1.33 (1.53, 4.27)	
	Lag period: 9 days	Full year	3.42 (2.04, 4.81) *	4.86 (3.28, 6.47) *	5.91 (4.09, 7.76) *
		Cold season	4.87 (2.99, 6.78) †	6.42 (4.26, 8.63) †	7.59 (5.12, 10.12) †
		Warm season	0.54 (1.86, 3.01)	1.19 (1.62, 4.08)	1.51 (1.76, 4.88)
Males	Main model	Full year	3.76 (2.61, 4.93) *	5.75 (4.38, 7.13) *	6.90 (5.39, 8.43) *
		Cold season	4.90 (3.34, 6.48) †	6.80 (4.94, 8.70) †	8.41 (6.36, 10.50) †
		Warm season	1.50 (0.52, 3.57)	3.38 (0.96, 5.87)	3.81 (1.04, 6.64)
	Lag period: 5 days	Full year	3.79 (2.64, 4.95) *	5.89 (4.51, 7.28) *	
		Cold season	5.01 (3.46, 6.58) †	7.25 (5.37, 9.16) †	
		Warm season	1.66 (0.36, 3.72)	3.38 (0.94, 5.88)	
	Lag period: 9 days	Full year	3.78 (2.64, 4.94) *	5.63 (4.30, 6.97) *	6.81 (5.28, 8.35) *
		Cold season	4.84 (3.28, 6.42) †	6.86 (5.06, 8.69) †	8.21 (6.15, 10.32) †
		Warm season	1.66 (0.38, 3.74)	2.86 (0.47, 5.31)	3.62 (0.84, 6.48)
< 65 years	Main model	Full year	3.74 (2.74, 4.76) *	5.65 (4.47, 6.85) *	6.99 (5.68, 8.32) *
		Cold season	4.65 (3.27, 6.06) †	6.60 (4.95, 8.28) †	8.39 (6.57, 10.24) †
		Warm season	1.58 (0.12, 3.30)	3.09 (1.06, 5.16)	3.31 (1.01, 5.67)
	Lag period: 5 days	Full year	3.78 (2.78, 4.80) *	5.96 (4.76, 7.17) *	
		Cold season	4.66 (3.29, 6.05) †	7.08 (5.41, 8.77) †	
		Warm season	1.75 (0.07, 3.46)	3.20 (1.17, 5.28)	
	Lag period: 9 days	Full year	3.74 (2.74, 4.74) *	5.62 (4.46, 6.79) *	6.91 (5.59, 8.26) *
		Cold season	4.56 (3.18, 5.96) †	6.58 (4.98, 8.20) †	8.09 (6.26, 9.96) †
		Warm season	1.58 (0.12, 3.31)	2.68 (0.69, 4.71)	3.23 (0.92, 5.60)
≥ 65 years	Main model	Full year	2.95 (0.58, 5.36) *	2.15 (0.58, 4.97)	2.49 (0.53, 5.60)
		Cold season	6.03 (3.05, 9.09) †	5.22 (1.74, 8.81) †	5.72 (1.91, 9.67)

Continued

Group	Modelling choices	Season	Percentage increase in onset (95% *CI*)[b]		
			Lag0–2	Lag0–4	Lag0–6
	Lag period: 5 days	Warm season	1.61 (6.14, 3.13)	2.09 (7.39, 3.51)	0.72 (6.86, 5.82)
		Full year	2.91 (0.56, 5.32) *	2.35 (0.42, 5.19)	
		Cold season	6.20 (3.25, 9.23) †	6.25 (2.73, 9.89) †	
	Lag period: 9 days	Warm season	1.94 (6.41, 2.74)	2.85 (8.15, 2.76)	
		Full year	2.62 (0.28, 5.02) *	2.76 (0.09, 5.51) *	2.61 (0.44, 5.74)
		Cold season	6.04 (3.06, 9.11) †	6.42 (3.02, 9.94) †	6.04 (2.18, 10.04)
		Warm season	2.01 (6.52, 2.71)	1.88 (7.13, 3.67)	0.94 (7.08, 5.60)

Note. NO_2, nitrogen dioxide; *CI*, confidence interval; df, degrees of freedom. [a] "All" meant daily onset count, not stratified by sex and age. [b] Estimates were generated using distributed lag linear model, day of the week, holiday, temperature (lag0, natural smooth function, 3df), humidity (lag0, natural smooth function, 3df). * Statistically significant results at the 5% level ($P < 0.05$). † Z test for the difference between the two relative risks of subgroup analysis results at the 5% level ($P < 0.05$).

Supplementary Table S2. Percentage increase (95% *CI*) of first aid volume of neurological diseases for each 10 μg/m^3 increment in NO_2 with adjustment temperature

Group	Season	Percentage increase in onset (95% *CI*)[b]		
		$Temp_{lag0}$[c]	$Temp_{lag0\text{-}14}$[d]	$Temp_{t,l}$[e]
All[a]	Full year	3.68 (2.74, 4.63) *	3.13 (2.19, 4.08) *	3.26 (2.32, 4.21) *
	Cold season	4.94 (3.64, 6.25) †	3.93 (2.66, 5.21) †	4.25 (2.97, 5.55) †
	Warm season	1.23 (0.36, 2.85)	1.26 (0.34, 2.88)	1.12 (0.47, 2.73)
Females	Full year	3.06 (1.77, 4.37) *	3.42 (2.04, 4.83) *	3.58 (2.19, 4.99) *
	Cold season	3.52 (1.83, 5.24) †	4.52 (2.69, 6.39) †	4.79 (2.93, 6.69) †
	Warm season	0.42 (1.85, 2.75)	1.06(1.35,3.53)	0.87 (1.52, 3.33)
Males	Full year	3.76 (2.61, 4.93) *	2.94 (1.80, 4.10) *	3.05 (1.90, 4.21) *
	Cold season	4.90 (3.34, 6.48) †	3.53 (2.01, 5.08)	3.89 (2.35, 5.45) †
	Warm season	1.50 (0.52, 3.57)	1.41 (0.61, 3.47)	1.31 (0.70, 3.37)
< 65 years	Full year	3.74 (2.74, 4.76) *	3.30 (2.30, 4.32) *	3.40 (2.40, 4.42) *
	Cold season	4.65 (3.27, 6.06)	3.82 (2.47, 5.19)	4.15 (2.77, 5.54) †
	Warm season	1.58 (0.12, 3.30)	1.66 (0.04, 3.38)	1.47 (0.22, 3.19)
≥ 65 years	Full year	2.95 (0.58, 5.36) *	1.79 (0.56, 4.18)	2.23 (0.12, 4.65)
	Cold season	6.03 (3.05, 9.09) †	4.14 (1.23, 7.13) †	4.57 (1.63, 7.60) †
	Warm season	1.61 (6.14, 3.13)	1.87 (6.36, 2.84)	1.65 (6.15, 3.07)

Note. NO_2, nitrogen dioxide; *CI*, confidence interval; Temp, temperature. [a]"All" meant daily onset count, not stratified by sex and age. [b]Estimates were generated using distributed lag linear model accumulated over lags 0 to 2 days. [c]$\mathrm{Temp_{lag0}}$ meant currentday temperature, using natural smooth function (3df). [d]$\mathrm{Temp_{lag0-14}}$ meant 14 day moving average temperature, using natural smooth function (3df). [e]$\mathrm{Temp_{t,l}}$ meant crossbasis functions for the two dimensions of exposure and lags, using 14 days as the maximum lag for temperature. *Statistically significant results at the 5% level ($P < 0.05$). †Z test for the difference between the two relative risks of subgroup analysis results at the 5% level ($P < 0.05$).

Supplementary Table S3. Percentage increase (95% *CI*) of first aid volume of neurological diseases for each 10 μg/m^3 increment in NO_2 using different cutoffs

Cutoff	Group	Temperature levels	Percentage increase in onset (95% *CI*)		
			Lag0–2	Lag0–4	Lag0–6
24.70 °C					
	All [a]	Low	5.21 (4.13, 6.31)[†]	6.25 (5.00, 7.51)[†]	7.05 (5.66, 8.46)[†]
		High	2.31 (0.72, 3.93)	3.69 (1.85, 5.56)	4.41 (2.41, 6.46)
	Females	Low	5.51 (3.92, 7.13)[†]	6.32 (4.48, 8.19)[†]	7.16 (5.12, 9.25)[†]
		High	1.86 (0.46, 4.24)	2.50 (0.17, 5.25)	3.46 (0.53, 6.47)
	Males	Low	5.02 (3.70, 6.36)[†]	6.20 (4.67, 7.75)	6.98 (5.28, 8.71)
		High	2.63 (0.68, 4.62)	4.51 (2.25, 6.81)	5.09 (2.63, 7.60)
	< 65 years	Low	5.55 (4.39, 6.73)[†]	6.88 (5.54, 8.24)[†]	7.78 (6.28, 9.29)[†]
		High	2.63 (0.95, 4.34)	4.19 (2.25, 6.17)	4.72 (2.61, 6.88)
	≥ 65 years	Low	2.95 (0.33, 5.63)	1.92 (1.08, 5.01)	2.12 (1.19, 5.54)
		High	0.63 (4.88, 3.80)	0.80 (5.66, 4.31)	1.55 (3.86, 7.26)
23.55 °C [b]					
	All [a]	Low	5.24 (4.14, 6.35)[†]	6.32 (5.04, 7.61)[†]	7.16 (5.74, 8.60)[†]
		High	2.59 (1.09, 4.12)	3.89 (2.17, 5.64)	4.54 (2.66, 6.45)
	Females	Low	5.63 (4.01, 7.27)[†]	6.50 (4.63, 8.41)[†]	7.57 (5.49, 9.70)[†]
		High	2.10 (0.10, 4.34)	2.64 (0.14, 5.20)	3.10 (0.37, 5.90)
	Males	Low	4.98 (3.64, 6.34)	6.19 (4.64, 7.77)	6.88 (5.15, 8.64)
		High	2.95 (1.11, 4.84)	4.76 (2.64, 6.91)	5.54 (3.23, 7.91)
	< 65 years	Low	5.58 (4.40, 6.78)[†]	6.97 (5.60, 8.36)[†]	7.91 (6.38, 9.45)[†]
		High	2.89 (1.29, 4.51)	4.36 (2.54, 6.21)	4.84 (2.86, 6.87)
	≥ 65 years	Low	2.97 (0.31, 5.69)	1.98 (1.07, 5.11)	2.17 (1.18, 5.64)
		High	0.12 (4.12, 4.04)	0.38 (4.91, 4.38)	1.64 (3.40, 6.93)

Note. [a] "All" meant daily onset count, not stratified by sex and age. [b] The 23.55 °C of daily temperature as the cutoff value was the mean temperature. [†] Z test for the difference between the two relative risks of subgroup analysis results at the 5% level ($P < 0.05$).

Supplementary Table S4. Percentage increase (95% *CI*) of first aid volume of neurological diseases for each 10 μg/m^3 increment in NO_2 with and without adjustment for copollutants

Pollution	Group	Effect	Percentage increase in onset (95% *CI*)[b]		
			Lag0–2	Lag0–4	Lag0–6
NO_2					
	All[a]	Full year	3.68 (2.74, 4.63) *	5.27 (4.16, 6.39) *	6.50 (5.27, 7.74) *
		Cold season	4.94 (3.64, 6.25) †	6.55 (5.02, 8.12) †	8.20 (6.50, 9.92) †
		Warm season	1.23 (0.36, 2.85)	2.50 (0.60, 4.44)	2.83 (0.67, 5.04)
	Female	Full year	3.06 (1.77, 4.37) *	3.84 (2.32, 5.38) *	4.93 (3.24, 6.65) *
		Cold season	3.52 (1.83, 5.24) †	4.77 (2.77, 6.82) †	6.09 (3.86, 8.37) †
		Warm season	0.42 (1.85, 2.75)	0.03 (2.72, 2.73)	0.21 (3.27, 2.95)
	Male	Full year	3.76 (2.61, 4.93) *	5.75 (4.38, 7.13) *	6.90 (5.39, 8.43) *
		Cold season	4.90 (3.34, 6.48) †	6.80 (4.94, 8.70) †	8.41 (6.36, 10.50) †
		Warm season	1.50 (0.52, 3.57)	3.38 (0.96, 5.87)	3.81 (1.04, 6.64)
	< 65 years	Full year	3.74 (2.74, 4.76) *	5.65 (4.47, 6.85) *	6.99 (5.68, 8.32) *
		Cold season	4.65 (3.27, 6.06) †	6.60 (4.95, 8.28) †	8.39 (6.57, 10.24) †
		Warm season	1.58 (0.12, 3.30)	3.09 (1.06, 5.16)	3.31 (1.01, 5.67)
	≥ 65 years	Full year	2.95 (0.58, 5.36) *	2.15 (0.58, 4.97)	2.49 (0.53, 5.60)
		Cold season	6.03 (3.05, 9.09) †	5.22 (1.74, 8.81) †	5.72 (1.91, 9.67)
		Warm season	1.61 (6.14, 3.13)	2.09 (7.39, 3.51)	0.72 (6.86, 5.82)
NO_2+PM_{10}					
	All[a]	Full year	4.05 (2.98, 5.14) *	5.98 (4.70, 7.28) *	7.59 (6.14, 9.05) *
		Cold season	4.82 (3.31, 6.35) †	7.00 (5.18, 8.85) †	9.11 (7.06, 11.20) †
		Warm season	1.28 (0.59, 3.19)	2.22 (0.05, 4.43)	2.36 (0.06, 4.85)
	Female	Full year	3.75 (2.17, 5.35) *	4.95 (3.08, 6.86) *	6.43 (4.32, 8.57) *
		Cold season	5.53 (3.38, 7.72) †	7.43 (4.84, 10.09) †	9.73 (6.79, 12.74) †
		Warm season	0.87 (1.82, 3.62)	0.60 (2.50, 3.80)	0.01 (3.50, 3.60)
	Male	Full year	4.27 (2.95, 5.60) *	6.70 (5.12, 8.30) *	8.40 (6.62, 10.20) *
		Cold season	5.02 (3.24, 6.82)	7.38 (5.23, 9.58) †	9.53 (7.11, 12.02) †
		Warm season	2.17 (0.10, 4.49)	3.83 (1.16, 6.57)	4.43 (1.39, 7.56)
	< 65 years	Full year	4.11 (2.97, 5.27) *	6.35 (4.98, 7.73) *	8.07 (6.53, 9.64) *
		Cold season	5.02 (3.24, 6.82) †	7.38 (5.23, 9.58) †	9.53 (7.11, 12.02) †
		Warm season	2.17 (0.10, 4.49)	3.83 (1.16, 6.57)	4.43 (1.39, 7.56)
	≥ 65 years	Full year	3.34 (0.59, 6.16) *	3.01 (0.22, 6.34)	3.67 (0.07, 7.40) *
		Cold season	7.25 (3.72, 10.91) †	7.26 (3.05, 11.65) †	8.64 (3.92, 13.58) †
		Warm season	2.23 (7.21, 3.03)	3.55 (9.27, 2.53)	2.96 (9.52, 4.07)
NO_2 + $PM_{2.5}$					
	All [a]	Full year	4.25 (3.12, 5.40) *	6.22 (4.86, 7.61) *	7.88 (6.33, 9.46) *
		Cold season	5.64 (4.10, 7.21) †	8.06 (6.17, 9.99) †	10.57 (8.39, 12.79) †
		Warm season	1.50 (0.48, 3.52)	2.34 (0.03, 4.70)	2.30 (0.27, 4.93)

Continued

Pollution	Group	Effect	Percentage increase in onset (95% *CI*)[b]		
			Lag0–2	Lag0–4	Lag0–6
	Female	Full year	4.45 (2.78, 6.15) *	5.74 (3.73, 7.78) *	7.31 (5.03, 9.64) *
		Cold season	6.20 (3.96, 8.49) †	8.30 (5.54, 11.12) †	11.05 (7.86, 14.33) †
		Warm season	1.70 (1.17, 4.65)	1.28 (2.06, 4.74)	0.39 (3.33, 4.25)
	Male	Full year	4.14 (2.75, 5.54) *	6.58 (4.90, 8.28) *	8.30 (6.39, 10.24) *
		Cold season	5.17 (3.33, 7.05) †	7.63 (5.35, 9.95) †	9.97 (7.35, 12.65) †
		Warm season	1.86 (0.54, 4.31)	3.52 (0.68, 6.44)	4.07 (0.86, 7.38)
	< 65 years	Full year	4.30 (3.09, 5.52) *	6.53 (5.07, 8.01) *	8.30 (6.64, 9.99) *
		Cold season	5.22 (3.58, 6.89) †	7.78 (5.76, 9.84) †	10.37 (8.04, 12.76) †
		Warm season	2.09 (0.07, 4.14)	3.16 (0.79, 5.59)	3.10 (0.44, 5.83)
	≥ 65 years	Full year	3.65 (0.79, 6.59) *	3.66 (0.25, 7.18) *	4.47 (0.61, 8.47) *
		Cold season	7.04 (3.41, 10.80) †	7.41 (3.01, 12.01) †	9.17 (4.14, 14.44) †
		Warm season	1.10 (6.42, 4.53)	2.41 (8.57, 4.18)	2.24 (9.24, 5.30)
$NO_2 + SO_2$					
	All [a]	Full year	4.74 (3.61, 5.87) *	6.78 (5.42, 8.15) *	8.38 (6.84, 9.94) *
		Cold season	6.31 (4.76, 7.89) †	8.71 (6.83, 10.62) †	11.05 (8.93, 13.22) †
		Warm season	1.39 (0.66, 3.47)	2.37 (0.05, 4.75)	2.77 (0.20, 5.40)
	Female	Full year	4.77 (3.11, 6.45) *	6.05 (4.07, 8.08) *	7.63 (5.38, 9.93) *
		Cold season	6.53 (5.00, 8.07) †	8.95 (7.08, 10.85) †	11.31 (9.18, 13.48) †
		Warm season	1.48 (0.49, 3.49)	2.48 (0.20, 4.80)	2.87 (0.33, 5.47)
	Male	Full year	4.73 (3.35, 6.12) *	7.29 (5.62, 8.98) *	8.91 (7.02, 10.83) *
		Cold season	6.30 (4.46, 8.18) †	8.93 (6.67, 11.23) †	11.09 (8.53, 13.72) †
		Warm season	1.71 (0.80, 4.27)	3.82 (0.90, 6.82)	4.93 (1.65, 8.30)
	< 65 years	Full year	4.72 (3.51, 5.93) *	7.07 (5.61, 8.54) *	8.81 (7.16, 10.49) *
		Cold season	6.02 (4.39, 7.68) †	8.73 (6.72, 10.78) †	11.26 (8.97, 13.59) †
		Warm season	2.11 (0.00, 4.26)	3.34 (0.89, 5.84)	3.70 (0.98, 6.49)
	≥ 65 years	Full year	4.71 (1.90, 7.60) *	4.49 (1.18, 7.91) *	5.01 (1.32, 8.84) *
		Cold season	9.13 (5.56, 12.81) †	9.33 (5.07, 13.76) †	10.37 (5.62, 15.33) †
		Warm season	3.50 (8.83, 2.14)	4.02 (10.02, 2.37)	3.19 (9.92, 4.04)

Note. NO_2, nitrogen dioxide; SO_2, sulfur dioxide; PM_{10}, particulate matter with aerodynamic diameter equal to or less than 10μm; *CI*, confidence interval. [a] "All" meant daily onset count, not stratified by sex and age. [b] Estimates were generated using distributed lag linear model, adjusted for calendar day [natural cubic spline with 5 df for full year and 3 df for seasonal analysis], day of the week, holiday, temperature (lag0, natural smooth function, 3df), humidity (lag0, natural smooth function, 3df). To examine the lag effect of NO_2 on mortality, we used 7day lag distributed lag linear model. * Statistically positive significant results at the 5% level ($P < 0.05$). † Z test for the difference between the two relative risks of subgroup analysis results at the 5% level ($P < 0.05$).

Supplementary Table S5. Percentage increase (95% *CI*) of first aid volume of neurological diseases for each 10 μg/m^3 increment in NO_2 with and without adjustment for co-pollutants across temperature levels

Pollution	Group	Temperature levels [b]	Percentage increase in death (95% *CI*)		
			Lag0–2	Lag0–4	Lag0–6
NO_2					
	All [a]	Low	5.21 (4.13, 6.31) [†]	6.25 (5.00, 7.51) [†]	7.05 (5.66, 8.46) [†]
		High	2.31 (0.72, 3.93)	3.69 (1.85, 5.56)	4.41 (2.41, 6.46)
	Females	Low	5.51 (3.92, 7.13) [†]	6.32 (4.48, 8.19) [†]	7.16 (5.12, 9.25) [†]
		High	1.86 (−0.46, 4.24)	2.50 (−0.17, 5.25)	3.46 (0.53, 6.47)
	Males	Low	5.02 (3.70, 6.36) [†]	6.20 (4.67, 7.75)	6.98 (5.28, 8.71)
		High	2.63 (0.68, 4.62)	4.51 (2.25, 6.81)	5.09 (2.63, 7.60)
	< 65 years	Low	5.55 (4.39, 6.73) [†]	6.88 (5.54, 8.24) [†]	7.78 (6.28, 9.29) [†]
		High	2.63 (0.95, 4.34)	4.19 (2.25, 6.17)	4.72 (2.61, 6.88)
	≥ 65 years	Low	2.95 (0.33, 5.63)	1.92 (−1.08, 5.01)	2.12 (−1.19, 5.54)
		High	−0.63 (−4.88, 3.80)	−0.80 (−5.66, 4.31)	1.55 (−3.86, 7.26)
NO_2+PM_{10}					
	All [a]	Low	5.70 (4.47, 6.94) [†]	7.34 (5.89, 8.81) [†]	8.40 (6.78, 10.05) [†]
		High	2.77 (1.08, 4.49)	4.71 (2.74, 6.72)	5.72 (3.54, 7.93)
	Females	Low	5.71 (3.91,7.55) [†]	6.78 (4.66, 8.94) [†]	7.66 (5.29, 10.08) [†]
		High	2.05 (−0.41,4.57)	2.92 (0.07, 5.85)	3.92 (0.78, 7.16)
	Males	Low	5.70 (4.20,7.23) [†]	7.74 (5.96, 9.54)	8.92 (6.93, 10.94)
		High	3.29 (1.22,5.41)	5.97 (3.54, 8.45)	6.98 (4.31, 9.72)
	< 65 years	Low	5.96 (4.64,7.29) [†]	7.93 (6.38, 9.50) [†]	9.08 (7.35, 10.85) [†]
		High	3.02 (1.23,4.83)	5.17 (3.09, 7.29)	5.98 (3.69, 8.32)
	≥ 65 years	Low	4.02 (0.97,7.16)	3.37 (−0.18, 7.04)	3.83 (−0.11, 7.91)
		High	0.37 (−4.14,5.10)	0.55 (−4.65, 6.04)	3.24 (−2.61, 9.44)
NO_2+$PM_{2.5}$					
	All[a]	Low	5.71 (4.42, 7.01) [†]	7.48 (5.95, 9.04) [†]	8.66 (6.93, 10.41) [†]
		High	2.79 (1.06, 4.56)	4.87 (2.83, 6.94)	5.97 (3.72, 8.27)
	Females	Low	6.35 (4.46, 8.28) [†]	7.54 (5.29, 9.84) [†]	8.45 (5.92, 11.05) [†]
		High	2.68 (0.14, 5.28)	3.65 (0.69, 6.69)	4.68 (1.41, 8.06)
	Males	Low	5.29 (3.73, 6.88) [†]	7.46 (5.59, 9.36)	8.81 (6.70, 10.97)
		High	2.91 (0.79, 5.07)	5.73 (3.23, 8.28)	6.88 (4.11, 9.72)
	< 65 years	Low	5.93 (4.56, 7.32) [†]	8.01 (6.37, 9.67) [†]	9.25 (7.4, 11.14) [†]
		High	3.00 (1.17, 4.87)	5.26 (3.12, 7.46)	6.15 (3.77, 8.57)
	≥ 65 years	Low	4.26 (1.10, 7.53)	3.93 (0.20, 7.80)	4.70 (0.52, 9.06)
		High	0.65 (−3.96, 5.49)	1.13 (−4.23, 6.78)	4.13 (−1.92, 10.57)
NO_2+SO_2					
	All [a]	Low	6.07 (4.81, 7.34) [†]	7.76 (6.26, 9.29) [†]	8.90 (7.20, 10.63) [†]
		High	3.24 (1.50, 5.01)	5.09 (3.08, 7.14)	6.14 (3.92, 8.41)
	Females	Low	6.36 (4.51, 8.25) [†]	7.56 (5.34, 9.82) [†]	8.60 (6.11, 11.15) [†]
		High	2.78 (0.23, 5.39)	3.63 (0.71, 6.63)	4.77 (1.55, 8.10)

Continued

Pollution	Group	Temperature levels [b]	Percentage increase in death (95% *CI*)		
			Lag0–2	Lag0–4	Lag0–6
	Males	Low	5.89 (4.35, 7.44) [†]	7.92 (6.07, 9.79)	9.12 (7.04, 11.25)
		High	3.58 (1.45, 5.76)	6.11 (3.64, 8.65)	7.10 (4.37, 9.91)
	< 65 years	Low	6.25 (4.91, 7.62) [†]	8.31 (6.69, 9.95) [†]	9.55 (7.72, 11.41) [†]
		High	3.39 (1.55, 5.27)	5.50 (3.38, 7.68)	6.37 (4.02, 8.77)
	≥ 65 years	Low	5.01 (1.94, 8.16)	4.30 (0.70, 8.02)	4.67 (0.68, 8.83)
		High	1.56 (−3.07, 6.40)	1.34 (−3.90, 6.86)	3.92 (−1.96, 10.15)

Note. NO_2, nitrogen dioxide; SO_2, sulfur dioxide; PM_{10}, particulate matter with aerodynamic diameter equal to or less than 10 μm; *CI*, confidence interval. [a]"All" meant daily onset count, not stratified by sex and age. [b]Using the median of temperature (24.70 °C) as the cut-off value. [*] Statistically significant results at the 5% level ($P < 0.05$). [†] Z test for the difference between the two relative risks of subgroup analysis results at the 5% level ($P < 0.05$).

Supplementary Table S6. Percentage increase (95% *CI*) of first aid volume of neurological diseases for each 10 μg/m^3 increment in NO2 with a binary variable in model to indicate whether the period was affected by the pandemic

Group	Season/Temperature	Percentage increase in death (95% *CI*)[b]		
		Lag0–2	Lag0–4	Lag0–6
All[a]	Full year	3.47 (2.53, 4.42) *	4.95 (3.84, 6.07) *	6.01 (4.78, 7.25) *
	Cold season	4.43 (3.15, 5.73) †	5.80 (4.27, 7.34) †	7.11 (5.42, 8.83) †
	Warm season	1.24 (0.35, 2.86)	2.54 (0.65, 4.47)	2.88 (0.72, 5.09)
	Low temperature	4.80 (3.72, 5.90) †	5.72 (4.46, 6.99) †	6.42 (5.02, 7.83) †
	High temperature	2.17 (0.59, 3.77)	3.47 (1.64, 5.33)	4.13 (2.13, 6.16)
Female	Full year	3.37 (1.99, 4.78) *	4.28 (2.65, 5.93) *	5.47 (3.66, 7.31) *
	Cold season	4.45 (2.58, 6.35) †	5.36 (3.15, 7.63) †	6.71 (4.25, 9.22) †
	Warm season	0.89 (1.51, 3.36)	1.35 (1.50,4.28)	1.58 (1.67, 4.94)
	Low temperature	5.14 (3.54, 6.76) †	5.83 (3.98, 7.71) †	6.57 (4.51, 8.67) †
	High temperature	1.74 (0.58, 4.11)	2.31 (0.36, 5.05)	3.20 (0.28, 6.21)
Male	Full year	3.53 (2.38, 4.70) *	5.40 (4.04, 6.78) *	6.38 (4.87, 7.91) *
	Cold season	4.41 (2.86, 5.99) †	6.07 (4.22, 7.96) †	7.36 (5.31, 9.45) †
	Warm season	1.51 (0.52, 3.58)	3.41(0.98, 5.89)	3.84 (1.08, 6.67)
	Low temperature	4.58 (3.26, 5.92)	5.64 (4.11, 7.20)	6.31 (4.60, 8.05)
	High temperature	2.48 (0.54, 4.45)	4.27 (2.03, 6.57)	4.78 (2.33, 7.28)
< 65 years	Full year	3.51 (2.51, 4.52) *	5.30 (4.12, 6.50) *	6.46 (5.15, 7.79) *
	Cold season	4.15 (2.78, 5.54) †	5.85 (4.21, 7.51) †	7.31 (5.49, 9.16) †
	Warm season	1.59 (0.11, 3.31)	3.12 (1.09, 5.18)	3.34 (1.04, 5.70)
	Low temperature	5.10 (3.94, 6.28) †	6.31 (4.96, 7.67) †	7.08 (5.58, 8.60) †
	High temperature	2.47 (0.80, 4.17)	3.95 (2.02, 5.91)	4.41 (2.30, 6.55)
≥ 65 years	Full year	2.88 (0.51, 5.30) *	2.05 (0.70 ,4.87)	2.33 (0.71, 5.47)
	Cold season	5.59 (2.62, 8.66) †	4.57 (1.08 ,8.18)	4.79 (0.96, 8.77)
	Warm season	1.61 (6.13, 3.11)	1.92 (7.21, 3.67)	0.46 (6.6, 6.08)
	Low temperature	2.83 (0.20, 5.54)	1.75 (1.28, 4.86)	1.91 (1.44, 5.37)
	High temperature	0.66 (4.91, 3.77)	0.85 (5.71, 4.26)	1.46 (3.94, 7.18)

Note. NO_2, nitrogen dioxide; *CI*, confidence interval; Temp, temperature. [a] "All" meant daily death count, not stratified by sex and age. [b]Estimates were generated using distributed lag linear model, adjusted for calendar day [natural cubic spline with 5 df for full year and 3 df for seasonal analysis], day of the week, holiday, temperature (lag0, natural smooth function, 3df), humidity (lag0, natural smooth function, 3df). To examine the lag effect of NO_2 on mortality, we used 7day lag distributed lag linear model. *Statistically significant results at the 5% level ($P < 0.05$). †Z test for the difference between the two relative risks of subgroup analysis results at the 5% level ($P < 0.05$).