

**eTable 1:** Monitoring stations and summary statistics for the 11 pollutants investigated\*.

Pollutant	Place	Days	Mean	percentile				
				5th	25th	50th	75th	95th
PM <sub>10</sub> 24 hr (µg/m <sup>3</sup> )	London Eltham	2621	18.7	10	13	16	22	36
	London Bexley	3125	20.7	9	13	18	25	43
	London Bloomsbury	2736	24.8	13	18	22	29	47
	London Brent	2704	18.9	9	13	17	22	36
	London N Kensington	2752	21.1	11	15	19	24	40
	London Hillingdon	2572	21.1	10	15	19	25	40
	London average (6 monitors)	3266	21.6	11	15	19	25	43
	Canterbury	1062	18.9	11	14	17	22	35
	Reading	1878	16.5	7	11	15	20	32
	Southampton Centre	2991	21.0	11	15	19	25	38
	Portsmouth	1042	17.9	10	13	17	20	32
	Thurrock	2365	20.4	9	13	18	25	41
Southend-on-sea	1144	15.2	7	10	13	18	31	
PM <sub>2.5</sub> 24 hr (µg/m <sup>3</sup> )	London Bloomsbury	1988	14.2	7	10	13	17	27
BS 24 hr (µg/m <sup>3</sup> )	Ealing 7	1907	10.0	2	4	7	13	26
	Enfield 14	2937	7.5	1	3	5	9	22
	Greenwich 9	2973	8.9	2	4	6	12	23
	Ilford 6	2995	10.7	3	5	9	13	26
	London City 16	3037	11.2	2	5	9	14	27
	Westminster 17	2144	11.5	2	5	9	15	29
	Woolwich 9	2636	6.5	1	3	5	8	18
	London Average (5 monitors)	3266	8.9	3	5	7	11	21
	Eastbourne 5	2110	4.4	1	1	3	6	14
	Portsmouth 10	1973	5.3	1	2	4	6	14
	Slough 16	2659	8.5	3	5	6	10	20
	Bletchley 2	2251	5.2	1	2	4	6	15
SO <sub>4</sub> <sup>=</sup> 24 hr (µg/m <sup>3</sup> )	Barcombe Mills	3077	3.2	1	2	2	4	8
PNC 24 hr (no/cm <sup>3</sup> )	London N Kensington	915	19478.2	7952	13299	18166	23874	35724
NO <sub>2</sub> 24 hr (µg/m <sup>3</sup> )	London Eltham	2704	18.2	7	12	17	23	34
	London Bexley	3081	19.9	8	13	19	25	35
	London Southwark	2173	27.1	15	21	26	32	42
	London Hackney	2330	28.3	14	21	27	34	46
	London Bloomsbury	2654	33.2	19	27	32	38	49
	London Brent	2736	18.8	7	12	17	24	35
	London N Kensington	2724	23.0	10	16	22	28	40
	London Hillingdon	2213	26.5	11	19	26	33	44
	West London	3212	27.1	13	20	26	32	44
	London Teddington	2604	15.9	4	9	14	22	32
	London Wandsworth	2688	27.3	11	19	27	35	46
	London Westminster	804	23.4	9	17	23	29	38
	London Lewisham	1677	28.0	16	23	27	33	43
	London Bridge Place	1741	32.3	17	24	31	38	52
	London Sutton	2120	18.1	8	13	17	23	31
	London average (8 monitors)	3264	23.5	11	17	22	29	39
	Canterbury	1028	10.3	3	6	9	14	22
	Reading	53	17.8	6	12	18	22	33
	Southampton Centre	3018	20.8	10	15	20	25	34
	Portsmouth	1048	13.8	5	9	13	18	25
	Thurrock	2446	19.1	8	13	18	24	32
Southend-on-sea	1130	13.0	5	8	12	16	25	

eTable 1 (continued)

Pollutant	Place	Days	Mean	percentile				
				5th	25th	50th	75th	95th
NO 24 hr ( $\mu\text{g}/\text{m}^3$ )	London Eltham	2684	14.5	1	3	6	14	56
	London Bexley	3095	18.2	2	5	8	19	66
	London Southwark	2168	29.0	6	13	20	33	81
	London Hackney	2366	35.5	5	12	22	43	104
	London Bloomsbury	2658	35.4	8	16	26	43	91
	London Brent	2738	15.7	1	2	5	15	67
	London N Kensington	2713	19.0	2	4	8	20	71
	London Hillingdon	2442	53.4	4	19	40	71	141
	West London	3216	26.1	4	10	17	30	78
	London Teddington	2606	11.0	1	2	3	9	48
	London Wandsworth	2710	45.2	5	14	32	60	127
	London Westminster	808	18.7	2	6	12	25	57
	London Lewisham	1729	40.0	7	19	30	48	103
	London Bridge Place	1741	30.9	6	12	19	34	96
	London Sutton	2120	17.9	2	4	8	17	74
	London average (8 monitors)	3266	23.9	3	8	15	27	74
	Canterbury	1032	6.1	1	2	3	6	21
	Reading	1886	21.4	2	7	14	25	65
	Southampton Centre	3028	24.9	5	10	16	28	80
	Portsmouth	1051	8.2	1	2	4	8	30
Thurrock	2449	19.0	1	4	9	20	71	
Southend-on-sea	1134	7.6	1	3	4	8	27	
NO <sub>x</sub> 24 hr ( $\mu\text{g}/\text{m}^3$ )	London Eltham	2682	32.6	9	16	23	38	87
	London Bexley	330	44.5	13	22	32	52	117
	London Southwark	2161	55.9	24	35	47	65	119
	London Hackney	2354	63.6	21	34	49	78	143
	London Bloomsbury	318	71.8	35	49	62	82	139
	London Brent	2709	34.3	8	15	23	39	97
	London N Kensington	2725	41.8	13	20	30	48	105
	London Hillingdon	2218	79.8	16	40	67	103	180
	West London	344	61.8	25	39	50	73	131
	London Teddington	2606	26.9	5	10	18	31	77
	London Wandsworth	2706	72.4	17	35	61	95	165
	London Westminster	761	43.4	13	24	38	55	95
	London Lewisham	1684	68.2	24	43	58	81	142
	London Bridge Place	337	67.0	28	41	55	81	143
	London Sutton	2120	36.0	11	18	26	39	102
	London average (5 monitors)	2871	41.9	12	21	32	50	104
	Canterbury	1031	16.5	3	8	13	20	44
	Reading	1886	40.3	11	22	33	49	97
	Southampton Centre	246	58.0	20	34	47	68	127
	Portsmouth	1050	22.0	7	11	17	26	54
Thurrock	2445	38.0	9	18	28	44	101	
Southend-on-sea	1134	20.9	7	12	16	24	49	

eTable 1 (continued)

Pollutant	Place	Days	Mean	percentile				
				5th	25th	50th	75th	95th
O <sub>3</sub> 8 hr max (µg/m <sup>3</sup> )	London Eltham	2660	18.8	3	11	19	25	35
	London Bexley	3140	18.5	3	11	19	25	35
	London Southwark	2346	15.8	3	9	15	21	32
	London Hackney	2207	14.9	2	8	15	20	29
	London Haringey	2699	16.4	2	9	16	23	32
	London Bloomsbury	3113	11.1	2	6	10	15	25
	London Brent	2699	18.4	3	11	18	25	35
	London N Kensington	2759	16.3	2	9	16	22	32
	London Hillingdon	2561	12.0	2	6	10	16	28
	London Teddington	2588	21.7	3	14	22	29	39
	London Wandsworth	2757	12.8	1	6	11	19	29
	London Westminster	842	15.3	2	8	15	21	32
	London Lewisham	1682	12.0	2	6	11	16	26
	London Bridge Place	1581	12.8	3	7	12	17	27
	London Sutton	2203	17.2	2	10	17	23	32
	London average (9 monitors)	3265	15.9	3	9	16	21	31
	Reading	1900	18.7	6	12	18	24	35
	Southampton Centre	3004	17.3	4	11	17	23	32
	Portsmouth	227	27.0	9	20	27	34	49
	Thurrock	2515	18.8	3	11	18	26	36
Southend-on-sea	1149	22.1	5	15	23	29	39	
SO <sub>2</sub> 24 hr (µg/m <sup>3</sup> )	London Eltham	2659	2.7	0	1	2	3	8
	London Bexley	3075	4.2	1	2	3	5	13
	London Southwark	2349	3.0	1	2	2	4	8
	London Bloomsbury	3019	5.5	1	2	4	7	17
	London Brent	2764	2.3	0	1	2	3	8
	London N Kensington	2769	2.8	0	1	2	3	8
	London Hillingdon	2559	3.9	2	3	3	5	8
	London Teddington	2624	2.4	0	1	2	3	7
	London Westminster	810	2.7	0	1	2	4	9
	London Lewisham	1798	2.7	0	1	2	3	8
	London Bridge Place	1677	5.0	0	2	4	6	13
	London average (7 monitors)	3266	3.9	1	2	3	5	11
	Reading	1861	2.7	1	2	2	3	6
	Southampton Centre	2938	3.0	1	2	3	4	6
	Portsmouth	963	1.5	0	1	1	2	4
Thurrock	1976	3.2	0	1	3	4	8	
Southend-on-sea	1141	3.6	2	2	3	4	7	
CO 24 hr (mg/m <sup>3</sup> )	London Bexley	2980	0.4	0	0	0	0	1
	London Southwark	2335	0.5	0	0	0	1	1
	London Hackney	2336	0.5	0	0	0	1	1
	London Bloomsbury	3038	0.6	0	0	1	1	1
	London Brent	2798	0.3	0	0	0	0	1
	London N Kensington	2674	0.4	0	0	0	1	1
	London Hillingdon	2483	0.6	0	0	1	1	1
	West London	3178	0.4	0	0	0	1	1
	London Westminster	842	0.4	0	0	0	1	1
	London Bridge Place	1664	0.7	0	1	1	1	1
	London average (5 monitors)	3262	0.5	0	0	0	1	1
	Reading	1728	0.5	0	0	0	1	1
	Southampton Centre	2989	0.6	0	0	1	1	1
	Portsmouth	610	0.2	0	0	0	0	0
	Thurrock	2499	0.4	0	0	0	0	1
Southend-on-sea	1140	0.3	0	0	0	0	1	
Mean temp(°C)	Heathrow weather station	3262	11.7	3	7	12	16	21

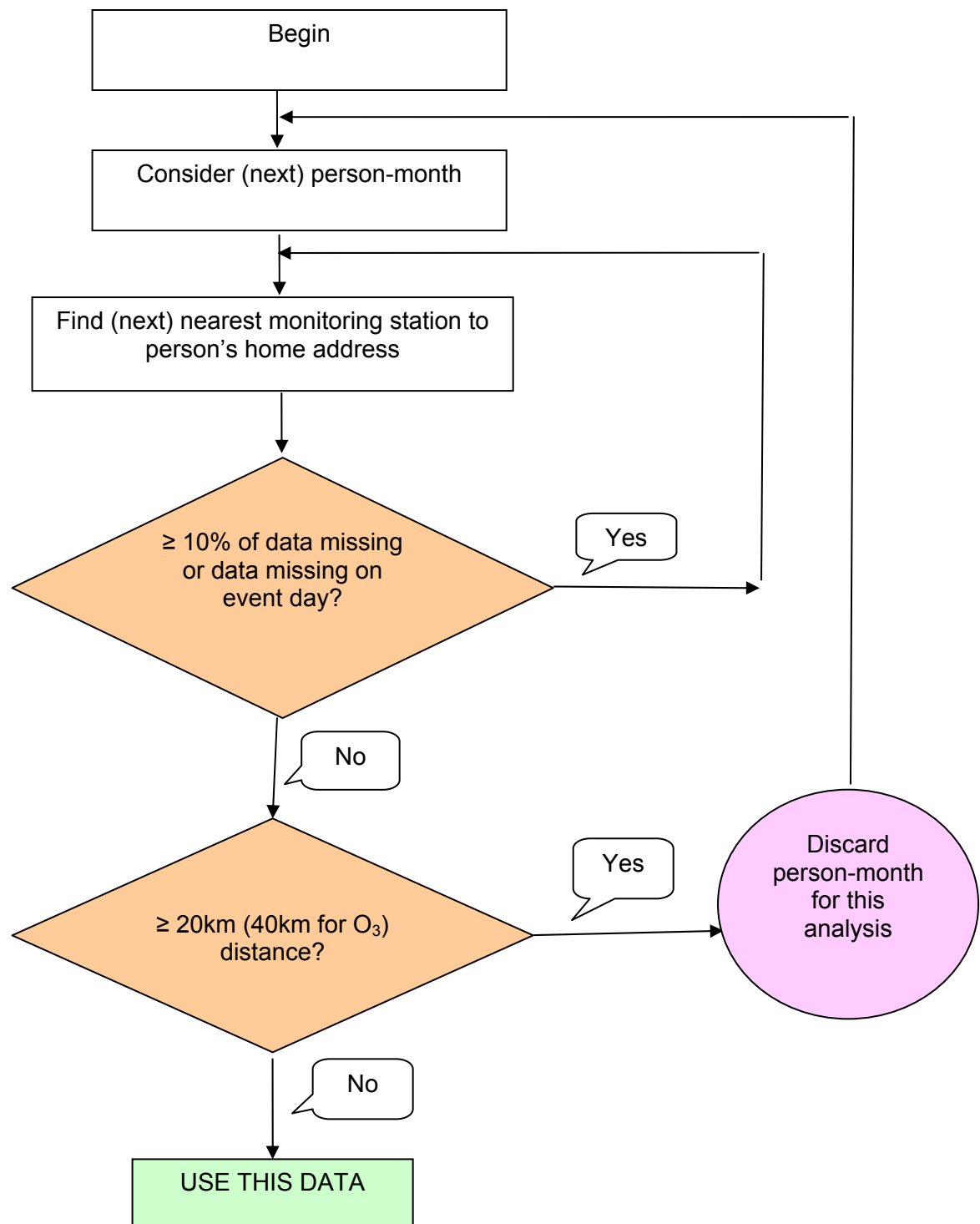
\* Methods of measurement. PM10 and PM2.5, tapered element oscillating microbalance (TEOM - data are the raw output from the instrument, without any adjustment to gravimetric-equivalent); BS, reflectance method using 24 hour integrated filter samples according to method BS 1747: part II; SO<sub>4</sub><sup>2-</sup>, sampled by filter followed by water extraction and analysis by ion chromatography; PNC, condensation particle counter model 3022A supplied by TSI having a 50% lower cut-point of 7 nm; NO<sub>2</sub>, NO, NO<sub>x</sub>, chemiluminescence; O<sub>3</sub>, ultraviolet light absorption; SO<sub>2</sub>, ultraviolet fluorescence; CO, infrared absorption.

**eTable 2:** Correlations between monitors in London and South East measuring PM<sub>10</sub> or BS

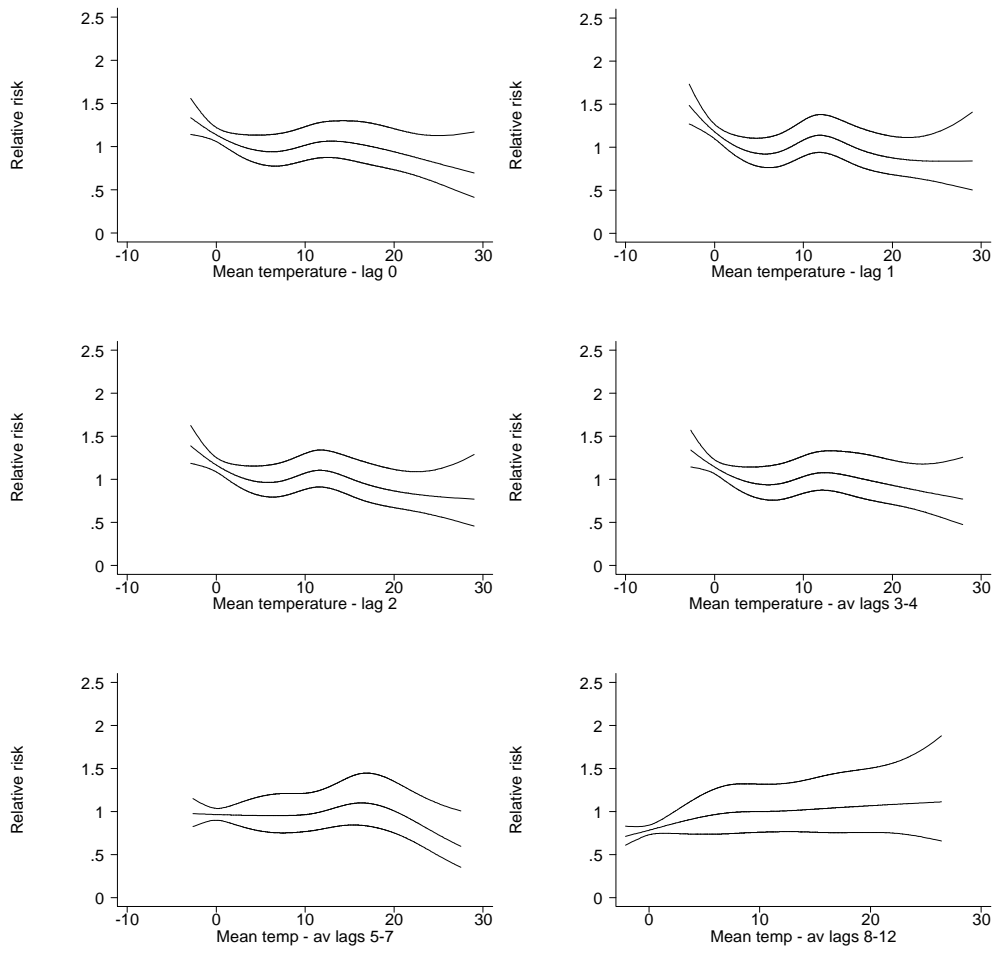
PM <sub>10</sub>		London						Canterbury	Reading	Southampton	Portsmouth	Thurrock	Southend-on-sea
		Eltham	Bexley	Bloomsbury	Brent	N Kensington	Hillingdon						
London	Eltham	1.00											
	Bexley	0.94	1.00										
	Bloomsbury	0.77	0.80	1.00									
	Brent	0.92	0.93	0.80	1.00								
	N Kensington	0.94	0.94	0.79	0.95	1.00							
	Hillingdon	0.86	0.87	0.70	0.89	0.91	1.00						
South East	Canterbury	0.90	0.89	0.74	0.86	0.86	0.79	1.00					
	Reading	0.76	0.72	0.57	0.68	0.75	0.67	0.68	1.00				
	Southampton	0.84	0.85	0.74	0.85	0.87	0.85	0.80	0.69	1.00			
	Portsmouth	0.82	0.81	0.71	0.80	0.82	0.76	0.82	0.68	0.89	1.00		
	Thurrock	0.79	0.82	0.72	0.77	0.77	0.69	0.75	0.57	0.73	0.66	1.00	
	Southend-on-sea	0.90	0.90	0.75	0.88	0.88	0.83	0.92	0.66	0.80	0.78	0.79	1.00

BS		London							Slough	Eastbourne	Portsmouth	Bletchley
		Enfield	Greenwich	Ilford	City	Westminster	Woolwich	Ealing				
London	Enfield	1.00										
	Greenwich	0.70	1.00									
	Ilford	0.71	0.73	1.00								
	City	0.52	0.59	0.55	1.00							
	Westminster	0.69	0.79	0.73	0.67	1.00						
	Woolwich	0.55	0.74	0.57	0.49	0.70	1.00					
	Ealing	0.70	0.77	0.70	0.59	0.84	0.68	1.00				
South East	Slough	0.70	0.74	0.78	0.52	0.74	0.65	0.77	1.00			
	Eastbourne	0.47	0.35	0.32	0.35	0.42	0.34	0.41	0.34	1.00		
	Portsmouth	0.44	0.40	0.46	0.28	0.37	0.35	0.37	0.49	0.21	1.00	
	Bletchley	0.28	0.39	0.30	0.44	0.48	0.35	0.45	0.30	0.18	0.26	1.00

**eFigure 1:** Method of assignment of pollutant measure to activation days



eFigure 2 : Relationship between temperature and ICD activation.



**eTable 3:** Correlations between daily concentrations of pollutants used in the analysis.

<b>Pollutant</b>	<b>No of stations</b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>	<b>BS</b>	<b>SO<sub>4</sub><sup>=</sup></b>	<b>PNC</b>	<b>NO<sub>2</sub></b>	<b>NO</b>	<b>NO<sub>x</sub></b>	<b>O<sub>3</sub></b>	<b>SO<sub>2</sub></b>	<b>CO</b>	<b>Mean temp</b>
PM <sub>10</sub>	6	1.00											
PM <sub>2.5</sub>	1	0.88	1.00										
BS	5	0.50	0.42	1.00									
SO <sub>4</sub> <sup>=</sup>	1	0.41	0.55	0.11	1.00								
PNC	1	0.22	0.28	0.13	0.07	1.00							
NO <sub>2</sub>	8	0.52	0.48	0.44	0.20	0.38	1.00						
NO	8	0.55	0.43	0.59	0.05	0.34	0.65	1.00					
NO <sub>x</sub>	5	0.53	0.42	0.60	0.07	0.38	0.71	0.97	1.00				
O <sub>3</sub>	9	-0.29	-0.25	-0.37	-0.05	-0.30	-0.65	-0.55	-0.59	1.00			
SO <sub>2</sub>	7	0.48	0.42	0.35	0.19	0.29	0.60	0.44	0.49	-0.36	1.00		
CO	5	0.52	0.46	0.53	0.08	0.39	0.53	0.84	0.83	-0.49	0.35	1.00	
Mean temp	1	-0.03	-0.02	-0.21	0.03	-0.38	-0.24	-0.28	-0.36	0.42	-0.12	-0.31	1.00

**eTable 4:** Odds ratios and 95% confidence intervals for the main analysis (as shown in Table 3 of the main text) and for London residents only (linked vs unlinked analysis).

Pollutant - 24 hr average	Linked analysis	Linked analysis	Linked analysis for London	Linked analysis for London	Unlinked analysis for London	Unlinked analysis for London
	0-1 days OR (95% CI)	0-5 days OR (95% CI)	0-1 days OR (95% CI)	0-5 days OR (95% CI)	0-1 days OR (95% CI)	0-5 days OR (95% CI)
	(no. patients / activation-days)		(no. patients / activation-days)		(no. patients / activation-days)	
PM <sub>10</sub> (µg/m <sup>3</sup> )	1.003 (0.946, 1.065) 409/3075	0.951 (0.871, 1.039)	1.029 (0.964, 1.100) 308/2460	0.974 (0.883, 1.075)	1.045 (0.978, 1.116) 312/2525	1.002 (0.912, 1.102)
PM <sub>2.5</sub> (µg/m <sup>3</sup> ) <sup>a</sup>	1.012 (0.919, 1.115) 386/2474	1.016 (0.886, 1.164)	1.040 (0.932, 1.160) 280/1886	1.069 (0.915, 1.250)	1.042 (0.938, 1.158) 289/2132	1.058 (0.909, 1.232)
Black Smoke (µg/m <sup>3</sup> )	0.992 (0.916, 1.074) 368/2790	0.975 (0.861, 1.104)	1.011 (0.931, 1.098) 304/2433	0.975 (0.855, 1.111)	0.999 (0.895, 1.115) 312/2525	0.938 (0.790, 1.114)
SO <sub>4</sub> <sup>=</sup> (µg/m <sup>3</sup> ) <sup>b</sup>	1.025 (1.003, 1.047) 705/5462	1.009 (0.977, 1.041)			1.043 (1.009, 1.078) 308/2367	1.042 (0.994, 1.092)
PNC (no/cm <sup>3</sup> ) <sup>c</sup>	0.985 (0.956, 1.016) 55/206	1.000 (0.956, 1.047)	(Same since all patients within radius of single London monitor)		1.000 (0.989, 1.010) 220/1015	1.004 (0.985, 1.025)
NO <sub>2</sub> (µg/m <sup>3</sup> )	0.981 (0.912, 1.055) 415/3168	0.979 (0.886, 1.082)	0.996 (0.930, 1.064) 312/2519	1.005 (0.908, 1.114)	0.975 (0.904, 1.052) 312/2525	0.979 (0.874, 1.096)
NO (µg/m <sup>3</sup> )	0.996 (0.980, 1.013) 426/3224	0.986 (0.959, 1.013)	0.996 (0.977, 1.012) 312/2519	0.994 (0.963, 1.025)	0.983 (0.961, 1.006) 312/2525	0.970 (0.936, 1.007)
NO <sub>x</sub> (µg/m <sup>3</sup> )	0.995 (0.981, 1.009) 425/3166	0.986 (0.965, 1.009)	0.996 (0.980, 1.012) 312/2490	0.993 (0.968, 1.018)	0.989 (0.971, 1.007) 310/2496	0.982 (0.954, 1.010)
O <sub>3</sub> (8 hr) (µg/m <sup>3</sup> ) <sup>a</sup>	1.014 (0.955, 1.076) 543/4092	1.007 (0.918, 1.104)	1.011 (0.935, 1.094) 312/2525	1.036 (0.918, 1.169)	1.023 (0.939, 1.116) 312/2525	1.067 (0.934, 1.218)
SO <sub>2</sub> (µg/m <sup>3</sup> )	1.120 (0.895, 1.400) 405/3103	1.229 (0.868, 1.740)	1.045 (0.814, 1.340) 312/2511	1.124 (0.764, 1.653)	1.138 (0.863, 1.499) 312/2525	1.350 (0.886, 2.058)
CO (mg/m <sup>3</sup> )	0.933 (0.786, 1.108) 407/3081	0.840 (0.637, 1.108)	0.980 (0.817, 1.176) 312/2514	0.950 (0.708, 1.275)	0.934 (0.750, 1.162) 312/2525	0.768 (0.536, 1.100)

Results presented for 10 unit change in each pollutant, except CO and SO<sub>4</sub><sup>=</sup> (1 unit change) and PNC (1000 unit change)

<sup>a</sup> Within 40km of linked analysis

<sup>b</sup> This is unlinked but applies to the whole study area because only one monitor was used.

<sup>c</sup> Within 10 km



**eTable 5** : Effect modification for 24 hr SO<sub>4</sub><sup>=</sup>, 24 hr PM<sub>2.5</sub>, 24 hr PM<sub>10</sub> and 8 hr O<sub>3</sub>

Pollutant	lag	Modifier	Response	OR	lcl	ucl	P-value
SO <sub>4</sub>	cum 0-1	Ejection frac 25+	yes	1.062	0.878	1.285	.
SO <sub>4</sub>	cum 0-1	Ejection frac 25+	no	1.194	0.903	1.578	0.482
SO <sub>4</sub>	cum 0-5	Ejection frac 25+	yes	1.058	0.806	1.388	.
SO <sub>4</sub>	cum 0-5	Ejection frac 25+	no	1.105	0.725	1.684	0.861
SO <sub>4</sub>	cum 0-1	Indication MI or IHD	yes	1.116	0.977	1.273	.
SO <sub>4</sub>	cum 0-1	Indication MI or IHD	no	0.998	0.856	1.164	0.262
SO <sub>4</sub>	cum 0-5	Indication MI or IHD	yes	1.046	0.864	1.265	.
SO <sub>4</sub>	cum 0-5	Indication MI or IHD	no	0.996	0.801	1.239	0.731
SO <sub>4</sub>	cum 0-1	patients with 10+ events	yes	1.059	0.934	1.201	.
SO <sub>4</sub>	cum 0-1	patients with 10+ events	no	1.073	0.910	1.266	0.895
SO <sub>4</sub>	cum 0-5	patients with 10+ events	yes	1.060	0.885	1.270	.
SO <sub>4</sub>	cum 0-5	patients with 10+ events	no	0.971	0.767	1.229	0.542
SO <sub>4</sub>	cum 0-1	Age 65 or over	yes	1.179	1.025	1.357	.
SO <sub>4</sub>	cum 0-1	Age 65 or over	no	0.962	0.835	1.109	0.037
SO <sub>4</sub>	cum 0-5	Age 65 or over	yes	1.124	0.916	1.378	.
SO <sub>4</sub>	cum 0-5	Age 65 or over	no	0.942	0.771	1.151	0.202
SO <sub>4</sub>	cum 0-1	Betablockers	yes	1.041	0.809	1.340	.
SO <sub>4</sub>	cum 0-1	Betablockers	no	1.068	0.955	1.194	0.853
SO <sub>4</sub>	cum 0-5	Betablockers	yes	0.960	0.663	1.391	.
SO <sub>4</sub>	cum 0-5	Betablockers	no	1.037	0.884	1.217	0.700
SO <sub>4</sub>	cum 0-1	SVT	yes	0.696	0.312	1.552	.
SO <sub>4</sub>	cum 0-1	SVT	no	1.070	0.963	1.188	0.296
SO <sub>4</sub>	cum 0-5	SVT	yes	0.459	0.157	1.343	.
SO <sub>4</sub>	cum 0-5	SVT	no	1.042	0.896	1.212	0.137
SO <sub>4</sub>	cum 0-1	1 or more storm days	yes	1.069	0.944	1.210	.
SO <sub>4</sub>	cum 0-1	1 or more storm days	no	1.055	0.891	1.249	0.899
SO <sub>4</sub>	cum 0-5	1 or more storm days	yes	1.044	0.873	1.247	.
SO <sub>4</sub>	cum 0-5	1 or more storm days	no	1.004	0.789	1.277	0.789
SO <sub>4</sub>	cum 0-1	event within 3 days	yes	1.148	0.968	1.361	.
SO <sub>4</sub>	cum 0-1	event within 3 days	no	1.026	0.906	1.162	0.278
SO <sub>4</sub>	cum 0-5	event within 3 days	yes	1.058	0.825	1.358	.
SO <sub>4</sub>	cum 0-5	event within 3 days	no	1.007	0.845	1.201	0.740
SO <sub>4</sub>	cum 0-1	Male	yes	1.089	0.976	1.215	.
SO <sub>4</sub>	cum 0-1	Male	no	0.891	0.667	1.192	0.198
SO <sub>4</sub>	cum 0-5	Male	yes	1.038	0.886	1.216	.
SO <sub>4</sub>	cum 0-5	Male	no	0.945	0.631	1.416	0.664

**eTable 5 (continued)**

<b>Pollutant</b>	<b>lag</b>	<b>Modifier</b>	<b>Response</b>	<b>OR</b>	<b>lcl</b>	<b>ucl</b>	<b>P-value</b>
PM <sub>2.5</sub>	cum 0-1	Ejection frac 25+	yes	0.876	0.679	1.130	.
PM <sub>2.5</sub>	cum 0-1	Ejection frac 25+	no	0.673	0.437	1.037	0.278
PM <sub>2.5</sub>	cum 0-5	Ejection frac 25+	yes	0.848	0.594	1.210	.
PM <sub>2.5</sub>	cum 0-5	Ejection frac 25+	no	0.819	0.444	1.508	0.919
PM <sub>2.5</sub>	cum 0-1	Indication MI or IHD	yes	1.095	0.917	1.306	.
PM <sub>2.5</sub>	cum 0-1	Indication MI or IHD	no	0.894	0.717	1.115	0.134
PM <sub>2.5</sub>	cum 0-5	Indication MI or IHD	yes	1.098	0.852	1.415	.
PM <sub>2.5</sub>	cum 0-5	Indication MI or IHD	no	0.911	0.667	1.245	0.336
PM <sub>2.5</sub>	cum 0-1	patients with 10+ events	yes	1.005	0.839	1.202	.
PM <sub>2.5</sub>	cum 0-1	patients with 10+ events	no	1.025	0.827	1.271	0.880
PM <sub>2.5</sub>	cum 0-5	patients with 10+ events	yes	1.011	0.782	1.308	.
PM <sub>2.5</sub>	cum 0-5	patients with 10+ events	no	1.046	0.771	1.418	0.860
PM <sub>2.5</sub>	cum 0-1	Age 65 or over	yes	0.969	0.803	1.169	.
PM <sub>2.5</sub>	cum 0-1	Age 65 or over	no	1.069	0.874	1.307	0.453
PM <sub>2.5</sub>	cum 0-5	Age 65 or over	yes	1.024	0.786	1.335	.
PM <sub>2.5</sub>	cum 0-5	Age 65 or over	no	1.020	0.762	1.365	0.984
PM <sub>2.5</sub>	cum 0-1	Betablockers	yes	0.597	0.362	0.984	.
PM <sub>2.5</sub>	cum 0-1	Betablockers	no	1.055	0.908	1.225	0.029
PM <sub>2.5</sub>	cum 0-5	Betablockers	yes	0.447	0.216	0.928	.
PM <sub>2.5</sub>	cum 0-5	Betablockers	no	1.085	0.877	1.343	0.020
PM <sub>2.5</sub>	cum 0-1	SVT	yes	1.718	0.687	4.298	.
PM <sub>2.5</sub>	cum 0-1	SVT	no	1.003	0.866	1.163	0.254
PM <sub>2.5</sub>	cum 0-5	SVT	yes	1.086	0.248	4.753	.
PM <sub>2.5</sub>	cum 0-5	SVT	no	1.021	0.829	1.258	0.935
PM <sub>2.5</sub>	cum 0-1	1 or more storm days	yes	0.930	0.762	1.133	.
PM <sub>2.5</sub>	cum 0-1	1 or more storm days	no	1.097	0.907	1.327	0.206
PM <sub>2.5</sub>	cum 0-5	1 or more storm days	yes	0.981	0.740	1.301	.
PM <sub>2.5</sub>	cum 0-5	1 or more storm days	no	1.058	0.805	1.390	0.692
PM <sub>2.5</sub>	cum 0-1	event within 3 days	yes	1.011	0.873	1.171	.
PM <sub>2.5</sub>	cum 0-1	event within 3 days	no	1.162	0.291	4.639	0.845
PM <sub>2.5</sub>	cum 0-5	event within 3 days	yes	1.019	0.828	1.254	.
PM <sub>2.5</sub>	cum 0-5	event within 3 days	no	2.150	0.196	23.524	0.542
PM <sub>2.5</sub>	cum 0-1	Male	yes	1.000	0.859	1.166	.
PM <sub>2.5</sub>	cum 0-1	Male	no	1.117	0.761	1.639	0.588
PM <sub>2.5</sub>	cum 0-5	Male	yes	1.012	0.815	1.257	.
PM <sub>2.5</sub>	cum 0-5	Male	no	1.095	0.622	1.925	0.794

**eTable 5 (continued)**

<b>Pollutant</b>	<b>lag</b>	<b>Modifier</b>	<b>Response</b>	<b>OR</b>	<b>lcl</b>	<b>ucl</b>	<b>P-value</b>
PM <sub>10</sub>	cum 0-1	Ejection frac 25+	yes	0.951	0.781	1.157	.
PM <sub>10</sub>	cum 0-1	Ejection frac 25+	no	0.718	0.504	1.021	0.155
PM <sub>10</sub>	cum 0-5	Ejection frac 25+	yes	0.883	0.661	1.180	.
PM <sub>10</sub>	cum 0-5	Ejection frac 25+	no	0.844	0.510	1.397	0.872
PM <sub>10</sub>	cum 0-1	Indication MI or IHD	yes	1.104	0.958	1.273	.
PM <sub>10</sub>	cum 0-1	Indication MI or IHD	no	0.897	0.747	1.077	0.064
PM <sub>10</sub>	cum 0-5	Indication MI or IHD	yes	0.973	0.786	1.205	.
PM <sub>10</sub>	cum 0-5	Indication MI or IHD	no	0.866	0.661	1.133	0.483
PM <sub>10</sub>	cum 0-1	patients with 10+ events	yes	1.029	0.895	1.183	.
PM <sub>10</sub>	cum 0-1	patients with 10+ events	no	1.009	0.834	1.219	0.859
PM <sub>10</sub>	cum 0-5	patients with 10+ events	yes	0.945	0.766	1.165	.
PM <sub>10</sub>	cum 0-5	patients with 10+ events	no	0.910	0.688	1.203	0.826
PM <sub>10</sub>	cum 0-1	Age 65 or over	yes	1.001	0.856	1.170	.
PM <sub>10</sub>	cum 0-1	Age 65 or over	no	1.045	0.891	1.226	0.687
PM <sub>10</sub>	cum 0-5	Age 65 or over	yes	0.942	0.748	1.186	.
PM <sub>10</sub>	cum 0-5	Age 65 or over	no	0.924	0.725	1.177	0.905
PM <sub>10</sub>	cum 0-1	Betablockers	yes	0.871	0.603	1.258	.
PM <sub>10</sub>	cum 0-1	Betablockers	no	1.038	0.919	1.173	0.367
PM <sub>10</sub>	cum 0-5	Betablockers	yes	0.883	0.507	1.537	.
PM <sub>10</sub>	cum 0-5	Betablockers	no	0.936	0.781	1.123	0.841
PM <sub>10</sub>	cum 0-1	SVT	yes	1.849	0.947	3.611	.
PM <sub>10</sub>	cum 0-1	SVT	no	1.008	0.895	1.135	0.079
PM <sub>10</sub>	cum 0-5	SVT	yes	0.507	0.135	1.904	.
PM <sub>10</sub>	cum 0-5	SVT	no	0.934	0.783	1.114	0.369
PM <sub>10</sub>	cum 0-1	1 or more storm days	yes	0.986	0.857	1.135	.
PM <sub>10</sub>	cum 0-1	1 or more storm days	no	1.095	0.908	1.321	0.358
PM <sub>10</sub>	cum 0-5	1 or more storm days	yes	0.909	0.738	1.118	.
PM <sub>10</sub>	cum 0-5	1 or more storm days	no	0.982	0.739	1.304	0.649
PM <sub>10</sub>	cum 0-1	event within 3 days	yes	1.024	0.910	1.152	.
PM <sub>10</sub>	cum 0-1	event within 3 days	no	0.594	0.137	2.573	0.467
PM <sub>10</sub>	cum 0-5	event within 3 days	yes	0.932	0.782	1.110	.
PM <sub>10</sub>	cum 0-5	event within 3 days	no	1.065	0.118	9.624	0.906
PM <sub>10</sub>	cum 0-1	Male	yes	1.009	0.893	1.141	.
PM <sub>10</sub>	cum 0-1	Male	no	1.132	0.815	1.573	0.510
PM <sub>10</sub>	cum 0-5	Male	yes	0.906	0.755	1.088	.
PM <sub>10</sub>	cum 0-5	Male	no	1.205	0.724	2.007	0.292

**eTable 5 (continued)**

<b>Pollutant</b>	<b>lag</b>	<b>Modifier</b>	<b>Response</b>	<b>OR</b>	<b>lcl</b>	<b>ucl</b>	<b>P-value</b>
O <sub>3</sub>	cum 0-1	Ejection frac 25+	yes	1.559	1.218	1.997	.
O <sub>3</sub>	cum 0-1	Ejection frac 25+	no	1.346	0.935	1.940	0.492
O <sub>3</sub>	cum 0-5	Ejection frac 25+	yes	1.635	1.106	2.417	.
O <sub>3</sub>	cum 0-5	Ejection frac 25+	no	1.354	0.774	2.371	0.567
O <sub>3</sub>	cum 0-1	Indication MI or IHD	yes	0.968	0.818	1.145	.
O <sub>3</sub>	cum 0-1	Indication MI or IHD	no	1.159	0.936	1.434	0.170
O <sub>3</sub>	cum 0-5	Indication MI or IHD	yes	0.866	0.668	1.122	.
O <sub>3</sub>	cum 0-5	Indication MI or IHD	no	1.235	0.892	1.709	0.076
O <sub>3</sub>	cum 0-1	patients with 10+ events	yes	1.122	0.951	1.324	.
O <sub>3</sub>	cum 0-1	patients with 10+ events	no	0.886	0.711	1.105	0.077
O <sub>3</sub>	cum 0-5	patients with 10+ events	yes	1.111	0.861	1.434	.
O <sub>3</sub>	cum 0-5	patients with 10+ events	no	0.794	0.568	1.110	0.098
O <sub>3</sub>	cum 0-1	Age 65 or over	yes	1.082	0.903	1.296	.
O <sub>3</sub>	cum 0-1	Age 65 or over	no	0.983	0.812	1.191	0.453
O <sub>3</sub>	cum 0-5	Age 65 or over	yes	0.867	0.656	1.145	.
O <sub>3</sub>	cum 0-5	Age 65 or over	no	1.144	0.853	1.535	0.154
O <sub>3</sub>	cum 0-1	Betablockers	yes	1.144	0.771	1.698	.
O <sub>3</sub>	cum 0-1	Betablockers	no	1.022	0.884	1.182	0.592
O <sub>3</sub>	cum 0-5	Betablockers	yes	1.116	0.614	2.031	.
O <sub>3</sub>	cum 0-5	Betablockers	no	0.974	0.780	1.218	0.670
O <sub>3</sub>	cum 0-1	SVT	yes	1.832	0.657	5.103	.
O <sub>3</sub>	cum 0-1	SVT	no	1.026	0.893	1.180	0.270
O <sub>3</sub>	cum 0-5	SVT	yes	0.682	0.142	3.277	.
O <sub>3</sub>	cum 0-5	SVT	no	0.994	0.802	1.231	0.640
O <sub>3</sub>	cum 0-1	1 or more storm days	yes	1.046	0.887	1.233	.
O <sub>3</sub>	cum 0-1	1 or more storm days	no	1.014	0.812	1.265	0.815
O <sub>3</sub>	cum 0-5	1 or more storm days	yes	1.021	0.793	1.315	.
O <sub>3</sub>	cum 0-5	1 or more storm days	no	0.931	0.663	1.309	0.655
O <sub>3</sub>	cum 0-1	event within 3 days	yes	1.038	0.903	1.193	.
O <sub>3</sub>	cum 0-1	event within 3 days	no	0.599	0.159	2.251	0.417
O <sub>3</sub>	cum 0-5	event within 3 days	yes	0.997	0.805	1.234	.
O <sub>3</sub>	cum 0-5	event within 3 days	no	0.298	0.032	2.811	0.293
O <sub>3</sub>	cum 0-1	Male	yes	1.046	0.904	1.210	.
O <sub>3</sub>	cum 0-1	Male	no	0.949	0.654	1.378	0.628
O <sub>3</sub>	cum 0-5	Male	yes	0.993	0.793	1.242	.
O <sub>3</sub>	cum 0-5	Male	no	0.958	0.536	1.712	0.908