Effect of COVID-19-related lockdown on hospital admissions for asthma and COPD exacerbations: associations with air pollution and patient characteristics

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Data Supplement

S1. Scatterplots of air pollutant levels and admissions per week (total, asthma and COPD) for the year 2020

(All air pollutants are measured in µg/m³ while CO is measured in mg/m³)

25.000
20.000
15.000
10.000
5.000
.000
PM2.5 levels per week
0
2
4
6
8
10
Total admissions per week
r=+0.526, p=0.030

45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
.000
PM10 levels per week
0
2
4
6
8
10
Total admissions per week
r=+0.435, p=0.081

r=-0.635, p=0.006

r=+0.707, p=0.002

r=+0.373, p=0.140

r=+0.721, p=0.001

r=+0.401, p=0.111

r=+0.311, p=0.224

25.000
20.000
15.000
10.000
5.000
.000
PM2.5 levels per week
0
1
1
2
2
3
3
4
4
Asthma admissions per week
r=+0.543, p=0.024

45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
.000
PM10 levels per week
0
1
1
2
2
3
3
4
4
Asthma admissions per week
r=+0.358, p=0.158

60.000
50.000
40.000
30.000
20.000
10.000
.000
O3 levels per week
0
1
1
2
2
3
3
4
4
Asthma admissions per week
r=-0.368, p=0.146

1.600
1.400
1.200
1.000
.800
.600
.400
.200
.000
CO levels per week
0
1
1
2
2
3
3
4
4
Asthma admissions per week
r=+0.526, p=0.030

r=+0.516, p=0.034

r=+0.546, p=0.023

r=+0.642, p=0.005

r=+0.554, p=0.021

r=+0.492, p=0.045

r=+0.439, p=0.078

60.000
50.000
40.000
30.000
20.000
10.000
.000
O3 levels per week
0
1
2
3
4
5
6
COPD admissions per week
r=-0.56, p=0.019

1.600
1.400
1.200
1.000
.800
.600
.400
.200
.000
CO levels per week
0
1
2
3
4
5
6
COPD admissions per week
r=+0.616, p=0.009

18.000
16.000
14.000
12.000
10.000
8.000
6.000
4.000
2.000
.000
SO2 levels per week
0
1
2
3
4
5
6
COPD admissions per week
r=+0.246, p=0.342

4.500
4.000
3.500
3.000
2.500
2.000
1.500
1.000
.500
.000
Benzene levels per week
0
1
2
3
4
5
6
COPD admissions per week
r=+0.621, p=0.008