SUPPLEMENTARY MATERIAL

Legend to Figures

Figure 1. Daily absolute pollen concentrations (A) and cumulative pollen concentrations (B) of Cupressaceae, Fagales, Oleaceae, Poaceae, Urticaceae, Ambrosia spp., and Artemisia spp. in Rome, 2018. Blue areas indicate linearly interpolated data for missing values.
Figure 2. Number (n) of physicians using the curves of daily absolute or cumulative pollen concentrations to identify (A) the highest peak of daily pollen count and (B) the cumulative pollen counts in 2018, by center.
**Table e1 - Characteristics of aerobiological monitoring in six different centers in four countries.***

<table>
<thead>
<tr>
<th>Centers</th>
<th>Climate</th>
<th>Aerobiologists</th>
<th>Pollen Traps</th>
<th>Missing days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean temp (°C)</td>
<td>annual rainfall (mm)</td>
<td>affiliation</td>
<td>experience (y)^</td>
</tr>
<tr>
<td>Istanbul Turkey</td>
<td>15.6</td>
<td>803</td>
<td>Ankara University</td>
<td>29-8</td>
</tr>
<tr>
<td>Izmir Turkey</td>
<td>19.6</td>
<td>565</td>
<td>Ege University</td>
<td>13</td>
</tr>
<tr>
<td>Marseille France</td>
<td>15.5</td>
<td>515</td>
<td>R.N.S.A.</td>
<td>29</td>
</tr>
<tr>
<td>Messina Italy</td>
<td>18.1</td>
<td>547</td>
<td>ARPACal</td>
<td>5</td>
</tr>
<tr>
<td>Rome Italy</td>
<td>16.6</td>
<td>1007</td>
<td>R.I.M.A.-A.I.A.</td>
<td>21</td>
</tr>
<tr>
<td>Valencia Spain</td>
<td>18.2</td>
<td>475</td>
<td>University of Oviedo</td>
<td>21</td>
</tr>
</tbody>
</table>

* pollen counts collected from 01.01 to 31.12 2018 (365 days); all readings were done with a continuous stripe, field diameter 0.5mm, magnification 400x

^ aerobiological and pollen monitoring experience of the correspondent aerobiologist (years)

§ number of tape-stripes changed per month; # number of consecutive missing days
### Table e2 - Cumulative and peak pollen concentration (pollen grains/m$^3$) in six Southern European cities during 2018.

| Pollen    | Valencia | | | Rome | | | Messina | | | Istanbul | | | Izmir | |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|           | peak | cum* | peak | cum* | peak | cum* | peak | cum* | peak | cum* | peak | cum* |
| Cupressaceae | 720 | 7622 | 3444 | 20590 | 226 | 4331 | 134 | 1723 | 618 | 3341 | 6830 | 38755 |
| Fagales | 42 | 161 | 679 | 3951 | 531 | 7880 | 81 | 331 | 12 | 160 | 17 | 158 |
| Oleaceae | 174 | 1657 | 168 | 2846 | 78 | 721 | 67 | 899 | 25 | 219 | 237 | 7262 |
| Poaceae | 53 | 797 | 113 | 1755 | 115 | 2147 | 20 | 775 | 12 | 340 | 167 | 8257 |
| Urticaceae | 45 | 1296 | 121 | 3419 | 193 | 4197 | 634 | 21867 | 23 | 377 | 14 | 1026 |
| Ambrosia spp. | 0 | 0 | 105 | 650 | 1 | 11 | 1 | 4 | 147 | 859 | 0 | 0 |
| Artemisia spp. | 5 | 68 | 57 | 229 | 2 | 112 | 14 | 97 | 8 | 82 | 4 | 152 |

* cumulative pollen concentration (pollen grains/m$^3$) from 1st January to 31st December, 2018.
Table e3. - Characteristics of the doctors participating in the survey, by center.

<table>
<thead>
<tr>
<th></th>
<th>Rome (n=26)</th>
<th>Ankara (n=25)</th>
<th>Tirana (n=34)</th>
<th>Lisbon (n=27)</th>
<th>all centers (n=112)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male gender (n;%)</td>
<td>9 (34,6%)</td>
<td>6 (24,0%)</td>
<td>2 (5,9%)</td>
<td>5 (18,5%)</td>
<td>22 (20,5%)</td>
</tr>
<tr>
<td>Age (years) (median, IQR)</td>
<td>47 (28-74)</td>
<td>33 (26-48)</td>
<td>36 (28-71)</td>
<td>32 (27-64)</td>
<td>34 (26-74)</td>
</tr>
<tr>
<td>with specialization (n;%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>allergology</td>
<td>14 (53,8%)</td>
<td>15 (60,0%)</td>
<td>21 (61,8%)</td>
<td>15 (55,6%)</td>
<td>65 (58,0%)</td>
</tr>
<tr>
<td>others</td>
<td>17 (65,4%)</td>
<td>20 (80,0%)</td>
<td>8 (23,5%)</td>
<td>2 (7,4%)</td>
<td>47 (42,0%)</td>
</tr>
<tr>
<td>work environment (n;%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hospital</td>
<td>18 (69,2%)</td>
<td>25 (100,0%)</td>
<td>22 (64,7%)</td>
<td>24 (88,9%)</td>
<td>89 (79,5%)</td>
</tr>
<tr>
<td>private practice</td>
<td>8 (30,8%)</td>
<td>0 (0,0%)</td>
<td>7 (20,6%)</td>
<td>10 (37,0%)</td>
<td>25 (22,3%)</td>
</tr>
<tr>
<td>other</td>
<td>4 (15,4%)</td>
<td>0 (0,0%)</td>
<td>8 (23,5%)</td>
<td>2 (7,4%)</td>
<td>14 (12,5%)</td>
</tr>
<tr>
<td>clinical experience (years) (n;%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 6</td>
<td>10 (38,5%)</td>
<td>8 (32,0%)</td>
<td>13 (38,2%)</td>
<td>9 (33,3%)</td>
<td>40 (35,7%)</td>
</tr>
<tr>
<td>6-10</td>
<td>4 (15,4%)</td>
<td>8 (32,0%)</td>
<td>5 (14,7%)</td>
<td>7 (25,9%)</td>
<td>24 (21,4%)</td>
</tr>
<tr>
<td>≥ 11</td>
<td>11 (42,3%)</td>
<td>9 (36,0%)</td>
<td>16 (47,1%)</td>
<td>10 (37,0%)</td>
<td>46 (41,1%)</td>
</tr>
<tr>
<td>use of pollen calendar* (n;%)</td>
<td>16 (61,5%)</td>
<td>12 (48,0%)</td>
<td>7 (20,6%)</td>
<td>19 (70,4%)</td>
<td>54 (48,2%)</td>
</tr>
<tr>
<td>use of pollen curves* (n;%)</td>
<td>9 (34,6%)</td>
<td>9 (36,0%)</td>
<td>6 (17,6%)</td>
<td>7 (25,9%)</td>
<td>31 (27,7%)</td>
</tr>
</tbody>
</table>

* ever used pollen calendars or pollen curves for allergic rhinitis diagnosis
Table e4. Quality of the participants’ answers and perceived clinical relevance (daily absolute vs cumulative curves)

<table>
<thead>
<tr>
<th></th>
<th>Rome n=26</th>
<th>Ankara n=25</th>
<th>Tirana n=34</th>
<th>Lisbon n=27</th>
<th>all centers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>appropriate interpretation (n; %)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>daily absolute curves</td>
<td>20</td>
<td>23</td>
<td>32</td>
<td>19</td>
<td>94</td>
</tr>
<tr>
<td>cumulative curves</td>
<td>23</td>
<td>16</td>
<td>31</td>
<td>20</td>
<td>90</td>
</tr>
<tr>
<td>both</td>
<td>19</td>
<td>16</td>
<td>29</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td><strong>perceived usefulness for clinical decisions (n)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>daily absolute curves</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>9</td>
<td>28</td>
</tr>
<tr>
<td>cumulative curves</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>both</td>
<td>21</td>
<td>21</td>
<td>20</td>
<td>18</td>
<td>80</td>
</tr>
</tbody>
</table>

Lisbon: n=27
Rome: n=26
Ankara: n=25
Tirana: n=34