Supplemental Material

Associations between Extreme Precipitation and Gastrointestinal-Related Hospital Admissions in Chennai, India

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**Supplemental Material, Table S1.** Risk ratios (95% CI) corresponding to hospitalization associated with precipitation (≥ 90th percentile) by cause of admission for the single-day lag model.

<table>
<thead>
<tr>
<th>Lag</th>
<th>All-cause</th>
<th>GI-related</th>
<th>Unclassified</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.93 (0.89, 0.97)</td>
<td>0.93 (0.85, 1.01)</td>
<td>1.04 (0.89, 1.20)</td>
</tr>
<tr>
<td>1</td>
<td>0.95 (0.90, 0.99)</td>
<td>0.91 (0.83, 0.99)</td>
<td>0.97 (0.81, 1.12)</td>
</tr>
<tr>
<td>2</td>
<td>0.96 (0.92, 1.01)</td>
<td>1.00 (0.92, 1.07)</td>
<td>0.93 (0.77, 1.09)</td>
</tr>
<tr>
<td>3</td>
<td>0.98 (0.93, 1.02)</td>
<td>1.01 (0.93, 1.09)</td>
<td>0.97 (0.82, 1.13)</td>
</tr>
<tr>
<td>4</td>
<td>0.97 (0.93, 1.01)</td>
<td>1.02 (0.95, 1.10)</td>
<td>0.89 (0.73, 1.05)</td>
</tr>
<tr>
<td>5</td>
<td>0.97 (0.93, 1.01)</td>
<td>1.02 (0.94, 1.10)</td>
<td>0.88 (0.73, 1.05)</td>
</tr>
<tr>
<td>6</td>
<td>0.96 (0.92, 1.00)</td>
<td>1.10 (1.03, 1.18)</td>
<td>0.84 (0.68, 1.00)</td>
</tr>
<tr>
<td>7</td>
<td>0.95 (0.91, 1.00)</td>
<td>1.04 (0.96, 1.12)</td>
<td>0.78 (0.62, 0.95)</td>
</tr>
<tr>
<td>8</td>
<td>0.96 (0.92, 1.00)</td>
<td>1.09 (1.01, 1.16)</td>
<td>0.77 (0.61, 0.93)</td>
</tr>
<tr>
<td>9</td>
<td>0.96 (0.92, 1.00)</td>
<td>1.05 (0.98, 1.13)</td>
<td>0.76 (0.60, 0.93)</td>
</tr>
<tr>
<td>10</td>
<td>0.97 (0.92, 1.01)</td>
<td>1.09 (1.02, 1.17)</td>
<td>0.70 (0.53, 0.86)</td>
</tr>
<tr>
<td>11</td>
<td>0.96 (0.92, 1.01)</td>
<td>1.10 (1.02, 1.17)</td>
<td>0.59 (0.42, 0.76)</td>
</tr>
<tr>
<td>12</td>
<td>0.97 (0.93, 1.02)</td>
<td>1.06 (0.98, 1.14)</td>
<td>0.61 (0.44, 0.78)</td>
</tr>
<tr>
<td>13</td>
<td>0.98 (0.94, 1.03)</td>
<td>1.07 (0.99, 1.14)</td>
<td>0.67 (0.51, 0.84)</td>
</tr>
<tr>
<td>14</td>
<td>1.00 (0.96, 1.04)</td>
<td>1.08 (1.01, 1.16)</td>
<td>0.75 (0.58, 0.92)</td>
</tr>
<tr>
<td>15</td>
<td>1.02 (0.98, 1.06)</td>
<td>1.14 (1.07, 1.22)</td>
<td>0.75 (0.58, 0.92)</td>
</tr>
</tbody>
</table>

All models control for daily average apparent temperature, day of week and time. Cases were defined as GI-related if the primary, secondary, or tertiary ICD-10 code was listed as intestinal infectious disease (A00-A09), helminthiases (B65-B83), or GI-related symptoms (R11-nausea and vomiting, R50-fever, R51-headache).
**Supplemental Material, Table S2.** Excluding 2004, risk ratio corresponding to hospitalization associated with precipitation (≥ 90th percentile) by cause of admission and across age categories for distributed lag model.

<table>
<thead>
<tr>
<th>Cause of admission</th>
<th>Cumulative RR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All ages</strong></td>
<td></td>
</tr>
<tr>
<td>All-cause</td>
<td>0.85 (0.72, 1.01)</td>
</tr>
<tr>
<td>GI-related</td>
<td>1.09 (0.79, 1.51)</td>
</tr>
<tr>
<td>Unclassified</td>
<td>0.04 (0.02, 0.11)</td>
</tr>
<tr>
<td><strong>Young (≤ 5)</strong></td>
<td></td>
</tr>
<tr>
<td>All-cause</td>
<td>0.72 (0.52, 0.99)</td>
</tr>
<tr>
<td>GI-related</td>
<td>2.71 (1.27, 5.78)</td>
</tr>
<tr>
<td>Unclassified</td>
<td>0.19 (0.03, 1.49)</td>
</tr>
<tr>
<td><strong>Old (≥ 65)</strong></td>
<td></td>
</tr>
<tr>
<td>All-cause</td>
<td>0.82 (0.63, 1.07)</td>
</tr>
<tr>
<td>GI-related</td>
<td>1.37 (0.76, 2.49)</td>
</tr>
<tr>
<td>Unclassified</td>
<td>0.07 (0.01, 0.36)</td>
</tr>
<tr>
<td><strong>Intermediate (6-64)</strong></td>
<td></td>
</tr>
<tr>
<td>All-cause</td>
<td>0.88 (0.74, 1.05)</td>
</tr>
<tr>
<td>GI-related</td>
<td>1.14 (0.80, 1.61)</td>
</tr>
<tr>
<td>Unclassified</td>
<td>0.02 (0.01, 0.06)</td>
</tr>
</tbody>
</table>

All models control for daily average apparent temperature on the day of hospitalization, day of week and time. Cases were defined as GI-related if the primary, secondary, or tertiary ICD-10 code was listed as intestinal infectious disease (A00-A09), helminthiases (B65-B83), or GI-related symptoms (R11-nausea and vomiting, R50-fever, R51-headache).