THERE IS NO NEED TO LOWER A FEVER!

No doubt you are well aware that there is evidence for and against the use of drugs that lower fever. For mild infections, it doesn’t matter much. A bit of temporary relief might be worth it even if the illness continues a bit longer as a result. But for infections that are potentially life-threatening the evidence weighs in against any antipyretic treatment. And inaccurate concerns by the public about the perceived danger of fever are a major drive for requests for health advice.

Here is a quick summary of the evidence:

**Antipyretic drugs increase mortality** from influenza in animal studies: pooled odds ratio 1.34 (1.04 - 1.73) (Eyers 2010).

**Antipyretic drugs inhibit antibody production in humans.** Bancos 2009. There is a reduced response to immunisation if paracetamol is given routinely (e.g. Das 2014, Department of Health Green Book, chapter 8).

**Reducing fever may increase transmission of infections.** Population-level effects of suppressing fever (Earn 2014).

**Bacterial and viral replication can be suppressed by fever.** Dixon 2010. Eyers references 34-37.

**Fever has been used to treat ‘untreatable’ infections in the past.** Julius Wagner-Jauregg won the Nobel prize for this in 1927, but with the advent of effective antibiotics, his legacy has been forgotten.

**For children the primary goal of treating the febrile child is to improve the child's comfort rather than the normalization of body temperature. Antipyretic use does not prevent febrile seizures.** Sullivan 2011, Rosenbloom 2013.

**In serious infection, high fever is associated with lower mortality.** See this study of 914 adult patients hospitalised with bacterial infection (Yamamoto 2016):
<table>
<thead>
<tr>
<th>Temperature on admission (°C)</th>
<th>Mortality rate (%)</th>
</tr>
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<tbody>
<tr>
<td>&lt;36</td>
<td>32.5</td>
</tr>
<tr>
<td>36-36.9</td>
<td>14.1</td>
</tr>
<tr>
<td>37-37.9</td>
<td>8.7</td>
</tr>
<tr>
<td>38-38.9</td>
<td>8.2</td>
</tr>
<tr>
<td>39-39.9</td>
<td>5.7</td>
</tr>
<tr>
<td>≥40</td>
<td>5.3</td>
</tr>
</tbody>
</table>

Further evidence is cited in the useful summary by El-Radhi 2012.

Please can we get a clear message out to the public that there is no need to lower a fever?

References


- Department of Health (accessed 19/3/2020). Immunisation against Infectious Disease, chapter 8 page 56


