Antihistamines for the Common Cold: Facts on a Possible Fix?

Clinical Question: Are antihistamines effective in treating symptoms of the common cold?

Evidence:
Three systematic reviews of antihistamines alone and one of antihistamine combination.

- Antihistamines alone
  - Cochrane (22 Randomized Controlled Trials (RCT)): Compared to placebo, antihistamines resulted in,
    - No change in general symptoms or nasal congestion.
    - Improved rhinorrhea on days 2-4: best day 4, change 0.18 (95% Confidence interval (CI), 0.10-0.27)
    - Improved sneezing on days 2-4: best day 3, change 0.30 (95% CI 0.22-0.37).
    - Changes of ≤0.30 on 4-5 point scales are likely not clinically meaningful.
  - Two systematic reviews (one with meta-analysis): Compared with placebo, antihistamines showed similar results to the Cochrane meta-analysis.

- Antihistamine combination
  - Cochrane: Compared to placebo,
    - Antihistamine with decongestants (12 RCTs) improved global symptoms, with Number Needed to Treat (NNT) 4.
    - Antihistamine with analgesia (3 RCTs) improved global symptoms, with NNT 4-7.
    - Antihistamine with decongestant and analgesia (5 RCTs) improved global symptoms with NNT 6.
  - Many of the studies in the meta-analysis are at moderate or high risk of bias.

Context:
- Estimated 40% of time lost from work is attributable to the common cold.
- Antihistamine use statistically significantly increased adverse events like sedation and dry mouth, Number Needed to Harm (NNH) 34. Combination therapies may increase adverse event rates.
• Health Canada\textsuperscript{6} recommends over-the-counter cold medicines not be used in children under age 6, because,
  \begin{itemize}
    \item Children do not benefit from antihistamines alone\textsuperscript{1} or in combinations.\textsuperscript{4}
    \item Antihistamines and “cold and cough preparations” are 2\textsuperscript{nd} and 6\textsuperscript{th} (respectively) most common substances involved in (age \( \leq \) 5 years) pediatric deaths.\textsuperscript{7}
  \end{itemize}

\textbf{Bottom-line: Antihistamines alone have no meaningful impact on the common cold. Although evidence is at moderate to high risk of bias, antihistamines combined with decongestants and/or analgesia may have a small impact on improving symptoms for one in 4-7 patients but should not be used in children under 6.}

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