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# A Multiroute Way of Transmission for *Helicobacter pylori*

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**Background.** Twenty-five years after the first successful cultivation and isolation of *Helicobacter pylori*, the scientific community is still struggling to understand the way(s) how this bacterium is transmitted among human populations.

**Aim.** In this work, we aimed at evaluating the likelihood of gastro-oral, oral-oral, and fecal-oral routes of infection, and also to which extent iatrogenic and zoonotic transmission, breastfeeding, water and food ingestion are likely to contribute to *H. pylori* transmission.

**Methods.** A literature search was conducted using PubMed and ISI Web of Knowledge, which included the following text search terms: *Helicobacter pylori* and epidemiology/epidemiological. Only original articles published in English were considered. For each putative route of transmission, the percentage of papers that supported a positive association with the presence of *H. pylori* was calculated. Positive associations were considered when the impact of factors related to a specific transmission pathway were statistically significant.

**Results.** Overall, data indicate that successful colonisation by *H. pylori* is most probably derived from direct person-to-person contact (100% positive association). Furthermore, exposure of humans to *H. pylori* derived from environmental sources is a very common event (64% for zoonotic transmission, 76% for water, and 75% for food, respectively).

**Discussion.** Even with the possible pitfalls of this type of analysis, which include the possible existence of confounding factors not accounted for in some of the studies, and the natural tendency to give relevance and present data that are significant rather than data that are not, the case for a multiroute way of transmission is compelling.