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Sequential Therapy for Helicobacter pylori Eradication: A Critical Review.

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BACKGROUND: Alternative treatment regimens for standard triple therapy are urgently needed. AIM: To critically review the evidence on the role of "sequential" regimen for the treatment of Helicobacter pylori infection.

METHODS: Bibliographical searches were performed in MEDLINE and international congresses.

RESULTS: Several pooled-data analyses and meta-analyses have demonstrated that sequential regimen is more effective than standard triple therapy. Sequential therapy is not affected by bacterial (CagA status, infection density) and host factors (underlying disease, smoking). Clarithromycin resistance seems to be the only factor reducing their efficacy. However, even in these patients, an acceptable >75% eradication rate can be achieved. Unfortunately, almost all the studies have been performed in Italy. Whether it is necessary to provide the drugs sequentially or if the 4 components of sequential therapy can be given concurrently is unclear. Nonbismuth quadruple therapy seems to be an effective and safe alternative to triple therapy and is less complex than sequential therapy.

CONCLUSIONS: Sequential therapy is a novel promising treatment approach that deserves consideration as a treatment strategy for H. pylori infection. However, further robust assessment across a much broader range of patients is required before sequential therapy could supplant existing treatment regimens and be generally recommended in clinical practice.

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