

Neuromodulators for Functional Gastrointestinal Disorders (Disorders of Gut-Brain Interaction): A Rome Foundation Working Team Report

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BACKGROUND & AIMS: Central neuromodulators (antidepressants, antipsychotics, and other central nervous system targeted medications) are increasingly used for treatment of functional gastrointestinal disorders (FGIDs), now recognized as disorders of gutbrain interaction. However, the available evidence and guidance for the use of central neuro- modulators in these conditions is scanty and incomplete. In this Rome Foundation Working Team report, a multidisciplinary team summarized available research evidence and clinical experience to provide guidance and treatment recommendations. **METHODS:** The working team summarized the literature on the pharmacology of central neuromodulators and their effects on gastrointestinal sensorimotor function and conducted an evidence-based review on their use for treating FGID syndromes. Because of the paucity of data for FGIDs, we included data for non-gastrointestinal painful disorders and specific symptoms of pain, nausea, and vomiting. This information was combined into a final document comprising a synthesis of available evidence and recommendations for clinical use guided by the research and clinical experience of the experts on the committee.

RESULTS: The evidence-based review on neuro- modulators in FGID, restricted by the limited available controlled trials, was integrated with open-label studies and case series, along with the experience of experts to create recommendations using a consensus (Delphi) approach. Due to the diversity of conditions and complexity of treatment options, specific recommendations were generated for different FGIDs. However, some general recommendations include: (1) low to modest dosages of tricyclic antidepressants provide the most convincing evidence of benefit for treating chronic gastrointestinal pain and painful FGIDs and serotonin noradrenergic reuptake inhibitors can also be recommended, though further studies are needed; (2) augmentation, that is, adding a second treatment (adding quetiapine, aripiprazole, buspirone a2d ligand agents) is recommended when a single medication is unsuccessful or produces side effects at higher dosages; (3) treatment should be continued for 6-12 months to potentially prevent relapse; and (4) implementation of successful treatment requires effective communication skills to improve patient acceptance and adherence, and to optimize the patient/provider relationship.

CONCLUSIONS: Based on systematic and selectively focused review and the consensus of a multidisciplinary panel, we have provided summary information and guidelines for the use of central neuromodulators in the treatment of chronic gastrointestinal symptoms and FGIDs. Further studies are needed to confirm and refine these recommendations.

Keywords: Functional Gastrointestinal Disorders; Central Neuromodulators; Antidepressants; Antipsychotics; Disorders of Gut Brain Interaction; Chronic Abdominal Pain.

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