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Bridging the Gaps in DGBI: The Mind Body Approach to Abdominal Pain

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Abdominal pain is the most common chief complaint in US EDs, representing over seven million annual visits. Yet, despite intensive ED work-ups, approximately 25% of these patients leave the ED with a diagnosis of “[nonspecific abdominal pain](#).” While infections, inflammation, surgical processes, and cancer-related gastrointestinal (GI) conditions are often readily diagnosable through standard testing, many causes of abdominal pain cannot be clearly identified through traditional diagnostic methods. Many of these causes fall under the umbrella of Disorders of Gut-Brain Interaction ([DGBI](#)), formerly known as “functional abdominal pain.” DGBI are [disorders](#) that affect [more than a third](#) of the U.S. population. The underlying etiologies remain poorly defined but are likely due to a combination of various factors, including motility disturbance, visceral hypersensitivity, altered mucosal and immune function, altered gut microbiota, and/or altered central nervous system processing.

Because these disorders are rarely life-threatening, there is a lack of awareness and effective research regarding both the diagnosis and treatment of DGBI in the ED. Effective treatment likely includes a recognition of the associated biological, psychological and social factors and their complex interactions, termed “[biopsychosocial](#)” factors, contributing to the disease process. Diagnosis is complicated because [DGBIs share similarities that overlap with several distinct GI diseases](#) featuring well-defined structural causes; for example, a DGBI such as functional dyspepsia can exhibit symptoms that overlap with gastroparesis; a DGBI such as

irritable bowel syndrome can manifest similarities with inflammatory bowel diseases, e.g., Crohn's disease and ulcerative colitis.

The reason that DGBI are important to emergency medicine practitioners is that the chronic and relapsing nature of DGBI symptoms lead to multiple ED visits, multiple negative CT scans, and contribute to a significant burden on the emergency healthcare system as well as patient dissatisfaction with treatment. Abdominal pain has been identified as the top primary complaint among "[superutilizers](#)" – a term that refers to patients who visit the ED four or more times annually. These recurrent visits result in repeated diagnostic [investigations](#), where patients are subject to unnecessary and extensive imaging and testing, posing an increased risk of radiation exposure. Multiple CT scans not only have adverse effects on patients but are also costly. The time required to perform and interpret imaging results can impact ED patient flow and concurrently increase financial strain on the patient, sometimes costing as much as [\\$9,000](#) for a single CT scan.

The end result of these intensive diagnostic efforts for most patients with DGBIs is the absence of a [clear diagnosis](#). Moreover, these patients are often prescribed opioid analgesics for symptom management, exposing them to a greater risk of developing an opioid use disorder. In a [study](#) with U.S. veterans, the likelihood of patients with DGBI to be prescribed with opioids were shown to be 40% higher than those with structural GI diagnoses. Opioid prescriptions for GI conditions have [increased](#) despite the clinical guidelines update from the [American Gastroenterological Association](#) discouraging opioid prescriptions for chronic abdominal pain secondary to DGBI. This contributes to the perpetual cycle of failure to resolve symptoms, recurrent healthcare visits, [ED overcrowding](#), increased ED wait times, and increased length of stay for all patients.

To address these challenges, the first multicenter prospective observational study of ED patients with suspected DGBIs was launched at The George Washington University Hospital (DC), Duke University Hospital (NC), and Henry Ford Hospital (MI). Patients eligible for the study include those who present to the ED with undifferentiated abdominal pain with a frequency of at least one painful episode per week for at least 8 weeks, hence meeting [Rome criteria](#) for a DGBI. The study queries various biopsychosocial factors, including abdominal pain characteristics, sleeping habits, anxiety, depression, and social determinants of health. The overall aims of the study are to:

1. Identify ED patients with undiagnosed DGBIs
2. Assess the impact of undiagnosed DGBIs on ED utilization and other economic implications
3. Characterize the biopsychosocial features of ED patients with suspected DGBIs to guide the development of targeted interventions
4. Evaluate the role of evidence-based pain management strategies based on the biopsychosocial approach for treating ED patients with suspected DGBIs.

Stay tuned for more information on this topic as the study progresses. Until then, EDs should consider DGBIs in patients with recurrent abdominal pain, multiple ED visits, and negative and/or inconclusive diagnostic work-ups.

The authors have no conflicts to report.