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## Advancements in the field of Pediatric Neurogastroenterology and Gastrointestinal Motility

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**Updates in Pathophysiology:** With advancements in neurogastroenterology, tremendous understanding of the knowledge of pathophysiology at the cellular, tissue, organ and torso levels has been achieved. While the Enteric Nervous System (ENS) has been studied for decades, advances allow us better understanding of the Intrinsic Primary Afferent Neurons, interneurons, motor neurons and the intestinofugal neurons. There is better understanding of the Interstitial Cells of Cajal (ICC), as well as the extrinsic control of the ENS and of the sensation of the gut.

**Updates in GI motility Studies:** From radiological testing such as scintigraphy, radiopaque markers and contrast studies, there have been advances in MRI and fMRI studies to evaluate how intestines move. Gastroenterologists have also paid much attention to this field in the 21st century. The use of manometry has advanced tremendously with the advent of high-resolution manometry (HRM), High Resolution Impedance Manometry (HRIM) and 3D HRM. Sleeve Manometry and EndoFLIP have changed our understanding of reflux parameters. With the advent of the wireless capsule, transit times and other motility parameters can be studied non-invasively.

**Updates in therapies for GI motility disorders:** Newer drugs continue to advance the pharmacological therapy in this field. Endoscopic therapy has shown tremendous progress with procedures such as endoscopic dilatation, injection of botulinum toxin to the various sphincters and the advent of endoscopic procedures such as Per Oral Endoscopic Myotomy (POEM). Surgical therapeutic techniques continue to be refined progressively and used for primary surgical procedures such as minimally invasive surgery (MIS), laparoscopy, and surgical resections. New therapeutic techniques such as Gastric Electric Stimulation (GES), Sacral Nerve Stimulators as well as the prospect of stem cell transplant continue to keep the horizon of GI motility disorders bright.

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