An Improved Enteral Access Device for Surgical Patients

PI: James Dolan, M.D., M.C.R., F.A.C.S., Associate Professor of Surgery

Our project proposes to significantly improve the safety and cost of current jejunal feeding access devices used in gastrointestinal surgery. Such devices are used worldwide to allow patients who cannot take oral intake to receive hydration, nutrition and medicines. Commonly, this process involves placement of 4 independent T-fasteners to fix a segment of bowel (usually the jejunum) to the inside of the abdominal wall. A flexible feeding tube is then inserted through the abdominal wall and through this fixed area into the lumen of the bowel. However, various problems have been identified with this technique and devices, especially in obese patients. The fasteners have broken and necessitated surgical intervention to salvage the jejunostomy, the fixation devices cause pain and have also promoted skin infections at the jejunostomy site. These complications lead to poor patient outcomes and increased healthcare costs. Our current method of jejunostomy placement takes over 25 minutes of expensive operating room. Our novel product will improve upon the current system and enhance the stability and safety of the device.