

AI Assisted Poly Detection For Colonoscopy

TODAY

Authors: Kate Horst, J Scott Hinkley

Affiliations: A solution developed by **Medtronic**

PROBLEM TRYING TO SOLVE

- Colorectal cancer (CRC) prevention hinges on early polyp detection, yet colonoscopy rates vary due to operator dependence
- The key metric used to describe the quality of the endoscopist's practice is the adenoma detection rate (ADR). AI systems for detection of neoplasia in randomized controlled studies have demonstrated significant improvements in ADRs and reductions in adenoma miss rates.
- OSF has an opportunity to align to industry best practice by:
 - Considering AI solutions that support our physicians
 - Providing the highest quality patient care within the GI space for colonoscopy

OUTCOME/GOALS/IMPACT TO PATIENT

- Expand solution Ministrywide (Positive outcomes of a 2024 pilot in Bloomington)
- Enhance colonoscopy procedures with the GI Genius AI-assisted solution
- Aid endoscopists in more efficient precancerous polyp detection
- Increase conversion to therapeutic procedures
- Reduce colorectal cancer risk for OSF patients
- 6-month pilot Apr '24 with 3 GI physicians and 1 Surgeon in Bloomington market:
 - Increased ADR 2-11% (Average 42.5%; increased from 35.2%)
 - Increased Therapeutic conversions ~8% (Average 64%; increased from 56%)
 - Physicians report notable increases in accuracy, efficiency, and confidence
 - Simple overnight install with no disruption to workflows

JOURNEY TO GET THERE/PLANNED JOURNEY

- Received request to review solution in OSF Innovation (Spring '23)
- Conducted discovery and validation with solution (Jul '23-Feb '24)
- Received Transformation Executive Council (TEC) approval to pilot (Feb '24)
- Conducted successful pilot in Bloomington (Apr-Sep '24)
- Received TEC approval to spread solution Ministrywide (Oct '24)
- Secured regional/facility input and decisions to implement (Nov '24-Feb '25)
- Implementation across the Ministry (2025)

DIRECT IMPACT TO PATIENT/FAMILIES

"In the next 5 years, this technology will be the standard of care for colonoscopy."
- Omar Khokhar, MD, GI Physician

"...irrespective of your baseline ADR, (GI Genius) improves it by 10% across the board for all. It may not be an important tool for someone whose baseline is 50%, but for someone whose baseline is 20%, it makes their number 30%. It's just a matter of time reimbursement will be linked to this data."

- Dr. Mohammed Abdul Adnan, MD, GI Physician