



2022 LEAD Capstone Poster Session

Quality Improvement in Colonoscopy:

**Optimizing Bowel Prep adequacy at
the North Texas VA Medical Center**

Ngozi Enwerem MD MPH

Assistant Professor of Internal Medicine

Division of Digestive and Liver Diseases



Background: *What we know*

- A good quality colonoscopy depends on having good visualization of the colonic mucosa.
- To achieve this, an adequate bowel preparation is needed.
- Guidelines have proposed an institutional goal of >85% of colonoscopies for which an adequate preparation is achieved.
- Our current institutional rate of bowel prep adequacy (83%) falls short of the national goal.
- Patient education has been shown to improve the quality of bowel preparation.



Background Information:

What we don't

- Many patient education interventions.
- Enhanced pre-procedure mailed prep instructions, pre-procedure nurse phone calls, smart phone apps, online videos etc
 - Will an enhanced pictorial pre-procedure mailed prep instruction help our institution achieve an improved bowel prep adequacy from a current rate of 83% to >85%?
 - If so, will this intervention be sustainable?



Background: Key Questions

- What is the bowel prep adequacy at the Dallas North Texas VA Medical center? **83%**
- What are the risk factors associated with an inadequate bowel prep at our institution? **Poor patient education**
- Will a 6-month pilot program where an enhanced pre-procedural patient instruction* is mailed out, increase patient education and subsequently translate into improved bowel prep adequacy at our institution?

**Enhanced pre-procedural patient instruction: Booklet with pictorial image of the bowel prep, pre-colonoscopy prep diet, days in which to stop fiber, certain medications etc.*



Objectives

- To improve our institutional bowel prep adequacy from **83%** to meet and exceed the national guidelines of **>85%** of colonoscopies for which an adequate bowel preparation is achieved by conducting:
 - A 6 month pilot program to modify our current mailed pre-procedure prep instructions to an Enhanced pre-procedure patient instruction booklet.



Pilot Project Plan: PICO

Population

Veterans undergoing colonoscopy at the Dallas VA between the time period of the pilot program

Intervention

Mail out enhanced pre-procedure letters to ALL veterans undergoing procedure within pilot program time period

Comparators

Veterans undergoing colonoscopy at the Dallas VA within 6 months time frame preceding the pilot program

Outcomes

*Pilot program bowel prep adequacy percentage
Bowel prep adequacy in the preceding 6 months prior to the pilot study*



Application of What You Learned at LEAD

- Employ a systematic approach to a complex problem
- Test a hypothesis first, then scale up if successful
- For a complex problem, begin with the simplest achievable solution
- Incremental gains can create a momentum towards the success of a broader vision.



Proposed Budget

- Minimal as will leverage already existing mailing process
 - 0.5 FTE Medical assistant for a 6-month period.
 - New enhanced pre-procedure patient instruction pdf template
 - A colored printer



Innovation and Significance

- If a bowel prep is inadequate then the colonoscopy may need to be repeated, which means lost man hours to the patient and the hospital facility.
- This pilot study will determine if a simple cost-effective measure such as an enhanced pre-procedure mailed letter will translate into improved adequacy of bowel prep, and subsequent improved bowel prep quality.
- If so, then this pilot study can be scaled up.



References

- Johnson DA, Barkun AN, Cohen LB et al. Optimizing adequacy of bowel cleansing for colonoscopy: recommendations from the US multi-society task force on colorectal cancer. *Gastroenterology*. 2014;147(4):903–24
- Ness RM, Manam R, Hoen H et al. Predictors of inadequate bowel preparation for colonoscopy. *Am J Gastroenterol*. 2001;96(6):1797–802.
- Calderwood AH, Lai EJ, Fix O.K. et al. An endoscopist-blinded, randomized, controlled trial of a simple visual aid to improve bowel preparation for screening colonoscopy. *Gastrointest Endosc*. 2011; 73: 307-314