Effectively Improving Preventive Care for Inflammatory Bowel Disease Patients Utilizing American College of Gastroenterology Guidelines

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Background

- According to the Center for Disease Control and Prevention (CDC), inflammatory bowel disease is a complex, chronic gastrointestinal disorder affecting approximately three million people.[2]
- IBD patients are at increased risk of immunosuppression related to biologic agents used in treatment and from the disease itself with annual healthcare cost of 1.7 billion dollars.[1]
- Studies have shown that only 37% of primary care providers are comfortable managing preventive care in IBD patients when compared to the general population.[4] The American College of Gastroenterology clinical guideline: Preventive Care in Inflammatory Bowel Disease were written to help guide decisions for the primary care provider and the gastroenterologist.[3]
- In a small gastroenterology office a chart audit revealed a rate of 46% of patients were being recommended services and only 36% of patient actually received these services.
- Prior to this project, there was no shared decision making tool, no pre-visit screening tool for preventive care and no formal follow up tracking system.

Aim

The aim of the project was to increase the percentage of inflammatory bowel disease patients receiving appropriate preventive care by 50% in 90 days.

Planned Improvement

The quality improvement project utilized the Institute for Healthcare Improvement's four Plan-Do-Study-Act (PDSA) cycles by making small rapid cycle changes over eight weeks

Crohn's disease activity index (CDAI)

Patient reported stool pattern

Average number of liquid or soft stools per day over seven days (14 points per stool)

Using diphenoxylate or loperamide for diarrhea (30 points)

Average abdominal pain rating over seven days

None (0 points)

Mild pain **(35 points) Moderate pain (70 points) Severe pain (105 points)**

General well being each day over seven days

Well (0 points)

Slightly below average (49 points) Poor (98 points)

Very poor (147 points)

Terrible (196 points)

Complications

Arthritis or arthralgia (20 points)

Iritis or uveitis (20 points)

Erythema nodosum, pyoderma gangrenosum or aphthous stomatitis (20 points) Anal fissure, fistula or abscess (20 points)

Other fistula (20 points)

Temperature over 100 degrees F (37.8 degrees C) in the last week (20 points)

Finding of an abdominal mass

No mass (0 points) Possible mass (20 points) Definite mass (50 points)

CDAI Interpretation

0 to149points: Asymptomatic remission

150 to220points: Mildly to moderately active Crohn's disease

221to450points: Moderately to severely active Crohn's disease

451to1100points: Severely active to fulminant disease

Partial Mayo Scoring Index Assessment for Ulcerative Colitis Activity

Patient, please enter number of daily bowel motions you would have when in remission or before your diagnosis or symptoms of ulcerative colitis began. This number will be Your Normal: ____

Patients, please complete Questions number 1 and 2.

1. Stool Frequency (based on the past 3 days)

Normal number of stools =0 1-2 stools more than normal =1 3-4 stools more than normal =2 5 or more stools more than normal =3

2. Rectal Bleeding (based on the past 3 days)

No blood seen =0 Streaks of blood with stool less than half the time =1 Obvious blood with stool most of the time =2 Blood alone passed =3

Physician, please complete Questions number 3.

3. Physician's Global Assessment (to be completed by Physician)

Normal (sub scores are mostly 0)

= 0 Mild disease (sub scores are mostly 1)

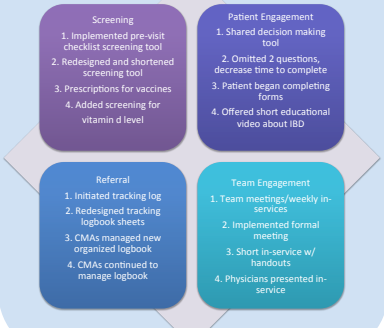
= 1 Moderate disease (sub scores are mostly 1 to 2) = 2 Severe disease (sub scores are mostly 2 to 3) = 3

The physician's Global Assessment acknowledges the Sub scores, the daily record of abdominal discomfort and functional assessment and other observations such as physical findings, and the patient's performance status

Total Partial Mayo Index Score [sum of all above items]

Remission = 0-1, Mild Disease = 2-4 , Moderate Disease = 5-6, Severe Disease >7-9

Shared Decision Making Tools used in Patient Engagement



References

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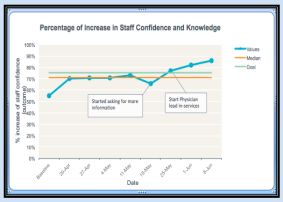
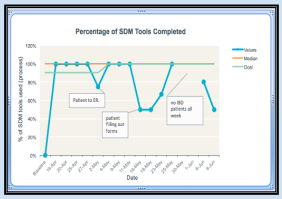
3. Farraye, F. A., Melmed, G. Y., Lichtenstein, G. R., & Kane, S. V. (2017). ACG clinical guideline: Preventive care in inflammatory bowel disease. *The American Journal of Gastroenterology*, *112*, 241-258 http://dx.doi.org/10.1038/ajg.2016.537

4. Selby, L., Hoellein, A., & Wilson, J. F. (2011). Are primary care providers uncomfortable providing routine preventive care for inflammatory bowel disease patients? *Digestive Diseases and Sciences*, *56*, 819-824. http://dx.doi.org/10.1007/s10620-010-1329-8

Results

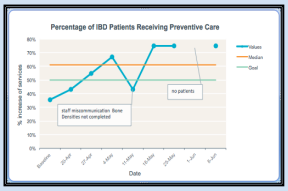


The staff knowledge and confidence relating to preventive care services remained steady and only after our physicians began speaking at our team meetings, the rate had a steady rise. Our baseline rate was 55% and increased to a rate of 86%, with a median of 71%.



The SDM tools were completed almost 100% of the time when completed by the provider. The rates drop as much as 50% when patient were asked to complete forms. Rates averaged 66% for the remainder of the project.

This graph was ever changing as not all services ordered could be completed on the day of the office visit. Our baseline was 36% with a goal of 50% and this was exceed multiple times, with a median score of 60% at the end of the project.



The project had a minor set back with a miscommunication while ordering services once this was addressed our rates began to increase again. The baseline was 36% and the aim goal was 50% which was exceeded with rates reaching as high as 75% with a median score of 61%.

Measures

	Process Measure	Outcome Measure
Screening	Implement a pre-visit checklist-screening tool for IBD patients completed at a rate of 90% in 90 days. (The # of checklist completed/the # of IBD patients seen that day)	Identify patients who qualify for preventive care services: immunization, smoking cessation, bone loss assessment, screening for Osteoporosis and Vitamin D levels at a rate of 75% in 90 days. (The # of patients who qualify/the # of patients screened)
Patient Engagement	Implement a Crohn's or Ulcerative Colitis shared decision-making tool to assess disease activity in 90% of qualified patients in 90 days. (The # of tools used/the # of patients who qualified that day)	Increase the number of IBD patients educated about IBD and document disease activity score at each office visit at a rate of 75% in 90 days. (The # of patients with a documented disease activity score at each visit/the total # of patients assessed)
Referral	Implement a tracking log to document follow up on patient services and referrals by 75% in 90 days. (The # of patients in log book/the # of a patients identified as needing an intervention)	Increase the number of patients receiving evidence based preventive care services with chart documentation at a rate of 50% in 90 days. (The # of patients receiving services/the # of a patients referred)
Team Engagement	Increase the number of staff involve in team training at the meetings at a rate of 90% in 90 days. (# of team members attending meeting/the total # of team members)	Increase the number of staff involve in team training at the meetings at a rate of 90% in 90 days. (# of team members attending meeting/the total # of team members)
Balancing Measure		A decrease in staff satisfaction due to the added workload related to the project. (The # of dissatisfied team members/the total # of team members)

Conclusions

- The project demonstrated that implementing pre-visit screening for IBD patients increased preventive care services, ultimately increasing the number of services completed.
- The project has increased services, however without a mandatory preventive care protocol in place these services would not be addressed routinely in daily practice.
- A limitation of the project was that it was conducted in a rural gastroenterology office and results are unique to this specialty practice.
- The project would be extremely easy to spread in other gastroenterology offices. Close patient follow up was essential to the project and would need to continue.
- Current services should continued and consideration for adding additional services as addressed in the ACG guidelines.

Lessons Learned

- Team engagement was the key to success. The weekly team meetings provided better communication between team members. Staff began sharing thoughts and ideas, taking ownership of the project.
- Patients were very receptive to the shared decision making tools but preferred learning from the provider rather then viewing a short education video.
- One barrier was not being able to provide all services recommended at the time of the office visit.
- As staff became more comfortable with the project, they discussed preventive care services with patients and answered questions with confidence.
- In the future there needs to be a collaboration between primary care and the gastroenterology team for these patients.

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