the 63 IBD patients, 29 (46%) had CD and 34 (54%) UC. The average age of patients with IBD was 35.6 ± 16.3 years with no significant difference between UC and CD patients. Most patients were male (60.3%). This male predominance was mainly present among patients with CD (21, 72.4%) compared to 17 (30%) males in the UC group. Of the 32 new cases of IBD, 17 (51.5%) had CD and 16 (48.5%) UC. The average age of newly diagnosed IBD patients was 36.4 ± 15.7 years. There was no statistically significant difference between the age at diagnosis in the CD group (37.4 ± 15.2 years) and the UC group (35.4 ± 16.7 years). The most common presenting symptom was bloody diarrhea (34, 42.4%) followed by abdominal discomfort/pain (10, 30.3%) and then non-bloody diarrhea (5, 15.2%). Most CD patients presented with abdominal discomfort/pain (8, 47.1%) while most UC patients presented with bloody stools (9, 69.2%). Average CRP was 25.5 ± 7.5 mg/dL which was higher in CD patients (34.8 mg/dL) compared to UC patients (8.8 mg/dL). Similarly, average ESR was 22.9 ± 17.2 mm/h and it was higher in CD patients (28.8 mg/dL) compared to UC patients (14.8 mm/h). Only 2 patients had a family history of IBD (6.9%). Only 3 patients (9.7%) had personal disease and 19.4% had extraintestinal manifestations (all of whom had arthritis).

CONCLUSION: The epidemiological trends and clinical characteristics of Lebanese patients with IBD are similar to Western populations. The next steps are to follow-up on incidence studies and determine if they mirror worldwide trends.

PO44
Designing Interventions to Elevate the Quality of IBD Care: A Systematic Review of Quality Improvement Initiatives

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Designing Interventions to Elevate the Quality of IBD Care: A Systematic Review of Quality Improvement Initiatives

BACKGROUND: Inflammatory bowel disease (IBD) care and outcomes are known to exhibit substantial geographic and inter-provider variability, suggesting quality gaps. We aimed to identify data on the design and implementation of interventions to narrow these gaps.

METHODS: A systematic review of Medline, Embase and Web of Science was performed to find reports of quality improvement (QI) interventions in IBD. The search focused on emergency room (ER) and hospital utilization and Crohn’s and Colitis Foundation quality indicators on care processes, including pre-biologic testing, vaccinations, tobacco cessation, colorectal cancer (CRC) surveillance, and C. difficile infection (CDI) screening in flares. We included studies published between January 2008 and January 2020 and abstracts presented between October 2017 and January 2020 that reported on interventions in the United States and Canada for adult patients. Two authors reviewed all records and differences in inclusion were resolved by consensus.

RESULTS: The initial search identified 6257 records; 991 were duplicates and 4734 were excluded after review. Five manuscripts and 11 abstracts were included after full review. Most studies used a pre/post design and reported on more than one quality indicator. Flu and pneumonia vaccination were the most studied indicators (17 references), followed by ER/hospital utilization, pre-biologic testing (hepatitis B and tuberculosis assessment) and tobacco cessation (10, 8 and 9 references, respectively). Electronic medical record (EMR)-based interventions were the most frequent, employed by 7 references, and included the use of templates and order sets. These interventions found mixed success among quality metrics but universally led to higher rates of reported vaccination. The creation of clinic protocols to evaluate and act upon patients’ vaccination history were also successful in increasing vaccination rates, as well as efforts to educate patients regarding vaccination. In contrast, efforts to educate physicians regarding quality IBD care led to improvements in rates of vaccination and pre-biologic testing in some cases but were not successful in improving other metrics. Utilizing support staff showed similar mixed results: the use of a scribe was linked to higher rates of vaccination, and a nursing-driven CDI testing protocol for inpatients resulted in higher rates of appropriate CDI testing, but post-discharge phone calls from a pharmacist did not improve rates of 30-day readmission. Novel care models such as remote patient monitoring, Project Sonar, Qorus, and an IBD medical home, as well as the implementation of clinical care pathways, led to decreases in ER and hospital utilization in all but one instance. Qorus was the only intervention associated with a 30-day readmission. Successful interventions have employed EMR-based changes, such as templates and novel care models.

CONCLUSION: Three-point increase from the data in 2018 (5%).

PO45
Effect of Etrasimod on Circulating Lymphocyte Subsets: Data From a Randomized Phase 1 Study in Healthy Japanese and Caucasian Men

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BACKGROUND: Etrasimod, a selective sphingosine-1-phosphate (SIP) receptor 1,4,5 modulator that reduces peripheral lymphocytes and subsequent impede their recruitment to sites of inflammation, is in development for chronic immune-mediated inflammatory diseases. Reduction in pro-inflammatory immune cells without causing broad immunosuppression is an important treatment goal in patients with these diseases. This study was evaluated the effect of etrasimod on circulating lymphocyte subsets in healthy volunteers to improve understanding of its proposed mechanism of action.

METHODS: This study had a phase 1, single-blind (subject only) pharmacist-controlled (PK) and pharmacodynamics study, 49 healthy Japanese and Caucasian men were randomized to receive once daily oral etrasimod 1 mg (n = 20), 2 mg (n = 20), or matching placebo (n = 9) from Days 1 to 7, followed by a 7-day washout and a single dose on Day 15. Absolute lymphocyte counts (ALC) were determined by complete blood count with differential. Immune cell subsets were evaluated by flow cytometry from isolated peripheral blood mononuclear cells (PBMCs) collected pre-dose on Days 1, 3, 5, 7, and 15. Change from baseline on 24 different immune subtypes were evaluated using a mixed-effects model. Paired t-tests were computed to evaluate significant subtype modifications in etrasimod-treated groups vs placebo at Day 7.

RESULTS: Compared with placebo, etrasimod 1 and 2 mg dosed daily for 7 days resulted in similar dose dependent reductions in ALC in both ethnic groups, with total lymphocytes returning at least 84% of baseline at Day 15. Compared with placebo, etrasimod induced reductions in mean percent change from baseline at Day 7 in total T cells, CD24+ and CD8+ T cells, naive CD4+ and CD8+ T cells, central memory CD4+ and CD8+ T cells, effector memory CD4+ and CD8+ T cells, Th2 and Th17 cells, and total B cells. Etrasimod resulted in greater decreases in naive and central memory T cells than in effector memory T cells. Decreased immune cell subsets recovered to at least 70% of baseline on Day 15, after the 7-day washout period. No notable treatment effects were seen on monocytes, macrophages, or CD56dim NK cells. Changes in immune cell populations were similar between Japanese and Caucasian subjects. Etrasimod 1 and 2 mg once-daily dosing regimens were safe and generally well tolerated. No adverse events related to low lymphocyte values occurred.

CONCLUSION: Etrasimod effects on ALC and immune cell subsets were consistent with its known mechanism of action and observations for other SIP receptor modulators. Little or no ethnic group differences in etrasimod effects on ALC and immune cell subsets were observed in this study. The effect of etrasimod on onset and offset of immune modulation is consistent with etrasimod PK, with a typical half-life of approximately 33 hours. The differential effects of etrasimod on immune cell subsets may allow for a reduction in inflammation while maintaining immune surveillance. The lymphocyte subset profile suggests that etrasimod reduces certain immune cells and behaves as a selective immunomodulator rather than as a broad immunosuppressive agent.

PO46
Though Biosimilar Infliximab Prescribing in Inflammatory Bowel Disease Has Increased, Branded Infliximab Continues to Be Prescribed More Often

John Eric2

BACKGROUND: Prescribing of biosimilar infliximab in biologic-naive, inflammatory bowel disease patients, relative to the reference brand, has grown slightly over the past two years. The rate of physician acceptance of requests from pharmacies and insurance companies, to switch from the reference brand to the biosimilar infliximab, has increased at a similar rate. In a patient chart study conducted at a large academic medical center in June 2020, the majority of biologic-naive patients placed on infliximab were prescribed the reference brand despite the availability of two infliximab biosimilars. Additionally, physicians were not requested to switch the reference brand to a biosimilar in a majority of prescribing situations. A comparison of prescribing trends from two years ago, from two years ago, are presented.

METHODS: An independent market analytics firm collaborated with US gastroenterologists (n = 218) to conduct a retrospective chart review of patients with inflammatory bowel disease (IBD) (n = 1,001), who were started on a biologic for the first time. Gastroenterologists submitted patient-level data via a HIPAA-compliant web form, which included both clinical and non-clinical data. The collaborating physicians also completed a brief survey about their practices and their opinions regarding IBD patient management. The data were collected and analyzed in June 2020. The data are then compared to a similar study with US gastroenterologists (n = 218) with a retrospective chart review of patients with inflammatory bowel disease (IBD) (n = 1,001) that was collected in 2018.

RESULTS: 26% of the patients starting on a biologic for the first time were initiated on infliximab. Of those, 73% were placed on the reference brand, while 27% were placed on a biosimilar. This represents a ten-point increase in biosimilar infliximab prescribing since the last assessment was conducted in 2018 (17%). However, the majority of infliximab prescribing is still for the reference brand. In 82% of the cases where the patient was placed on the reference brand, the physician was not contacted by a pharmacist or insurance company about using a biosimilar in place of the reference brand. This was a decrease of eight points since the last assessment in 2018 (90%). Physicians indicated that interventions associated with higher rates of steroid sparing therapy; physician education efforts and efforts at standardizing documentation were not successful in improving this metric. Included studies are described in the table and successful QI methods are summarized in the figure.

CONCLUSION: The quality of IBD care can be improved with interventions that range from simple to complex. Successful interventions have employed EMR-based changes, such as templates and order sets, physician and patient education, empowerment of support staff, and novel care models. These interventions are not universally effective, however, and prior experience should guide future QI efforts in IBD.

PO47
Awareness and Impact of Recent AAGA Guideline Changes for Moderate to Severe Ulcerative Colitis Patients

Jordi Eric1

BACKGROUND: In January 2020, the American Gastroenterological Association (AGA) released several guideline changes related to the treatment of moderate to severe ulcerative colitis (UC) patients. One of these changes recommended prescribing infliximab or vedolizumab rather than adalimumab for induction of remission in adults with moderate to severe UC who are new to biologic therapy. A second change recommended prescribing ustekinumab or tocilizumab, rather than vedolizumab or adalimumab for induction of remission in UC patients who have been exposed to anti-TNF agents.

CONCLUSION: This research sought to demonstrate the impact that awareness of guideline changes has on use of therapies impacted by each guideline change.

METHODS: An independent market analytics firm collaborated with US gastroenterologists (n = 112) to conduct an analysis on the US inflammatory bowel disease (IBD) market. Data collected from

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