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Abstract

Title

Postpartum Depression Screening at Routine Pediatric Visits

Objective

One in seven new moms suffer from postpartum depression. Postpartum depression negatively impacts a mother's ability to care for her infant and threatens the mother-child relationship. Infants of depressed mothers are more likely to have delayed cognitive development, delayed social-emotional development and exhibit more behavioral problems1. Mothers are currently screened for postpartum depression at their six-week postpartum follow-up. However, this visit has a high no-show rate of 50% 2. Furthermore, the highest incidence of postpartum depression occurs at 1 month, 2-3 months, and 6 months postpartum1. These factors have led to maternal depression being the most underdiagnosed obstetric complication1. With multiple well-child visits in the first months of life, the pediatrician has a unique opportunity make a difference in the recognition of postpartum depression. This quality improvement project aims to screen mothers for postpartum depression at pediatric routine visits. This will increase the diagnosis of postpartum depression and strengthen the mother-child relationship.

Methods

At the 1,2,4 and 6 month pediatric routine visits mothers will be screened for postpartum depression. During registration, mothers will receive a two question paper-based screen3. A "yes" to either question is a positive screen for postpartum depression. If a positive screen is present, the pediatrician will discuss, counsel, and reassure the mother. Postpartum depression information and resources will be available at pediatric office. Pediatrician will refer and schedule an appointment with mother's OB/GYN or primary care

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provider for further management.

Results

Positive screens will be recorded and followed within the electronic medical record. Mothers will be followed by their OBGYN or primary care provider for management of postpartum depression. Infants of mothers with postpartum depression can have closer follow-up with the pediatrician for support and encouragement. If successful, screening will be incorporated at satellite Marshall Pediatric offices.

Conclusion

-Postpartum depression is common and threatens the mother-child relationship.

-Current screening is ineffective at diagnosing postpartum depression.

-Two question paper-based screen at the 1,2,4 and 6 month pediatric routine visits to screen mothers more effectively .

-Pediatrician to discuss, reassure, and refer mother to OBGYN or primary care provider for further care.

-Treatment of maternal depression improves developmental, behavioral and emotional outcomes for infant.

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Abstract

Title

Resident Attitudes and Practice Behaviors in Opioid Prescribing for Pain Management

Objective

To determine Resident attitudes and practice behaviors in Opioid Prescribing for Pain Management

Methods

Survey Monkey was used to survey the School of Medicine's 194 eligible trainees. The same survey was also sent to the Residency and Fellowship Program Directors and Associate Program Directors to assess their perception on residents' attitudes and prescribing behaviors.

Results

Residents expressed comfort confronting patients displaying abuse/misuse behaviors (5%) and obtaining urine drug screening (66%) but lacked knowledge of opioid abuse and misuse screening tools (63%). Resident also indicated they did not have a high level of comfort in accessing the board of pharmacy records prior to prescribing opioids (49%). Almost half reported caring for 21 or more patients with substance abuse disorders over past 6 months.

Conclusion

Residents' comfort level with prescribing and initiating opioids for chronic pain management is less than perceived by PDs.

Residents described their knowledge base ranging from none to moderate. More structured opioid prescribing education is needed. Our survey discovered residents wrote 352 opioid prescriptions in Dec. 2016 alone. Further study is needed to determine

residency specific curriculum pertaining to opioid prescribing and we plan on surveying program directors.

Department Cardiology

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Abstract

Title

Adult Meckel's Diverticulum

Objective

Introduction

Here we present a case of a 58yo male patient who presented twice to the hospital with bleeding per rectum that ultimately proved by pathology to be Meckel's diverticulum

Methods

Case Presentation

A 58 year old male patient presents to the hospital twice over one week period with bleeding per rectum. The patient initially had a melenotic stools and had EGD and colonoscopy done showing a normal colon and superficial duodenal ulcer with duoadenitis and gastritis. The patient was then discharged the next day with follow up as an outpatient with gastroenterology. But Patient returned 5 days later with a 4 gram drop in hemoglobin and several bloody bowel movement that required multiple blood transfusion. The patient had repeat EGD and colonoscopy done . colonoscopy showed bleed throughout the colon, at this time the terminal ileum was intubated about 20-25 cm and noted a dark blood coming down from the small bowel consistent with small bowel bleed. Therefore a scan with labeled RBC ordered and showed small bowel acute GI bleed. Then examination of the small bowel with CT angiogram was ordered for possible embolization by interventional radiology but it showed no significant stenosis or bleeding. Hence surgical team was consulted and had performed explorative laparotomy and bowel resection. It was discovered that patient had a small bowel diverticulum approximately 45-50 cm from the ileocecal valve. Pathology was consistent with a Meckels diverticulum (see fig.1) and felt this was the cause of patients bleeding. Patient postoperatively was observed in intensive care unit with serial monitoring of his hemoglobin and hematocrit, hemoglobin stabilized. Patient slowly progressed to recovery -Nasogastric tube was removed and started on clear liquids and later advanced to regular diet, had regular bowel movements and finally discharged home.

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Results

Discussion

This case shows that occult GI bleeding may often present a diagnostic challenge to the physician. Many patients have extensive studies without a definitive diagnosis. When results of upper and lower endoscopies are negative, the next appropriate area to examine is the small bowel. Indeed, small bowel lesions are responsible for chronic GI blood loss in a small but significant group of patients. In an adult patient, such as the one presented here, lesions likely to be found include small bowel tumors, Crohn's disease, vascular ectasias, and/or Meckel's diverticulum. Although a Meckel's diverticulum is most often seen in patients less than 2 years of age, a case has been reported in a patient 93 years old.[5] Hence higher clinical suspicion with wide array of investigation modalities might help in reaching a diagnosis of occult GI bleeding. In our pt , he has an overt bleeding with drop in hemoglobin which was proven with the tagged RBC scan and intubation in colonoscopy. Interestingly, Angioembolization was impossible. Therefore pt has to undergo laparoscopy.

In addition, it is of benefit to mention that Pt with Meckel's diverticulum who have been found to be symptomatic with Gastrointestinal bleeding might need to undergo small bowel resection with removal of the diverticulum.

Conclusion

Conclusion

In adults, Meckel's Diverticulum should be suspected as the cause of occult gastrointestinal bleeding as demonstrated in this case when a patient has Gastrointestinal bleeding with negative upper and lower scopes and continued bleeding.

In adults Meckel's Diverticulum is usually not considered in the differential diagnosis but our case showed that Meckel's diverticulum can indeed cause GI bleed in adults and this has been proven after pt had underwent explorative laparotomy and pathology had confirmed Meckel's diverticulum as the source of GI bleeding.

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Abstract

Title

Comparative analysis of complication and readmission rates of total joint arthroplasty patients who attended preoperative joint education with a patient champion

Objective

Our objective in this study was to evaluate the attendance of family or friend (patient's Champion) with patient as a risk factor. We believe by having a patient champion present in the pre-op educational classes, there will be lower rates of complication and readmission.

Methods

Retrospective chart review of patients undergoing primary elective hip or knee replacement at Cabell Huntington Hospital, from January 2010 to March 2016 was done. Patients with any kind of fracture leading to emergency surgery to correct the defect were excluded. Data was gathered from Cerner and crossed over with CME software in order to find the number of patients that had undergone any kind of complications or readmissions (either in CHH or any other hospital). Records of patient attendance to joint class sessions were accessed and cross referenced with our data as well. Regression analysis was done using SAS software. Chi-square was used to calculate the significance.

Results

There were a total of 997 (662 females and 335 males) patients participating in this study. our patient population were 65 years and above. In the patients undergoing a total hip replacement 3.4% (n=5) suffering a complication attended the joint class with a champion as compared to no complications in the group attending the class alone. In the knee cohort, 0.59% (n=2) who suffered a complication attended the class alone as compared to 1.6% (n=7) who attended with a champion (p= 0.19). The length of stay was statistically significantly lower in the patient population attending the class alone (p=0.001).

Conclusion

While our results showed that complication rates were lower for the patients attending the classes alone, the results were not statistically significant. This doesn't agree with our initial hypothesis; we believe this to be a Type II error. This is due to the low total number of patients presenting with complications and readmissions who had their procedure done in CHH. Our results could be used as preliminary data for larger multicenter designed future studies.

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Abstract

Title

Comparison of Clinical Decision Support Tools in Venous Thromboembolism in a Rural and Urban-Cluster Hospital

Objective

There is a real need to improve patient safety and reduce system-wide health care cost when evaluating for pulmonary embolism (PE). By addressing the over-utilization of diagnostic testing with D-dimers and computer topographic pulmonary angiography (CTPA), there is a potential in reducing waste and improving care. The PIOPED and Christopher studies were landmark trials that effectively established a simple clinical decision tool using Wells Criteria, D-dimer and CTPA. Adherence to this has demonstrated a cost-effective means to risk stratify patient care. Non-adherence can result in unnecessary imaging and inappropriate ordering of D-dimer where the test is not useful. Without protocol-driven care plans, it is difficult to ascertain an institution's success in the utilization of current guidelines. This study evaluates the compliance of current ACP guideline-based management within Pleasant Valley Hospital and Cabell Huntington Hospital.

Methods

With IRB approval, a retrospective review of 1220 patients who presented to the ED at PVH (n=610) and CHH (n=610) from 2014 to 2016 was performed. Patients who had an initial D-dimer test ordered in the ED were included. Exclusion criteria include patients who were directly admitted to the hospital, complained of lower extremity-only symptoms, are allergic or have an adverse reaction to contrast, and have a history of chronic kidney disease. Demographics and data points specific to Wells Criteria and Pulmonary Embolism Rule-out Criteria (PERC), such as D-dimer results and imaging studies, were obtained. Patients were then classified into low, intermediate and high risk based on Wells Criteria. Low risk group were divided further into PERC positive and negative groups. Patient managements were recorded to determine if they followed ACP guidelines.

SPSS (v20) was used for analysis.

Results

Overall compliance rate is 51.1% [312, (CI, 95% 0.47-0.55)] and 62.3% [380, (CI, 95% 0.58-0.66)] at CHH

and PVH respectively. The appropriate use of D-dimer testing is 60.8% [371, (CI, 95% 0.57-0.65)] at CHH and 84.1% [513, (CI, 95% 0.81-0.87)] at PVH. If both hospitals applied PERC to Wells Criteria, 237 (38.8%) of D-dimers at CHH and 96 (15.7%) at PVH could have been avoided. If applying ACP guidelines, 62 (39%) of 159 CTPA at CHH and 50 (31.3%) of 160 at PVH could have been avoided. When comparing the two hospitals, PVH did significantly better for appropriately utilizing D-dimer testing [p<0.001, (CI, 95% 0.19-0.28)] and ACP guidelines in evaluation of PE [p<0.001, (CI, 95% 0.06-0.17)].

Conclusion

As seen in our data, an Appalachian rural hospital outperformed an academic teaching hospital. However, clinical decisions utilizing guideline-based evaluation and diagnosis of pulmonary embolism is lacking in both facilities. There remains significant improvement in following clinical decision tools and diagnostic work-up to safely treat our patients. The next step in quality improvement includes offering educational seminars to increase awareness of current guidelines. Ultimately, the goal is to embed clinical decision support tools within the EMR.

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Abstract

Title

Improvement in Physicians' Antibiotic Prescribing Rates for Respiratory Tract Infections in a Private and Urgent Care Setting

Objective

In pediatrics, broad spectrum antibiotics are commonly prescribed and are often inappropriate. Respiratory conditions account for the majority of visits in which antibiotics are prescribed to children and it is estimated that over 10 million antibiotics are prescribed that are not indicated. Inappropriate antibiotic prescribing rates contribute to the increase in antibiotic resistance as well as more side effects and unnecessary cost.

Methods

2400 charts of twelve pediatricians were reviewed to obtain baseline antibiotic prescribing rates for upper respiratory tract infections. The prescribing practices were compared between the physicians' office visits and an urgent care setting. The first Plan-Do-Study-Act cycle consisted of physician "report cards" with their antibiotic prescribing rates and appropriateness as well as education on current guidelines for different upper respiratory diagnoses.

Results

There was no significant difference between the baseline number of antibiotics given for respiratory infections in the private setting versus the urgent care. The overall baseline prescribing rates were similar to the national average, which is estimated to be twice the amount of antibiotics indicated for upper respiratory tract infections. The data for the top physician prescribers of antibiotics has been reviewed post PDSA Cycle 1. The top 4 prescribers have decreased their average antibiotic prescription rates for respiratory tract infections by an average of 23%, indicating higher compliance with the guidelines.

Conclusion

A quality improvement intervention using audit and feedback in the form of a "report card" led to a significant decrease in pediatricians' antibiotic prescription rates for respiratory tract infections.

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Abstract

Title

Evaluating the Use of High Fidelity Simulators During Mock Codes in Trying to Improve Both Confidence and Competency in Trainees

Objective

The goal of this project is to prove that the use of high fidelity simulators during mock code scenarios will improve both self-reported confidence and competency of trainees, more than when compared with regular manikin use during scenarios.

Methods

Third year medical students were randomized between two groups, high fidelity simulator or regular manikin during their pediatric rotation. Each student took a pre-intervention confidence survey. Both groups had a one hour session with a pediatric intensivist learning a modified PALs algorithm for code training. They were then divided into the two respective groups and had an additional one hour session for hands on training, i.e. CPR, intubation, IO placement. Each student was then tested individually for competency using a standardized code scenario. Then each student took a post-intervention confidence survey.

Results

There was no statistically significant difference in confidence between study groups; however, there was a statistically significant difference in competence of several components of the scenario, with high fidelity simulator group performing better than regular manikin group. Statistically significant p values were as follows: checking airway (p < 0.001), checking breathing (p = 0.047), checking pulse (p < 0.001), and checking capillary refill (p = 0.01).

Conclusion

The use of the high fidelity simulator did not show any improvement in confidence of trainees with code scenarios when compared to regular manikin. However, the use of the high fidelity simulator did show improvement in competency of some key components of code scenarios when compared with regular manikin.

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Abstract

Title

Revamping Morbidity and Mortality Conferences to Improve Quality of Health Care

Objective

The Morbidity and Mortality (M&M) conference has existed and evolved through the years as a tool for health care professionals to review and examine medical errors and adverse outcomes to prevent their recurrence. Multiple projects have been performed in different institutions to transform the M&M conference to positively impact the quality of health care. We believe that the M&M conferences in Cabell Huntington Hospital can also be revamped and restructured to serve as more efficient tools in improving safety and quality of health care.

Methods

We will perform multiple cross-sectional survey studies, and serial run charts and analyses pre and post the implementation of the new structure of the M&M conference. The surveys will be circulated to the attendees of the M&M conferences. This will include attending physicians, resident physicians, nurses, pharmacists, and respiratory therapists in Cabell Huntington Hospital (CHH). We will start with the department of pediatrics, and then generalize the same process to other departments in the hospital. Outcomes of interest include: quantity and diversity of conference attendance, the mean number of cases discussed, type of cases discussed, the number of suggested quality improvement interventions during conferences, attitudes of attendees toward the new conference structure.

Results

A good portion (41%) of the surveyed audience of the pediatric M&M conferences agrees that the attendance and participation in these conferences are multidisciplinary. On the other hand, the revision of attendance sheets of old pediatric M&M conferences (2014-2016) showed a lack of multidisciplinary attendance and participation. The old conference lacks standardized structure or framework. The majority of presenters did not use any root-cause analysis during their preparation for the discussed cases. Mortality cases were more discussed than morbidity cases. No quality improvement interventions were adopted throught the old conferences.

Conclusion

A conceptual framework was instituted for the cases presenters to use during preparation for the new pediatric M&M conferences. The moderator of the conference will orient the presenters and explain the framework prior to their case presentations. A new root-cause analysis tool, Learn from Defect (LFD), was adopted to be used. This new tool is hypothesized to be simpler for root-cause analysis use. A follow-up survey is to be circulated at the end of the academic year.

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Abstract

Title

Commercial Peripheral Arterial Disease Screening Outside the Scope of Established Guidelines

Objective

Current USPSTF peripheral artery disease (PAD) screening recommendations include a one-time screen for Abdominal Aortic Aneurysm (AAA) in men older than 65 who have ever smoked, they recommend against screening for Carotid Artery Stenosis (CAS) in asymptomatic individuals, and have inconclusive evidence for Ankle Brachial Index (ABI) screening. There are numerous commercially available screening tools at many hospitals throughout the country where preventive screening is practiced outside the scope of national guidelines.

Aim is to examine the appropriateness of commercially available PAD screening programs in the general population.

Methods

Our hospital has a program that allows the public to obtain screening for PAD regardless of risk factors or symptoms. This includes an ABI measurement and ultrasound screening for AAA and CAS for the price of \$90-100. Participants' answers a questionnaire related to their symptoms and risk factors. A patient can obtain one to three of the above tests regardless of their answers on the questionnaire. After Institutional Review Board approval, we retrospectively collected data from 2013-2016, compromising a total of 603 individuals. The data included patient's answers to the questionnaire and measurements from the above tests, analyzed using SPSS and reported as descriptive statistics.

Results

Our analysis included 566 patients, 43 were excluded due to repeat screening. 212 (37.4%) were male and 354 (62.5%) were female. Of the males, 38 (17.9%) were less than age 55 and 132 (82%) were over the age of 55. Of the females, 89 (35.3%) were less than age 65 and 162 (64.2%) were over the age of 65. Hypertension was encountered in 58.3% of the study population, 33.7% had history of smoking, 16.3% were diabetic, 7.2% had coronary artery disease and 6% had a history of stroke.

Positive tests were defined as an ABI less than 0.9 in one or both sides, a carotid US ratio of internal carotid artery to common carotid artery greater than 4.0 on one or both sides, and an anterior-posterior or transverse aortic diameter greater than 5 cm. Positive tests were obtained in 19 (3.4%) individuals for ABI, 1 (0.2%) for carotid US, and 2 (0.4%) for abdominal US.

Conclusion

Based on the small percentage of positive tests results obtained, we concluded that such screening programs have a very low yield. Furthermore, false positive results, increased patient anxiety, unnecessary cost, and interventions with consequent side effects further argue against the use of such screening. In conclusion, we urge against the practice of commercial preventive screening tests for PAD in the general population.

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Abstract

Title

Decreasing Registration, while Increasing Chair time

Objective

The objective of project is to minimize the amount of time taken from 30 minutes to 10 minutes for a new dental patient arriving for the appointment to be ready for dental exam

Methods

Phase 1:

We will collect the following times as a baseline for each NEW Dental Patient:

- 1. Patient check in time
- 2. Patient turns in paperwork for HIPPA consent and Med History
- 3. Patient is ready to be seated in dental chair
- 4. Patient seated in dental chair
- 5. Time patient seen by the dentist

Phase 2:

On selected patients, we will collect the following times for NEW Dental Patient:

- 1.Patient check in time (Patient only given HIPPA consent form)
- 2.Patient turns in paperwork for HIPPA consent
- 3.Patient ready to be seated in dental chair
- 4.Patient seated in dental chair (Assistant will help patient fill out Med History form)
- 5. Time when the Med History is completed by the assistant

6. Time patient seen by the dentist

Plan:

Phase 1 will be implanted from 4/17 to 4/28/17 Analyze baseline data Phase 2 will be implement from 5/8 to 5/19/17 Analyze phase 2 data and modify plan Repeat the project with new implemented plan Collect data from 5/29 to 6/9/17

Results

Initial data suggests that the amount of time taken before a new dental patient was seen by a dentist was 20 minutes. Results to be updated after the new baseline and phase 2 data.

Conclusion

Conclusion to be determined at the end of project.

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Abstract

Title Enhanced Recovery After Cesarean Section: A Quality Improvement Project

Objective

We aim to implement and evaluate the efficacy of an enhanced recovery after surgery protocol for those that undergo cesarean section that includes a multimodal pain regimen that approaches pain control by utilizing different mechanisms of action. This protocol will utilize liposomal bupivacaine, acetaminophen, tramadol and oxycodone as needed in reducing the overall opioid need by patients in our unique population that is largely obese, unhealthy, with heavy tobacco use and in an area heavily afflicted by the opioid epidemic.

Methods

We plan to implement the protocol to all patients who undergo cesarean delivery by physicians who agree to utilize the protocol. For the purposes of data analysis, we will include non-emergent cesarean delivery after 34 weeks. Informed consent will be obtained from those utilized for data analysis, as liposomal bupivacaine is new and not the current standard of care. Patient medical records will be evaluated for demographics, surgical characteristics, opioid type and dose, pain scores, length of stay and complications. Opioids were converted to oral morphine dose equivalents. This will then be compared to a random sample of 50 retrospective cases.

Results

Preliminary data of the control group show a mean age of 27, BMI 34.8 with 78% obesity and 22% of those

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morbidly obese. 28% of patients are current smokers. 72% of cesarean deliveries were repeat cesarean delivery. Day of surgery, day 1, day 2, and oral morphine dose equivalents were 16.1mg, 44.0mg, 37.0mg, and 24.5mg, respectively with a total dose of 113.2mg. Pain scores on the day of surgery score on day 0, day 1, day 2, day 3 and overall mean score were, 3.77, 3.85, 3.98, 3.83 and 3.86, respectively with only 22% of patients achieving the pain goal of a score less than 3.

Conclusion

Mann-Whitney test showed to have 80% power with an alpha of 0.05 in order to detect of reduction of 30% in opioid use and 20% reduction in pain we need 43 and 31 patients, respectively, per group. After implementation of this protocol we expect to see 50% reduction in opioids and 20% reduction in pain scores.

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Abstract

Title

Reducing Postoperative Opioid Use After Minimally Invasive Gynecologic Surgery with Enhanced Recovery

Objective

We aimed to evaluated the efficacy of a multimodal pain regimen that approaches pain control by utilizing different mechanisms of action. This protocol utilized liposomal bupivacaine, acetaminophen, tramadol and oxycodone as needed in reducing the overall opioid need by patients after undergoing minimally invasive gynecologic surgery in our unique population that is largely obese, unhealthy, with heavy tobacco use and in an area heavily afflicted by the opioid epidemic.

Methods

We conducted a retrospective study wherein a sample of 100 (50 multimodal group and 50 controls) were taken from 433 eligible cases conducted over a 1 year period. Patient medical records were evaluated for

demographics, surgical characteristics, opioid type and dose, pain scores, length of stay and complications. Opioids were converted to oral morphine dose equivalents.

Results

Overall opioid need decreased by 54% (75.1mg versus 35.5mg, p<0.0001). For obese patients overall opioids decreased by 47% (72.1mg versus 37.8mg, p<0.001) and the morbidly obese by 54% (75.7mg versus 34.8mg, p<0.01). For those with benign disease overall opioid decreased by 44% (73.5mg versus 41.0mg, p<0.01) and those with malignancy decreased by 62% (78.9 versus 30.0, p<0.01).

Conclusion

A multimodal approach to pain control is an acceptable alternative to traditional methods of pain control, regardless of BMI, for those with benign or malignant disease and decreases opioid use by 44 to 62 with no concomitant increase in pain scores and may decrease pain by 9 to 24 percent. These data allowed for the creation of an ERAS for gynecology order set with the goal that after implementation will have 80% utilization.

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Abstract

Title

Rectal Cancer on the Rise in Young People: Screening Strategies

Objective

Colorectal cancer (CRC), which has long been considered a disease affecting older individuals, is now targeting individuals under 50 years old. While the overall rate of colorectal cancer has remained stable, multiple studies have demonstrated an alarming increase in the incidence of rectal cancer in younger patients (age <50) nationwide for unclear reasons. Approximately one in seven new cases will be diagnosed under age 50. We hypothesize that the rate of rectal cancer (RC) in younger individuals has increased at a higher rate in rural Appalachia.

This study aims to identify risk factors predisposing to early rectal cancer to allow for earlier detection in young patients affected in rural Appalachia. The tendency for healthcare providers to disregard the possibility of RC in younger patients and attribute these findings to hemorrhoids and other benign

etiologies is very common and remains a challenge to be overcome. Data from this study was used to develop simple guidelines to screen young individuals with risk factors for rectal cancer in the Appalachia region.

Methods

This retrospective study evaluated RC patients <50 year old diagnosed between 2003 and 2015 from the Cabell Huntington Hospital Cancer Registry, and compared the incidence to the average national rate using the SEER Database. To identify common risk factors that put young patients at risk for early rectal cancer, we evaluated patient demographics, including age, gender, ethnicity, county location, family history of cancer as well as comorbidities including body mass index (BMI), smoking history, and alcohol use.

Results

The incidence of early-onset RC in our area is 1.6 times higher than the national rate. In our population, 100% of patients were Caucasian with no gender predilection. The mean age of diagnosis was 44±5 years old. Young patients with RC were noted to be heavier than the national average with a BMI of 29.5kg/m2. Young RC patients were more likely to have a first degree relative with a cancer diagnosis (64%). Notably, smoking was strongly associated with young RC diagnosis, with a 27 pack year average in our cohort. Compared to national statistics, a higher proportion of our patients (54%) had Stage I-II disease which corresponds with better survival (81.8% 5yr survival). Of note, 93.9% patients were symptomatic at diagnosis. Interestingly, 93.5% of patients had chronic mental health illnesses prior to diagnosis.

As expected, patients with rectal bleeding in our study had symptoms for weeks to months prior to proper diagnosis. 94% of our patients had \geq 2 risk factors

Conclusion

The rate of early onset RC in our region is higher than the national rate, with risk factors including Caucasian ethnicity, obesity, smoking, and family history of cancer of any type.

Our proposal is to lower the screening criteria for colonoscopy to a younger age in patients with multiple risk factors, and to have specialist evaluation of patients with 2 or more significant risk factors. Statistical analysis indicates that the likelihood of having RC increased in as number of risk factors increased. We recommend use of posters and medical pamphlets throughout hospitals and primary care physician offices for patient and provider education on risk factors that should prompt specialist evaluation to determine if screening for early rectal cancer is indicated. Our goal is to increase awareness that rectal cancer does occurs in the young, and that symptoms should not be discounted on the basis of age.

In the future, we will focus on promoting screening awareness in the community, and conduct a prospective study to evaluate the number of patients needed to screen in order to detect one RC, cost effectiveness, and outcomes, as well as applicability of these findings on other populations.