association of medical complexity factors with self-reported medication confidence and adherence was analyzed using logistic regression analysis controlling for age, gender, ethnicity, education, and number of health conditions. RESULTS/ANTICIPATED RESULTS: The survey had a 60% response rate. The mean age of respondents was 72, and 42% were male. We found no significant association between number of visits and either confidence about usage (OR = 1.07, 95% CI 0.95–1.20) or medication adherence (OR = 1.01, 95% CI 0.90–1.13). We similarly found no significant association between number of providers and either confidence about usage (OR = 1.03, 95% CI 0.90–1.18) or medication adherence (OR = 1.05, 95% CI 0.93–1.20). Lower confidence about medication use was less likely among males (OR = 0.60, 95% CI 0.44–0.80), those with more education (OR = 0.29, 95% CI 0.20–0.42) or more comorbidities (OR = 0.89, 95% CI 0.82–0.96) and more likely with increasing age (OR = 1.06, 95% CI 1.04–1.08). Nonadherence was more likely among Indians (OR = 1.62, 95% CI 1.06–2.48) and those with more comorbidities (OR = 1.10, 95% CI 1.02–1.18). DISCUSSION/SIGNIFICANCE OF IMPACT: Having more healthcare visits or providers were not independent correlates of lower medication confidence or adherence. Seniors with less education may benefit from interventions to improve confidence about medication use. Participants with more comorbidities expressed greater confidence but admitted to lower adherence. The role of other potential contributors to nonadherence in complex patients (eg, cost and access, patient preference, competing demands) should be evaluated next.

**2152**

## Adipose tissue measurements of computed tomography scan studies as a possible predictor of cancer recurrence after radical prostatectomy

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OBJECTIVES/SPECIFIC AIMS: The goal of this pilot study is to provide a reliable anatomical algorithm for the measurement of adipose tissue within the pelvic cavity as a predictor of prostate cancer aggressiveness and recurrence after radical prostatectomy. METHODS/STUDY POPULATION: We will conduct a retrospective analysis of men treated with radical prostatectomy between 2012 and 2016 at the VA Caribbean Health Care System. Clinical variables, pathology reports, and computed tomography will be reviewed. Pelvic and periprostatic fat (PF) will be measured to determine association between PF and cancer aggressiveness and recurrence. RESULTS/ANTICIPATED RESULTS: We expect a positive association between PF and cancer aggressiveness and recurrence among patients who underwent radical prostatectomy. DISCUSSION/SIGNIFICANCE OF IMPACT: Measurement of subcutaneous and PF within the pelvic cavity can provide a reliable anatomical measure which can be used as a proxy measure to identify those with higher risk of recurrence and develop better prevention and treatment strategies, especially in Hispanic men.

**2162**

## The impact of *Clostridium difficile* infection on disease severity in patients with inflammatory bowel disease

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OBJECTIVES/SPECIFIC AIMS: Inflammatory bowel disease (IBD) patients are at an increased risk of *Clostridium difficile* infection (CDI) but the impact of CDI on disease severity is unclear. The aim of this study was to determine the effect of CDI on long-term disease outcome in a cohort of IBD patients. METHODS/STUDY POPULATION: We analyzed patients enrolled in a prospective IBD natural history registry. Patients who tested positive at least once formed the CDI positive group. We generated a 2:1 propensity matched control cohort based on risk factors of CDI in the year before infection. Healthcare utilization data (emergency department use, subsequent hospitalizations, telephone encounters), medications, labs, disease activity, and quality of life metrics were temporally organized. RESULTS/ANTICIPATED RESULTS: A total of 198 patients (66 CDI, 132 matched controls) were included [56.6% female; 60.1% Crohn's disease (CD), 39.9% ulcerative colitis (UC)]. Groups were not significantly different in the year before infection in all metrics but in the year of infection, having CDI was significantly associated with more steroid and antibiotic exposure, elevated C-reactive protein or erythrocyte sedimentation

rate, and low vitamin D (all $p < 0.01$). Infection was associated with increased disease activity metrics (UC: $p = 0.036$, CD: $p = 0.003$), worse disease-related quality of life ($p = 0.003$), and increased healthcare utilization ($p < 0.001$). In the next year after infection those with prior CDI continued to have increased exposure to vancomycin or fidaxomicin ($p < 0.001$) and all other antibiotics ($p = 0.01$). They also continued to have more clinic visits ($p = 0.006$), telephone encounters ($p = 0.001$), and worse disease-related quality of life ($p = 0.03$), but disease activity and biomarkers of severity were not significantly different between groups. DISCUSSION/SIGNIFICANCE OF IMPACT: CDI infection in IBD is significantly associated with various surrogate markers of disease severity, increased healthcare utilization and poor quality of life during the year of infection. CDI patients continue to experience poor quality of life after infection with increased clinic visits and antibiotic exposure while disease activity is no longer significantly increased. These findings suggest that CDI infection may have a lasting effect on healthcare utilization beyond the acute treatment period.

**2181**

## Patient preferences and attitudes regarding next-generation sequencing results: scoping review of the literature

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OBJECTIVES/SPECIFIC AIMS: Although the clinical utility of whole genome sequencing (WGS) is increasing, a gap exists between what WGS can deliver in quantity of genomic information and what results can be interpreted that patients and community members would find meaningful. Given the potential for incidental findings and variants of uncertain significance, an emphasis should be placed on understanding patient preferences toward receiving WGS results. To identify the current knowledge base on WGS preferences, we performed a scoping review. METHODS/STUDY POPULATION: A search on PubMed using terms "WES," "WGS," "genome sequencing," "attitudes," and "preferences" identified survey research between 2012 and 2016. Summaries of population, sample, variables, and results were tabulated. RESULTS/ANTICIPATED RESULTS: Of 13 studies identified, 6 surveyed community members, 6 included medical professionals, and 2 surveyed cohorts with a specific medical condition. Only 1 study used a nationally representative sample and no study focused on a medically underserved population. Patients were most interested in receiving medically actionable results, yet preferred to have access to all available data if desired. Genetics professionals are more conservative with the return of incidental and uncertain findings. DISCUSSION/SIGNIFICANCE OF IMPACT: Existing surveys have limited representation of the US public. Future studies focused on medically underserved populations would provide a deeper understanding of attitudes and preferences toward WGS.

**2184**

## Evaluating the association among biological, social, and nutritional status on adolescent pregnancy rates, physiology and birth outcomes using electronic health records data

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OBJECTIVES/SPECIFIC AIMS: To build a multisite deidentified database of female adolescents, aged 12–21 years (January 2011–December 2012), and their subsequent offspring through 24 months of age from electronic health records (EHRs) provided by participating Community Health. METHODS/STUDY POPULATION: We created a community-academic partnership that included New York City Community Health Centers (n = 4) and Hospitals (n = 4), The Rockefeller University, The Sackler Institute for Nutrition Science and Clinical Directors Network (CDN). We used the Community-Engaged Research Navigation model to establish a multisite deidentified database extracted from EHRs of female adolescents aged 12–21 years (January 2011–December 2012) and their offspring through 24 months of age. These patients received their primary care between 2011 and 2015. Clinical data were used to explore possible associations among specific measures. We focused on the preconception, prenatal, postnatal periods, including pediatric visits up to 24 months of age. RESULTS/ANTICIPATED RESULTS: The preliminary analysis included all female adolescents (n = 49,292) and a subset of pregnant adolescents with offspring data available (n = 2917). Patients were mostly from the Bronx; 43% of all adolescent females were overweight (22%) or obese